



**Information  
in  
e-Motion**

Proceedings

BOBCATSSS 2012  
20<sup>th</sup> International Conference  
on Information Science  
Amsterdam, 23-25 January 2012

**BOCK  
HERCHEN**  
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in  
e-Motion**

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## Imprint

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## Preface

It is a great pleasure for us to present the proceedings of the 20th BOBCATSSS symposium.

Since the first BOBCATSSS symposium, the organizers have felt committed to topics reflecting the current and future developments in the field of library science and information management. Our present topic “Information in e-Motion” with its subtopics “My Information”, “e-Media in Motion”, “Organisations 2.0” and “Access to Public Information” is obviously matching the current activities and future challenges of researchers, professionals and students engaged in studying the potential of the information technology.

For the organizers it is always a thrilling process to discuss a suitable topic, to come to a decision, to send the call for papers into the world – and then to wait: What will happen? How many people will send their abstracts in time? Will there be enough abstracts and will they have the expected quality?

The present feedback of about 200 submitted abstracts – 40% submitted by students! – was overwhelming and the program team, supported by a lot of reviewers, could select the best of them and design an attractive symposium.

Now, having read all papers, the members of the editorial team feel absolutely convinced about this selection. And we are proud of about 80 paper presentations, 15 workshops and 40 poster presentations of high quality documented in the proceedings.

Therefore it is time to express our gratitude to all students, researchers and professionals who have sent us their papers. Their contributions are ensuring the quality of BOBCATSSS’ 20<sup>th</sup> anniversary symposium and its proceedings. The proceedings are a fascinating reading and the 20<sup>th</sup> BOBCATSSS symposium became a special event attracting more than 450 participants.

The success of the 20<sup>th</sup> BOBCATSSS symposium, as documented by the proceedings, also shows the power and relevance of the European spirit, which has encouraged all BOBCATSSS organisers up to now. The contributions from 27 countries demonstrate: Europe is more than a financial market approaching the crisis. BOBCATSSS is a strong European network proving that people profit from cooperation in the area of library science and information management, sharing their knowledge and experiences. Furthermore: the European Symposium BOBCATSSS is attracting more and more participants from all over the world. So we are proud to publish papers from all continents. Now we hand the baton to the next BOBCATSSS organisers. We are looking forward to the symposium with our new partners in Ankara 2013.

Wolf-Fritz Riekert and Ingeborg Simon

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# The Like Economy

## The Politics of Data and Dataflows in the Social Web

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**Abstract:** In this paper I would like to draw attention to the various actors involved in creating and maintaining a particular infrastructure of the social web, which is currently enabled by Facebook's social plugins and Open Graph. This infrastructure allows the platform to transform web activities, in the form of willing and unwilling contributions, into comparable and valuable data in a Like Economy. By focusing on the medium-specific features of this infrastructure, the social plugins and Open Graph, possible ways out of these unwilling contributions will be explored.

### Introduction

On 24 December 2011, software developer and long time blogger Dave Winer declared his blog a "Facebook-free zone."<sup>1</sup> A blog without a Like button, Facebook comments, or any other plugins connected to Facebook. The choice followed his decision to delete his Facebook account after hacker and blogger Nik Cubrilovic had revealed that Facebook was tracking its users even when they were logged out.<sup>2</sup>

The issue that Facebook is tracking its users through the Like button had already been brought to the attention by researcher Arnold Roosendaal in April 2010. He discovered that every time a user loads a page with a Like button, Facebook connect, or any of Facebook's other social plugins, a cookie that automatically sends user data back to Facebook is placed on the user's machine. In addition, Roosendaal discovered that Facebook not only tracks its own users, but that the platform also tracks non-Facebook users (2010). While the data of non-users cannot be connected to individual user profiles, as in the case of Facebook users, it is still collected and connected to an aggregate database providing potential valuable data for advertisers. Facebook is not only gathering data from more than 845 million active users<sup>3</sup> *within* the platform itself, but is also tracking these users *outside* of the platform on websites that have implemented Facebook features without requiring active engagement from users in the form of a click on a button. On top of that, Facebook also tracks non-Facebook users and therewith turns every web user visiting a website with a Facebook feature into a potentially valuable Facebook contributor.

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<sup>1</sup> <http://scripting.com/stories/2011/12/24/FacebookfreeZone.html>

<sup>2</sup> <http://nikcub.appspot.com/posts/logging-out-of-Facebook-is-not-enough>

<sup>3</sup> [www.guardian.co.uk/technology/2012/feb/02/Facebook-ipo-facts](http://www.guardian.co.uk/technology/2012/feb/02/Facebook-ipo-facts)

Bearing Facebook's upcoming initial public offering in mind, this paper does not consider these practices within the framework of the debates on user exploitation (Fuchs 2010) or free labor (Terranova 2004) in which user activities are considered as 'work' for Facebook and therefore users should share in the wealth of the platform when the first stock has been sold to the public. Instead, it wishes to draw attention to another important actor that enables these valuable dataflows from and to Facebook, namely the webmaster implementing the Like button.

### The Like Economy

The Like button is one of the many social buttons such as the Twitter, Digg, Reditt, Google+, StumbleUpon button that enable the easy sharing of content across platforms. The Like button was initially only available within Facebook itself and was introduced as a way to capture short comments, feedback or appreciation of a status update or picture into a single action: "Like!" During the 2010 F8 Developer Conference, Facebook announced a Like button for the entire Internet. The platform externalized the act of liking by decentralizing one of its key features through the launch of social plugins and the Open Graph. The Open Graph allows developers and webmasters to connect their websites to Facebook's social graph, the core of the platform, which represents all relations between people among users and with objects. Since the launch of the social plugins, over 2.5 million websites have integrated with Facebook,<sup>4</sup> therewith enabling dataflows between these websites and the platform and users visiting these websites and Facebook. The social plugins allow for a partial opening of Facebook's walled garden because they enable carefully regulated dataflows both into and out of the platform.

When a user clicks a Like button this, on the one hand, enables dataflows *into* the platform as the like is displayed in the user's News Feed where it can be further liked, shared and commented on by friends, and, on the other hand, enables dataflows *out* of Facebook by feeding those further likes, shares and comments back into the Like button counter. The Like button not only displays how many times a website has been liked outside of Facebook, but also how many times it has been liked, shared and commented upon within the platform. It is designed as a composite metric that collapses different types of social activities performed both inside and outside of the platform into a single number that adds a +1 to the counter. By transforming social activities into a single number it metrifies affective responses, a process that allows Facebook to make this data comparable, countable and sellable.

The dataflows of the Like Economy are characterized by their scalability and various degrees of visibility. A like is displayed in the user's News Feed where, depending on the user's privacy settings, it can be further liked, shared and commented upon by either all Facebook users, friends of friends, friends or a selected group of friends. When a user likes another user's liked website, this like is also displayed on the user's News Feed where it is exposed to yet another group of users. But not all contributions to the Like Economy are visible in the News Feed or in the Like Button counter, as mentioned above in the case of the unwilling contributions enabled by cookies. More-

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<sup>4</sup> [www.readwriteweb.com/archives/Facebook\\_like\\_button\\_a\\_year\\_old.php](http://www.readwriteweb.com/archives/Facebook_like_button_a_year_old.php)



over, likes are fleeting objects and users cannot access a history of their own likes – except for liked Facebook pages – even after a formal request to receive a copy of one’s own personal data. When the Austrian law student Max Schrems of the “Europe versus Facebook” group requested his own data under European law he received a file containing 1,222 pages which did include his deleted information but did not include his like data.<sup>5</sup> Upon a second request Facebook responded that it would not provide “any information to you which is a trade secret or intellectual property of Facebook Ireland Limited or its licensors.”<sup>6</sup> Likes are considered valuable proprietary data within the Like Economy and do not belong to the user.

### The Politics of Data in the Social Web

The Like Economy thrives on visible and invisible dataflows from and to the platform that collect and exchange valuable data from users in the form of willing contributions by clicking Like buttons and unwilling contributions through cookies simply by visiting a website with a Facebook feature. Simply logging out, deleting one’s profile or not being a member is not enough as Nik Cubrilovic, Arnold Roosendaal and Max Schrems have shown. Their discovery and coverage of Facebook’s practices have helped to increase awareness of the issue and may have inspired different types of interferences by various actors.

Webmasters placing Facebook’s social plugins on their websites play an important role in enabling the infrastructure of the Like Economy. Privacy-aware webmasters of the German news website Heise have developed a new type of Like button that asks users’ permission to opt-in before enabling dataflows to the platform.<sup>7</sup> Heise have developed this button because the original Like button does not comply with the website’s data protection and privacy policy. Their two-click Like button, unlike the regular button, does not send data to the platform automatically until it has been clicked and activated. This may also be a solution for the German webmasters in the state of Schleswig-Holstein where the Independent Centre for Privacy Protection declared the Facebook social plugins, including the Like button, illegal because they violate the German Telemedia Act (TMG). They have ordered webmasters to remove all social plugins from their websites at the risk of a maximum fine of 50,000 euros.<sup>8</sup>

Besides webmasters, users themselves may also disrupt the dataflows by installing special plugins that will stop instant data transmissions. These plugins include ‘Facebook Disconnect’ which is also embedded in the Disconnect plugin that will block *all* third parties that track you on the web, including other social media platforms such as Twitter and Digg, and search engines such as Google and Yahoo!<sup>9</sup> A similar tool is Ghostery which makes each and every type of tracking mechanisms visible for users with the option to block them.<sup>10</sup>

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<sup>5</sup> [www.europe-v-Facebook.org/](http://www.europe-v-Facebook.org/)

<sup>6</sup> [www.europe-v-Facebook.org/FB\\_E-Mails\\_28\\_9\\_11.pdf](http://www.europe-v-Facebook.org/FB_E-Mails_28_9_11.pdf)

<sup>7</sup> [www.heise.de/ct/artikel/2-Klicks-fuer-mehr-Datenschutz-1333879.html](http://www.heise.de/ct/artikel/2-Klicks-fuer-mehr-Datenschutz-1333879.html)

<sup>8</sup> <https://www.datenschutzzentrum.de/presse/20110819-Facebook.htm>

<sup>9</sup> <http://disconnect.me/Facebook>

<sup>10</sup> [www.ghostery.com/](http://www.ghostery.com/)

As users are becoming increasingly aware of data-mining practices and privacy issues they are taking the matter of Facebook tracking its users through the Like button higher up. Max Schrems of “Europe versus Facebook” has filed an official complaint with the Office of the Data Protection Commissioner in Ireland where the European headquarters of Facebook are located. Various consumer and privacy groups in the US have requested the Federal Trade Commission to investigate Facebook’s tracking, shortly after Facebook settled a 2009 privacy complaint with the FTC. In addition, three concerned Californian citizens have filed a class action lawsuit related to the Like button as a cookie.

Another type of interference to disable or disrupt the dataflows between websites, users and Facebook takes place in the form of artistic interventions. The FB Resistance group features a script by @xuv that automatically likes all your friends’ updates “if you’re too busy to show them love manually” which not only subverts the idea of liking but at the same time adds noise to Facebook’s valuable dataflows.<sup>11</sup> As awareness about Facebook’s way of collecting user data, without the explicit permission of the user, grows, the number of interventions is also growing. These interferences vary from taking Facebook to court, to modifying or blocking dataflows, or to adding noise to the Like Economy.

### Conclusion

Facebook is using the Like button to create the infrastructure of the Like Economy, in which all user activity is converted into valuable data. This is enabled by decentralizing its features into the web using social plugins and at the same time recentralizing all data through the Open Graph back into the walls of its platform where it can be further shared and liked by friends. Webmasters placing these plugins on their websites play an important role in creating this infrastructure but they may not be aware that they automatically turn every visitor of their website into an unwilling contributor to the Like Economy. Users not wishing to contribute to the Like Economy can install special plugins to disrupt the dataflows and to disconnect from the platform completely.

### Acknowledgements

This paper is based on ideas developed together with Carolin Gerlitz, Goldsmiths, University of London. A first version of our co-authored paper ‘Hit, Link, Like and Share. Organizing the social and the fabric of the web in a Like economy’ (Helmond & Gerlitz 2011) can be found at: <http://bit.ly/hitlinklike>.

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<sup>11</sup> [http://w.xuv.be/projects/love\\_machine](http://w.xuv.be/projects/love_machine)

# From Static Bookshelves to Mobile Communication

## Two Decades of BOBCATSSS Developments

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**Jelke Nijboer** is the Manager of the Section Information & Media of the School of Design and Communication (Amsterdam). He has been involved in the setting up of BOBCATSSS from the very beginning. He organized with the founding father of BOBCATSSS, Dr. Ruud Bruyns, the first conferences in Budapest. He is a regular contributor of papers and workshops at BOBCATSSS (1993-1996 and 2003-2011).

**Abstract:** An annual international conference for students, lecturers and professionals in library and information science was a rarity two decades ago. Suddenly, out of the blue, a conference was set up in Budapest by Dutch students and lecturers from the Faculty of Economics and Information of the Hogeschool van Amsterdam in 1993. It turned into a truly international event in the next couple of years in which delegates exchanged ideas about recent developments and research in the field. Two decades later one feature of this 'BOBCATSSS' conference is still unique: the involvement of so many students; so different from most other academic conferences. BOBCATSSS is more or less an example of an Erasmus Programme *avant la lettre*.

A short overview of two decades of conferences, highlights, developments and trends will be discussed. The objective of BOBCATSSS to stimulate international cooperation and research between schools and students will be discussed. The submitted papers, workshops and posters at this anniversary (20th) conference are a positive sign that collaboration in research between students and lecturers from different countries is slowly moving into the right direction.

### Introduction

International exchange programs and projects between universities and colleges in Europe are an integrated part in the curriculum of many institutions nowadays. Two decades ago internationalization had not the same priority as today. An annual international conference for students, lecturers and professionals from the information sector was a rarity. Who had ever expected that a study tour of Dutch students to Hungary in 1993, including a two-day meeting in the National Library of Hungary, to discuss developments in library and information science in both countries, was the beginning of a very successful annual conference. It turned into a truly international event in the next couple of years. Two decades later one feature of this conference is still unique: the involvement of so many students in the organization, programming and presentations of results of research, projects and practices. So different from many other academic conferences where PhD students are involved, but hardly students at a bachelor or master level. BOBCATSSS is more or less an example of an Erasmus Programme *avant la lettre*.

Appendix 1 shows an overview of the twenty BOBCATSSS conferences.

### In the Beginning ...

The ideas of an international event were discussed in 1992 between dr. Ruud Bruyns and the author (who just started his career in education) of this paper. Not many colleagues were really interested in what we were brooding about internationalization in the attic of a merchant house on one of the canals in Amsterdam (once the domicile of the former Frederik Muller Academy).

Why Hungary? Two important reasons: the collapse of the communist system in Eastern Europe started in Hungary. In May 1989 the barbed wire fence along the Austrian border was taken down and a couple of months later the Hungarian minister of foreign affairs announced that the East German refugees would not be repatriated to East Germany but were allowed to go to the West. Many of us remember the amazing scenes on the Austrian-Hungarian border. The exodus hastened the fall of the Berlin Wall a couple of months later. Hungary was eager to develop international contacts in many areas. The IFLA network of my colleague Ruud Bruyns provided us with key persons in Eastern Europe. The well respected István Papp, deputy director of the public library of Budapest, was such a key figure. In no time the 1st conference was organized and a yearly event was born. The Buda Castle was the impressive site where the conferences were held from 1993 till 1998.

In the middle of the winter in 1993 we left with 45 students and lecturers for a 24 hour bus drive to a snow-covered Budapest to meet Hungarian colleagues and students in the National Library for a two-day conference. The Buda Castle was a magical spot for the hundred delegates to listen to thirteen lectures from Hungarian and Dutch professionals. No parallel sessions, no workshops and no papers from students (!). The students were only involved in the organization and as moderators of the sessions.

The first conference was a success and received a lot of attention in the Hungarian media. It was even an item on the eight o'clock news. It got priority above the tanker MV Braer carrying 85.000 tonnes of crude oil which ran aground in hurricane winds off the Shetland Islands in January 1993. The successful event stimulated Amsterdam and Budapest to organize a second conference in Budapest. This conference turned into a truly international one. Approximately 150 delegates from eleven countries showed up in January 1994 and during this conference nine schools signed a letter of intent for cooperation in research, exchange of students and lecturers and to organize an annual conference. BOBCATSSS<sup>1</sup> was born. In 1995 more than 170 delegates from eleven countries participated (50% of the delegates were students). Today we have more than 400 participants and 60% of them are bachelor- or master students in information science.

### Developments

The proceedings of many BOBCATSSS conferences give an indication of the recurrent issues in library and information science during the last two decades. Regular themes are: information policy, library and information practices and services, the (changing)

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<sup>1</sup> BOBCATSSS is the acronym for the library and information science schools of Budapest, Oslo, Barcelona, Copenhagen, Amsterdam, Tampere, Sheffield, Stuttgart and Szombathely.



role of libraries in society, LIS training, information literacy, digital divide, information services for minorities, democracy, accessibility, ethical issues, privacy, copyright and other legal issues, Internet and electronic publishing. Social media, an important topic this year, is an upcoming theme in the last couple of conferences.

A subject as cataloguing disappeared almost entirely from the conference programme. It reminded me of the reception of the first couple of conferences, which were held in the ballroom of one of the mansions of the Esterházy dynasty in Budapest. In the nineties it housed the reference collection and card catalogue of the public library of Budapest. The card catalogue disappeared completely and has been replaced by OPAC's and mobile devices during the two decades of BOBCATSSS. The typical smell of old card catalogues full of mysterious descriptions of library material and impressive bookcases is nowadays replaced by the inviting smell of café latte, mint tea, soft music, comfortable chairs, WiFi and a variety of mobile devices. The library as a meeting place instead of a place of reflection, reading and study. In the early days of BOBCATSSS there were still students interested in these artifacts, but decades later Internet, social media and mobile communication are much more important than books. iPads, e-readers and other mobile devices will replace the book entirely in the next decade, isn't such an odd prediction. The book becomes the same artifact as the card catalogue? If we extend this line the marginalization of the library in society becomes another artifact in the near future. Unless the library reinvents itself, of course. It will become a recurrent issue at future BOBCATSSS conferences.

### Student Participation

It was remarkably that in the first two conferences the role of students in presenting papers and workshops was mainly limited to organization and moderation of workshops and paper sessions. This was not in accordance with the objectives of the nine schools which signed the letter of intent. Lecturers got gradually used to a different role of students during the next couple of conferences. Presenting student's own research, running workshops, collaboration between students of different universities and editing proceedings became an integrated part of the conference. In the third conference one noticed already a change: 20% of the papers were presented by students. In 2012 more than 50% consists of student or student/professor presentations and this shows one of the unique features of BOBCATSSS!

### Quality and Variety

Like many international conferences one noticed quite a difference and a variety in the quality of papers and workshops presented at BOBCATSSS. But many times we could enjoy excellent keynotes, papers, worthwhile workshops and interesting poster presentations. One thing improved definitely: the quality of English presentations in the last decade.

The locations and hospitality during the conferences in the various cities was always excellent. The friendly atmosphere, the intercultural aspects, the social programme and growing reputation created an increased attendance and competition between universities to organize the next conference. The interest for the 20th conference was overwhelming; we had to close conference registration at an early stage. It is definitely a stimulus to continue BOBCATSSS for the next decade.

Library topics played an important part in many BOBCATSSS conferences from the start. In accordance with the disappearing of the "L-word" in many library and information science education in the last two decades there were several BOBCATSSS conferences where the emphasis was much more on information issues than on library education or specific library topics. The conference in 2003 in Poland (Torun) about 'Information Policy and the European Union' was an example of this trend. Approximately 60% of the lectures and workshops tackled information issues and approx. 40% had a specific library topic.

Klobcar and Juznic (2002) executed a bibliometric and bibliographic analysis of four BOBCATSSS Proceedings (1998-2001). They analyzed more than 260 papers. Unfortunately the share of student participation in the number of papers is unclear. The share of female authors increased in these four years significantly: from 40% to more than 60% in 2001. The number of multiple authorships is higher than in average LIS publications. The co-authorship of student and professor is an important reason for this trend. Participants from Germany, Poland, Croatia, Denmark and the UK produced more than half of the papers (p.19-20). International co-authorship is lower than expected. One would expect a higher degree of international collaboration at BOBCATSSS. Klobcar and Juznic analysis of those four conferences shows that not only then, but also today we still need actively working on one of the goals of BOBCATSSS, international cooperation and collaboration in research, to achieve this goal. The analysis of our colleagues from Slovenia and the proceedings of the last decade plus my own conference experiences show that (long-lasting) active participation in international cooperation in information research and information projects between the faculties of information sciences are open to improvement.

### Recommendations

Let me finish with two recommendations for future BOBCATSSS conferences:

- 1) The annual BOBCATSSS conference has a proven record. To keep it going for the next decade, the umbrella organization EUCLID should assist the future conference organizers more active, in spite of limited resources. The organizers of the last conference e.g. can draw up a list of best practices and provide a roadmap which brings clarity about the way such conferences may lead to success. It would be helpful if EUCLID could provide a kind of toolkit in the short term to make life a bit easier for the organizers of future conferences. EUCLID's network can also play an active role in acquiring international sponsorships to finance BOBCATSSS conference.
- 2) More active support of management is necessary to stimulate international cooperation and collaboration in research and projects between faculties of information science. Lecturers and students should be encouraged to present research results at this annual conference. Intensive Programmes (IP's), supported by the Erasmus programmes, are also an excellent opportunity to stimulate long-lasting cooperation and knowledge dissemination between the EUCLID members.

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## Appendix 1 Two Decades of BOBCATSSS Conferences

1993	Budapest	The Role of Libraries Today, Tomorrow and Beyond
1994	Budapest	The Future of Librarianship
1995	Budapest	Marketing and Development of New Information Products and Services in Europe
1996	Budapest	Quality of Information Services
1997	Budapest	New Book Economy
1998	Budapest	Shaping the Knowledge Society
1999	Bratislava	Learning Society – Learning Organisation – Lifelong Learning (LLL)
2000	Kraków	Intellectual property vs. the right to knowledge
2001	Vilnius	Knowledge, Information and Democracy in the Open Society: the Role of Library and Information Sector
2002	Portoroz	Human@Beings and Information Specialists. Future Skills, Qualifications, Positioning
2003	Torun	Information Policy and the European Union
2004	Riga	Library and Information in Multicultural Societies
2005	Budapest	Librarianship in the information age
2006	Tallinn	Information, Innovation, Responsibility: Information professional in the Network Society
2007	Prague	Marketing information services
2008	Zadar	Providing access to information for everyone
2009	Porto	Challenges for the new information professional
2010	Parma	Bridging the digital divide
2011	Szombathely	Finding new ways
2012	Amsterdam	Information in e-Motion

## How Can We Redefine Information in the Age of Social Media?

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Alan N. Shapiro is an interdisciplinary thinker who studied science-technology at MIT and philosophy-history-literature at Cornell University. He is the author of *Star Trek: Technologies of Disappearance*, a leading work in science fiction studies and on the conception of futuristic technoscience. He is the editor and translator of *The Technological Herbarium* by Gianna Maria Gatti, a major study of art and technology. He is a practicing software developer, and is working on projects like “Computer Science 2.0” and “The Museum of the Future.” He is recognised as one of the leading experts on the philosophy and cultural theory of Jean Baudrillard.

Sociologists have given different names to the society that is the successor to the industrial society of the production of physical goods: the post-industrial society, the post-modern society, the knowledge society, the network society, the telematic society, the information society. Beyond its restricted mathematical meaning, or its technical meaning as signs or signals in information science messaging, information more generally, in the sociology of work and culture, is about abstraction and complexity. Workers in the information society, and consumers in the society of cultural citizenship, tend to handle patterns and representations rather than physical entities. Until now, information has been regarded as being like numbers, an ordered sequence of symbols, bits and bytes of data, a change in state of an object-oriented system, transparent signifieds only without the signifiers that shape the meanings, a bunch of facts on file, the transmission or contents of messages while ignoring the media – language itself – that structures the messages at the most intricate detailed level. Now that we are in the age of social media like Facebook, Wikipedia, Twitter, and blogs, how should sociology redefine what is information? How can social media consciously evolve to become more democratic and supporting of human freedom and human rights, rather than unconsciously becoming “totalitarian” in new ways that are reminiscent of Orwell’s 1984 or the social theories of Foucault and Baudrillard? I will also make reference to the television programme *The Prisoner* as a narrative metaphor for understanding the contemporary sociological-technological situation of the hyper-network society.

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In my book on *Star Trek*, called *Star Trek: Technologies of Disappearance*, I claimed that *Star Trek* is a great text of Western literature as important as the Bible or Shakespeare. (Shapiro 2004) I also used *Star Trek* as a vehicle for explaining the social theory ideas of Jean Baudrillard, Paul Virilio, Donna Haraway’s cyborg, and Gregory Bateson’s cybernetics. I described our contemporary techno-culture as being decisively at the crossroads between an oppressive mainstream over-signifying-simulation system and the emancipative possibilities of radical technological creativity. Now I am writing a book on the 1960s British television series *The Prisoner* (a TV miniseries remake was made in 2009), which I consider to be the greatest television programme ever made,

better even than *Star Trek* and *Lost*. My book is called *The Prisoner: Confinement and Freedom in the Global Village*. I could also call it *Confinement and Freedom in the Information Society*. In the famous opening sequence that begins each of the 17 episodes of the show – widely regarded as being the greatest opening sequence in television history – the protagonist who will later be called Number Six, and who is played by Patrick McGoochan, having quit his job as a James Bond-like secret agent and having been kidnapped by an unidentifiable Orwellian organization – wakes up in mysterious seaside surroundings to be engaged in the following dialogue by a man in high authority known as Number Two:

**The Prisoner:** Where am I?

**Number Two:** In the Village. (**Marshall McLuhan's Global Village**)

**The Prisoner:** What do you want?

**Number Two:** Information. (**The Information Society**)

**The Prisoner:** Whose side are you on?

**Number Two:** That would be telling. We want information, information, information!

**The Prisoner:** You won't get it!

**Number Two:** By hook or by crook, we will.

*The Prisoner* is the richest, most multifaceted literary text that we possess in our cultural-intellectual heritage for explaining the predicament of society and the individual in the era of the Global Village and the Information Society. In my book, I will also use *The Prisoner* as a vehicle for explaining the social theory ideas of Michel Foucault and Marshall McLuhan (and, secondarily, Julia Kristeva and Vilem Flusser). Both Foucault and McLuhan had double-sided theories of confinement/surveillance and freedom. In his concepts of disciplinary power, bio-power and panoptic surveillance; and in his studies of prisons, hospitals and schools in works like *Discipline and Punish* and *The Birth of the Clinic*, Michel Foucault was concerned with the conditions of confinement in modern society. In "The Ethics of Care for the Self as the Practice of Freedom," Foucault writes: "One must observe that there cannot be relations of power unless the subjects are free. If one or the other were completely at the disposition of the other and became his thing, an object on which he can exercise an infinite and unlimited violence, there would not be relations of power. In order to exercise a relation of power, there must be on both sides at least a certain form of liberty." (Foucault 1994)

In contrast to the opposition between power and freedom articulated in liberal political theory, where freedom is generally considered abstractly as being the absence of external constraints imposed by the state or other large institutions/organizations, power for Foucault operates in and through everyday life practices, and the discovery of freedom is to be made in understanding how we have been manipulated in many of the most intimate areas of our personal existence, and how we can concretely and creatively transform that. This liberation is a process of experimentation, and we will never know at the outset of each freedom-forging experience what the outcome is going to be. But the question that really interests me is: how do we accomplish this radical progressive transformation in the age of information and online social media? How do we achieve

the next step in what social media can be? How do we get beyond the current situation where we are prisoners in a Baudrillardian-Foucaultian hybrid system of commodified consumerism that William Bogard has called *the simulation of surveillance*, and in post-Orwellian networks of self-surveillance and mutual surveillance? (Bogard 1996) To develop the theory for revolutionizing social media for human liberation that we will then put into practice, we will need to rub together Foucault and McLuhan. From Marshall McLuhan, we will learn that our radical goal for social media is to metamorphose the strictly visual space – "a space which is an extension and intensification of the eye" – into what McLuhan calls acoustic space: a "space that has no center and no margin," a space that is organic and integral, a space that is lived by participants as an immersive sensorium "through the simultaneous interplay of all the senses." As he said in the famous 1969 "Playboy Interview": we need to rebalance the sensorium, the *Gestalt* interplay of all the senses, in order to overcome the "atrophy of the unconscious" and the "disruption of psychic and social harmony." "Rational or pictorial space" [this would be social media as they are presently constituted] "is uniform, sequential and continuous and creates a closed world with none of the rich resonance of the tribal echoland." (McLuhan 1995) We can follow Foucault and McLuhan to get from confinement to freedom in social media and the Global Village.

Based on Karl Bühler's instrumental model of language known as the Organon model – which defined the expressive, displaying, and calling functions of linguistic interaction – Roman Jakobson elaborated a classical model of communication that identified a Message transmitted from a Sender to a Receiver, as well as the vertical supporting functions of the metalingual Code, the socially self-presenting phatic Channel, and the referential Context. (Jakobson 1960) I think that there are three limitations of Jakobson's model: (1) the Sender-Receiver paradigm is not sufficient for understanding virtual online software systems where a Message is sent to a shared data structure by a Publisher which is then seen by many Subscribers. (2) as Jean Baudrillard pointed out in his 1972 essay "Requiem for the Media," the alleged objective and scientific status of Jakobson's model merely formalizes a socio-culturally given configuration: "in a certain kind of social relationship, one speaks and the other does not, one determines the Code, and the other has the choice to either to submit to it or to abstain." (Baudrillard 1972) (3) The Message as conceived by Jakobson, according to Baudrillard, is univocal and unidirectional. There is a mutually exclusive separation of Encoder and Decoder, which are held apart and reunited by the artefact of the Coded Message. There is neither reciprocity nor presence to each other of the two terms. To quote Baudrillard scholar Gary Genosko: "The code itself becomes that which speaks, since it dictates the unidirectional passage of information and guarantees the legibility, univocality, and autonomous value of the message, conceived as information." (Genosko 2000) The purpose of Jakobson's simulation model of communication is to provide technical safe passage for the transparently readable Message, which is stripped of meaning and ambivalence, rendered as fact without interpretation, become pure information.

Now let us examine the famous Shannon-Weaver model of communication, which was developed shortly after World War II, and emerged from the context of the telecommunications industry. Claude Shannon published his article "A Mathematical Theory of Communication" in the AT&T *Bell System Technical Journal* in 1948. (Shannon 1948) In my view, the Shannon-Weaver model is now obsolete. Its goal is to isolate the Mes-

sage as a technical entity, to ensure the integrity of the Message. Everything which is not this technically conceived Message gets relocated elsewhere in the system. The Shannon-Weaver model of communication is based on the assumption of a Point-to-Point transmission, a Message sent over a Channel or a Queue. In the contemporary age of Social Media, we are dealing essentially with a Publish-Subscribe model. A Message is sent to a Topic. More generally, I would say that, in the age of social media, we are in *something like* a deconstructionist universe. No single philosophy, however, can be “applied” to our situation in a simple way. I think that we are in a *textual* universe, and the primary way that I think about social media is through thinking about *textuality*.

Let us consider the 8 components of the Shannon-Weaver model, how we can critique the assumptions of each component, and how this leads towards a new model:

Component of Shannon-Weaver model	Critique	Comment	New Concept
Source	There is no origin (Derrida).	Publishers continue an ongoing process which effectively had no beginning.	Subscribed Publisher
Encoder	The format is not neutral (McLuhan).	The format is flexible and extensible; encoding is a creative act.	Creative Code Modifier
Message	There is no one-to-one relationship of signifier/signified; there is an endless chain of textuality (semiotics).	The Message contains markups or index values which connect it to lots of other data.	Indexed Message
Channel	“57 channels and nothing on” (Bruce Springsteen).	Not all communication is meaningful (au contraire!)	Topic
Noise	“We live in a society of noise” (Anonymous).	Move the information/noise boundary farther over into the territory called noise.	Interpret the Noise
Decoder	The format is not neutral (McLuhan).	The interpretation or reading of the format offers creative options.	Creative Code Modifier
Receiver	Some pitches don't arrive in the catcher's glove (Yogi Berra).	Systems are constantly crashing.	Receiver or Glitch (Rosa Menkman)
Feedback	Exception Handling rather than return codes (Bjarne Stroustrup).	Errors are systemic events of differing severity levels.	Social Exception Handling

As we start to develop a new model of communication that is not so narrowly technical, and which instead proceeds from the phenomenological method and includes a cultural perspective and the newest software development paradigms, we will actively question assumptions which have been made since the mid-20th century which have led most of society to have an Orwellian view of what information is. We will find a way out from our generalized societal condition of confinement and start anew on a path towards freedom.

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## Privacy is the Cornerstone of Personal Safety

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**Karin Spaink** has been writing about technology, internet, health, digital rights and politics since the early nineties. She's written eleven books and hundreds of columns. Scientology sued her for ten years over alleged copyright infringement on the net, and she won. Her hack of two major Dutch hospitals in 2005 – proving the vulnerability of electronic patient records – caused a major debate in Parliament. She's working on a book on the history of the public internet in The Netherlands. She was the chair of *Bits of Freedom* (the Dutch digital rights organization) from 1999 to 2006, and she's the chair of the Dutch Big Brother Awards.

We've been led to believe that giving up bits and pieces of our privacy and having our everyday lives minutely scrutinized will enhance our security. But somehow it hasn't. More and more people are being flagged simply because they demonstrate 'odd behaviour' and suddenly find themselves redefined as a security risk. Governments are wasting billions on tracking innocent citizens.

And nobody is paying much attention to the security of these amassed data. Data leaks run rampant. The same government agencies that are bent on identity checks don't seem to understand the concept of identity fraud, nor that their efforts make identity fraud more enticing. We need to push the notion of 'data hygiene': creating secure storage and safe protocols for the handling of personal data. Otherwise, these data collections will merely become a new target for criminals and a new vulnerability for citizens.

Meanwhile, governments and companies are inventing and enforcing all kinds of ICT-practices, – stratagems and – devices that are far from safe: from electronic public transportation vouchers and voting machines to hackable pacemakers and insulin pumps. Data privacy is essential. The lack of it can kill you – literally.

## The Brain and e-Information Lessons from Popular Neuroscience

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**Abstract:** Modern neuroscience suggests that we are much more dependent than we realise on information, ideas and sensations that are acquired and processed by areas of the brain not always immediately accessible to the conscious mind. Consequently the intuitive aspects of e-information and e-learning can offer a better fit for human need than the comparative rigidities of text-based learning. Important insights from the recent wealth of popular books on neuroscience will be offered to suggest arguments on how normal brain function relates to the modes and structures of e-information. The connection with ideas such as the concept of 'flow', and the so-called 'passive information seeking' in models of information seeking will be tentatively explored.

### Introduction

Information science has been brainless for much too long. That is to say, in writings on information theory and the theory of information seeking in particular, no role has been offered for the brain as a functioning body organ. (Wilson, 2000) The 'mind' of an incompletely articulated 'self' has sought and received information acquired in positively structured ways that, on reflection, bear little resemblance to the hunches and inspirations of real life engagement with information, or indeed its confusions and compromises. The information scientist's notional information seeker has moved in a conscious way from the first imprecise perception of an information need, through to the need's definition and refinement, its transformation into search terms that can be used to address information resources and the obtaining of an appropriate response when they are so addressed. In defence of information science, neuroscience's knowledge of the brain has until recently been comparatively incomplete and not especially helpful to the layperson. That has changed. There is now a positive outpouring of books, journalism and broadcasts that popularises neuroscience's findings, some of which has been consulted for this paper. The clearer knowledge of the brain and its workings that the literature offers challenges the paradigms of a host of human-centred disciplines. Theology, psychology, pedagogy, computer science and, of course, information science are all obliged to respond to the findings of neuroscience and generally to concede that their assumptions about human beings have been imperfect guesswork.

If we ask why there has been this change, the answer is solidly based in the technology available to the scientist. In the past, it was only possible to derive an understanding of the brain using a limited range of approaches. Medical ethics generally rules out intrusive investigation and experimentation with the brains of living human subjects. Dissection of the brains of dead subjects established the basic shape and structure of the tissue, and a great deal has been learned by inference from the experience of people



who have suffered brain and other neurological injuries. What has made the difference is the availability of a range of sophisticated scanning techniques. (Winston, 2003, pp41-7) In the first half of the twentieth century ways of measuring blood flow and electrical charge in the brain began to be developed. From the former, the technique known as Positron Emission Tomography (PET scanning) was developed to provide three dimensional images of the brain at work. Since then, Magnetic Resonance Imaging (MRI) and functional MRI (fMRI) have been developed to provide images of even greater clarity. Now Magnetoencephalography (MEG) can read very small traces of magnetic activity during periods of thousandths of a second. Today, the activity of a single neuron can be monitored, as can many neurons working together. Previous vagueness about what actually happens in the brain is being dispersed.

### What Does Neuroscience Tell us?

First of all, we should accept that although knowledge and ideas are abundant in neuroscience, the discipline probably still lacks a 'big theory'. (Ramachandran and Blakeslee, 1999, preface). To summarise even part of the universe of ideas within which neuroscientists are working would take very much more than the few paragraphs available. We will merely try to indicate a theme which leads towards some ideas on human interaction with information. First, neuroscientists now know a great deal about the functions that various parts of the brain perform and how they interact with each other. The two halves of the brain each include the occipital lobe (which handles visual processing); temporal lobe (language and sound processing); parietal lobe (perceptions of space); frontal lobe (thought and planning); there are the structures of the limbic system which are regarded as the seat of the emotions; there is the hippocampus which is involved in the storage and retrieval of memories; and there is the cerebellum, at the back of the brain, that is increasingly seen as the seat of various aspects of cognition, including language and reading. Elements serving cognition and consciousness are in all of these and other parts of the brain.

Yet the more we learn about the brain the less obvious it becomes where, if anywhere, consciousness is seated and its significance in relation to a host of automatic functions that the brain is found to be performing. In the first place, the two halves of the brain can perform the same functions, for instance memory can be stored in different places and different ways. The important point is perhaps that the brain has an amazing capacity to switch functions between areas in response to damage, which suggests that communication and what we might call cooperation between areas of the brain is at least as important as specialisation. This is incredibly complex and provides much of the subject matter of research in neuroscience. As Eagleman (2011, pp131-2) puts it, 'Almost all of our actions are run by alien subroutines, also known as zombie systems'. Learned and instinctive systems generally work in managed relationships. For instance, the autonomic nervous system can identify things like statistical patterns well before consciousness does. Consciousness is needed when there is a new problem to solve: it offers the cognitive flexibility that zombie systems cannot offer. He concludes that consciousness is useful, but only in small amounts for specific tasks (such as long term planning). Therefore the brain tends to serve consciousness on a need-to-know basis, ignoring things until awareness is necessary and then passing on the information, in a highly processed form for contemplation and decision making.

We ourselves are not aware of the vast majority of our own brain's activities and we couldn't cope if we did know what was happening. The fact that this might seem to reduce humanity to a set of automatic, subconscious responses, some of them described by the ugly word zombie, might particularly disturb those who cling on to a more spiritual interpretation. For instance, 'Not only all personal relationships, but all creative work in literature, painting, music, architecture, and equally in all the great scientific advances, pre-supposes a significant degree of intellectual and physical freedom.' (Hick, 2006, p205) Well, yes, but what does 'significant' mean in this context? We don't need to posit an immortal soul, or indeed a noble, free humanity to account for human achievement, if we are prepared to accept the magnificently effective interaction between subconscious and conscious that neuroscience is offering.

### Information Implications

The idea of the brain as an organ that processes massive quantities of information in a host of deeply or lightly coded forms, with only limited conscious intervention leads us to ask 'Does this have implications for information seeking and use?' Of course it does, but the implications are comparatively imprecise. When looking for connections between the nature of brain function and information seeking and use, we can turn for instance to the idea of flow. This concept elaborated by Csikszentmihaly (1990), describes a mental state of full immersion in a mental or physical activity to the extent that there is a loss of self-consciousness and the emotions are directed towards a full involvement in performing and learning. In sports, for instance, we can talk of the zone as a perfect balance between conscious intent and a complex set of subconscious perceptions and calculations. A ball coming at a fielder in cricket or baseball with a velocity and curve of trajectory that the eye does not have the time to formulate as a single coherent message to the receptor areas, and so hard and heavy that the hands must be perfectly placed to receive it and soft enough for it to sink into them and stay, will never be caught by conscious calculation. In information science, the idea of the passive information seeker is a rather clumsy attempt to approximate a description of this far from passive, but mainly subconscious interaction with information.

What is significant in this context is that it can be identified very closely with the intuitive nature of searching and surfing the web. The web and its hyperlinked resources are particularly conducive to experiencing 'the flow'. But to reverse this: something about the human brain is particularly adapted to exploring resources and searching opportunities that have these structures arising from natural associations. Search decisions based on systematic planning can be less important than following the implications of connections that are offered incidentally in the course of scanning and reading hyperlinked content. It is true that one can experience more or less this phenomenon in a great library where at the end of a day one is surrounded by a pile of books fetched from the shelves in response to clues and bibliographical guidance obtained along the way. This is, however a very clumsy process, delightful though it may be, requiring catalogue use, conversations with librarians, trips up and down the shelves, consultation of book indexes and other time-consuming activities. It is flow, but not as we have come to experience it. The brain can handle these connections, clues and pointers much faster than a library can offer up the resources. It is as if we have been waiting for something that

can respond to our inherent capacity to work in the flow. Today the wait is over, we do have the answer, or the best answer available at this juncture, in the form of the web.

### Conclusion

There is just too much happening in the brain at any one time for the conscious mind to handle the data and calculations that even a simple process, like standing up and walking for a few paces, requires. Most of what we do (and think) is handled somewhere below the level of consciousness. Once we recognise this in relation to our educational, professional and leisure use of information, we can see that an information activity that provides a guaranteed direct line between the need to know (apprehended or implicit) and some form of resolution of the need is almost inconceivable. We need a broad exposure to information of the kind we could find in a very big, very accessible library, and now have available for our use on both fixed and mobile devices through the web. What we are doing when browsing or surfing is essentially accepting the message, implicit in so much of what we learn from neuroscience, that we need to free ourselves from an unhelpful over-concern with the conscious mind and put the whole of the brain at the centre of our information universe.

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# Developing an E-Learning Course “Academic Research and Writing” Experiences of an Interdisciplinary Project Session

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**Abstract:** For many years information literacy and the standards of scientific work have been taught in introductory courses at universities and in libraries. They form a part of the key qualifications which students of all disciplines should know. However, when facing the challenge of handing papers in, many students feel incapable of applying those standards to their own writings. For this reason, the project “Developing an E-Learning Course: Academic Research and Writing” was started at Hochschule der Medien (HdM) in Stuttgart, Germany in 2011. Participants of the project group were students of Information Design, Online Media Management and Library and Information Science. The participants organised in groups and worked out essential topics like research, quotation, document structure and tools to respond to the information and learning needs of students of all disciplines. All results were meant to serve as a future reference for students at HdM and will be uploaded to the learning platform Moodle.

## Introduction

Standards of scientific work constitute a high barrier to undergraduate students during their first terms at university. Academic research and writing are usually taught in introductory courses. Some of them are designated for students of a particular subject area. However, there are no such courses offered for every discipline (cf. Alvarez & Dimmock, 2007). Students of medicine for example don't hand papers in during their studies and therefore there are no special courses offered for their subject. Most of them however are in need of the knowledge of academic writing as they are supposed to write a dissertation at the end of their studies. Ideally, students might have learned about information literacy before, i.e. at school or another course of study they attended. Developing a course for research and writing, one has to consider this fact. It is consequently not easy to find the right level to teach this subject either.

Due to the Bologna process, a student's working day is often way more intense and time-consuming today than it was before (cf. Burns & Harper, 2007). There are many high quality courses at university, but attending them takes a lot of time. Further, this offer is not sufficient for an increasing number of students. They will need a valuable possibility to look things up they don't know instead of attending an introductory course held at university or in the library. Consequently, more and more students do no longer refer to “traditional” media but consult the Internet (cf. Van de Vord, 2010). In this situation, quality approved offers for self-taught trainings might be of valuable

help. E-learning creates a basis for this training as students can learn whenever and wherever they want to. They can inform themselves about forgotten content very briefly or about all topics in detail.

## Organization and Realization of the Project

In an interdisciplinary approach, graduate students of Information Design, Library and Information Science and Online Media Management were asked to develop an e-learning course “Academic Research and Writing” that would suit information and learning needs of the student at Hochschule der Medien (HdM). This course should be offered on the online learning platform Moodle. Moodle is open source software for communicating and practicing course contents.

The course content was divided into the four modules “Research”, “Quotation”, “Structure” and “Tools”. For efficiency reasons, the project group was organised in five working groups. The students of Library and Information Science built four groups to work out the modules with regard to content, the fifth group formed by the students of Information Design and Online Media Management were to think about the technical aspects of the realization of the course. In a first step, the content groups were guided to evaluate different didactical concepts and tools and to discuss their suitability for different contexts. They thought about the content of their modules and drafted first structures. In the next step, they developed storyboards for which the technical group decided how to implement them with the open source authoring software eXelearning, making use of the features such as audio-visual and interactive elements. In the end there were used elements like videos, screen casts, podcasts, pictures, tests and forums. In addition to the basic content of the individual units, the project group decided to use small advice boxes to briefly communicate tips and tricks or to draw the user's attention to something important.

The structure of the total course is built up process-oriented, in a way most students would proceed when writing a thesis. In most cases the information in the modules is worked out in detail for those students who write a thesis for the first time. As the course is also meant for those who already have experience in writing, all units can be skipped so that the user doesn't have to go through the whole process. Instead, he can choose separate units he wants to inform himself about. As there are different basis conditions for different topics, the groups chose individual ways of access to their modules, for example via characters or a starting question about the existing skills of the user.

As a general rule, the project group tried to find a uniform concept, structure, operation and design for the total course. Further, they tried to put themselves in the place of the user and in addition they applied a personal design to attract the user's attention. Meeting regularly once a week made it possible for the five working groups to share, compare and match ideas and possibilities. At the beginning of such a meeting the content groups presented their meanwhile outcome, followed by the technical group evaluating the possibilities to put these ideas into practice. As a conclusion, the outcomes were compared concerning elements used by all groups. Finally, standards were determined to make sure that the modules were arranged as uniform as possible.

## Research

When the working group “Research” started thinking about the content of this module, they asked students from different study classes of HdM where they search for information which they need for their studies. As in most cases the answer was Google, it became more and more clear, how strongly the module “Research” was needed. There is so much information produced and stored within the last decades which cannot be found via a search engine like Google. There exist yet numerous databases, catalogues and academic search engines to be chosen from. The module “Research” is a guideline to find the right one for the special need of the user. On the front page of the module, students can choose one of four characters to start with. The characters portray four different ways to search for information. This getting in should make the user determine the media he needs and as a consequence show him where he can look for it. Clicking on a character, it is described which kind of media this character would probably use for its work. In a second step, the user gets to know several information resources suitable to his need of information. In a third step, the user can learn more about different methods of searching. These tips and tricks are explained on the basis of screen casts. The last step is to check the information the user has found. The result of the research should be compared to the question or problem determined by the user at the beginning of the research. At the end of each step, the user can take a test containing questions of knowledge and of application. In this way the user can proof what he has learned and which content is worth to look at again.

## Quotation

After searching for information and working on it, the user can start writing his thesis. Therefore, he must have the skills and expertise to quote in a correct way to avoid any reproaches of plagiarism. The module “Quotation” shows students an abstract about what kind of rules have to be followed. Several units demonstrate these rules of correct quotation on the basis of many examples and interactive tests.

At the beginning there exists an entering test to check the user’s knowledge about quotation situations followed by an explanation of these situations. The students shall then learn the rules for the correct quotation of different media as there are books, articles, reverence material etc. At the end of the unit, the students can check on basis of a multiple-choice test if they understood what they just learned. In the last unit, a screen cast shows how to construct an accurate reference list. It outlines the main properties that a reference list must maintain and explains how to deal with different problems.

## Structure

The third module of the e-learning course is about the structure of a thesis. To work out a structure is an important point for a good thesis. The students should write in a logical order and make appropriate transitions between the chapters.

The module starts with an entering question. The user can choose if he wants to look something up and inform briefly about a particular topic or if he wants to go through the total module in order. Alternatively, he can check his knowledge about the structure of a thesis in a multiple-choice test. The module includes the units “Shape” and “Components of a Thesis”. Sub-points of the unit “Shape” are i.e. the type area, headings and

paragraphs as well as an appropriate style of expression. Concerning the components of a thesis, the user gets to know the obligatory components for different types of thesis – a seminar paper, a senior thesis, a master’s dissertation or a project report. Each element, such as the title page, the preface or the list of contents, is explained in detail on the basis of many examples and partly on screen casts.

All contents of the module “Structure” can be downloaded as PDF document to save for the next time writing a thesis.

## Tools

The last module “Tools” includes presentations of software that is very useful for academic writing – software concerning researching, structuring and quotation, in other words, concerning the other modules represented in the e-learning course. The module is structured process-oriented. It presents tools according to the working steps of writing a thesis.

In the first step, the user identifies the state of his work and chooses the tool he therefore needs. The group working on “Tools” produced three tutorials in text form regarding software for text-processing, managing literature and other. Step two deals with the research on library-catalogues and databases with Citavi, a tool by Swiss Academic Software to manage literature. The user gets to know how to look for information and import the found data in Citavi. Different types of media can be managed with Citavi, i.e. printed media, PDF documents and HTML documents. The third step accords to the writing process of the thesis. The user can watch a screen cast regarding the theme citing. Inter alia it explains how to generate footnotes and references with Citavi to import in Microsoft Word. Step four and last step deals with the final revision of the thesis. A step by step tutorial shows how to generate a bibliography and a table of content. Another screen cast explains how to use the spell checker and the automatic error correction of Microsoft Word.

In case the user doesn’t find what he was looking for in the module, there is the possibility to discuss the problem or share experiences with other participants of the course in a forum set up for this purpose.

## Conclusion

Being part of the project group “Developing an E-Learning Course: Academic Research and Writing” was of high value to the participants as there are only few opportunities to cooperate with students of three different courses of study. Every participant could bring his particular knowledge, experience, talents and skills in to the great whole. The working groups inspired and complemented each other in many ways. It was very interesting to see the idea of the project transfer into reality as well as the gradual development of the different modules to a uniform e-learning course. Only this special arrangement of knowledge made it possible for the whole process to work out.

However, it wasn’t always easy to manage the uniformity of the course and some ideas had to be dropped. The project group didn’t always agree on suggestions made by students of one course of study. But nevertheless, the project gained a lot from the respective response of the other courses of study.



Students of HdM carry out many projects, but many of them are only theoretical exercises in order to practice instead of putting concrete tasks into effect. Having the opportunity to develop something long-lasting that represents an achievement for others was therefore very motivating. The e-learning course “Academic Research and Writing” will be uploaded in Moodle and all students of HdM will have the possibility to use it! It doesn’t serve as replacement of the introductory courses, but as alternative and addition to one’s studies.

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## How Brands Connect with Consumers? Building Library Communities with Social-Business Media Tools

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**Abstract:** In today’s marketplace, businesses must simultaneously respond to the struggling economy, multiple world crises, and the demands of their own bottom lines. Corporate America is striving to define its brands as socially conscious while also embracing the latest social media tools. These two major trends are shaping tomorrow’s consumer climate, and by combining them this presentation intends to show a model for higher education organizations, such as libraries, to maximize both their visibility and their contribution to the greater good. This paper shows how brands can leverage social media to build consumer goodwill and loyalty as well as how consumers can use their social-networking power to drive sustainable change in the business world. Using case studies from various brands such as Dancing Deer Baking Co., Pepsi, Walmart, TOMS, Nike and more, as well as the latest in social-business technology this paper offers examples on how organizations may use similar approaches to bring more interest to patrons to be part of their community.

### The New Dynamics between the Corporations and Customers

Many surveys show that consumers do not trust corporate companies. For example in 2009, only 38% of consumers in the USA trusted corporations’ practices according to the Edelman Trust Barometer, one of the most respected surveys of public sentiment about corporations. In a year of political and economic turmoil, trust in government also fell by 11 percentage points since 2009, to an all time low of 20% in 2011. This compares to a global average of 52%, according to the latest findings of the annual Edelman Trust Barometer which is conducted in 23 countries. Despite the loss of confidence in the system of corporate companies as well as governments, just over 60% of stakeholders surveyed believe that government must regulate corporations’ activities to ensure that business is behaving responsibly. (The Trust Barometer studies the concept of trust as it relates to business, corporate reputation and corporate communications among a very specific audience: college-educated, top quartile of income by age



group, and follows business/news media and policy issues at least several times a week).

Numerous research experiments prove that consumers are not interested only in low price. Despite the current economic climate, social purpose is still of deep interest to the public and expectations of company and brand involvement remains unwavering. In fact the percentage of consumers willing to promote a brand if there is a good cause behind them has jumped from 53% in 2008 to 62% in 2010. Furthermore, consumers increasingly feel more empowered to personally support good causes rather than expecting government to act on their behalf. The 2011 Edelman Trust Barometer indicates that consumers preferred quality (69%), transparent communication (65%), trust (65%), and employees' welfare (63%) as the four most important factors in corporate reputation.

Social media democratized information and empowered consumers to take control of not only their online experience but also experiences in the real world. As a result, social media is changing how customers shop, refer products and services, and ultimately make decisions. The relationship between customers and business is changing and will continue to evolve as new media permeated our culture and society. This is not a fad nor is this phenomenon going to revert back to the way of "business as usual." Consumers are connected, entitled, and expect recognitions and value to get their attention and value; they are now front and center of the business owner, forever changing how businesses think about the people they serve and why they deserve their support. Social media usage presents a unique opportunity for marketers to reach engaged people of all ages in a personal and relevant way. Understanding what they are doing on these sites in order to see how brands can best communicate through them.

Understanding what people are doing on social media sites can shed some light on how brands can effectively communicate through this channel. Research by Dynamic Logic found 62% of adults in the UK actively participate in social networking. One in four people aged 55 or over visit social media sites, while 47% of social networkers are aged 45-54. Not surprisingly, the percentage of social media users increases in younger age groups: 51% of 35-44-year-olds and 77% of 18-34-year-olds.

### Corporations and Their Socially Oriented Projects

At a time when consumer citizens are demanding more action and citizen brands are recognizing their larger role in society at large, the meaning of marketing raises some compelling questions and the search for some creative solutions. Making the connection between trust, social purpose, profit and public engagement is one of many starting points. The number of individual corporations involved in socially oriented projects is skyrocketing. The following are a few examples of the plethora of new business models marrying profit and purpose that are capturing the attention of consumers today:

**Dancing Deer Baking Company:** founded in 1994 in Boston, originated as a bakery selling primarily to restaurants and cafes. It quickly expanded with a line of packaged baked goods. From the beginning the company has given its profit back into the larger purpose of helping homeless families out of shelter and into homes: its Sweet Home Project donates 35% of the retail price of all specially labeled Sweet Home Gifts to fund scholarships for homeless mothers.

**TOMS Shoes and the One-for-One concept:** founded in 2006 by Blake Mycoskie on a simple promise "With every pair you purchase, TOMS will give a pair of new shoes to a child in need. The One-for-One-consumers' awareness of the company has skyrocketed in just a few years. As of September 2010 TOMS has delivered over one million pairs of new shoes to children in need around the world.

**Pepsi Refresh Project (PRP):** PRP is a 2010 initiative by PepsiCo to award \$20 million in grants to individuals, businesses and non-profits that promote a new idea that has a positive impact on their community, state, or the nation. The project is completely separate from the Pepsi Corporate Foundation and uses money budgeted for the TV marketing the Super Bowl Sunday. Anyone can list any cause they like. All they have to do is fill out an application to explain the cause and select one of the four award categories: \$5,000, \$25,000, \$50,000, and \$250,000. Each month Pepsi accepts up to 1,000 entries on a first-come, first-serve basis. Rather than Pepsi executives deciding which causes to fund, the brands use crowdsourcing to select the winners. Visitors to the website are allowed to vote for up to ten of their favorite projects a day. The votes are updated and displayed every 24 hours. By the end of the month, it is the community that has selected the final 30 winning projects totaling up to \$1.3 million in grants. To date Pepsi Refresh Project has garnered over three billion media impressions. Consumers have submitted over 74 million votes through and Facebook "likes" have increased by more than 600%. Compare with any previous cause-marketing campaign, the Pepsi Refresh Project differs by an order of magnitude. It demonstrates how a major company has opted to tackle social responsibility using an unquestionable commitment of its resources and brand image. Pepsi is an example of one of the world's best-known brands behind the effort to inspire consumer-led social change.

### Nonprofit-Corporate Cooperation

Unimaginable a decade ago is the number of corporations working with other firms and nonprofit organizations. Just as with government, the nonprofit organizations face challenges such as chronic funding problems, lack of coordination, corruption and fraud, etc. The private sector is the best hope to offer what governments and nonprofit organizations need: cutting edge technology, managerial skills, worldwide resources, funding, talents, etc. A good example of such cooperation is Walmart. Walmart is the initiator in creating the Sustainability Index Consortium, a group composed of Walmart, universities, suppliers, non-governmental organizations and other retailers whose mission is to develop an easy-to-understand and comprehensive sustainability index that consumers can use to evaluate every product's compliance with sustainability standards. Walmart is also a global leader in championing environmental sustainability. Walmart continues to work with more than 70 organizations, including nonprofit organizations, government agencies, academic institutions, suppliers, retailers and food service companies to conduct research and develop data, tools and protocols for a product sustainability measurement and reporting system (SMRS). The company's objective is to create a more transparent supply chain, accelerate the adoption of best practices and drive product innovation. For example, keeping net waste to zero, selling products that sustain environment and people and powering its stores with 100% renewable energy.

The Nike Foundation's Girl Effect program is another example of nonprofit-corporate cooperation. The concept focuses on finding ways to educate approximately 600 million adolescent girls throughout the developing world who live in poverty, are often abused by their families, and are at risk for HIV. Funding supports education programs to enable these girls to develop the skills to become employable.

There are now more companies working with government on social change activities. One of these, Change the Equation, involves a network of 100 CEOs who are rebuilding science and math literacy in American schools. Companies such as Intel, Kodak, Xerox, and many others have agreed to start combine their separate programs they each conduct in schools to help boost science, technology, engineering, and math (STEM) skills.

### Building Communities with Social-Business Media Tools - What Could We Apply to Higher Education

Higher education institutions show increased interest in the potential of social media as a marketing tool. Particularly important is the potential of these tools to reach and attract future students. The academic libraries' traditional role is viewed as a depository of knowledge and as a community centre. Implementation of social media by the library requires creating such a community by engaging in social interaction and making connection with the users via the social media tools. Using social media as one-way broadcast at the libraries does not allow creating new unique relationships that have not been available before. Many higher education institutions are struggling with using the social media because their fear of losing control over what is said about the organization. Promoting library events on Facebook without participating in a communication with users does not create a community of supporters. People want to take ownership of the library's "brand" and want to be able to associate and support it, just as they likely do with organizations they are part of, or products, or performers they admire.

There are some publications describing why and how to start a social media library program, such as "Doing Social Media: So it Matters" (Solomon) and "Social Media: a Guide for College and Universities" (Burkhardt). Both authors list several strategies on having interesting social media content, presence and tips on maintaining positive communication. The publication shows how little by little, libraries and users create a relationship that may lead to a partnership. This partnership can lead to donations, volunteering, contributions and cooperation with other organizations and even with corporations. Before this phenomenon can happen, there are two courses of actions higher education institutions must take. The first are unilateral changes – decision to make a commitment made by university/library leaders and their employees to revise core strategies around social media purpose and mission. The second course consists of actions that universities and their libraries need to initiate to draw users into their sphere of influence, where they become partners in social transformation.

### Summary

Business is seen as a potential solution to our economic challenges but it cannot be trusted or expected to act alone. Equally, there is a new expectation of business to align profit with social purpose for the benefit of society. This marks a clear shift from the years of economic boom where profit was chased at all costs with poor regulation and

limited government intervention. Businesses who respond to this new dynamic of aligning profit and social purpose will be the leaders in trust and corporate reputation. At present, consumers are more sophisticated in their use of social media tools because corporate culture is more difficult to change than individual behavior. But by following the example of a growing number of case studies all brands can learn how to harness social media to further their interest and goals within the context of becoming a socially responsible organization. Social media is a new way to engage with library patrons. It requires a commitment to a long-term process of building a relationship with users. It is about creating a personalized connection that can lead to creating goodwill for both the user and the institution.

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# Use of Social Network Analysis in Bibliometric Researches

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**Abstract:** The impact of published works is measured and evaluated quantitatively and qualitatively by bibliometric researches. In addition to this, various findings related to scientific communication are also obtained from bibliometric studies by analyzing certain characteristics of documents or publications. In recent years, as a result of increased interest to bibliometric studies, different scientific methods and techniques are observed for bibliometrics. Social network analysis (SNA) has also taken its place in the literature as a method which is frequently used in bibliometric studies, especially in the past few years. SNA can simply be defined as examining the social structure and its impacts. This method comprehends the social structure as a network, which connects the actors and the knots of the relationships between these actor pairs. These actors can be people, as well as groups, institutions and even countries. SNA is frequently used by several disciplines such as sociology, anthropology, social psychology, communications and economics. Using SNA, researchers examine the structure of communities, try to describe the network structures, and model the existing connections by visualizing the relationships between the communities. The aim of this study is to review the use of SNA in bibliometric studies.

## Introduction

The evaluation of scientific publications is a very popular research area. The efficiency of scientific publications is usually investigated through bibliometric researches. Pritchard (1969, p. 348) defined the term bibliometrics as “the application of mathematical and statistical methods to books and other media of communication”. Then, the bibliometricians began to deal with some specific research questions. Consequently, SNA has become one of the contemporary research methods which is frequently used in bibliometric studies in recent years.

As a research method, SNA has a history stretching back at least half a century (Newman, 2001, p. 016131-1). SNA can simply be defined as examining the social structure and its impacts. This method comprehends the social structure as a network, which connects the actors (e.g., people, countries) and the knots of the relationships between these actor pairs. Using SNA, researchers examine the structure of communities, try to describe the network structures, and model the existing connections by visualizing the relationships between the communities. In this study the SNA literature was reviewed and a few SNA applications based on bibliometric data were presented.

## Method

We used Thomson Reuters’ *Web of Knowledge (WoK)* as a data source for identifying Turkish scholars’ publications. WoK covers five different databases, namely, *Science Citation Index Expanded*, *Social Sciences Citation Index*, *Arts & Humanities Citation Index*, *Conference Proceedings Citation Index (Science)*, *Conference Proceedings Citation Index (Social Science & Humanities)*. However *Conference Proceedings Citation Index (Science)* and *Conference Proceedings Citation Index (Social Science & Humanities)* are excluded in our study. The term “publication” is defined, unless otherwise indicated, as journal articles, meeting abstracts, notes, and etc. which were authored by the scholars affiliated with Turkish institutions and included in the citation indexes. To identify the publications within these databases, an online search was performed on March 10, 2011, by using the “address” field. To obtain reliable data, different forms of Turkish addresses in different languages (e.g., Turkey, Türkiye, Turkei, Turquie) were entered in the address field. At the end of the data cleaning process, a total of 198,687 publications, covering years from 1928 to 2009, were identified.

After obtaining Turkish researchers’ contributions, the SNA method is used to understand the relations between the actors. For the SNA analysis many SNA software platforms (such as *CiteSpace*, *Bibexcel*, *Pajek*, *UCINET*) were examined and it is decided to use the *CiteSpace*. *CiteSpace* is a freely available Java application which is designed as a tool for SNA and analyzes and visualizes co-citation networks (Chen 2004). Chamei Chen (the creator of *CiteSpace*) underlined that “*CiteSpace* supports structural and temporal analyses of a variety of networks derived from scientific publications, including collaboration networks, author co-citation networks, and document co-citation networks” (Chen 2011). It also identifies scientific trends, significant publications, authors and journals.

## Publications on SNA

The study primarily investigated the development of the research on SNA. *Scopus* and five citation indexes of *Web of Knowledge* were examined on 26 June 2011 in order to determine the number of SNA studies that were indexed by afore mentioned sources. Searches were conducted via “topic” field of citation indexes and “article title, abstract and keywords” field of *Scopus*. As a result, 1,523 publications and 2,169 publications were identified in citation indexes and in *Scopus*, respectively, between the years 1975-2010. Since some additional time will be needed in order for the publications that were belonging to 2011 to take part within the indexes completely, 2010 is determined as a cut-off point. It was found out that the article which was published in 1975, titled “An algorithm for clustering relational data with applications to social network analysis and

comparison with multidimensional scaling” was the first study related to the topic in both two platforms. Therefore, 1975 was taken as a starting point for the searches. Figure 1 presents the distribution of SNA studies by years that were retrieved from the searches. It was observed that there was a very small number of studies on the topic before 1990 (19 publications in citation indexes, 29 publications in *Scopus*). Thus, only the development of literature from 1990 to 2010 was displayed in Figure 1. It was observed that the number of SNA studies have increased since 2003, and particularly after 2006, when compared to previous years. In citation indexes the number of SNA studies that were published between 2006-2010 was 77% (1,177 publications) of all studies and in *Scopus* it was 83% (1,795 publications). These results showed that the SNA topic has gained importance in recent years in the related literature.

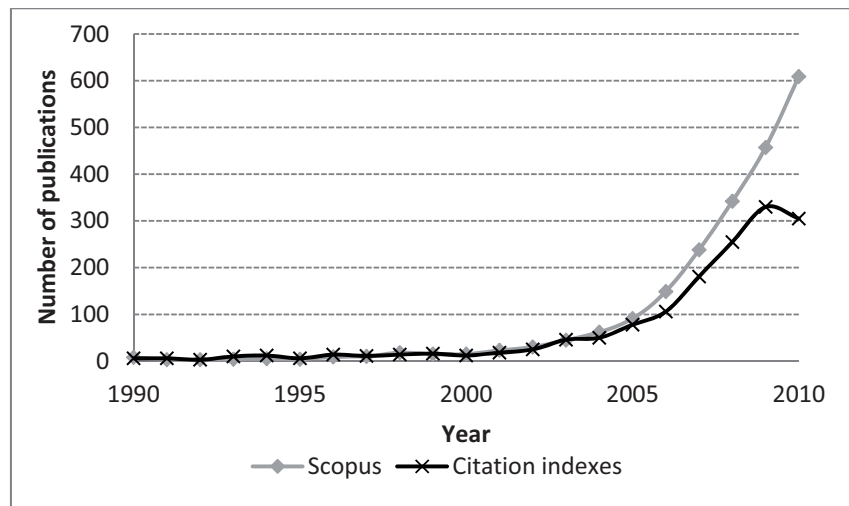


Figure 1: Number of publications on SNA (1990-2010)

Many studies combined the methods of SNA and bibliometrics in the literature (Larivière, Gingras & Archambault, 2006; Newman, 2001; Perianes-Rodríguez, Olmeda-Gómez & Moya-Anegón, 2010). In these researches, along with various bibliometric analyses, differences in collaboration patterns between the actors (such as authors, institutions, countries) were also studied.

In social network analysis studies which use bibliometric data, variables such as articles, citations, co-citation networks, collaborating authors or institutions are examined and some concepts are widely used. One of these concepts is centrality (Otte & Rousseau 2002, p. 441). There are different measures for centrality. Degree centrality,

closeness centrality and betweenness centrality are among the most frequently used centrality measures.<sup>1</sup>

## Findings

Turkey’s contribution to the world’s scientific literature has increased significantly during the last fifteen years. According to Thomson Reuters’ classification, Turkey addressed researchers have made publications that belong to 247 different fields. Surgery is the most productive field of Turkish scholars (14,365 publications). Therefore, in this paper all the examples were based on this discipline’s data.

Figure 2a and Figure 2b illustrate the collaboration network of Turkey addressed surgery publications. The most collaborative partner of Turkey is the USA in surgery field (Figure 2b). Czech Republic, Japan and Lebanon have high betweenness centrality ratios. This means these three countries are core nodes that make connections to other nodes (countries). For example, Lebanon supplies linkage for some countries such as Saudi Arabia, Syria and Oman.

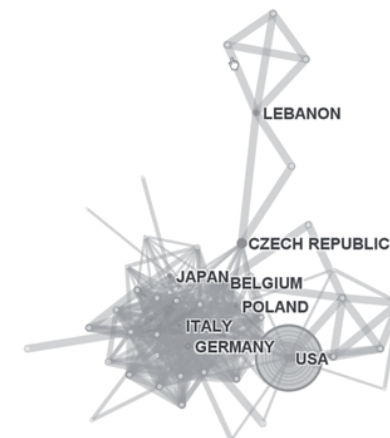


Figure 2a: Turkey’s collaboration network (centrality)

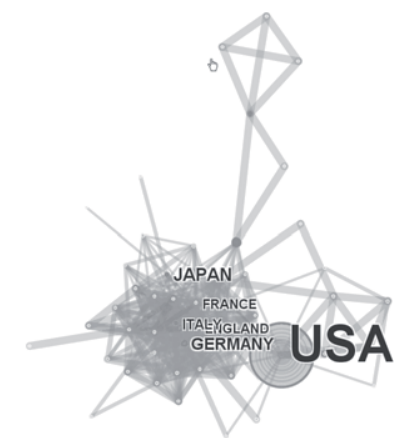


Figure 2b: Turkey’s collaboration network (frequency)

In Figure 3, the network structure of keywords’ (descriptors and identifiers) co-occurrences in surgery field has been revealed. As a keyword, “brain” has a pivotal node in the network with the highest betweenness centrality (0.16). In the figure, the colours show the first connections in time.

<sup>1</sup> The definitions of centrality measures and detailed information can be obtained from Otte & Rousseau 2002, pp. 442-443.



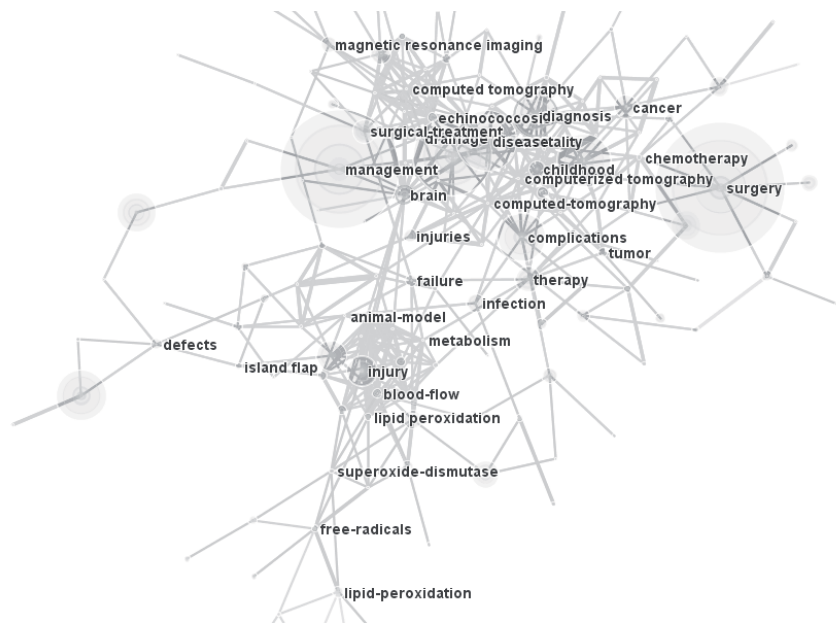


Figure 3: The keyword network of Turkey addressed surgery publications

## Conclusion

SNA as research method has been used by many scholars of various scientific disciplines in the last years. Our literature search supported that SNA is an emerging research field. In summary, this study aimed to create awareness about the use of SNA method in bibliometric studies.

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## Free Cultural Access versus the Rights of the Cultural Industries

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**Abstract:** This paper contains an analysis of the role of the cultural industries in the digital realm, presenting claims put forth by the cultural industries and a range of scientific studies questioning these claims. This is then followed by a description of the challenges currently faced by the fledgling online public library, with experiences drawn from the Danish public library sector, especially with regards to the framework the digital public library has to work within. This is then summarized and concluded with a range of questions with regards to these issues, concerning the current mode of approach, and the overall acceptance of the current framework, especially with regards to the acceptance of the power the cultural industries currently holds over the future use of both the digital library and the limitations of the Internet user. Furthermore, the possible need for a more global approach to the issues concerning the future of the online public library is lightly touched upon.

The main sources of background research used in the paper are a small compilation of international texts concerning the effects of online copyright infringements.

## Introduction

As the world of cultural dissemination is quickly moving towards more and more digital access, the public library finds itself challenged on several fronts. First of all the public library, due to its position as a traditional cultural institution, faces an inwards reaching transformation process, where each core function is undergoing evaluation with regards to a possible digitalisation of the process, where library users habits seems changing. This paper strives to question the external framework, limiting the freedom of the public library in this process, especially with regards to the means set up to combat online copyright infringement, commonly referred to as Internet piracy, by the cultural industries.

To achieve this goal, this paper will present a range of different views on the debate about copyright infringement. These views will then be discussed with regards to the digital library, and finally summarized as questions needing answers with regards to the future of the digital public library.

## Terms Used in This Paper

Several terms of various meaning will be used throughout this paper, many of which finds different uses in different media based discussions, thus creating the need for a short detailed explanation of their use in this paper.



The term online copyright infringement has here been chosen to represent the act of duplicating or modifying duplicates of cultural media available in a digital format, using the Internet as the prime source of acquiring the copies of these files.

The cultural industries is a term used throughout the paper to describe mainly the major record labels, the movie industry along with the computer game and program industry, as these companies represent a major participant in the discussion and legislative process surrounding the discussion about online copyright infringement.

### The Effects of Copyright Infringement

Online copyright infringement has been a fairly controversial field of study for researchers, where studies funded by the cultural industries used to be close to the only ones available. These studies have since been questioned by independent researchers, thus creating several very different theories with regards to the actual effect of online copyright infringement. To summarize these discussions, the main points of contention will be presented, with the studies funded by the cultural industries presented first, followed by independent studies and their results.

### Online Copyright Infringement - Economic Losses Stifling the Record Industry

A common argument mainly put forth by the cultural industries is the supposedly huge economic losses incurred by the industry as a result of online copyright infringement.

These claims, such as the claims found at [www.musicunited.org](http://www.musicunited.org), a page representing almost all of the major players in the music industry, are often backed by papers such as the one presented at this website (Siwek, 2007), claiming that losses from online copyright infringement in the music sector alone, amounts to 11-digit sums in US dollars. It should be noted that most, if not all, of the studies stating such amounts often do note themselves that several assumptions are made during these calculations, resulting in inflated numbers.

Recently a range of independent studies have surfaced, describing the effects in much different terms. The most comprehensive study on the subject found during the research for this paper, *Media Piracy in Emerging Economies* by Karaganis et al. (2011), sharply questions the claims with regards to the earnings by the cultural industries, citing earnings by, amongst others, the US movie industry, which has been steadily growing. The relevance of this study is further enhanced by the global perspective, bringing forth a wide range of additional issues with regards to copyright infringement in third world countries. These issues, relevant as they might be, sadly exceed the scope of this paper.

### The Creation of New Creative Content - Threatened?

According to several sources within the cultural industries, such as the aforementioned [www.musicunited.org](http://www.musicunited.org), the very creation of new music, movies, books and computer games seems threatened by online copyright infringement. Here the music industry cites dwindling record sales as a detrimental factor with regards to the creation of new music. The music industry also states that the costs associated with producing and promoting new music becomes less attractive, thus stifling the growth of new music.

This claim has recently been the topic of several studies and debates, with Waldfogel (2011) providing a fairly accurate representation of the main argument against accept-

ing the argument put forth by the music industry. Waldfogel mentions the independant labels, and even musicians avoiding labels altogether, as having a major impact on the production of and access to new music in a digital age, citing lower production costs and subsequently lower pricing models as a prime argument against the supposedly declining music creation. An additional point outlined by Waldfogel, is also the lack of throughout empirical independent research on the subject, which is a significant point for a future discussion about this matter.

### Stealing from the Musicians - Costing Them Their Income

Another main point of contention is the victims of the online copyright infringement. The cultural industries have been using rhetoric's equalling online copyright infringement to blatant stealing from artists and developers.

A recent thesis by students at the Norwegian School of Management (Bjerkøe & Sørbo 2010) has outlined the precise change of revenue and income for both the artists and the record labels from 1999, which saw the arrival of Napster, to 2009. The most interesting point of the thesis with regards to this discussion was the actual income change over this period of time. The music industry of Norway gains a slight growth, of 4% (after inflation adjustment, while the artists themselves, in the age of digital files sharing, have gained a total income boost of 114% in the same period, with 28% more music artists actively participating in the music market in 2009.

### The Public Library in the World of Online Copyright Infringement

The traditional role of the public library has been, and is, the facilitation of access to both factual knowledge and cultural media and objects, mainly books but also including music and other such objects, is currently struggling with the challenges imposed by the modern society, where easy digital access to both core traditions has been given more and more value by the library user. Whereas both roles are changing, this papers focus on the access to cultural media and objects through digital means, and as thus the library's role seems changing.

### The Digital User - Experiences from the Danish Public Library

Throughout the last decade the Danish library has been rapidly changing, trying to attain a foothold in the digital market. This has been done by including both music, video and computer games and programs in the material available to the library user countrywide as early as the start of the 90's. Furthermore, the digital platforms available to the library user has been a focal point of the library development projects, enabling online browsing and reservations by the end user by the year 2000, and a digital platform for both streaming and downloading music legally available to the library user at the time of writing.

Even though these initiatives have seemed timely and relevant, the current usage of these services isn't reflecting the possibilities of these platforms. Furthermore, the cost for the public libraries with regards to this access seems out of proportions, especially since the introduction of several private streaming services on the Danish digital market. The usability of the service has furthermore been questioned, as the platform even in this day and age, requires the use of Digital Rights Management functions, demand-

ing the use of Windows Media Player before actual use of most of the functions can be accessed, a demand set down by the cultural industries before consenting to the launch of these services.

The result of both the price and difficulties has been a stagnating digital library in Denmark, creating a sense of futility when trying to expand the digital library to also include ebooks and digital movie access.

### The Attempts at Stopping Online Copyright Infringement and the Public Library

Another main point of contention has been the legal framework put into place to stop the online copyright infringement, and its effect on the possibilities for the public library to move into the digital space. Here, monopolies has, at least in Denmark, created artificially high prices for the digital loans, where the public library pays more than twice as much per loan for ebooks or digital audiobooks, than the public library pays per loan of physical books or CD based audio books. Furthermore, the digital library is limited to a select range of e-books and digital audiobooks, decided by publishers, with the goal being preventing illegal copying of said material. The same argument is used in the music library, where the Danish public library aren't allowed to provide the users with any new music, again with online copyright infringement as the main argument used to prevent the public library, from providing the library user with a level of service needed to at least try to compete with the digital access, in a lawful and fully legal manner.

### Summary and Conclusion

The development of the digital library, and thus the future of the library in the new media, currently hinges on the goodwill of the cultural industries, where the only possible way to fulfil the public library tradition in the digital realm, requires negotiation and licenses supplied by monopolizing coalitions of cultural industries. Furthermore, the growth of the digital library is also threatened by the introduction of several laws meant to stifle the growth of online copyright infringement, requiring the library to remove services, introduce user surveillance and clunky digital rights management formats, all in the name of the artist.

This leaves the public library with very little breathing room in the competition for the user on the Internet, where copyright infringement for personal use is widely accepted as not being morally wrong (Rockwool Foundation 2011), requiring the need for change in the current framework the library has to work within. Furthermore, recent development in Swiss legislation (Eidgenössisches Justiz- und Polizeidepartement EJPD 2011), based on Dutch research, suggests that legislative powers in Europe might reconsider the priority of combating online copyright infringement, which might again lead to new opportunities for the public library.

To analyse how to best approach the change, a range of questions needs answers, questions requiring throughout research and contemplation beyond the range of this paper, but it is questions needing answers nonetheless, such as:

With the limitations imposed upon the public library, is the attempt at gaining a foothold in the digital market even a possibility, or worth the effort?

With the effects of online copyright infringement outlined above, should the library still work within the framework provided by the cultural industries, and if not, which avenues of approach could then be feasible?

Should the public library actively participate in the political discussion about the future of online cultural access, or strive to remain neutral?

Can the national public library function in a global digital world? If not, what could be the possible scenarios for the future of the European public libraries?

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# Social Media Research Methodology

## New Methods for the LIS Researcher's Toolkit

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**Abstract:** The growth of social media has provided a new methodology for the Library and Information Science (LIS) researcher's toolkit. Social media provide a platform by which LIS researchers are able to observe the generation of content, in real time, by real users. These technologies allow users to create and share publicly available content through various forms of online media. That content can be mined and coded by researchers to gain an in depth understanding of the information landscape as it is being formed and sculpted. Two case studies offer insights into how these methods are currently being used in LIS. Case one used social media research methods in a longitudinal study to observe the trends in social network site technologies and uses. A quantitative approach was taken using datamining and textmining techniques. Case two used social media research methods in a study to understand how the technologies of virtual worlds create a social reality for users. A qualitative approach was taken using interviews and textual analysis. In both cases, social media provided words and phrases from which researchers could garner behavioral information. Social media methods can further be used with surveys, ethnographies and other research methods to triangulate LIS research questions. While LIS research has mainly used social media methods in a social Web context this methodology can also be used to answer questions regarding the usage of various technologies by information professionals, librarians and library patrons as well as questions regarding information usage and privacy with various information technologies.

### Introduction

The growth of social media has provided a new methodology for the Library and Information Science (LIS) researcher's toolkit. Kaplan and Haenlein (2010) define social media as "...a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user generated content" (pg. 61). Basically, social media provide a platform by which LIS researchers are able to observe the generation of content, in real time, by real users.

Social media consists of technologies such as social network sites, virtual worlds, blogs, content communities, and collaborations (Kaplan & Haelein, 2010; Weiss, 2010; Kietzmann, Hermkens, McCarthy & Silvestre, 2011). Essentially, social media can be identified as supplying user-generated content. User-generated content is defined by Kaplan and Haenlein (2010) as "...the various forms of media content that are publicly

available and created by end-users" (pg. 61). These technologies allow users to create and share publicly available content through various forms of online media. That content can then be mined and coded by researchers to gain an in depth understanding of the information landscape as it is being formed and sculpted.

According to Rainie, Purcell and Smith (2011) social media users are more likely to be active in consumer groups, community groups, support groups (e.g. health groups), literary groups, environmental groups, political groups, etc. So, it isn't surprising, then, that business researchers (Kaplan & Haelein, 2010; Kietzmann, Hermkens, McCarthy & Silvestre, 2011) and journalism researchers (Nip, 2006) have already begun tapping into social media research methods as a means of observing user conversations. From an LIS perspective, social media research has been used to understand why people use technology (Thelwall, Wilkinson & Uppal, 2010) and how technologies change over time (Skog, 2005; Wilkinson & Thelwall, 2010). These methods allow the researcher to explore identity, impression management, social structure, and privacy (Boyd & Ellison, 2008).

Practical research questions, such as how technological applications are being used, can be explored using social media research methods. Also, theoretical research questions, such as the role of technology in users' social construction of reality, can be explored using social media research methods. Further, both quantitative and qualitative approaches can be taking using these methods.

### Research Question

How are LIS researchers currently using social media research methods?

### Method

A multiple-case case study was conducted to explore the research question. An extensive literature review of Library and Information Science academic journals was conducted to find cases of LIS researchers utilizing social media research methods. Two cases were chosen because they represented opposing paradigmatic and methodological approaches. Both were evaluated based on their contribution to the LIS field and the strength of their research design.

### Case Study One: Quantitative Analysis

Wilkinson and Thelwall (2010) used social media research methods in a longitudinal study to observe the trends in social network site technologies and uses. The authors took a quantitative approach by datamining the Myspace social network site over a three year period and observing the behavioral trends. To do this the authors followed specific members over a three year period, by taking four samples of their profiles. They used spider algorithms to extract the profiles from the Web and used textmining techniques to analyse the data. The data provide descriptive, trending information. The authors found that Myspace demographic information is trending younger over a three year period and social connections are increasing. Other key data show positive correlations between gender and activity levels as well as parenthood status and activity level. Using social media research methods in this way allows researchers to analyse large

datasets and make predictions regarding usage. However, this information is restricted to publicly accessed profile pages. This is a weakness of the methodology.

### Case Study Two: Qualitative Analysis

Skog (2005) used social media research methods in a study to understand how the technologies of virtual worlds create a social reality for users. The author took a qualitative approach by textually analyzing the technological landscape of the LunarStorm social network site. The author then interviewed participants about their perceptions of the social network site. The data provide in depth information regarding the reality of the specific website. The author found that perceptions of functionality varied by user group. Specifically, younger users were pleased to have a private space to chat with others, while older users were bothered by this. The reasons were because older users often were parents of younger users and were interested in keeping up with their children. The technology prevented parents from doing this. In this instance, social media research methods allowed the authors to develop a social construction of the reality in which different user groups participate in the LunarStorm online setting. This case also demonstrates the advantage of using social media methodology in conjunction with other methodologies to answer a research question.

### Discussion

What these case studies demonstrate is that social media research methods are beginning to make their way into Library and Information Science research. Further, these methods are used to address research questions from both post-positive and humanist research paradigms. Also, while the cases used diverse methodological approaches, there were similarities in the social media techniques that were used. Specifically, in each case the authors used key words or phrases to create word clouds. The word clouds were used to identify the pertinent topics of conversation or pertinent variables, depending on the paradigmatic perspective, from actual social media users. This gives researchers a great advantage. It allows them to garner behavioral information that users have freely provided in a naturalistic setting. This increases the external validity of such behavioral information. Social media methods can further be used with surveys, ethnographies and other research methods to triangulate LIS research questions.

While LIS research, to this point, has mainly used social media research methods in a social Web context, this methodology can also be used to answer questions regarding the usage of various technologies by information professionals, librarians and library patrons as well as questions regarding information usage and privacy by various information technologies. Further, this methodology can be used to understand the role of the library in multifarious user demographics. For instance, social network sites, blogs, microblogs, etc. tend to cater to differing users groups. A researcher can identify a user group of interest and use a data analysis technique, such as textmining or textual analysis, to create word groups for relevant key words or phrases. Further analysis of these key words or phrases can provide insight into library usage and information behavior.

However, there are limitations to using this methodology. One limitation is that user-generated content is defined as content that is publicly available. Many online social media allow users to make their content private or limit the people that can view their content. Therefore, it may be the case that the users who make their content publicly

available are inherently different from other users in ways that may be of importance to the research question at hand. Skog (2005) circumvented this issue by combining interviews with a textual analysis. A second limitation of the methodology is that different types of users may identify with different types of social media. For instance, the characteristics of Twitter users may be different in important ways from the characteristics of Google+ users. At the time of this study, comparisons of the different user groups have not been conducted. It is, therefore, necessary to sample multiple social media sites in order to negate potential user group biases.

Ultimately, online social media is changing the information landscape. Through social media users are now the content creators. This provides researchers an optimal lens through which observations of real world information behaviors are generated, converge and diverge through a population. Therefore, social media research methods are likely to become increasingly pertinent as a methodological tool for Library and Information Science researchers.

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## E-world for Disabled A Way to Survive the 21st Century?

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**Abstract:** Social, economical and educational environment nowadays is the main prerequisite and factor influencing the level and quality of accessing information for all. Incredibly fast grow of ICT is a unique solution for disabled people to undergo their social exclusion. The possibilities given by e-information services on the Internet can increase the quality of life for disabled people [1]. The aim of this paper is to analyze possibilities of activation in participation in e-world for disabled people by accessing e-information services provided by Internet possibilities. Quantitative and qualitative methods of analysis are used due to fulfilling tasks: to analyze the situation of e-services access and using possibilities in Lithuania for disabled people (to discover, how easy and how often disabled people access the web, and what advantages they gain from the information service online). Special institutions such as rehabilitation ones for disabled people and other public sector organisations dealing with disabled people have been chosen for those purposes and participate in the research. The results of research give clearer conception on disabled people relation with the Internet and e-information services in a whole. They reveal the level of the role of e-information services in the process of social inclusion of disabled people in Lithuania. It will be useful for institutions and organizations, which tasks are to represent the interest of disabled people and help them to reduce the social exclusion in the knowledge society of 21st century.

### Introduction

Since the Internet occurred in society life, it has a very big impact on everybody in the world. It has changed the way of life for the most part of the society, and disabled people deserve of exceptional attention. They tend to use the Internet in the same way everybody does [8]. The Internet is the chance to look for items, use different news-groups, send e-mails, make new friends – it helps to investigate the world.

One can see the obvious progress in creating information and knowledge society in Lithuania. The state is involved in the processes of globalization, where all the citizens of Lithuania have equal rights to participate in it. These rights are firstly highlighted in the Constitution of Lithuanian Republic. It is said: “A human must be free to search, receive and spread the information and ideas” [2]. However, here comes the question

whether disabled people also have the same rights and opportunities to access the information in a same unexceptional way?

Our idea is to find out how strongly disabled people in Lithuania are involved in the whole e-world. We want to get to know how often and for what purposes they are using the Internet; do they find it difficult or face any other problems while trying to be online. The research results and findings will be presented during Bobcats2012 conference presenting a paper on the subject.

### The Situation in Lithuania

According to Statistics Lithuania Department, there are around 260 thousand disabled people in Lithuania, which makes around 7% of all population [6]. The disabled people in Lithuania are still attributed to social risk groups, which face many difficulties on accessing the global network. People with vision impairment are not able to use conventional information surrounding as it is made just for sighted people. People with hearing impairment find it difficult to use the sound-information because the lack of modern communication and information means, and there are very few ones that might be useful. People with movement functions disorders (such as mobility, self-control and others) face the problem of access to necessary information as well as professional and daily one. So, we can preliminary conclude that disabled people in Lithuania still face the social exclusion as well as information one [5].

Lithuanian government is putting a lot of efforts to reduce this problem. Understanding the need of e-information services, especially Internet access and its using possibilities for disabled people and its advantages in their daily life, Lithuania is doing a lot to make some obvious changes and help disabled people to use the Internet and other e-information services.

Internet is the first window enabling people to start with using e-information services. So, recommendations to adopt web pages for disabled people have been confirmed. Following to those recommendations governmental institutions have a special web versions for disabled people, also the public and business sector is working a lot on that. Due to this, the daily life of disabled people is much more relieved [7]. Web versions for disabled people opened remote job and leisure possibilities for them, enabling social inclusion of disabled people.

*Legal background.* There is a legal background in order to make equal rights for all the citizens in Lithuania. There are several institutions working on behalf of disabled people in Lithuania. The main ones are:

- Lietuvos Respublikos seimas (Seimas of the Republic of Lithuania),
- Lietuvos Respublikos socialinės apsaugos ir darbo ministerija (Ministry of Social Security and Labour of the Republic of Lithuania),
- Neįgalųjų reikalų departamentas prie socialinės apsaugos ir darbo ministerijos (The Department for the Affairs of disabled)

These institutions are working hard to ensure rights to information of disabled people. Recently, they have issued several acts, which points out the rights of disabled people.

*-Lietuvos Respublikos neįgalųjų integracijos įstatymas (the Law of Integration of disabled people in Lithuania), 2005.* One of the objectives of this act is to ensure equal



rights and opportunities for disabled people. It states clearly that all information, which is accessed by disabled people, must be prepared in a way they need it [4].

*-Lietuvos Respublikos lygių teisių įstatymas (the Law of Equal Treatment)*, 2008. Law emphasizes equal rights and opportunities for all the citizens regardless of their age, sexual orientation, religion, disability etc [3].

*-Neįgaliųjų teisės konvencija (The Convention of disabled rights)*, 2010. It has highlighted once again that people with disabilities must have full and equal enjoyment of all human rights and fundamental freedoms, as well as to promote respect for their inherent dignity. The Convention also reinforces disabled people's equality against the law, their right to freedom and security, citizenship and independent living rights; right to health, work, employment and education; opportunity to participate in the political and cultural life

### Methodology and Research Expectations

In order to find disabled people information needs the research was carried out during the period of October 2011 – January 2012. The aim of the research is to analyze possibilities of activation in participation in e-world for disabled people by accessing e-information services provided by Internet possibilities. The research consists from two parts: quantitative and qualitative ones. Adequate methods and ways are used.

Interview method in qualitative part of the research is used in order to find out disabled people behavior and understand their physical, social and psychological relations in the society.

Quantitative part of the research was carried out in order to find out accurate data about web accessibility for disabled persons. We tried to find out whether webpages of public sector institutions provide special versions for disabled people and what the level of using them is.

Public Institution *Valakupiai* Rehabilitation Centre for the qualitative part of the research was selected. It is an independent non-profit organization established according to the procedure stipulated in the Law on Public Institutions of the Republic of Lithuania, operating in the sphere of social security and health and independently providing social and medical services for persons with severe physical disability. Respondents of the Center can help researchers to find out their attitude towards e-world. Qualitative part of the research was performed in the natural environment, using direct contact with respondents. This makes strong contribution to a quantitative part of the research aiming to gathering and availability of statistical data, and emphasizes the unnatural environment. Both parts of the research will give comprehensive view of providing e-information services via Internet for disabled people in Lithuania and will find out their attitudes about information access for all possibilities.

The research is important because the situation about access and use of e-information services via Internet in Lithuania of disabled people is viewed from different perspectives. It is expected to get meaningful findings at the end of research period, which will make an important background for governmental institutions improving the situation of disabled people in Lithuania on the matter. Final research findings and conclusions are presented during the Bobcatss2012 conference.

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# A Company for the 21st Century

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**Abstract:** Considering the impact that Web 2.0 and new technologies are having it would be imprudent to think they would not leave their mark on the business world. The paper focuses on the inner workings of a corporation that utilizes all the new resources available to them. For the purpose of the paper a fictional insurance company was set and put in different real life situations in order to define ways in which it can adapt to the new electronic environment and keep up with competition. The internal system based on social networking principle was chosen to help employees feel as a part of the business community. The company's social network presents a combination of different Web 2.0 tools (such as Facebook, LinkedIn) and a content management system. Such a unique organization has provided a collaborative environment where employees are able to communicate in a more informal way thus making communication and knowledge sharing more efficient. The company's wiki environment was implemented in order to enable knowledge transfer, primarily, from the experienced to novice employees but also to create a united knowledge base. Added to the aforementioned was the modern archiving system and digitized documentation which was organized in according to the SKOS principles. Besides dealing with the theoretical background the project yielded a web portal, the company intranet web site which served as a testing ground for Web 2.0 tools. The goal of the project was to see what can be done to improve the dynamics of the site and its interactivity.

## Introduction

The development of the interactive electronic space based on the Web 2.0 technologies has put new implications and demands on business sector. The philosophy of the Web 2.0 is based on "delivering software as a continually-updated service that gets better the more people use it, consuming and remixing data from multiple sources, including individual users, while providing their own data and services in a form that allows remixing by others, creating network effects through an architecture of participation". (O' Reilly 2007) The Web 2.0 doesn't stride along with a fundamental technological innovation, but is facilitated by a number of technologies. (J.Kolbitsch and H. Maurer, 2006 cited from Schroth and Janner, 2007) Still, crucial for this changed environment is not the technology but people who use it. Högg et al. (2006) classify Web 2.0 applica-

tions as: communities that aim to unify their users by means of a common ideal such as social networking or knowledge sharing; platforms or tools that help users create and share content with a broad audience; and online collaboration tools support users in collaboratively performing certain tasks, such as maintaining time schedules or processing text online.

One key characteristic of Web 2.0 applications is the centeredness on the role user's play in creating and sharing content which can be correlated to the fundamentals of the knowledge management. Therefore, logical step in creating a successful knowledge management solution would be implementing Web 2.0 tools. The philosophy of mashups which emerges from the Web 2.0 environment presents a good potentially for both business-customer relation and the enterprise "in-house" knowledge management. The "wisdom of the crowd" is, therefore, no longer oriented only towards marketing of the products but towards "in-house" knowledge creation process.

## The Project

The main idea behind this project was to see what Web 2.0 solutions could be used in a business environment. Further analysis of the business modules expanded the idea on incorporating element of archiving and elementary web CMS development. Soon after sketching up the outline of the project it was decided that the frame of the project would be an imaginary international insurance company, more specifically a Croatian branch of an international insurance company for which an internal homepage would be created used exclusively by the employees. Having the economic situation in mind it was clear that our main focus will be on open source solutions that would yield best cost-benefit results. The plan was never to make a list of possible software solutions and then speculate about their effectiveness, the idea was to come as close to real life as possible. We wanted to create a closed, risk free environment which would enable us to experiment and see how far we could get by using only free open source products. The intention was never to copy the commercial solutions available on the market with herding free applications and CMS modules, we wanted to find the balance between good free software and the principles of Enterprise 2.0 established by McAfee (2006). Enterprise 2.0 needs a live environment with active users to fulfill its purpose, it is hard to mimic in an imaginary setting so it was clear from the start one of the hardest tasks would be content management.

First step in creating an Enterprise 2.0 was to research the current state of Web 2.0 implementation in Croatian companies limited to the ones whose business orientation is similar to our fictional company. Understandably, the IT departments of business companies were reluctant to give out specific information, still from what they provided us with it was clearly visible that the most of the companies did use some kind of Enterprise 2.0 tools. Still, an integrated system that incorporates all of the elements Mr. McAfee (2006.) described was not identified. The most common situation encountered included an intranet homepage with e-learning sections containing materials such as: basic computer skills, manuals for using multifunctional copying machines, etc. None of the companies contacted reported having any kind of internal social network stating that there was no need for such services as the most of communication with clients is done via e-mail clients, specifically Microsoft Outlook, Lotus Notes.

The next stage of the research was oriented towards building a collaborative environment based on Web 2.0 technology. Research of appropriate software components was conducted. This turned out to be a bit more difficult than we expected. The core idea behind Joomla is that it is free and open source; it has become extremely popular and created a market which is flourishing. There is a huge online community creating free software as an alternative to the growing market. The task was to find the best free alternatives to fine tuned commercial solutions. It was time consuming and required from us to become a part of the community and ask for advice and help from the real professionals.

### Project Result - a Web Page

A project that yields a fully functional webpage as the final result has a whole new dimension. There is an array of possible technical difficulties. But a practically oriented project such as this required overcoming these obstacles and putting our research, knowledge and skills into work.

The webpage was based on the Joomla 1.7 which proved to be the best option for several reasons: abundance of free open source software (templates, plug-ins, modules...), simplicity, a huge community of users and developers and countless written sources with plenty information for both beginners and advanced users. For setting a good webpage it is of utmost importance that the balance between the purpose of the site, the needs of the user, and the demands made by the company is obtained. Successful creation of such a balances environment is a great task for which a spectrum of additional knowledge of the creator is necessary. The backbone of the fictional company webpage presents a mixture of social network and the content management system. This type of solution is existent on the market but it is rather expensive which poses as a potential problem for already reluctant business owner to invest in. Therefore, a cheaper open-source alternative is necessary. Although, such solutions are usually not as much appealing as the high paid ones or do not have additional fancy features still they provide enough basic functionalities. The CMS (content management system) component of the virtual community on the webpage presents by far the most important aspect. Grouping the users within the network similar to their grouping in the reality would not actually be productive without enabling them to create, share and manage content. The possible situation used as a good example is a department meeting scheduled through a community messaging service with an integrated calendar and conference room booking application. The person in charge, for setting the meeting, is able to share the documents of interest to the attendees. This type of a communication channel between employees enables individuals to retrieve and share information even if at distance from the office.

### Digitization and Archiving

To insure a fast and secure flow of information and documents through a company a well developed archiving system has to be ensured. Today's business environment does not allow mishaps like the loss of data due to mishandling or storage media deterioration so a good flow of documents from their creation through the processing and finally archiving is crucial for the smooth operation of the company. For the purpose of the fictional company a detailed archiving system which ensures the safety of information as well as its availability was created.

Each document created in every department, besides being synchronized with the related database, is digitized and enriched with a special standardized set of metadata enabling the digitally archived documents to be easily classified and searchable. We imagined the database search engine to contain certain elements combining outlines of Simple Knowledge Organization Systems (SKOS) and the semantic web. The search engine would not be based simply on keywords but would be facilitated by the internal links between sets of metadata of each document. This would not only enable easier searching but would be of great importance for regular duties of certain departments. Enabling the system to understand the documents it contains helps prevent loopholes and fraud which is of utmost importance in the field of insurance.

### Conclusion

Investing time and money into utilizing the Web 2.0 tools currently offered is most certainly a sound and prudent investment. The research showed that current situation in Croatia regarding knowledge management solutions based on Web 2.0 tools is still in its developmental phase. The test project proved that the results are not dependable on implementation of the expensive software solutions but are manageable with the cheaper ones such as the open source solutions. Still, crucial factor of success remain the people implementing these solutions and its users.

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# Internal Communication in Libraries

## Are We Organisations 2.0?

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**Abstract:** Are we, university libraries, some Organisations 2.0? That question could be easy if we just take the communication in direction of our patrons. But what if we question the internal communication and specifically the informal and direct communication? To answer to that question, we launch a survey to the directors of university libraries in France about their use of texting, chatting, Facebook and Twitter. Their answer gave us the beginning of a definition of Libraries 2.0 and of leadership against management.

### Background and Purposes

The sub-theme “Organizations 2.0” of BOBCATSSS 2012 offered me a perfect opportunity to question what may be the internal communication at the time of these new communication tools whose watchwords are participation, interaction, sociability. And because internal communication is definitely a matter of management, can we say that today in the library, the roles of directors and leaders are changing with these tools that claim to be equalitarian, transparent, to break boundaries, to spread the untold? For beginning and having the first step for answering that question, we therefore investigated whether there is a use of Web 2.0 tools in internal communication in French university libraries.

Our first issue was to define on which tools to focus our investigation. If one classify quite easily in the Web 2.0 some tools for their unquestionable collaborative social and interactive aspects, then such is the case of social networks, blogs, wikis and microblogging, nonetheless some tools arouse some questions. Thus, should we consider that the chat is a Web 2.0 tool? As William Latzko-Toth says “[a] brief overview of the origins of the chat allows us to observe the concomitant emergence of two distinct modes of articulation of the chat, a rather instrumental, self-centered and focused on efficiency – whose device type is instant messaging – and the other, more user-friendly and oriented toward sociability in a virtual place – on the model of the electronic forum.” (Latzko-Toth, 2010, p74)<sup>2</sup>. The Web 2.0 quality of the chat is not obvious and that tool is quite ambivalent. In addition, the mix of genres within the Web 2.0 with media which are related to a form of written communication (blogs, wikis) and other

<sup>1</sup> Great thanks to Philippe Larochette for the translation and to Benoît Epron for the presentation during the Bobcatss conference.

<sup>2</sup> Translation by Philippe Larochette, Enssib

rather related to an conversational communication (Facebook, Twitter) makes it difficult to classify all the media under the same banner for internal communication.

Our second issue was to define the internal communication we want to study. We decided to focus on direct and informal communication, which would take over an oral communication that is common between two offices in a hallway, at the coffee break or the cigarette break. But today where project management has taken all its importance, we find that “What most characterize the current period and that is often overlooked by management is that the main vector of cooperation is precisely the direct communication at work (not just the organizational framework and managerial action).” (Zarifian 2010, p 137)<sup>3</sup>. The more projects we launch in an institution, the more unclear become the roles of people because of their tasks, the higher is the “risk of fragmenting the social complexity and the organization” (Zarifian 2010, p 138). The informal or direct communication becomes absolutely necessary, yet by necessity replaced by remote communication. As noted, however, there media are playing on a more or less synchronous communication, or on an informal conversational style and are almost finally relays of current and virtual direct communication that is no longer in the corridors.

### Materials, Procedures and Equipment Used

For such reasons, we decided to ask our colleagues about the following four informal media: Facebook and Twitter whose Web 2.0 aspect is unquestionable, the chat whose aspect is ambivalent, and the texting communication whose aspect are obviously not Web 2.0 like. So we launched in November 2011 a survey of university libraries' directors. Its purpose was to see if these tools were used in internal communication to communicate with their management team, in what situations they were, what information to share and with what physical media (personal or professional). The survey was created on Lime Survey, hosted by Enssib, broadcasted via my own blog<sup>4</sup>, my Twitter account<sup>5</sup>, the mailing list of ADBU<sup>6</sup> and finally mails to colleagues working in university libraries.

### Findings

Table 1. Survey Results

	% compared to the total number of responses (72)	% compared to the number of French University Libraries (118)
Incomplete responses	58	35,5
Complete answers	41,6	25,42

66% of academic libraries have responded. This satisfactory result shows a real interest in issues of internal communication. At the time of this writing, the questionnaire was

<sup>3</sup> Translation by Philippe Larochette, Enssib

<sup>4</sup> <http://cricreurspublics.blogspot.com>

<sup>5</sup> @kmitandb : <https://twitter.com/#!/kmitandb>

<sup>6</sup> French Association of the Directors of University Libraries



sent only three weeks ago and no stimulus was made. It is therefore hoped to reach a 75% response rate after a stimulus. The colleagues who have still considered the question of the use of these media in external communication have given most of the incomplete responses. They have generally responded negatively, and this suggests that they would have also answered “no” to the question of the use of these media in internal communication. The 25.42% complete responses provide us with the following results:

37% are texting with their teams (figure 1) to advice on contingency (33.33%), to give appointment (22.22%), to inform on their presence or absence (18.52%), to sort out easy problems (18.52%) and to share updated information (11.11%). Business phones are used less frequently (11.11%) than personal are (14.81%). There is some indiscriminate use of mobile phones and professionals to 11.11% of responses. Finally, this mode of communication is privileged when the person is out of the facility (29.63%), it should be noted, however, an indiscriminate use between the outside and the facility to 7.41% of the responses and use in the facility but out of the office for the same response rate.

No library director or university library director uses Facebook to communicate with his team (figure 2).

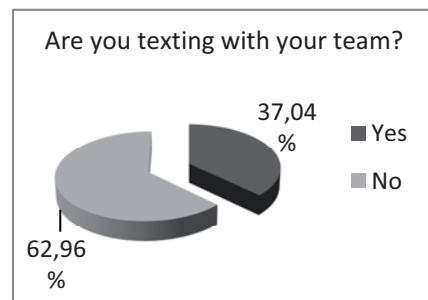


Figure 1: Are you texting with your team? (Survey November 2011)

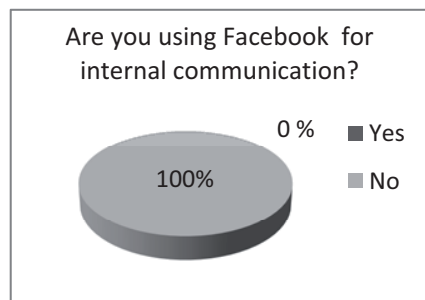


Figure 2: Are you using Facebook with your team? (Survey November 2011).

Only one director of university library uses Twitter to inform his/her team about the unexpected, to sort out easy problems and finally to share updated information (figure 3). However, he/she does not use it to give appointment or to give notice of his/her presence or absence. He/she uses either professional or personal tools for twittering (telephones, computers, tablets). Finally, this medium is used both inside and outside the institution.

Only one director of university library uses the chat to inform his team about the unexpected, to give appointments, to give notice of his/her presence or absence, sort out easy problems (figure 4). However he/she does not use it for updating. He/she uses only this chat when in the facility but outside his/her office and uses only without distinction computers or tablets either professional or personal. However, he/she does not chat via his/her phone.

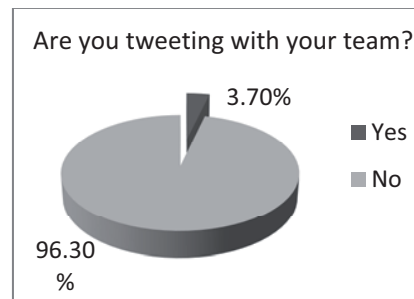


Figure 3: Are you tweeting with your team? (Survey November 2011)

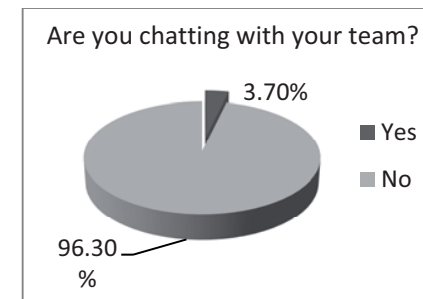


Figure 4: Are you chatting with your team? (Survey November 2011)

### Discussion

Given these initial results, we conclude easily that our university libraries are far from being Organizations 2.0. The importance of using texting shows that the problem is not relying in the use of a nomadic and fast media but in the use of media that can be considered Web 2.0. These media being no longer new and getting started being easy, the know-how to use them is widespread. The reason of their low use is to be looked elsewhere. The rise and fall of some medias can explain a refusal to get involved. On the other hand, for some people, these tools are not that serious and are much more characterizing a trend, rather an adolescent communication. Such a feeling is hardly compatible with the seriousness expected of an internal communication. Finally, these media seems to require availability that the directors do not feel compatible with their responsibilities. The publicity of Medias 2.0 can also be an issue for the involvement in that kind of communication and the question of the “privassional” (private-professionnal) line has to be questioned. But foremost, maybe the main obstacle to these tools is their participative and collaborative aspects. In the study by Pan 2011, on the use of a blog in internal communication, the authors note how the leadership is not to be taken by the one with the official rank of director but by the one who has the skills at hand to deal with the current task. “Since they possessed equal rank and complementary roles, they created a shared leadership environment where each librarian shifted between leader and follower based on the circumstances and required expertizes” (Pan et al. 2011, p. 348). The top-down model of internal communication that emphasizes the constructivist aspect manipulation and control of employees and in which the workplace is not a place of dialogue and exchange, must evolve (Morillon 2007). The 2.0 media could play the role of internal communication and push micro-business communities, towards a model animated with the aim of recreating a corporate culture. “The contemporary thought considers corporate culture is built from the experience, knowledge and ways of thinking developed and shared socially. It consists mainly of micro cultures that are strengthened within groups of employees. These are forms of social relations and informal modes of behavior which are dynamic and have unique characteristics.” (Massiera 2007, p 9)<sup>7</sup>. The Web 2.0 media gave us possibility to be internal community man-

<sup>7</sup> Translation Philippe Larochette, Enssib



agers. But it is true that the management team requires taking decisions. Is there not then a risk of confusion between the direction given by an expert (leadership) and decision chosen by the official direction (management)? Maybe the solution is in a hybrid governance, part of top-down management, part of basis management. Medias 2.0 seem to offer us the opportunity of such a hybridity which the first step to a library 2.0. (CEFRIO 2011).

## Conclusion

Our investigation is far from being over and we must finish processing the information on the felt about these tools, compare this with the use of these tools in external communication and finally launch the second survey of university libraries' management team. The form will be fairly symmetrical as above but modified in some methodological points: first, the number of incomplete responses will be limited with clearer headings, then useful information to know the sample will be request: place, discipline, size of library and of the managed team and finally, some items will be distinguished to be treated more easily. In conclusion, we hope to present next year the continuation of this work and to propose the modified survey to other countries to establish a European map of our libraries as organizations 2.0 or not.

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# Helping School Librarians in Developing Countries to Create Centres of Competence in Primary and Secondary Schools

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**Abstract:** This paper describes a co-operative effort between the ENSIL Foundation and the Royal Tropical Institute, KIT Information and Library Services to provide help for school librarians in developing countries, in an attempt to create centres of competence in primary and secondary schools. Reference will be made to recent educational statistics on the global distribution of adult and youth literacy, the increase in (primary) school attendance in different developing countries especially in Africa and to school libraries and the increasing number (about 30% worldwide) which now have Internet access. The IFLA Manifesto for Digital Libraries (2005), which speaks about the equity of access to information and library resources, will also be mentioned. Enthusiastic teachers and a number of charitable organizations are attempting to set up school libraries in schools in developing countries, in an attempt to improve literacy and educational quality in general, and to provide access to information and to library resources. Many of these libraries have few facilities or funding. ENSIL and KIT are attempting promote free open access software and provide these school libraries with simple (online) training opportunities for library staff (such as simple cataloguing tools), online communities focusing on knowledge sharing and a platform to enable them to publicize the need for "A Library in Every School" and help with the development of multicultural collections, including access to online (full-text) resources.

## Introduction

The school library should be the beating heart of a school, supporting learning and teaching for the entire school community (Boelens, 2010). A school library is a function, not a place. It is not a book collection. It is not an e-library. It is a service, offering advice, professional development and knowledge of appropriate learning and teaching

materials, digital and non-digital. The most important resource services are the human resources. Teacher librarians contribute to quality teaching and authentic learning. (Phillips, 2011). They are qualified to enable all members of the school community to become critical thinkers, independent learners, enthusiastic readers and global citizens able to participate in a democratic, culturally diverse and just society. This is true for both school and university libraries.

## Background

For the first time in 2007, and again in 2010, the IFLA/FAIFE World Report approached National Libraries, National Library Associations and other library organisations throughout the world and asked them to answer questions about school libraries in their own country. One-hundred-and-twenty-nine countries provided statistics on school libraries; an additional six countries reported that they have school libraries but could not supply reliable statistics (Bothma, ed. 2011). More than 908,000 school libraries, serving more than 540 million children were reported. Also, the 2010 report confirmed that 30% of these school libraries have Internet access and that this percentage is increasing rapidly (Bothma, ed. 2011). A recent international study in 27 countries also provides evidence that access to books is the key to academic achievement (Evans et al., 2010). Many children who use school libraries in developing countries do not have any books at home; hence they rely heavily on the services of the school library.

Research in 61 countries (mostly in Europe) from 1997 – 2008, both in advanced as well as less advanced schools, confirms that the school library creates a bridge between two different disciplines – Education and LIS (Library and Information Science), thus making the library part of an educational and operational infrastructure throughout the school – a centre of competence, which results in an improvement in educational achievement and in educational quality. This research provides the objectives of the school library at international level and also confirms that when teacher librarians and teachers co-operate with each other, students improve their literacy and academic achievement, their problem-solving, information literacy and communication technology skills (Boelens, 2010, p. 245). It provides a model for the co-operation which takes place within this centre of competence (p. 246) in order to promote effective learning in the 21st century. Recent statistics show that there is an increase in (primary) school attendance in different developing countries, especially throughout the African continent (World Bank, 2011 and UNICEF, Childinfo organisation, 2010). The enrolment of students in African universities has also almost doubled in just one decade. A focus on school libraries is therefore crucial, in order to contribute to the quality of the education which these students are receiving.

## Equal Access

The IFLA Manifesto for Digital Libraries (IFLA 2010) reminds us that equal access to the cultural and scientific heritage of mankind is every person's right, and that a contemporary library service, giving direct access to information resources, both digital and non-digital, provides a link between information technology, education and culture. The region of South and West Asia is home to more than one-half of the global illiterate population (51.8%). In addition, 21.4% of all illiterate adults live in sub-Saharan

Africa, 12.8% in East Asia and the Pacific, 7.6% in the Arab States and 4.6% in Latin America and the Caribbean. Less than 2% of the global illiterate population lives in North America and Western Europe, Central and Eastern Europe, and Central Asia combined. (UNESCO UIS, 2011) As stated above, access to books enhances academic achievements, hence relating literacy to the access to books; inequality in access is reflected in these different literacy rates. Enthusiastic educators, teachers and a number of charitable organisations are attempting to set up school libraries in schools in developing countries – centres of competence which will improve literacy and educational quality in general, and will provide access to information and to library resources. They aim for the creation of “A Library in Every School” (ALIES).

## Steps to be Taken

School libraries differ greatly, from the state-of-the art school media centres in many schools in Australia, some parts of the USA and Canada, to the very simple school libraries in some developing countries. Once the school (especially those in less advantaged regions) decides to establish or upgrade the library, a set of tools is needed for management (Dam et al., 2010, Dam et al., 2011). The ENSIL Foundation and the Royal Tropical Institute, KIT Information & Library Services in Amsterdam would like to offer (school) libraries these tools. These tools should be made available in four areas:

- *Management:* The first thing to do is to design an appropriate profile for the librarian. This person should have relevant background and experience – a background in or affinity with teaching and or training should be a must, since this person must be able to communicate with the teaching staff at an equal level. It is even better if the librarian is part of the teaching staff who receives the status (and salary) which he deserves. The mind-set of people regarding the school librarian as just a keeper of books needs to be changed. Also, the library collection and services should be linked to the curriculum for each grade. In Africa a lot of universities are trying out new student-centred and community-based curricula making the library the main venue for learning and research.
- *Services:* An inventory of possible and/or relevant services of the school library should be made, taking into account the financial conditions and socio-cultural settings. Depending on the budget and the level of development of the library, a set of feasible services should be designed. Mobil phone technology, social media and access to scientific databases may not be an issue in primary school libraries, but the purchase of hardware and software will be important. Also, especially in secondary schools, the acquisition of and/or the choice between online and hard copy resources needs to be discussed.
- *Funding:* Proposal writing and fund raising activities to extend facilities become an intrinsic part of the librarian's job. Mediating with publishers of online resources and databases to get free access is an expertise of KIT, but may become a general skill of a librarian. Fund raising through sponsoring may become an additional activity. Obviously, in order to economize, focus should be placed on free and open source software
- *Training:* Simple (online) training opportunities for the staff who run the libraries should be made available: e.g. simple cataloguing tools with simple support; how

to build a repository; how to set up a digital library; an online catalogue or website; how to search databases / the Internet; and training in research methodology

- *Communication*: Library staff should receive training in the use of online communication tools, so that different schools can help each other; also training in the usage of online communities / forums / social media focusing on knowledge sharing and providing a platform to publicize the need for “A Library in Every School” is very important. All these facilities should be made available to the librarian or library user. Once the librarian is experienced and skilled in these fields, he will be able to train others.
- *Research*: at local, national and international level is being discussed by ENSIL, the KIT and the International Association of School Librarianship (IASL) Research SIG, in order to establish the present condition of libraries, especially those in less advantaged regions. Questionnaires are being prepared so that more can be learned about the amount of support which is needed and how this can be provided in the foreseeable future.

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## Organization 2.0 Efficiency in Tagging

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**Abstract:** Due to inflation of data and information our idea in this paper is to research the efficiency in tagging and folksonomy. The flexibility of tagging allows users to classify their collections of items in the ways that they find useful, but the personalized variety of terms can present challenges when searching and browsing. The research is going to be conducted by giving freshman students, with no prior knowledge of tagging, article of chosen subject in Delicious. Based only on title, subtitle and abstract of the article every student is supposed to assign tags to that article and do the same after reading the whole article. The same procedure is going to be repeated with postgraduate students from the Department of Information Sciences. The aim of our research is to analyze and compare user tags and to point out the connection between tagging by more advanced user and tagging by average user. We believe that the research will surface an enormous difference in the number of tags and in relevance which could be improved by implementing a tag suggestion tool. The most important goals of the paper are to determine whether tagging can solve the problem of organizing knowledge in contemporary environments and organizations, suggest ways in which this can be achieved and to stress the importance of Organization 2.0 by tagging in Web 2.0 environment.

## Introduction

The age of Web 3.0 is coming, and it's making information revolution just as big as Web 2.0 almost a decade ago. Web 2.0 websites allowed users to do more than just retrieve information rather than creating information. User became a center of information channel. The Web 2.0 offered all users the same freedom to contribute as a platform for participation, with a focus on communities, sharing content or user-

generated content, and interchange of data (Dasgupta & Dasgupta, 2009). Examples of Web 2.0 use include Delicious, Flickr, YouTube, blogs, Wikipedia, social tagging folksonomy and Google (O'Reilly, 2005).

Ever since Web 2.0 came in our lives critics were inevitable. Due to opponents, Web 2.0 has created a cult of digital narcissism and amateurism, which undermines the notion of expertise by allowing anybody, anywhere to share and place undue value upon their own opinions about any subject and post any kind of content, regardless of their particular talents, knowledge, credentials, biases or possible hidden agendas.

In online computer systems terminology, a tag is a non-hierarchical keyword or term assigned to a piece of information, a kind of metadata that helps describe an item and allows it to be found again by browsing or searching. Tags are generally chosen informally and personally by the item's creator or by its viewer, depending on the system. A folksonomy is a system of classification derived from the practice and method of collaborative creating and managing tags to annotate and categorize content; this practice is also known as collaborative tagging, social classification, social indexing, and social tagging.

Due to inflation of data and information it is crucial to "bring order in information chaos". Our idea in this paper is to research the efficiency of tagging and folksonomy. The flexibility of tagging allows users to classify their collections of items in the ways that they find useful, but the personalized variety of terms can present challenges when searching and browsing. Positive and negative aspects of tagging in organizing information have been analyzed by many authors (Mathes, 2004; Quintarelli, 2005; Fichter, 2006; Munk & Mork, 2007; Guy & Tonkin, 2006; Golder & Huberman, 2006). When users can freely choose tags (creating a folksonomy, as opposed to selecting terms from a controlled vocabulary (Tonkin et al, 2008), the resulting metadata can include homonyms and synonyms which may lead to inappropriate connections between items and inefficient searches for information about a subject. Tagging systems open to the public are also open to tag spam, in which people apply an excessive number of tags or unrelated tags to an item (such as a YouTube video) in order to attract viewers/readers. Furthermore, many tagging systems allow one-word tags to be indexed, with leads to a confusing variety of compounds. Common critical observations refer to the loss of the context of indexing, high percentages of misspelling, mix-up of languages etc. The strengths of folksonomies as a new model of information organization and a potential solution to the problem of organizing knowledge in contemporary environments and organizations can only be determined through research and studies. The present study aims to contribute to body of research findings in this domain.

## Method

The research was conducted on two sample groups in total of 112 people. Fifty eight of them were freshmen students of information sciences i.e. future professionals, and fifty four of them were students of second year of masters' programme, also at the Department of Information Sciences. They were tasked to read an article and using Delicious to assign tags based on the content read (abstract) and based on reading the entire article. The selected article was "Descriptor and Folksonomy Concurrence in Educational Related Scholarly Research" by Robert Bruce.

## Results

After reading only the abstract, freshmen students tagged 43 different words in opposition of masters' students who tagged just 30. Average novice user assigned 4.6 tags while expert users assigned 4.3 tags. When it comes to most frequently used tags, the results were similar. After reading the whole article, and giving tags afterwards, difference was much bigger. More advanced users had in total 309 tags or 5.7 tags per person. On the other hand, novice users assigned in total 494 tags or 8.5 tags per user. 82 different tags were assigned by freshmen students. It is important to stress out that not a single tag was assigned in mother tongue (Croatian), they were all assigned in English probably because the article was also written in English and students weren't instructed in any way to do so. Users obviously just derived words from the text, without providing any added value. The most usually assigned tags were the same by the novices and experts. The most frequently used tag ("folksonomy") was assigned by over 90 percent of all users. This result acknowledges the existence of a Power Law curve in tag distributions, according to which certain tags isolate themselves from others based on their frequency. Such tags describe the content adequately but generally and are therefore not suitable for accomplishing specificity in retrieval.

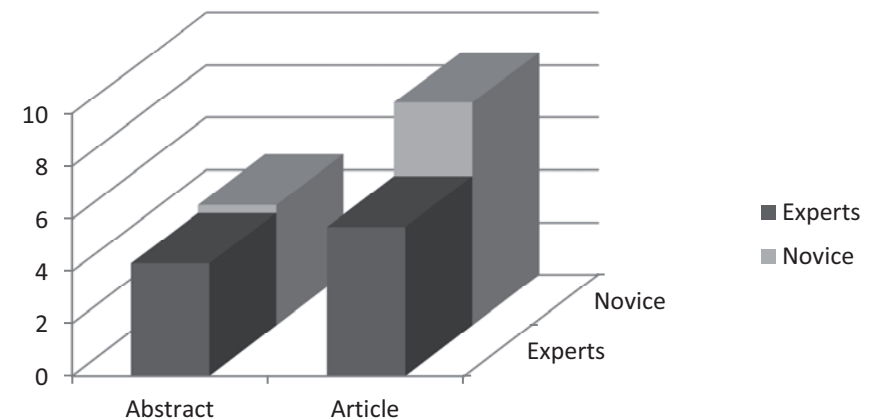


Figure 1. Average number of tags given after reading abstract and after reading article

## Conclusion

The conducted research has shown that the professionals placed a smaller number of tags where those were required, compared to those users who are yet to become professionals. However, regardless the smaller number of tags assigned, those tags were, generally, of higher relevance to the subject, especially after reading the article. Furthermore, the results demonstrate that, when pertaining to tagging, there is a thin line between professionals and frequent users. Difference in usage and frequency is not significant. The reason for that could be in a fact that Web 2.0 has become new web standard. Users are allowed to create their own, personalized environment based on



their own preferences, which means that good organization skills are required by default. Better organization means more time and nowadays “time is money”. All that summoned together brings us to conclusion that average users combined together in one “collective mind” can be even more helpful and relevant than just one secluded user. In the future, maybe folksonomy can be the only way of organizing knowledge, but for now information experts are those who can give the best, the most relevant information to average user.

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## Cultural Exchange through Libraries Media, Spaces and Strategy of the Goethe-Institute's Global Library Network

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**Abstract:** The Goethe-Institut promotes various issues of foreign cultural and educational policy. A key success factor in achieving its goals is the institute's global network of 150 branches of which 95 operate a library. But both the global presence and the specific objectives create challenges for the development of library services, media collections and the creation of library spaces. How can libraries in such a diverse environment fulfill institutional and professional standards while best serving local library communities? The paper presents the current state of development of the Goethe-Institut's library network with special regard to its online information services and the special requirements of a global operational basis. Recent projects and initiatives are presented covering social media activities through Facebook and Twitter, e-lending through the service “Onleihe” and the web portal [goethe.de/libraries](http://goethe.de/libraries).

## Introduction

The global presence of its libraries is what makes the Goethe-Institut's library and information section unique among cultural institutions both in Germany and internationally. Introducing new ways of delivering information, integrating library users through social media and establishing e-media collections are at the heart of library development.

The Goethe-Institut is the Federal Republic of Germany's cultural institution. Its strategic goals are to promote the study of Germany abroad and to encourage international cultural exchange. Fostering knowledge about Germany by providing information on its culture, society and politics is the key purpose of Goethe-Institut's activities in the field of library and information: “we provide access to knowledge and information about Germany and present our country's cultural phenomena, positions and experience throughout the world. Conversely, we take advantage of the opportunities offered by intercultural dialogue to bring important developments from other regions of the world to Germany.” (Goethe-Institut, 2011d)

## Strategic Aims of Library and Information Activities

The Goethe-Institut currently has 95 libraries in 66 countries forming the largest international network of libraries offered by a cultural institution. More than 850,000 media

are accessible in the Goethe libraries. About 1,000 information requests are directed to the libraries daily.

The development of future library scenarios of the Goethe-Institut focuses on two key issues: the creation and development of digital content and media while simultaneously transforming the physical library space against the backdrop of ever-faster changing user requirements.

The profile of the Goethe libraries is based on the guiding principles of the library as a physical space to learn and meet. As the largest publicly accessible area of the institutes they offer a non-commercial atmosphere forming a safe “third place”. Through accurate research and information work and the fostering of information literacy users receive first-hand support and guidance in the global wealth of information about Germany. The libraries represent basic positions in the global information society: free access to information, open access, information literacy for all.

The research services offered in the libraries are an essential tool of information dissemination providing the audiences with an added value service. The intercultural and language skills of the library staff form a decisive contribution to clarify the information needs and to define the background and purpose of the questions generated by its users.

The range of content of the Goethe-Institut is manifested in its libraries. They are places where information is freely available and can be tapped self-determined. The Goethe libraries are learning places, especially for language course participants and students. The newly designed library of the Goethe-Institut New Delhi gives an example of this manifestation. (Goethe-Institut New Delhi, 2011)

### Role of Physical Spaces

Libraries are becoming a fundamental component of public and semi-public spaces. In particular, Public libraries function more as places of social integration, education, learning and communication for all social groups. They are an integral part of urban development through strong networks with local educational and cultural institutions.

„The library, whatever its size, will also remain an institution located in a physical space, a meeting place and a centre for cultural activities. As a true *cultural centre and clearing house for knowledge*, the library could represent a kind of portal for new knowledge, often serving as a link and junction point between the local and the global“.  
(Unesco, 2005, p. 67)

As for the libraries of the Goethe-Institut, these developments are both opportunity and challenge, e.g. through the growing importance of digital media. The global network however demands a closer look on specific regional aspects. While the trend towards digital-only information is paramount in Western Europe, North America and parts of Asia particularly in the field of scientific information, the provision of information in South America, Africa and parts of South and Southeast Asia is characterized by different conditions. The library strategy of the Goethe-Institut takes into account those differences by forming priorities especially for the design of libraries.

### Media Selection

The media and information available in each library are a key element of presenting a comprehensive image of Germany. Digital media such as electronic books, magazines and newspapers, databases and online information services are offered as well as printed media. The availability and relevance of publications determines the selection of media formats. In 2011, the Goethe Institute launched “Onleihe – digital media for libraries” as an international project involving 20 Goethe libraries in North America, Europa and East Asia. Through this project, digital media become an integral part of the libraries’ media collections. Registered library users can digitally borrow and use a stock of electronic books, magazines and newspapers both on PC and mobile devices. The project aims to significantly raise the share of digital media in the libraries over the next three years. Onleihe is a unique product of DiviBib GmbH in Wiesbaden specifically targeting Public libraries (DiviBib GmbH, 2011).

### Web Projects

A mix of physical and virtual projects will determine the future of information and library work of the Goethe-Institut. Current online offerings are already characterized by a variety of formats and technical content, e.g. literature portals (Goethe-Institut, 2011b) and information portals (Goethe-Institut, 2011a) as well as virtual tours (Goethe-Institut New York, 2011), blogs (Goethe-Institut London, 2011) and current information on Facebook (Goethe-Institut, 2011c) and Twitter.

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# Transdisciplinary Communication and Collaboration A Bibliometric Analysis of the Field of Cultural Landscape Studies<sup>1</sup>

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**Abstract:** The rapid development of the information society during the last decades is reflected in the ways we perceive, organize and produce knowledge and it therefore seems important to improve our understanding of transdisciplinary knowledge production. My emphasis is on the dynamics of transdisciplinary knowledge production within the field of cultural landscape studies as well as on how these dynamics correspond to the theory of knowledge production in Mode-2 as proposed by Gibbons et al. in *The new production of knowledge* (1994) and further developed by Nowotny et al. in *Re-thinking Science* (2001). The field of cultural landscape studies is a transdisciplinary field; it involves several different stakeholders – natural, social and cultural scientists, politicians and bureaucrats as well as the public. It also comprises several different, yet tangential concepts. Through the concepts heterogeneous quality, transactions in the field highlight the challenges of transdisciplinarity. Different forms of bibliometric analysis is carried out to explore the structure of the field; focus is on co-word analysis of articles related to the principal field of cultural landscape studies as well as of articles related to the different concepts. It is a paradox that the easy access to information enables and enhances the chances of fruitful transdisciplinary dialogue, yet each group of stakeholders may understand the information in different ways. This paper raises the question as to whether transdisciplinarity requires a common language and a common framework or if its value lies in a creative friction between languages and frameworks, and, if this is the case, how such a transdisciplinarity is best enabled?

## Introduction

The rapid development of the information society during the last decades challenges traditional ways of communicating and collaborating within and between disciplines as well as between science and society at large. Easy access to information enables and enhances the chances of fruitful transdisciplinary dialogue yet it also provides fertile ground for misunderstanding. The aim of this paper is, with the help of bibliometrical analysis, to explore the conceptual structures of the transdisciplinary field of cultural landscape studies and to discuss the findings in the light of the theory of knowledge production in Mode-2. In their editorial to the special issue of the *International Journal of Cultural Heritage on Nature as Heritage*, Thymio Papayannis and Peter Howard (2007) emphasize the need for a common language when it comes to the conservation of the European natural heritage, while at the same time acknowledging the need for a conservation of as many languages as possible, in the cultural sense, but presumably also within the framework of the discourse. It seems, however imperative to be able to communicate between disciplines and institutions; this presupposes a broad understand-

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<sup>1</sup> This paper is based on the author's unpublished master's thesis in Museology (Breian, 2011).

ing of the concept of cultural landscape, but also as Papayannis and Howard (2007) emphasize of concepts such as “natural heritage” and “cultural heritage”. It is important however to remember that concepts are value laden and to acknowledge the extent to which they are not neutral, but carries meaning beyond the strictly factual. A bibliometrical analysis can only go some of way towards achieving this.

The conceptual structures of the field of cultural landscape studies are characterized by the participation of several different stakeholders – natural, social and cultural scientists, politicians and bureaucrats as well as the public. This places the discourse well within a new scientific paradigm; a paradigm with a focus on complexity as opposed to reductionism, on inter- and transdisciplinarity as opposed to mono- and multidisciplinary. The theory of knowledge production in Mode-2 (Gibbons et al., 1994; Nowotny et al., 2001) is one attempt to describe the complexities of new forms of (transdisciplinary) knowledge production. The theory of Mode-2 has several characteristic features, but I will focus on the aspect of boundary crossing, on the presumed prerequisite of unified framework as well as on the introduction of the agora as an expression of the co-evolution of science and society.

## Method

The study was carried out using the computer software BibExcel, a tool-box for bibliometric analysis (Persson, 2006). The files were converted for further analyses and visualization with Pajek (de Nooy et al., 2005). The study employed a co-word analysis (Courtial, 1994) in order to elucidate the central words within the field of cultural landscape studies<sup>2</sup> as well as the relations between these words. A total of 10 co-word maps were created. The records upon which the analysis is based were retrieved from the ISI Web of Knowledge database. A total of 2970 articles were analyzed. The search words were the five main concepts; i.e. cultural landscape, natural heritage, cultural heritage, environmental heritage and biological cultural heritage. The searches were carried out on the basis of an analysis done by the database. The journals included in the search were those journals that had the most frequent occurrences of any of the given search terms. The co-word analysis was carried out on the most frequent words from the article's abstracts.

## Findings

The results of the co-word analyses were altogether 10 maps showing the conceptual structures of the field of cultural landscape studies. The maps confirmed the aspect of boundary crossing as central to transdisciplinary fields of knowledge. The maps had in common relatively few links between the different, central words; highlighting the heterogeneous character of the conceptual structures and indicating the lack of a unified framework. The map of the co-word analysis of articles related to “cultural landscape” can be seen as an example. The map includes words belonging to different groups of stakeholders, these are seen as part of the same structure, yet there are few distinct

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<sup>2</sup> This included, within the framework of the study, the concept of cultural landscape as well as the tangential concepts of cultural heritage, natural heritage, environmental heritage and biological cultural heritage.





# Enterprise 2.0, Accountability and the Necessity for Digital Archiving

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**Abstract:** In the last decade, organizations have re-engineered their business processes and started using standard software solutions. Integration of structured data in relational databases has improved documentation of business transactions and increased data quality. But almost 90% of the information cannot be integrated in relational data bases. This amount of 'unstructured' information is exploding within the Enterprise 2.0. The use of social media tools to enhance collaboration creates corporate blogs, wikis, forums, and other types of unstructured information. Structured and unstructured information are records, meant and used as evidence for policies, decisions, products, actions and transactions. Most stakeholders are making increasing demands for the trustworthiness of records for accountability reasons. In this age of evolving social media use, organizational chains, inter-organizational data warehouses and cloud computing, it is crucial for the Enterprise 2.0. that its policies, decisions, products, actions and transactions can be reliably reconstructed in context. Digital Archiving is a necessity for the Enterprise 2.0.: the reconstruction of the past depends on records and their meta data. Blogs, wikis, forums, etc., used for collaboration within the business processes of the organization, need to be documented for reconstruction in the future. Digital Archiving is a combination of three mechanisms: enterprise records management, organizational memory and records auditing. These mechanisms ensure that a digitized organization as the Enterprise 2.0. has a documented understanding of its past. In that way, it improves organizational accountability.

## Introduction

In the 1990s organizations re-engineered their business processes and exchanged their standalone applications for more standard, integrated solutions. The integration of structured data in relational databases improved the documentation of policies, decisions, products, actions and transactions. It, also, increased the quality of structured data. But almost 90% of the information that organizations manage is unstructured, and cannot easily be integrated into traditional databases. This amount of unstructured information is not likely to diminish within the Enterprise 2.0., where Web 2.0. technologies streamline business processes for enhancing collaboration, create corporate blogs, wikis, etc. (McAfee, 2006). Social media tools generate large amounts of unstructured information. The storage, dissemination and processing of this information require complex information and communication technology (ICT) systems. In this changing environment, accountability becomes a hot item.

## Accountability and the Reconstruction of the Past

Accountability is the acknowledgement of responsibility for policies, decisions, products, actions and transactions, and the obligation to report and be answerable for result-

ing consequences. In case of an organization (as it is with the Enterprise 2.0), we talk about 'organizational accountability'. A designated forum (like shareholders, courts, etc.) will ask an organization to provide insight in its effectiveness and the lawfulness or unlawfulness of its actions and passes judgement on its conduct (Bovens, 2006). Barata and Cain (2001) prove that accountability without trusted information as evidence of the past is impossible. The Enterprise 2.0 needs an accountability function to safeguard that evidence. ICT systems have to be implemented to structure, organize, process and retain the information that is used within organizational processes (records), as well as all the information that is used to document how actions and transactions have been performed (meta data). Ensuring information quality is a daunting task, because information often is inaccessible, unavailable, incomplete, inconsistent, irrelevant, untimely, and/or not understandable. Its provenance and contextual environment are unknown (Epler, 2006). In addition, ICT creates technological obsolescence, because records and meta data have a longer lifespan than the ICT configurations in which they are created or managed (Boudrez, Dekeyser, & Dumortier 2005).

## Research Question

Literature on organization, information and archival science suggests that there are mechanisms that aim at a reconstruction of the past and that try to realize trusted records (Meijer, 2000; Barata & Cain, 2001; Toebak, 2010). Those, separately mentioned, mechanisms are integrated in Digital Archiving (DA): enterprise records management (ERM), organizational memory (OM) and records auditing (RA). In this paper, I analyze how DA contributes to the realization of trusted records and to the reconstruction of the past, to find out whether my hypothesis that DA improves organizational accountability, is correct.

## Digital Archiving

### *Enterprise Records Management*

Records are sets of related data with set boundaries and with standardized form and structure, *meant* to be evidence, and (thus) immutable. They can be text, (moving) images, sound, database records, or combinations thereof. They are critical for business process performance (Toebak, 2010). ERM organizes the 'records value chain', the chain that ensures that records are used in business processes to improve performance. This chain includes all records processes, from creation or receipt to capture, storage, processing, distribution, structuring, publication, use, appraisal, selection, disposal, retention, security, and preservation. ERM focuses on records processes and their influence on business processes, the reconstruction of the organizational past, and the quality requirements of records (Bussel & Ector, 2009). Records only have meaning within a context (Duranti, 1997). Context refers to (the knowledge of) the juridical, organizational, procedural and informational environment of the policies, decisions, products, actions or transactions for which the records were generated. The context of records captures and documents a social situation in meta data to allow a reconstruction of the past.

In this age of organizational chains, inter-organizational data warehouses, cloud computing, and computer mediated exchange, it is crucial that the organizational past can be reliably reconstructed in context. In information science, much work has been done

on data quality. This work is focused on structured information. The focus in ERM is exclusively on the quality requirements of records, their meta data and the 'records value chain'. For *records and their meta data*, four quality requirements are recognized: *integrity, authenticity, controllability* and *historicity*. Those requirements realize the fixity of records and enable users to trust them and to use them as evidence. The '*records value chain*' ensures that records are correct and complete in spite of all necessary handling. Its quality requirements are identical to those for business processes: *reliable time of delivery, effectiveness, efficiency, product quality, alignment of needs, product management, and compliance* (Bussel & Ector, 2009).

In ERM, it is emphasized that the failure to realize those quality requirements is a threat to the possibilities to reliably reconstruct the past. Because of that, the organizational accountability function can not be successful. In managing the 'records value chain', ERM ensures that records can be trusted and are meeting the quality requirements necessary for accountability: integrity, authenticity, controllability and historicity. That way, records can be used as evidence.

### Organizational Memory

Organizations have frames of references, shared beliefs, values, routines, and artefacts that reflect the way they have handled their past experiences. OM is the '*stored information from an organization's history that can be brought to bear on present decisions*' (Walsh & Ungson, 1991, p. 61). It is a concept that defines storage, representation and sharing of organizational knowledge, culture, power and practices. Walsh and Ungson (1991) describe the OM as an infrastructure with five 'retention bins', which embody prior learning: people, culture, processes, structure, and workplace. Artefacts, like machines, and ICT systems, can also be recognized as such (Moorman & Miner, 1997). These 'bins' have different limitations and opportunities for storing and retaining memory, and differ in speed, reliability, susceptibility to degeneration and availability. They are influencing the possibilities for reconstructing the past.

OM research stresses the importance of a reliable and durable ICT infrastructure, first, to enable the continuous storage and manipulation of knowledge of 'good' quality and, secondly, to stimulate 'organizational learning'. It is a collaborative environment where people can query structured and unstructured information in context to retrieve and preserve 'organizational knowledge'. It is clear that records and their meta data are recorded, stored, secured and maintained within the ICT infrastructure of the OM. This infrastructure needs to safeguard the quality requirements of information over time, but its features are fragile and easily influenced. There are security and durability challenges (Bearman, 2006), which have to be overcome to realize access, retrieval and preservation over time and to allow reconstruction of the past.

In OM-literature, durable, continuous and reliable infrastructures are almost considered to be self-evident, which is incorrect. 'Memories' are used to reconstruct past policies, decisions, products, actions and transactions. Although accountability is not mentioned as an aim of OM, it can be the result of using knowledge to reconstruct past happenings. In general, OM provides an ICT infrastructure to (indefinitely) store information and to keep it accessible.

### Records Auditing

RA is a specialized part of internal (or operational) auditing. It helps accomplish organizational objectives by bringing a systematic approach to evaluate and improve the effectiveness and efficiency of business processes (Porter, 2009). It is a process of planned and logical steps to assess [1] the management and the quality requirements of records and 'records value chain', [2] the functioning of ERM, and [3] the ICT infrastructure that realizes the OM. RA assesses if the records in the OM are accessible, understandable and documented, for only than fact finding and reconstruction of past happenings are possible. It checks for deviations in records, their meta data and the 'records value chain' that result from abnormalities in the execution of business processes and / or the OM's ICT infrastructure (Bussel, 2011).

In RA ERM and OM are audited to assess the possibility to reliably reconstruct past organizational policies, decisions, products, actions and transactions and to offer consultations on adaptations and alterations for improving ERM and OM. RA is a mechanism to ascertain organizations that the available means for reconstructions are in order and ready to be used.

### Conclusion

In this paper, I analyzed the contribution of DA to the realization of trusted records and to the reconstruction of the past within the Enterprise 2.0. It is my conclusion that its mechanisms [1] safeguard the 'records value chain', [2] ensure that records and their meta data meet the designated quality requirements, [3] realize a reliable use of records in business processes as source of trusted information, [4] provide an ICT infrastructure to (indefinitely) store records and keep them accessible, [5] audit periodically the possibility to reliably reconstruct past policies, decisions, products, actions and transactions. The mechanisms ERM and OM have a direct contribution to the realization of trusted information. RA's contribution is indirect. DA assists organizations in reconstructing the past. It can be used for improving accountability. Combining the process-oriented emphasis of ERM with the infrastructure-oriented emphasis of OM will have positive effects on maintaining trusted records and on reconstructing the past over time. RA will ensure that ERM and OM keep doing what they have to do: creating and maintaining trusted records, against all odds. Digital Archiving, therefore, is an absolute necessity for the Enterprise 2.0. in realizing organizational accountability.

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## Digitization Lifecycle (DLC) A Generic Online Tool for the Presentation, Enrichment and Annotation of Digitized Sources

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**Abstract:** Virtual Research Environments (VREs) that deal with digital collections should provide online editing tools and annotation tools. These tools take more and more a centre stage in information research, especially in the digital humanities. The scientific community needs tools that facilitate collaborative work on rare texts. Possible functionalities of e-research environments in the humanities are e.g. to create author indices, glossaries, to link to relevant text areas or to link one relevant source to another. With regard to these requirements the Digitization Lifecycle Project was launched by the Max-Planck-Society.

During the first part of the two years lasting project schedule Digitization Lifecycle's aim is to establish a generic basic infrastructure to put and manage digitized content on the web. That means especially uploading images (texts/pictures), bibliographic metadata and TEI-XML transcriptions. After that, the table of contents (TOC) can be extracted either from the TEI or alternatively the TOC can be generated online via manual input in case that TEI-files might not be available.

In January 2012 half of the project will be done. My conference contribution will explain the project's progress. A prototype of the basic infrastructure of Digitization Lifecycle will (probably) be presented to the audience, who is welcome to discuss issues and problems.

Further, I will give an outlook on the aims of the second part of the project schedule. The project team will create a system for online-annotations: different user groups will be able to annotate on text areas and to link to other sources (e.g. to other websites or bibliographic authority files). Thus, a scientific disclosure of different text/image corpora will become possible.

### Background - Aim of DLC

The aim of Digitization Lifecycle is to provide a tool for digitization projects that fits to a broad range of heterogeneous collections from different institutions. The DLC project is realised by four Max-Planck Institutes of the humanities section of the Max-Planck-Society, namely Max Planck Institute for European Legal History (lead partner), Max Planck Institute for Human Development, the Kunsthistorisches Institut in Florence and the Max Planck Institute for Art History/Bibliotheca Hertziana. The four institutes work together with the Max Planck Digital Library (Max Planck Digital Research Unit) that carries out the central part of "creating digital and network-based research environments" (MPDL 2011).

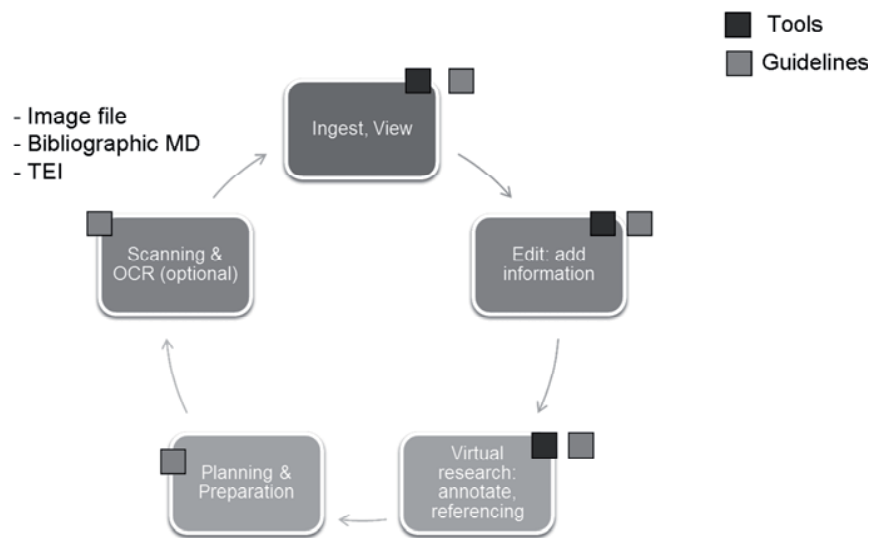
On the one hand, DLC supports digitization endeavours by providing an application for editing, publishing, disseminating and enriching multiple digitized materials (text and

image-oriented resources). This application is integrated in the eSciDoc eResearch infrastructure (Razum, 2010) which is the underlying infrastructure of many digital research projects of the Max Planck Society (MPG) e.g. PubMan "the eSciDoc solution for publication management" (MPDL, 2010). On the other hand, the project team gains general know-how and expertise for all aspects concerning the management of digitization projects. This expertise will be published as guidelines and will be available online at the end of the project. Two further institutes (Max Planck Institute for Mathematics in the Sciences, Max Planck Institute for Medical Research) support the project as affiliate partner. Each step during the development of the application as well as during the implementation of tools is critically documented. All issues are converted into guidelines for reuse.

DLC is developed beside commercial products to enable more institutes to use it as open source application with generic features for multiple digitization purposes. Some features of DLC that fit with general requirements of digital libraries or Virtual Research Environments (VREs) are outlined below.

### DLC-environment

Following scheme shows the tools within the workflow from digitization via ingest of images etc. via editing of the TOC through to scientific annotating.



Kulas (2011)

### Spotlight on Ingest and Ingest formats

The ingest of data follows two very different user scenarios: In the first scenario, an individual (e.g. a scientist) uploads images (jpeg, png or tiff) and adds some bibliographical metadata manually or by choosing an MAB file (i.e. maschinenlesbares Austauschformat für Bibliotheken). Additionally, the user chooses a TEI-XML-document based on the structure of the scanned items (e.g. the images) from his desktop. The TEI

is then linked to the number of images and the fulltext can be displayed opposite of the image. The TOC is also extracted from the TEI-XML-document. This upload method is only suitable for images of small size (png or jpeg), because the normal Internet connection is too slow to handle large amounts of tiff files.

Scenario 2: A library wants to put a digital collection online. Therefore, a batch ingest triggered by the institute/library via ftp connection is implemented. By choosing image directories, MAB file-folders (containing more than one MAB record) and TEI-XML, whole collections could be compiled in DLC. The result is a digital collection which comprises of bibliographical metadata including the relations between volumes, monographs and multivolumes, fully generated TOC rendered by TEI-XML as well as paged fulltext (including the markup of several TEI-Elements) and, of course, the scans. If there are no TEI-XML documents available the TOC could be edited online afterwards.

When the ingest is triggered a METS/MODS file for one item (e.g. a book) is created. The MAB-Data are transformed into MODS, the TEI Data pagebreaks are validated to the assigned scans, the TEI Document is transformed into paged TEI, the METS structure is deduced from the TEI. PIDs for the book and the pages are generated. Finally, all of this is presented within a viewing environment that is similar to the environment of contemporary digital libraries.

### Searching

It is planned to work with three search entry points. A DLC entry point will enable the search across all collections of the DLC institutes. Another entry point "institute" will display all accessible collections of that institute. Finally, an entry point is provided for searching in one collection. Search is realized in the following categories: bibliographical metadata (author/editor, year, place, corporate body, title(-string)), structural metadata (i.e. TOC-Information), fulltext and finally in the data type codicological metadata. Three kinds of search modes are available: a quick search through all collections, an advanced cross search where various search parameters (datatypes, collection range) can be adjusted, and a search within one collection only.

### Interfaces and Export

The interface features of DLC have not been implemented yet. It is planned to offer a pdf export for the scans including TOC for the navigation inside the pdf. For the bibliographic records an ISBD export is offered. A printing view for the image on screen is available. The same applies to the full bibliographic record, search result lists and the TOC. With regard to interoperability several scenarios are discussed. Google Site Map is under discussion to archive a high page rank for the digitized sources. Due to ZVDD and europeana standards (METS-via OAI2, Dublin Core including the Europeana Element set) it is discussed if an implementation has high priority. Basic export features will be TEI-XML and METS/MODS. In addition, the METS/MODS can also be displayed directly within the DFG-Viewer. All in all, most of the requirements postulated in the digitization guidelines of the Deutsche Forschungsgesellschaft (DFG 2009) are fulfilled.



## Text Transcription and Online Editing

To create fulltext editions of digital collections TEI-Markup is used according to the TEI P5 element set. The elements that are currently captured by DLC are restricted to about 300 elements (e.g. footnotes, citations, illustration remarks). The TEI-XML can be created locally by xml editors like XML-Mind, Oxgen or Altova.

If no TEI-XML document was ingested but only scans and bibliographic metadata, it is possible to create the TOC (i.e. the pagination of scans and the application of structural information like headings and author) afterwards within an online editing tool in DLC. It is now possible to navigate through the document by using the TOC.

## DLC Further requirements

Until now many solutions have been realized to create the basic infrastructure of DLC (i.e. ensuring ingest, viewing, searching, TOC editing, fulltext enrichment and export features). In 2012 the application will be stabilized and soon rare collections of the institutes will be transferred to DLC. The next steps within the project are the development of:

**Annotation tool(s):** One of the main goals of the project is to embed a flexible annotation and tagging system, including the quotable referencing of image (-areas). Eventually, researchers and/or libraries will be enabled to create collections. Interdisciplinary research groups can use DLC to work online on new research topics collaboratively. Libraries will create digital library collections and handle the DLC-content professionally. DLC will present rare texts and images that can be accessed from all over the world.

**Authorization and authentication tools:** This topic will be handled by the eSciDoc administration tool, which will be fully embedded into the DLC environment. Institutes will manage different user roles (moderators and editors).

**Authority Files** is a future topic which is not yet implemented in DLC. A lot of referencing possibilities e.g. to authority files like PND/GND, Cone, linked open Data or geo-referencing are discussed. Finally, it will depend on the project time schedule which kind of features will be implemented.

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## Web Content Management within the Organizational Identity Framework A Study for Hacettepe University Department of Information Management Web Content Management System

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**Abstract:** Environmental factors that are created by humans have an important role in today's organizational structures. In this framework, organizational structures are generally under the effects of factors such as new inventions, economic conditions, technological capabilities and new management approaches. On the other hand usage of these factors by organizations reflects organizational culture and characteristics of organization. In this context web content management systems have an important role in terms of maintenance of web pages and organizational identity. Beyond the organizational identity, web content management systems develop organizational web assets with information architecture and usability factors. According to these developments, this study aims to evaluate a web content management system that was developed for Hacettepe University Department of Information Management in terms of organizational identity, information architecture and usability factors. This study also reveals the life cycle features that are provided by web content management system in collaboration with Web 2.0 technologies, information architecture and usability factors according to organizational structure.

## Introduction

Relations with environment, which are set up by humans as a social entity, are the main part of the foundation of organizational structures. New inventions, economic conditions, technological capabilities and new management approaches help to advancement of organizational structures. In the literature, concept of organization is generally evaluated from different frameworks with the effect of its technical and social properties and it is expressed that as a concept, organization is related with management field in many studies (Koçel, 2005, p. 166; Vural, 2005, p. 39).

Organizations are set of coordinated components such as opinions, beliefs, traditions and behaviours (Brewer & Crano, 1994; Bilgin, 2003). According to this statement it wouldn't be wrong to say that organizations have relative continuity and unity values. Distinctive features of organizations that are shared by employees constitute organiza-

tion's system and organizational identity (Freedman, Sears & Carlsmith, 2003; Öztop, 2006). At this point, organizations with their unique cultures and characteristics generate their identities in the community that they have belonged and all over the world. Organizational culture is one of the most important steps for generation of organizational identity. It especially determines written and nuncupative rules that affect employees' behaviours and organization's structure as a transcendental reality (Erdem & Dikici, 2009, p.205). Organizational identity is generally under the effect of not only target audience's needs but also communities' needs and parameters (Öztop, 2006). It is defined as a whole of forms that are used for representation of an organization and organizational identity determines how the organization is perceived by target audiences and community (Okay, 2000, p.39). Main elements that reflect organizational identity to community are logo, letterhead, business card, web sites and social media environments with the Web 2.0 technologies. Especially Web 2.0 technologies and web sites of the organizations became new fields to represent themselves and their products. Today organizations develop template based content management systems that are supported by Web 2.0 technologies to represent themselves as a whole on the web platforms.

### Web Content Management

Web content management is considered to be a component used for the presentation of the content stored by the organization. These content management systems ensure the effective operation of the organization. Intranets, portals and all of the web pages about organization covered by web content management and web content management as an application of enterprise content management provide standardized structure for web assets of organizations (McNay 2002, p.397; Jenkins, Köhler & Shackleton, 2005, p.26; AIIM Europe & AIIM International, 2007). With the web content management systems, organizations can manage and develop their web assets effectively and consistently (Nakano, 2002, p.33). As a reflection of organizational identity, web content management systems promote organizations' products, and meet information needs of target audiences and employees. It is also pointed out in the literature that employees have different computer skills and behaviours for the new technologies (Nielsen, 2009).

### Hacettepe University Department of Information Management Academic Web Content Management System

Academic web content management system was developed for Hacettepe University Department of information management faculties and administrative staff with the aim of providing dynamic structure in terms of organizational identity. With this point of view, Hacettepe University web pages templates were used for web content management. The system that was developed according to this study allows faculties and administrative staff to create their own web pages by using their computer literacy skills. As an architectural structure the system consist of three layers these layers are management layer that provide content management by internal users, data layer that content stored to database and presentation layer that provide end user interface. According to content management system study, user groups of the system were also determined as internal and external users. In this study internal users were described as faculties and administrative staff who are content developers as well. On the other hand external

users are end users who interact with third layer of the system such as students, other academicians, researchers etc. Among the layers, management layer provide a user friendly interface to creating related content. This layer with its interface helps its users to create content with a text editor instead of dealing with codes. Presentation layer provides end user interaction and access to content with the reflection of organizational identity. Users can also interact with presentation layer and web content management system via Web 2.0 technologies like RSS, share buttons.

### Conclusion

As a conclusion web content management systems help employees in terms of maintenance of web pages. They also provide the usage of new technologies such as tagging, RSS feeds and comment applications with user friendly interfaces in the determined templates according to organizational identity. Beyond the organizational identity, web content management systems develop web assets of organizations in a standardized structure with information architecture and usability factors. Organizations have more accessible web pages and they can access to information at the right time without leaving the context.

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# Potential Contributions of Social Media to the Creation of Communities of Practice among Librarians

## A Content Analysis of the Social Networking Site Quora

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**Abstract:** One way of sharing knowledge among members of an organization is through communities of practice (CoP). This research will focus on librarians as a CoP and how social media (SM) can foster the creation of CoP among librarians. SM facilitates the creation of communities online in which individuals can collaborate and exchange ideas and information. We will be exploring the Q&A social networking site (SQA) Quora. A content analysis was conducted in an attempt to explore the content on Quora and classify the information shared in order to determine if it can support a CoP of librarians. This step will help the researchers determine future global research and professional implications.

### Introduction

The history of libraries is parallel to the history of writing and of humanity itself (Tolzmann, Hassel, Peiss, 2001). Libraries currently are bridges between people and information, places of gathering and keepers of human history. But for their long trajectory, the current model of the library and librarianship as we know it has seen new challenges emerge in the age of information. Today, print books are being replaced with electronic ones, people can access information through an online search engine from their personal computer at home and economic crises are diminishing the essential public funding on which many libraries depend for their existence. Some of these factors cannot be controlled, but others require a new approach, a way in which libraries can create their own competitive advantage which will enable them to survive into the future.

As many other organizations nowadays, libraries are not only dependent on the knowledge of their employees but also on the knowledge of outsiders can share with the employees. Online environments have greatly contributed to the process of sharing knowledge. The contributions of these technologies to sharing knowledge have certain limitations since online communications are mostly text based (Hew & Hara, 2007), but social media can contribute greatly to improving these by enhancing the user's experience.

### Literature Review

#### *Knowledge Management*

The literature on organizational studies and business administration of recent years has focused on the concept of the 'knowledge economy' in the post-industrial era (Davenport & Prusak, 1998; Blackler, 2002; Hislop, 2010). According to this point of view, society has moved into the post-industrial stage where the service sector has replaced the manufacturing sector as the biggest source of employment; prompting the evolution of economic systems in which knowledge and information are the main drivers of the global economy because (Hislop; 2010). This new focus contributed to the development of a relatively new area of study known as 'knowledge management' which is concerned with "the capture, storage and retrieval of knowledge located either in the heads of employees, in the heads of outside collaborators, or in documents" (Boisot, 2002; p. 69). These processes of capturing, storing and retrieving employees' knowledge depend on a wide range of strategies that involve the coordination of an organization's structure, hierarchy, technologies and networks (Dalkir, 2005). One of those networks in which knowledge is created and spread throughout organizations is known as 'CoP.'

#### *Communities of Practice*

There are many definitions for this concept but most focus on people having common interests or goals. Here, a CoP will be understood to be that made of "a group of people who share a particular practice, interest, or discipline and share information and tacit knowledge" (Hackett, 2002; p. 731). CoP form organically as a group of individuals comes together to share knowledge. People will come together and form CoP because of a common interest; which can be as exclusive as being a member of a profession or as broad as an area of interest. This characteristic opens the door for CoP to have an inter-organizational nature and move through a common profession.

#### *Social Media*

The same technological changes that have created so many of the issues librarians deal with today have also provided the ways to create and transfer the knowledge. Social media facilitates the creation of communities online in which individuals can collaborate and exchange ideas and information regardless of their location. It is defined as "online practices that utilize technology and enable people to share content, opinions, experiences, insights, and media themselves" (Lariscy, Avery, Sweetser, & Howes, 2009; p. 1). Most of the user-generated content is shared through social networking sites (SNSs). Here, we will be exploring the SQA Quora, it is a "collection of questions and answers created, edited, and organized by everyone who uses it." (About Quora, 2011). The site combines the features of an online Q&A site and those of social media,



permitting users to ask, answer and rate content while also allowing a community of members to conduct private communication if they chose to.

## Method

A content analysis was conducted in an attempt to explore the content on Quora and determine the information shared in order to determine if it can support a CoP of librarians. This step will help the researchers determine RQ: How is knowledge created through CoP on Quora?

Three coders reviewed the preliminary screen shots presented on Quora related to questions pertaining to librarianship that appeared at the top of the feedback page for the topic of 'Libraries & Librarianship' between August and October, 2011. Basic questions were coded as binary variables (0 being no and 1 being yes) for 23 variables. The questions that were coded included the following: basic information (ex. key words, areas published, topic), answer providers (name, education, specialty area), question analysis (question, sub question, interactions, tone of answer, etc), social commentary (comments, votes, sharing), and knowledge quality (citation, source, fact or opinion) and type of knowledge (book, practical, and cultural).

Six questions posted on Quora were analyzed in this exploratory study. To control for observer variability, inter-rater reliability was assessed using Gwet's AC1 statistic. For exploratory cases like this study, Gwet (2001) argues that his statistic is superior to the other choice, Fleiss's kappa, for similar studies. Moderate inter-rater reliability among three observers was found, with an inter-rater reliability coefficient = .470108181. Statisticians recognize that the more categories a study has (this study only had 138), the lower the statistic will be.

## Results

Results show that the type of knowledge currently shared among Quora users along the lines of practical and cultural knowledge compared to book knowledge. The complexity of the questions asked related more to a factual nature. Opinion dominated contributions to Quora questions and inquires about academic librarians and librarianship, with very few answers providing citations for useful resources and the questions that did provide citations relied heavily on sources such as Wikipedia, the New York Times, and Guardian; all in online format. No research articles or sources coming from organizations or institutions related to libraries were used as a resource in any of the answers for the questions on the 'Library and Librarianship' category.

## Suggestions

Social media has great potential to change the way CoPs interact, work and collaborate. SQAs are particularly promising on this front, however as the results of an exploratory content analysis show, most of the questions posted on the site have been answered with personal opinions without citations or rely on questionable sources of information such as Wikipedia (Gorman, 2007; Shachaf & Hara, 2010; West & Williamson, 2009).

In order to take full advantage of the SQAs in the formation of CoPs there needs to be a more active participation from librarians and library professionals including sharing their experiences, expertise and resources; not just being passive observers. A more

active participation on the source can prompt the creation of subcategories that attract more specialized professionals and practitioners as well as scholars. Librarians also can monitor their own institution's activities on SNS, subject matters or areas of expertise and look out for subgroups that come together and where they can locate useful information as well as share their experience with others. Librarians need to join new SNS which includes some buy in from their organizations. This will only take place in an environment in which organizations as whole are more open to non-traditional information sources for their professionals that promote and encourage their employees' participation.

## Limitations

One limitation this study has is that it only looked at one site for a specific period of time. The results of the content analysis have to be viewed considering that one of the three coders was not familiar with the information science terminology which may have caused the results to be less reliable.

## Future Studies

Future studies dealing with the subject should continue to explore Quora as a CoP in sharing knowledge, since this source is new and still expanding. A digital ethnographic study looking at conversations and emerging themes from post and users on Quora over a longer period of time could provide more details regarding the nature of SQA's. Interviews with librarians on their current use and perception of emerging sites like Quora and what they are doing to manage their reputation as a profession and ultimate source of knowledge

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## Citizen and the Press Access to Public Information

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**Abstract:** The essence of a democratic process is the guarantee that citizens have free and easy access to public information. How can that be made possible and how can people learn to use that information critically? In earlier papers (Boef, et.al. 2008 and 2009), we discussed the relationship between public library, press and the free access to relevant information. In this paper, we concentrate on the role of journalistic media in making public information accessible for the citizen. Our starting point is the fact that the citizen, in shaping her or his position in relation to political and other societal issues needs fewer opinions of others, but more reliable information; verified and certified by professionals. That way, the citizen will become enabled to create and to ground his or her opinion. Based on that solid foundation, opinions and comments of others can be appreciated and rated. Finally, we will discuss the ongoing process of the disappearing of independent media and the negative effect on the democratic process, and hence the need for a new generation of Internet savvy civil journalists.

### Introduction

The last years, trustful information is severely endangered by various trends. Firstly, by an increasing unreliability of the many facts presented in the press by journalists, as well as, missing adequate interpreting of facts and figures in context as Davies (2008) eloquently describes. Secondly, by the alarming decrease of the journalistic attention to the real functioning of companies, democratically governed institutions, as well as all other types of organisations with power. We see a shift away from news about governing issues and investigative journalism towards entertainment news. Apart from that, we witness a drastic reduction of the sheer number of professional journalists and the disappearance of old media, in particular daily newspapers. Due to these tendencies the numerical ration between journalists and public relations officers and spokespersons is deteriorating to the advance of the last group, whose role is to sell a policy and not to judge it (Prenger, 2011).

### Unreliability of “the news”

Bill Keller (2011), former editor in chief of the New York Times, excused himself to his readers in an article about the way his newspaper dealt with the so-called weapons of mass destruction in Iraq. They took the information, the American government presented, about chemical weapons of Saddam Hussein for granted, without sufficient critical thought and therewith undermined the scepticism against a new war in Iraq.

This eased the American and British governments to use these proofs as *casus belli*. The whole year 2011 was the theatre of the so-called ‘Arab spring’. Anyone who takes stock at the end of that year must observe the following. In Tunisia, the dictator fled the country and according to foreign observers, reasonable fair elections have been taken place. The result is that an Islamic party gained hegemony and will dominate the new government. However, as a state under *sharia* law is not according to the hopes and ambitions of the youth, new protests flair up. In Egypt the former dictator will be put on trial, whilst a military junta started a fierce repression, by suppressing the demonstrations for democracy as well as censoring the press. On November 28, 2011 we have had the first day of unique democratic elections in Egypt. These will not move the military to the confinement of their barracks, as they hold important positions in the Egyptian society and economy and on top of that, there is only a restricted amount of parliamentary seats available for free elections. In Libya, finally the dictator has been killed, but the end of his regime would never have been reached without a massive military NATO intervention. This also proves the uncertain destiny of Syria, where the dictator is still holding power, as he is not confronted with bombardments by foreign forces.

World wide, the dominant tone of the journalistic coverage of the events was one of uncritical enthusiasm. Next to the term ‘Arab spring’ (which encompassed many, very different, countries), quickly the term ‘revolution’ came into use. Unfounded, the (strategic) optimism of the demonstrators was adopted in headlines such as: ‘The army is taking sides with the people!’ In this superficial partisanship, crucial information was neglected, at least the historical context. What was the fate of democratic protests in other, comparable countries? For example, in Iran, in 1979, protests resulted in substantial political changes, but against democracy. What happened in countries that obtained a new regime with the help of a western invasion? Take Iraq or Afghanistan: which parties took power and who do they represent? A further pressing issue is the lack of information on the specific countries and their many ethnic, historical, linguistic and cultural differences. Which parties are organised best and which parties receive support from abroad? This necessary information can be found in the western media, but are provided by specialists or local correspondents. However, this kind of information is hardly to never available on the central news pages and the many news web sites and news sections. By contrast, all kinds of disinformation about the rebels were eagerly published, to be discretely denied later. Such as the flocks of black mercenaries, who were fed Viagra to rape, on behest of Gaddafi, every woman they saw. Or the former Dutch photo model and friend to Gaddafi’s son, who fled Hollywood style to save waters. It is just as Bill Keller argued; an uncritical following of what the western governments want to have aired to support their polity.

A same situation arises the way the media deal with the euro crisis and countries, with weak economies, who were bribed into the euro zone, such as Spain, Greece and Portugal. They are depicted in the press as countries inhibited by lazy parasites without any labour moral. Also here competent economists forcefully counter these bizarre notions, based on the real figures. However, this type of information needed to understand the true depth of the crisis, is not in the focus of the news. This is not only a failure of competence of journalists, but also an expression of political currents that thrive on xenophobic fears. A critical report of Médecins Sans Frontières, analysing its own

functioning, appeared in November 2011 under the title ‘Humanitarian Negotiations Revealed’ (2011), did not only wipe the floor with the romantic myths of the neutral medical doctor, who operate above the political squabbling, but also with the idea that at natural disasters, always immediate food supplies are needed. Only after the earth quakes in Pakistan of 2005 and the in Haiti in 2010, medical teams and their inflatable hospitals were badly needed. In all other cases the number of estimated victims was grossly overrated. Did the media deliberately paint a picture of the, perceived, incapacity of the local hospitals? Aid workers go anyway to the disaster areas, the study shows, because that is expected from them by the media. Also here, a minority of competent people was available for the public at large, who identified the exaggerations and disinformation based on research based facts.

The decisive problem is the ad hoc interest for a situation in a foreign country. A country, suffering from a disaster, immediately eclipses from the attention, as soon as a new disaster strikes elsewhere. Long term and structural profound attention for a country or problem is more and more missing.

Media do signal the electoral yoyo effect in more and more countries, especially in countries where two large parties or two blocks compete for the attention of the voter. But to point out the winner, that was the loser of the former elections, and will definitely lose the next one, does not attribute much to the knowledge of the real problems in that particular country.

It seems journalistic media adopt ‘fact free policy’ on a large scale in recent years.

### Public Relations and Journalism

The structural journalistic problems seem to be connected to the alarming decrease of journalistic focussing on the functioning of companies, democratically governed and other institutions. But this decrease of interest and the shift to entertainment news as such, is not the cause of these problems. The responsibility of a journalist – independent, but concerned and informed – is to construct the news as a tool to inform about issues that are important to the public, based on the underlying facts, backgrounds, analyses, etc. Or, in the words of James Fallows (Lloyd 2004), to give a broad public some common source of information for making political decisions, and to inform people about trends and events they must be interested in. As we haste to add, reliable, certified information. What is more interesting, Silvio Berlusconi’s relation with the mafia or with a minor, former, beauty queen?

The real problem is that the civilian receives a lot of information, but he gets it more and more directly from the institutions themselves in stead of from the critical journalist.

The communication branch in the Netherlands and other countries has grown largely during the last years, as well in number (in 1999: 55.000; at present between 135.000 and 156.000) as in professionalism. At the same time, the number of professional journalists has been decreasing (to 15.000 at the moment) – and unfortunately, their professionalism as well – while web media do not (yet) compensate this loss in the field of news, analysis, and interpretation (Prenger 2011). Public Relation professionals may well work in the field of internal communication, focussed on the employees within an organisation, or in the field of marketing communication. But now every single indi-

vidual investigating journalist finds several PR-professionals on his or her way, trying to divert her. These developments make it easier for the communication professionals to set their own political agenda. Especially, government officials know exactly which items can have a dramatic effect in a 'mediacracy'. Some of them even pick a sexy news item that can divert the attention from more serious others. The drastically reduction of staff does not mean that even spectacular ways of misdemeanour by corporations or governments remain unnoticed. This kind of misdemeanour is just what the scoring drive of media wants to expose. So, the lonely investigating journalist suddenly sees himself supported (and overruled) by colleague reporters who go for the hype. To his regret, their presentation of spectacular misdemeanour follows the laws of entertainment news, uncovers no possible causes that request structural improvements, but at the most, points to a 'scapegoat'. Moreover, more and more channels appear by which government and business can bypass independent journalists to get their – undigested – message to the public.

But, it would really be a menace to democracy if independent journalists surrender to the PR forces. The Dutch minister of Internal Affairs, Mr. Donner, stated last year that freedom of the press has nothing to do with public governance. Journalists, in his opinion, tend to use the Dutch Law for Freedom of Government Information (WOB) in improper ways.

### Social Media

In today's torrent of (often uninvited) information are many sources that belong to the domain of social media. These media will become even more important as channel for suppliers of news and especially, useful background information. Unfortunately, the veracity and the context of this information are more often than not ambiguous. It is the role of professional journalists to filter, analyse and adapt this material in the local context and level of knowledge of the reader. Luckily, many of the sources, e.g., blogs, are created by experienced experts. Journalists should develop a practice where it is normal that they, collegially, submit their information to (scientific) experts for comments and, even more, should establish a sustained working relationship with the 'hands-on' experts. They could practice more 'meta journalism': inform the public about the circumstances and the limits they meet in doing their work for a news paper or a network. This way the public can judge by itself and it can help people to use other information critically.

All these, journalists should undertake, with the aim to create a higher and politically more useful quality of the democratic process. Furthermore, journalists should actively use social media – 'crowd sourcing' is an excellent example – to get special information from 'hands on' experts, important for the democratic process. They can show and teach the citizen how to measure, in a simple way, the pollution of his environment and then condense this into a publication. Show the reader where on the Internet he/she can find the laws and rules to which governments and companies have to adhere and how he can determine that they are being violated. Subsequently journalists can offer the citizen the legal procedures that he can use in resisting these violations; especially by involving other citizens – including the experts – in their resistance. Journalists also can refer to the best practices of successful predecessors.

But the most important thing is, journalists must keep being aware of the magnitude of their task: helping the public to make its choices, from the Assurance Company, education institute, employer, Internet provider, to the political party or movement, as he wishes to improve the quality of his life and the life of others.

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## Blogging with Purpose Fostering a Collaborative Learning Community through Social Media

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**Abstract:** Web 2.0 social media tools are here to stay, and libraries are examining how they can use social media in a meaningful way in order to foster a more collaborative learning community. The literature shows that each library uses social media differently; there is not a one-size-fits-all approach. In spite of this, there are shared best practices at the heart of these unique approaches. In this paper, we identify these best practices and demonstrate how we used them to develop a more coordinated social media presence in our library, the Undergraduate Library (UGL) at the University of Illinois, Urbana-Champaign (UIUC). Having identified that the UGL's blog was getting low use and allowing for minimal interaction between the library and its patrons, we sought to update the blog in order to create a more robust social media program that meets students' needs and is both responsible and responsive.

### Introduction

Despite their constant shifting and changing, Web 2.0 social media tools are here to stay. Although we do not yet know which tools will be hot tomorrow and which will disappear into the ether of the Internet, libraries and librarians are no longer questioning the importance of using Web 2.0 tools to reach patrons. Instead, libraries are looking more deeply at how they can best deploy the most useful technology to create virtual, often mobile, collaborative learning communities. The literature shows that each library uses social media differently; there is not a one-size-fits-all approach. In spite of this, there are shared best practices at the heart of these unique approaches. In this paper, we identify these best practices and demonstrate how we used them to develop a more coordinated social media presence in our library, the Undergraduate Library (UGL) at the University of Illinois, Urbana-Champaign (UIUC).

### Best Practices for Using Web 2.0: Library 2.0

Since the term Web 2.0 was first coined, libraries have been working to understand how to integrate it into traditional library services. Web 2.0 has prompted the new term "Library 2.0": the philosophical application of Web 2.0 technology in libraries, or a "user-centered...model for library service that encourages constant and purposeful change" (Casey and Savastinuk, 2006). In Library 2.0, the library aims to enact the concepts of Web 2.0, which are defined as conversations, community, participation, experience, and sharing (Stephens and Collins 2007). While the use of Web 2.0 technologies by the library is the means by which to achieve this end, it is the purposeful

application of the *philosophy* of open communication and user-generated content that truly makes a library "2.0" (Stephens and Collins, 2007).

In the 2.0 library, it is important to continuously situate what the library does with Web 2.0 technology within a user-centered philosophy, in order to use tools purposefully. In an effort to approach our new blog with purpose, we sought to identify the best practices used by libraries in successfully deploying Web 2.0 technologies.

Web 2.0 technology should be used accomplish what the library already strives accomplish: serve patrons to the best of the library's abilities. Web 2.0 tools aid us in assessment of library services by enabling instant feedback and data collection about use of our website and resources and in changing the way we meet our patrons' needs. Xiao (2008) argued that Web 2.0 technologies enable librarians to serve patrons in a way that makes the library more relevant to them. The use of technologies such as web videos and blogs highlights the librarian's role as a participatory community member, not just an aloof expert. Part of serving our patrons is generating the open, trusting, sharing environment central to Web/Library 2.0 by challenging traditional barriers between the users and the keepers of the knowledge.

A central tenet of library service is that every library is situated within a unique community. Yet when it comes to Web 2.0, this notion is often forgotten. The library's use of Web 2.0 tools should meet local community needs, and, furthermore, should meet the individual library's mission and vision (Xiao, 2008). In order to identify which tools, among the myriad Web 2.0 technologies, will have the greatest impact in individual libraries, it is important for the library to identify who its users are and what are the local community needs (Burhanna, Seeholzer, & Salem, 2009).

While library users' needs come first, libraries also need to consider how they can feasibly allocate time to achieve the desired impact with Web 2.0 tools (Woodard, 2008). Without regular, meaningful upkeep, social media tools recede into the static web pages of the past. It is important to assess the value of time-consuming efforts, such as creating polished multimedia, especially in light of the fact that information and/or technologies may quickly become outdated (Pressley, 2008).

Upon surveying the landscape of articles and studies done from 2004 onward, it becomes clear that libraries must remain flexible in their use of Web 2.0 tools. MySpace is no longer the most-used social networking site, Twitter has entered our lexicon as a proper noun, and virtual reference has become more widely used (Stephens and Collins, 2007). This pace of change also means that studies done on users' perceptions of particular Web 2.0 tools, and even articles which comment on how such tools might be adopted by libraries, may lose relevance quickly.

### The UGL's Blog

At the Undergraduate Library (UGL) at the University of Illinois, we determined in September of 2011 that our outdated blog was not meeting either the best practices identified above or our mission statement for the library. The UGL's mission statement says that the library "will encourage engagement with information and technology... reinforce the value of collaborative inquiry and work, [and] create new opportunities for community interaction" ("Vision," 2009). The library's blog was neither interactive nor effective in promoting collaboration. Furthermore, it was not being kept up to date.



Especially in light of the UGL's successful use of other technologies, the blog seemed to fall short.

As we developed the new blog, the library's mission statement, along with the best practices described above, were at the forefront of our minds. We determined that the blog should support undergraduate students' education and research needs while also helping to foster a collaborative community. In order to do this, the new blog would offer user tagging, comments, and video capabilities, allowing for greater interaction between the library and its patrons. Furthermore, blog posts needed to be focused, consistent, and manageable. To ensure manageability, the blog would fall under the purview of two graduate assistants (GAs), rather than faculty librarians. Each week the two GAs post one resource-focused post to highlight research and learning tools and one community-focused post.

Another important factor to consider in the development of the new blog was what the library was already doing with social media. By examining our Facebook and Twitter outreach efforts, we determined that the library's Twitter account, which provides regular updates on library news and events, highlights library resources, and offers instructional research, would serve to complement to the new blog. Furthermore, in order to be more efficient and effective we developed a Social Media Team (comprised of Twitter and blog managers) whose goals are: 1) to coordinate social media efforts in order to reach patrons effectively; 2) to provide instruction in a range of ways to meet different learning styles; 3) to develop and maintain a consistent voice for our social media efforts; and 4) to assess library use of social media in order to keep up with emerging technology.

### Challenges and Future Considerations

While UIUC libraries have hosted blogs on a range of platforms, the university has recently decided to move all university blogs onto an internally-managed platform. This process has delayed the launch of the UGL's new blog, which is now expected to happen in December of 2011. The requirement that we use the university-managed platform may impact the flexibility and manageability of our blog. However, it may ultimately result in a more permanently usable platform that is streamlined with the web presence of the entire university.

Despite the delayed launch of the blog, we have continued to prepare blog posts and to think about how to best serve our patrons. In doing so, we have identified several areas that demand further consideration once the blog officially launches. Primary among these is how to assess the blog's value and impact. Quantitative data, such as number of blog "hits" per day, will be easy to collect via Google Analytics and the blog platform's internal data collection system. While this data will help us gauge the blog's popularity, it is difficult to use quantitative data to assess the blog's value and impact (Steele and Greenlee, 2011). Focus groups with undergraduate students and short-answer surveys of blog readers will help us assess the successes and shortcomings of the blog. The library literature provides little guidance on how to conduct such qualitative assessment of social media use, and we hope that our efforts will bring focus to this area.

### Conclusion

Expanding the web presence for the UGL through creating a new blog has been a learning process, but a valuable one that we believe will result in a strong social media presence. We have identified how best to implement and manage the new blog, allowing us to carefully consider the impact it will have. Libraries of all types could benefit from a close assessment of their web presence and use of Web 2.0 tools in reaching and serving users. Tools used should be focused on serving patrons and your community, and should be manageable and flexible to allow your library's web presence to grow and change along with Web 2.0.

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(Glogster, [www.glogster.com/](http://www.glogster.com/)). A good example for Glogster can be seen in this link (<http://msquayle.edu.glogster.com/medieval-life/>).

Another e-learning tool categorized in social tools is ScoopIT that provides preparing your own online journal easily. Other people can follow your journal and you can follow others' journals through Facebook or social social networks ([www.scoop.it/](http://www.scoop.it/)). For an example video you can visit: [www.youtube.com/watch?v=Bnr6QKKesII](http://www.youtube.com/watch?v=Bnr6QKKesII).

Voicethread is a voice tool that provide to record your voice on presentations and to combine aimages, documents and your voice. It is especially used for conferences, webinars and it provides to study in collaboration (<http://voicethread.com/#home>).

iSpring is one of the video tools that is focused on the development of several media software. It provides to add some video or voice to your presentations that will explain the subject effectively. iSpring is especially used by teachers and businessmen because this tool makes you present in many environment without attending, especially meetings and lessons (iSpring, [www.ispringsolutions.com/](http://www.ispringsolutions.com/)). The other important video tool which is the focus of this paper is Xtranormal, will be introduced with a new title.

### Xtranormal

Xtranormal is one of the most adutainment e-learning tool, provides creating short movies and animation films instead of written presentations. Xtranormal is very funny and enjoyable to be an e-learning tool. It is possible to address anyone with Xtranormal. After becoming a member of the Xtranormal website, you will choose actors for your presentation and you will add a mission to each actor. Second step in Xtranormal is chosing a place to play. Last step is writing texts to speech for your actors and to add motion to your actors. You can choose various languages for speeches. You can share your film on the Internet especially on YouTube (Xtranormal, [www.xtranormal.com](http://www.xtranormal.com)).

Example movie for Xtranormal will be our presentation of this paper.

### Conclusion

E-learning is a widely developing topic of the last years. The number of e-learning tools is also increasing. We need to know about some of the e-learning tools to learn and to teach efficiently.

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## Collaborate with your Customers! Open Innovation in Creative Media Services

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**Abstract:** The changes towards the Organization 2.0 are based on new approaches of economic collaboration within the value chains and their expansion to the customer side. Especially the involvement of the customer in the value chain is a promising approach especially for media innovators that have to cope with challenges such as high “flop-rates” in media innovation, declining customer loyalty and declining willingness to pay for media services in the age of the Internet. Although there is consensus about the economic significance of customer integration in media services, there are only few research results that describe the economic success factors or define concrete management recommendations for open innovation approaches and how to manage the increasing complexity of value creation processes. As a result of actual research, economic aspects of the customer integration in media services are systematized by considering different customer roles and degrees of customer participation.

### Introduction

Economic approaches of the past were focused on vertical and horizontal relationships between enterprises in order to manage value added processes to satisfy a defined market. Customers and consumers are seen as recipients of products or services at the end of such a value chain. Customer communication and collaboration therefore was focused on sales activities at the customer interface (e.g. sales support including information on products, product finder, purchase process, order tracking, after sales activities). New management approaches recognize their customers as valuable partners in the early stages of product and service development, content production or quality assurance as well as in sales and marketing by using the customer's network as a multiplier (Büttgen & Eggenesperger 2008).

### Challenges in Media Industries

Looking at media industries, this description of networked value processes is valid in many segments such as the publishing industry. Companies have already realized highly networked value chains within expanded value networks that integrate new sales channels as well as new sourcing partners, especially in the content area. The reasons

for splitting the value chain and distributing it to an increasing number of value partners can be attributed to some specific aspects in that industry sector such as the high innovation risk in creative services in general, the high cost of an original (e.g. first-copy costs for the production of a film, a book, a music production), high “flop-rates” in media innovation, declining customer loyalty and declining willingness to pay for media services in the age of the Internet (e.g. services within free apps). At the same time there are topics in the context of information-oriented media services such as the demand for democratic citizen participation (Bruns 2010) and new approaches such as crowd sourcing (Gassmann/Enkel 2004) that have an impact on media habits in the society.

### Customer Integration in Media Industries

The approach of the networked value chain has to be extended to the customer site (extended view on the “Organization 2.0”). Media innovators recognize their customers as valuable partners in the early stages of product and service development, content production and quality assurance as well as in sales and marketing. The customers are getting an enhanced role as an enterprise resource in the value chain and as a central part in future business model of media enterprises (Plé/Lecocq/Angot 2010). Current research in that field is focused on particular aspect such as customer-driven development of new products or services within the “open innovation” approach (Chesbrough 2011, Huizingh 2011) or covers the whole value chain within the “customer integration” approach (Büttgen/Eggensperger 2008).

### Changing Roles of the Customer in Value Creation

The management approach of customer integration has to reflect new roles of the customer in the media sector and cope with the increasing complexity of value creation processes. Looking at the customer’s role, there are three basic types of participation (Kahle et al. 2009): customer observation, customer involvement and customers integration in value creation (see Table 1).

Table 1. Customer integration approaches (Kahle et al. 2009).

Type of participation	Query to the customer	Activity of the customer
Customer observation	indirectly	passive
Customer involvement	directly	passive
Customer integration	directly	active

Today, the customer’s role still changed from the passive recipient of products and services to a value adding partner. The high degree of digitization of products and services in the media sector (e.g. computer supported content generation, production and distribution channels) enables business models with a wide-reaching participation of customers (Nohr 2011, Kahle et al. 2009).

### Management of Customer Integration

Today, media enterprises are experimenting with different ways of customer integration such as learning from customers and learning from the interaction processes with customers, experiment and work together within the open innovation approach, collaborating within production and marketing and use the customer’s network as a multiplier in sales. In our case studies we identified some key issues on customer integration (see figure 1).

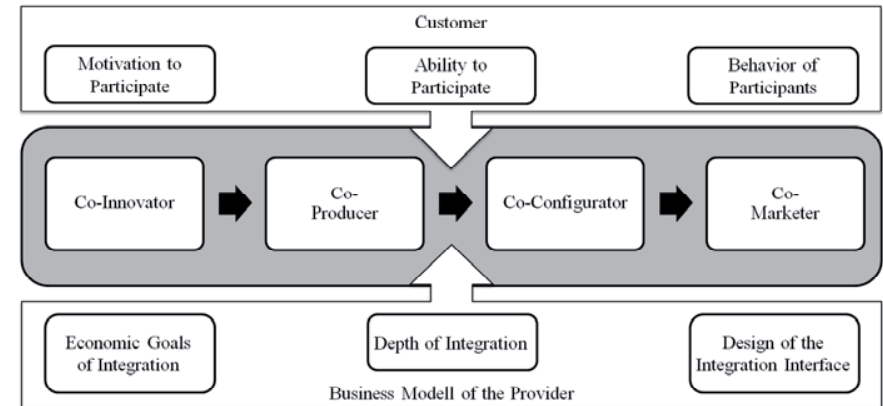


Figure 1: Basic types of customer integration

On the customer side, the degree of participation depends on three aspects: the motivation to participate (e.g. expected benefit), the ability to participate (e.g. personal experiences or other enabling factors) and the behaviour of the participant at the specific situation of participation (e.g. acceptance of process rules). For a media service providers the customer integration approach of is based on the business model that reflect economic goals (e.g. cost reduction, quality assurance, increase sales etc.), the depth of integration (e.g. advisor, value partner) and the design of the integration interface (e.g. access rules, front end).

### Case Study Research - Examples in News Industries

In this paper selected cases of customer integration are mapped to basic steps of the value creation process in news industries and to levels of customer participation (see figure 2).

### Selected Examples

Looking at the first step of the value chain, customers can act as co-innovators or co-producers in content creation. In Germany platforms like OPINIO or myheimat.de only publish user-generated content from citizen journalists in a local context. Moreover myheimat.de works as a news agency for local press products. In an international context CNN runs the platform iReport to allow users to share stories with CNN, the best stories are picked up by CNN and distributed by television or at the web.



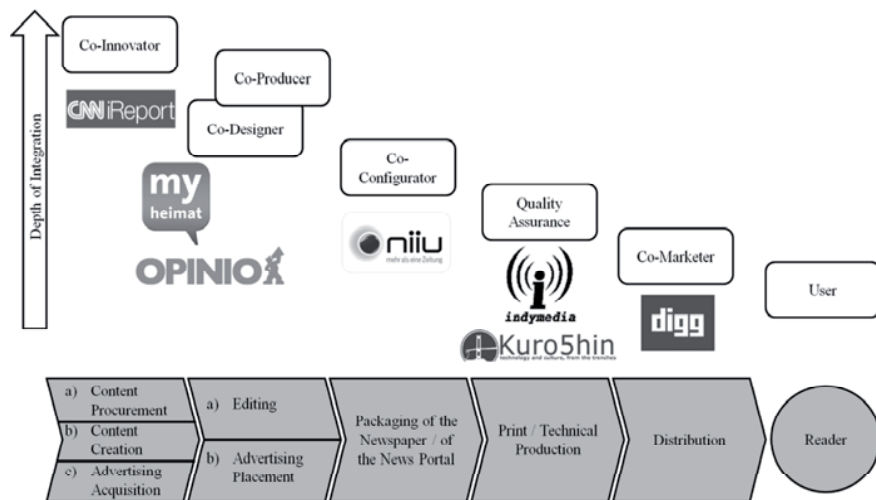


Figure 2: Customer integration into the value chain of the news industry

### Win-Win-Situation for Customers and Providers

Analysing the case studies on customer integration in news industries we can identify a number of positive effects for both – the provider and the customer. Main benefits for the provider can be identified by an improved service quality and an increased customer loyalty through individualized media services, e.g. individual newspapers or individual news streams. In addition “flop rates” at new services can be reduced through the integration of the customer in innovation processes, e.g. identification of required services and early feedback on main aspects such as expected quality of service. Further benefits for the provider arise from an increasing efficiency in production, for example the reduction of process costs for content creation. From the customer’s point of view there are some main benefits such as adequate prices for relevant services (“value-for-money”), a better variety of services, services are delivered in time (“when needed”) and at an adequate service level (e.g. “full-service-package” or “no-frills-services”) that reflect individual demands (“as I like it”).

### Customer Integration - a Strategic Choice

Changes towards the Enterprise 2.0 such as enhanced opportunities to collaborate and the impact of social web services enable new approaches of customer integration that have a great impact on the design of the value chains. Therefore customers as well as service providers have to learn how to collaborate in the future to gain the most valuable benefit for both sides.

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## Exploring the Virtual Worlds Enhancing E-learning and Accessing Online Resources in TUAS

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**Abstract:** This paper discusses a pilot project of the library and the student counseling office at the Turku University of Applied Sciences (TUAS). TUAS launched its Second Life (SL) virtual presence during 2010 with a project where a Second Life service was created. In accordance with the strategic plan of the TUAS, the project aimed to improve student counseling and tutoring with social media.

The critical questions for the TUAS library were how to tell the students about the high-quality e-resources, and how to motivate them to use these resources in their studies. To answer these questions, different functionalities to trigger learning of both Information Literacy (IL) skills and the use of e-resources were planned in the library's Second Life-area. Those triggers were seen as affordances or clues in the environment that indicate possibilities for action according to affordance theory.

A group of 25 students, who attended an introduction course to IL skills in Second Life, gave their response in a questionnaire. The findings suggest that the virtual environments, like SL, may enhance the IL skills of those students who are interested in, or have a positive attitude towards the virtual environments and unconventional ways of seeking information. Through the project, the library developed its profile from a traditional services library to a participatory medium that can support users in necessary competencies in seeking, creating, and sharing of information and learning from it.

### Introduction

The pilot project of the library and the student counseling office at the Turku University of Applied Sciences (TUAS) was launched in 2010. The aim of the project was to enhance student counseling and tutoring with social media. Turku University of Applied Sciences is one of the largest universities of applied sciences in Finland. It is a multi-branch educational community of some 9000 students and 750 experts, offering education that develops working life and entrepreneurship, research and development services (R&D) and holistic development of organizations. According to the 2010–2013 TUAS “Counseling and tutoring activities will be revised. Tutoring of students will be increased. Competence in Bachelor's thesis compilation will be enhanced according to the needs of working life. A demanding higher education institution and learning at work places are two factors that produce good learning results. Social media and other net-based learning tools will be utilized.” (The Strategic Plan of the Turku University of Applied Sciences 2010-2013)

### Electronic Resources in TUAS

The TUAS Library provides a wide range of electronic resources via the Nelli portal. Students and personnel have access to databases, library catalogues and e-journals and e-books on campus. Also remote access to the Nelli portal is available by logging into the TUAS network. The TUAS library is a member of the Finnish National Electronic Library consortium (FinELib), which supports Finnish research, teaching and learning by promoting the availability and use of high quality information throughout society. FinELib acquires the greater part of the e-resources Finnish libraries (FinELib). The TUAS library acquires several other electronic resources also directly from the publishers. The library prefers electronic collections for several reasons: remote access is available from the user's home or some other location whether or not the physical library is open, the library can get usage statistics, and there is a growing demand by library users for more e-resources.

### Teaching and Learning IL Skills in TUAS

In order to promote the use of e-resources and to enhance the information literacy skills of the students, the TUAS library staff provides library skills training lessons. The aims of the training IL skills in TUAS include supplying high-quality information resources and supporting IL skills by integrating them into teaching, learning and research at TUAS since the context is turning more and more digital. The lessons are mainly aimed at TUAS students and built into the curricula of different study programs. The subjects are the Internet as a source of information, information sources for specialists, databases as a source of information, and domestic and international electronic resources. Having completed the course, the student should be able to recognize the most important information resources in her or his field of study (e.g. library catalogues, databases and electronic journals), find information effectively and systematically, and evaluate information and its sources critically. Students should also learn to recognize their information needs and use information ethically and legally and focus on professional knowledge (cf. Recommendation for universities 2004).

### Challenges

In terms of information seeking, today's student or faculty member seems to be fluent in using a wide variety of sources for information. However, the user surveys and customer feedback at the library's lending desk reveal also obstacles in the utilization of e-resources. According to TUAS Library customer satisfaction surveys, the electronic resources available are mostly seen as satisfactory. The heaviest use of electronic resources among the staff is teaching preparation and for research, and among the students for assignments and thesis. Teachers and other staff members will use electronic journals if they are convenient and support their natural work patterns. Both teachers and students use electronic resources and most readily adopt them if their informational content is trustworthy and relevant, they are technically reliable and easy to access. If so, the electronic resources are regarded as convenient and time saving to users' natural workflow. (Kirjasto 2010; cf. Tenopir et al. 2003).

The main results of the library customer satisfaction survey from the year 2010 are as follows:

- The library staff is service-oriented and skilled at teaching information seeking skills.
- At the same time there are not enough training lessons in information seeking. Many of the respondents thought that information seeking is complicated and therefore more lessons are needed.
- The library has been successful in producing e-services, but the user-friendliness of the services is not good enough, and more guidance is needed. (Kirjasto 2010)

Challenges in answering the users' feedback include finding ways to market and promote online resources (as well as others) to the right "target" at the right time. Integrating teaching and student / other customer feedback into user interface design is another important challenge. One of the key questions is how to motivate the students to abandon the quick-and-dirty ease of e.g. Google and adopt an environment-specific search catalogue and database which produces higher-quality results with marginally more work. Students often first turn to the Internet when they are given assignments by teachers, and only use search engines for research. User-friendly search engines make some students even feel they are expert searchers. Out of all the possible answers, could social media applications offer a solution?

### The SL Environment of the Library and the Student Counseling Office

The project members wrote a script for the builder of the area and planned the functionalities, spaces and buildings. The visual theme of the site was decided as an archipelago while the city of Turku is situated on the southwest coast of Finland with a vast and beautiful archipelago. On the plot there are insular houses of different types for different kinds of functions and information, such as the red insular warehouses of the student office, which include information about the degree programs and studying for the applicants, and the insular house of the library with access to and instructions for e-resources. In the area there are also many different meeting places for the avatars such as a light house, a campfire, a sailing ship, and a café. The different functionalities in the library's Second Life-area were planned to trigger learning of IL skills and the use of e-resources. Those triggers were seen as affordances or clues in the environment that indicate possibilities for action according to the affordance theory (e.g. Sadler & Given 2007; Ruhleder 2002; Björneborg 2011).

The affordances (object possibilities for action) of the TUAS Library's Second Life site

- IL learning path on water-lilies where the avatars are learning the information seeking process
- subject-based electronic resources in a fish net e.g. health care and social services
- SL-resources as a nautical chart in the insular cottage
- search guides

### The Pilot Project of Teaching and Learning IL Skills in Second Life

A pilot group of students (25 students) from the degree program in social services attended a four-hour introduction to IL skills in Second Life, after having some introduction in "real life", e.g. in a computer classroom. Since this was a pilot course, there were also two teachers present, usually only one. After the course the students' opinions and thoughts were gathered with a questionnaire. The students were supportive to

the idea of learning IL-skills in Second Life by saying for example: *"We got good ideas; some of them were new, some of them we already knew."* *"We had the possibility to use and learn more about how to use SL in our studies."* *"I learned more about information seeking, and the many forms of information seeking. Information seeking is more than just the seeking a title of the book in the library's database, and I learned a lot of new methods for seeking information."* On the other hand there were students who preferred more traditional training of IL-skills: *"I did not really learn anything new from the IL learning path on water-lilies, because new information became all the time, and I got confused, and did not know which part of it I should have read first. Some of the information I read many times and on the other hand I'm not sure whether I read all or not...On a normal lecture also these things would have been better learned."* Technical difficulties in using the SL-environment caused that the learning experience was not optimal: *"It was very difficult to read the information from the note cards of the IL learning path on water-lilies, because they disappeared from time to time. It would have been easier to read from a printed text or a computer screen. Anyway, the ideas and information were good."*

These comments were very similar to those who had been attending traditional IL skills learning courses. Comments of similar nature are also received in our customer satisfaction surveys and student barometries while asked to comment the IL skills learning or the quality of our e-resources.

### Conclusions

The findings suggest that virtual environments such as Second Life, may enhance the IL skills of those students who are interested in, or have a positive attitude towards the virtual environments and unconventional ways of seeking and finding information including the serendipitous or opportunistic discovery of information (Erdelez, S. & Makri, S. 2011). While applying Second Life in teaching and learning IL-skills, the library has developed its profile from a traditional services library to a direction where the library may be seen as a participatory medium that can facilitate and support users in developing necessary competencies in seeking, creating, storing and sharing of information and learning from it (cf. Björneborg 2011). The next step for the library is to develop the Second Life -area and the IL training on the basis of the results of the pilot project in cooperation with the degree programme in library and information services of TUAS.

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## Worldwide Perceptions of New Librarians

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**Abstract:** This paper explores perspectives of new librarians using Technologies 2.0 worldwide. It is based on results from "International Perspectives of New Professionals" a research carried out in 2011 by Loida Garcia-Febo and Robin Kear with individual participation from 49 countries and 6 continents. The paper presents a global overview of the perceptions of international new librarians and how they are using social networks to create communities and collaborate nationally and internationally to learn, work, and further their professional carriers. At the same time, they are forging relationships that are leading towards the renewal of the profession. Finally, the current results are compared with Loida Garcia-Febo's original, similar 2007 study with the findings relating to social networks and global communication. The research keeps a finger on the pulse of the state of new librarians worldwide and maps out key points for the future of librarianship.

### Introduction

This paper explores the use of Technologies 2.0 by new librarians worldwide. It is based on results from "International Perspectives of New Professionals," a research carried out in 2011 by Loida Garcia-Febo and Robin Kear with participation from 488 individuals from 49 countries and 6 continents. It includes answers to an international-distributed questionnaire, literature review, anecdotal evidence from email discussion lists, and online communities maintained by groups of students and new librarians in different regions of the world.

In 2007 Garcia-Febo conducted a first study to explore perspectives of new librarians from across the globe. She surveyed 176 individuals from 12 countries and 5 continents. A total of 64% of the respondents were librarians with five years or less in the



profession and from the 176 participants, 51% were 32 years old or younger. While a 73% were members of a national library association, 55% didn't know if their association had programs for new librarians. The results showed a need for library associations to improve communication with new members. Garcia-Febo suggested library associations used technology to develop communication avenues that would strengthen collaboration with new librarians while at the same time increasing participation (p.77-78). The second study shows that new librarians are going outside of traditional association channels to create their own communities.

### Methods

A questionnaire including four sections with closed and open questions was created on the online website SurveyMonkey and piloted with three volunteers. The instrument was distributed via NPDG-L, the listserv of IFLA New Professionals, Facebook and Twitter. As the survey was disseminated, librarians from around the globe informed the researchers that they were posting the survey on listservs, on their personal Facebook pages and re-tweeting a link to it. The survey was open from March 1-15 of 2011. The data coming from closed questions was analyzed using SurveyMonkey generated summaries in the form of percentages and diagrams. Answers from the open questions were analyzed one by one by the researchers using key words and codifying answers. For the purposes of this paper, one section of the questionnaire was used.

### Results

A total of 78% of the participants were members of their national library association, and from the 488 surveyed, 49% didn't know if their library association included new librarians in its sections. A large group of participants were 35 years old and younger (54%). Based on answers from all the surveyed, 65% had 1-6 years of experience as librarians. Compared with Garcia-Febo's first study (2007), more participants of the featured research were members of a national library association, a smaller percentage were unaware of their library association's work with new librarians, the common age for new librarians went up to 35 years from 32, and the number of years in the profession for new went up to six from five years.

As per the answers to questions asking if individuals participated in initiatives for new librarians developed by groups outside library associations, it was revealed that new librarians are using technologies 2.0 to develop online communities to network, brainstorm and collaborate, discuss issues and motivate those that find difficult to break through into a library association, post blog entries about issues of interest, announce events and contests, share news, plan professional and social events, and establish working relationships with other librarians nationally. Table 1 shows these answers and other details pertaining to name of the group, country of origin, activities of the groups and the type of online tool they use to build communities. Although Twitter has users from all professions and regions of the world, the participants mentioned it as a social networking tool for librarians to share events, ideas, news and establish working relationships with other librarians nationally and internationally.

Table 1. Online communities created by new librarians.

Name of Group	Country	Activities	Online tool
ALA Think Tank	USA-based; open for librarians worldwide.	Motivate those that find difficult for new librarians to break through into the organization, discuss related issues, announce events, and plan professional and social events.	Facebook
Finnish young librarian movement	Finland	Network, discuss issues and plan events.	Ning
*Hack Library School	USA	Post blog entries about issues of interest for students and new librarians, and exchange ideas about LIS curriculum.	Facebook; Twitter WordPress
Hawaii-Pacific Law Library initiative	Hawaii	Brainstorm and promote collaboration.	Google
IFLA New Professionals SIG	Worldwide	Discuss worldwide concerns, post blog entries and videos about issues of interest and conferences, share news, and announce events.	Facebook; Twitter WordPress; YouTube
LIS New Professionals Network	England-based; open for librarians worldwide.	Post blog entries about issues of interest, announce conferences, social events and contests, and network.	WordPress
*New Academic Librarians: Networking for Success	Worldwide	Share news and information of interest to new librarians, and post job vacancies.	LinkedIn
New Federal Librarians Group	USA	Network with other federal librarians.	Facebook
*The NY Librarians Meetup	USA	Coordinate events, share information and job vacancies.	Digg; Facebook Flickr; Goodreads LibraryThing; LinkedIn; Meetup Blog; Twitter YouTube
*Urban Librarians Unite	USA	Activist librarians organize grassroots advocacy efforts, organize networking events.	Facebook; Twitter; WordPress.

\*Online communities not mentioned by surveyed individuals, but identified through listservs, blogs and social media sites.

### Discussion

New librarians are creating ubiquitous online spaces that can be accessed anytime and anywhere. They can share a myriad of resources such as blog posts, pictures, videos and discuss latest trends and hot topics. Our results reflect that global networking has become the norm as Facebook, Flickr, Twitter, foursquare and YouTube have closed geographical gaps between countries. For instance, those following IFLA New Professionals in Facebook or Twitter also follow other groups such as ALA Think Tank or

LIS New Professionals Network. These connections have resulted in efforts such as Buy India a Library (Yelton et al. 2011) where librarians based in Denmark, USA, and UK engaged the international library community in donating funds for a library in India.

Librarians connecting with others in other regions of the world are proactively joining international collaborations that would potentially help them build careers as suggested by Becker in her study of international communications between librarians (2006), and breaking down hierarchical boundaries as pointed out by Ruddock (2011). This is particularly positive because new librarians don't need to worry about ranking, level of experience or mobility to have an active role (Bradley, 2009). These points have been a source of concern for new professionals wanting to join committees or working groups, but faced with requirements that at times inhibit participation in such units. By connecting online, new professionals create their own opportunities and develop their own projects. These international connections help librarians build partnerships that impact themselves and their organizations as evidenced by the Schnuer and Satgor study of international collaborations (2005).

## Conclusions

The new librarians who answered our study are rejuvenating our profession through new ways of connecting and maintaining relationships. They are making continued progress in our professional core values of information access, intellectual sharing, and readership by their creative efforts and inspiring projects. They are creating this change inside and outside of traditional professional associations.

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# Challenges of e-Science and Virtual Research Environments for Academic Libraries in Norway

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**Abstract:** In recent years there have been huge changes in the way researchers carry out their research. New terms like e-science, cyberinfrastructure and virtual research environment emerged. Now researchers work in more interdisciplinary and collaborative ways, they communicate virtually to a greater extent, they have to deal with an overflow of data and information, and they use different ways to publish their research outcomes. Most roles and services of academic libraries are affected by these developments. But what do e-science and virtual research environments mean for academic libraries in practice? What role should libraries play and what are the biggest challenges? These questions will be discussed, and approaches for academic libraries in Norway to support these new research practices will be presented.

## Introduction

Research processes that obtain, adapt, disseminate and archive knowledge are under change and their complexity is constantly increasing. Most areas of science have been transformed by the huge amount of new scientific data available. In particular knowledge production, publishing and scholarly communication are affected by enormous technological changes. This means researchers' work patterns and needs have changed too. Today researchers work in ways that are much more interdisciplinary and collaborative, and the communication is done in virtual, net-based environments. Researchers have to deal with an overflow of data and publications and with a huge number of search tools. There are new forms of scholarly output and new publication channels, complicated intellectual property laws and different uses and reuses of research outcomes. Researchers want cross-repository search tools and intuitive interfaces to find the needed information easily and quickly. There is also a need for long-term preservation and for professional management of digital information. This new way of carrying out research is called e-science or e-research.

## E-Science and Virtual Research Environments

A widely used definition of e-science originates from John Taylor, former director of Great Britain's Research Councils: "E-science is about global collaboration in key areas of science, and the next generation of infrastructure that will enable it." (Taylor,

1999) Thus e-science refers to research and science increasingly done through distributed global collaborations enabled by the Internet, using very large data collections, large-scale computing resources and high performance visualisation. (Simpson, 2007) “The term ‘e-science’ denotes the systematic development of research methods that exploit advanced computational thinking” is another much used definition, from Malcolm Atkinson, director of UK’s e-science institute. (Atkinson, n.d.)

An infrastructure enabling e-science and e-research is described by various terms, such as virtual research environment (VRE), cyberinfrastructure or e-infrastructure. In the following VRE will be used. There are a range of definitions of VRE. One widely used one is from the virtual research environment collaborative landscape study that was carried out by UK’s Joint Information Systems Committee (JISC):

A VRE helps researchers in all disciplines to manage the increasingly complex range of tasks involved in carrying out research. It will provide a framework of resources to support the underlying processes of research on both small and large scales, particularly for those disciplines which are not well catered for by the current infrastructure. VREs will add value to the research process across all disciplines by complementing and inter-working with existing resources and by being flexible and adaptable to changing requirements. (Reimers & Carusi, 2010) Another shorter definition is offered by Michael Fraser: “A set of online tools, systems and processes interoperating to facilitate or enhance the research process within and without institutional boundaries.” (Fraser, 2004) The German Research Foundation refers to the Allianz working group for VREs that defined a VRE as “a platform for Internet-based collaborative working that enables new ways of collaboration and a new way of dealing with research data and information”. (Allianz-AG Virtuelle Forschungsumgebungen, 2011) Looking at the various definitions, one can conclude that all of them focus on collaboration and on an online environment that contributes to the research process. In other words, besides supporting the individual scientist, a VRE facilitates collaboration amongst research teams and communities, providing them with more effective means to jointly collect, create, and manage data, information and knowledge.

There are many e-science programmes and VRE projects in Europe, most of them supported by EU’s Seventh Framework Programme. The platform for discussing and coordinating a European research infrastructure is called ESFRI (European Strategy Forum on Research Infrastructures).

### Roles and Challenges for Libraries

E-science fundamentally alters the ways in which scientists carry out their work, the tools they use, the types of problems they address, and the nature of the documentation and publication that results from their research. Consequently, nearly all aspects of the academic library’s classic roles are influenced by these new methods. (ARL, 2007) Therefore libraries must first of all develop an understanding about the issues and needs that are linked with e-science and VRE. There will not be ONE model for all libraries, and each library has to find out for itself the best way to support their researchers. However, all documents on e-science agree that digital archives are a vital element for research infrastructures and that e-science is much about free access to scientific publications and research data. So many libraries feel that they can claim that they are already supporting e-science by facilitating institutional repositories. Academic libraries

do have expertise in several areas that are important for e-science. Libraries are in particular good at supporting access to information, offering alternative ways of publishing and providing metadata. They are experts on long-term preservation and intellectual property laws. Libraries can be experts on linking research data and publications, they can and do facilitate research documentation systems and they help researchers becoming information literate. Therefore academic libraries should be active participants in the conceptualisation and development of research infrastructures, including systems and services to support all stages of the life cycle of e-research. But even if academic libraries have started being engaged in e-science there are still a lot of challenges. There is a need for an increasing awareness of e-science and a requirement for excellent management. Necessary skills for supporting the new research methods have to be identified and the professional development of library staff has to be promoted to develop the required skills. Big challenges are the ever-changing user behaviour and the rapidly changing technology. E-science raises questions about intellectual property as well as who will pay for the development of research infrastructures. Another big challenge is marketing and advocacy because most researchers do not know about library services and librarians’ knowledge and skills. Last but not least, there is a need for a much closer cooperation between researchers, administrative system operators, libraries and university managers.

### E-Science Librarianship in Norway

The example of Norway shows responses in practice. Until recently e-science and virtual research environments were hardly discussed in Norwegian academic libraries. But gradually libraries have realised that they need to define their role in supporting the new research methods. So far University of Bergen Library is the only one that mentions e-science explicit in its action programme. The National Library and the University Library in Tromsø are implicit adapting themselves to e-science by mentioning in their strategy documents the development of new forms for knowledge management and information retrieval systems, of useful metadata, and by talking about digitising collections and providing easy and quick access to the newest research results. Currently, the university libraries in Stavanger and Trondheim are working on new strategies and action programmes. Today most universities and colleges in Norway have an institutional repository, and it is here that libraries have achieved a lot when it comes to e-science. Norwegian academic libraries also facilitate CRISTIN (Current Research Information SysTem In Norway), a tool for research information and documentation in which researchers can register and profile projects, publications, institutions and academic expertise and that could function as an element for a VRE. But a role for Norwegian libraries in e-science has not been defined and there is no joint strategy even if the Research Council of Norway (NFR) already in 2006 started a programme called EVITA (e-science – Infrastructure, Theory and Applications). Two years later NFR came up with a National Strategy for an eInfrastructure. One part of this programme and strategy is the development of a National Research Net. Other ones are NorGrid (Norwegian GRID Initiative) and NorStore (Norwegian Data Storage Infrastructure). The National Strategy mentions metadata, a national research net, long-term preservation and other issues on which libraries have expertise. However there is not a single word about libraries in the document. But there are quite a few e-science activities in the research communities in Norway that are mainly supported by the National Financing

Initiative for Research Infrastructure (INFRASTRUKTUR). Only two of several newly accepted projects also involve libraries. (NVFI, 2010)

### Summary and conclusions

E-science, the new dynamic way of scholarly work, requires innovative research infrastructures and new services for scientific communication, information and publications. In particular the transfer of research results and the supply of relevant information and research data are of great importance. Sustainable scientific information infrastructures will only be accepted if they offer added value to the researchers. Even if most libraries see a role for themselves in e-science through the management of research data and publications, this is not recognised in national strategy or definitive library planning in Norway. It is clear that library services must be easily accessible at all stages of the research process and that they have to be aligned to researchers' workflow. But in regard to this there are still only vague strategies and a few projects. If Norwegian academic libraries are to fulfil their e-science potential, a joint strategy needs to be developed by Norway's National library, academic libraries and Library Associations as a basis for specific developments in the institutions.

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## The Presence of the Topics on Free Access to Public Information in Professional Literature in the Last 20 Years in Journals Vjesnik Bibliotekara Hrvatske (Croatia) and IFLA Journal Comparative Analysis

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**Abstract:** The topic of this research is occurrence of papers on free access to public information in one Croatian LIS journal, Vjesnik bibliotekara Hrvatske (VBH) and the IFLA Journal. It is interesting to see how these topics (e.g. free access to public information, transparency of public information and access rights) are addressed in VBH and IFLA Journal.

The purpose of this research is to find out the extent to which the authors of professional literature deal with the issue of free access to information and which topics are most common in Croatian LIS Journal, and whether it is the same as in international LIS Journal, IFLA Journal. The method of this research is a critical and subject analysis of literature published in the period from 1991 to 2010. Data were collected using bibliometrical methodology (authors, titles, keywords and abstracts were collected). Keywords were used for making the list of subjects covered in chosen articles. Analysis and results are showing distribution and treatment of the topics connected to the public information. One of the results of this article is a short bibliography on topics mentioned above. It is a good starting point for broader research.

### Background

When speaking about freedom of access to information we have to begin with FAIFE, Committee on Freedom of Access to Information and Freedom of Expression. *“The overall objective of IFLA/FAIFE is to raise awareness of the essential correlation between the library concept and the values of intellectual freedom”* (FAIFE). FAIFE is addressing many important issues such as intellectual freedom, human rights, Internet censorship, free access to information, information ethics etc. which are getting more and more important in everyday's life of libraries all over the world. Information professionals are making their careers on issues of intellectual freedom and freedom of expression. That is one of the arguments that these topics are very important to research. In the mission of every information institutions is written that it's providing



access to information. World human rights advocate Paul Sturges (2002) when speaking about the right to access to information includes *"the freedom of individuals to communicate with other individuals or groups, or the individual's right to obtain information"*. According to the Croatian Library Association (CLA) *"access to information of public importance, which include the archives of institutions of public administration (state, municipality), fulfils the rights of individuals and groups and gives them opportunity to fully participate in the community, including involvement in various decision-making processes"*. (CLA) This research is going to investigate how many professional journals are dealing with public information. To be sure what type of information is public information, we use definition of Slovenian Information Commissioner, *"public information is all information originating from the field of work of the public sector bodies and occurring in the form of a document, a case, a dossier, a register, a record or other documentary material (hereinafter referred to as "the document") drawn up by the body, by the body in cooperation with other body, or acquired from other persons. Natural and legal persons can under certain conditions use this information also for commercial or non commercial reuse."*(SIC) Topic of access to public information will be in the focus of this research.

### Purpose

The purpose of this paper is to see how one Croatian and one international professional and scientific journal treat topics of free access to (public) information and to compare which topics are in common interests of both journals (if any).

### Methodology

The method of this research is a critical and subject analysis of literature published in the period from 1991 to 2010. Data were collected using bibliometrical methodology (authors, titles, keywords and abstracts were collected). Keywords were used for making the list of subjects covered in chosen articles. After suitable articles were chosen in each journal, articles were indexed by the ASIST Thesaurus. Matching keywords and ASIST Thesaurus terms showed possibilities of further analysis by indexing every article with preferred and non-preferred term. To each article 3 to 5 key words were applied.

The most significant words were chosen to illustrate subject coverage of three publications: human rights, free access to information, intellectual freedom, freedom of speech, public information, Internet access, cooperation, transparency, copyright, censorship: different aspects. It is important to say that the some articles were counted twice or three times depending on subjects covered in them. Analysis and results are showing distribution and treatment of the topics/subjects connected to the public information.

### Findings

The analysis showed that Croatian LIS Journal VBH in last 20 years (1991-2010) had only 20 articles which are dealing with free access to information in general (regardless the aspect). The explanation for this can be seen in the fact that CLA is organizing Round table with the topic Free Access to Information since 2001. Therefore, topics covered at the Round table are not published in VBH. This Round table is in English

and Croatian and every year proceedings are published in both languages. To fulfil the "gaps" in literature about certain topics in VBH, articles from proceedings were also included in analysis. Analysis of Round table proceedings showed that main topics on free access to information were addressed there since the beginning of Round table. Detailed analysis of VBH articles showed there is a significant amount of time which was not covered by analyzed topics. In period of 1991 to 2001 there were no papers about free access to (public) information in VBH.

On the other side, IFLA Journal has fully coverage of the topic(s) of free access to information (regardless the aspect of the topic). In last 20 years every issue of IFLA Journal is addressing free access to information in many different aspects, from very broad sense (human rights) to specific (transparency).

### Discussion

Table 1 is showing what the coverage of topics in three different publications is. Topics/subjects are counted and presented in table as plain numbers. Explanation is given below.

Table 1. Topics covered in VBH and IFLA Journal

Topics	IFLA Journal	VBH <sup>1</sup>	Round Table: proceedings
Human rights	4	5	6
Free access to information	58	5	26
Intellectual freedom	10	5	6
Freedom of speech	15	3	6
Public information	8	1	9
Internet access	31	3	1
Cooperation	9	1	7
Transparency/corruption	14	1	20
Copyright	10	4	8
Censorship: different aspects	3	9	2
Number of articles	106	20	46

According to subjects, in 20 years in VBH only 20 articles matched chosen topics/subjects. These topics were not recognized earlier in Croatian professional community. There are several reasons for that. Besides Round table, there is 10 years of "silence" about topics on freedom of intellectual freedom, access to information etc. Some topics came later in Croatian LIS community and we need to fill in the gaps in these areas. This "silence" needs to be researched further.

As it was expected, IFLA Journal covers most (or all) researched topics. It is interesting that there are not many papers on topics of public sector information which was the focus of this research. That is area that needs to be researched further.

<sup>1</sup> Topic coverage started in the beginning of 2000.

## Conclusion

We can conclude that Croatian journal VBH is not oriented towards topics of free access to information. Proceedings of the Round table on free access to information showed us that Croatian information professionals are in last 10 years committed to all topics which are important for developing of democratic society. At first glance, VBH results can give false picture on researched issues in Croatian professional literature. That is why proceedings of Round table were also researched. IFLA Journal in its vision is oriented towards promoting intellectual freedom, access to information, freedom of speech etc. and therefore many articles are dealing with these subjects. For detailed results and conclusion, more analysis needs to be done.

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## Opening Doors in the Private Sector

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**Abstract:** This communication is a short retrospective view into the entry of our profession within the private sector. This study is based on a theory framework and local geography, which helps evaluate and analyze a portion of the history of profession the librarian in Spain. In this profession are not only librarians; they are also researchers and information agents that work with information, organization and seeking requirements for the private company that works on the Internet. The private sector does not clearly recognize them as professionals whereas other professionals lack the correct training to replace us in fields where the librarian is completely competent.

On the other hand, they are trying to be accepted in places where can be useful and efficient; every time that Web 2.0 opens its doors gives them better job opportunities. This study is supported in findings through interviews with professionals who work in a variety of private companies. The aim is to analyze and evaluate the development of librarian profession in this sector. Also, the other goal is to find how Web 2.0 is helping create a collaborative environment between professionals. Be deepens into bibliographies which will help to contextualize the environment where the librarian work has evolved. The sample is chosen from the close environment where the study is conducted geographically, and the methodology used is personal or via mail interviews.

In conclusion, this study only want to focus on employment opportunities and illustrate the work and the needs of the professional librarian in jobs that are not known, and discover whether Web 2.0 has changed the way you work.

## Objectives

The objective is to analyze and evaluate the development of librarian profession as agents and researchers working with information and Web 2.0 tools, making it more useful and accessible to private companies, and not just at libraries. The proposed secondary objectives focus on:

- Identification of factors that have determinate the librarian presence in the private sector.
- Gain knowledge that will help librarians students them to channel efforts to work with private companies in the future.
- Determination of the relevance of Web 2.0 in the development of the profession of the librarian and the positioning of this profession as agents of information in the private sector.

## Background

The main question raised by this study is: At what time does this profession cease being simple librarians and begin to become information professionals? This happens when decide to leave behind the conservative role and start taking risks and adjust to innovation in the emerging Internet. Which has evolved from the static web (1980s), through the dynamic web (1990s), it's arrived at the turn of the century and finally the Web 2.0. Now the most important thing at the web is the user, who creates content from his or her ideas. The user is no longer passive in this process.

Although at first they did not have chance as professionals in this sector, the need for managers, organizers and planners of information in the web environment became more and more apparent. Although, they are specialists in knowledge management, for the most people in the private sector are invisible.

According to Vieira da Cunha, Miriam, (2001), "One of our greatest strengths, perhaps the largest, is the fact that-we alone among librarians, information professionals we have a total view of the information process from conception to its dissemination".

## Methods

This is a non-probabilistic study based on the opinion of the people who were interviewed, in order to get an overview of the opinion of information professionals in the private sector. Has been used the following strategies:

- Surveys of professional private sector information: sending online survey conducted with 150 information professionals (done with GoogleDocs). The respondents were selected at random from the information professionals' directory EXIT (Baiget, Thomas & Rodríguez-Gairín, Josep Manuel, 2005).
- Personal interviews with professionals: understanding of the perception that professionals have their work, have been done 5 personal standardized interviews to extend and to corroborate the hypothesis on the objectives.
- These subjects were selected from the poll professionals. The interview consisted of 6 open-ended questions in which the individual being interviewed expresses his experience in the sector.
- Finally the general framework is based on a study of relevant literature on this subject.

## Findings

The study sample consists of 150 professionals. The database was collected in the fall of 2011, where response rate was 35.3%. Table 1 presents the results obtained from the survey.

The results obtained from the interviews are reflected in the following points:

- The main motivation to engage in this sector is the possibility of innovation and personal development and employment, as well as to approach to new challenges.
- The main tools used within this area are: Twitter, netvibes, working groups as LinkedIn, corporate intranets, folksonomies, blogs or creating free software.
- The respondents believe that Web 2.0 has shaped their presence in the private sector.

- The weak points in the librarians are the lack of knowledge of the latest technological resources and a lack of knowledge-oriented marketing.
- Although financially well-paid, our profession it is not sufficiently recognized in the private sector.

Table 1: Survey results in percentages by columns.

Professionals	Motivation				Use				Influence		Total
	1	2	3	4	1	2	3	4	1	2	
Pharmaceutical	10,0%	7,4%	12,5%	12,5%	11,9%	0,0%	0,0%	0,0%	13,0%	6,7%	5
Audiovisual aids	20,0%	7,4%	0,0%	12,5%	11,9%	0,0%	0,0%	0,0%	0,0%	16,7%	5
Legal System	20,0%	3,7%	12,5%	12,5%	9,5%	0,0%	33,3%	0,0%	13,0%	6,7%	5
Software	10,0%	7,4%	25,0%	0,0%	9,5%	0,0%	33,3%	0,0%	8,7%	10,0%	5
Web pages	0,0%	11,1%	25,0%	0,0%	7,1%	50,0%	0,0%	0,0%	13,0%	6,7%	5
Documental services	20,0%	25,9%	12,5%	62,5%	23,8%	50,0%	33,3%	50,0%	39,1%	20,0%	15
Press	10,0%	11,1%	12,5%	0,0%	11,9%	0,0%	0,0%	0,0%	4,3%	13,3%	5
Others	10,0%	25,9%	0,0%	0,0%	14,3%	0,0%	0,0%	50,0%	8,7%	20,0%	8
Total	10	27	8	8	42	4	3	4	23	30	n=53

Sector: Sector in which they work.

Motivation: What pushed you to work in the private sector? 1: Economic motives, 2: Opportunities for development and innovation, 3: rapid insertion opportunity, 4: other reasons.

Use: How often do you use Web 2.0 in your work? 1: Daily, 2: often, 3 Rarely, 4: Never

Influence: Did Web 2.0 help you to enter the sector or to integrate yourself in it? 1: Yes 2: No

## Discussion and Conclusion

The conclusions drawn from analysis of the results of the study are different: one of these being that the sector where the librarians have the most presence professional is in the documentary services (28.3%). On the other hand, we observed that the main motivation to work in private companies is not the salary, as you might think, but rather it is the ease to develop new projects both personally and at work. A remarkable aspect is the high value of Web 2.0 tools in your workplace, 79.25% of respondents claim that they use Web 2.0 every day.

Although we are a key part of management processes and information processing in the private business environment, should be modernize the image of librarian profession as the name of degree in information and documentation in order to stop being invisible in this sector. In addition, they need to be adaptive because of the rapid evolution of the Internet and other technologies, as currently Web 3.0 (the semantic web) is under construction, as well as mobile devices also are changing the industry.

As shown by the results on the poll population, there are too many roles that the librarian could perform it, some of them are community manager, webmaster, content man-

ager, software creator, etc. Anyway they cannot forget our traditional roles: documentalist, librarian or archivist.

Throughout of the history, the large amount of information has always entailed the need of management, organization, and the knowledge to make it retrievable and accessible. This has led to compartmentalized roles; also the traditional profile of librarian has generated new positions. Finally the question arises: The private sector professional going to them separate the role of the librarian in the future?

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## About the Use of Information Media by Students in Higher Education Results of an International Empirical Survey

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**Abstract:** The ubiquitous dissemination of IT media services into tertiary education has led to changes in students’ learning and study behaviour. Services like Google or Wikipedia are most often used not only during free time but also for learning. At the same time, traditional information media such as textbooks or printed hand-outs still form basic pillars in students’ learning environment. Although there are papers focusing on the effect of digital information for learning, there have been no studies conducted that measure the use of a wide range of media, print and online. Before investing more in digital technology, university administrators should first understand student learning behaviour within the current overall media environment. To measure the media usage for learning in tertiary education an international long term survey was set up by the author and several cooperation partners. Beginning with a first survey carried out at Karlsruhe Institute of Technology in 2009, currently a total of 15 surveys at 11 institutions of higher education in several countries were carried out. Until November 2011 about 10,000 students were asked 143 questions about their information media use for learning and close-by topics. The survey led to several outcomes, such as an acceptance ranking of 48 media services, a media and media user typology, a media acceptance model and possible influence factors on the use of media

## Introduction

The dissemination of new computer technologies into Tertiary Education leads to permanent changes of students’ learning environment. The usage of IT systems includes many different services, such as e-learning systems, databases, IT infrastructure, electronic text or stationary and mobile computer devices. It not only implies information services provided by university, but also external systems which are basically used for self-controlled and informal learning.

The Web 2.0 is often characterized by the increase of direct interactions between users (O’Reilly, 2005). Students in tertiary education strongly use external Web 2.0 services, such as Google, Wikipedia, and Facebook, during their free time as well as for their studies (Smith, Salaway & Caruso, 2009; Smith & Caruso, 2010). Mobile broadband Internet access and the ownership of notebooks, netbooks, tablet computers and



smartphones have lately fuelled the boom of the use of the Web 2.0 by students in Tertiary Education.

The acceptance of e-learning by students has increased in recent years, but not all services are accepted equally. Students generally tend to refrain from technologies that require much effort. Instead they prefer modest and easy-to-use services (Kvavik & Caruso, 2005; Sharpe et al. 2009). It has also become clear that using media and e-learning doesn't improve the learning process in general (Russell, 2001).

A key success factor of e-learning is the quality of the services (Ehlers, 2004a, 2004b). This quality is not to be (mis)understood as product quality but as the quality from the individual point of view of the student. Consequently, quality assurance of information systems at universities has to be carried out by evaluating the services from the student's perspective. At the same time, the learning-related media usage is embedded in a certain environmental system and, hence, influenced by various environmental (external) and personal (internal) factors.

### Methods

The survey used a methodology developed during a media survey carried out at Karlsruhe Institute of Technology (KIT), Germany in 2009 (Grosch and Gidion, 2011). KIT was founded in 2009 as a merger of University of Karlsruhe and Forschungszentrum Karlsruhe, both known for engineering and technology. The survey instrument was derived from the KIT 2009 print questionnaire. It was translated first from German to English. The English questionnaire was generalized for the usage in different countries and translated into Thai and Spanish. The questionnaire contains the usage frequency and satisfaction of 53 media and IT services as well as 40 questions about learning behaviour, education biography, media skills, media use during free time and also sociodemographic questions. Currently 15 surveys were carried out at 11 universities in Germany, Spain and Thailand.

### Results

The surveyed media services could be classified to five media types by using Principle Components Analysis.

Table 1. Media typology.

Media Type	Items
Ubiquitous Media	Google Web search, external e-mail (not KIT), Wikipedia, online dictionaries, Google Books, word-processing
Social Media	Facebook, other social networks (not Facebook), Twitter, Instant Messengers, video platforms, weblogs, social bookmarking, Google Apps
Text Media	e-journals, printed journals, bibliographic software, KIT library catalogue, services of other libraries (not KIT library), Google Scholar, printed books, e-books
E-Learning Services	Wikis, learning software, newsgroups/forums, e-learning as part of the class, online materials from other universities (not KIT), virtual class in non-real-time, dictionary software on computer, e-learning platform Moodle
Class Attendant Media	Class attendant journals online, class attendant slides online, printed class attendant materials, e-learning platform Ilias, recorded lectures
University Web Services	Online self-tests, online exams, KIT e-mail account, university website, student web portal

The acceptance values of the different media, which are used for studying, were put together in a ranking. It showed that in all surveys some services are used on a high level. Google is the most accepted service, followed by external e-mail and services like Wikipedia, class attendant materials, instant messengers, Facebook and YouTube. E-Learning services are accepted on an average level, beyond the ubiquitous media like Google or Wikipedia, also text media are accepted on a high level.

Based on the media typology, described in the table above, and several factors of learning behaviour, a cluster analysis led to several media user types for learning.

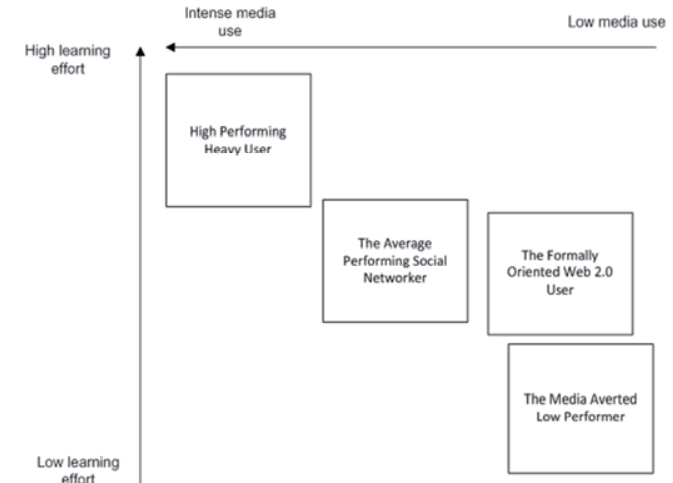


Figure 1: media user typology

Explorative factor analysis led to the extraction of several dimensions and, combined with the theoretical approach of the survey, to a media acceptance model for tertiary education.

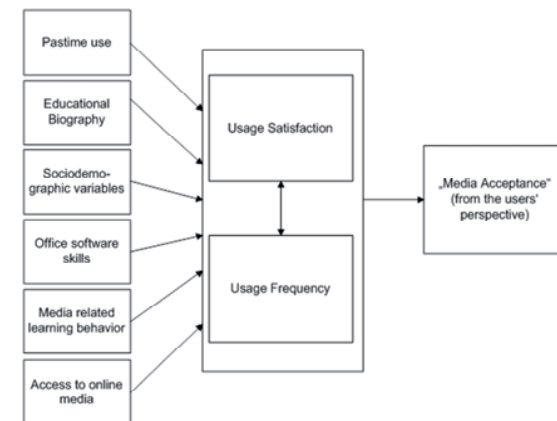


Figure 2: media acceptance model

Linear regression analysis of the data showed, that possible influence factors on the use of media for studying could especially be the media use during free time, office skills, sociodemographic variables and educational biography.

### Discussion

The survey led to the overall impression, that students use information media self-controlled and intense. Inside the different media categories, there are significant usage differences. The developed classification means a plausible classification of the media and the students. The typologies as well as the acceptance model could be validated in the different surveys. As the main structures of usage behaviour are similar, that stands for a global usage culture among students, especially when it comes to Web 2.0-media like Google or Wikipedia.

The survey also led to several hints to strategic development of university services and a validated questionnaire in four languages which can be used by other universities. Interested universities should therefore contact the authors.

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## Top Mobile Apps for Libraries Mobile Development and Implications for Library Services

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**Jim Hahn's** recent research includes development of a mobile wayfinding app (<http://go.illinois.edu/libraryhelper>) that guides students to books in the library; ongoing work concerns understanding how library information resources can be provisioned to a student's handheld device based on location in the library stacks, essentially a question of resource recommendation by stacks position, interest, and motion.

**Alaina Morales** assisted with the iterative design process of a library navigational tool designed for smartphones that use the Android operating system; collaborates with libraries faculty, teaching faculty and graduate teaching assistants to develop a robust virtual library environment that enables learning; and employs web-based technologies in instructional efforts.

**Abstract:** According to the Pew Internet and American Life study, *Mobile Access 2010*, 40% of American adults use the Internet, email or instant messaging on a mobile phone – up from the 32% of Americans who did this in 2009 (Smith, 2010). A report focusing on smartphone adoption (devices with app capabilities and wireless Internet access) finds that 35% of the American adult population own smartphones (Smith, 2011). Further, Smith writes, “Mobile phones are a main source of Internet access for one-quarter of the smartphone population,” (2011, p3). This growing trend of wireless handheld access indicates a need to rethink library services. Such a reconceptualization would introduce library service enhancements as well as completely new library services that these handheld devices enable. Consider the new and emerging domain of location-based services. This domain introduces the possibility to deliver library information based on the user's location. Librarians can leverage existing library data such as shelf classification and facilities layout for the design of innovative information environments that respond to a user's shifting information needs (Hahn, 2011). In addition, augmented reality (Azuma, 1997) applications will create compelling immersive experiences for library users. This paper will review library centric and library-specific apps such as Mendeley, RedLaser, and others. We will provide suggestions for how libraries can stay current in application development, show current uses of apps for library services, and finally, provide a snapshot of the future of library services and mobile applications.

### Introduction

As smartphone ownership grows in ubiquity, and continues to rise as the main access point for the Internet, it will be necessary for library services to adapt to mobile use. Smartphone applications provide new and innovative ways for libraries to provide instant access to resources, and enhance the library experience for patrons. With such an expansion of services, libraries can continue to meet the needs of their current users, but also meet the needs of those users they may be under-serving in the current state. According to the Pew Internet and American Life study, 49% of adults ages 18-24 own a smartphone, and 44% of African Americans and Latinos own smartphones (Smith,

2011). Providing mobile library services is necessary to target diverse populations and to serve the needs of Latinos, an expanding percentage of the U.S. population.

### Top Mobile Apps for Library Services

#### *RedLaser*

RedLaser is a free application for both iPhone and Android that scans codes with the phone's camera, including standard UPC codes and QR codes. The app works with WorldCat to allow users to scan most books and find a copy in a nearby library. RedLaser also connects users to an online retailer, so they can find the best price, if they are looking to purchase a book. RedLaser allows librarians to easily adapt the QR technology that is growing in popularity. In addition, this application allows library patrons to quickly identify whether a book of interest is available at a local library, or informs them if they should use an interlibrary loan service to request a book instead. In addition, RedLaser offers a free Software Developer Kit (SDK), which allows librarians to invent uses within their distinct library environment. This SDK is a powerful entre into the world of location-based services by delivering relevant information based on a scanned barcode. (<http://redlaser.com/>)

#### *Mendeley*

Mendeley is available as a free download for iPhone and iPad use. Mendeley allows you to update, organize, read, annotate, and share your library while away from your desktop. Librarians can recommend the mobile app to graduate students and others who need an easily accessible connection to their research library. The app is especially helpful during lectures or conferences, when students may be interested in downloading a citation referenced by a speaker immediately. Furthermore, the app allows librarians and students to read saved PDFs on-the-go, offline, which is ideal for preparing for conferences or presentations while traveling, especially when WiFi or other data connections are unavailable. ([www.mendeley.com/features/backup-sync-mobile/](http://www.mendeley.com/features/backup-sync-mobile/))

The following apps expand traditional library services, by allowing patrons means of accessing information beyond those boundaries. Librarians can adopt these apps to answer reference questions or recommend from the reference desk. These apps are also suitable to recommend to patrons who have little experience with smartphones or mobile applications.

#### *Word Lens*

This app is available as a free download for iOS, but a language pack must be purchased. Users take a picture of a word and Word Lens will translate into the user's native language. (<http://itunes.apple.com/us/app/word-lens/id383463868?mt=8>)

#### *ISSRN - Social Science Research Network*

This free download for iPhones provides access to the latest Social Science and Humanities research in the SRRN eLibrary. With this app, users can search over 250,000 papers and read the full text from their device. This app provides instant access for students and scholars, and is a great tool for librarians to recommend to millennials, who expect instant gratification from technology. (<http://itunes.apple.com/us/app/issrn/id334702612?mt=8>)

#### *WebMD*

WebMD is available as a free download for Android, iPhone and iPad. Users can get reliable health information and find their closest health provider with this app. ([www.webmd.com/mobile](http://www.webmd.com/mobile))

#### *Google Related*

##### Google Sky Map

This app for Android is a reference source for identifying constellations and stars. Users can browse or search the skies with this app, or point their phone at a constellation or star to learn the name. ([www.google.com/mobile/skymap/](http://www.google.com/mobile/skymap/))

##### Google Goggles

Goggles is available free for Android or iPhone. Instead of visiting Google and performing a search of a landmark, artwork, business, etc., users can take a picture of the object and Goggles will retrieve web results to learn more. ([www.google.com/mobile/goggles/#text](http://www.google.com/mobile/goggles/#text))

### About Augmented Reality Applications

A classic review of augmented reality is the often-cited work by Azuma (1997, p2) where augmented reality computing services are defined as having "the following three characteristics:

1) Combines real and virtual, 2) Interactive in real time, 3) Registered in 3-D." Essentially, Azuma is saying that these three conditions must be met in order for a software tool to be considered augmented reality. An update to Azuma's initial survey underscores the maturation and probable mainstreaming of this novel technology – indicating that augmented reality,

- "combines real and virtual objects in a real environment
- runs interactively, and
- in real-time registers (aligns) real and virtual objects with each other." (Azuma, et. al 2001, p1).

With this dynamic computing approach on mobile platforms, librarians can create new types of library experiences; however, not all libraries will have the expertise on staff like computer vision or programming skills in computer graphics. We advocate a method of using existing platforms for augmented reality applications in library settings. One existing mobile app that allows for customization is Layar. The Layar app is available for the iOS or Android mobile operating systems. Users can either choose to make use of the Augmented Reality Browser, or develop layers of information with the Player module ([www.layar.com/](http://www.layar.com/)).

#### *Use Narrative*

This app dynamically overlays information onto your phones camera views in order to learn more information about your surrounding environment. Through a series of layers, the user is able to specify what types of information are of most interest. First-time visitors to your library will only be aware of print objects that the library has available; however, librarians subscribe to an array of digital resources. Some users may actually prefer an e-book to the print copy if available. With the layer API, librarians are able to specify available digital content based on the library users location. The API infor-

mation is available here: [www.layar.com/development/tools/](http://www.layar.com/development/tools/). Since much of the digital library content could be associated with a geographic location, the library could bring digital content into the user's everyday urban navigation experience.

### *Alternative Use Case*

For new members of your patron population, the librarian at the reference desk may want to recommend this app for exploring their new city. Users can specify to receive information about food, housing, shopping, and a number of other social functions as well. A historic browsing lens could overlay historical images or archival video of the surrounding environment so that users could experience what the city looked like in previous decades. Experiencing this media in the actual environment brings a closer interconnection between digital resources and the physical world.

This app uses the phone's positioning sensors to approximate the device's location. Users should be aware that their current location will be used in order to deliver localized information. Some mobile users are not comfortable with location sharing. This is an important consideration when making a recommendation for an app. In most use cases, the mobile app will ask for permission to utilize the device's GPS coordinates. Users can decline, and not make use of location enabled services.

### Conclusion and Staying Current

One suggested strategy for tracing ongoing development is to download some of the most popular apps from app stores, which can be periodically analysed for emerging trends in this field. The "Genius" feature in iTunes can recommend similar apps based on apps an individual has found useful. The Android Market has an "apps like this" facet. Use these sources to follow the very latest mobile app developments.

Resources for ongoing individual study include the following Blogs and Websites:

- Wired's Gadget Lab [www.wired.com/gadgetlab/](http://www.wired.com/gadgetlab/);
- NYT's Gadgetwise Blog: <http://gadgetwise.blogs.nytimes.com/2011/02/10/just-got-an-iphone-here-are-the-best-apps/>
- A library centric place to track current mobile development in information settings is the ALA Connect presence, and the Mobile Computing Interest Group's forum: <http://connect.ala.org/node/72768>

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## Moral Cha(lle)nges in the Age of e-Media

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**Abstract:** Both philosophers (Luciano Floridi, Agnieszka Lekka-Kowalik, Rafael Capurro), ethicists (Charles Ess, Toni Carbo) and researchers engaged in information technology (Deborah Johnson) speak about the need for reflection on information ethics/computer ethics/cyberethics. In the twenty-first century in the era of technology, this task is highly necessary, but seems so difficult about that (1) due to the nature of on-line operations it is not easy to apply to them the standards governing the off-line operations and (2) it is difficult to "compel" huge community of users of cyberspace to the internalization of moral norms created for this community. Therefore, there are plenty moral conflicts in this area.

The author would like to mention some of those moral challenges, moral conflicts which are faced by people in the age of e-media and to stir a discussion about the need for ethical/moral education of Internet users.

### Purpose of the Paper

The purpose of this study is to remind that the Internet as a powerful tool has added an interesting twist to the traditional ethics since it has become so entwined in society. And like any tool, it can be used for both good and evil. It is a vast resource that opens doors and enables society to do things that either could not be done before or could not be done easily.

### Methods

Based on the description of the conduct and analysis of literature on morality in cyberspace and the differences that exist between morality on-line and off-line, the author wants to ponder about moral problems and challenges which we are facing in the era of the Internet.

### Background

Internet is a powerful medium for today's society. From its humble beginnings as a series of networks established to help the military and government share resources, it has become a place for people to interact socially in all faculties. We use the Internet for everything. It is a community gathering place for people to share ideas, concerns, stories and opinions, and to give help and assistance to one another. But there has also arisen a series of problems, because of Internet's modern nature which is not really well dealt with when it comes to existing ethical and moral issues. Since it is a collection of



companies and individuals, it is difficult to know what types of laws, restrictions, and moral codes to provide.

Generally if it comes about defining a standard of morality it is not easy, it is especially difficulty with the Internet. Perhaps it is worth to briefly consider what are the morality and ethics, often identified with each other? According to Kazimierz Twardowski (1909): Morality is a way of behavior, views on the conduct and ethics is a theory of conduct, the study of behavior.

With the development of the Internet appeared a large set of contrary behavior, both to morality and law. Authorities a moment after another revise their penal codes due to the emergence of a new type of cyber crime – made by the network, in the Internet. In environments associated with the philosophy of the Internet and information there is a louder talk about moral issues on the Web, that make society still aware that, for example, downloading music or software from the Web is just as immoral as stealing a CD from the store. However, it seems that many people look differently at morality being on the Internet, and otherwise in the real world. The question is: why?

### Findings

Morality on the Internet is an interesting philosophical discussion, but practical application and moral constraints may be difficult to attain.

For example, a netiquette was created to satisfy the needs of Internet users (Shea 1994), which, although – as the author repeatedly emphasized – is about good manners and behavior on the Web, still in many places refers to morality and ethics.

Virginia Shea (1994) among the rules that make up the netiquette as the second one lists the rule: adhere to the same standards of behavior online that you follow in real life. Written nearly 20 years ago, this statement refers to the mentioned problem which we are facing today, it is the view that morality in the world is different than on the Internet.

The reason for such status quo can be on the one hand fact that people still very often just forget that there's a human being on the other side of the computer, and from the other hand probably consciousness that in cyberspace the chances of getting caught or abused still seems to be slimmer than getting caught in the real world.

Maybe that is the reason for having such phenomena like:

- downloading copyrighted music, movies and software for free
- personal exploits (identity and financial theft)
- socially problematic issues (hate speech, stalking, online harassment via email, text messaging, and social networking sites, cyber-bullying, extortion)
- watching and spreading pornographic movies, offensive pictures/photos
- creation of animated pornographic movies, which in the opinion of the creators is better (moral) than creation such movies with people taking part in that

A contribution to the fact we otherwise perceive our morality on-line and off-line can also be a small range survey (a thousand Internet users) conducted in New Zealand. Users were asked about on-line dating and flirting, watching porn movies and TV online and downloading copyrighted music and movies. Men in all categories are more

likely to say something is morally acceptable. Also interested is that 47% of respondents said they have downloaded music files even though only 18% say it is morally acceptable.

It seems that the Internet has taught us that we can have everything here and now at one click. This also translates to our morality. In the age of Internet some individual can spend 30 EUR on membership to a pornographic website as easily as he can spend the same 30 EUR donating to some charity. Another one can cyber-bullying as easily as writing something nice and good about another man. Last but not least, using social media people can gather for doing something bad (last riot in London), as well as something good (great cleaning of London after those riot). Sometimes, “want it now” allows us to dismiss any badness that may come with our flash decision, replacing that with emotions of excitement, intrigue, and quick satisfaction.

### Discussion

The above mentioned studies also reported that a very different to the morality is presented when compare people under 30 and above 60. The latter group is much more rigorous and more often relates the morality on-line to the morality off-line.

Also, the study on the morality of children on the Web conducted by Linda A. Jackson in 2009 at Michigan State University shows a similar connection. Prof. Jackson herself points out that this is only one analysis, one way to assess this reality, and that certainly there is a need for further research to examine what children deem acceptable on the Web. Nevertheless, they asked 515 pupils average age 12 years old about the acceptance of certain operations on the Web. These operations include spreading of computer viruses, sending the examination answers to friends by e-mail, watching pornography and sending insulting messages to strangers. The analysis compares the results with the same questions, except that for the real world (e.g. cheating during the class revision tests, humiliating or insulting at the school breaks, lying to parents or teachers.) The results showed that the more a child uses the Internet, the more he or she accepts an “Internet harm”, such as threatening someone by e-mail and reading other people's mail when not authorized to. There is a discrepancy between the way children perceive morality or virtue in the virtual and real world.

### Conclusions

Ethics are often subjective and when morals come into the question there is not always a clear cut defined line. A significant problems seems to arise because everyone possesses his own thoughts, opinions, values and morals. When large numbers of people come together in any environment there are bound to be some differences in beliefs or conflict.

Todd Pheifer (2008) recaps it this way: we don't have definitive moral codes in our country so why would we assume that we could have one for the Internet? In other place he writes: Because the Internet is still evolving, it may be up to the users themselves to police their individual areas rather than waiting for an over-arching authority to legislate the content.

The Pheifer's view has some essence of the matter. It would be difficult to create a Web code of ethics that each individual could internalize. Even due to the fact that we

differ in terms of morality, which is associated with differences in ethnicity, personality, or the moral education. However, it seems that the education of Internet users in morality, skills to deal with conflict situations they are facing could give them the tools to make morally aware choices, and remind that not everything that is connected with the Internet is available by the rule of “want it now”, and that some situations require a second thought.

Young people need help in understanding that even a hurtful missive is invisible, the harm or hurt is nonetheless real. They need examples and stories for:

- seeing how hate speech, cyberbullying, and rumor spreading hurt people
- understanding that hate speech, cyberbullying, and rumor spreading via technology are unjust and unfair and they would not want to be the recipients of unjust or unfair treatment
- seeing how invading someone's privacy online is a lack of respect not only for others, but also for oneself
- seeing the harm of invading someone's privacy, stealing someone's personal information, stealing software or music or copying another's writing without attribution
- taking benefit from seeing how creating a false identity is associated with being untrustworthy and to understand what the consequences of not being trusted can be
- understanding that responsible computing is the same thing as being responsible in the real world. (Whittier 2006)

They need to understand that it takes courage to be an ethical user of Internet and other technologies, and to help others to do so. (Whittier 2006)

Prof. Jackson's research shows that children perceive morality differently in the world and on the Internet. Many publications taking up issues of morality on-line and off-line also suggest that still the problem exists. Therefore, if we encounter ethically ambiguous situation, any moral challenges on the Internet we should better have in mind the words of Virginia Shea, who wrote down the Netiquette (1994): If you encounter an ethical dilemma in cyberspace, consult the code you follow in real life. Chances are good you'll find the answer. I wish us to do it!

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## Preparing for Work in a Rapidly Changing Environment Student Collaboration across the Web 2.0 World

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**Katya Henry, Kysira Fairbairn and Wendy Davis** are all students at Queensland University of Technology, Brisbane, while **Ellen Heidelberger** and **Timo Guter** study at Hochschule der Medien in Stuttgart.

**Abstract:** Library and information services can play a leading role in fostering the development of participative communities in the context of Organizations 2.0. In the course *Information Programs for User Communities* students at Queensland University of Technology (QUT) learn about designing, implementing, marketing and evaluating information programs and services that help build active and engaged communities. The concepts and processes of Web 2.0 technologies come together through the collaborative learning activities. In 2011, students at Hochschule der Medien (HdM), Stuttgart, joined the virtual learning community. In this paper, Australian and German students discuss the ways in which they were challenged to explore the interactive, participative and collaborative dimensions of the Web and to think creatively about the roles they can play as library information professionals to use multi-media environments.

### Introduction

As examples of Organizations 2.0, library and information services have a significant role to play in fostering the development of participative communities (Casey and Savastinuk, 2007; Porter and King, 2007; Stephens, 2007). This means that library and information science (LIS) professionals need to be able to design, implement, manage, promote and evaluate information programs that help build active and engaged communities. Over the past few years, Queensland University of Technology (QUT) in Brisbane, Australia, has run an exciting course that introduces students to the issues associated with contemporary library program development. Topics in the course, *Information Programs for User Communities*, specifically focus on the impact of Web 2.0 and other emerging technologies on library services within the context of the needs

of specific user groups. Students are encouraged to establish an active Personal Learning Network (PLN) (Couros, 2010) as they investigate current trends in library programming, explore the practical applications of emerging technologies, and consider the marketing and promotion of innovative services. In the Winter Semester 2011, as part of the Internationalisation Program at Hochschule der Medien (HdM) in Stuttgart, Germany, students had the opportunity to participate in the course. The virtual learning community developed at the local level was extended internationally with the German students buddying with Australian students to share their learning experiences.

### Overview of the Course *Information Programs for User Communities*

The learning program effectively blends content with process: while independent learning is encouraged through a series of weekly activities that focus on the exploration of new media, a community of learners evolves as the students support each other collaboratively through their PLN. The learning environment is built on the principles of connectivism, whereby a diversity of opinions is valued and connections to facilitate learning are established and nurtured (Siemens, 2005). E-communication skills (Macdonald, 2008) are built through the use of a variety of online tools including blogs, wikis, social networking sites, RSS, podcasting and vodcasting. Accordingly, the course has a strong emphasis on development of the skills and knowledge required to operate as a professional in a rapidly changing information environment. The students are encouraged to think critically about the role of emerging technologies in library and information service provision, to evaluate the suitability of these technologies for new applications and to take an evidence based approach to service design. By embracing the idea of learning through play, the course empowers students to experiment with technology and to achieve things they thought themselves incapable of.

At QUT, *Information Programs* is run simultaneously in both internal and external modes, with a cohort of about 35 students. Two full day face-to-face workshops are held on weekends to enable local external students to attend, with recordings made of the presentations for remote students. The first workshop focuses on the 'theory' and practice of designing, delivering and evaluating library programs, products and services. The second event is a 'mini conference' with a range of guest lecturers from industry invited to discuss innovative programming in their library context. All other learning activities take place online: in order for students to learn how social media can be applied in their professional practice, they need to *experience* using social media. The online learning environment was specifically designed for this unit and capitalises on the benefits of social media. Rather than using the university-supplied Learning Management System (LMS) Blackboard, the unit site runs on a WordPress installation and uses the BuddyPress plug in to turn the site from static web page to dynamic social network. Each student has their own blog on the unit site, where they post the products of their play activities as well as their reflections on the weekly topics. Student blog posts become learning artefacts and are sites for discussion and debate. Students are required to engage in the learning community through reading and commenting on their peers' blogs and communicating with Twitter.

In Winter Semester 2011, the course was offered to a small cohort at HdM as an elective in the Bachelor of Library and Information Management, with all teaching and learning activities conducted in English. A mirror site of the WordPress installation

formed the core of the program to provide access to the learning resources and regular contact was achieved through weekly classes. Early in the semester the Australian and German student cohorts met each other in a virtual classroom and Australian guest speakers were invited to make their presentations live via Skype. Timing meant that the HdM course commenced as the QUT semester was coming to an end, so the Australian students were invited to act as ‘mentors’ to their German peers to share their learning.

### QUT Student Perspectives

*Information Programs* brought together a disparate group of students with varying degrees of experience and confidence using Web 2.0. This ranged from a self-confessed Luddite and private individual (Katya Henry), to a prolific and expressive blogger and tweeter (Wendy Davis), to a tech-savvy social media aficionado who struggled to find anything outside her comfort zone (Kysira Fairbairn). We all found that the course effectively modelled the importance of networks, participation and collaboration, both for our own professional development, and for the delivery, content and assessment of Web 2.0 library services. Exploring services such as Twitter and other social networking tools, together with curation and aggregation technologies like Storify, Bundlr and Flickr, alerted us to the potential application of these services for libraries. We considered the issues of copyright and open data in the Web 2.0 age through Creative Commons and the production of mashups as instructional and educational tools. We were constantly encouraged to consider the user perspective by developing participatory activities that would engage users, such as online surveys, quizzes and games. The major assessment task required us to work in teams to create a proposal for a new library program or service.

Our individual blogs were a place for us to store our weekly activities and reflect on our progress. The collaborative nature of the course with its emphasis on the development of our Personal Learning Networks (PLNs) allowed each of us to learn from one another, to encourage and guide each other, and to gain confidence. The online format of the course and the philosophy of ‘learning through play’ provided a safe and supportive environment for us to move outside of our comfort zones, to be creative, to experiment and to develop our professional personas. The reflective process was a key component, stressing the necessity of reflective practice in assisting LIS professionals – like us – to confidently adapt to the rapidly changing working environment.

### HdM Student Perspectives

Being in a small class of only four students at HdM, we – Ellen Heidelberger and Timo Guter – benefitted immensely from the collaboration with the Australian students who acted as our mentors, helping us with all the questions we had. Their comments were perceptive and motivating and their blogs served as an inspiration for our own weekly activities. The PLN expanded our horizons in multiple ways: it allowed us to see the LIS sector from a different perspective and it offered interesting insights into the Australian library environment. In addition, we were able to build relationships and improve our language skills through conversations in the English language. Our final assignment was to review some of the Australian group proposals. Through this shared learning we had the chance to discover a great diversity of approaches to program design and to evaluate examples of effective information products and services.

Working in an international group of students also made us think about the importance of Web 2.0 applications in Germany. We found that the technologies were less common than in Australia, both in terms of personal use by the average population and as a professional tool in libraries. Twitter is generally regarded as a trivial application for free-time activities rather than a tool for professional information exchange. German librarians still tend to have a very traditional concept of information technology use. They often consider libraries to be authoritarian institutions and have not involved the users through social media or through tagging as a form of cataloguing. Nevertheless the importance of Web 2.0 applications is beginning to be recognised in Germany, so that it is becoming a more important and more common topic in LIS studies.

### Conclusion

Information Programs fostered the development of the e-communication skills needed by LIS professionals to participate in virtual networks and to produce innovative library services. The international extension of the PLNs enabled the Australian students to share their experiences with their colleagues in Germany and offered all learners the space to establish their professional voice. The course has challenged students across the world to explore the interactive, participative and collaborative dimensions of the Web and to think creatively about the roles they can play as LIS professionals to use multi-media environments to develop interesting user-centred and socially rich library services. These students have left the course with a strong awareness of the need for continuing professional learning, both formal and informal, that can be achieved through play, experimentation and interaction with their professional peers. The learning networks developed during the course have remained intact after the course concluded and have the potential to metamorphose into strong professional PLNs once the students graduate and become active participants in wider LIS networks.

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## Access to Public Information The Dilemma of Library and Information Professionals of Bangladesh

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### Abstract:

**Purpose:** The article discusses the dilemma of library professionals of Bangladesh regarding their role in the implementation of the recently enacted Right to Information Act. It also dwells on other related issues that are likely to influence people's right to access information in the coming days.

**Design/Methodology/Approach:** The information in the article comes from review of existing literature and current news, interviews and direct observation. Government's recent effort to set up more than 4500 rural information centres and the activities of various non-government organisations have been discussed in the light of field visits and literature review.

**Findings:** Findings indicate that, library and information professionals of Bangladesh are now more active in the dissemination of public information. Major problems in assisting people, especially rural and marginal people, access public information are identified and analyzed.

**Limitations/implications:** Collaboration of library and information professionals with other professionals and the effects of the proposed National Broadcast Policy on the access to public information need more explorations.

**Practical implications:** The paper offers practical insights into the problems faced by information professionals in the dissemination of public information and indicates how they can play a more dominant role in the evolving information society.

**Originality/Value:** The paper is one of the very first attempts in Bangladesh to focus on the problems and prospects of library and information professionals in relation to right to information and access to public information.

**Keywords:** Access to public information, Bangladesh, Library and Information Professionals, Union Information and Service Centres, Information Literacy.

### Introduction

Bangladesh, a developing country from South Asia also has adopted the Right to Information Act in March 2009, marking a significant advancement in its quest towards democracy and development. However, even about two years after the passing of this Act and the establishment an independent information commission, most of the people of the country are not yet fully aware of the significance of right to information. This includes the library and information professionals of Bangladesh as well, who are faced

with a unique problem of asserting their roles and responsibilities with regard to providing information to the common people.

### The Information Ecosystem: Bangladesh Context

One of the most densely populated and least developed countries in the world, Bangladesh is burdened with an excessively large population, lack of resources, widespread illiteracy, corruption and other socio-economic problems. However, in spite of chronic underdevelopment, Bangladesh, too, has been experiencing the information revolution, enhanced and energised by phenomenal advances in the fields of Information and Communications Technologies (ICTs). Massive proliferation of mobile phone service, increasing penetration of Internet service in the rural areas, growing coverage of private television channels – all have contributed towards bridging the information gap between the rural and urban areas as well as advantaged and the disadvantaged people. Along with television, radio, newspaper and other media, libraries and information centres also had been in the forefront of information service provision in Bangladesh. Many of these libraries are situated in rural areas which have been catering to the information needs of rural people. Bangladesh has one of the largest concentrations of Non Government Organisations (NGOs) and Community Based Organisations (CBOs) in the world. Many NGOs are engaged in various information focused development activities which include setting up traditional libraries as well as ICT based telecentres or rural technology centres.

### Library and Information Professionals: Changed Realities in a Changing Time

In view of the passing of the Right to Information Act and the 'Digital Bangladesh' initiative of the government, which aims to transform the country into a middle income economy by the year 2021 with the help of digital technologies, library and information professionals of Bangladesh are trying to assert their role in the evolving information-centric society. Some positive developments have provided the necessary backdrop for this transition:

- Library and Information Science education has undergone significant changes in recent times. The curricula of the subject have been considerably upgraded in accordance with the curricula of higher academic institutions in the developed world.
- A new generation of library and information professionals is emerging, who are better trained and enjoy more exposure to the outside world. Many of them are working as knowledge managers, Infomediaries and Information Officers.
- Library and information professionals, under the leadership of Library Association of Bangladesh (LAB) and Bangladesh Association of Librarians, Information Scientists and Documentalists (BALID), have been arranging various capacity building activities and are also lobbying with government and non-government organizations for improving the professional status of the library and information workers.
- The ongoing campaign of 'Digital Bangladesh' carried out by the Government has coincided with the attempt of library and information professionals to play a more proactive role in realizing people's right to access information. To this end,

library professionals have started to take part in broad based initiatives along with other professionals in the related fields.

- The government has set up 4501 technology based rural information centres in the country which are called 'Union Information and Service Centres' or 'UISC's. Rural people receive various computer and telecommunication services in these centres. These also receive government information and some selective services like birth registration forms, government circular and notices, etc. at these centres (Mahmud and Asad-uz-Zaman 2011).
- To ensure people's access to public information, the government has created a digital information repository of livelihood information which is called National e-Tathyakosh (National e-Content Repository). It has both online ([www.infokosh.bangladesh.gov.bd](http://www.infokosh.bangladesh.gov.bd)) and offline (CD) versions. Besides, every district (a mid-level administrative unit) has its own web portal, which contains valuable information for the citizen and links to government services.
- Some innovative information-focused activities are being carried out by people from library and information science and allied domains. For example, The Centre for Information Studies, Bangladesh (CIS,B), an organization consisting mainly of teachers of library and information science and library professionals, has been arranging lectures and conducting awareness raising programs among the grassroots people about their right to information.
- Modern technologies including social networking tools are on the rise in Bangladeshi libraries. An increasing number of libraries have started library automation and have taken up digitization and repository building initiative.
- Some NGOs are carrying out a range of activities for creating awareness regarding right to information. One such organization is D.Net, which has been providing livelihood information from both government and non-government sources to the marginalized people (Raihan, 2007).

### The Dilemma of Bangladeshi Library and Information professionals

Bangladeshi library and information professionals are faced with a myriad of problems that undermine their ability to play an active role in ensuring people's right to information. These problems can be summarized in the following manner:

Library professionals of Bangladesh have a low social and professional status. Their role in the broader socio-economic context is quite marginal.

Most of the libraries are grappling with financial problems. They get insufficient funds and other inputs.

Although librarians of Bangladesh are now more organized and active, their professionals associations are still lacking in funds, leadership and strong initiatives. This is hampering their ability to act as an organized group.

The network and strategic alliance of library professionals with other relevant groups is quite weak. That's why they are failing to take up collaborative information-focused actions with other professional groups like journalists.

Although the government is proceeding with 'Digital Bangladesh' campaign, the 'information dimension' is not very strong in their initiative. For example, although the government has set up more than 4500 rural information and service centres all over the

country, most of these centres act as cyber cafe; most of them are failing to play the role of information intermediary.

In general, people's awareness about right to information is low. Because of wide-spread illiteracy and poverty in Bangladesh, people tend to underestimate the need for information.

In many cases, government officials refuse to furnish required information and the information seekers can hardly do anything about it because of poverty, lack of knowledge and lack of cooperation from law enforcing agencies.

The telecommunication infrastructure of Bangladesh is weak and unreliable. As of 2010, only 0.6% of the population of Bangladesh can use Internet, which makes our Internet penetration one of the lowest in this region (Internet World Stats, 2011). Although about one-third people of the country are mobile phone subscribers, ([www.btrc.gov.bd](http://www.btrc.gov.bd)), the majority of them use mobile phones only for receiving calls and only a negligible percentage among them can afford to use Internet on their mobile phone.

### Access to Public Information: the Way Forward

In order to ensure people's access to public information, library and information professionals of Bangladesh can take the following actions:

One of the very first tasks for the library professionals is to develop an effective information management system which will ensure comprehensive flow of information between the service providing agencies and the general people. Stressing on the information management aspect, Iftekhazzaman (2009) observes, 'There is no alternative to developing a modern digital system of information management that would facilitate easy, dependable and secure archiving and retrieval with clear tracking indicators.'

Through intensive research and capacity building, networking and resource mobilization and advocacy and policy lobbying, professional associations of librarians and information scientists associations could enable the library professionals to ensure people's access to public information.

Library professional must strengthen their role as information intermediaries. Zimmer (2011), quoting Cullier, gives us some interesting suggestions, 'Librarians should also engage in reporting and synthesizing government activities, such as attending a city council meeting, summarizing it online and posting the minutes and supporting documents.' Library staff can play the role of instructor and facilitators so that information seekers can receive information with ease and comfort.

Many cases are frequently reported in Bangladeshi newspapers where people are denied of their right to receive information and law enforcing agencies do nothing to help them. Libraries can aggressively lobby in various forums for highlighting this issue and assist common people in receiving vital information. Especially rural library and information centres can play an instrumental role in this regard by acting as one-stop centre where people can not only get hold of their desired information, but can also receive consultations, communicate with concerned agencies and receive services.

The rural information centres established by the government in various parts of the country could act as a strong network for making public information available to larger

cross sections of rural people. These centres can present information to the grassroots people in a meaningful way with the help of translation, compilation, packaging and repackaging and editing.

### Concluding Remarks

In the context of Bangladesh, the library and information professionals are striving hard to find their rightful place in the campaign for Digital Bangladesh. After the passing of the Right to Information Act and with the increased awareness in the society regarding the importance of information, library and information professionals must seize this opportunity to take a leading role in various information-focused initiatives. They need to do it not only to uphold their professional dignity, but also to emerge as natural leaders in the evolving knowledge society.

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## Bibliographic Information on the Mobile Touch Library Students and Contributions to Wikipedia

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**Abstract:** In spring 2011 library students at Oslo University College published a number of Norwegian author bibliographies in Wikipedia. The specific purpose was to help schoolchildren and students in their literary assignments. For young people in a learning situation Wikipedia has become a primary source of information. Increasingly, young people access this information through mobile devices. The following questions are discussed: What are the benefits and drawbacks of bibliographic articles in Wikipedia? What are the possibilities for developing guidelines, standards and models for bibliographic presentation? What is the quality and reliability of this information and how can it be updated and improved? The methodological approach is qualitative and comparative. A selection of bibliographies are analyzed and discussed.

### Introduction

One of the challenges when trying to master the rapidly changing information world is to find ways to organize and structure the information flow. Traditionally bibliographies have been, and still are, important tools in this respect. In spring 2011 library students at Oslo University College published a number of Norwegian author bibliographies in Wikipedia. This work was part of their second and third year of library and information science studies. It has been said that the best way to teach students about Wikipedia is to have them contribute to it (Guess 2007). In addition to educating the library students about Wikipedia, the specific purpose was to help schoolchildren and students in their literary assignments. Through Wikipedia, young people on the go, writing literary essays as schoolwork or as student assignments, may have the bibliographic information they need – at their fingertips – wherever they are. For young people in a learning situation Wikipedia has become a primary source of information (Austvik & Rye, 2011). Increasingly, young people access this information through mobile devices, smartphones, notebooks and tablets (Hahn 2010).

### Methods Used in the Study

The methodological approach is qualitative and comparative. A selection of bibliographies about Norwegian authors are analyzed and discussed. An overview of the bibliographies, entered into Wikipedia by the library students, can be found at: <http://no.wikipedia.org/wiki/Kategori:Bibliografier>. The sources of information for the study are from personal communication with administrators of Wikipedia (through e-mail, personal contact and Wikipedia discussion fora) together with Wikipedia guidelines and manuals of style. To preserve our informants' privacy we do not reveal their pen names or identities.



## What are the Benefits and Drawbacks of Writing Bibliographic Articles in Wikipedia?

The main asset of publishing bibliographies about authors in Wikipedia is the easy access to this information in contrast to the limited availability of the print bibliography. The visibility of Wikipedia in search engine ranking lists facilitates the entrance and increases the usage. Figures specified by Statistics Norway show that seven out of ten persons use online resources e.g. Wikipedia as primary source of information. The use of mobile technologies, such as smartphones, to retrieve this information is steadily increasing, from 22 % in third quarter of 2010 to 34% in second quarter of 2011 (Statistisk sentralbyrå 2011). The main disadvantage of writing bibliographic articles in Wikipedia is the encyclopedic format, which limits the size of the bibliography. There is little room for discussing selection criteria, bibliographic level of records and organization of the bibliography. The anonymity of the contributors and motives behind contributions make critical evaluation and comparison with other sources necessary. The articles may easily be changed in unwanted ways. A bibliography in Wikipedia is out of reach for persons with no access to Internet.

## Guidelines, Standards and Models for Bibliographic Presentation in Wikipedia

There are no standards or official guidelines for bibliographies in Wikipedia, nor any established tradition to relate to. The APA style is generally recommended for citing sources but “if there is disagreement about which style is best, defer to the style used by the first major contributor” (Wikipedia: Citing Sources). There are, however, manuals of style outlining standards for different types of articles. According to Norwegian administrators of Wikipedia, no one has so far seen the need for guidelines. Consequently, there are different solutions for presenting bibliographies. Basically there are two layouts, simple listing of works or the tabular format.

As an example, the bibliography of Erlend Loe organizes the works of and about Erlend Loe under clearly defined subject headings as a simple list of bibliographic records, while the bibliography of Unni Lindell uses a tabular format with the possibility to sort the records chronologically by year, title, publisher, etc. If the number of entries is low, they may be integrated in the main article of the author, such as the bibliographies of Herbjørg Wassmo and Leif Ryvarden. The Unni Lindell bibliography drew the attention of an administrator, commenting that this article may require cleanup to meet Wikipedia's quality standards. The reasons for commenting were purely technical, lack of wikification in the body text and the lack of uniform tables. Generally, this administrator would prefer (as he stated on his discussion page) the simple listing of works as in the Erlend Loe bibliography over the somewhat messy tabular format of the Unni Lindell bibliography. He added that a neutral use of the tabular formats, such as in the discography of Rolling Stones or the Norwegian discography of Judas Priest, might well be a suitable alternative. Our informants were clearly in favor of bibliographic standards in Wikipedia.

We would argue in favor of standards for bibliographic articles for several reasons. A recommended uniform layout would make it easier to contribute new articles, increase the bibliographic quality and facilitate updates. The guidelines should contain descriptions on how to link the ISBN to the record and possible full text, annotations for additional information and how to generate searches in relevant databases, to save time. We

prefer the ISBD format over the APA style for bibliographic entries. The primary function of the APA style is to identify documents. Arguably, the ISBD format is better suited for describing the documents and the consequent assessment of relevance. To work out a bibliography is a time-consuming and complex task. A standard containing guidelines would facilitate the work. But opinions differ in this matter and to reach consensus seems difficult. The number of bibliographies in the Norwegian Wikipedia is low. Few contributors seem interested in spending their time working out standards. If more librarians contributed bibliographic articles to Wikipedia the chances for guidelines would be higher.

## What is the Quality and Reliability of Bibliographic Information in Wikipedia?

The workload invested by the students in their assignments was limited within the framework of a five credits university course. This undoubtedly affected the quality of the performance. Wikipedia was preferred as the medium of publication based upon the assumption that it would provide cost-free updates. The initial involvement of other wikipedians seemed promising with regard to the continued life of the eight bibliographies. Then, from the period of the assignments' completion and five months on, the logged history of the articles shows around 30 edits. Most of the edits dealt with formal matters, only three of the edits can be described as updates or improvements of the bibliographic content. At the same time several administrators have pointed out deficiencies and potential for improvement. The edits may not have been to the students' expectations, but some of the bibliographies have been frequently edited, nonetheless. The improvements are to a large extent concerned with format and presentation, but such formal features are significant factors in people's evaluation of the quality of information (Müller, 2011, p. 6-8). Controlling the articles' objectivity and reliability is another important task. The number of edits and critical feedback will depend on the popularity or controversy of an article's subject. Required source references increase the reliability and objectivity of the article, as well as being an important part of the ongoing user discussions (Sundin, 2011, p. 857). Moreover, the information seeker can evaluate the reliability by investigating the article's user discussion and logged history. Much of the skepticism towards the quality of the information in Wikipedia stems from the lack of traditional editorial responsibility. By allowing anonymous contributions Wikipedia is vulnerable to vandalism. However, studies have shown a response time measured in minutes for corrections (Rand, 2010, p. 927). Overall, the information quality of Wikipedia is not inferior when compared with traditional encyclopedia (Müller, 2011, p. 12-13; Rand, 2010, p. 925).

## How Can This Information Be Updated and Improved?

The most serious issue concerning the quality of the bibliographies seems to be the lack of improvement of incomplete or inconsistent information. Even though the subjects are too narrow to stand out among hundreds of thousands of other articles, there is reason to believe that the bibliographies may prove useful, to young learners as well as librarians, who make frequent use of Wikipedia in their reference work (Skibenes, 2007, p.28). If more information professionals contributed, this would improve the bibliographies' information quality and thus their user value. One of the motives behind the Wikipedia assignment was to facilitate contributions from future librarians. In spite



of positive feedback from several LIS students, there is so far little sign of the students themselves improving the bibliographies.

## Conclusion

Wikipedia holds great potential for making bibliographic information accessible for new groups of users. Introducing an authoritative standard for bibliographic description could improve the usability and facilitate contributions. Such a task will require a group of wikipedians with special interests as well as sufficient skills. In this perspective, it will be interesting to see if LIS projects of this kind over time will result in more librarians contributing to Wikipedia.

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# E-Motion in Hybrid Publications

## E-publications and their Printed Counterparts in the Focus of Publishers, Library Catalogues, Search Engines and Users

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**Abstract:** Over the last years book projects<sup>1</sup> realized at the Berlin School for Library and Information Science (BLIS), Germany, were successfully published not only as a printed version but also online with open access on the Humboldt University's own edoc server.<sup>2</sup> Themes such as the following will be discussed in the paper:

- Does it make sense to publish a printed version in addition to a freely available electronic counterpart?
- Who is interested in buying a printed version while the electronic version is freely available?
- How do both versions find their users/readers?
- How do library cataloguers handle the cataloguing of hybrid publications? How do users identify hybrid publications in databases and library catalogues?
- How do search engines handle the access to hybrid publications?

The paper will demonstrate that users request both electronic as well as printed publications, and that there is still an urgent need to optimize library catalogues' and search engines' services to meet their needs.

## Introduction

The Berlin School of Library and Information Science (BLIS) – official member of the iSchools Caucus – offers to undergraduate LIS students once a year a seminar titled: „Turning an idea into a book“. Students learn the basic aspects of publishing from finding the right topic, acquisition of articles written by experts in their field, professional layout through set-up and structure of a publication including financing and possible forms of a publication. They are responsible for making decisions to insure that the publication will be recognized by experts and by the book trade.

In recent years, all groups of LIS students participating in the book project seminars chose to publish “their” book not only electronically by archiving it on any document

<sup>1</sup> [www.ibi.hu-berlin.de/studium/studprojekte/buchidee](http://www.ibi.hu-berlin.de/studium/studprojekte/buchidee) (last rev. 2011/11/28).

<sup>2</sup> <http://edoc.hu-berlin.de> (last rev. 2011/11/27).

server, but as a “real” printed book. On the other hand Humboldt-University has subscribed to the “Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities”<sup>3</sup>, and therefore an electronic publication with Open Access is a must! Therefore since 2006 all our book projects are published – beside the printed version – on the Humboldt University’s own edoc server. Instead of one full-text pdf the text is split into as many parts as there are chapters, introduction, bibliography etc. Each part is in one pdf file.<sup>4</sup>

### But Does it Make Sense to Publish a Printed Version in Addition to a Freely Available Electronic Counterpart?

While looking around for a publishing company accepting a hybrid publication we recognized a wide range of different positions:

- “It does not make any sense to publish a printed version when there is a free electronic counterpart available! ... Beside all other aspects we ask you to pay a certain amount of the printing costs. It is 230 € per 16-page-sheet,” (which means about 4300 € for a book with 320 pages).
- “We could perhaps accept making a free electronic counterpart available one year later after the printed copies are sold. We could also perhaps accept a free electronic version within 2 months of the printed version, but without page numbers (no quotations possible), and without the possibility of printing, cut & paste, or download. We would print 300 copies, and we ask for 1600 € to cover the printing costs.”
- “We could consider producing one or two chapters of the book available free on the web, as a kind of sales promotion.”
- ... and so on ...

Finally the seminar’s students found an established publishing company<sup>5</sup> who accepted the experiment along with the financial risk of not being able to sell enough copies of the print monograph especially since all texts are freely available on the Internet. Meanwhile, six hybrid publications were published on the web with Open Access plus a printed counterpart. The whole financing of the printed version was done through the publishing house. Neither the students nor the university were asked to pay any printing costs. The electronic versions are available with Open Access on the Humboldt University’s own edoc-Server<sup>6</sup>.

### Who Is Interested in a Printed Version while the Electronic Version is Freely Available?

First of all the seminar’s students were eager to achieve also a printed version, published by a well-known publishing house, specialized in library and information sci-

<sup>3</sup> [www.zim.mpg.de/openaccess-berlin/berlin\\_declaration.pdf](http://www.zim.mpg.de/openaccess-berlin/berlin_declaration.pdf) (last rev. 2011/11/28).

<sup>4</sup> <http://edoc.hu-berlin.de/miscellanies/secondhand/> (last rev. 2011/11/28).

<sup>5</sup> Bock + Herchen Verlag, Bad Honnef, Germany.

<sup>6</sup> <http://edoc.hu-berlin.de/browsing/series> → Institut für Bibliotheks- und Informationswissenschaft (last rev. 2011/11/28).

ence. Why? They realized that a publication “just put on the web” will usually not convince the scholarly community as much as a “real” book, accepted for publishing and peer reviewed by a well-known publishing house, with their logo on it and with an ISBN, and found on the publisher’s list of “New publications”, recognized by libraries as well as by scholarly (LIS) experts. Reviewers normally do not recognize e-publications but printed books for announcements and reviews to be published in LIS journals.

Furthermore there are libraries who buy these books for their users, e.g. university libraries and those who are specialized in Library and Information Science. Finally there seem to be many people who find the book on the web but who do not like to print out many sheets for their use. They prefer to read the content not on a screen but from a paper copy, and they prefer to buy the printed copy – for a reasonable price. – The following figure shows how many copies were sold and how often the websites of single articles were visited:

Publ. Oct. 2009	“Bibliotheken bauen und ausstatten”	Full text with final lay-out, no pictures, without source information: <a href="http://edoc.hu-berlin.de/miscellanies/bibliotheksbau/">http://edoc.hu-berlin.de/miscellanies/bibliotheksbau/</a>	431 pp. 58.00 € copies 1100 sold 694 (Nov. 2011)	2009/11-2011/11 online access (average per month) max 8105 (337.71) min 155 (6.46)
Publ. Jan. 2011	“Bibliotheken heute! Best Practice in Bibliotheksbau und –ausstattung”	Full text, preprint lay-out, coloured pictures, with source information: <a href="http://edoc.hu-berlin.de/miscellanies/bibliothekenheute/">http://edoc.hu-berlin.de/miscellanies/bibliothekenheute/</a>	318 pp. 48.00 € copies 1100 sold 494 (Nov. 2011)	2011/2-2011/10 online access (average per month) max 384 (42.64) min 107 (11.89)
Publ. June 2011	“Secondhand – aber exzellent! Bibliotheken bauen im Bestand”	Full text, preprint lay-out, black/white pictures, with source information: <a href="http://edoc.hu-berlin.de/miscellanies/secondhand/">http://edoc.hu-berlin.de/miscellanies/secondhand/</a>	380 pp., 68.00 € copies 1100 sold 198 (Nov. 2011)	2011/10 online access max 22 (11) min 1 (1) (Oct. 2011)

### How do Both Versions Find Their Users/Readers?

Specialists in Library and Information Science should normally follow the announcements of new publications, published electronically or via brochures by publishing companies. Or they follow reviews, normally published in scholarly journals. Or they find these publications in library catalogues. – Announcements as well as reviews and library catalogues show mostly printed publications, not electronic publications, published anywhere in the web. Therefore you will find electronic publications just by chance by using any search engine or any specialized database. It is extremely difficult to stay informed about new electronic publications in your field.

## How Do Library Cataloguers Handle the Cataloguing of Hybrid Publications? How Do Users Identify Hybrid Publications in Library Catalogues?

Extensive research<sup>7</sup> was started to find out how library catalogues in Germany and worldwide handle information about access to hybrid publications. National as well as international library catalogues and databases do not offer secure information about parallel published print monographs and their free available electronic counterpart. It is difficult (if not impossible) for OPAC users to find out whether there are electronic counterparts with print monographs. Cataloguing rules like the German RAK<sup>8</sup> or the Anglo-American AACR2r<sup>9</sup> require two different bibliographic records, one for the print monograph, the other one for the electronic resource. OCLC<sup>10</sup> does allow electronic resources and their tangible counterparts to be catalogued either on the same bibliographic record or on separate bibliographic records! Therefore you get a lot of hints to the same publication, belonging to the different cataloguer's decision how to organize the record's data. An example from the German National Library: The print monograph's bibliographic record can be (not: must be!) completed with the information about the electronic counterpart. This information will be added casually when the cataloguer has found it easily in the book (often it is hidden). But: The link is never active! Other German library catalogues offer two records for the printed and the electronic version; one is linked to the other. That means that a link in the printed version's record leads to the parallel record, but not directly to the full text, which might be correct regarding the rules, but seems to be not very userfriendly. – In the British Library's Integrated Catalogue (BL) as well as in the Library of Congress' catalogue (LoC) you will find examples with only one bibliographic record for the print monograph. There is neither any link nor any information about the online counterpart. At the LoC the full bibliographic record is about the print monograph; two links lead to the "Publisher description" and "Table of content", but not at all to the free available full text!

## How Do Search Engines Handle the Access to Hybrid Publications? How Do Users Identify Hybrid Publications in Databases?<sup>11</sup>

As an example "dandelon.com", the „Search Engine für wissenschaftliche Literatur“, gives access to electronic tables of content and to e-books on the basis of 22 library

<sup>7</sup> Hauke & Rumler (2010).

<sup>8</sup> RAK-NBM, Regeln für die alphabetische Katalogisierung von Nichtbuchmaterialien, [http://files.d-nb.de/pdf/rak\\_nbm\\_gw\\_und\\_erg.pdf](http://files.d-nb.de/pdf/rak_nbm_gw_und_erg.pdf) (last rev. 2011/11/28). – Praxisanweisung zur Erfassung von E-Books und Digitalisaten, im Okt. 2008 hrsg. von der AG Kooperative Neukatalogisierung, [www.d-nb.de/wir/pdf/Ebook\\_Praxisanweisung\\_V04endf\\_Okt.pdf](http://www.d-nb.de/wir/pdf/Ebook_Praxisanweisung_V04endf_Okt.pdf) (last rev. 2011/11/28). – SWB-Festlegungen zu RAK-NBM: E-Books und Digitalisate (Buchähnliche und elektronische Ressourcen), Stand vom 31.07.2009, [http://verbund-swop.bsz-bw.de/volltexte/2010/176/pdf/kathb\\_nbm\\_Ebook\\_Digitalisate.pdf](http://verbund-swop.bsz-bw.de/volltexte/2010/176/pdf/kathb_nbm_Ebook_Digitalisate.pdf) (last rev. 2011/11/28).

<sup>9</sup> AACR2r, chapter 9.

<sup>10</sup> [www.oclc.org/support/documentation/worldcat/cataloging/electronicresources/default.htm](http://www.oclc.org/support/documentation/worldcat/cataloging/electronicresources/default.htm), see the "Separate Records Versus Single Record" section of "Cataloging Electronic Resources: OCLC-MARC Coding Guidelines" (last rev. 2011/11/28).

<sup>11</sup> Hauke, Rumler, & Hötzeltdt (2010).

catalogues in Austria, Switzerland, Lichtenstein, and Germany.<sup>12</sup> But the quality of the research belongs to the quality of the library catalogues – and they differ, as we have seen.

Because search engines normally do not lead to the title pages but directly to each of the single chapters of the publications, e.g. the introduction. The problem is that the search engine's search result does not make clear from which publication that introduction comes. You just see a page, titled "Introduction" or "Table of content", or "Bibliography", or with any title of any chapter of the book, but no information where it comes from. Therefore from 2011 on we added some source information to each file like this:

Preprint aus: „Secondhand“ – aber exzellent! Bibliotheken bauen im Bestand / Petra Hauke; Klaus Ulrich Werner (Hrsg.). Mit einem Geleitw. von Dorothea Sommer, IFLA Library Buildings and Equipment Section. Bad Honnef: Bock + Herchen, 2011. 380 S., Abb. ISBN 978-3883472768. Online: <http://edoc.huberlin.de/secondhand/>.

## Conclusion

What we have learned is that hybrid publications do make sense. Both the printed version and the electronic counterpart are asked for, and also for the publishing company it is not just charitableness to accept the freely available electronic version but – finally – sales promotion. But better systems should be created for finding both versions of hybrid publications in library catalogues as well as in databases.

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<sup>12</sup> <http://www.dandelon.com> (last rev. 2011/11/28).

# Usability of Digital Collections of Memory Institutions

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**Baiba Holma** is assoc.prof. in the Department of Information and Library Studies. Her research interests and teaching subjects are concerned with knowledge organization, information seeking and retrieval, information science.

**Abstract:** The paper describes results of the evaluation of digital collections of Latvian memory institutions. Based on Interaction triptych model, evaluation was based on performance, usability and usefulness of collections. Performance evaluation was made measuring precision of the retrieved results. Usability was evaluated both using formal test approach and users studies. Users evaluated usefulness as well. The findings of the research show that quality of DC is different. It should be noted that for usability evaluation it is necessary to use other methods as well (like observation).

From 2010 Latvia state supports research projects of different aspects of national identity (language, history of Latvia, culture, human security). There are several aims of this project: to promote belonging to the national community, to preserve and strengthen heritage in digital age; to identify strategies based on unique local resources. Research sub-project “National identity in digital environment” is the project who studies national identity in the context of communication. It is based on the assumption that digital collections (DC) of memory institutions (libraries, museums, archives) are a medium for construction, preserving and maintenance of national identity.

Digitization in Latvian memory institutions started in 1994. Up to now there are more than 124 DC accessible for users. Similarly to general tendencies in digitization, DC of Latvian memory institutions are important cultural heritage resources containing mostly historical materials of national and local meaning. Based on data provided by the project “National Identity in Digital Environment”, DC are not very popular resources among inhabitants of Latvia. It was concluded that one of the reason is lack of information about collections. But what is quality of DC: how easy to use it, how relevant are results, are they useful? The purpose of this paper is to present results of two studies: small research on performance of DC and on usability and usefulness of DC.

## Methodology

Research is based on the Interaction triptych model. According to (Tsakonias, Papa-theodorou, 2006) electronic information services (digital libraries, portals, e-journals etc.) consist of three main components: users, content and system. In order to develop evaluation models to predict DC usage or analyse information seeking and retrieval it is necessary to study interaction between every component. Interaction between user and system characterize system’s usability, interaction between users and content shows system’s usefulness, and interaction between system and content characterize system’s performance. There are several attributes which describes categories of interaction. Attributes of usability are: ease of use, aesthetics, navigation, terminology, learnability;

attributes of usefulness are: relevance, format, coverage, reliability, level; attributes of performance are: precision, recall, relevance, response time.

The model was used to evaluate DC of the Latvian memory institutions. The empirical base of the research was 13 DC of Latvian memory institutions. DC were selected according to the place where focus group discussion about habits of information use and identification of DC were organized. Focus group discussions took place in 10 different towns of Latvia from March till April, 2011. After discussions it was asked to participants of focus groups to test the concrete DC (local studies DC of libraries, DC of archive, national level DC) and to evaluate it according to questionnaire. 91% participant of focus groups took part in the testing of DC. Users were from age 15 till 68. The most part of them were pupil.

To evaluate one of attributes of the performance – precision of DC of Latvian memory institutions the test method was used. There were used three queries in each DC and precision of results were tested. Precision was evaluated according to 10 point – system: if there were no relevant results, then DC received 0 points, if half of results were relevant, then DC received 5 points, if all results were relevant, DC received 10 points.

Two approaches were used to evaluate usability of DC: 1) formal usability testing based on good practice principle of search types in best digital libraries, and 2) user studies.

Formal usability testing were performed with content analyses – it was checked what search types (simple search, advanced search, browse) and how are provided in all 13 DC. According to search type model elaborated on the experience of best digital libraries (World Digital Library, State Hermitage Museum, American Memory, Digital Collections of national Library of Australia, Europeana), the point system for identification of the DC level: low, medium and high – was developed.

Users tested the following attributes of usability of DC: aesthetics, navigation and learnability. Their evaluation was based on the performed search task prepared by researchers in the DC and then on the answers on statements for each attribute in the questionnaire. For example, to evaluate learnability of the DC, users have to show their agreement or disagreement to the following statements: *steps required to complete tasks were understandable, it's easy to understand how to start search etc.*

Relevance and reliability were attributes used to evaluate usefulness of DC. Users evaluated usefulness similarly like usability: they show agreement or disagreement on the statements in the questionnaire. For example, to evaluate relevance they answer on the following statements: *information retrieved corresponds to query, information retrieved help to find answer.*

## Findings and Discussions

### Performance

According to the research on the precision of results performed by systems of DC, it is possible to divide collections in the three groups: 1) DC with high precision (precision from 70% till 82%) – provided by 5 DC (Local studies DC of Riga Central Library, Heritage of Kuldiga, Local studies DC of Limbazi Main Library, Important people in district of Jelgava, Lost Latvia) 2) DC with medium precision (precision of results from



30 – 50%) – provided by 6 DC (Encyclopedia of local studies (Central Library of Bauska), Local studies DC of Jurmala libraries, Periodicals, Photoarchive of Fricis Forstmanis, Literata DC of Valmiera district, Encyclopedia of local studies (Main library of Preiļi); 3) DC with low precision (precision – 17 %-25%) – provided by 2 DC (Genealogy, Fortress of Dinaburg). It is possible to conclude that the most part of DC by the precision belongs to the medium level.

#### Usability

Formal usability testing shows (Figure 1) that from 13 DC, collections belonging to the high level group are 3 (23%) collections. They provide browsing in the first page, as well as easy simple search. There is advanced search too, but with limited possibilities. Most part of the DC belongs to the medium level – 62%. It means that there is simple and advanced search, but often hidden and not elaborated browse. Sometimes simple search is too complicated. There are 2 collections which belong to low level – the collections provide only browse as a search type and with very limited number of categories.

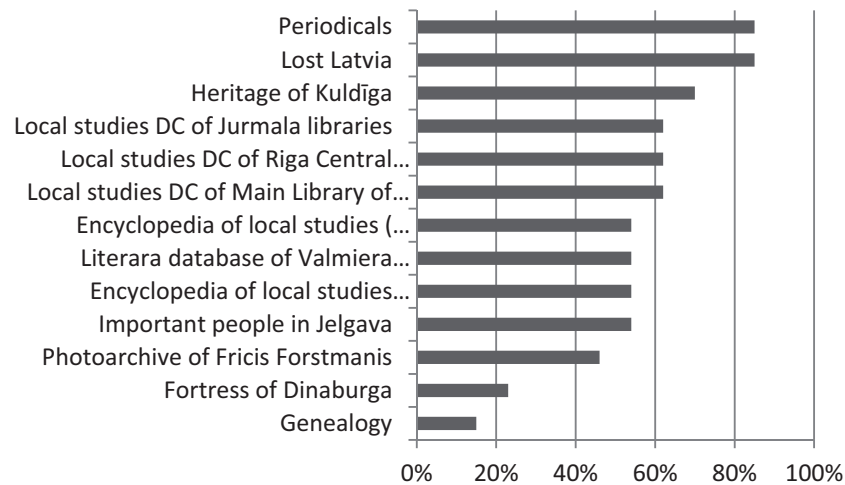


Figure 1. Search types provided by system

Based on results of precision and provision of search types, there are DC which receive high evaluation – Lost Latvia and Heritage of Kuldiga.

According to users, questionnaire results for usability of DC were positive. Users mainly agree with positive statements about aesthetic appearance, navigation and learnability. Figure 2 shows the users evaluation for DC. The order of collections is based on the average number of answers.

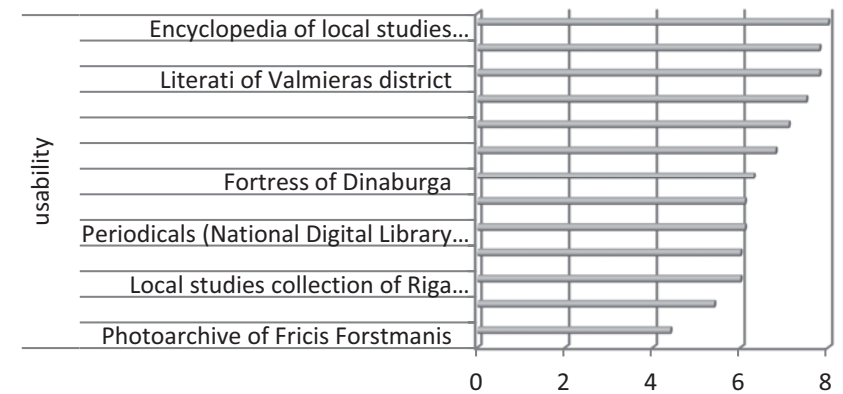


Figure 2. Usability of digital collections

Formal evaluation and user evaluation of DC usability differ. Users overlook search types as so important. And it seems that answers of questionnaire are more positive as it really should be. It can be concluded from the suggestions provided by users at the end of questionnaire – they admit that in some collections search are too complicated, results are not organized in logical groups, it is necessary to improve search engine. Tendency to inflate systems ratings in questionnaire is seen also in similar research (Buchanan, Salako, 2009). Therefore to get more clear users view about usability is necessary to use observation as a method.

#### Usefulness

In the first four places in the usefulness evaluation of DC, three DC are similar to usability evaluation – Heritage of Kuldiga, Encyclopedia of local studies (CL Bauska), Lost Latvia. But it seems that search task provoked by users' information needs lead to different evaluation of retrieved results and it usefulness.

#### Conclusions

Among 13 DC studied in this research there are two DC which have high evaluation both from users and formal tests (Heritage of Kuldiga, Lost Latvia). In average DC corresponds to medium level of quality and it means that improvement in performance, usability and usefulness are necessary for all of them. According to usability evaluation it should be noted that it is necessary to use other methods for more objective results. The best natural settings for usability studies can be provided by observation.

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# Intelligent Transport Systems

## Ethical and Social Concerns in a Developing Context

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**Abstract:** Intelligent Transport Systems (ITS) is an umbrella term used to describe the integrated application of information processing technologies used in effective road network management. As information is at the core of an ITS, the ethical and social concerns surrounding privacy and security of information belonging to affected motorists have been raised. Technologies utilized by ITS place motorists under constant surveillance and monitor transit behaviour in real time. The researcher will investigate the possible social concerns raised through implementing ITS in a developing country and determine what similarities and differences in ethical issues appear between developing and developed countries.

The research into international examples of ITS relates to a study done on underlying ethical concerns of a proposed ITS in South Africa. In the South African study, a literature review and pilot study helped illustrate possible benefits, challenges, legislative concerns and public perception of such systems in light of pertinent ethical issues around privacy and information security.

The social and privacy concerns and the perceived tensions that the ITS can create between citizens' rights and applicable legislation will be debated. The ethical and social implications of ITS have not received sufficient attention in a developing context and herein lies the value of this study.

### Background

As information technology (IT) becomes an integral part of daily life, society is faced with new ethical and social challenges. Transit systems are no exception to this change and governments all around the world have steadily begun integrating technology with existing transit infrastructure in the form of Intelligent Transport Systems (ITS). Countries where ITS have been implemented include Australia, Brazil, France, Germany, Netherlands, Norway and United Kingdom (World Road Association, 2006). ITS encompasses components such as the physical infrastructure of new technologies, the vehicles used and the controlling agencies, which monitor security, traffic control and quicker response for emergency services (Casal, 2005, p. 66; Chattaraj, Bansal & Chandra, 2009, p. 40; Deaking, Frick & Skabardonis, 2009, p. 1; Ezell, 2010, p. 3; Shah & Dal, 2007). Some of these technologies include closed-circuit television (CCTV) surveillance, radio frequency identification (RFID), variable message sign boards (VMS) and electronic (e)-tolling.

While the implementation of the above mentioned ITS offer a wide range of benefits, the ethical and social concerns surrounding the implementation of these systems needs to be given further attention, particularly in the context of a developing nation.

### Purpose of Study

This paper is a brief summary of research that aims to demonstrate the ethical concerns surrounding the implementation of an ITS, as well as the potential social concerns that arise within the context of a developing nation. Previously generated research regarding

the implementation of an ITS in South Africa will be applied against international literature about ITS to compare the similarities and differences that may appear between developed and developing contexts.

### Methodology

First, by means of a literature review, the ethical issues pertaining to ITS implemented throughout the world was investigated. Second, a pilot study conducted in South Africa was conducted as a point of departure for determining the possible perceptions of individuals regarding the implementation of an ITS. A questionnaire containing closed-ended questions was distributed to obtain data on the participants' understanding of the implications of an ITS in South Africa.

### Findings and Discussion

#### *Internationally Documented Benefits and Challenges of ITS*

A number of benefits in the implementation of ITS are documented in literature. These include assigning priority traffic during rush hour to smooth traffic flow; reducing environmental impact of vehicles; more efficient accident response time; VMS that provide real-time travel information for motorists (such as where an accident has occurred); a reduction in the number of fraudulent license plates; and a reduction in crime, namely car theft (Chattaraj, Bansal & Chandra, 2009, p. 40; Deaking, Frick & Skabardonis, 2009, p. 29; Yokota, 2004).

However, as with any system, there are certain limitations that need to be addressed. For ITS these comprise extensive deployment costs; government liability concerns with reference to violation of constitutional rights; challenges that arise with shift in political power; the ability to track an individual's movements; and the accessibility of potentially sensitive data about individuals e.g.: license and registration information that includes identity numbers (Deaking, Frick & Skabardonis, 2009, p. 28).

#### *Ethical Considerations Surrounding Privacy of Motorists*

Privacy is about the ability of individuals to control how information relating to them is circulated and communicated (Gupta, 2006, p. 424). The recording of personal information through ITS systems creates a major threat to the right to privacy of motorists and their ability to control the exposure of personal information. ITSs are not designed with the ethical considerations in mind as governments may implement ITS in order to offer citizens convenience and protection in traveling through constant surveillance and real-time communication. However social sensitivity should be a large consideration when designing such a system to ensure that motorists still have a feeling of control over what information they are communicating whilst using that specific transit system (Bhattacharya & Gupta, 2005, p. 120).

#### *Tensions in Legislation*

Legislative concerns also come into play as the surveillance of individuals' raises deep-rooted issues about intrusion and privacy violation. In South Africa, the constitution specifically protects against the violation of an individual's privacy and in other countries components of ITS have been ruled unconstitutional. On 11 March 2008, the Federal Constitutional Court of Germany ruled that the use of Automatic Number Plate Recognition, a component of their ITS system, was a severe interference in motorists'

right to privacy (or informational self-determination) in the collection, preservation and use of information regarding travelling habits and movements of users (Bagby & Gittings, 1999; Das Bundesverfassungsgericht, 2008).

### *Social Considerations of ITS*

The importance of physical infrastructure in supporting economic growth and prosperity of a country cannot be understated and an efficient road network is one of the main components that contribute to development (Holmner & Britz, 2011; Yokota, 2004). However, implementation of ITS in a developing country poses some unique challenges. ITS studies in developing countries such as those in Latin America, East Asia and Eastern Europe have revealed a range of disadvantages. These include a history of indifference towards the potential benefits of transit technology and the lack of acceptance and trust of such technological systems. The feasibility of ITS applications in developing countries has become a contentious topic due to the issues around cost, basic physical infrastructure and supportive setup (Shah & Dal, 2007; Yokota, 2004).

Furthermore, the adoption of ITS in developing countries that mirror those already implemented in developed countries often does not fit the local technological and skill capacity (Shah & Dal, 2007). This has most recently been seen in South Africa, where an investigation into the project heading up the implementation of a new ITS has revealed severe shortcomings in feasibility studies and a lack of proper investigation into the economic and social impact of the project (Moyo, 2011). The lack of investigation into the feasibility of such a project has resulted in a short fall on costs and the South African National Roads Agency Limited (SANRAL) are now attempting to recover costs from the users of the roads through e-tolling, which will most likely result in large-scale economic implications. Consequently there has been a negative public reaction towards this system and the Congress of South African Trade Unions (COSATU) have appealed to the public to boycott the system, citing privacy violations and socio-economic implications for users on the road because of surveillance and e-tolling. Consequently, all ITS application projects have been halted and social and economic implications are now being considered (Moyo, 2011), due to the hasty implementation that lead to an oversight in essential planning and project management.

### *Pilot Study Findings*

Due to the length limitation of this paper, the most relevant results of the pilot study in South Africa will briefly be discussed below.

### *Community Understanding*

When comparing two of the questions, results show that 59% of respondents agreed (completely or partly) that one should not be apprehensive about surveillance technologies if one has nothing to hide. However, 70% of respondents agreed (completely or partly) that even though one has nothing to hide, it is unnerving being under surveillance. These responses are contradictory and could demonstrate a lack of understanding regarding the implications of such a system, or a misinterpretation of the question.

### *Lack of Trust of Authority*

When questioned on their perception of whether transit technologies are likely to be abused by government agencies, 47% of respondents indicated that they completely agreed, whilst 28% partly agreed. Very few respondents (9%) disagreed with this

statement. This indicates a perception that the information will be misused by government agencies and supports the aspect regarding lack of trust that was previously discussed.

However, when asked whether they believe vehicle tracking would be a good policing tool in preventing crime, 59% of participants agreed completely and 26% partly. It can be concluded that most respondents have a favourable perception of ITS in the utilisation of crime prevention.

### *Future Research*

Following the literature review and the research done specifically in a South African context, there is a dichotomy in the perceptions of people regarding the ethical and social implications of an ITS. The reasons behind this need to be investigated further. An analysis also needs to be conducted to determine whether the same dichotomy exists in a developed nation.

### *Conclusion*

The similarities between ITS in developed and developing nations lie in the general benefits and challenges in the implementation of such a system (including the ethical challenges around privacy and protection of information). However, the differences appear within the social aspects of developed and developing countries, including attitude and economic standing of its citizens. The pilot study confirmed what was found in the literature review, i.e.: that individuals and organisations recognise that the ITS could hold certain benefits, especially with respect to crime reduction, traffic management and emergency services. Despite these benefits, the evidence suggests that the lack of administrative and technological preparation, as well as the social and economic constraints, has led to the mistrust and subsequent possible failure of such systems in developing countries.

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## Information Poverty and Digital Divide

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### Introduction

The concept of information poverty was first time used by Fritz Machlup (cited in Flor, 2009) at the beginning of 1960's. Gap which was created between information poor and information rich is called information inequality, information gap or information divide. Divided societies exist since beginning and it is result of economical, racial or ethnical backgrounds (Rankov, 2006). Since ancient time's people didn't feel only lack of foods and material, but also lack of information, for example ancient Greeks told us that knowledge itself is power (Compaine, 2001). Naisbitt (cited in Flor, 2009) argue that information poverty is necessary part of the Information Age because for a single country is important to be in various states of agricultural, industrial and information societies simultaneously. Without agricultural and industrial societies, information societies can't exist- they supplying food, hardware etc. It is also possible for a group of people to live in the Information Age but not within an information society. Problems that occur between these societies lie more in the power relations than in inability to cooperate – even when they are at different stages of development (Flor, 2009).

The new approaches called this gap as a digital divide and are mainly concerned with access to information and communication technologies (ICT). The term digital divide is one of the most discussed social phenomenon in our era and is also very unclear and confusing (Warschauer, 2010). It has been claimed (Camacho, 2006) that there are various illusions associated with digital divide:

- 1 Only those included in the information society will be able to participate in building a new society
- 2 The digital divide results from social gaps and access to technologies will increase existing social differences
- 3 Some authors talked about digital divide as there exists only one, but we should talk about digital divides given the gender, age, culture, geographic localization, or socio-economic conditions, and the combinations of these factors.
- 4 The digital divide does not appear on its own and information society didn't appear without being a product of a social dynamic and a historical process.
- 5 It no longer only has to deal with the problem of having access or not, but rather with the differences that appear among those who are already connected (Camacho, 2006). Not all those who have connection available have the possibilities to develop their capacities and skills for work with ICT's. So it is creating digital divide 2.0.



## Approaches to Define Information

We can categorise the different perspectives on information poverty as an information connectivity approach, an information content approach and human approach (Britz, 2007):

1 INFORMATION CONNECTIVITY APPROACH is based on access to modern ICT (hardware, software and access to Internet). This approach follows the assumption that there is relationship between poor and rich people and access to information via ICT. According to Castells (cited in Britz, 2007) digital divide is then inequality between them who have access to ICT and Internet and them who haven't.

2 INFORMATION CONTENT APPROACH is based on access to usable information and high quality information. Schiller (1991) claim this is creating „pay-per society“ and gap between those who are educated, politically and socio-economically privileged and have access to sophisticated information systems and also the skills to benefit from valuable information and them, who are uneducated, marginalised and poor. According to Aguola (cited in Britz, 2007) access to relevant information is essential to become a part of information society. Habermas (cited in Britz, 2007) claim available information in public sphere are in most cases inadequate, not always reliable or irrelevant and presented the manner that only favours certain role players such as politicians.

3 HUMAN APPROACH is not based on wealth/poverty metaphor but is based on hermeneutical view of information. Information is seen as a subjective phenomenon and is viewed as a social construct that enables human understanding, interpretation, decision-making and problem solving. According to Lievrouw and Fraub (2003) this view of information is grounded in phenomenological and constructivist view of information. Tapscott and Ponelis (cited in Britz, 2007) link information poverty directly to a lack of education. Doctor and Sawhney (cited in Britz, 2007) argue that right to access could be broader to the right of benefit from access, because we can benefit from information only when information has value for u when we have some need for it and the capacity to process it. Chatman (cited in Britz, 2007) points out that information poverty differs from economic poverty, because information is a rather complex social and cultural phenomenon and it can not be equated to an economic form of poverty.

## Research on Information Poverty

Most literature on information poverty appeared in the years 1973-1974, 1988 and 1995-2001 and approach information poverty from technological view (Thompson, 2006). In the 1970's Martin and Katzman (cited in Thompson, 2006) described infra-structural disparity which could lead to social inequality. The term information poverty first time occurred in US in Parker's study (cited in Thompson, 2006) about “black communities” and people with disabilities (e.g. blind people). In this period also occurred first theories that new ICT will worsen the information gap between those who have access to ICT and those who haven't. Rapid development of personal computers causes interesting in information poverty in the second half of 1980's. In the 1990's it was Internet which fortifies the perception of the gap as a technological problem (Thompson, 2006). Since 2006 the production of literature on information poverty is decreasing.

Some studies show information poor as those who got into this situation by themselves and are seen as those who “chronically know nothing”. If they somehow differ from the western population it leads to partitioning of people to civilized users of ICT and non-civilised users (Rankov, 2006). Most studies also approaching information poverty as the inherited economic phenomenon (Thompson, 2006). This approach is based on fact that individuals without adequate income and education to access ICT can't actively participate in the life of the global information society. But according to these criteria most of the world's population live in information poverty nowadays.

The concept of information poverty is also not considered as a problem only for one discipline- we can find different approaches from library and information science, political science, economics, sociology, social anthropology, psychology and from other social sciences. But there are no distinct trends in literature. For example library and information science does not only discuss information poverty in light of libraries and information systems, education do not only suggest educational solutions for problems associated with the information-poor, and so forth (Thompson, 2006). However we can find there a similar view that gap between information poor and information rich could be overcome if equal access to information will be applied.

## Impact Indicators Which Affect the Expansion of Digital Divide

Indicators which affect the expansion of digital divide are socio-demographics predictors, psychological predictors, cultural background, experience and skills.

1 SOCIO-DEMOGRAPHIC PREDICTORS – one of the most powerful socio-demographic predictors of the digital divide is age because teens and young adults are more likely to be online than older generations. Studies (e.g. Dijk, 2005) also showed that people from higher socio-economic status use more advanced applications of the web for informational, educational, communicational or service-oriented purpose. In regard to nationality, studies (e.g. Madden cited in Correa, 2008) found that within the developed countries information gap is slowly closing but the gap between developed and developing countries remains open. Another studies (e.g. Meraz cited in Correa, 2008) suggest that the gender gap disappeared, but there are significant differences how men and woman use the web.

2 PSYCHOLOGICAL PREDICTORS – some studies (e.g. Hamburger cited in Correa, 2008) claims that personality is associated with different use of the Internet but another studies (e.g. Dijk, 2005) found that personality is a weak predictor for Internet use. Motivation was also considered as critical step in digital inclusion process (Dijk, 2005). Another indicator is self-efficacy, which includes user's beliefs in his/her abilities in order to produce a given goal (Eastin cited in Correa, 2008). One of the most important factor explaining digital divide is computer anxiety (Hoffman cited in Correa, 2008).

3 CULTURAL BACKGROUND – cultural background play also important role in digital divide. It has been found that nationality/ethnicity remains as factor that explains the digital divide after controlling for income and education (Hoffman cited in Correa, 2008). The reason why the increase of income and education does not override digital divide is that cultural and social factors are deeply rooted (Newhagen cited in Correa, 2008).

4 EXPERIENCE AND SKILLS – major impact on the digital divide have also experience with ICT. Number of years and frequency of usage seems necessary predictors for wider, more comprehensive use of ICT and Internet (Hargittai, 2002). It has been demonstrated by Livingstone and Helspere (cited in Correa, 2008) that more places the people have access to the web the greater their Internet skills and usage. Haan (cited in Correa, 2008) defines three types of skills: operational skills (ability to operate hardware and software), information skills (capacity to search, select and process information) and strategic skills (ability to use ICT to attain particular goals). Haan (cited in Correa, 2008) claims one important finding is that people learn more digital skills through trial than through formal training.

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## Digitization - Is It a Viable Preservation Alternative?

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**Abstract:** The 1990s have been defined as the decade of digitization, which has been hailed by its proponents as a true cause for celebration. Yet, other voices have warned of the very real “threat,” which digitization, and more specifically the problem of digital preservation, entails – widespread information “wipe-out” and thus losing much of our collective memory. The question then arises – why is there such a wide divergence of opinions? In an attempt to answer this question, the present paper will consider some of the main advantages of the new digital technologies such as providing unique access to information, its network distribution, and the high quality of digital resources, as well as the challenges these technologies pose: the provenance and authenticity of digital surrogates, obsolescence of hardware and software, proprietary forms, lack of standards. What is even more alarming than the technical impediments in the digital world is the lack of long-term thinking that supports preservation and the conceptual shift of emphasis from “permanent value” to “continuing value” of our records, that is, recognizing the possibility for some records to lose their value over time. Thus, the very idea of permanence – traditionally associated with preservation – is fundamentally challenged. The institutions which preserve our collective memory (libraries, archives, museums) can play a vital role in addressing these issues – primarily in forming alliances and partnerships across borders. Aided by the transformative power of the digital environment, these institutions could stimulate unparalleled collaboration in respect of serving users and working together for the public good.

Digitization is a complex phenomenon, a testimony for which is the existence of various definitions for it. In a strict sense “digitization” is the conversion of analog materials, that is, printed text, visual materials, audio and video tape, into digital form, which is why “digitization” and “conversion,” according to Lee (2001), are often used synonymously. Yet, most people equate digitization with digital imaging – that is, “the creation of a still digital facsimile of a source item,” such as a rare manuscript, painting, photograph, slide, and so on (p. 29). The 1990s were known as the time of experimentation with imaging technologies, which in many ways appeared to be revolutionary. The technologies have altered and will continue to alter the way we preserve information and “how we perceive preservation in the larger schemes of archival management and information management” (Walters, 1995, p. 484). Furthermore, the way library is being perceived has changed radically – “library without walls” constitutes the new model of library operation at present. Thus, the digital technology has transformed the way people communicate, learn, and think (Smith, 1999, p. 3).

Digital information, by its very nature, is flexible. Digital texts, unlike texts printed on paper, are fixed “neither in essence nor in form,” according to Smith (1999, p. 3). Thus they can be easily changed without trace of emendations, or compressed for storage. Digital surrogates of images are also easy to manipulate in terms of size, grouping,

placement, color and shades, among other properties. Another advantage of digital documents is that they can be copied and distributed endless number of times without any degradation in quality on account of the act of copying, which is often the case with analog materials (Smith, 1999, p. 4). By far the most obvious benefit of digitization is the extraordinary possibility it provides for access to information products and cultural works. Moreover, the quality of the digital surrogate is often times even higher than that of the original (Walters, 1995, p. 482). It was “the promise of a much higher level of reproduction quality than other well-established, standards-compliant technologies” could offer that made preservation specialists in the early 1990s accept the risks of new digital technologies (Conway, 2010, p. 70), although they were also aware that some serious obstacles had to be surmounted: obsolescence of hardware and software, incompatibility of proprietary systems, as well as the lack of standards for imaging systems and data transmission (Walters, 1995, p. 481).

There are other voices, however, which are much more skeptical of the “promise” of the new digital technology, which can render digital documents unreadable, unless they are refreshed (on average every 18 months), according to Brand (1999, p. 46). Obviously, hardly any comparison can be made with the well tested and tried preservation reformatting media: acid-free paper and microfilm, both projected to last about 500 years if kept in a stable environment, not to mention materials such as stone, clay, and parchment, which have preserved information recorded on them thousands years ago. Hence, the prognosis that “we are now in a period that may be a maddening blank to future historians – a Dark Age – because nearly all of our art, science, news, and other records are being created and stored on media that we know can’t outlast even our lifetimes” (pp. 46- 47) might well be warranted.

Charles Dollar (1992) even redefines the very concept of preservation. The permanent preservation of recorded information is “an impossible goal to achieve;” instead, he replaces the principle of “permanent value” with the principle of “continuing value,” which recognizes the possibility for some records, including electronic ones, to lose their value over time (qtd in Walters, 1995, p. 484). As Smith (1999) maintains, “ensuring continued access to digital data” becomes critical for the preservation of digital materials (p. 5). Such definition is also in accordance with Conway’s (1996, p. 3) observation: “The digital world transforms traditional preservation concepts from protecting the physical integrity of the object to specifying the creation and maintenance of the object whose intellectual integrity is its primary characteristic” (qtd. in Conway, 2010, p. 3).

Thus, the traditional notion of preservation is seriously challenged not only technically, but also conceptually. Smith (1999) rightly observes, that although from the creator’s viewpoint the plasticity of the digital information may be a chief asset, from the perspective of a library or archives, whose mandate granted by society is to collect and preserve documents that are final and definitive, this causes significant complications – which version of the computer file should be archived? She further emphasizes the existence of other important aspects of preservation, which have also been seriously undermined by the digital technology: the work’s provenance, authenticity and integrity. Unless the authenticity of any kind of material in digital form is ascertained, digitization cannot be called preservation. Thus, Smith (1999) concludes, “digital resources

are at their best when facilitating access to information and weakest when assigned ... the responsibility of preservation” (pp. 4-5).

It has become evident that digitization used for preservation purposes is a very complex issue, stemming from the complex nature of the digital information itself, which is inextricably intertwined with both technology, that is, obsolescence of digital formats and platforms, and the human factor. ‘The real problem is not technological,’ as Hillis (1998) argues, but the lack of habit of ‘long-term thinking that supports preservation’ (qtd. in Brand, 1999, p. 48). This is why, Brand (1999) writes “it will take insistent, knowledgeable, unremitting demand from librarians and archivists for long-lived digital media, or the engineers will never take the problem seriously enough” (p. 48), stressing that because digital preservation requires “constant effort and expense,” there is “no business case for archives;” hence, the creators of digital data “rarely have the incentive – or skills, or continuity – to preserve their material. It’s a task for long-lived nonprofit organizations such as libraries, universities, and government agencies (p. 47). There has also been a strong realization that governmental support is crucial, if these institutions are to act from a strong position when involved in “the design of information systems for record-creating agencies” (De Lusenet, 2007, p. 166). This, in turn, is important because digital preservation ‘begins with the design of reliable systems and procedures’ (p. 166). Thus, adopting appropriate legislation on a national preservation policy is equally important.

In terms of legislation, a real headway was made on a national level when the US Congress passed a law and provided funding for the first systematic digital preservation program – the National Digital Information Infrastructure and Preservation Program (NDIIPP), established by the Library of Congress in 2003. Realizing the real need for cooperative approaches, the program has encouraged ‘federal, research, non-profit, philanthropic, library, and business organizations’ to create and maintain alliances, cooperatives, and initiatives in an effort to form a ‘national network of partners collaborating on digital preservation’ (Skinner and Halbert, 2009, p. 381).

Such was also the understanding of the creators of the electronic William Blake Archive, for example, which was launched in 1996 as one of the first comprehensive, free on-line projects, aiming at collecting, preserving, and making accessible to a degree so far impossible the reunified corpus of Blake’s oeuvre. The first crucial factor for the success of this hypermedia archive is the continuing support of the Library of Congress and the National Endowment for the Humanities, as well as the assistance of philanthropic and charity institutions, corporate companies, academic and research institutions, twenty-seven libraries, galleries and museums from three continents, and private collectors. A cooperation of such scale is truly remarkable.

The second factor is the principles on which the Blake Archive has been built, neatly summarized by Jones (2006), “the pursuit of platform-independent robustness and persistence, using recognized community standards and technical grammars, and the focus on the serious scholar as the primary end-user, though with an open door for general users anywhere on the Web” (p. 416). Hence, a distinctive feature of the Blake Archive is the editors’ commitment to exceptionally high scholarly, editorial, technical standards and quality, as well as fidelity to the originals. What is more, the overriding goal of the editors was to create “a superlatively useful and durable scholarly (and pedagogical) resource” (Eaves, 2002, p. 232). The key word here is “useful.” It is the



user, who is not only in the center of the archival editorial rationale, but also at the heart of the Archive itself, keeping it a viable tool for learning, education, and collaboration. A similar view is expressed by Conway (2010) in his definition for “preservation” – action, which “should nearly always be taken in reference to use, rather than to the purely intrinsic value of the object” (p. 64).

Those who succeed in turning the digital preservation into a viable alternative, as it has been demonstrated, are those who are able to make the most durable and trustworthy partnerships, cooperatives, and alliances, those who join their forces and share their practices, with a long-term inspiration and commitment to learn, grow and work together for the common good. “The primary hope offered by electronic technology”, as Kroeber (1999) has elegantly put it, is the possibility that “it may arouse self-awareness of the fundamentally cooperative, socially productive nature” of humanistic scholarship (p. 124). What is more, the fundamental optimism of the new digital era, for me, is held in the promise that it may arouse self-awareness of the fundamentally cooperative, socially productive human nature of every human being. Only when we rediscover and preserve our humanness, can digitization become a viable and sustainable preservation alternative.

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## Visualizing the Semantic Web 2.0 InfoSpace3D: a FreeBase Visualization

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**Abstract:** This paper contains a brief literature review about the semantic web, the semantic web application Freebase and ontology visualizations. Furthermore, it describes the development and theoretical concepts of InfoSpace3D<sup>1</sup> a web application which visualizes the semantic structure and contents of Freebase in a new way. InfoSpace3D is being developed with the concept of Rapid Application Development (RAD) in mind, using the latest web technologies.

## Background

### *The Semantic Web*

Tim Berners-Lee described the semantic web as “a web of data that can be processed directly and indirectly by machines” (Berners-Lee, 2001). The premise of this web of data is that access to information can be greatly improved, because machines know the meaning (semantics) of information. This allows for the automatic creation of connections between various information sources. The semantic web can be seen as the next generation of the Internet that battles information overload by showing more relevant information to users.

Ontologies play an important role in the semantic web, as Fluit et al (2006) indicate: “in order to exchange the semantics of information, one first needs to agree on how to explicitly model it. Ontologies are a mechanism for representing such formal and shared domain descriptions”. So ontologies are needed for the organization of the semantic web as envisioned by Tim Berners-Lee.

Some issues have been holding up the universal adoption of the semantic web, for example the lack of availability of content and problems with the scalability of ontologies (Benjamins et al, 2002). The critical mass of open structured data on the web did not exist, until recently (Breslin et al, 2009). At this moment, however, the ‘Linked Open Data’ movement has gained momentum. Linked Data is a set of best practices for publishing structured data. More and more organizations, like governments and research institutions, are making their structured data available as Linked Open Data.

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<sup>1</sup> [www.timelessfuture.com/infospace3d](http://www.timelessfuture.com/infospace3d)



### *Semantic Web Applications: Freebase*

Linked Open Data can be used as a basis for new services and applications. An example is FreeBase<sup>2</sup> which is an open repository of structured data in the style of Wikipedia (Bollacker et al, 2008), introduced in 2007. Freebase offers freely available information about different topics, and it aggregates open data from various data sources, like Wikipedia, the Open Library Project and Wordnet. Freebase has been growing very rapidly, and contains “more than 10 million topics, more than 3000 types, and more than 30,000 properties<sup>3</sup>.” It is an example of a ‘Web 2.0’ application, so users can collaborate, edit the gathered data, add new information and create new connections between different topics. It is also possible to integrate Freebase into one’s own website, and to develop new web applications and visualizations using Freebase data, with the provided Application Programming Interface (API).

Topics form the foundation of Freebase. A topic can be compared with an article on Wikipedia, and the word “topic” is vague on purpose, since it can represent a lot of different things, like physical entities, artistic creations and abstract concepts<sup>4</sup>. On every page on Freebase, the ‘edit and show details’ option makes it possible to view the (ontological) details of a topic. It is then possible to edit it, to ‘fill in the blanks’ and to make new ontological connections between topics.

### *Semantic Web Visualizations*

Freebase could also be visualized in different ways than its standard ‘Wikipedia-style’ layout. The API provides a means to develop new visualizations of the Freebase ontologies and data, and there have been a number of apps that have done this, for instance the ‘ASK KEN’ visual knowledge browser, and ThinkBase, an interactive graph visualization. Both applications provide a visual way of navigating the contents of Freebase.

Thinkbase visualizes Freebase as a graph, representing relationships with nodes and edges. In general, graphs are a popular way of visualizing RDF, and ontologies in general (Schraefel and Karger, 2006). This is possibly due to the inherent nature of an ontology: it is, in essence, a graph. According to Schraefel and Karger, these graphs are not always the most efficient way to access knowledge presented in ontologies.

Some initiatives to visualize ontologies in novel ways have been deployed, with varying results, as discussed by Katifori et al (2007). They distinguished different ontology visualization types, like tree representations, zoomable representations and 3D information landscapes. These visualizations differ in their effectiveness, and they all share a common problem of scalability: there is a limitation to the maximum number of visible items on a screen. According to Van Ham & Van Wijk (2002), solutions would be to use 3D or hyperbolic representations, to reduce the number of information elements (by clustering and hiding of nodes), and to use the given visual space more efficiently, by utilizing every available pixel. However, as Katifori et al indicate, “there is always a trade-off between the maximum number of nodes displayed, and the clarity and detail of the visualization.”

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<sup>2</sup> [www.freebase.com](http://www.freebase.com)

<sup>3</sup> [www.freebase.com/docs/data](http://www.freebase.com/docs/data)

<sup>4</sup> [www.freebase.com/docs/data/basic\\_concepts](http://www.freebase.com/docs/data/basic_concepts)

### *InfoSpace3D: a Freebase Visualization*

InfoSpace3D is a proof-of-concept of a new visualization of Freebase, and is being developed as a means to improve the exploratory search of information on Freebase. Fluit et al (2006) distinguished three generic information searching tasks: data analysis, querying (using a well-defined information need) and exploration. In our prototype, we mainly focus on the “exploration” search task. This has been defined by Fluit et al as “the process of finding information that is loosely relevant to the user’s current activities”. The InfoSpace3D interface should facilitate this process, but can also be used for direct querying.

One of the main concepts that are used to ease the process of exploratory search using InfoSpace3D is the concept of serendipity, “the making of fortunate discoveries by accident” (Fluit et al, 2006). By showing semantically related information next to the retrieved topic on Freebase, it should be possible for users of InfoSpace3D to discover new items during their exploration. At the same time, the application should only show items that are sufficiently relevant to the user, thereby reducing information overload and keeping the visualization clear.

### *Development and Technology*

Many ontology visualizations need particular programs and plug-ins in order to function; ThinkBase uses the Javaplugin, for example. Current web technologies like HTML5 and JQuery allow for more options in terms of visualization and interactivity. Web applications created using these technologies function in a regular Internet browser, without the need for additional plug-ins.

During the development process of InfoSpace3D, the Rapid Application Development (RAD) methodology is being used. It means that the project consists of different phases, with frequent prototypes and user feedback. Currently, the project is in the first stage, and a proof of concept application has been developed to show the viability of the idea.

### *Results*

The aim of InfoSpace3D is to provide an interface that is clean, simple and easy to use. The homepage of the web application solely consists of a search box. When a user performs a search, the application shows the Freebase results as a series of ‘cards’, with the most valid results aligned in the middle, and less valid results scattered around them. In this representation, “geometric closeness is related to semantic closeness” (Fluit et al, 2006). The relevance of the results is indicated by the size of the cards, more relevant results are displayed larger than less relevant results. The individual cards are colored, according to the semantic category of that particular result.

Furthermore, as the application is currently being developed in a library context, the metaphor of the card catalogue is used. Card catalogues have been used for ages in libraries, until the rise of computers has nearly made their use unnecessary. In InfoSpace3D, the Freebase topics that the user has requested, are represented by virtual “index cards”.

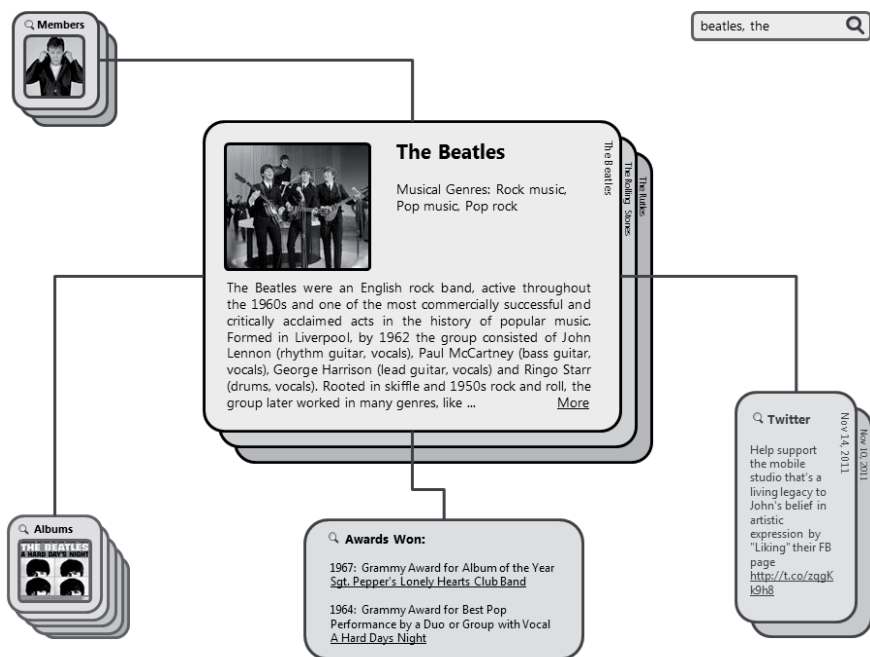


Figure 1: A schematic overview of the InfoSpace3D interface

The index cards contain the main information about a topic, and are connected to smaller coloured cards with different information facets, related to the chosen Freebase topic. These are scattered around the index cards and connected by lines. Other topics that are semantically related to the chosen topic (because they have the same semantic category) are located under the main “index card” in the middle, and their titles are visible in the document stack. Figure 1 shows a schematic overview of these and other interface features of InfoSpace3D.

### Conclusions and Future Work

This paper has started with a short literature review on the semantic web, Freebase and ontology visualizations. It has also introduced InfoSpace3D, an application that visualizes the semantic web in a new way, using data and ontologies from Freebase. It uses the “document stack” and “card catalogue” metaphors to visualize Freebase data.

An important next step in the development of InfoSpace3D is to carry out the following phases of the Rapid Application Development methodology. The prototype needs to be finalized, and subsequently evaluated using a group of test users. Revisions might be needed, according to their experiences. We are aiming to carry out the development and evaluation process in the forthcoming months. As this paper describes only the first step of the process, it is our intention to present more findings at a later stage.

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# Navigators, Debaters or Information Architects?

## How Library, Museum and Archive Professionals Perceive their Role in the Future Society

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**Abstract:** The past two decades have witnessed an increasing political interest in archives, libraries and museums (ALM) as memory institutions, their role as shapers of the future society and providers of access to public information. At the same time, the some of the proponents of digital information technologies have heralded the Internet age as their end. Even if it might be too early to doom ALMs altogether, even many professionals have acknowledged a need to change the traditional work at the institutions. In spite of the scale of the debate, the general understanding of that what is happening seems to be rather fragmented. The aim of this study is to map the future role of librarians, museum and archive professionals as it is conceptualised by the professionals themselves. The analysis is based on a quantitative and qualitative analysis of the results of a web survey of Nordic librarians and information professionals conducted in February-March 2011. The analysis of the results shows that the views of the professionals epitomise three widely diverging and contradictory ideas of the future of their professional roles, described in this article as navigators, debaters and information architects.

### Introduction

The past two decades have witnessed an increasing political interest in memory institutions (archives, libraries and museums, ALMs) and their role as shapers of the future society (Trant, 2009; Gram, 2002). At the same time, some of the proponents of digital information technologies have heralded the Internet age as their end (Usherwood et al., 2005) similarly to Thompson (1983) who predicted computers to mean the end of the libraries. Even if it might be too early to doom ALMs altogether, even many ALM professionals have acknowledged a need to change the traditional tenets of the institutions. The relative significance of physical collections at the libraries is likely to diminish (Baker, 2007). Museums are developing a digital presence and breaking out of their traditionally monumental walls (Marstine, 2006). In the digital age, 'archiving' is not anymore a monopoly of professional archivists (Featherstone, 2006).

After the early observations of the potentially revolutionary nature of new technologies in the 1980s (e.g. Thompson, 1983), the voices have become louder after the shift of the millennium. An emphasis of increased user orientation and the notions of Library

2.0 (Holmberg et al., 2009), Museum 2.0 (Srinivasan et al., 2009) and Archive 2.0 (Ridolfo et al., 2010) have all stressed the inevitability of change. Researchers, policy makers and ALM professionals have all stressed the need to embrace new technologies, follow more closely the needs and desires of current and potential users and the to adapt to the contemporary society (Pastore, 2009).

In spite of the scale of the debate, there is only a little empirical research on how the professionals and the public perceive the future prospects of the ALMs. The earlier works consist primarily of opinion pieces, political programmes and theoretical literature (e.g. Anderson, 2007; Baker, 2007; Barry, 2010; Boonin, 2001). The most of the existing empirical research has been conducted with the visitors or users of the institutions, not with professionals (e.g. Usherwood et al., 2005; Julien & Genuis, 2011).

The aim of this study is to map the central themes pertaining to the future role of ALM professionals as it is conceptualised by professionals working at the institutions. The analysis is based on a quantitative analysis of the results of a web survey of 131 Swedish ALM professionals conducted in February-March 2011. The analysis shows that the views of the professionals epitomise diverging and contradictory ideas of the future role of their work. Considering the findings, it seems necessary that the institutions and the society begin to articulate their mission in much more concrete terms than in the hitherto consensual discourse of adaptation to the current and future societal context.

### Methods and Material

The data were collected using a survey questionnaire directed to Swedish professionals working in archives, museums and in libraries and information service. The survey was conducted online using Lime Survey 1.90+ open source survey software. The material was gathered in February-March 2011. This paper is based on an analysis of the comments on the role of ALM professionals in answers to two open ended questions included in the survey:

1) What can archives, libraries and museums (ALMs) offer to the contemporary society other public and private institutions, individuals and communities can't? I.e. if libraries, archives and museums are important and relevant, why? and

2) Describe your own vision of a perfect museum, library or archive in the year 2020 and how it is different from today? The analysis of the texts was based on the use of the constant comparative method (B. G. Glaser & Strauss, 1967). Respondents were assigned codes from R1 to R131. The codes are used later in the text to refer to their answers.

The sample consists of 131 Swedish ALM professionals with 80/131 (61%) females and 44/131 (34%) males (7/131, 5% with no answer). 87% (114/131) of the respondents were 31-64 years old with 35% (46/131) being between 51 and 64 years. 55% or 72/131 had an undergraduate degree and 50/131 a master's degree. Only three (2%) had acquired a doctoral degree and one had no formal education. 54/131 (42%) identified themselves primarily as librarians or library professionals, 8% (10/131) as information specialists, 29% (38/131) as archivists and 14 (11%) as museum professionals. The 14 (11%) respondents who did not identify themselves in the four groups worked in archives, libraries and museums related governmental, administration, education, development and consulting duties. The studied sample is a convenience sample and there is

an unknown bias in the material that makes it impossible to generalise the results as is and special care has to be taken when discussing the conclusions of the study in the contexts outside Sweden and the Nordic countries.

## Analysis and Discussion

The general trend of the responses was rather unsurprisingly that ALM institutions and ALM professionals have a significant societal role to play even in the future. At the same time, the respondents were considerably less unanimous about the essence of that role and especially about the means to maintain, increase and reassert it. The findings are consistent with the earlier literature (e.g. Gilliland-Swetland, 2000; Rosa et al., 2011; Sundqvist, 2007).

The analysis indicates the existence for three major scenarios of the future role of ALM professionals. Partly, the ALMs are seen as a public good and a service with societal implications and ALM professionals as ‘navigators’ that help visitors in their pursuits of knowledge and experiences. The professional role of a navigator was clearly related to an idea of an empowering role of ALMs. Many respondents pointed the role of ALMs as meeting places (R68, R76, R84, R91) and where people can act by themselves without being unwantedly interfered by others (e.g. R63, R72). The respondents were inclined to emphasise a necessity of maintaining an absolute ‘neutrality’ of ALMs (e.g. R17, R55, R105).

Secondly, some of the respondents had a propensity to emphasise the intrinsic value of the institutions and the continuing relevance of a historical judgment. This view is coupled with a perception of the role of professionals as ‘information architects’. Their role is to organise and provide tools for accessing materials for visitors who independently seek what they are looking for. ALM professionals play an important role in systematizing knowledge and materials and in maintaining the institutions as “the most important search instrument” (R25). ALM professionals should help people in information seeking and cultural questions (R35) and more indirectly offer their expertise in content analysis, storage, mediation (R38) and preservation (R109) instead of nurturing an idea of a knowledge monopoly (R80).

Thirdly, some of the respondents were strongly in favour of taking an active role as ‘debaters’ with a proactive role in the society. In the view, ALMs need to be institutions with an explicit social agenda and ALM professionals should view themselves as harbingers of a certain collective political ideal. They should engage actively in the societal debate (e.g. R2, R72, R77, R79, R115) and advocate for equality, solidarity and the public control of ALMs (e.g. R62, R95, R143), an agenda that is close to traditionally social-democratic ideals in the Swedish context (Andersson, 2010). The political orientation of the agenda is not surprising considering the historical development of the ALMs and the society in Sweden (e.g. Hansson, 2010).

The findings of the present study indicate clearly the existence of several competing ideas of the future role of ALM professionals. The emergence and conflict of diverse philosophical and ideological underpinnings for ALMs is nothing new (e.g. J. R. Glaser & Zenetou, 1996; Duranti, 1989; Given & McTavish, 2010), but it seems that at the moment many of the central tenets of being an ALM professional are under debate. The approaches are based on contrasting ideological and theoretical underpinnings. It is

possible that different individual archives, libraries and museums can pursue their missions from different ideological and practical premises. Realising them all in a single archive, museum or library is, however, bound to be difficult, if possible at all. In order to solve the present conflict of ideals, it seems necessary to make an explicit decision of the leading principles of the institutions. It is impossible to foresee whether all of the strategies and anticipated roles provide a way to reassert the role of the ALMs in the future society. However, in spite of the uncertainties, it seems necessary that the professionals take a stance, are explicit about the role they are playing and how they see their chosen role in relation to its alternatives. Attempting to keep a balance between directly competing approaches without articulating their fundamental differences is unlikely to be a successful way forward.

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## Turkey - Access to Government Information A Case Study

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**Abstract:** This paper reviews the progress in public access to government information, and the development of e-government in Turkey from 1993 to present day, by examining various recent eTransformation efforts made by the Turkish government and several factors which have played an important role in affecting the public's access to information

The paper will discuss local literature and Turkish legal developments regarding e-government development starting from the 2004 negotiations for Turkey to enter the European Union (EU) contribute to the understanding of the transition to e-government in Turkey. The paper will briefly examine the state of e-government development and the level of public access to information in the Visegrad-Four (V4) countries accepted into the EU since negotiations for Turkey began. Developments that have taken place in Turkey on the local level, focusing on e-government of municipalities, will also be explored.

Taking the afore-mentioned factors into account, we will consider several options currently being discussed that will aid Turkey in eliminating technical, cultural, and fiscal barriers in order to provide a greater number of its citizens with access to the information they need to improve their lives and promote the democracy for which they have so greatly fought for and maintained throughout the 20th century and into the 21st century. It is hoped that the paper will stimulate a discussion on how Turkey and other countries can most effectively use e-government strategies to keep their citizens informed and to sustain a democratic form of government.

### Turkey's Progress in Public Access to Government Information

E-government involves an all-around transformation in the method of public service provision that encompasses what the authors Parlak and Sobaci (2009) consider to be its four dimensions: “e-service, e-democracy, e-commerce, and e-administration” (p.439). The measures Turkey has taken in order to implement this electronically supported knowledge-based economy started with access to Internet connection in 1993 (Yildiz, 2009). During the 1990's the Turkish government began taking action in order to prepare the infrastructures necessary for Online services (Yildiz, 2009), which supported Turkey's involvement in the eEurope+ Program for candidate EU countries in 2001. In 2000-2002, main e-government services started to be implemented (Arpaci, 2011). This paper is a review of literature on the topic of e-transformation and the increase of public access to ICT in Turkey, both on the local and national levels.

### The State of e-Government Development of the V4 Countries upon Acceptance into the EU

At the time that negotiations for Turkey's acceptance into the EU began, the Visegrad-four countries were already being considered for acceptance, and have since been accepted into the European Union. The Visegrad-four (V4) refers to the Visegrad Decla-

ration which was founded at a summit held in Hungary by the Czech Republic, the Republic of Hungary, the Republic of Poland, and the Slovak Republic (Poók and Pence, 2005). According to researchers Poók and Pence (2005), the relevance of the V4 to Turkey's state of e-government involves their information and telecommunication infrastructure development and the ability to "contribute to their needed economic growth for accession to the EU and, once admitted, to match the information infrastructures of the advanced members of the present EU" (p. 291).

This section briefly discusses the investment levels in information technology and national information infrastructures of the Visegrad-4 as a comparison for Turkey's present information infrastructure preparedness. Authors Poók and Pence (2005), while analyzing the V4 countries, found that according to some of the National Information Infrastructure (NII) indicators, such as social indicator variables including literacy rate and GDP per capita, these rapidly developing countries ranked close to other EU nations. In the amount invested in telecommunications, however, as well as other indicators, including the proliferation of information technology, the V4 countries were lagging far behind EU nations (Poók and Pence, 2005).

Moreover, Poók and Pence (2005) discovered that "investment in telecommunications proved to have significant predictive ability in the model suggesting that harnessing communications for development should be a necessary ingredient of government policies in these countries" (p. 309). It was also demonstrated that government services, laws and parliamentary processes, banking services, remote transactions, and institutional services should be made available at all times with modern ICT technologies (Poók and Pence, 2005). The national information policies presented by the Visegrad-four countries emphasize the importance of a national strategy for information technology, and the benefit of an increased GDP per capita to the national information infrastructure of those countries (Poók and Pence, 2005).

### Some National e-Transformation Efforts Made by the Turkish Government Since 2003

In the early 2000's Turkey joined eEurope+, an extension of the eEurope Initiative especially designed for EU candidate countries (Yildiz, 2009), before accession negotiations that began in December 2004 for Turkey's accession to the EU. This section will focus on an aspect of the eTransformation Turkey Project, launched in 2003, in an attempt to provide Internet access to those who did not have other venues to access the Web. Since the inception of this project, the Turkish government invested heavily in eTransformation, and some eGovernment-related activities were assigned to ministries such as State Planning Organization, and Education and Transportation (Kushchu, 2012).

With the new e-transformation plan, the government took measures to expand on the pre-existing public access to information infrastructure by establishing 4,500 new Public Internet Access Centers (PIACs) at libraries, municipal government-run locations, and public training centers (Kushchu, 2012), which have served adults by offering classes on literacy improvement, vocational training, and ICT classes for years before the eTransformation initiative went into effect (Kushchu, 2012). A small number were also planned to open in locations such as military barracks, and youth centers (Kushchu, 2012), enabling a wider spread of free access to public information (Kushchu,

2012). PIACs provide a convenient resource that are designed to cater to the needs of low income and other marginalized Turkish citizens, by equipping PIACs with between five and 20 computers depending on the size of the community (Kushchu, 2012), a projector, a laser printer, a multi-media library, and an ICT trainer (Kushchu, 2012).

As a part of the e-Society action plan in 2006, Kushchu (2012) stated that the Ministry of Industry and Trade "announced plans to open public access ICT venues at the Organized Industry Zones to encourage and support the development of industry and manufacturing" (p. 539). The goal of the plan was to strengthen the existing venues and to find new ones that offer public access to information and ICT; to improve the e-government infrastructure, as well as modernize the public sector by enabling businesses to use ICTs (Kushchu, 2012).

The most important system affecting most of the other e-government projects is the Central Census Management System Project (MERNİS). It has been fully operational since January 2003, with a goal of computerizing all the census events, storing the results in an electronic format. The system is also used to assign unique ID numbers to Turkish citizens, so they may access the e-services available (Arpaci, 2011) like the Internet Tax Office Project (VEDOP), which started as an automation project of tax offices all over the country in 1998, or the National Judicial Network Project (UYAP). UYAP's purpose is to establish an electronic network to cover all courts, offices of Public Prosecutors, and Enforcement Offices with the the Ministry of Justice, in one program, and allow them to be available online via the Office of the Public Prosecutor (Arpaci, 2011).

Two other initiatives are the Accounting Offices Automation Project, which is designed to automate all daily tasks of accounting offices and gather all detailed public accounts information at the central level (Arpaci, 2011), and National Police Network Project (POLNET). POLNET is a comprehensive store of information which provides a secure online aid to criminal investigation by allowing police to access national information via a computer network. It also contributes to many aspects of the job by providing online access to the Vehicles Database to detect stolen vehicles, and a Criminal Records Database to identify criminals. In addition, network shows fingerprint records, DNA analysis, and blood and tissue information. POLNET is also used to compile information about terrorists and organized crime groups. Citizens can access the network to obtain information about police and passport services (Arpaci, 2011).

### Developments in Turkish Local e-Government Practices

This section focuses on just a few of the many e-government projects aimed at enhancing the administrative and service capacity of local government units. The authors Parlak and Sobaci (2009) did a study on this topic, and noted that "e-government projects have a special and privileged role" to enable the provision of more efficient public services by improving institutional capacities of local governments (p. 443).

One such effort is "the Research Project for Strengthening the Local Governments," titled YERYÖN; it was carried out between 1998 and 2001 by the Research and Education Center for Local Governments (RECLG) (Parlak & Sobaci, 2009). Parlak and Sobaci (2009) state that the goal of the project was "to develop ideas for the local gov-

ernment model that will present the structural aspects and problems of local government system and meet the needs of the 21st century” (p. 444).

The project titled YEREP was the Project of Developing Educational Materials for Local Governments, the research performed from 1999-2001 was to “set up an Internet sharing network where data, information, and experiences will be presented,” so that lecture notes could be shared for educational purposes of local governments and used both in classroom situations and for self-study (Parlak & Sobaci, 2009).

Within the YEREP project there is the YerelNET Projesi, or LocalNET Project, and is carried out with funding provided by the State Planning Agency. According to Parlak & Sobaci (2009), “Its aim is to present the data regarding local governments as a whole and the legislation and regulations needed by those working in local governments” (p. 444), so that the website could function as an electronic bulletin board where local governments could post their information, and citizens could access it and interact on the Web portal (Yildiz, 2007). The YerelNet Project website went up in 2001 and as of February 2006 it held data for approximately 3,200 municipalities, about 35,000 villages, the governments of all 81 provinces, and over 1,000 local government organizations (Yildiz, 2007). It uses Open-source software to keep maintenance fees low, increase flexibility, avoid software licensing fees and hacker attacks as well as viruses (Yildiz, 2007). The project makes use of online forums and other social networking tools, allowing citizens can provide feedback about services provided by their local governments, implying that the project's government-to-citizen as well as government-to-business interaction is considered as important as that of the government-to-government communication (Yildiz, 2007).

Another local e-government initiative is YERELBİLGİ, Local Governments Information Database Project, prepared by Turkey and the Middle East Public Administration Institute and RECLG. It came into effect during the spring of 2001 with the purpose of collecting data in electronic media, and was submitted to the control of the Ministry of Internal Affairs in 2003 (Parlak & Sobaci, 2009). The data collected during the project was compiled about local (i.e. provincial, municipality, and village) government affairs, companies, and other institutional information, about services offered by those institutions in a way that helps them develop and assess their public service policies (Parlak & Sobaci, 2009). The website is currently available to citizens with Turkish ID cards, e-signatures, or a combination of registered cell phone and mobile signature (<http://yerelbilgi.turkiye.gov.tr/>).

Some other local service projects not discussed include a joint project between the German Technical Cooperation Agency (GTZ) and the Turkish Local Administration Bringing Quality Services project for water and ecological services ([www.todaie.gov.tr/v1/yyaem.php?Baslik=48](http://www.todaie.gov.tr/v1/yyaem.php?Baslik=48)), and another joint project, “The United Nations Human Rights Protection and Promotion of Women's and Girls' Partner Program,” to promote Turkish local governments' support of women's and girls' rights ([www.arem.gov.tr/proje/sosyal/kadin\\_kiz\\_cocuk.htm](http://www.arem.gov.tr/proje/sosyal/kadin_kiz_cocuk.htm)).

### Turkey's Future in e-Government Services

The successes of e-government efforts are closely related with the e-readiness of a country. According to the 2010 Economist Intelligence Unit report, Turkey is a candi-

date country for being a regional e-readiness leader in the Middle East, having 43rd e-readiness rank in the world (Arpaci, 2011). A 2011 press release indicating ICT usage in households and individuals documented the findings of a survey carried out according to the regulations of the EU, reported an increase to 42.9% of households with Internet access from 19.7% in 2007, and 59.9% of enterprises with Internet access having their own website; 2.1% points greater than the previous year ([www.tuik.gov.tr/PreTablo.do?tb\\_id=60&ust\\_id=2](http://www.tuik.gov.tr/PreTablo.do?tb_id=60&ust_id=2)).

According to Information Society Strategy implemented between 2006-2010, Turkey's ongoing transformation into an information society was pursued around seven fundamental strategic priorities: social transformation, ICT adoption by businesses, citizen-focused service transformation, modernization in public administration, a globally competitive IT sector, competitive, widespread and affordable telecommunications infrastructure and services, improvement of research and development and innovation (Arpaci, 2011). The first two years of the strategy's effectuation were spent on preparations for the transformation and the startup of several e-government projects aimed at developing Turkey's information society (Arpaci, 2011).

What lies ahead? In the United Nations Development Cooperation Strategy (UNDCS): Turkey 2011-2015, the Government of Turkey and the United Nations have identified and endorsed the following three broad areas of cooperation: Democratic and Environmental Governance, Disparity Reduction, Social Inclusion and Basic Public Services; Poverty and Employment (UNDCS, 2010). The definition of the goals for the first area, UNDCS (2010) states that “empowered individuals and vulnerable groups should participate equally and influence decision-making processes at all levels” (p. 8). The accomplishment of this goal is viewed as crucial for maintaining democracy, stability, and security. UNDCS (2010) states that reducing present disparities “will require encouraging existing public institutions and forums to become more inclusive and also the setting up of new institutions that further empower and enhance the participation opportunities of socially disadvantaged and poor communities” (p. 8). This means but is not exclusive to: strengthening human development and social solidarity by raising adult literacy rates, and reducing gender and geographical differentials in completion of primary and secondary education, and ensuring that communities in rural Turkey have equitable access to quality basic services as well as access to information and knowledge (UNDCS, 2010).

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## If We ‘E’ It, Will They Come Lifelong E-Learning at a Large Urban Public Library

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Libraries in the United States are facing challenges providing educational, recreational, professional, and job-related services to more and more people in their communities while facing severe cuts in funding. In order to meet these challenges, libraries are adopting more creative strategies and thinking out of the box to meet these growing demands.

To meet these challenges, the Carnegie Library of Pittsburgh (CLP), a large urban public library system, implemented several e-learning initiatives to meet these demands with a goal of providing anywhere and anytime lifelong learning to patrons. Some of these e-learning initiatives include providing e-resources to children, teens, and adults that include the eCLP products, MyStoryMaker, Homework Help, Book Flix, and various research databases.

In this paper, I will describe the CLP e-resources that the Carnegie Library provides; the impact of these e-resources on the CLP community; the lessons learned in implementing these resources; the challenges faced providing these e-resources; and finally what the future holds for e-learning at Carnegie Library.

Carnegie Library offers several e-resources through their eCLP products. Carnegie Library of Pittsburgh provides all of these e-resources free of charge to patrons in Pittsburgh and/or Allegheny County who possess a valid library card. These eCLP resources are used for entertainment and educational purposes from anywhere at any time. For example, a student taking a history of opera class might have an assignment to write a paper comparing and contrasting the opera styles of composers Richard Wagner and Giacomo Puccini. They might compare Wagner’s “Tristan Und Isolde” and Puccini’s “La Boheme.” They can view both operas (eVideo), listen to the arias, read the score, and download eBooks on both Wagner’s and Puccini’s lives. This can all be done anywhere and at anytime.

A younger student might be given the assignment to read a children’s book on President Barack Obama. They might decide to read the book and listen to it online using the Book Flix online resource.

Older students might be given the assignment to create a presentation on graphic novels that have been made into films. The student can watch the movies “The Spirit,” “Watchmen,” “V for Vendetta,” or “Sin City,” (e-video), listen to the books on audio (e-audio), and search for electronic books (e-books) on graphic novels (e-books). They might search the research databases Novelist and/or Novelist K-8 to read about the author Frank Miller who wrote the graphic novel “Sin City,” “Watchmen,” “The Spirit,” and Alan Moore and David Lloyd who wrote “V for Vendetta.” They can incorporate the text, video, audio, streaming audio, and graphics (still images) into the presentation to make the presentation come alive.



The goal for providing all of these e-resources is to promote lifelong learning for library patrons from small age children learning to write and share their own stories through My StoryMaker to adults utilizing Live Homework Help to help them to prepare to take the GED so that they can obtain that new job or promotion at work.

In order for librarians and other library staff to assist patrons to meet their life goals, they need to be knowledgeable, flexible, and comfortable with this technology in order to use it, market it, and demonstrate it to the public.

In these times of budget cuts and library closings, library administrators need to find even more creative ways to provide and market these and other e-resources to their staff and public. They should give their staff the necessary time and support to attend training to become knowledgeable with these e-resources so that they can both recommend and train others (including patrons) on how to use them.

In these challenging economic times more people are viewing libraries as the beacon of hope in their lives. They utilize the library services now more than ever for every aspect of their lives whether it is researching job openings, applying for jobs online, students obtaining assistance with their homework and class projects; adults obtaining materials for school and/or work; families borrowing and/or downloading music, videos, electronic books, etc for both entertainment and edutainment.

Some of the future goals that the Carnegie Library has for supporting lifelong e-learning include adding more research databases, expanding their overall electronic product offerings, adding more computers in more library branches, increasing the number of professional development workshops for staff so that they can become more familiar with technology and be in a better position to assist their clients. They plan to offer more "Technology Playgrounds" throughout the year both at the library and surrounding areas where both staff and the community can test the latest technology in the library. CLP will continue to evaluate the latest and greatest emerging technologies and find creative and cost effective ways to integrate them into the library. In addition to these initiatives, there are several grant-funded digitization projects planned for the future including the digitization of both pictures and text that celebrate Pittsburgh's unique steel industry past.

The library will continue to support lifelong learning through these current and future e-initiatives as long as patrons continue to use and request these services. We as librarians and administrators must keep in mind that "if we 'e' it... and market it, patrons will come" and use our services whether it is coming into our physical buildings or coming to visit us online from anywhere and at any time!

## Online Citizen Engagement in the Context of Information Society Online Participation Channels in Estonia

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**Abstract:** The purpose of this paper is to analyse the potential of use Estonian e-participation webs. Although Estonia is one of the leading countries in the world in terms of using e-services and the field is constantly developing, online participation is still taking its first steps.

While political scientists generally examine people's social activity in the context of civil society, the role of information scientists today is to consider the issues related to online participation, starting from information channels to the information architecture of participation webs.

This presentation focuses on the issues of online participation, more specifically, on the content analysis of Estonian participation webs. In addition, the online user survey will be conducted among Master's program students.

The research design is presented with the aim of answering the following questions:

- a) Whether and which e-participation channels are used?
- b) Whether the e-participation webs (Osale.ee; eelnoud.valitsus.ee) are known?
- d) What purposes e-participation webs (Osale.ee; eelnoud.valitsus.ee) are used for?

### Introduction

Modern information society has constantly simplified the decision-making process involved in online participation of citizens in a democratic state. New opportunities have been created for using various information channels, participation webs and e-services.

However, the previous studies have shown that mere information technology along with the provided electronic information channels does not increase citizenship activity to a significant degree. The problem in Estonia, as in the rest of the world, is the low level of usage activity in participation webs. The Estonian Information Society Strategy 2013 (2006) points out that the development of information and communication technology has indeed created the tools for engaging citizens in debates and decision-making processes, but so far the homepages of ministries, for example, are used primarily to inform citizens, not to engage them interactively.

The level of usage concerning the Estonian participation webs like Osale.ee and the legal bill information system eelnoud.valitsus.ee (EIS) is low. This is confirmed both by observations in the participation webs and also by the surveys carried out with state officials and stakeholders.

The purpose of this study is to determine the role of online participation channels in engaging Master's program students in the civil society.

More specifically, the study focuses on the usage potential of the Estonian participation websites Osale.ee and legal bill website EIS among a certain user group.

As of today, no study has been carried out with Estonian students about the usage of participation channels. Also, no study has analyzed the content of participation webs from the aspect of the user and there are no overviews on whether participation webs are known and how often and for what purposes they are used.

In 2007, an analysis was conducted concerning the Estonian participation portal TOM that was the predecessor of the current participation portal Osale.ee. The survey was carried out with the portal's users who had proposed their ideas and suggestions through the portal. The study showed that the most fruitful period in the portal's history was the year 2001 when 369 proposals were made through the portal. The most popular issues back then were traffic (142), taxes (70), and Estonian affairs (59). Of the total number of registered citizens (6837), 45% were active users (3081), in total there were 6107 comments and 12502 votes (Gelncross, 2009). No doubt, this is highly good score, considering a small number of inhabitants (1.3 mil.).

When talking about e-participation, one cannot ignore the discussion of civil society and e-democracy not only because e-participation is merely one method for engaging citizens. This is why the theoretical part of the paper also includes an overview of the discussions of e-democracy.

E-participation is often associated only with e-voting, but this is just a narrow field in the development of e-democracy. When discussing e-democracy, one should instead focus on the civic participation in public issues, rather than merely on e-voting. The objects of this study are web environments that offer the citizen the opportunities for voting, expressing opinions and also making proposals.

### Research Methodology

The theoretical part of the paper focuses on the earlier studies concerning e-participation and participation channels that have been conducted both in Estonia and abroad.

The empirical part of the paper is based on a web-based survey conducted with the Master's program students in the University of Tallinn. The purpose of the study is to determine whether Master's level students are aware of e-participation channels, whether they have used them. In more detail, the study will focus on the Estonian online participation webs Osale.ee and the legal bill information system eelnoud.valitsus.ee (EIS) asking from Master's level students what kind of experiences they have had using them. In order to conduct studies of participation webs, the manual Digital Engagement Evaluation Toolkit, developed by the Hansard Society (2009), recommends choosing research methods from the list of activity log, observation, user surveys, and discussions with policy and engagement teams and stakeholders. The author has chosen the user survey as the method for the study.

Through questions, the survey aims to determine how the Master's level students themselves rate their awareness of social problems, what kind of electronic information

channels they use in searching for public information, what issues interest them in public information, and whether they are aware of the participation webs like Osale.ee and the legal bill web environment EIS.

The sample of the study – the Master's level students in the University of Tallinn – has been chosen because the students already work or will be working in the leading public sector positions where they need to make significant decisions. Making good decisions requires not just professional know-how, but also being aware of the wider social problems. People acquiring Master's degrees could be considered to be specialists in the respective professional issues and their engagement in legislative drafting is at times even crucial.

The author plans to conduct the study in January-February 2012.

### Conclusion

The goal of the participation webs like Osale.ee and the legal bill information system eelnoud.valitsus.ee EIS that have been created by the state of Estonia is to engage citizens in decision-making processes to ensure better quality of the decisions and laws passed. It is therefore extremely important to assess participation webs from the aspect of the user: are citizens even aware of the opportunities provided and what kind of potential is seen in participation webs?

This empirical study is planned to be conducted with the Master's level students in the University of Tallinn to determine the role of participation webs in the engagement process.

The author hopes that the study results in answers to the raised research questions and the confirmation of the suitability of the chosen research method (the user survey).

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# Bibcamp - An Open Space Learning Framework

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**Simeon Krämer** was born on August 11, 1981. In summer 2001 he graduated from St.-Matthias-Gymnasium (high school) with Abitur (university entrance certificate). After doing his service in the Bundeswehr (German army) for seven years as an officer he started studying library science at the Cologne University of Applied Sciences in September 2009 and gained practical knowledge in library science in the “Stadtbibliothek Euskirchen” (public library, Euskirchen, North Rhine-Westfalia, Germany).

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## Introduction

The text has been written in Cologne in November 2011 and was assisted by Prof. Tom Becker and Prof. Dr. Ursula Georgy (both are professors at the Cologne University of Applied Sciences). It deals with a new learning concept called “open space learning” which defines new borders between tutors and students inside of a scientific lesson or a lecture at the university.

The concentration on this topic is based on a national project called “Bibcamp 2012” that will be organised in March 2012 by students of the Cologne University of Applied Sciences. The Bibcamp 2012 is an unconference of three days' duration that allows every participant to put non-specified topics related to library science up for discussion. Every participant is free to attend the discussion he prefers.

Furthermore the text linguistically uses the masculine gender to improve its readability. These statements apply to the female persons analogically.

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Open space learning is a new learning concept that repositions borders between tutor and students. Based on the axiom that scientific work means to question information, the concept uses the skills and experience of every single participant, both tutor and student. Therefore the tutor no longer represents the center of a lesson. A moderating aspect is added to the teaching role, he is no longer acting as the leading expert in a “one-man-show”. The goal is to animate the students to cooperate and to find their own (group-based) solutions. This principle could be called a “master-guided peer-review”.

One well-known representative example of that principle in a semi-scientific environment is Wikipedia. Everybody regardless of age or level of education can add information to articles to make a contribution to the community. Of course information on Wikipedia isn't verified by different formal experts, like journals or compendia edited by well-known and established publishers are. So a Wikipedia-article should not be quoted in scientific work, even though it can be used as a starting point in someone's research. Wikipedia is, however, an interesting and successful experiment that shows

the positive aspects of the cooperative correcting nature of a “swarm intelligence”<sup>1</sup>. So the goal of open space learning is to apply Wikipedia's effectively functioning principle accordingly into a scientific environment. In contrast to the “common Internet” every participant in a scientific environment such as a university has basic knowledge in scientific work. According to that teaching in scientific environment can be enriched by adding the beneficial aspects of Internet-platforms such as Wikipedia to scientific teaching, because not only the students but also the tutors learn.

Open space learning is rarely applied in universities; there is however a hybrid form called “blended learning”. The tutor provides materials as well as assistance but each student is responsible for gaining knowledge himself. A well-functional example for blended learning in the form of e-learning is provided by George Siemens, former Associate Director at the Learning Technologies Center, University of Manitoba and founder of the learning theory “connectivism”.

Despite all the positive possibilities a teaching method like open space learning could offer only a few scientific institutions make use of it. So who is authorized to decide whether traditional formal academic study or open space learning is implemented? Universities are institutions, subject to formal restrictions. Furthermore they base the delivery upon the principle of freedom of teaching and research, which means that every single professor can choose his favorite teaching method. Of course teachers have to keep the temporal conditions abiding by the rules of the university, but during the lesson he is free to use open space learning. Nevertheless open space learning depends on the student's motivation, it couldn't work if the students refused to participate both theoretically and practically.

Regarding the fact that the teaching method depends on the subject, open space learning seems to be a particularly suitable teaching method for humanities, not so much for subjects belonging to natural science. A tutor can, for example, create a case-study or he can define a project and doing so, one will be able to relate to the students' chains of thoughts over the course of the following discussion. There might be feeble arguments brought forward the tutor doesn't need to agree with, but there will be substantial arguments, too. As long as at least one of these brings up an aspect the tutor hasn't thought about yet, there will be a learning effect not only for the other students but also for the tutor, which may expedite his own researches. In complex themes there is an additional value resulting from multiple individual chains of thoughts and the relating points of view. Above all, invalid or even false arguments will be corrected by the “swarm intelligence”, the tutor and the other students alike.

The focus is set on the problem so that on the one hand every participant develops a solution for himself and on the other hand a solution is developed cooperatively. Learning by doing is much more considerable than just learning by hearing. That's just the way children start learning. That principle can be transferred to adult's learning behavior. So, adopting it via open space, combines serious scientific work with impulsive acting. The result could be called “Edutainment 2.0” and the tutor's role resembles a background-leading one: He isn't the sole focus of a lesson any more but rather he has

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<sup>1</sup>A “swarm intelligence” is the collective behavior of a decentralized and self-organising system

to organize the debate and keep it on a scientific level to avoid slipping into irrelevant terrain, from getting too emotional or even hurting someone.

In open space learning the lines between professor and student are more blurred than in formal studies. Due to the fact that the important knowledge isn't exclusively focused on the teacher's person anymore but is built together by connecting all individual knowledge, every single participant is part of the exchange of information and has thereby access to this "swarm intelligence". Therefore every participant is able to enlarge his own knowledge by using the other participants' knowledge.

The learning success in open space learning frameworks can't be guaranteed just as it can't be ensured in formal lesson. The learning effect is always intimately connected with the learning motivation gained from the collaboration as well as from the tackled project. However, based on a good motivation the learning success in general is ensured for every participant because of the information-network he or she has access to – the "swarm intelligence" he is part of.

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## Sharing Information in a Business Environment Corporate Benefit, Individual Loss?

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**Gesa Krauss** studied Library and Media Management at Stuttgart Media University with a focus on academic libraries, finishing her studies with a diploma thesis on e-learning projects. Working as a librarian and later as Manager Information Services for some years at a tax advise and auditing company, she gathered a lot of experience in information management. For over one year she is now working for Bird & Bird LLP, an international law firm, where she manages the library of the Duesseldorf office and is in charge of the German activities concerning the corporate knowledge base and Online Client Services.

**Abstract:** Primarily sharing information is mentioned as a tool for the company to generate more profit and for the employees to exploit the common knowledge to do their work faster, easier and with higher quality. The information shared by way of a knowledge database is meant to be a benefit for everyone. For the company this may be true as the knowledge of the individual employee is commonly accessible and can be used independently. By this the company pays only once and increases the profit by reusing the information. For the individual contributing his or her knowledge to the database this means losing power and losing ground in the internal competition by giving away unique knowledge. These advantages and disadvantages are the topic of this paper and the different perspectives will be discussed.

## Introduction

Sharing information as the heart of knowledge management is usually seen in the light of being of advantage for the organisation. Gathering knowledge in any storable way in a centralised database means that everybody within the organisation is able to access the knowledge of the whole organisation and reuse it for the benefit of the same. Seeing it this way one would say it is the best thing an organisation could go for.

In this paper the organisational and therefore economic perspective will be discussed but also the perspective of the individual person contributing to the knowledge database. As this paper is mainly based on the experiences of the author the focus will be on information based companies like consulting and law firms.

## Sharing Information - What Does This Mean?

As already mentioned above sharing information is the centre piece of knowledge management. But what exactly does this mean? Knowledge management can be described as the explicit and systematic management of vital knowledge – and its associated processes of creation, organisation, diffusion, use and exploitation – in pursuit of business objectives (Skyrme). In practice this includes gathering documents employees created during their work time or information that was brought into the organisation by way of employees, clients or external information staff, storing them in a commonly accessible database and encouraging the employees to use this database. About what kind of information do we talk? In the first place a knowledge base will contain data created or at least contributed by employees. These data could be documents like stand-



ard contracts, presentations, manuals, guidelines and reports they created during their work for the organisation or even contact details of business contacts they know, if the knowledge management comprises a customer relationship management system. Other data stored in the database could be external information like presentations or documentation of a conference an employee attended documents that clients provide, maybe even feedback forms, or information that was bought to support the internal staff like newsletters.

Gathering all this information and storing it in a centralised database is the first step of sharing information. The next step will be to encourage employees to use the database and reuse the information for their own and the organisation's benefit.

### **Business Perspective - Economic Benefit!**

Sharing information within a company is the ideal solution for all enterprises especially information based companies like consulting companies or law firms. These organisations generate their turnover by using and selling their employee's knowledge. The knowledge of the individual is the business basis of the company. Storing information created by employees with their special skills, knowledge and experience means multiplying the benefit the company gains by employing these people. The knowledge of one employee can be reused independent of regional aspects and even independent of the employee himself. In effect this means that if the employee leaves the company the knowledge once paid for stays within the organisation and keeps generating profit.

Providing an IT-based knowledge storage is much easier and cheaper than re-creating and redeveloping documents all the time. Using model contracts, standardised presentations or forms is much more time-saving than designing and creating these kinds of documents every time. Having user manuals, process description and internal forms ready to use in one predefined space is saving a lot of time the employees can use for their actual work instead and therefore gain more benefit for the company.

From the companies point of view sharing information is important to increase efficiency and thereby help to raise the profit.

### **Employee Perspective - Individual Loss?**

Sharing information for the individual employee means to give away an intangible private asset. The knowledge of the individual will be available to all other members of the company and everybody will be able to use it and gain advantages through it. As already discussed earlier with a focus on the company's perspective this means increased efficiency and therefore financial benefit. But what are the consequences for the individual who contributed his or her knowledge to the organisation?

At first the focus will be put on the personal and therefore very subjective points of this topic. What does an employee gain or lose by contributing knowledge to a company? The motivation to make ones knowledge available to other could be intrinsic, which is supposed to be the stronger kind of motivation. Intrinsic motivation basically means that one gains psychological satisfaction by ones own doings. In the context of sharing information this could be for example a feeling of self satisfaction gained through helping team members with ones knowledge. Helping others and in best case getting appraisal for this, being thanked for by colleagues is a highly intrinsic motivation. If an

employee identifies himself deeply with the company he even might like the idea of bringing forward the company (Martin Cruz et al., 2009). On a more material basis the individual can gain substantial benefits if the company has a reward system for knowledge sharing. The loss of the individual is a bit more complex. The core of the whole thing is, as mentioned above, knowledge is an intangible private asset, which already implies the dilemma the owner of this asset is in. How do you put a name tag or even a price tag on something that can not be seen and nobody really knows what or how much it is?

Sharing knowledge makes the private asset a public good (Lam and Lambermont-Ford, 2010). The owner loses his hold on the knowledge as everybody is now able to access and use it. As knowledge is power this means the employee gives his means of power away and thereby diminishes his own worthiness for the company (Riege, 2005). If the employee leaves, or has to leave the company, the knowledge stays within the organisation.

Besides this the loss of control over knowledge comprises finer points. As everybody within the organisation is able to use the information the creator can't track for which purposes the information is used. Especially in legal topics changes are going on with high frequency so a document created and published to a knowledge base is quickly out of date. If a person uses a document off the database and is not an expert himself he won't know if the information is still up to date or not. Apart from these intangible issues one also has to see the substantial matters of the whole process. Usually the employee is getting paid for his knowledge and in information based companies most employees get profit shares when their special knowledge earns money. For example the employment team within a law firm usually is involved when a client needs a labour contract, even if it is normally a client of the corporate team. The teams work together internally and the hours of the employment team members will be charged to the client matter. If the employment team contributes model contracts to the knowledge base a corporate lawyer would be able to download this from the database, modify it and sell the contract and his own working hours to the client. The employment team will never know that the model contract was used and won't get any reward for having contributed the document. This means that contributing knowledge to a database will be a financial loss for the individual or for an expert group within the company.

To keep this perspective in mind means to already have a good understanding of how to discuss knowledge sharing issues with employees and managers.

### **Supporting Knowledge Sharing - Measures**

Within an organisation the motivation for sharing knowledge can be supported by management structures and systems. These can either support the intrinsic or extrinsic part of the motivation.

On the extrinsic perspective a lot is based on technological solutions. The knowledge base needs to be upgraded not only to store data but also to allow tracking and security measures to be set in place. Security measures can for example be a cover sheet automatically added to the document when uploaded to the system. This cover sheet should contain basic information like language, date of creation, author and a short description. Furthermore it should contain an ownership statement and rules on use. These could

include copyright restrictions, the instruction that the document is only to be used for work for this company or that you should only use it if you are familiar with the topic. This is still no method to keep control over the knowledge but at least the company makes sure that everybody knows who contributed the information and who can be contacted if there are questions concerning this document. At least the employees who contribute to the system can quantify their contribution.

More detailed information could be gathered by more advanced technical solutions like a statistic tool that counts the clicks on or downloads of a certain document or a ranking system that enables the users of the database to give feedback on the usefulness of the documents either in a mere quantifying way by way of an "I liked it"-button or a fixed scale or a qualitative feedback with a comment tool with which users can comment on the documents. Getting feedback on the information contributed to the database is part of the intrinsic motivation issue and will encourage people to upload documents (Ambos and Schlegelmilch, 2009). These are the measurements that would allow a certain amount of documentation on which documents are used and if they have a certain quality standard. A technical solution that has these features would enable the management to give substantial reward to employees who contribute documents to the knowledge base. And furthermore the employee himself would be able to see if the knowledge provided by himself is really useful and what colleagues think about his work. With this the intrinsic motivation to contribute to the knowledge base would be spurred and the employee will be more willing to share more of his knowledge.

### Summary

A knowledge database and with this sharing information as part of the knowledge management really is a highly recommendable tool, especially for information based companies. The benefit for the company is clearly perceptible and not to be denied and even the individual employee can gain advantages by it. But one also has to keep in mind the two perspectives and this should especially be the job of information professionals. As they are neither the sole contributors nor the sole beneficiaries of knowledge management they are in the unique but also highly responsible position to balance both aspects and make the knowledge base work.

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## What Challenges Are Library Leaders Facing?

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**Abstract:** In a recent research survey, approximately 250 Norwegian library leaders working at different levels in the libraries were asked about what they perceive as challenges in the new global world and how to collaborate and work in the future. Questions were asked about digitalization, technological changes, open access and social media, and how they rate as challenges. The analysis shows how leaders, both in academic libraries and in public libraries rate these challenges for their libraries, as well as for the library leaders themselves. This research is supplemented by findings from two studies made at Transilvania University of Brasov, Romania, where surveys of academics and their thoughts on open access publishing both before and after the implementation of a Institutional Repository, will serve as examples of a typical situation. This will highlight the contrast between the academics and the academic library leaders' perception of the future challenges. It is evident from this study that there is a difference between what is seen as important from the library leaders' point of view and what the "customers" – in this case academics – see as important challenges for the future. So in addition to facing the challenges of globalization and of global collaboration within the library world, library leaders and staff must handle how the users of the library perceive the same challenges.

### Background for This Study

250 Norwegian library leaders working at different levels in the libraries answered questions about what they perceive as challenges in the future. The analysis shows how leaders, both in academic libraries and in public libraries rate these challenges for their libraries, as well as for the library leaders themselves.

This research is supplemented by findings from two studies made at Transilvania University of Brasov, Romania, where surveys of academics and their thoughts on open access publishing will serve as examples of a typical situation.

The Norwegian part of the data comes from an electronic survey sent out to all municipal, county and academic libraries in September 2011, the Brasov research was done with an on-line questionnaire, accessed from the research platform of the Faculty of Economic Sciences.

### What Are the Results from the Leaders Being Asked about Challenges?

Of the 243 Norwegian respondents, 153 (63 %) worked in municipal libraries, 78 (32 %) in Academic libraries and 12 (5 %) in county/regional libraries. The county/regional libraries are in charge of the high school libraries, but do not normally have book collections or single users.

They were all asked about challenges. The question was formulated: «What significance do you think the following challenges will have for your library and for you as a leader in the future? ». Answers were given in one column for the library, and one for the leader. The number of responses differed between 178 and 201 to the different questions.

In table 1 we see how the leaders rated the significance for themselves and their libraries. The numbers are in % of leaders rating each challenge. The possible answers were «No significance», «Low significance», «Medium significance», «Some significance», «High significance» and «Don't know/Nor applicable» (N/A) .

For this paper the responses chosen were «High significance», «Low» or «none» were combined in one category called «Low» and the results given for both leaders and libraries. Then the «N/A» was estimated as an average. Most of the N/A's were quite similar for both «Leader» and «Library» – when there were major differences they are both being shown in table 1.

Table 1: «What significance do you think the following challenges will have for your library and for you as a leader in the future?»

	Leader	Leader	Library	Library	Li/Le
	High	Low	High	Low	N/A
Technological changes	66,7	4,5	87,1	0,5	0
Use of social media	34,9	9,2	50,20%	4	0
Recruit and keep	53,3	8,8	59,80%	2,5	36
Development of leader competences	55,3	6,6	53,30%	4,5	1,5
Accrediting	16,8	13,6	15,2	9,2	40
Quality development and -management	60,9	2,1	54,9	3,8	4,5
Userinvolvement and web 2.0	63,6	8,6	45,7	4,3	36,5
Economy	71,7	4,3	81,8	0	1
National qualification framework	12,6	13,7	16,9	7,2	25
Open access	26,8	13,6	33,3	9,6	13,5
E-books	42,2	10,8	59,7	3,3	1,5
Bibliometrics etc	11,3	28,5	12,8	21,3	22,5
Marketing value and impact of library	64,6	5,6	68,5	3,4	2,8
Information literacy for users	36,3	11,2	53,8	4,3	1,1
Digitizing own material	18,4	29,7	26,4	21,9	4,2

When we look at what the leaders perceive as challenges for themselves, we see that they rate economy as the most important challenge for themselves, and the second highest for the library. Technological changes are rated highest for the library, and the second highest for themselves, while Marketing impact and value rates as the third most important challenge for both leaders and libraries.

At the same time it is fascinating to see the differences between how the leaders rate the challenges for themselves against the challenges for the library. The same set of challenges have much higher significance for the libraries than for the leaders, and there is a slightly larger percentage also saying «Low or no significance» as seen for the leaders compared to the libraries. We must remember that it is the same leaders who answer both questions, about their rating of the challenges for themselves and for the library.

It is quite obvious that the challenges are rated as more serious for the libraries than for themselves. We can see this both in the relatively lower proportion of the «High significance»-answers, but also in the relatively higher proportion of «Low significance».

### What Does This Mean?

The technological challenges are global in the library world, and concerns not only computers, but also the other different gadgets on the market. Norway is considered a technologically advanced country where most people have access to computers, Internet and mobile phones. At the same time, the municipal libraries often consider themselves to be special guardians for the disadvantaged members of the public, and this can also be part of the reason why library leaders see technology as a challenge.

Although Norway has not been hit hard by the financial turbulence of 2010-2011, there are still some economic worries. Some municipalities have reduced the budgetary amounts allocated to the libraries; some academic libraries are facing the exponential growth in cost of the electronic journals. For all libraries, there are challenges in keeping up the activities with the threat of reduced resources.

This is probably also one of the reasons that «Marketing the value and impact of the library» is seen as a special challenge for libraries and leaders today. Maybe it is on the background of the economic challenges it is seen as especially important to inform both the patrons and the political stakeholders, even though libraries normally have a high standing in the community.

### Comparing Two Challenges for Academic and Municipal Libraries

In table 2 we look closer at the ratings for two of the challenges – Open access and Bibliometrics. They both had quite high N/A-scores in table 1, and we wanted to see if these issues were considered to be more important for academic libraries than for municipal libraries. Since the ratings in table 1 showed to be higher for libraries than for leaders, we look closer only at the how the leaders rate the significance of the challenges for the libraries.

We see here that there is a distinct difference between the ratings from the leaders of the academic libraries and the municipal libraries. The academic libraries have higher “high significance” and lower “Don't know/NA”-ratings, and vice versa for the municipal libraries.

Table 2: Significance of two challenges – academic or municipal library. Response numbers.

	Some sign	High sign	Don't /NA	Total
Open access – significance for library: Academic library	19	33	1	61
Open access – significance for library: Municipal library	26	22	20	97
Bibliometrics – significance for library: Academic library	29	22	1	62
Bibliometrics – significance for library: Municipal library	14	1	38	98

### The Brasov Surveys

There is still only about one third to half of the academic library leaders that rate these two challenges as of high significance for their libraries in the future. We can take a look at how some academics rate these challenges by looking at the results from the surveys done of academics in Brasov, Romania.

When the academics answer questions about the services of the library, they find that the documents offered by the university library do not satisfy their study necessity – the mean of the “satisfaction of the study necessity of the documents of the university library” is 2,28 on a scale from 1 to 5.

The acquisitions of the university library are not done strategically or according to rules for covering all study fields. In most cases, the development of the library’s collections is based on documents bought by the members of the community with funds from grants they have won. Their preferences are equally for printed and electronic documents. From 2004, the university subscribed to databases. The first database and the one with continuity is Springerlink. The acquisition criterion of this database was the low price and cross-disciplinary character. The members of the academic community were pleased with this product. Yet, there is still dissatisfaction because these products can be accessed from the university’s network only. The majority want access to be possible from home. That may be why the respondents accessed databases in a proportion of 48,1% a year.

The survey also shows that members of the academic community from Transilvania University have little information on open access journals and the publication in this regime. The majority of those who know open access journals have short or medium length of work in the university. In the part of the survey that looks at institutional digital repositories, 96,3 % agrees that “the institutional digital repository represents the essential condition for the international scientific research” and 91,5 % agrees that it is “necessary to constitute an institutional digital repository”.

### Conclusion

Norwegian library leaders are facing several challenges, and the ones that are rated with the highest significance are challenges that come from the outside – economy, technology – or marketing to the surroundings. Some of the challenges – open access and bibliometrics among them – are seen as more relevant for the academic libraries, but even in the academic libraries they are seen as having limited significance. When we compare the ratings from the Norwegian library leaders to a survey of a group of Romanian academics, we see that the academics are much more concerned about open access and bibliometrics. Probably this would also be the case with Norwegian academics – if so the academic library leaders are out of touch with an important group of stakeholders. This may be the biggest challenge of all.

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# How “KonSearch” Simplifies your Research

## The New Discovery System at the University of Konstanz Library

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**Abstract:** New digital technologies are in rapid flux. When a user starts browsing the catalogue, and checks out the abundance of library offers, the options are overwhelming. Databases, e-journals, ebooks, platforms for special subjects – the list seems endless. But it is not only the sheer variety of search tools and resources that challenges users; it’s also quite complex to figure out the diversity of search interfaces. For unexperienced library users it is nearly impossible to get an overview. Even users well versed in information literacy struggle to find their way around, and to make the most of possibilities within a reasonable time frame.

Since users appear to be reluctant to use complex search tools, libraries aim to bridge the gap between easy-to-handle online services, such as Google, and their own web-based catalogues or subject-specific databases. In the process of researching a topic, Google may support the convenient search habits of people who shy back from more complex research surfaces, but it fails to provide access to the expensive, specialised contents to which libraries subscribe.

What can libraries actively do to help users understand why it is vital to use the research tools of the library? The University of Konstanz library has faced this problem, and came up with a fascinating solution: We acquired the discovery system “Summon” from “Serials Solutions”. And we call the search engine “KonSearch”. This system makes it possible to search under one search interface in all data the library has licensed.

### Introduction

There is no doubt that the user’s behaviours and expectations regarding the search behaviour, changed a lot in recent years. To put it in a nutshell, the user now wants the easiest access to information in a more and more complex information landscape. Unfortunately, these different needs and expectations often are not met by the libraries.

Today most libraries offer a great variety of search tools: catalogues for local collections, special databases, full text databases ... How do users find their way through this huge number of different search tools? Most users are familiar with very simple search tools like Google or facets to refine search results at Amazon. These habits are in contrast to the actual way to search specific information at a library. Why should a user deal with various search tools of a library – all of them with different search interfaces?

Improvements of existing search tools made by the libraries in the past are not very satisfactory for the user. And also for the libraries it is not very satisfying because it

fails to provide access to the expensive, specialised contents to which the libraries subscribe.

The aim for libraries should be: providing scientific information in one place.

### In Search of the Solution and the Decision

At the University of Konstanz library, a project group has formed to deal with this topic (Kohl-Frey, 2011). Some of the questions we discussed were: What are the user’s needs? Which way does the library have to go to meet these needs?

In our opinion an ideal search situation is:

- simple and fast search
- searching in all relevant scientific sources (print and electronic)
- limiting the results with easy and familiar possibilities (facets etc.)
- de-duplicating and sorting by a good ranking
- direct link to all licensed full-text

In parallel, we monitored the current market for search engines. Which functionalities are offered by the systems currently available? Should it be a buy or make solution? In the end we decided to buy a discovery system called “Summon” from “Serials Solutions”, member of the ProQuest family of companies. In Konstanz we named it “KonSearch” – “Kon” stands for “Konstanz”.

“Summon” provides exactly the functionality we described as an ideal search situation. “Serials Solutions” purchases from publishers and other database hosts the bibliographic data and full text data. These data are recorded in an index (no federated search). The user is able to search the whole index with a simple, easy to use search interface. The search engine grants the user access to the entire collection of the library through one search interface and shows the results in one hit list. At the moment the “KonSearch” index comprises about 2 million records from our local catalogue (print holdings) and 100 million records, licensed from all our electronic and bibliographic sources.

The following description of the features will be focus on the user’s perspective of “KonSearch”.

### Some Features of “KonSearch”

The users receive one hit list and have a lot of possibilities to limit their results. With a few clicks the users get the full text or the bibliographic data (see figures 1 to 4).

But also with “KonSearch” the saying: “All that glitters is not gold” falls into place.

As part of a project “KonSearch” was analysed in all areas (Luca, 2011) and there are still a few points which, from our point of view, need some improvement. As “Serials Solutions” provides “Summon” as a standard software solution for a large number of libraries, the customisability concerning the graphic design of the search interface is limited. Moreover, such a centralised solution with one index has the disadvantage that the libraries are dependent on the publishers’ cooperation with “Serials Solutions” about providing the data for the index. If a single publisher doesn’t contribute his data for the index we are not able to integrate the content individually.

Overall, we and our users are happy with the choice because it made the search much more comfortable.

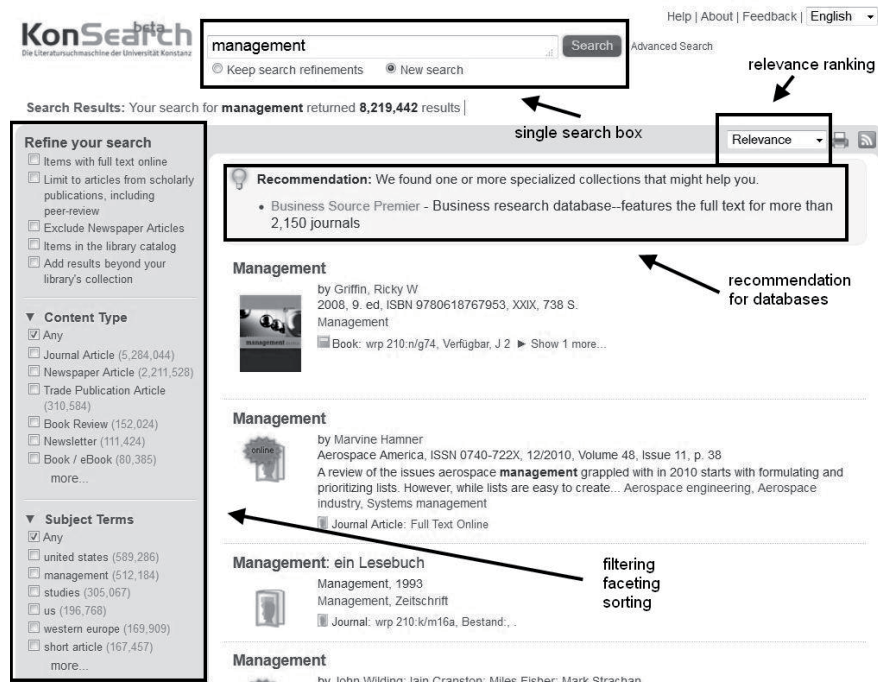


Figure 1: some features of “KonSearch”: single search box, relevance ranking, filtering/faceting/sorting, recommendation for databases



Figure 2: features: citation formatting, bibliographic information export

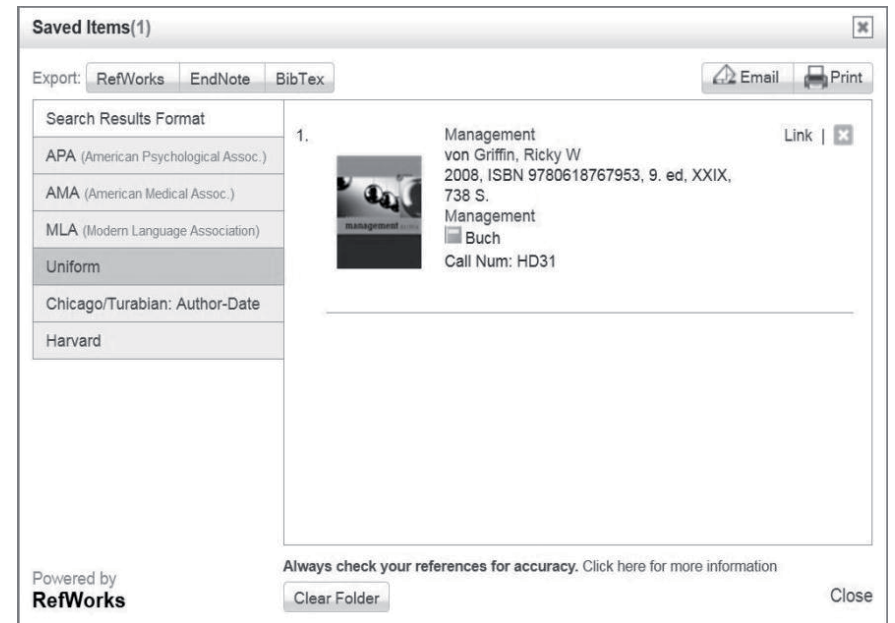


Figure 3: details for the citation and export function

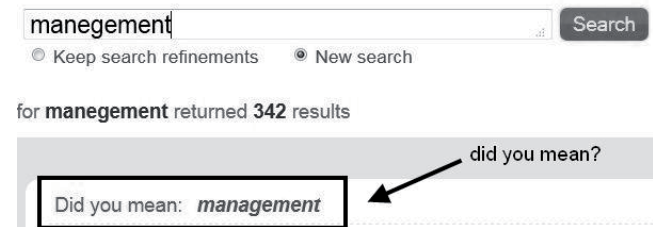


Figure 4: “Did you mean” function

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# Use of Data Mining Systems as an Enhancement of Digital Libraries Implementation to the Library of Faculty of Humanities and Social Sciences in Zagreb, Croatia

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**Abstract:** Data mining is one of the fundamental terms in the field of knowledge and information management as well as in knowledge organization. That process is the foundation of many databases, and lately, many digital libraries as well. One specific data mining system, Microsoft Pivot, and its application to the digital library is the main interest of this paper. Pivot's main potentials refer to the visualization and graphical presentation of data, as well as simplifications and enhancements in user's browsing of large quantities of data and information stored in the library. When using that sort of system, information professionals can choose what types of metadata they will include and make retrievable. One can even go as far to sort items by the colour of their cover. Even though that kind of solution may seem unnecessary and maybe even ridiculous to an information specialist, it can be very useful for a student or even to a faculty when they are in search for a specific title.

The Pivot system will be implemented at the Library of the Faculty of Humanities and Social Sciences and afterwards tested and compared to the traditional library catalogue by the selected groups of LIS and other departments' students, librarians and faculty members and a comparative analysis will be made. The goal of the research is to explore the real searching and browsing needs of end-users and to get the users' viewpoint on the advantages and disadvantages of the traditional library system and the new, applicable, data visualization system.

## Introduction

Within the last decade, and with the phenomena of Web 2.0 user community rising, the end user of library services became more than just a client waiting for new services delivery; in a way he became a creator of those services. Having that fact in mind librarians are faced with a certain difficulty; how to develop new or enhance old library services to comply information need of a new, enhanced, user. The question is especially relevant in the field of information retrieval and digital libraries since those are multidisciplinary areas which call for emergence of various experts among which are librarians, information specialists and computer scientists. All of this creates a demand for an advanced user-friendly information retrieval system which should be able to provide precise search results on desired queries. However, all of the present efforts are aimed at solving problems which occur prior to user's query; various patterns are being

created, be it demographical (Nicholson, 2006) or statistical (Kovacevic, Dezevic, Pecajt, 2010) to determine which profile of users browse specified sections of digital library or database to create a group profile of users.

That is the reason why, in the context of digital libraries, data mining systems could be considered an upgrade since they often provide graphic processing and data visualization tools, important functions both to creators and users of digital library as they allow a quick preview and easier movement through large amounts of patterns and data, as well as enhance their comprehension. This exact sort of system, Microsoft Pivot, a project developed in Microsoft's Live Labs research department which is a combination of an information retrieval system, a data mining system and a system for graphic visualization of data is the topic of this paper. It has been chosen as a representative because of its availability, user-friendliness and for the advantages its implementation could bring to library's users in terms of enhancing the quality of the answers to their queries. The objective of the paper is to demonstrate how the data mining system can be utilized to enhance search results for the end user. Since implementation of such a system to a digital library is in progress, the paper will discuss current outcomes of its implementation to a library system at the academic type of library. The Library of Humanities and Social Sciences in Zagreb has been chosen as an example.

## Digital Library Users

Typical questions asked when discussing the users are: who are the individuals using the services of a digital library, which collections and sources of information do they use most frequently and in which ways can a digital library be enhanced to meet user's needs. (Nicholson, 2006) this is especially important nowadays, when creators and users of the services are closely related and their roles are interwoven; creators use the services they created and users ask for a certain amount of independence and autonomy while browsing in a structured environment.

When a library is aiming to develop or enhance library services, or even to implement a radically new one, it is most important to know the user community. One of the best ways is by conducting its own research with the aim of getting acquainted with needs of their own users, since users can't always be considered a homogeneous community. The same is with the users of Library of Faculty of Humanities and Social Sciences. First of all, they can be divided into 3 groups; students, faculties and the other users which are not homogenous. Students can be divided into LIS students which are expected to show higher level of information literacy than the other, non LIS students from the other faculty Departments; junior and senior faculties can be distinct presuming that younger faculties will be more familiar with new information and communication technologies and its implementation to academic life. The other users, non faculty members, could be the most heterogeneous group but, because of users' attitude towards academic library as serving to academic needs only, this group doesn't have a big part in user community.

One of the major problems which appear during development of the digital library's browsing system is their creation under the assumption that browsing behaviour of users is equivalent to that of information specialists. (Lewandowski, 2010) User's wishes and demands are not often carefully considered and what tends to be forgotten is the fact that every information retrieval system has specific features and characteristics

which distinguish it from the other systems and there rarely is a user who is acquainted with browsing options for all of them. With these diversities in mind, library and information specialists should try to develop a user-centered system, capable of fulfilling user needs in the most efficient way.

### Microsoft Pivot and Its Implementation to Digital Library

One such system is Microsoft Pivot, a combination of data mining systems which include the qualities of an unstructured web search engine to which users of digital libraries are already accustomed. The first time the idea of a similar system arose was at the turn of the century, as a result of necessity to access the journals which were property of a library or could be accessed via a library. For a multitude of reasons, especially ones of technical nature there was, for the first time, a need for creating and using a dynamic application as opposed to using a static address. (Felts Jr. 2001)

The recommended way to use Pivot when implemented in a digital library is building collections with different degrees of complexity, depending on whether the collection being made is for a single subject area (in this case, a faculty Department), or a dynamic collection capable of making the library's entire digital fund searchable according to the same set of criteria. For this needs of the project, several simple collections have been created within the Information sciences collection: for museum studies, digital libraries, academic libraries, special libraries and information sciences in general. There is no special prerequisite computer science knowledge necessary for the creation of a simple collection, so creating simple collections searchable in Pivot didn't weigh on the budget in terms of employing professionals to this end only, since building this collections required only a preparation of the book covers and scanning via scanner accessible in the library and competence with Microsoft Excel to which Pivot is added as a Toolbar.

When creating facets, the creator of the information is free to choose metadata which is to be made retrievable. It's limited only by a fixed "info panel", which is not searchable per se, and the creator chooses which data will be provided there. So what is this groundbreaking novelty which makes this system suitable for use in a library? It is the selection and creation of categories according to which a structure unit will be made searchable. The main advantage of Pivot lies with it being user-centered, regardless of the user's knowledge of the system. Take for example the rulebook and manual for creating alphabetical catalogues titled "Pravilnik i priručnik za izradbu abecednih kataloga", by Eva Verona, which is essential literature for any Information Science courses which cover cataloguing. Students tend to call this work "PIPIAK", and the manual is actually in two volumes, one known as "blue Verona", and the other as "red Verona". This is not unusual since people are visual beings and easily associate with visual features, such as the colour of a book cover. Standard library catalogues would allow searching for this book only according to standardised catalogue description. However, if existing metadata by which the book is searched for in the catalogue would be entered in the info panel, the need for an expert approach to the structure unit would still be satisfied and it would leave room for a creation of a combination of a structured and an unstructured environment, which would in turn facilitate navigation. Let's say an individual wants to borrow the first volume of Verona's manual, but he only remembers it as "a red book which is essential literature for his cataloguing course". He would not

be able to use the standard catalogue and he would have to seek the librarian's assistance. There is nothing wrong with librarian-user interaction, but as digital library seeks to encourage users to be independent while searching, a library should introduce less rigid parameters. Besides standard metadata, like the name of the author or the title, Pivot can include metadata like the colour of the book cover, name of courses or subject areas for which the book is used, the publisher, and other metadata which is currently non-existent in the catalogue and could be useful to users. Visualization of the data is the other novelty offered by this system. While creating a collection in Microsoft Excel with the Pivot Tool plug-in, a picture chosen by the creator of the collection can be inserted into the table which is later to be used as a record entry. This helps the user by visualizing the retrieved data, thereby enhancing and facilitating the user's searching experience.

### Conclusion

The librarians and information specialists who remain skeptical towards newer technologies will likely wonder whether such a simple system can bear the demands of a large library such as the one of the Faculty of Humanities and Social Sciences in Zagreb, and whether it can be used as a system that could unite library resources of all the department libraries of a single faculty in the future. Easily created collections, data visualization, and complete adaptability to a structured environment indicate that this system could be successfully used in the context of a digital library. After all, it is time to put an end to the fear of deprofessionalization of the information retrieval systems and librarianship itself by implementing such systems. Although this technology is made to be easy to use and it could therefore be widely applied, the information expert and the librarian are still relevant since they are the ones who conduct researches and understand the needs of their users, and are thereby able to fashion the system to meet those needs

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# Augmented Reality as a Tool to Bring Young Users to the Public Libraries

## The Case of the Libraries of the City of Barcelona

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Since 2009 she writes a blog about libraries called Libraries of the World:

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**Abstract:** The low presence of young users is a common fact in public libraries. The will of the institution Biblioteques de Barcelona to create specific services to attract users between 16 and 24 years old and to promote the access to resources from mobile devices is shown in its Action Plans.

This is the scenario in which this project was developed under the supervision of Mireia Ribera. It proposes the use of augmented reality as a tool to bring young people to libraries.

Augmented reality consists of overlaying virtual items over real items. It's a technology that allows a great interaction. Its use has increased during the last years because of the popularization of the smartphones.

The main objective of the project was to create 3 prototypes that use this technology. Each prototype is geolocated at a different library and focused on a different marketing concept: documents, services and benefits of owning the library card.

Layar has been chosen as the framework, because it's the largest and most complete augmented reality browser that exists in the market. It includes content by third parties as layers.

The project was done following user-centered design, a philosophy based on creating products with the involvement of the users in different phases of the process. In order to define what contents of augmented reality must be shown, the audience has been asked about its preferences.

Nowadays, the layer of augmented reality is completely finished, covering all the public libraries.

You can see the final result at: [www.layar.com/layers/provabiblioteca](http://www.layar.com/layers/provabiblioteca)

### The Project

The public libraries of Barcelona are well known and perceived by citizens and 45.8% of the population owns the library card. Despite this, they have the problem of a very low presence of young users.

The need of the institution Biblioteques de Barcelona to attract this kind of public to their facilities is shown in its Library Plan to be developed till 2020 and its Action Plan for the year 2011.

Both documents include the will to promote the incorporation of new young users by creating specific services for their profiles. Library Plan and Action Plan documents

also talk about the challenge to generate content in the digital environment and to permit the access to resources and services from mobile devices.

This is the scenario in which this Master Degree in Digital Content Management's final project was developed under the supervision of Professor Mireia Ribera, teacher of the Faculty of Library and Information Science of the University of Barcelona and expert in Accessibility, Usability and Interface Design.

This project proposes the use of augmented reality as a tool to bring users between 16 and 24 years old to libraries. It's necessary to engage communication with young people in their own language and with the same tools they are used to.

The main objectives of this project were:

- To create 3 prototypes that use augmented reality technology. Each prototype was geolocated at a different library (Biblioteca Les Corts-Miquel Llongueras, Biblioteca Sagrada Família and Biblioteca Vapor Vell) and focused on a marketing concept: documents, services and benefits of owning the library card.
- To establish a model that a future channel of augmented reality could follow.
- To create an application easy to use (from the point of view of the user as well as from the content editor).
- To adhere to the communication objectives of Biblioteques de Barcelona.

Augmented reality consists of overlaying virtual items over real items. It's a technology that allows a great interaction.

Its use has increased during the last years helped by the popularization of smartphones (iPhone, Blackberry, Android...). Several studies demonstrate the high penetration of smartphones in Spain, especially among young audiences.

Some libraries from different countries have already begun to develop projects that involve augmented reality and geolocation and to create contents specially designed for the mobile web (such as mobile online public access catalogues).

This technical and social favourable context and the fact that the tools selected to develop augmented reality contents for the libraries of Barcelona are free and easy to use make up the main strengths of the project.

### The Tools

Layar was chosen as the augmented reality framework, because it's the largest and most complete augmented reality browser that exists in the market. It includes content by third parties as layers that may contain information in different formats (text, 3D objects, etc.).

Hoppala Augmentation (an intuitive tool that permits to add content without having programming skills) was used to create the layer of Biblioteques de Barcelona. The 3D objects were generated using the open source CAD program Blender.

A great effort had been made to take into account the opinions of final target users. The whole project was developed following user-centered design, a philosophy based on involving users in different phases of the process of creating products. Its main benefit is that it helps improving the customer satisfaction level.

In order to define what contents of augmented reality must be shown, the audience was asked about its preferences in applications that use this technology and about which items and services offered by public libraries (different types of documents, Internet, activities, etc..) they considered to be most attractive. The means of collecting this information was through a survey conducted on 20 young users and non-users.

Based on the results of the survey, three prototypes were designed using different marketing concepts: namely services that young people use the most, discount that they can get in cultural venues showing their library card and awareness that documents they are especially interested in (novels, travel guides, movies, etc...) are available for their use in the libraries.

This project was carried out during a period of 4 months and had followed the initial stages of an initiative based of user-centered design: requirements identification, design and build of the prototypes.

### The Final Result

Nowadays, the layer of augmented reality is completely finished. It includes all public libraries in Barcelona. The name of this layer is "Biblioteques BCN" and it can be downloaded from: [www.layar.com/layers/provabiblioteca](http://www.layar.com/layers/provabiblioteca)

Once the user stands by the library building and opens the layer, the name of the library along with some specific information (address, web page, if it's specialized in any subject, etc.) is shown in the screen of his mobile phone. It also shows up an enormous 3D floating library card that explains the benefits of owning the library card (discounts in museums, libraryshops...).

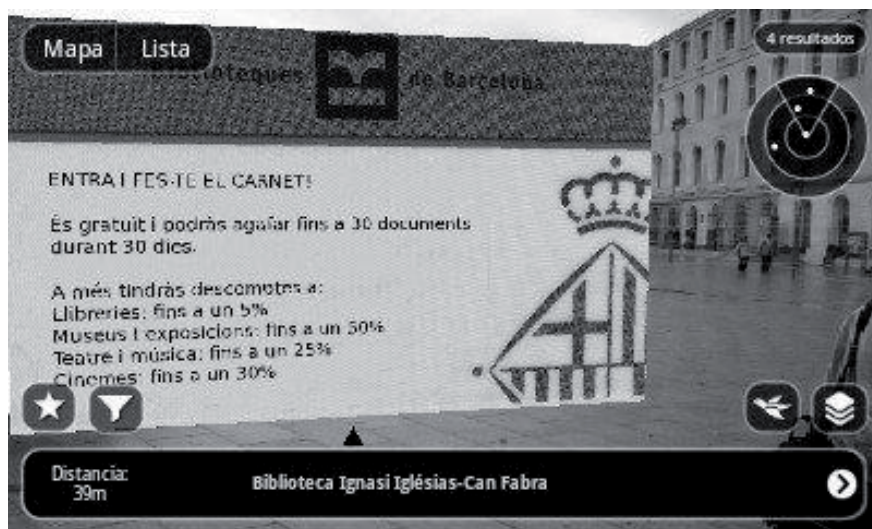


Figure 1: In front of the library Ignasi Iglésias-Can Fabra.

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# How Do We Feel in the Global Village? Infrastructuring Emotions in the Digital Age

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**Federico Monaco**, Ph.D. does research in both the fields of STS (Science, Technology & Society) and LIS (Librarianship & Information Science) about knowledge infrastructures and the co-production of communities and information systems. He collaborates in research projects for the development of new forms of digital publishing.

**Abstract:** The development of Information Science and how we organize knowledge are intimately related to what we know and how we experience the world. New innovative forms of metrics are being possible by information systems adopted for communication, evaluation and control of phenomena around the world by cyberinfrastructures. Global events are also becoming quite usual and can be experienced through the web as collective states. By information infrastructures we may not only connect, observe and know the world in a new way, but also feel it and feel human practices not only at a locally level. An emotional web becomes therefore a space where emotions are related to a digital environment, where studying emotions can be fruitful to understand especially digital natives, as for anybody able to decode and re-code emotions coded in the web. Emotions and discourses about emotions can be globally tracked. Nonetheless experiments on extended entanglements producing collective states of emotions can measure collective emotional states in the digital age. If Library and Information Science are to study how to support knowledge sharing and digital production on local and global dimensions emotions should be counted in as well as part of human practices in the Information age.

## Introduction

What is accountable to be stored, preserved and accessed on line as digital object seems at first sight to be an obvious question, while the idea of creating collections of digital representations of emotions on line might sound useless and unfeasible.

In the age of ITCs questions are addressed to many professionals, experts, engineers and scholars: how to create a representation of an object, how to store it, how to preserve it and make it accessible. But a part of the whole story of knowing and re-knowing seems to have been probably forgotten. While we expect to find on line reliable, accessible and reusable data, what we don't expect to consider is what such data will make us feel and how data may represent our feelings.

The biggest difference between a real and virtual world might seem a cartesian or platonic one: body and its experiencing the material worldwide on one side, the mind and its representations, symbols and ideas on the other; even the Memex (Bush, 1945) was conceived as enhancement of the mind excluding the physical body and the emotional sphere.

The aim of this paper is therefore to consider physical and emotional aspects bound to collectively and machine supported information processing.

## Measuring Collective States Online

The first online community experience in the PLATO (Programmed Logic for Automated Teaching Operations) program at University of Illinois Department of Engineering between 1961 and 1980 had different spin-offs: plasma screens, chats (mainly Lotusnotes), touchscreens and...Dr. Graper's archives of =grapenotes= starting to write hilarious stories and jokes since 1977. Today all those stories are archived and accessible ([www.grapenotes.com/](http://www.grapenotes.com/)). In 1982 at Carnegie Mellon University were for the first time used emoticons ([www.cs.cmu.edu/~sef/Orig-Smiley.htm](http://www.cs.cmu.edu/~sef/Orig-Smiley.htm)). Use and design of data about emotions has grown on the web and today is possible to consider two different fields:

- micro analysis projects as individual data and stories about people and their emotions;
- macro (or global) analysis projects as large-scale statistics.

## Macro Analysis Projects

The paradigm of networking grew then and met the one of quantistic entanglement in the 1997 start experiment named GCP (Global Consciousness Project – [www.global-mind.org/intro\\_bottom.html](http://www.global-mind.org/intro_bottom.html)) whose logistical home is at Princeton University at the Institut of Noetic Sciences (<http://noosphere.princeton.edu/>). Main hypothesis was to measure anomalous deviations associated with global events when there is widespread participation or reaction to the event. This is possible using a global instrument called “the network of eggs”, i.e. 60 SQUIDs (Superconducting QUantum Interference Device) widespread around the world as Random Event Generators (REGs), linked for very large and complex multivariate analyses on desktop machines through Internet, itself a kind of global consciousness network. For the first time, the objective measurement infrastructure necessary to undertake an evaluation of consciousness on a global scale is broadly accessible. Measuring was made during different global events, such as 9/11 attack, and the result is visible in the deviation of variance (see Figure1).

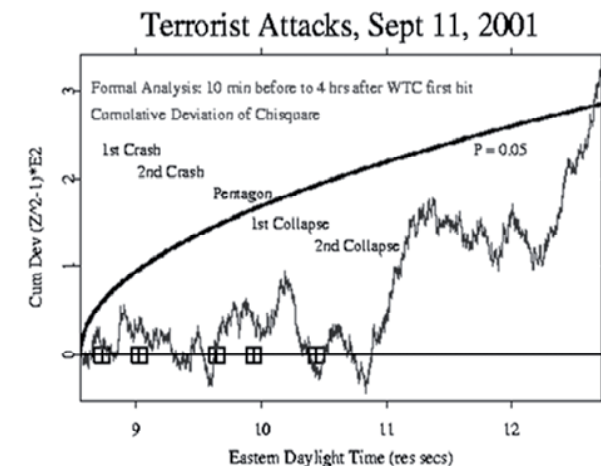


Figure 1: Formal Analysis, September 11, 2001 ([www.global-mind.org/](http://www.global-mind.org/)).



Other use of the networks are possible to perceive global events and how the global village is feeling collectively in that moment by different type of representations such as discourses on certain topics. An interesting project is Nuclear Anxiety developed in Italy (<http://nuclearanxiety.artisopensource.net/>). A realtime map shows the live discussions on social networks about nuclear energy and the energetic future of the planet. Up to now 127000 contributions by 41000 users from 16000 locations, using 29 languages have already participated to the global enacted performance. A similar project can be found on 'We feel fine' website ([www.wefeelfine.org/](http://www.wefeelfine.org/)) about studying emotions by simple posts on blogs.

### Micro Analysis Projects

Research is also active in developing digital visual representations of human emotions simply by CMC interactions such as speech or text discussions on line (Boucouvalas, 2003), or by detecting emotions by phonemes on chatlines (Holzman & Pottenger, 2003), or by an emotion extraction engine used for real time Internet text communication (Zhe & Boucouvalas, 2003). Users directly can express their feelings online by connecting to radio compilation according to chosen sets of emotions ([www.stereomood.com/](http://www.stereomood.com/)), or to share information using a website or a smartphone and stimulating a connective global body in a realtime performance that takes place simultaneously all over the world like the electronic man (<http://electronicman.artisopensource.net/>). Interdisciplinary studies on e-communities are beginning to work also on emotional aspects of interacting on line (Chmiel, et al., 2011).

### Conclusions

Digital environments are places for a large variety of practices and expressions as much for communities as for individuals. Interdisciplinary research is also needed to understand possible designing, enhancement and evaluate networks and information infrastructures. Tracking how do we feel and interiorize emotions as information from the web is now possible at global and individual level. Infrastructuring emotions as data is possible, even though are still missing future actions and research programs on such important aspects of our daily lives. Emotions may become pioneering field for data policies and information organization about individuals, groups and global society.

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## Access to United Nations Information in an e-Motion Environment A Methodology for Measuring Success

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**Abstract:** In fall 2011 a task analysis survey of student ability to retrieve specific United Nations documents was conducted. Task analysis is an aspect of usability testing that closely examines the precise steps users take to accomplish a task. While usability studies have a long history of employment in crafting better web design, the utility of web usability studies to craft library instruction is underexplored. Using the "Think Aloud Method" undergraduate students were asked to verbalize their thought process while they searched the United Nations website for specific documents. We discovered barriers to United Nations document research included common "points of frustration" in the retrieval process and the predictive validity of task analysis utilizing the concurrent Think Aloud Method on crafting library instruction. Survey results have implications for librarians in higher education teaching information literacy, librarians conducting usability studies, and those utilizing United Nations documents.

### Introduction

The United Nations (UN) is the only truly global organization in the history of mankind. Despite wide use in international law and engagement with individual scholars, UN documents are underutilized by students in the hard sciences, social sciences, and history whose research could benefit from information produced by the UN (Brimmer 2009). Since 1991, the move to provide UN documents online increased accessibility to UN documents while conversely decreasing visibility in academic settings (Griffiths 2008). Today, an essential part of helping undergraduates utilize UN resources is providing library instruction on how to find UN information online. In 2011 the Social Science library at California State University, San Marcos (CSUSM) began a usability study of UN documents online. While usability testing has a long history of employment in crafting better web design, the utility of web usability studies to shape library instruction is underexplored (Graves & Ruppel 2006). The CSUSM study addresses several questions overall: What obstacles do our students face when they attempt to find UN documents online? How do students interact with UN websites? When crafting pathfinders and library instruction sessions, can librarians employ the Think Aloud Method to make sure that we address the most common barriers to UN documents from the student perspective?



## Methods

Using a combination of task analysis and the Think Aloud Method, we evaluated how students browsed for six preselected documents relevant to our undergraduate population (Monroe 2010). Tasks were equally difficult and could be carried out independently. Participants were encouraged to move to the next task when they reached the “point of frustration” (Van den Haak, Jong, & Schellens 2003). To produce stable results, test participants consisted of six undergraduate students at CSUSM in their junior and senior years (Hoppmann 2009; McMullen 2001). Tests combined simple searching tasks with the concurrent Think Aloud Method. Used to diagnose navigation barriers, simple searching is a traditional usability test where subjects are prompted to find answers to a number of realistic tasks (Wales 2000).

Beginning at [www.un.org/en](http://www.un.org/en), volunteers were prompted to “think aloud” while browsing for the listed UN documents. The researcher explained that volunteers could not use the search function because the researcher wanted to see how they interacted with the website in order to craft instruction from the user perspective. While they browsed the site, participants were advised to “say everything that goes through your mind. You may stop once you feel you have come to a satisfying result or whenever you want to quit.” As they work through the information seeking task, the Think Aloud Method prompts participants to explain why they are making certain search choices (McMullen 2001). Students often do not possess the information literacy skills to locate the proper resources for their research needs (Van den Haak, Jong, & Schellens 2003). The combination of simple searching tasks and the Think Aloud Method allows the researcher to construct a mental model of how the student interacts with and processes the website (Wales 2000).

After tasks were completed, participants filled out a questionnaire that included demographic data to insure that our sample represented the undergraduate population at CSUSM, to gauge our participants’ level of education, and to gauge whether particular majors had received instruction in utilizing governmental and intergovernmental websites (Hoppmann 2009). In semi-essay questions, students reflected on their comfort with the Think Aloud Method, estimated their search strategies, and critiqued the instructions researchers provided (Van den Haak, Jong, & Schellens 2003). Questionnaire data was used to discover common “points of frustration” in the retrieval process, the extent to which each assigned task measured the same level of difficulty, and the predictive validity of task analysis utilizing the concurrent Think Aloud Method on crafting library instruction (Hoppmann 2009; Fink 2003).

## Findings

The ability to construct and implement effectively-designed search strategies incorporating new concepts and employing a variety of investigative methods is an important aspect of information literacy (ACRL 2000). When “good enough” information is readily found online, students chose to search by keyword (Warwick et al 2009). Participants approached the search for UN documents by identifying a keyword in the name of the document or by associating a keyword with the document. For example, one student attached the keyword “security” as an umbrella concept for “the Conventions on Terrorism” which lead the participant to search in the subheading “Peace and Security” instead of focusing on “Conventions” found under the subheading of “Internation-

al Law.” Participants chose keywords when digesting the task instructions, before they had interacted with the website.

Once keywords were chosen they were not revised. One student indicated, “I was back tracking a lot. I was looking for links that would be or looked most associated to the terms in my search. I had to continuously delve deeper.” Although UN documents are generally organized under major UN bodies organized online under five major subject headings, none of the participants considered what UN body might have produced the document, tried to determine the document type, or explored the larger topical issues reflected in the five headings which their document may have fit.

The Think Aloud Method allows for insights into both the student’s thought process while searching and emotive indicators such as frustration, discomfort, or feelings of success (Hoppman 2009). Participants felt a high level of discomfort when they were not allowed to cut and paste the document name into the UN website search box. One student stated, “It was somewhat overwhelming, since there were so many links and none of them looked like they would lead straight to the answer.” Participants felt “confused” and “unsure” during the search process. Approximately half the searches resulted in retrieving the correct document, yet on the questionnaire participations indicated negative feelings about the UN website as a new and ambiguous information source. When students could not access documents with the keywords they had chosen before exploring the website they reached the “point of frustration,” moving on to the next task without revising or rethinking their search strategy (Hoppmann 2009).

## Discussion

The Think Aloud Method revealed participants’ felt overwhelmed by complicated information sources. Participants indicated that instructions were clear and they were comfortable speaking aloud during the search process. In the future we would like to employ video and screen capture so that participants could retrospectively think aloud and reflect on their experiences and search strategies (Van Den Haak, Jong, & Schellens 2003).

Students were psychologically orientated towards keyword searching as the only search strategy available to them. They were unable to construct search strategies based on the information sources they are confronted with. Results indicated that increased familiarity with the structure of the UN, the kinds of information produced by the UN, and instruction on how to use the UN document symbol system would improve mood and document retrieval. Because studies indicate that undergraduates seek information as needed for course work, UN resources oriented towards specific courses and topics should be integrated into classroom-based library instruction and course-based pathfinders (Warwick et al 2009).

The pervasive ability of the “Google generation” to employ keyword and natural language searches often does not equate to information literacy (Nicholas 2010). In addition to the integration of relevant UN resources into course and topical related materials, instruction in UN documents is a unique opportunity to guide students through the emotional and intellectual process of acquiring new search skills and procedures. Workshops geared toward developing new mental models of search while retrieving

UN resources for specific types of questions would facilitate both immediate needs and lifelong skills sets (Bussert 2011).

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## Leisure Reading Experiences across Printed and Digital Formats A Case Study

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Jennifer Thiele is a PhD student and B2A fellowship student at the University of Wisconsin Milwaukee. She is focusing on information policy as her major area of study, and has an interest in technology and new modes of delivery impacting literacy levels in individuals.

**Abstract:** How often do people read, what do people choose to read and what reading modality do they prefer? Looking at leisure reading habits, researchers in the study attempt to find out the answers to these questions. A small case study of four individuals of varying age groups and life experiences are asked about their preferences with different genres of reading and familiarity with differing modalities including audiobooks, e-books, and print materials. Looking at reading habits, Moyer and Thiele deduce the percentages of the differing modalities in comparison to sheer amount of reading, and whether or not genre preferences impact what modality of reading occurs. Other data studied includes mode of preference, genre of preference and whether the subject considers themselves a heavy reader or light one.

Also examined will be the experiences of the subjects in utilization of technology such as e-book readers like the Kindle or Nook, iPads or smart phones or audiobook formats such as iPods, mp3 players, playaways or older technologies such as CDs or cassette tapes. Researchers will be able to compare this use with some demographic data to attempt to find some commonalities, both in mode of delivery but also in amount of reading and genre preference. Data will be gathered via survey initially and then afterwards in face to face interviews that discuss these concepts in much more detail. The data from these surveys and interviews will be collected and combined to come up with shared conclusions of this very small qualitative case study.

## Background / Purpose

There have been a number of new literacy technologies that have come out over the past several years, giving people many different options as to what tools they can utilize for leisure reading. Currently, there is only a small amount of data that pertains to the usage of these technologies, but as their usage increases, so does the research that explores different aspects of these new literacies across modalities.

In the 2011 unpublished dissertation, "Teens Today Don't Read Books Anymore: A Study of Differences in Comprehension Across Formats", Moyer studied a group of female college students and their reading habits in print, e-book and audiobook formats.

E-book readers like the Kindle, Nook or the Sony Reader are designed to replicate the experience of reading a printed book. Approximately the size, shape, and heft of a paperback book, the text is displayed in a screen the size and shape of a printed page,

and the reader has to “turn” the page using a special button or finger touch to advance to the next page of text. The major difference between the printed book experience and that of the e-book reader is that e-book readers usually provide a more accessible reading experience; the text can easily be enlarged for readers with poor vision and the lightweight nature of the device means that it is easy to hold.

Audiobooks are professionally narrated and recorded readings of texts, usually based on published printed books. Audiobooks are available in myriad formats, including digital files for mp3 players, and in standalone devices like the Playaway, which contains a single audio title, preloaded and locked onto a simple mp3 player.

In Moyer’s study each of the female college student participants read 4 to 6 pages of the print text, read an equivalent amount of an ebook, and listened to approximately 10 minutes of an audiobook. For each format participants experienced one of three different texts: *Fatally Flaky* by Diane Mott Davidson and read by Barbara Rosenblatt, *Bloodwork* by Michael Connelly and read by Scott Brick, and *Dogs of Riga* by Henning Mankell and read by Dick Hill. The order in which the texts and modalities were received was randomly assigned.

In the experiment, interest and engagement in each text were measured through an interest inventory, which was created by the researchers, and based on the work of Grimshaw, S., N. Dungworth, C. McKnight, & A. Morris. (2007) Participants filled out the same measure after experiencing each text, providing a consistent, comparable measure across formats. Comprehension was the other framework, and the outcome measure used to assess it was the Content Reading Inventory (CRI), a tool commonly used by classroom teachers.

Moyer found no statistically significant differences in comprehension across print, ebook, and audiobook formats. Participants’ levels of comprehension for each text were the same regardless of the format in which it was received. There was also no difference in engagement across formats; the amount of interest participants expressed in a text was the same regardless of the format in which it was received. In other words, the text that was the least popular, was equally unengaging in all three formats

Survey data gathered at the end of the Moyer’s study revealed that print was considered the most favoured reading modality; e-books were a solid second choice, followed distantly by audiobooks. Many of the individuals interviewed did mention the fact that they enjoyed e-book reading on Kindles and other devices, especially while traveling. However, many of the reasons for the strong preference for the print seemed to be more visceral, including the smell and feel of the traditional print book. The combination of this, and inexperience with the e-reader modality led to speculation that perhaps with familiarity, the e-readers would be more highly utilized.

Gloria Mark discusses this in the New York Times Blog discussion entitled “Does the Brain like e-books?” She states:

*When I’m reading a paper book I’m not tempted to self-interrupt and begin surfing the Internet. But I grew up with paper books. I wonder about young people, who do not know of a life before the Internet, and who, growing up “digitized,” might not prefer reading online where they are the pilots of their own information pathways. More and more, studies are showing how adept young people are at multitasking. But the extent*

*to which they can deeply engage with the online material is a question for further research.*

This perspective highlights two areas of importance when doing case studies with individuals and these literacies – Do individuals have more a comfort level with traditional literacies because they have always been exposed to them, and will individuals who have grown up with these technologies view them differently and be more inclined to use them? Along with this, can we notice some significant differences in their use across age groups and demographics?

Kang, Mao-Jiun& Rungtai, in their 2009 study compare both conventional books (c-books) and electronic books (e-books), trying to assess objective differences in reading between the formats. When looking at college students, they did find two significant issues – one, that e-books created more eyestrain than the c-books, and two – that females consistently performed better on reader performance in both types of books. This study gives some data to build on the original e-book study by Moyer, diversifying the sample with both sexes, age and varied demographics, while at the same time looking at reasons that people may not be interested in utilizing e-books. As technologies get better, and eye strain decreases, it could greatly impact the use of devices among all individuals.

#### Methods / Materials / Procedures / Equipment

The current study looks at a small group of four individuals of varying age ranges and demographics. These individuals were asked several questions both in survey format and in a face to face interview setting. The face to face interview was held in a neutral location and digital recording devices were used to capture the conversation between the researcher and the participant. Several formal questions were asked, including their preferred mode of reading, how often they read, if they owned an e-reader (and if so which type of reader), and if they didn’t enjoy reading on an ereader, what types of features would make them be more interested in that particular modality. Follow-up questions were also asked based on original responses to the survey questions and participants responses during the interviews.

#### Findings / Discussions / Conclusions

Several consistencies were found cross-category, including the fact that the individuals in the study had experience reading in all formats – printed books, electronic books and audiobooks. Several of them had a strong preference for print materials based on visceral experiences such as smell, visual appeal and size/feel, but others had almost completely migrated to e-books and gave several reasons why this was so. One main reason for the preference of e-books was portability, especially for traveling. This was true across age ranges. Audiobooks often times fell into the category of least utilized, with one individual stating that “I just got too distracted and I didn’t get into the story. I found it hard to pay attention to and just it wasn’t as entertaining”. However it was interesting that one participant used Audible books downloaded to the Kindle on occasion. He did state, though, that he wasn’t typically an audiobook listener, and spent less than an hour a week participating in that activity.

It was interesting to note that one of the most popular readers in the study was the Kindle, and individuals were familiar with features on the Kindle such as highlighting text, keeping a place holder automatically and reading across devices. A Nook Color was also represented in the study, and the age of the individual did not seem to have any impact on the type of reader selected, as some types of readers were utilized by the college aged participants and the participants who were in their 50s and 60s. Some of the items read on the readers included books, magazines and newspapers. However, it was noted by one participant that there was a challenge of finding available materials for the Kindle, and that the browsing aspect of looking for books was not quite the same online than in a bookstore where you had displays and the ability to leisurely look through and select items of interest.

Through these surveys and interviews it was apparent that more research needs to be done, and that this small case study is just a jumping off point for a larger, more involved case study with participants and their leisure reading habits. Obviously, some of the limitations of the study are the very small sample size that has limited generalizability at this point in time. However, as e-readers and e-books continue to decline in price and increase in availability, there will be an increasing number of participants to select, and a larger time frame in which these participants are using the technologies. It will be interesting to look at whether or not people's use of e-books continues to increase, and if their preferences in modality shifts as eReaders and e-books become more commonplace in society. It will also be a good time to compare e-book and reader use among different age groups, and see if there are difference on preference and how the technology is used.

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## Personal Archives Are Mediated Memories Never Meant to Be Secret!

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**Abstract:** We create personal archives, perhaps write diaries or in blogs, take photographs and send mail because we want to remember the past and we want to communicate our experiences and our documented actions with others for different reasons. Readable, visual and tangible information of our selves and others from the past inform us about the private and public life and work of individuals in their societal and organizational contexts. If we want to create a digital personal archive, are we ready to organize our information durable? Analogue personal archives mostly got lost after their creators had died and relatives cleaned up the attics. What happens to our digital beyond? In the paper world it depends on appraisal decisions of relatives and friends, archivists and historians if material traces of a personal life were kept, stored over time, organized for use and sometimes published. How to find digitized memories on the web? Is the Twitter archive of the Library of Congress a good solution? Neugebauer compares functions of different private documents and archives in their analogue and digital contexts, describes motives of people who decided to become self-archivists, and discuss the role of the professional archivists today in keeping the personal narrative going.

## Personal Archives

We all create personal archives, consciously or unconsciously. We create archives because our whole life is determined by our production of textual and visual traces, every day, again and again. Some of us might write diaries or blogs, everyone takes and shares digital photographs and sends e-mail. We do so, because we want to document our transactions or we want to communicate our experiences. We want to remember what has happened in the past and we want to show it to others later on. We produce daily readable, visual and tangible information and we reproduce permanent information objects created by others. We are interested in the private and public life and work of others, their networks, and their societal and organizational contexts. Since ten or fifteen years we got accustomed by using virtual information objects. It is interesting to discover that many of us, meanwhile, have idealized analogue forms of communication: the locked diary, the handwritten letter sealed in an envelope, the shoe box full of photographs, suitcases as portable archives and the vinyl resurrection of sound.





Figure 1 and 2: Analogue writing (1925). Information objects out of the archive of E.C. van Dorp (2000).

### Analogue and Digital Sense

My generation is one in transition between analogue and digital media. What has happened to our personal documents, to our information data? With media sociologist Van Dijck (2007) I want to propose that “individuals engage to make sense of their lives in relation to the lives of others and to their surroundings, situating themselves in time and place. Mediated Memories are the activities and objects we produce and appropriate by means of media technologies, for creating and re-creating a sense of past, present, and future of ourselves in relation to others.”

Following this reasoning, it does not matter if we talk about a tweet or an analogue diary with a lock: both function as a medium of communication and can be seen as a symbol for the human need to feel connected to an imagined or real person or group in the past, present, or future. The understanding of the past of an individual is strongly linked to group consciousness and communicated by social and cultural mediation. This has been already described by sociologists Halbwachs (1980), who worked out his ideas before WW II, as well as Giddens (1991). Both sociologists had a huge influence on postmodern thinkers of archival theory who investigate the societal meaning of personal archives (McKemmish 1996, Millar 2006, Cox 2007 and Hobbs 2010).

### A Woman’s Personal Archive

In my PhD research which is embedded in the Research School of this Faculty, called CREATE-IT, I research the functions and the changes over time of the documents and objects that compose a personal archive of a famous Dutch woman who lived her adult life between World Wars I and II. Her name was Elisabeth Carolina van Dorp. She was Holland’s first female economist, academic as well as a member of parliament and staunch feminist. She organized her letters, diaries and drafts very well. I am interested in her life and works, but even more in her appraisal decisions, why she decided what to keep and what to destroy, and also who else decided later on to keep this originally private archive and make it available for the public. For more than ten years now, her archive is accessible at Aletta, Dutch Institute of Women History. Because of the feminist activities of Elisabeth Carolina van Dorp, her heir decided to give this legacy to this Women heritage Centre, it would have fit also to other memory institutions because

she also was an economist and a lawyer and as politician she was active in one of the Dutch liberal parties and the international organisation of the League of Nations.

Table 1. Comparison of analogue and digital personal records management

Analogue information object	Individual analogue records keeping	digital information object	Digital records: lost, kept by the cloud or yourself?
Received letter	Indexed different networks?	e-mail, social media fora, text messaging	Indexed different networks? Used by whom?
Outgoing letter	Organize drafts?	idem	Draft management?
Photo album	Arranged?	Digital galleries on different locations	Idem: online? group, event, date etc. used by?
Diary	Kept?	Published online/ as digital document	Using social media: Individual storage?
Documentation	Organized?	Digital document	Labelling?
Calendar	Kept about years?	online?	Access to the years ago?
Writing processes	Drafts kept?	Digital document	Manage drafts?
Business records	At home?	Digital document	Know the difference?
Evidential documents	Mostly survives	Digital authenticity?	Individual and social memory function
Messages	Mostly destroyed	sms & tweet messages	Central global storage?
objects of daily use or emotional value	Documentation of the self	-	Digitized as document or moving image?

### Why Should We Keep Our Records ...

To show what has been changed over the last hundred years, when we look at documents belonging to a personal archive, I want to compare some of her documents with those of others, who are creators of their own personal archives today. One of my research questions is: what were the motives of this lady hundred years ago, to organize her information? Today I want to ask: Why and how do we organize our information and: would our information be equally accessible as the archive of van Dorp, about hundred years from now? Do we have to ask only individuals about their motives to create and share personal information or are the motives rooted in the e-media market? Everyone with access to the digital medium can decide to create, distribute and discuss insights in personal life, reflections on everyday’s life and work, for example: political manifests, cooking recipes or research bibliographies. Everyone is nowadays her own digital archivist, journalist, publisher and biographer. We can create our own digital life stream and we can publish it using Microsoft’s MyLifeBits for the ‘total recall’ function (Bell 2009). If we don’t want to publish digital information at all, we have to deal with the fact that others did it for us already every day in order to use it for commercial or forensic matters. But if we want to create a digital personal archive, do we realize that we not only talk about our information online but also about the daily processes recorded into our hard discs at home? Are we ready to organize all our information durable?

### ... When It Is Already Done by Others?

Analogue personal archives mostly get lost when their creators had died and relatives cleaned up the attics. What happens to our 'digital beyond' (Carroll/Romano 2011)? In the paper world it depends on appraisal decisions of relatives and friends, archivists and historians, if material traces of a personal life were kept, stored over time, organized for use and sometimes published. Now there are virtual attics all over, but who wants to discover these endless secrets? Or are they only fodder for commercial exploitation? Until the nineties of the last century we could be sure that there was always some memory institution that took responsibility for the intellectual legacy of individuals who lived a life that mattered in some way or another. In times of cultural cuts and digital networks Internet became our memory institution. How can archivists today help to organize access to digitized memories of well known persons, or certain underrepresented groups, when we realize that memory institutions have lost their institutional access to this private information edited now to the online public? To find answers to these questions, we have to analyze the motivations of self-archivists, investigate the role of professional archivists today and define different functions of archival documents and mediated memories in their analogue and digital contexts.

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## Disliking the Like User Policy-Change and Perception of the Internet as a Democratic Medium

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**Abstract:** Promoting government responsibility for the privacy of individual citizens seems problematic in an online context, as it threatens to open the door to censorship. One should wonder whether citizens need protection from -what is perceived as- infringement to the rights of privacy, while these citizens are actually consumers, using commercially provided services with policies that they have agreed to.

On the other hand one could question whether most users of webservices like Facebook are equipped with the proper level of media literacy skills in order to manage such levels of responsibility for their own privacy. Herein lays the essence of the problem and the key to its solution.

Meanwhile the European Commission has been following closely what is happening to personal data online. Several forms of legislation have been brought into force aiming to enhance the protection of personal data of European citizens. This European protectionism often clashes with the privacy policies of, largely American, commercial organisations such as Facebook and Google.

### Introduction

According to Meglena Kuneva, the European Consumer Commissioner: "Personal data is the new oil of the Internet and the new currency of the digital world." Social media platforms and web services in general have become an accepted form of communication, where self-representation and the sharing of personal information are intertwined. When said platforms or services become the premier portal for access to information, changing privacy- or user policies can become problematic. What is perceived as the "new oil" for shrewd Internet entrepreneurs may well become snake-oil for the average user.

## Who's in Charge?

Central to the current debate is a question of moral responsibility. Promoting government responsibility for the privacy of individual citizens seems problematic in an online context, as it threatens to open the door to censorship. One should wonder whether citizens need protection from – what is perceived as – infringement of the rights to privacy, while these citizens are actually consumers, using commercially provided services with policies that they have agreed to.

On the other hand one could question whether most users of social web services like Facebook are equipped with a proper level of media literacy skills in order to manage such levels of responsibility for their own privacy, themselves. Ironically, active citizen outcry and resistance against opaque privacy policies of social media companies show exactly the kind of entanglement users are facing in the current state of the web. The fact that the Europe vs Facebook (EVF) community<sup>1</sup> also uses a Facebook profile as a possible means of communication is an important case in point. Herein lays the essence of the problem and perhaps the key to its solution: the strength of the user lies in the network itself. Strength – as it were- in numbers.

## User Democracy?

Recently announced services on Facebook – such as the “ticker”-feature and the “time-line” that retraces all past activities on the platform – have spurred a wave of discontentment. Signs of a certain user-neurosis – the unenviable position of being dependent on a provided service, while having serious qualms with some of its core policies – leads some users to resort to rather naïve actions of half-hearted defiance. A recent development sees users on Facebook rather strangely imploring fellow users to bar their “like”-s from the aforementioned ticker sidebar. In a bid to take back what they perceive as a breach of privacy these users show a lack of insight: they have relinquished control long before.

Users have accepted a mutual agreement when signing up for a service. It is just the fact that their perceived level of privacy is breached what gets users hair stand on end. Their actual privacy has already been compromised in a much more fundamental sense. It is essential to the functional, as well as the commercial success of Facebook, that users share their data. What you “share” and what you “like” is simply part of the bargain that an individual can buy into.

The case above goes for virtually any social media service online. Facebook may be the biggest contender, but in July 2011 LinkedIn announced changes in their user policy that allowed actions on their part most users found unacceptable. The professionals' network website announced that:

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<sup>1</sup> Europe-v-Facebook.org (EVF) is an initiative started by Austrian law student Max Schrems. Its main objective is to assist users in acquiring insight in the personal data they share on the network site, while committing Facebook to increase their efforts for more transparent privacy control options. By popular request the EVF employs social media tactics for sharing their message. Apart from a YouTube Channel and a Twitter-feed, EVF actually use Facebook as their main “share” option in the upper right-hand side of the webpage header.

“When LinkedIn members recommend people and services, follow companies, or take other actions, their name/photo may show up in related ads shown to you.” (LinkedIn user policy update, 2011)

The uproar that followed this policy update forced LinkedIn to initially adopt an opt-out option for this service, which was massively used, before recanting the policy change altogether. This example shows yet again an interesting paradox: it seems that social networking sites provide a platform for self-criticism through the ranks of its participants, when the originators try to impose rules that benefit themselves and negate or even potentially harm the interests of the majority. Whenever a social network provider tries to update a user-policy and thereby undermines the self-governing system of such a network, a grassroots movement among users rises to meet the challenge. This dynamic – whether to be considered ‘democratic’ or not – is unprecedented in the history of any type of media before it.

## Privacy Protection in the US

To understand why US-companies are struggling most to adhere to European privacy rules, it is essential to distinguish the differences in legislative approach to the protection of privacy.

The legal framework in the US lacks coherency; informational privacy is governed by a variety of different laws and administered by different agencies. This results in a patchwork-like collection of statutes which are often not enforced. The markets have been left to develop privacy standards and mechanisms on their own. This self-regulatory approach differs immensely from the European set of normative rules, which has procedures that are standardized.

One could even argue that the role of Chief Privacy Officer (CPO) – now employed by most major US companies – is a direct result of the strict rules the European Union has developed. Regulations that are the result of market behaviours are by their very nature consumer-oriented.

Where in European policy privacy is seen as a fundamental human right, the US approach to matters of privacy is very much customer-driven. Consumer confidence and trust are the primary focus of privacy-policies. In the case of the LinkedIn policy change addressed earlier for example, it is evidenced that decision making was corrected only after customers criticised the policy-change concerning the use of personal content for advertisement purposes.

## European Privacy Protection

During the mid-90s the first European legislation on personal information and data was created. With this legislation the European Union aimed to secure that personal data was able to flow freely in the internal market, while protecting this personal data in an adequate manner. The European legislators saw the progress that was being made in information technology and telecommunications networks and realised this could potentially benefit the internal market and business in general. However the ease with which personal data would flow freely from one Member State to another could also pose a threat to the fundamental right to privacy.

In order to both facilitate and secure the processing of personal data, the legislation focuses on ensuring equal enforcement of data protection in all Member States. To this end the rights of data-subjects and the obligations of data-processors are specified. Personal data may only be collected for specified, explicit and legitimate purposes and not be further processed in a way incompatible with those purposes. Furthermore, data may only be processed with the unambiguous consent of the data subject or for specific processing as laid down in the legislation. The data subject always has a right of access to the data that is being processed, in order to ensure that personal data is administered in a secure and correct manner.

### Privacy 2.0 in the EU

It is interesting to see that in the European Union the right of protection of private life, as enshrined by the European Convention on Human Rights, can nowadays be interpreted as a 'right to be forgotten'. The European Commission views this as the right of individuals to have their data no longer processed and deleted when they are no longer needed for legitimate purposes. This is the case, for example, when processing is based on the person's consent and he or she withdraws said consent or when the storage period has expired.

To actually enforce the data processing rules, the Commission seeks to improve sanctions on breaches and to strengthen the role of the (national) Data Protection Authorities and to strengthen their cooperation across the European Member States.

### Conclusion

Although regulatory measures from governing bodies strengthen the rights of individuals, to what extent do users of online services need to be protected from themselves? There is an obligation on parties such as Google and Facebook to offer transparency on their data processing; however individual users should be aware of what exactly they are agreeing to. Facebook argues that the extent to which data is collected is merely a function of the decisions and actions of individual users.<sup>2</sup> Suggestions from the Europe vs Facebook initiative show that Facebook's privacy options are primarily focused on maximising their own business proposition. In this, Facebook is shown to be as half-heartedly as the average user is defiant against using their services. A mutual dependence, then, is evidenced.

Although the European Union is laying the basis for online privacy protection, and in doing so is forcing other governing bodies globally to reassess their take on privacy issues of private citizens, there is something to be said for the informational self-determination of users. As practice shows, they might just be able enough to create their own policies: bottom-up policies of self-government that are testament of a maturing, self-aware and self-affirming user-group.

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<sup>2</sup> Facebook response to European Commission Communication. (n.d.). Retrieved November 11, 2011 from: [http://ec.europa.eu/justice/news/consulting\\_public/0006/contributions/not\\_registered/Facebook\\_en.pdf](http://ec.europa.eu/justice/news/consulting_public/0006/contributions/not_registered/Facebook_en.pdf)

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# Library 2.0 in Hungary

## Using Web 2.0 Tools in Hungarian Libraries

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Research topic: evaluating reliability, Wikipedia, Web 2.0

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Research topic: metadata, metadata of posters

**Abstract:** Tools of the more and more popular Web 2.0 defined as the second generation of World Wide Web such as e.g. blogs and wikis allow users to participate in building and developing web-content collaboratively, share information and communicate interactively with each other. This technological and at the same time social change has also influenced the imaging as well as the activity of libraries. As searching for information or using the physical collection of a library is not enough anymore for users, because they would like to become a member of a virtual community, therefore libraries have to be renewed, and also have to be able to use Web 2.0 applications. Taking the forgoing into consideration the primary aim of the study is to identify and evaluate Web 2.0 tools often used in Hungarian libraries. For this purpose websites of several types of Hungarian libraries like e.g. county, city and school libraries were analyzed using a certain kind of criteria system. The results of the examination were also compared with foreign surveys in order to demonstrate how advanced or immature the use of Web 2.0 applications in Hungarian libraries could be.

### Introduction

As it can be read on the Encyclopedia Britannica webpage, "Web 2.0 is the next envisioned iteration of the World Wide Web, in which the 2.0 appellation is used in analogy with common computer software naming conventions to indicate a new, improved version". The term Web 2.0 invented in 2004 by Dale Dougharty, the vice-president of O'Reilly Media Corporation describes a new way of approaching the development of web applications. By using Web 2.0 applications users can participate in building and developing web-content collaboratively, they can share information and communicate interactively with each other. The main characteristics of this new technology are among others user control, openness of data, mass participation (Chua & Goh, 2010), collaboration, rich user experience, lightweight programming models (Needleman, 2007), web-based communities, more socially connected web, small interoperable applications and user-centered design (Tripathi & Kumar, 2010).

### Library 2.0

Library 2.0 can be defined as the library interpretation of Web 2.0 (Needleman, 2007). It means a more interactive and collaborative library space where users can be active members of a virtual community (Anfinnsen, Ghinea & Cesare, 2011) by participating in creating, manipulating and sharing data. In Library 2.0 new ways of communicating can be explored; new research and education methods can be improved; design and

delivery can be more efficiently developed; materials can be organized easier; information literacy, library news and instructions can be imparted faster; users can be informed about changes and news more efficiently; information can be exchanged faster (Tripathi & Kumar, 2010); i. e. library services can be more enjoyable and ease to use.

However, applications of the new technology can be grouped in many ways, especially for libraries the following classification scheme can be used the most efficiently (Chua & Goh, 2010): tools of information acquisition like e.g. blogs; tools of information dissemination like e.g. RSS; tools of information organization like e.g. social tagging services and tools of information sharing like e.g. videosharing.

As it can be seen, Web 2.0 provides development facilities in every process of information work in libraries.

To demonstrate how advanced Library 2.0 in Hungary has grown, Web 2.0 applications often applied in library environment more closely blogs, instant messages, photosharing, podcasting, RSS, social networks, social tagging, videosharing and wikis are investigated in this study using a very simple and clear criteria system.

### Methodology

Since most of the earlier studies published in this field have investigated how many Web 2.0 tools are applied in a certain type of library, like e.g. in the academic libraries (Tripathi & Kumar, 2010) other studies have summarized the development facilities of web 2.0 applications in a library environment (e.g. Click & Petit, 2010), the current study researches the use of Web 2.0 tools in types of libraries in a particular country, in this case in Hungary. For investigation 90 libraries were chosen: academic libraries which also participate in training librarians, then county libraries, city libraries, school libraries, special libraries, digital libraries and the Széchenyi National Library. Academic libraries were chosen from the official portal of Hungarian higher education, Felvi.hu (www.felvi.hu). County, city and special libraries were chosen from a library portal maintained by the Széchenyi National Library, Könyvtár.hu (konyvtar.hu). School libraries were chosen from an official ranking list of the best secondary schools published in the *Köznevelés* journal in 2010. Digital libraries were selected randomly.

### Criteria System

Web 2.0 applications of the selected libraries were evaluated by investigating the webpages with a criteria system. The criteria system was created on the basis of earlier studies (e.g. Tripathi & Kumar, 2010), though, as it can be seen in table 1, it was simplified and modified radically according to the aim of the research.

Availability means how easy to reach a certain Web 2.0 tool on a library website. Usability means how easy to use a certain Web 2.0 tool on a library website. Usefulness means how useful is a certain Web 2.0 tool on a certain library webpage.

Table 1. Criteria system with its point and coding system used in the evaluation process

Points to be given	1	2	3	4
Criteria				
Availability	Randomly available	Available with few clicks	Available on the first page	
Usability	Not current – hard to use	Not current – easy to use	Current – hard to use	Current – easy to use
Usefulness	Not useful	Quite useful	Useful	

## Results and Discussion

As it can be seen in Table 2 the groups of data were analyzed refer to the average use rate of Web 2.0 tools [AUR\_L] on one hand and to the weighed average use rate of Web 2.0 tools [WAUR\_L].

Table 2. [AUR\_L] and [WAUR\_L] in the various library types

	Academic libraries	City libraries	County libraries	Digital libraries	School libraries	Special libraries	Széchenyi National Library
Blogs	45,5%	0,0%	36,8%	0,0%	20,0%	40,0%	100,0%
Instant messages	0,0%	10,5%	31,5%	10,0%	0,0%	20,0%	100,0%
Photosharing	9,0%	0,0%	0,0%	10,0%	10,0%	0,0%	100,0%
Podcasting	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
RSS	54,5%	31,5%	52,6%	60,0%	25,0%	30,0%	100,0%
Social networks	36,4%	26,3%	68,4%	50,0%	10,0%	40,0%	100,0%
Tagging	0,0%	0,0%	0,0%	0,0%	10,0%	100,0%	0,0%
Videosharing	27,2%	15,7%	10,5%	10,0%	0,0%	0,0%	100,0%
Wikis	27,2%	0,0%	0,0%	30,0%	15,0%	0,0%	0,0%
[AUR_L]	22,2%	9,3%	22,2%	18,9%	10,0%	15,6%	66,6%
[WAUR_L]	33,3%	15,0%	28,3%	40,0%	21,0%	28,0%	33,3%

Use rate is defined in percentage (%) indicating the rate of a certain type of library using the various Web 2.0 services. E.g. 45,5% of the academic libraries apply blogs. It follows that [AUR\_L] means the average use rate of Web 2.0 tools in distinct types of libraries. As an example 22,2% of the academic libraries apply Web 2.0 tools. [WAUR\_L] refers to the average use rate of those Web 2.0 tools which are actually applied in the investigated types of libraries. As an example 33,3% of the academic libraries apply blogs, photosharing, RSS, social networks, videosharing and wikis.

As it can be seen, those library types which apply Web 2.0 tools the most are the national, academic, digital and county libraries.

Investigations made by using the criteria system present a similar picture. As it can be seen in Figure 1., the percentage of the Web 2.0 tools with maximum points (3 points for availability, 4 points for usability and 3 points for usefulness) was the highest in county and digital libraries, and in the Széchenyi National Library.

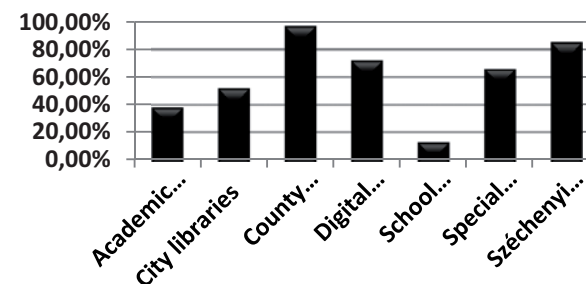


Figure 1: Percentage of Web 2.0 tools with maximum points in the various library types

Results also show that the mostly used Web 2.0 tools in the investigated sample are the social network and RSS, which can be explained with their popularity and easy usability. These Web 2.0 applications can be easily built into the structure of a webpage and do not demand further maintenance.

## Conclusions

To sum it up, the Széchenyi National Library and county libraries not only apply the most Web 2.0 tools in Hungary, but they also do it in the most effective way. Comparing the results with a foreign survey (Tripathi & Kumar, 2010), it can also be stated, that Library 2.0 in Hungarian academic libraries when compared with academic libraries in Canada, Australia, UK and USA can be considered as advanced. Concerning the category of national libraries, the Hungarian national library also seems to be in an advanced position (Buigues-García & Giménez-Chornet, 2011).

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# Perceptions of Librarians on Next Generation Information Services Sample of Academic Libraries in Ankara

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**Abstract:** Today libraries present dynamic and interactive platform through wikis, blogs, social networks, podcasts, tagging & bookmarking sites, etc. and integrate them into library services (library catalogs, cataloging & classification applications, reference services, library instructions and so on). Librarians have to keep up with these next generation information services and develop their abilities. The aim of this paper is to explore background knowledge and perceptions of librarians concerning next generation information services and applications. To this end, 86 librarians working in academic libraries in Ankara have been applied a questionnaire.

## Introduction

Libraries have been influenced by the developments experienced in technologies and thus they have reshaped their services. Especially using Web 2.0 technologies in library services which allows user participation and sharing has contributed to the emergence of next generation library environment called “Library 2.0” and arrangement of different information services. “Library 2.0” was firstly defined by Michael Case as a user-centered model which is supported by a continuous evaluation process, allowing user participation in producing physical and digital services (Casey and Savastinuk, 2006, p.40). Library 2.0 is concerned with the application of Web 2.0 technologies associated with library resources and services. It creates dynamic content and new library services such as next generation library web sites, databases, intranets, portals, OPACs, etc. based on interaction, communication and participation. According to Maness (2006), Library 2.0 provides multi-media experience including audio and video elements, provides synchronous (e.g. instant messaging) and asynchronous (e.g. wikis) methods for users to interact with each other and librarians, allows users to change library services besides seeking, finding, discovering, using and creating information. In this framework, today libraries present personalized content and news via RSS feeders, blogs, social networks and wikis. In addition, users are able to communicate with the library staff by e-mail or SMS (Short Message Service), comment on library resources or rate resources in an interactive environment. Information resources found through web sites and search engines can be integrated into library web sites. Services like catalog searching can be made ready for mobile using (Tonta, 2009, p.749). The next generation library services (tools and applications) include “library blogs”, “social networks”,

“photo & video sharing”, “chat reference”, “tagging”, “bookmarking”, “RSS feeds”, “SMS notifications”, “user reviews”, “federated searches”, “mobile library”, “open access & education initiatives”, “social library catalogs”, “interactive educational tutorials”, and so on. Foo and Ng (2008) emphasized that these tools and applications are used in reference services, collection development, provision of information services, creation of research guides, etc. by libraries. These next generation information services have naturally affected librarians presenting library services and made them improve their abilities. Abram (2007, pp.7-8) indicates that librarians should know the tools of Web 2.0 and Library 2.0. To sum up, it is essential for librarians to internalize the importance of next generation information services brought with Library 2.0 and apply them in libraries. In this study, it is aimed to determine background knowledge and perceptions of librarians working in academic libraries in Ankara regarding next generation information services and applications.

## Methodology

The focus group of this study consists of all librarians working at Ankara University, Atılım University, Başkent University, Hacettepe University, Middle East Technical University, Çankaya University, Gazi University, Bilkent University and TOBB Economics & Technology University. Findings of this study were obtained via a questionnaire developed with the aim of determining librarians’ opinions on next generation library services and revealing their knowledge and usage of next generation library tools and applications. The questionnaire including 35 questions were applied in the academic libraries. All of the librarians were interviewed and 86 responses were collected. The responses received from participants were evaluated by Statistical Package for the Social Sciences. The research questions are: – Which levels are librarians in as regards their knowledge and individual usage of Web 2.0 tools? – What are the opinions and perceptions of librarians on next generation library tools and applications? – Do librarians have education requirements for next generation library tools and applications?

## Findings

In the first section of the study, librarians’ general knowledge levels of next generation library tools and applications were determined according to their expressions. It is seen that participants mostly (N=35 / 40.8%) find themselves in fair level. The percentage of those (N=18 / 20.9%) who find themselves adequate and inadequate is the same. In addition, 8.1% (N=7) of the participants have no idea about their level and very few of them regard themselves as very inadequate 5.8% (N=5) and very adequate 3.5% (N=3). In the second section, whether the librarians use Web 2.0 tools individually and the usefulness of the availability of these tools is measured. Table 1 shows the related findings.

Table 1. Individual Usage of Web 2.0 Tools by Librarians.

Web 2.0 Tools	I don't know what this is		I have never used as it is useless		I have wanted to use it, but need help		I used it but found use-less		I have used it and found useful	
	N	%	N	%	N	%	N	%	N	%
Blogs	24	27.9	6	7.0	10	11.6	1	1.2	45	52.3
Wikis	30	34.9	10	11.6	9	10.5	1	1.2	36	41.8
Social networks	12	14.0	10	11.6	3	3.5	5	5.8	56	65.1
RSS feeds	42	48.8	6	7.0	14	16.3	3	3.5	21	24.4
Podcasts	51	59.3	5	5.8	16	18.6	2	2.3	12	14.0
Bookmarking	39	45.3	11	12.8	11	12.8	4	4.7	21	24.4
Tagging	31	36.0	11	12.8	11	12.8	7	8.1	26	30.3
Instant messaging	16	18.6	17	19.8	3	3.5	9	10.5	41	47.6

Most of the participants have no knowledge about podcasts (59.3%), RSS feeds (48.8%), bookmarking (45.3%) and tagging (36%). Participants mostly apply social networks (65.1%), blogs (52.3%), instant messaging (47.6%) and wikis (41.8%) and find them useful. The rate of those who have wanted to use Web 2.0 tools, but need help is also substantial. The research findings which reflect the views of librarians on next generation library tools and applications are shown in Table 2.

Table 2. Opinions on Next Generation Library Tools and Applications.

Next Generation Library Tools/Applications	Useful		Useless		Neutral	
	N	%	N	%	N	%
Library blogs	69	80.2	0	0.0	17	19.8
Social networks	73	84.9	6	7.0	7	8.1
Photo & video sharing	67	77.9	8	9.3	11	12.8
Chat reference	64	74.4	9	10.5	13	15.1
Tagging	44	51.2	3	3.5	39	45.3
Bookmarking	44	51.2	4	4.7	38	44.1
RSS feeds	40	46.5	1	1.2	45	52.3
SMS notifications	62	72.1	6	7.0	18	20.9
User reviews	73	84.9	0	0.0	13	15.1
Federated searches	63	73.3	0	0.0	23	26.7
Mobile library apps	72	83.7	0	0.0	14	16.3
Open access & education initiatives	68	79.0	1	1.2	17	19.8
Social library catalogs	67	77.9	1	1.2	18	20.9
Interactive educational tutorials	70	81.4	2	2.3	14	16.3

According to Table 2, most of the participants find social networks (84.9%), user reviews (84.9%), mobile library apps (83.7%), interactive educational tutorials (81.4%), library blogs (80.2%), open access & education initiatives (79%), social library catalogs (77.9%), photo & video sharing (77.9%), chat reference (74.4%), federated searches (73.3%) and SMS notifications (72.1%) useful in terms of information services. While more than half of the participants (52.3%) are neutral regarding RSS feeds, almost half of them have no idea about tagging (45.3%) and bookmarking (44.1%). The partici-

pants were also asked some statements to determine the impact of next generation library tools and applications on library services. The findings are presented in Table 3.

Table 3. Influences of Next Generation Library Tools and Application on Library Services.

Statements	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	N	%	N	%	N	%	N	%	N	%
They are used effectively by our libraries	15	17.4	39	45.3	20	23.3	8	9.3	4	4.7
They contribute value to the library services	25	29.1	40	46.5	21	24.4	0	0.0	0	0
They help access and discover information	32	37.2	36	41.9	18	20.9	0	0.0	0	0
They promote library services	34	39.5	32	37.2	19	22.1	1	1.2	0	0
They increase interaction of users with each other and library	33	38.4	32	37.2	21	24.4	0	0.0	0	0
They allow producing information	16	18.6	36	41.9	31	36.0	3	3.5	0	0
They improve library services physically	19	22.1	35	40.6	28	32.6	4	4.7	0	0
They provide dynamic structure in web-based services	32	37.3	31	36.0	23	26.7	0	0.0	0	0
They help to collect feedback from users	30	34.9	32	37.2	23	26.7	1	1.2	0	0
They encourage users to follow the innovations, develop themselves and adapt to new applications	33	38.4	29	33.7	21	24.4	3	3.5	0	0

As is seen in Table 3, virtually half of the participants (45.3%) agree that next generation library tools and applications are used effectively by their libraries. The rate of those who disagree (9.3%) and strongly disagree (4.7%) with this statement is also notable. Another important finding is that 46.5% of the participants agree and 29.1% strongly agree that these tools and applications contribute value to the library services. Moreover, most of the participants agree (41.9%) and strongly agree (37.2%) that they help access and discover information. As to the statement “they promote library services”, most of the participants select “strongly agree” (39.5%) and “agree” (37.2%) choices. Furthermore, most of the participants strongly agree (38.4%) and agree (37.2%) with the expression “they increase interaction of users with each other and library”. Most of them (41.9%) think that they allow producing information. Related with this statement, the rate of those who are neutral is 36%. While 40.6% of the participants consider that they improve library services physically, 32.6% of them have no idea about it and 4.7% disagree with it. In addition, most of them say “strongly agree” (37.3%) and “agree” (36%) with the idea “they provide dynamic structure in web-based services”. The number of those who are neutral (26.7%) is also remarkable. In terms of their collecting feedback from users, most of them say “agree” (37.2%) and “strongly agree” (34.9%), but 26.7% of them do not express any idea. Over and above, most of them mark “strongly agree” (38.4%) and “agree” (33.7%) selections on the statement “they encourage users to follow the innovations, develop themselves and adapt to new applications”. There are other people who are neutral (24.4%) and disagree (3.5%) with this statement. In the last section of the study, whether the participants had education before as regards next generation library tools and applications was determined. Half of



them (N=43 / 50%) stated that they have never got education. While 22.1% (N=19) of them remarked that they have had education, 27.9% (N=24) expressed no idea. When participants were asked if they require education for next generation library tools and applications, more than half of them (N=48 / 55.8%) say "Yes" and 19.8% (N=17) of them say "No". The rate of those who is neutral about this need is 24.4% (N=21).

## Conclusion

This study concludes that participants regard themselves as "fair" in terms of their general knowledge levels of next generation library tools and applications. It has been determined that the participants lack knowledge of podcasts, RSS feeds, bookmarking and tagging. They mostly use social networks, blogs, instant messaging and wikis and find them useful. Some of them feel help about the usage of Web 2.0 tools. As the participants stated social networks, user reviews, mobile library apps, interactive educational tutorials, library blogs, open access & education initiatives, social library catalogs, photo & video sharing, chat reference, federated searches and SMS notifications are among the most useful tools and applications in terms of information services. It has also been found that some of the participants do not express an opinion about whether RSS feeds, tagging and bookmarking are useful. Participants mostly agree with the benefits of using next generation library tools and applications. Another significant consequence is that most of the participants have never got education regarding next generation library tools & applications and they require education for them. This study also indicates that the majority of the librarians working in academic libraries find next generation library tools and applications very useful; however, they do not have detailed knowledge about them. It is substantially important for librarians to use next generation library tools & applications and to be educated systematically so as to develop information services of libraries and increase the impact of these services on users.

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## Utilizing Mobile Technologies in Academic Libraries The Case of Turkey

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**Abstract:** Today, libraries present users many mobile library applications such as library catalogs, library collections, library instruction, circulation and reference services in parallel with the development of mobile technologies. These applications provide significant contributions in terms of introducing and developing library services more effectively. This paper aims to evaluate the current situation of mobile applications in academic libraries in Turkey and identify gaps in the services supplied. In this framework, mobile applications in 165 academic libraries have been determined through a structured observation form. The findings indicate that only 5.45 percent of academic libraries currently have mobile library websites or downloadable applications. This study reflects the lack of mobile content and services in academic libraries. It also emphasizes the importance of integrating mobile technologies into library applications and creates consciousness about this issue among librarians.

## Introduction

Advances and changes in information technologies have a direct effect on libraries and their services. Especially mobile technologies having gained importance recently are used in libraries as well as the fields such as education, health and trade. Thanks to these new technologies, libraries have begun to develop mobile library applications by reviewing their policies and services.

Today, libraries can provide their users with a variety of mobile services including mobile online public access catalogs (OPACs), mobile applications (for smartphones), mobile collections (audiobooks, e-books, databases, audio language courses, streaming music, films, images, and other multimedia), mobile library instruction, Library Short Message Service (SMS) notifications, SMS Reference and mobile directions (Global Positioning System-GPS) (Vollmer, 2010, p.5; North Carolina State University, 2009).

Mobile library applications supply many benefits through setting up communication between libraries and users. For instance, they offer easier access to the information sources / library services and make time and place dependency to disappear. They also create a policy on equality of opportunity for users like the disabled, the sick, the old and children, etc. who have difficulty in reaching library resources and services (Goh et al., 2007, p.287). Mobile library applications offer users an interactive environment. Therefore, users have a chance to arrange and replace the content besides adding and deleting objects such as image, video and text in the content (Kroski, 2008, pp.6-7). From the perspective of libraries, it can be stated that not only do users reach libraries

but also libraries reach users and inform them regarding library services and news. In addition, mobile library services decrease the workload of staff. Over and above, the library staff develop themselves and become a qualified employee in the name of managing technological innovations (Odabaş, 2009).

Beside those benefits, mobile library applications have some disadvantages. For instance, while mobile reference services of some libraries are supported by the staff in telephone, instant message, etc, others are given as merely SMS text-based. SMS text-based reference questions are less sensitive, contextual and directional than the other reference channels. The messages are shorter and usually fewer than 160 characters written by users of mobile phones (Peters, 2011; Little, 2011). This indicates that the interaction between libraries and users is insufficient.

In general, mobile applications can be said to provide great opportunities to libraries. It is inevitable and important for libraries to present their services in mobile media in terms of keeping up with innovations and designing new services. This paper assesses how academic libraries in Turkey have responded to the mobile library environment and the study has been realized through an examination of the mobile content and services founded in mobile library websites and downloadable applications presented by libraries.

### Methodology

The focus group of this study consists of all academic libraries in Turkey. Findings of this study were obtained via a structured observation form developed with the aim of determining current state of mobile library applications provided in Turkey. The observation form with 23 items was checked in the academic libraries. 165 academic libraries were examined through reviewing their mobile library websites and downloadable applications. The research was realized on October, 2011. What the mobile library applications are used in libraries is the research question of this study.

### Findings

In the first section of the study, 165 academic libraries were examined. Of 165 libraries, 9 (5.45%) were found to have definite type of mobile library applications. This includes 4 libraries (44.4%) with mobile library websites, 4 libraries (44.4%) using with a downloadable mobile applications and one library (11.2%) applying both of them.

The 5 academic libraries with mobile library websites were analyzed separately within 23 different categories on mobile library content and services. These contain İzmir Institute of Technology Library, Koç University Suna Kıraç Library, Middle East Technical University Library, Özyeğin University Library and Sabancı University Information Center. Table 1 indicates the results.

As seen in Table 1, all libraries include mobile library catalogs, accounts and news & events (100%) for mobile library users. Most of the libraries have information on library hours and locations (floor plans/maps) (80%) on mobile library websites. Main library website link, contact information, databases, “ask a librarian” and GPS are also popular mobile services to offer, all occurring on 60% of mobile library websites. Nearly half of the libraries (40%) provide users with the information on library directory, library staff directory and FAQ (Frequently Asked Questions). Computer availability,

reserve study rooms and blogs / social networks are the least frequently found applications in the mobile library websites. It is notable that information and directions on proxy server access, loan periods, feedback, full text article finder, podcasts, search engines and renew materials have not been observed in these academic libraries.

Table 1. Mobile site content provided by academic library in Turkey.

Function/Service	%
Library Catalog	100
Library Account	100
Library News & Events	100
Library Hours	80
Locations (Floor Plans/Maps)	80
Main Library Website Link	60
Contact information	60
Databases	60
“Ask a Librarian”	60
GPS	60
Library Directory	40
Library Staff Directory	40
FAQ	40
Computer Availability	20
Reserve Study Rooms	20
Blogs / Social Networks	20
Proxy Server Access	0
Loan Periods	0
Feedback	0
Full Text Article Finder	0
Podcasts	0
Search Engines	0
Renew Materials	0

Another important finding is that while more than half of the academic libraries (N=3 / 60%) use LibAnywhere interfaces in order to present their mobile library services, the others use their own interfaces they have created.

Besides libraries with mobile web site, there are 5 libraries using OverDrive (downloadable mobile applications) which allows using e-books, audiobooks, music and video through PC, Mac, iPhone, iPad, Android, BlackBerry and Windows Phone. These libraries cover Ankara University Libraries, Bilkent University Library, Gazi University Library, Hacettepe University Libraries and İzmir Institute of Technology Library. Users can reserve and borrow these materials and they are informed by mail about the loan periods in these libraries.

### Conclusion

This study concludes that very few academic libraries have a mobile web presence in Turkey. Therefore, the usage of mobile technologies is a new concept for academic libraries and it is anticipated that this field could appear to be growing rapidly.

The academic libraries with mobile library websites mostly present information on “Library Catalog”, “Library Account”, “Library News & Events”, “Library Hours”, “Locations (Floor Plans/Maps)”, “Main Library Website Link”, “Contact information”, “Databases”, “Ask a Librarian” and “GPS”. It has also been remarked that libraries less frequently use or never use some services and most of the libraries with mobile library websites or downloadable mobile applications do not utilize their own interfaces. It can be deduced that both availability of mobile content & services and the quality of such material are insufficient in academic libraries.

The high cost of mobile devices, insufficient knowledge and awareness of mobile library services of librarians, lack of demands of users for these services and users’ preference PC over mobile phones might be regarded as reasons for the scarcity of mobile library applications in Turkey.

Mobile library applications make it possible for users to access information sources / library services easily and serve as a bridge allowing interaction between users and libraries. In this framework, it is recommended that users and librarians should increase their levels of knowledge and awareness through library education and in-service training and mobile library applications should be used and developed by libraries. In addition, the quantity and quality of mobile content and services should be enhanced. Once and for all, since the field of mobile library services is very new, it needs to be explored more in all over the world and best practises should be shared.

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## A Framework for Public Information Services Proposal for a Sensible Alternative to Cyber-Utopianism

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**Abstract:** Information has taken a giant leap, since it was freed from its physical restraints. Through ICT, global information access for all seems within grasping distance. The relatively recent emergence of social media and peer-to-peer information services has led to global optimism on the uses of electronic information. There is free information, it is on the Internet, and institutions like public libraries are becoming obsolete. On the other hand, some writers state that ICT is, by nature, more geared towards control than towards freedom. And as we speak, free information is being ‘enclosed’ by global commercial corporations and repressive regimes. The slogan: “Freedom through ICT” deserves second thought.

These developments demand rethinking the role of public information services in our democratic societies. In my view you do not have to beat corporate information giants. But at the same time, you don’t have to join them, delivering public information to commercial exploitation.

In this paper I propose a framework for the public information service that, in my view, can be a focusing point in facing the challenges the democratic information society places on the doorsteps of the public library. I do this by discussing critical remarks from some leading authors on the prevalence of technology. Eventually, I propose a knowledge-driven framework as a central cause for public information services.

## Introduction

As a lecturer in information studies, one of my tasks is to educate young people in their vocational training to be an information professional, providing information services in the public information domain. In this paper I present my thoughts on the role of the public information services in society, and more specifically the practical interpretation of the role of the public library as a gatekeeper to public information in an increasingly technology-driven virtual environment. Based upon my view on the discussion between protagonists and antagonists of the Internet as a solution to all information problems, I propose a framework for the public information services that can help underpin the rationale for its existence.

## Debate on Information Technology

As popular culture embraces the use of the Internet, popular media abound in claims by Internet-entrepreneurs, politicians and governmental representatives alike that true knowledge is to be found on the Internet. These views are eagerly repeated by popular media and on the Internet itself. Claims and statements that libraries and (institutions providing) documentary information are things of the past that serve no purpose in



modern information society are equally abundant, and are often connected to these Internet-based claims.

This made me wonder: the end of the public library may be stated in persuasive terms, and repeated over and over again, but does that make them truisms? What critical remarks can be made to the claims of the Internet community to universal knowledge and ultimate freedom? Is technology-based information the ultimate and prime – and possibly, given time, only – source of information? And, as a result, is there truly no right to exist for the public information service anymore?

My exploration of literature on the subject lead to different writers with widely differing views. At the one hand, well-written essays by Anderson and Surowiecki put forward the case for crowdsourcing and the endless benefits of access to limitless sources of information. At the other end of the spectrum I found Morozov and Postman, with equally readable books on the ‘dark side’ of technological solutions to information problems.

### Critical Remarks on ICT

While the benefits of availability of huge quantities of information via ICT are propagated widely, critical remarks about that abundance are more rarely heard. That’s why I choose to quote both Postman and Morozov on this. In Postmans’ view, wherever technology is called upon for specific purposes, one should be aware that technology has side-effects that may well be worse than the solution they provide. “The computer, in fact, makes possible the fulfillment of Descartes’ dream of the mathematization of the world. Computers make it easy to convert facts into statistics and to translate problems into equations. And whereas this can be useful (as when the process reveals a pattern that would otherwise go unnoticed), it is diversionary and dangerous when applied indiscriminately (my italics/JP) to human affairs. So is the computer’s emphasis on speed and especially its capacity to generate and store unprecedented quantities of information.” (Postman, 1992, p. 119)

Morozov is also critical, albeit on other grounds. He states: “More and cheaper tools in the wrong hands can result in less, not more democracy. It’s much like the perpetual debate about blogging versus journalism. Today anyone can blog because the tools for producing and disseminating information are cheap. Yet giving everyone a blog will not by itself increase the health of modern-day Western democracy; in fact, the possible side effects – the disappearance of watchdogs, the end of serendipitous news discovery, the further polarization of society – may not be the price worth paying for the still unclear virtues of the blogging revolution.” (Morozov, 2011, p. 264)

### Quality of Information

Surprisingly, perhaps, the insight that there is more to sound decision making than just ‘counting heads’, can also be found in *The wisdom of crowds*. “Expertise is valuable; smart people are valuable. The more information a group has, the better its collective judgement will be,” says Surowiecki, “so you want as many people with good (my italics/JP) information in a group as possible” (Surowiecki, 2004, p. 277).

All in all, there seems to be some agreement that there are differences in the quality of information, and that this difference is relevant. There is a positive correlation between

high quality information and expertise. This affects decision making: even in the crowd you do need experts with their validated information to tip the balance in a decision process by that crowd, in order to make better decisions. And, if quantity of information may not be the end to all means, this means that at least some thought is needed on the obsolescence of the public information service. Because, traditionally the function of institutions for public information services lay in the watchdog function, quality control and providing an environment that makes serendipitous discovery of information possible. As mentioned by Morozov.

But essays do not lead to practical solutions. For that, I have to turn to the final piece of the puzzle that may lead to a proposal for practical framework for the public information services. That final piece is provided by Carol Collier Kuhlthau. Her groundbreaking publication *Seeking Meaning* is based upon real-life research on postgraduate students in the process of writing papers. She states: “The twenty-first-century library calls for services and systems that enable seeking meaning with an increasing amount of information. It is no longer sufficient simply to provide physical access to sources and information. In the technological information age, people require services and systems that facilitate understanding, problem solving, and decision making in the process of seeking meaning. The challenge for the library is to further intellectual access for learning, working and living.” (Kuhlthau, 2004, p. 209)

In order for a framework to be valuable, in my opinion you will have to be able to pinpoint what you will do, to or with whom, and at what moment your intervention is necessary. The optimal zone of intervention can be pinpointed pretty exactly in the process of the user seeking information; in the following figure, taken from Kuhlthau (2004, p. 206)

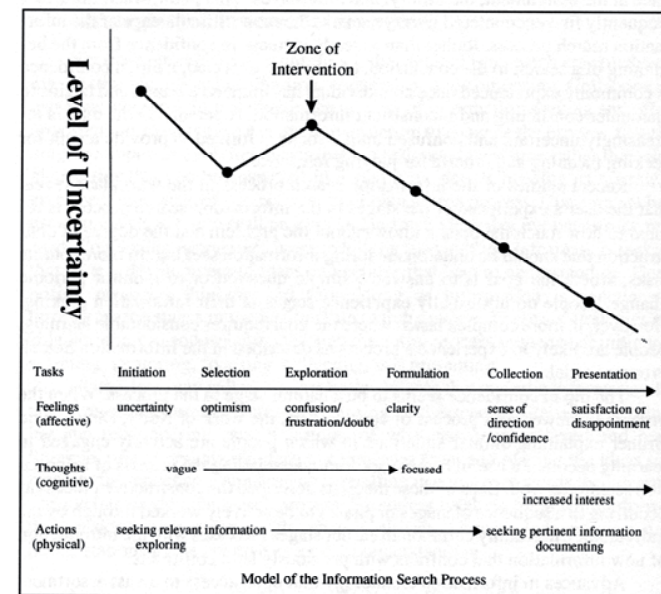


Figure 11.1. Increased Uncertainty Indicates a Zone of Intervention in the ISP.



As can be seen in the graph, the intervention should take place in the exploratory phase of the Information Search Process (ISP). It is there, that two kinds of services need to be in place, in order to provide an environment that enables exploratory behavior by the user seeking meaning.

### Towards a Framework

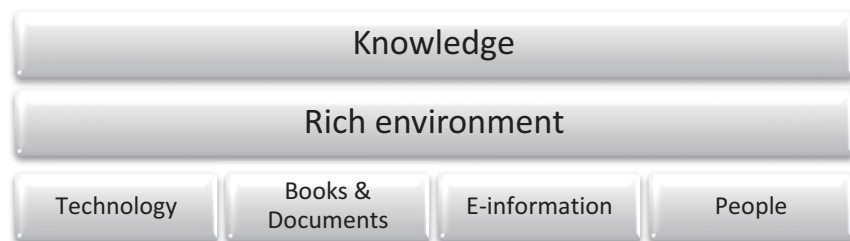
Concluding, in my view this means that for a public information service, the following starting points emerge: knowledge is gained by access to different sources of good quality. This means that quality-checked/reviewed information should be available in abundance. In order for an environment to be truly called 'rich' from the thought-stimulating expertise-breeding serendipity point of view, the quality of the information content is the starting point in all activities of the public information service. Using technological means that support this process in any way possible is highly relevant, so long as they meet the quality standards the process of 'seeking meaning' demands.

Next to that well-trained support personnel that coaches the information seeker in the information and research process is essential.

Only if the public information service delivers both documentary and virtual information, technology and people capable of providing the rich information environment and support, they will live up to their reason for existence: to be breeding ground for knowledge and expertise. Because for making well-founded decisions, only the best knowledge is good enough.

### The Framework

The framework I propose for the public information service can be represented by the following picture; the principles to which it:



The public information service is about providing a sound and qualitative environment in which knowledge, based on good information, finds its ideal breeding ground. It adheres to the principles of development of knowledge, which include (but are not necessarily limited to) the following starting points:

- The public information service exists for the advancement of public knowledge and sees free public access to information as instrumental to this.
- Knowledge is inextricably human and exists in people. It is gained by study, learning, expertise, exchanged in communication between people, and personal experience, and needs a rich environment with good quality information sources in order to develop and grow.

- No single type of information has a monopoly on leading to true knowledge. All sources of good quality are needed for well-founded views and opinions.
- Source selection for the rich environment is based upon explicit quality standards regarding methodology, differentiation in points of view, depth, scope, background, form, date, data carrier.
- It empowers individual citizens by providing the means as well as the personal support to investigate claims to truth, deemed essential for informed decision-making in democratic societies
- It provides an environment where everyone, regardless of background, power, economical position or education, may access the sum of human knowledge in order to use it, or contribute to it, free of charge, and for the common good.

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# Primo at Humboldt Universität zu Berlin

## Using ExLibris' Primo to Create a Subject Gateway

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**Abstract:** In early 2011 the Library of Humboldt-Universität zu Berlin launched its new service PRIMUS, based on ExLibris' "Primo Discovery and Delivery System".

A survey held by OCLC in 2006 revealed that most of the participating students (n=396) perceive information provided by libraries as credible and accurate. At the same time, about 85% find library services very hard to use compared to search engines, which, according to the participants, are easier to handle and display more results in a shorter period. Because of the advantages search engines offer, most participants start their research using Google, Yahoo! etc.

In order to meet their users' needs, libraries have to implement services people grew accustomed to by the usage of search engines.

Three Berlin university libraries already have implemented Primo – their approach to adapt to the change in user habits. When searching within Primo, a query is sent to a central index that incorporates various resources (e.g. OPAC, e-books, e-journals etc.). Due to that central index, the results are displayed homogeneously and faster compared to meta-search services. Thanks to features like faceted browsing, catalogue enrichment, link to full text and integration of Web 2.0 technologies for users, and advantages in license management and consortial practice for libraries, Primo offers a user-centered design – for the library users and the librarians.

Using Primo the Humboldt-Universität zu Berlin Library wants to accomplish a subject gateway in ethnology (EVIFA), making all the features Primo inherits feasible for the users who are interested in this topic.

### Introduction

In 2006 the Online Computer and Library Center conducted a survey (OCLC 2006) about how people (esp. college students) see the information resources libraries offer compared to search engine services. It appears most of the participants think their libraries provide credible and accurate information but at the same time the information is very hard to access. When it comes to picking a resource to start one's research the vast majority chooses a search engine instead of their library's information services. Users want ease of use, ease of access and user-centered design, i.e. functionality aspects they grew accustomed to with the use of search engines like Google (Sadeh, 2007), libraries need to adapt to their users' new needs. Using Google-like "tools selected by the end user is [...] enabling [libraries] to engage people on a massive scale." (Cahill, 2008)

In an attempt to create a search function that is easy to use and easy to access, the Library of Humboldt-Universität zu Berlin (HU Berlin) launched PRIMUS (based on ExLibris' "Primo Discovery and Delivery System"; available at: <http://primus.ub.hu-berlin.de/>) in early 2011, a first step in the right direction to match the users' needs

might have been taken. At the present time, PRIMUS is public for everyone but still being beta-tested. This paper describes the technical background and some unique aspects of this installation.

### Central Index

When looking for information people often start google-ing, i.e. they use a search engine that they believe to incorporate almost the whole World Wide Web. When using library a library and its services the same users are confronted with, compared to sites like Google, complicated interfaces that may not retrieve the results the user wants.

Since there are too many various resources and services one could know about there is a desire for a solution that offers a unified search, so users do not need to search within multiple services. Instead of accessing various databases when a query is submitted in a federated search system (e.g. ExLibris' MetaLib) and taking a longer time-span to retrieve results, Primo provides a central index that incorporates datasets from several different resources, making the content searchable within a few seconds.

Having data from various heterogenous sources harvested and normalized (Sadeh, 2008; Hänger et al 2008) in one index enables features like faceted browsing and homogenous display of results, and can improve consortial practice (e.g. sharing catalogue data within multiple libraries), making synergy effects (Raicher, 2010) possible. An implementation of these kind of features may enhance the library user experience or at least provide tools the users know from other web-services. At the same time, libraries that share their server architecture save work and money, because they can edit and access the same records, and split the server hosting costs.

As a library you can either buy packages from 'Primo Central', a service by ExLibris that provides already compiled data from (commercial) resources, e.g. Springer e-books, or you can index your own sets of data and make your Primo-index grow.

Primo claims to be a 'One-Stop-Shop' (Klien, 2007) – you can get all the things you need within a few clicks. Amazon.com is an obvious comparison because one can search within many different online-shops, browse the things you want, order and buy them without ever needing to leave the Amazon-shop-system.

### Setup of Primo in Berlin and Germany

The Humboldt-Universität zu Berlin Library (available at: [www.ub.hu-berlin.de/](http://www.ub.hu-berlin.de/)) shares one implementation of Primo with at least three other institutions (Freie Universität Berlin, Technische Universität Berlin and University of Mannheim), all accessing the same basic index, but offering a different frontend for their users. Regarding the possibility to share data within a cooperative network, Primo seems very suitable for practice within consortia. This is valuable because it allows libraries to share their server architecture, save work and money, because they can edit and access the same records and split the server hosting costs.

Currently there are ten implementations of Primo within Germany (3x Berlin, Mannheim, Münster, Düsseldorf, Trier, Paderborn). The KIT Karlsruhe and the University of Arts estimate to launch Primo in the near future too.

## Subject Gateway with Primo

The HU Berlin hosts a special subject collection in ethnology (“Volks- und Völkerkunde”) and the corresponding digital library EVIFA (Virtuelle Fachbibliothek Ethnologie/Volkskunde; available at: [www.evifa.de](http://www.evifa.de)). EVIFA plans to build a subject gateway with the use of Primo.

Up to now, the Humboldt-Universität zu Berlin Library is the only institution within Germany, if not worldwide, which plans to create this type of subject gateway.

Already having the relevant data locally saved and being able to convert it into the normalized Primo-PNX-format already suggests the idea to create individual (remixed) resources that apply to a certain field of interest. By expanding this model, one could index the world and crop it to the scientist/user’s necessities.

Instead of browsing several websites related to a subject one would now only need to visit one single webpage that one would have had to search out singly on individual websites. This is a key feature because most users wouldn't know how to search within some of these information systems. When using Google, “people [don't] have to know how to Boolean search” (Cahill, 2008) anymore, and just type their queries without any specific query syntax to retrieve results.

In EVIFA this concept is realized via a quick search using Primo. At the moment EVIFA has implemented relevant Humboldt-Universität zu Berlin Library holdings in general and the special subject collection in ethnology in particular, journal- and e-journal records. If the results are available in an electronic version, direct access can be granted. In case you're interested in an essay or a book you can locate it in the library or initialize interlibrary loan or document delivery within a few clicks.

Still there are other relevant resources that are not implemented into the EVIFA-Primo-Index (yet), but are searchable via MetaLib (available at: [www.evifa.de/cms/evifa-recherche/evifa-metasuche/](http://www.evifa.de/cms/evifa-recherche/evifa-metasuche/)). As long one still has to use multiple services because one cannot offer everything the users may want, people need to be made aware of this situation, to always look for relevant information elsewhere. If you just rest and start to only use Primo (and Google) you be at risk to overlook some relevant data although you get a large list of results. There is a need for information experts who can find and process the information you might have looked for, but with the use of a Google and a “Google-ized” library and the “abundance of results [they supply anyone can think] they're an information expert.” (Cahill, 2008)

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# Where Did All The Good People Go?<sup>1</sup>

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**Abstract:** According to the slogan “Where did all the good people go?” students of the Berlin School of Library and Information Science (IBI) set up, organized and executed a career history study, addressing alumni who graduated in their major subject at the institute between 1999 and 2010. The study was conducted in four workgroups: Organization and planning, survey design, survey administration and analysis. The workflow, including problems and challenges encountered during the project as well as the result are discussed in this paper. It appears almost 2/3 of all the surveyed participants graduated with a “Magister”-degree (64%). Already 35% finished their studies with a Bachelor or Master of Arts. Skills imparted by the IBI like organization management, information literacy, IT-skills and abilities to work autonomously turn out to have influenced the alumni’s careers in a positive way. Especially the theoretical knowledge gained throughout their studies, e.g. information service, library-IT and knowledge management were very helpful in many professional lives. According to the participants, the IBI offers a good learning atmosphere, good support from its lecturers and student advisory service, and seems to prepare its later Alumni successfully for their professional careers.

## Introduction

In line with the realization of the Bologna process, the Berlin School of Library and Information Science has reformed the courses of study in order to support internationally accepted degrees and to enhance job chances. To investigate the impact of this reform, a career history study was conducted addressing alumni who graduated in their major subject at the institute between 1999 and 2010<sup>2</sup>. Participants of the seminar “Where did all the good people go?” set-up, organized and executed the study with the aim to investigate:

1. potential job fields
2. important skills that are required for the professional life and
3. the acceptance of Bachelor and Master-degrees.

<sup>1</sup> The following course participants and tutors contributed to the study: Dr. Gertrud Pannier, Prof. PhD Vivien Petras, Maria Behrendt, Mona Marlena Lemke, Bernd Große, Katja Urwank, Maria Welke, Elin Zincke, Christin Pohl, Maike Schmidt, Violeta Sekulovic, Christiane Waldau, Alissa Blinow, Laura Hoffmann, Maureen Riedel, Anika Witt, Alexandra Baldt, Stefanie Müller, Marie Pangritz, Sabine Richter, Vivian Ruhmann, Violeta Sekulovic, Friederike Wiechert

<sup>2</sup> Corresponding students of the Berlin School of Library and Information science department were analyzed in another career history study (Puppe 2006)

According to the workflow six groups were formed: Alumni- Access, Survey-Design, Survey-Administration, Survey-Analysis, Establishing and Management.

The following section describes the teams as well as their main problems.

## Study Preparation and Execution

The management team was mainly concerned with administrative work like the coordination and delegation of the other teams and jobs.

In order to compile a list of graduates who finished their studies between 1999 and 2010, the “Alumni-Access” team used different internal and external sources like the institutes own social network “IBI Alumni-Portal”, social media portals (XING, Facebook) and called for participation via German mailing lists. Moreover, a project website<sup>3</sup> went online and flyers and posters were distributed. In the end more than 250 names and e-mail-addresses were identified. In the beginning of project the groups discussed the main research questions that should be answered through the study, e.g. area of activities the alumni now work in, required skills on the job market, accreditation of Bachelor- and Master degrees on the job market and evaluation of the course of studies. According to these fields the “Survey-Design” group developed a questionnaire, which was tested and improved through several pretests.

The print pretests as well as the actual online questionnaire were organized by the “Survey-Administration” group. During June 2011 a print-survey was distributed at the “100. Deutscher Bibliothekartag” in Berlin. At the conference 43 questionnaires were received. In addition an online questionnaire using the online survey tool LimeSurvey<sup>4</sup> was provided.

The Survey-Analysis merged both, the print and online survey-data gathered and processed the data for further analysis and interpretation.

## Results

Through the print and online survey a response rate of 38% (102 out of 264 potential participants) was reached.

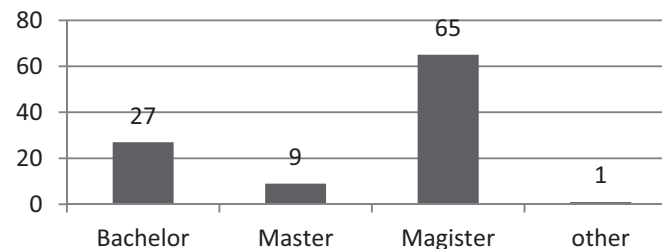


Figure 1: Graduates at IBI between 1999 and 2010

<sup>3</sup> www.ib.hu-berlin.de/verbleibstudie/

<sup>4</sup> tool available at: <http://limesurvey.com/>



It appears, that almost 2/3 of all participants graduated with a Magister degree (64 %).

Already 35 % finished their studies with a Bachelor or Master of Arts. This allocation originates from the Bologna-reform, turning the studies from a Magister to a Bachelor-subject in 2003 (followed by the Master degree in 2005).

The vast majority stated they did not start any further apprenticeships. In addition, most of the respondents are employed at the moment. Altogether 12 % of the participants completed an additional academic study, especially language courses were chosen. Skills and courses offered by the IBI, like organization management, information literacy, IT-skills and abilities to work independently, influenced the alumni careers in a positive way.

Especially the theoretical knowledge gained through the studies, like information service, library-IT and knowledge management were very helpful for most alumni's professional lives. This tendency originates from the high percentage of all Alumni who are working in libraries, museums or archives.

The majority students picked a minor subject in the field of humanities (e.g. German studies, linguistics, sociology, history). It is not quite clear what impact minor subjects have on the graduate's career since there are too many alumni who stated their minor subject was hardly helpful or not relevant at all. Nonetheless, having studied a humanistic subject or computer science turns out to be very helpful within one's career. Correlating the very relevant minor subjects to the main group of alumni who now work in libraries (~51%) or documentation (14.7%) it seems that many subject librarians need this kind of background knowledge.

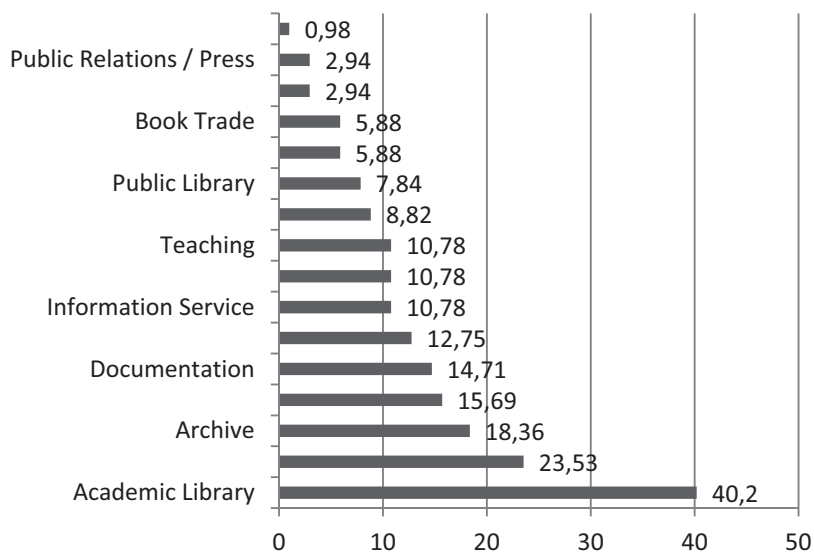


Figure 2: Positions of Alumni (in %)

Altogether 74 of 102 respondents declared they are currently employed, 12 revealed they are not and 16 alumni didn't want to comment on that question.

While answering the survey more than 80% of the participants stated they are content with their current job position.

Apart from the biographies of its alumni, the Berlin School for Library and Information Science is also interested to know which subjects and skills taught were important for the former students throughout their curricula for their job lives.

Due to the high amount of active librarians most of the alumni benefited from courses in subject/author approach, basics in computer technology and library-IT, information service and knowledge management. Concerning soft skills the participants acquired the ability to work independently, information and IT-competences, foreign languages as well as management basics.

According to the participants, the IBI offers a good learning atmosphere and good support from its lecturers and student advisory service. Nevertheless many Alumni asked for more practical experiences throughout their studies.

## Conclusion

The high ratio of 80% employed alumni who work within the field of library and information science shows a strong correlation between the courses of studies offered by the IBI and actual work fields of the former students. Still, many respondents wished training and a more intense instruction into subject and title approach. Likewise half of the respondents found the curriculum to be lacking in giving the students practical experience. The majority of respondents are employed in a position they are content with, mainly in academic libraries, emphasizing the importance of subject and title approach for the IBI.

In the end, having examined the fields the alumni now work in and which skills are in their professional lives successfully, accomplished the first and second main goal of this study. Since we received a comparatively low responds of Bachelor and Master graduates it is hard to state how these new degrees are accepted on the job market. This third main goal could be approached throughout the next career history study again, when more people will have graduated with Bachelor and Master degree.

In general the study showed that the content of teaching offered by the IBI seems to prepare students successfully for their careers, provides a pleasant learning environment and still owns a privileged status as only German institution within the iSchool Caucus.

Next to the research questions presented above, the project attached importance to sustainability aspects. Further career history studies can help to observe trends and will show to what extend the Bologna Reform influences alumni careers.

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# Evaluation of a Geographic Search Engine

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**Curriculum Vitae:** My name is Sandra Pyka, I am 23 years old and live in Gelsenkirchen (Germany). I was born in Ruda Slaska (Poland), since my fifth birthday I live in Germany. In 2008 I finished my graduation from high school and started to study Information Science in Düsseldorf. In 2011 I finished the Bachelor of Arts and have started the Information Science Master degree program. In my free time I often read books, also I like to meet my friends. Furthermore I do lots of sports, for example my favourite sports are jogging and swimming.

**Abstract:** My work deals with the young field of research Geographical Information Retrieval (GIR). It is about an evaluation of search engines in GIR, which was carried out using a retrieval test. For the retrieval test, a system has been developed that displays the top ten search results for 15 queries from Google Maps and Yahoo Local. For local queries the search results are ranked by distance. Test subjects decide which results are relevant to the query.

The results of the retrieval tests are evaluated by using the evaluation metrics, Precision, Average Precision, Precision @ 5, and Mean Average Precision.

Sanderson and Kohler (2004) found that 20% of the searches on the World Wide Web (WWW) provide a geographical context. The online presence of geographic search services on the World Wide Web is supported by the major search engine providers Google, Yahoo and Microsoft with local search options as a separate search service. The geographical search services from Google and Yahoo are based on corporate directories and manual entries (Google Inc., 2011; Yahoo! Germany GmbH, 2011). Additionally, the IR-community creates and evaluates various algorithms and systems for queries with a geographic context (Cardoso & Silva, 2010; Overell, Magalhães & Rüger, 2007). The aim of the geographic information retrieval systems is to prepare and store documents so that the relevant documents are found for the information needs of a user. Moreover search results should also be meaningfully ranked according to their relevance to their users' queries.

The retrieval systems which are developed from the IR-community do not work perfectly. The following problems have been found already:

- The data base to test the developed systems does not represent the World Wide Web properly. The WWW offers a larger and more diverse data base than the retrieval systems which are developed from the IR-community. Therefore the results from their GIR tests are not representative (Cardoso & Silva, 2010; McCurley, 2001).
- The developed search services work only for a limited regional section. They provide information about selected cities or states. They have regional restrictions. But, the WWW is not limited to regional sections and the data is globally available (Den-sham & Reid, 2003; Markowitz, Chen, Suel & Long, 2005).

Even geographical search services in the World Wide Web – Yahoo Local and Google Maps – were tested. I placed different geographic search requests to the search engines Yahoo Local and Google Maps. The following item criticizes the search services on the web:

- The location for local searches is not identified exactly.

Using Figure 1 I want to describe the item. Figure 1 shows the results for the query “gas station in Gelsenkirchen” from Google Maps. The black circle represents the location from which the query was made. The black star shows the nearest gas station from the position. Ideally the gas station is on the first place in the search results. But the nearest gas station from the location which the query was made is not in the hit list. The gas station on the first place in the search results is located about seven kilometers off the location which the query was made.

The ranking of search results shows that the location which the query was made is not clearly identified and the ranking of search results does not work by distance.

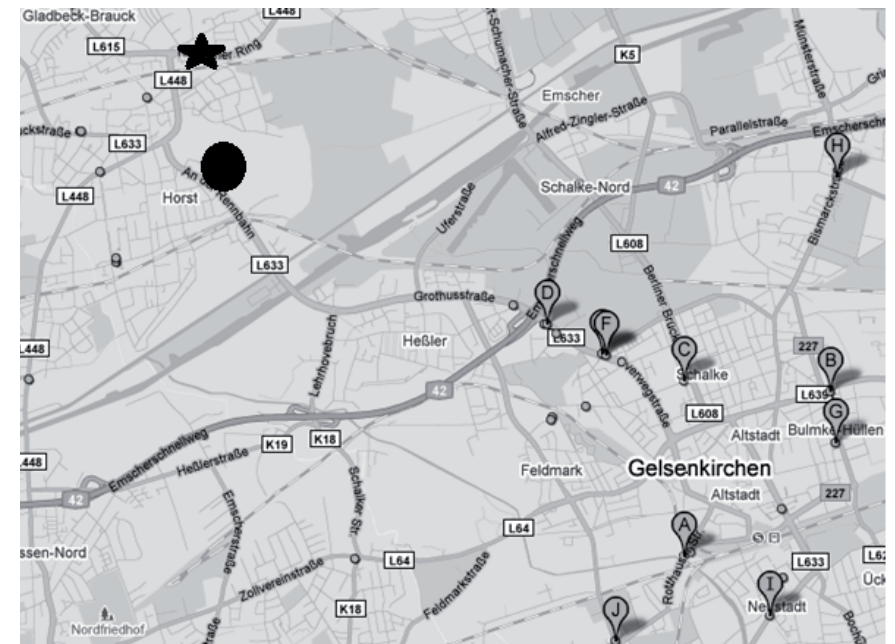


Figure 1: Gas station in Gelsenkirchen (Google Maps, 2011)

Based on the above problems, in this study a system was developed, that for queries with a local reference rank the search results according to the distance of the location of the users.

Evaluations of (geographic) information retrieval systems are an important part of (geographic) information retrieval. They contain information about the quality of retrieval methods and systems (Fuhr, 2005).

On the basis of evaluations the efficiency and effectiveness of (geographic) information retrieval systems can be measured. The efficiency evaluates the retrieval systems by theoretical and empirical analysis. For example the measurement of the system response time to incoming search queries. The quality of the retrieval results is measured by the effectiveness. Consequently, the quality of the rankings of a GIR system is measured by the effectiveness. In the context of retrieval tests, only the effectiveness can be measured (Lewandowski, 2005). Therefore, in this' paper I refer only to the effectiveness (Fuhr, 2005).

The aim is to prove that for queries with a local reference it is useful to rank the search results according to the distance from the location to the user is useful.

The system is divided into three sections: a search interface, a webpage for displaying the search results and a webpage that shows in the results of the evaluation metrics.

For the retrieval test, a system has been developed that displays the top ten search results for 15 queries from Google Maps and Yahoo Local. Using the system search queries can be simulated as with Google Maps and Yahoo Local. For local queries the search results are ranked after the removal the location. Test subjects decide which results are relevant to the query.

The retrieval test proves that it is useful for queries with a local reference to rank the search results according to the distance of the location of the user. In addition, the search results of Google Maps and Yahoo Local are compared in order to determine which search engine delivers better search results. So the most relevant search result has to be on the first place of the ranking.

The retrieval test has shown that:

- for queries with a local reference a ranking of the search results according to the distance of the location of the user is useful,
- the users evaluate the results more precise in known than in unknown environments and
- Google Maps returns more relevant search results than Yahoo Local.

*The retrieval test has shown that users evaluate the results more precise in known than in unknown environments.* Individual talks with the probands have shown that in unknown environments the popularity of attractions is more relevant than the distance of the location of the user. They would accept a longer driving direction. In known environments the distance of the location of the user is one of the most important criteria for the assessment of relevance.

The results provide a general direction, which rank options for the GIR are useful – for queries with a local reference to rank the search results according to the distance of the location of the user. However, a larger number of users and queries provide more meaningful results.

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## Wikileaks and Libraries Why Open Data Are Important

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**Abstract:** Since its start in 2006, Wikileaks has been sharing with the world thousands and millions of e-mails, photos, videos and other data. Wikileaks' motivation is to provide transparency in issues that are of public interest. A similar tendency can be found in science. It is a common expectation, nowadays, that researchers provide transparency. Researchers do this by sharing their raw research data besides publishing an article or a book

Open raw data are increasingly important, to such extent that we are shifting from an information society towards a data society. Thanks to the performing and accessible Internet which allows us to share large amounts of data very easily. This gives a lot of power to every Internet user. At the same time, it enables us to deal with one of the biggest challenges of data: there are so many that it is impossible for one person to deal with them. By linking up many Internet users and many computers into one big network, tasks can be divided. In scientific research large amounts of data are split amongst several teams and computers, anywhere on the world, and each of these groups does a well defined part of the work. So we share raw data not only because of transparency, but also because it is a necessity to work in an efficient way.

What does this all mean for libraries? Is it a task for libraries to collect research data, give access and preserve them, just like they are already doing for journals and books? Which tools will libraries need to make raw data (re-)usable and useful? In this presentation we will illustrate the possible roles for libraries in open data management with experiences from several projects such as ODE ([www.ode-project.eu](http://www.ode-project.eu)).

### Data and Transparency

Since its start in 2006, Wikileaks has been sharing with the world thousands and millions of e-mails, photos, videos and other data. Wikileaks' motivation is to provide transparency in issues that are of public interest. We read on <http://wikileaks.org/About.html>: "Publishing improves transparency, and this transparency creates a better society for all people. Better scrutiny leads to reduced corruption and stronger democracies in all society's institutions, including government, corporations and other organisations. A healthy, vibrant and inquisitive journalistic media plays a vital role in achieving these goals. [...] Scrutiny requires information. Historically, information has been costly in terms of human life, human rights and economics. As a result of tech-

nical advances particularly the Internet and cryptography – the risks of conveying important information can be lowered."

This statement contains some interesting elements; first of all, the reference to transparency leading to more and better democracy. We find a similar reference in U.S. President Obama's statement on his Open Government Initiative ([www.whitehouse.gov/Open/](http://www.whitehouse.gov/Open/)): "My Administration is committed to creating an unprecedented level of Openness in Government. We will work together to ensure the public trust and establish a system of transparency, public participation, and collaboration. Openness will strengthen our democracy and promote efficiency and effectiveness in Government."

The European Commission's Open Public Data initiative (<http://publicdata.eu/>) mentions transparency as an important driver but emphasises also the economical benefit: "In addition to increasing transparency and improving public service delivery, open data creates opportunities for businesses to build new kinds of commercial services around this new data. This is because the data is published in a way which makes it legally and technically easy for anyone to reuse for any purpose. A recent study estimates the market based on European public sector information could be worth as much as €27 billion."

Researchers do not escape from this call for transparency. More and more funding agencies (NIH, Wellcome Trust) require researchers to make their publications (and sometimes even their research data) openly available.

### A Collaborative Effort

A second interesting element in the Wikileaks statement is the mention of the reduced cost of making information available. Indeed, thanks to the performing and accessible Internet, all citizens are able to publish information (Facebook, Twitter etc.) and share large amounts of data (Dropbox, Flickr etc.) very easily and at a marginal cost. This gives a lot of power to every Internet user. The democratisation of publishing (or at least of information sharing) illustrates that we are shifting from an information society (with big amounts of available information, but controlled by a relatively limited group of providers) towards a data society (with huge amounts of data provided by an unlimited group of providers). The role of traditional information intermediaries (libraries, publishers, journalists) is increasingly questioned and will become superfluous unless they create new added values.

But what do we actually mean with data? The National Science Foundation report (2005) distinguishes the following categories of data: observational, computational, experimental, and records. One of the biggest challenges of data is that they are so many that it requires a well organised network of people and computers to analyse them within a reasonable time frame. In scientific research both production and analysis of large datasets are often split amongst several teams and computers all over the world. Wikileaks works in a similar way. This demonstrates that data are not only shared because of transparency but also because of efficiency. Making data openly available allows others to use and re-use data that are expensive or impossible to reproduce. As stated by the European Commission, open data have the potential to give a boost to new innovative services.



## Data and Libraries

What does this all mean for libraries? First of all, it means that data should be collected, made accessible and stored by libraries, because “data are no longer considered as interim products to be discarded once the research reporting them is published. Rather, they have become important sources of scholarly content to be used and re-used” (Borgman (2008)).

It is expected that data(sets), at least if they are described by adequate metadata and/or made machine-readable, will in some cases be able to fully replace traditional publications such as journal articles and books. Accurate metadata are an absolute necessity to make data useful and (re-)usable. Without metadata, one or more of the following aspects of data management will be neglected: data description and identification, organisation, data protection, privacy regulations, ethical issues, visualisation, interpretation, preservation, persistent link between publications and datasets, integrated search, validation and peer review, data quality and integrity, interoperability, control over correct usage, selection, data publication, citation. Actually, one of the most important reasons why researchers do NOT share data is because they lack control over a correct usage of their data.

## Data Sharing

Secondly, libraries should play an active role in raising awareness on data sharing. Apart from the possible misuse mentioned above, researchers might have other reasons for not being in favour of sharing their data, such as: data are theirs and they keep them safely stored on their laptop; and, it doesn't help their career. Libraries might also argue against getting involved in data storage and management: there are too many data; they are too complex, too expensive, briefly there is no money, no people and there are many other challenges.

Nevertheless, there are many more reasons for getting engaged in data management, reasons which we highlight in ODE (Opportunities for Data Exchange, [www.ode-project.eu](http://www.ode-project.eu)), a 2 year's project funded by the European Commission: sharing data avoids duplication, it stimulates the advancement of science, allows re-analysis, adds value to traditional publications and is becoming a requirement for an increasing number of funding agencies. The ODE project looks at this from 3 perspectives: researchers, publishers, libraries and data centres. And we formulate for each of these stakeholders possible roles in our Report on Integration of Data and Publications ([www.libereurope.eu/sites/default/files/ODE-ReportOnIntegrationOfDataAndPublication.pdf](http://www.libereurope.eu/sites/default/files/ODE-ReportOnIntegrationOfDataAndPublication.pdf)).

## The New Special Collections

Data need stable and trustworthy storage and libraries and data centres have an important role to play here. Cf. CLIR (2008). Research data have the potential to become the new special collections of libraries, since they are often unique and/or difficult (expensive) to reproduce. The success of research institutes will highly depend on their ability to generate and manage research data, and to present, interpret and link their own and other's data in an innovative way.

Libraries and data centres can directly contribute to more efficient and transparent research and education. Their success will depend on how successful they are in getting

involved in the research and education workflows, from the very beginning of data production until their publication.

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## Using Social Media to Predict Upcoming Events A Preliminary Framework for an Applied Model

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**Abstract:** With online technology growing at an exponential rate, the lines between work, family, and friends, have blurred. In the past, collaborations were usually geographically centered. However, social media allows us to ignore geography and to participate, quickly and efficiently, in collaborations based on interests and issues, thereby enabling communities of practice that span the globe.

We posit that there are two types of collaborative efforts in today's social media: intentional collaboration and unintentional collaboration. The two types of collaboration are especially important when one is considering how people are interacting with issues such as environmental changes (i.e. global climate change) and social movements (i.e. Arab Spring, Occupy Wall Street). For each issue there are people who are purposively assembled to address the issue in intentional collaborations. There are also people who are being drawn together in organic groups focusing on the issue – we label these as unintentional collaborations.

This paper uses the issue of global climate change to explore how the two threads of intentional and unintentional collaboration may be studied and how reviewing both these perspectives can provide a rich picture. We suggest a preliminary framework for an applied model which may help predict emerging events through the analysis of social media.

There is scientific consensus that the earth is undergoing global climate change, likely correlated with the trapping of greenhouse gasses due to the burning of coal and oil (PCGCC, 2009; Eaker et al, 2011). Global climate change has implications that affect people in many nations. Social media creates an environment of information without borders and allows for collaborations to flourish. The use of social media has enhanced the dissemination of climate change information

Social media encompasses Web 2.0 technologies, which include searching, linking, authoring, tagging, and adding extensions to social media sites, such as Flickr, YouTube, Facebook, and Wikipedia (Becker et al, 2010; Chua et al, 2011). With the ability to customize websites and information contained on these sites, storytelling and information exchange have become personalized. Information exchange and or story-

telling can be done by one person or a whole team of people from around the globe (Bryan & Levine, 2008). Information on global issues, such as climate change, has become only a mouse click away.

There are three main climate change stakeholders to be considered: policy makers, scientists, and citizens (Burgess et al, 2006). The three groups have different agendas when reporting on climate change and even amongst the individuals in the groups, varying opinion and interpretation of the data can present divergent results (Fuess, 2011). Scientists wish to confirm global climate change, uncover its cause, understand the implications, and look for mitigation strategies. Policy makers wish to implement policy to address climate change, based on scientific discoveries. Citizens want to know if global climate change is occurring, how it may affect them, what may be causing it and how they can address the phenomenon as individuals and as citizens of many nations. All three groups of stakeholders currently use social media to discuss global climate change and some of these discussions are collaborations. It would be useful to be able to look at these collaborations and determine if they are complementary or causing dissent since it can be the difference between civil discourse and civil unrest.

Wood and Gray (1991) note that a “collaboration occurs when a group of autonomous stakeholders of a problem domain engage in an interactive process, using shared rules, norms, and structures, to act or decide on issues related to that domain.” However we feel that social media creates an environment with two distinct types of collaborations among the three stakeholders: intentional collaboration and unintentional collaboration. We define as intentional collaborations as deliberate collaborations that occur between professionals and/or members of the public (Shirk et al, 2011). The goal of intentional collaboration is to “build on established knowledge and to contribute new understandings” (Shirk et al, 2011).

We define an unintentional collaboration as a collaboration that emerges organically from the casual actions of individuals who become interested in an issue or cause and issue. These collaborations may assemble established knowledge and seek new understandings, however they are not specifically built on this foundation and they can occur among groups that are defined as stakeholders at a more general level of granularity. Unintentional collaboration may be sparked by an individual's serendipitous discovery of an issue through browsing or as the result of notification through the person's social network. While intentional collaborations rely on the organizational clout of an established entity such as a government or NGO, unintentional collaborations rely on diffuse energy merging to form collaboration without purposeful guidance from an outside entity. By studying both intentional and unintentional collaborations surrounding global climate change we can better understand if the collaborations are complementary and leading towards positive discourse, or if they are creating greater discord which could predict actions outside the cyber world including unrest or civil unrest. The framework we are developing focuses on the collaboration processes that occur in social media. Given space constraints this paper primarily discusses unintentional collaborations.

For intentional collaborations social media is often employed with a premeditated strategy emanating from a central point, likely the agent that is coordinating the collaborating stakeholders. Social media's ability to foster individualized content provides an environment in which unintentional collaborations can emerge quickly and unexpectedly. This can happen in a variety of ways including word-of-mouth influence (Kozinets

et al., 2010) and could lead to the development of idiocultures (Lim et al, 2011). Additionally, as word-of-mouth occurs there may be more people or nodes attached to a particular issue, therefore there is likelihood that the issue will be exposed to a larger, more diverse group (Traud et al 2011).

The reach of an issue is important; however our framework also considers the path leading to the increase in nodes. Let's look at the example of a person reading a friend's wall post about global climate change which points to an environmental scientist's article. The person may take several paths: dismiss or ignore the information, look more deeply into the subject for more information, or repost the information. When the person looks more deeply into the subject or reposts the information we term that "enhancing the network of knowledge." Enhancing the network of knowledge can have many outcomes, and the five we prioritized are: (1) increased awareness of the issue among the initial social network; (2) increased knowledge of the issue among the initial social network; (3) increased membership in the social network for this issue; (4) the emergence of an "issue oriented social network," or; (5) a call to action that mobilizes members of the issue oriented social network to act outside the virtual environment. It is important to consider these outcomes when assessing the nature and strength of an unintentional collaboration.

With so much information flowing on social networking sites, there are artifacts left behind. Social media artifacts include status updates, photos, situational activities, chat, and video (Hogan, 2010). Social media has been used to identify events and the artifacts left behind from those events, i.e., a presidential election, and these artifacts have been used in retrospect to build models of predictability (Becker et al, 2009). Studying unintentional collaboration is difficult since the dynamic nature of the emerging collaboration makes the path of social media use unpredictable and creates difficulty in identifying the artifacts to collect. However, trending as defined by tweets (Chakrabarti & Punera, 2011) or blogs (Klimek, Bayer & Thurner, 2011) can serve as a bellwether for emerging events.

Intentional collaboration can be studied by focusing on the artifacts produced by the social media strategy determined by the active agent. This centralized structure enables the collection of artifacts by providing a predictable place to begin and a more clearly defined path to follow.

The framework we are developing looks at the process of social media collaborations based around important issues. Identifying these processes may allow us to identify emerging collaborations which could help us understand if the intentional and unintentional collaborations are likely to help harmonize or create discord around these issues.

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# What is Thrown into Lethe, and why?

## An Exploratory Study of the Discursive Construction of the Concept of Appraisal<sup>1</sup>

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**Abstract:** The purpose of this paper is to explore how discourse-analytic conceptual genealogy can be used as a complementary approach to broaden the understanding of archives in the ‘information age’. The main argument is that discourse analysis of the historical transformations of pivotal archival concepts can provide important insights into how archives understand and position themselves in relation to contemporary society. The empirical basis of the paper is a historical case study of the archival concept of appraisal, performed using Laclau and Mouffe’s discourse theory. The source material used was approximately 280 pages of documents produced in six appraisal investigations of the Swedish Police’s archives, conducted by the Swedish National Archives in the 1960s, 1970s and 1980s. The results of the study indicate that a range of discourses, including an institution discourse, several research discourses, and a preservation discourse, structured the Swedish National Archives’ appraisal of the police archives during the period of study. The study suggests that there is a need for further empirically based studies of the conceptual construction of important dimensions of archival thought and practice. This is made evident when looking at the results of the case study; the conception of what information is worth preserving in the archives is, in part, determined by contextual and often implicit factors. By using the suggested method of discourse-analytic conceptual genealogy, it is possible to create a better understanding of how an important part of our cultural heritage and societal memory – the one stored in the archives – comes into being.

### Introduction

When thinking about the ‘e’-developments in the field of archives during the last decades, it is easy to focus on their most tangible aspects, such as the opportunities offered and the challenges posed by the relentless development of digital media, the rapid proliferation of information technology devices among the users of the archive, and the implications of making the holdings of the archive available online. Although general in nature, this observation is echoed in much Archival Studies research published in recent years. To mention a few examples, Dryden (2008) examines how copyright issues influence what parts of the archival holdings are selected for online access in archival digitization projects, the studies of Samouelian (2009) and Theimer (2011)

<sup>1</sup> This paper is based on the author’s unpublished master’s thesis in Archival Studies (Sköld, 2010).

look at the concept of Web 2.0 in relation to digital archives, and Huvila (2008) introduces the notion of a web-mediated, participatory archive as a possible way of conceptualizing user orientation and participation in an archival context.

### Aim and Current State of the Research

The purpose of this paper is to demonstrate and discuss how discourse-analytic conceptual genealogy can be used as a complementary approach to broaden the understanding of archives in, to borrow a term from the sociologist Manuel Castells (1996), the ‘information age’. In essence, the main argument is that discourse analysis of the historical transformations of pivotal archival concepts can provide important insights into how archives understand – and consequently, position themselves in relation to – the quickly changing information world of our present day. In spite of the wealth of research articles pointing out both the contingency of the archival conceptual sphere and the indissoluble connection between archival thought and practice in the archives (Cook, 2001, 2005; Cook & Schwartz, 2002; Harris, 2002; Gilliland & McKemish, 2004; Brothman, 2010), few, if any, empirically grounded studies aiming to investigate the conceptual genealogy of archival notions are available.

### Method and Material

In order to delimit the scope of the empirical portion of the study, it will concentrate on the archival concept of appraisal. Appraisal is a well-motivated object of study mainly because it simultaneously holds a central position in archival thought and is one of the most important archival practices (Cox, 2001). In denoting the process of deciding whether to preserve or destroy a certain collection of records, or parts thereof, archival appraisal has direct implications for multiple societal aspects, including the cultural heritage aspect, citizens’ ability to exercise their civil rights, public access to information, organizations’ information management, and the availability of source material for legal and research purposes. The inquiry into the discursive genealogy of the concept of appraisal was performed using Ernesto Laclau and Chantal Mouffe’s discourse theory, as formulated in *Hegemony and Socialist Strategy* (2001). The source material used was documents produced in six appraisal investigations of the Swedish Police’s archives, conducted by the Swedish National Archives in the 1960s, 1970s and 1980s. In its entirety, the material is comprised of approximately 280 pages, of which 50 pages originate from the 1960s, 100 pages from the 1970s, and 130 pages from the 1980s.

### Findings

The results of the study show that an *institution discourse*, several research discourses, and a preservation discourse, structured the Swedish National Archives’ appraisal of the police archives during the period of study. In the institution discourse, appraisal is connected to the needs and preferences of the archive itself. Among other things, the outcome of the appraisal of the police archives is – in this context – dependant on whether or not the archive in question is ‘stable’ or if it is expected to grow. The possibility of being able to greatly reduce the size of the archive with a minimal work effort is an additional, important factor in the construction of appraisal in the institution discourse. The institution discourse is present throughout the entire period of study, although some discursive reconfigurations occur between the 1960s and the 1970s. Dur-



ing the 1970s and 1980s, the institution discourse manages to attain stability and thus remains unchanged. The *research discourses* dictate that appraisal should be performed with the requirements of contemporary and future research in mind. During the 1960s, two research discourses contest the characteristics and demands of future research and thus construct the appraisal of the police archives in different ways. One of the research discourses of the 1960s excludes the other, and in the 1970s and 1980s only one such discourse is present, albeit in slightly varying formations. A common feature of the research discourses of the 1960s, 1970s, and 1980s is the ‘primacy of exception’ – in all the research discourses, the construction of the concept of appraisal is heavily affected by the perceived rarity of records; if a record is believed to represent something other than the norm, it is viewed as highly interesting for future research and consequently as worth keeping in the police archives. The *preservation discourse* appears in the 1970s and retains the same configuration through the 1980s. In the preservation discourse, appraisal is constructed with a basis in the general need of records in the future. Hence, appraisal in the preservation discourse is not constructed to meet the needs of a specific target group or organization such as the institution and research discourses, but to preserve records bearing information of documentary worth for posterity. The materiality of records appears as an additional factor in the preservation discourse of the 1970s and 1980s. More specifically, the discursive construction of appraisal is in part structured by the material condition of the records being appraised – if it is deemed to be sufficient for long-term storage or not. As shown above, the discursive fluctuations between the 1960s and the 1970s were more significant than between the 1970s and the 1980s. The increasing permanence in the discursive construction of appraisal may be connected to several phenomena in the surrounding world, like the dramatic increase in the flow of information – a result of the implementation of various information technologies – taking place during the latter part the period of study, which led the Swedish National Archives to implement more axiomatic appraisal methods.

## Conclusion

The study shows how appraisal as a synchronous and diachronic practice should be understood not only as the result of technological change (e.g., Guericco, 2001; Cunningham, 2008), the rational appliance of laws, or adherence to appraisal policies, but also as a constructed activity that is governed by implicit linguistic structures – discourses. Also, the study suggests that there is a general need for further empirically based studies of the conceptual construction of important dimensions of contemporary archival thought and thus practice. The importance of such studies is made evident when looking at the concept of appraisal. As shown in the historical case study, the conception of what information is worth preserving in the archives and what is disposable is, in part, determined by contextual and often implicit factors. By using the suggested method of discourse-analytic conceptual genealogy, it is possible to create a better understanding of how an important part of our cultural heritage and societal memory – the one stored in the archives – comes into being. In addition, it is possible to use these insights to provide future generations with more pluralistic archival holdings, where the presence of marginalized voices and groups are better represented.

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# The Book and Media Industry in the Age of Digitisation Changes and Reorganisation

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**Abstract:** The content business is opening up new areas of great potential – digital rights and multimedia formats are taking place alongside the international trade in translation rights. In the digital age, traditionally linear value chains are becoming intermeshed to form multidimensional ‘value spaces’. The industry focuses today on cooperating with new partners on new media formats and new ideas, involving the creative industries of films, games and books as well as the ICT sector.

Knowledge and exchange will become relevant factors for the media industry. At the same time, digitisation is strengthening the situation of authors and other content producers. This is demonstrated by self-publishing success stories, such as the first-time novelists Amanda Hocking and John Locke in the US. By consequence, all around the world, publishers, agents and booksellers are repositioning themselves. It’s not enough simply to upload content to the web with the click of a mouse – experts are needed to make information and content available and accessible. An audience has to be actively generated.

About the company: The Frankfurt Book Fair is the biggest book and media fair in the world – with around 7,500 exhibitors from over 110 countries. It also organises the participation of German publishers at around 20 international book fairs. The Frankfurt Book Fair is a subsidiary of the German Publishers & Booksellers Association.

## Introduction

The Frankfurt Book Fair is the largest trade fair for books and media worldwide, which makes it the most important trading place for rights and licenses. This is the venue for the exchange of ideas between the highly diverse actors in the industry, for networking, and for new cooperation and business deals. The Fair must always anticipate today what will be influencing the book industry tomorrow. In recent years, the Frankfurt Book Fair itself has also undergone considerable changes, with digitisation, internationalisation and the move toward consolidation. It continues to track developing trends and to explore new areas of business for those involved in the industry. This paper examines the Frankfurt Book Fair’s own take on the developments and trends in the industry. It is not so much an academic study, but rather a summary of the studies,

analyses, market research and surveys, which the Frankfurt Book Fair has conducted into the situation of the book market, and which it has used to developed its current profile.

## Technology-Driven Book and Media Market

With digitisation, content is no longer tied to specific media or classical formats. It can be produced and distributed digitally, and when combined with other formats it can become truly multimedial. Today, digital processes and products have taken hold across the board; they are now standard in all publishing houses and libraries. However, this technological progress has thrown traditional role models, job descriptions and work processes into disarray. Digitisation has significantly modified the traditionally linear value chains. Instead of national licenses, an increasing number of deals are now negotiated for global rights and even multimedial usage.

## From Diversity of Technologies and Media, to Media Convergence

With the progressive development towards Web 2.0 and Web 3.0, consumers are becoming “prosumers”; publishers must abandon their one-way streets and address the challenges of networking with their customers. This requires a paradigm shift, not just among the publishers, but for the readers and consumers too. In this realm of new opportunities and chances, many publishers are attempting to establish new products. The important thing is to find ways of proceeding beyond the prototype stage and to identify business models that are actually sustainable.

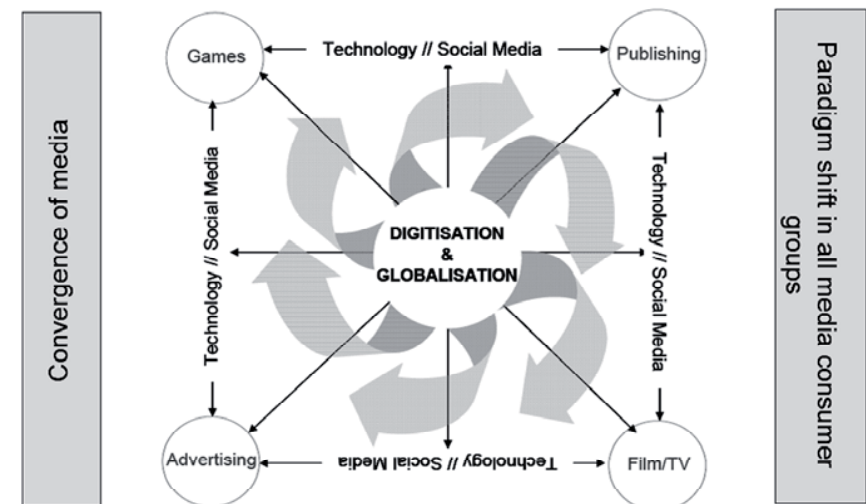


Figure 1: New challenges for the book and media market

© Frankfurt Book Fair, Britta Friedrich

Over the next few years, media convergence will also be the big challenge for the traditional publishing industry. This means that different separate media and approaches to

culture will get closer and become interlinked. The new products that arise from this process will undoubtedly require new kinds of text and new media formats. Separate media formats that have so far existed in parallel will grow together in the future. E-books, apps, social networking platforms, games, blogs – these will all be joined up to create a new form of publishing. The buzz-word of the moment is "enriched content", something which can already be seen in many e-books, and especially in professional information and science publishing.

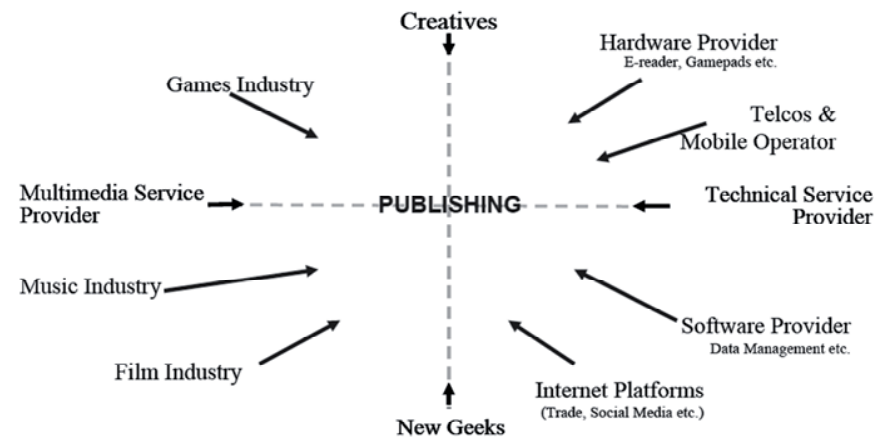


Figure 2: The new publishing: Content meets technology meets social media  
Source: Frankfurt Book Fair

### Content as a Pivotal Success Factor

As different media and technologies converge it is nevertheless becoming clear that none of the players in the media market are able to develop products unless they have a good supply of suitable content that can be constantly replenished. In a largely saturated market, high quality of content will, to an increasing extent, become the distinguishing factor that sets one apart from the competition – whether that content is stories for games and films, interactive apps, or scientific findings. Meanwhile it is becoming ever easier for authors to actively publish their own work. The lowering of the entry barriers to publishing is causing a rise in the number of individuals getting involved – as well as a new form of competition.

For another group in the book industry, however, things are going to get harder. As direct (digital) distribution expands, the aggregators and booksellers will be left behind, unless a clear advantage becomes apparent for the buyers. It will be particularly difficult for campus and specialist bookshops.

To facilitate the exchange of ideas between different players (some of whom have done little networking so far) the Frankfurt Book Fair has broadened its scope – looking outward from the book, which remains central to its identity – to become a “content fair”. The rights trade has always been the core business of the Frankfurt Book Fair.

For several years now, this has been resolutely expanded to include the areas of film, games and merchandising. With the launch of its digital initiative (Frankfurt SPARKS) in 2010, the Frankfurt Book Fair began to create new marketplaces, new forms of knowledge transfer and new networking opportunities. This brings together people from the worlds of publishing, technology, media and the Internet. Together, they are developing intelligent solutions and robust business models for the future.

### Further Success Factors: Managing Knowledge and Attracting Attention

Today, publishers and libraries alike need to familiarise themselves with their readers and customers. This means taking note of their wishes and establishing mutual contacts. As a result, there will be a growth in the number of information sources, which will need to be evaluated and interpreted. Without doubt, “big data” is a topic that the entire book and media industry can not afford to ignore. Those involved in libraries, academic publishing and specialist information have one important advantage, compared to the commercial publishers: they started to address the opportunities presented by new technologies much sooner than their commercial colleagues did. This explains why so much interest is shown in libraries at the Frankfurt Book Fair. On the one hand, the Book Fair is a location for sales and marketing in the classical mould, where orders are placed by clients – including libraries. On the other, it is also a place where divergent positions and interests collide with one another, for example, on topics such as Open Access, or approaches to copyright. In this industry debate, libraries are no longer viewed just as potential buyers; they are also, and above all, interesting as partners of the publishers and of service providers, such as aggregators. The knowledge currently held by libraries is very important for publishers. This refers to metadata, standards for e-production and new products in the field of paid e-content. Many smaller publishers are hesitant to decide on any specific format for their publications or a particular distribution channel. Which platform works and is gaining a foothold in the market? What services are actually relevant for libraries? How can or should one approach Open Access? In a word, what investments are worthwhile?

In recent years, libraries have been changing their role vis-à-vis other players in the market. As universities' data centres are usually attached to their libraries, this is the place where their Open Access content is administered. But this is also the place where the universities can become publishers in their own right. The number of publishers at the Book Fair that have the term “University Press” as part of their name is growing all the time. The Frankfurt Book Fair is also the place for testing and presenting new methods of acquisition. In 2011, Patron Driven Acquisition was discussed at the Fair, as were the new catalogues with functions to make ordering from publishers easier, and the expanded services of content aggregators.<sup>1</sup>

In short, for a variety of reasons libraries are more in demand in the book industry than ever before – in a world that is flooded with knowledge. Professional information and publishing as well as libraries will be even more important in a knowledge-based society and economy.

<sup>1</sup> See also the study by AWS

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## From Individual Hackers to Advanced Persistent Threats How Does Cybercrime Really Affect You?

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**Abstract:** Anonymous taking down VISA, Chinese hackers attacking Google during Operation Aurora, Iranian hacker stealing Diginotar certificates, Stuxnet worm targeting Iranian nuclear facilities. Just a few events that not only challenge the work of security professionals, but that will change the way how the majority of the Internet connected world should deal with the contemporary shift in information technology.

In the corporate world, we have already seen a transformation from dumb, brute-force attacks on the infrastructure and mainframe servers to sophisticated attacks on (web) applications and end-users systems, not infrequently accompanied with social engineering and phishing (Clare, 2011). This paper gives an overview of the prevalent and upcoming techniques used by hackers to obtain valuable pieces of information, either in your organisation or in your personal devices, including your laptop, smart phone and tablet PC.

### Introduction

During the golden age of hacking, between the end eighties and early nineties, hacking was seen as a hobby practiced by (technical) academics that strived to explore the possibilities of computer technology. However, times have changed and hacking is now seen as an act of computer criminality, which is not only used by criminals to gain revenue, but also by nations attacking others during cyber warfare campaigns. For example, some believe that the stolen Diginotar certificates were used by the Iranian government to decrypt civilian communication, in order to spy on Iranian Internet users (Hacquebord, 2011). Operation Aurora was believed to seek source code from Google, Adobe and other high profile companies using unprecedented tactics with encryption, stealth programming and browser exploits (Caldwell, 2011).

While we can find multiple definitions for the term cybercrime in literature (Thomas & Loader, 2000) (Brenner, 2007), we define cybercrime as an act of performing illegal activities towards an organisation or individual, using digital means. The term cybercrime covers a proliferation of purposes and methods of attack. A proper understanding of the nature of these attacks is essential for effective cybercrime defence.

To understand the nature of these attacks, we will first outline the motives of the adversaries. Furthermore, we describe the most common methods of attack. Subsequently, we will introduce a ‘cybercrime defence framework’ that contains both recommendations for short term as well as long term. Finally, our conclusions will be presented.



## What is Cybercrime?

### Purpose of the Attacks

We can identify different goals and motives for cybercrime attacks. Below, an overview is presented.

- Financial gain. Examples include selling e-mail addresses to spammers, selling credit card (or other valuable) information to mafia and Nigerian scammers. Attacks rapidly decrease when the costs of performing such attacks transcend the revenue.
- Fun. Examples include so-called ‘script-kiddies’ and digital vandalism. Prestige and knowledge sharing can be additional motives.
- Activism. Also called ‘hacktivism’, this trend is recurring with the introduction of groups like ‘Anonymous’ and ‘Lulz security’ and can be defined as “highly politicized underground movement using direct action in Cyberspace to attack globalization and corporate domination of the Internet” (Nissenbaum, 2004).
- Espionage. This does not exclusively cover espionage performed by security agencies or organisations, but also by corporations stealing competitor’s digital assets. An example is the recently discovered malware called ‘Duqu’, which makes fingerprints of IT infrastructures and returns them to the attacker.
- Terrorism. Terroristic organisations are not to be underestimated, as digital attacks are becoming low cost weapons with potential high impact results (e.g. if critical infrastructures are targeted).
- Digital warfare. While being recently recognized as an act of war, digital warfare exists longer than one might expect. Already in 1982, it is believed that the CIA installed a backdoor in Soviet pipeline systems that led to a massive explosion (Reed, 2005). A more prevalent example is the Stuxnet worm, which targets specific critical systems (like power grids and nuclear facilities) and is believed to have delayed the Iranian nuclear program (Falliere et al., 2011).
- Breaking the chain. Chained attacks are a remarkable trend. In such an attack an organisation is targeted in order to gain (unauthorised) access to another organisation via a trust relationship.

### Methods of the Attacks

Methods of attack range from purely technological (e.g. hacking) to attacks that exploit human weaknesses (e.g. phishing). Below an overview is presented.

- Hacking. Illegally breaking into digital assets by using technological means. This can be done with publicly known (e.g. if a target does not comply with the prevalent security standards) or unknown (also called ‘zero-day exploits’) vulnerabilities.
- Phishing. The most common form of cybercrime employs both social engineering (e.g. spoofed e-mails purporting to be from legitimate businesses that trick recipients into divulging confidential data) and technical subterfuge (e.g. crimeware planted onto PCs to intercept keystrokes) to steal consumers’ personal identity data and financial account credentials. (APWG, 2010)
- Identity theft. An attacker tries to obtain personal data to forge or clone an identity.

- Denial of Service. An attacker tries to make the targeted computer resource unavailable for normal operation. In a distributed denial of service attack, multiple resources, either attacker controlled machines or volunteers (e.g. the Anonymous’ organized attack on Visa) are used to deface targets as long as possible.
- Advanced Persistent Threat. A phenomenon in which the previous techniques are combined in order to attack high-profile organisations or governments. (Smith & Toppel, 2009). For example, one of the Duqu worm’s actions is to steal digital certificates from attacked computers to help future viruses appear as ‘secure software’ (Venere & Szor, 2011). The difference with the other techniques is the property of ‘persistence’: retaining unauthorised access through various entrances for a long period of time.

## What Should We Do?

From an organisational point of view prevention, detection and response should be balanced accordingly to stop escalation. In modern organisations the IT landscape is too complex to completely prevent cyber incidents. The key issue is therefore early detection to stop escalation. Hence in addition to prevention of incidents, timely detection and adequate response are critical. For that purpose an effective strategy to counter cybercrime balances prevention, detection and response (see Figure 1).

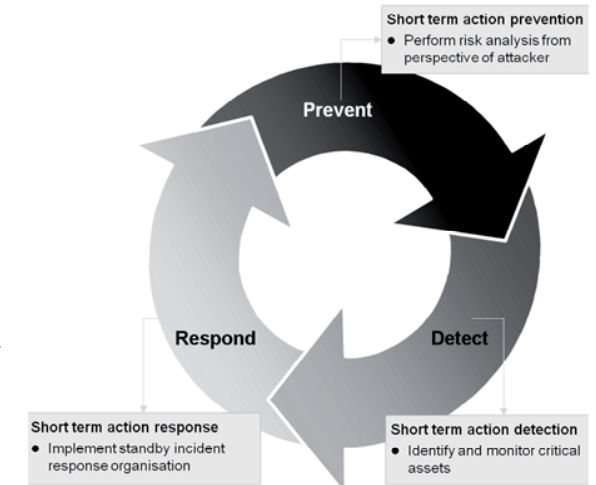


Figure 1: Strategy to balance prevention, detection and response.

## What Should You Do Now?

On the short term, organisations should be prepared for current threats, focusing on understanding the risks the organisation faces, monitoring critical assets and implementing ‘initial’ incident response mechanisms. Being aware of what you have and what makes you vulnerable is critical for the first line of defence. Looking to your organisation from an attacker’s perspective brings additional value to your security response mechanisms. It is of great importance to corporate institutions that such mechanisms are in place regarding processes and governance (e.g. policies and responsibilities). For example, who does initiate the response actions and takes responsibility for an attack when it occurs on a Friday afternoon at 5pm? This also applies to individuals: be aware of what you have and how it makes you vulnerable. On the other hand, it is not presumed that end-users have in-depth security knowledge and therefore they should be protected by (software) vendors.

## What Should You Do on the Long Term?

On the long term, organisations should strive for cost-effective control of their cyber environment, addressing the domains of people, processes and technology. Technology solutions for cybercrime defence require understanding, awareness and efficient processes in order to be truly effective. Therefore, a comprehensive overview from which organisations can build an effective framework for cybercrime defence is presented in Figure 2.

	PREVENT	DETECT	RESPOND
PEOPLE	<ul style="list-style-type: none"> <li>● Risk awareness and technology understanding training (threats, vulnerabilities and impact)</li> <li>● Corporate attitude programs (e.g. conscious learning mode programs)</li> </ul>	<ul style="list-style-type: none"> <li>● Security operations center</li> </ul>	<ul style="list-style-type: none"> <li>● Crisis organisation</li> <li>● Communications</li> </ul>
PROCESSES	<ul style="list-style-type: none"> <li>● Compliance monitoring</li> <li>● Vulnerability monitoring</li> <li>● Security testing</li> <li>● Patch management</li> <li>● Incident preparedness training</li> </ul>	<ul style="list-style-type: none"> <li>● Incident monitoring</li> <li>● Emergency hotline</li> </ul>	<ul style="list-style-type: none"> <li>● Attack mitigation procedures</li> <li>● High-value asset isolation procedures</li> </ul>
TECHNOLOGY	<ul style="list-style-type: none"> <li>● Segmentation</li> <li>● Endpoint and perimeter protection</li> <li>● Security baselines</li> </ul>	<ul style="list-style-type: none"> <li>● Logging and alarming</li> <li>● Incident dashboards</li> </ul>	<ul style="list-style-type: none"> <li>● Forensic analysis</li> </ul>

Figure 1: Cybercrime defence framework.

## Conclusion

Cybercrime is a phenomenon that will not cease to exist in the near future. Therefore, all participants of the Internet connected world should deal with the contemporary shift in information technology: governments, organisations, software designers, hardware vendors, Internet providers and end-users. All should be aware that the impact of cybercrime can only be effectively reduced if there is a synergy between people, processes and technology that balances prevention, detection and response strategies.

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## E-Learning in Motion A Study in the Transition from Paper to Electronic Text Books

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**Abstract:** In this paper, we report three extensive comparative tests for reading and learning by using paper, as well as a variety of interactive study forms. This work is part of the large Amsterdam E-Boekenstad (E-Book city) research project ([www.e-boekenstad.nl](http://www.e-boekenstad.nl) and <http://e-boekenstad.wikispaces.com/>). The idea behind the experiments was to investigate to what extent the materiality of a book determines the usability of the book form (Haas, 1999). Our tests were conducted in 2010 and 2011. In the first test we compared learning from paper, a laptop and an e-ink e-reader. In the second test, we compared paper with reading from web pages. In the third test, we compared paper and material presented into a digital mind map. As it turns out, in a study situation, electronic reading can only beat reading from paper when it offers real added value. For example, this can be accomplished by providing a better overview and shorter comprehensive texts, like we did in our second study. The most important conclusion from all tests is that a simple translation from paper format to electronic format is not enough. Publishers should take advantage of the possibilities new techniques offer, and perhaps discard 'traditional thinking' in terms of linear essay-type books and paragraphs. Below we discuss the three experiments in more detail.

## First Study: Paper versus Laptop versus e-Ink e-Reader

In our first study, 90 students participated. We used the marketing book: 'Digitale Marketing & Communicatie' (Digital Marketing & Communication') by Schuurmans (2008), which is part of the curriculum. Thirty students studied from the paper book. Another thirty students received the material as PDF file and studied the material on their laptops. The last group received the same PDF version, but used a 16 by 20 cm E-ink Irex-1000S e-reader. Before, during, and after the tests group discussions were held. The students were also asked to keep a logbook. The total duration of the experiment was twelve weeks. During this period the students were asked to study only from the version they received at the beginning of the test. The most striking result was that almost no one of the 'e-reader group' ended up studying from the Irex: they put the Irex aside.

They felt that using the Irex e-book was an obstacle in their learning process. The enthusiasm they initially had diminished quickly when they found out that the Irex was relatively slow, both in starting up, as well as in processing and 'turning pages'. Study-

ing people don't read a book from cover to cover, but jump from page to page, and chapter to chapter. They go to and fro through the text and compare pages, pictures and tables. The e-reader was too slow for this type of reading. Related to this fact is that e-versions only shows one page at the time. It does not permit fingers, pencils or small pieces of paper between pages, though electronic bookmarks are available. This is a general problem of e-books. It looks more a scroll than a book. In the e-versions, e-ink readers and laptops, students also couldn't make notes easily. The Irex does allow making notes with a special stylus, but writing legibly demanded serious training and patience. A remarkable insight was that the 'Irex e-reader group' postponed studying for their exam the longest of all groups. The expectations they held beforehand about studying with an e-reader couldn't be met. Apart from technological disadvantages, the design of the e-reader wasn't appealing either. Our young media students could not believe that it was in black and white only, and found it too big to take with them in their bags. The e-reader appeared not to be the cool gadget they thought it would be. E-ink readers are well suited for solid reading, but miss the functions of a laptop. The perception of students is that a novel device must incorporate all functions, a thing nobody expects from a book. Hence, the change from paper to e-ink was considered old-fashioned and not useful. As it turned out, the students from the 'e-reader group' either bought the paper book, used the e-book on a computer or laptop, or found ways to print the e-book.

Also the students using a laptop were unhappy. Also here note making and easy flipping though the pages was impossible. About half of the 'laptop group' students cracked the code of the protected e-book and printed it on paper. Also here, learning such a large text from screen didn't work for them. The laptop back lit screen was also irritating to their eyes. But most important, they couldn't actively study from screen. The e-book was so very much protected, that they couldn't 'copy and paste' parts in order to make a personal summary. In the group sessions they told us that it could have been an advantage of an e-book over a paper book, if one could easily copy stuff into once own summary. Also, they could not make notes in the document. Since this experiment considered a whole book they had to read through, many people got tired and irritated of all the scrolling and they missed a good overview.

The people that did learn from screen either couldn't crack the code or thought buying the paper book was too expensive. It was not the case that they actually preferred learning from screen. Both the Irex, as well as the laptop didn't provide any added value for them. Indeed it hindered them in studying. They missed the necessary overview and they couldn't study actively (underlining things, making notes aside, et cetera).

This leaves the question open, how students would react if they were tested by compulsory reading very long literary texts. After all, many people do like to read fat novels from e-ink readers, as the success of the Kindle proves. It is clear that the way and need to read depends on the subject matter and the ultimate goal of the reader.

And finally the paper group: at first they thought they would miss out on an interesting experience, being in the 'boring' group, but afterwards they had nothing to complain when they learned about the negative experiences of their fellow students.

## Second Study: Paper versus Computer Screen

A group of 197 students took part in our second experiment. Here we used a text on internal communication within companies (Van Riel, 2010). This text was not part of the curriculum, but has relevance within the broader reach of their study programme. Half of the students worked with the paper version. This paper version was made up of a couple of paragraphs from the book, a separate dictionary and a separate list of rehearsal questions about the material. All put together in a paper reader.

The other half of the group studied exactly the same text, though presented on a series of seven consecutive web pages. In this version the text was restructured to fit a computer screen. A mouse fly-over enabled the dictionary, while test questions were situated together with the relevant part of the text.

After 25 minutes of studying, all students made the same, multiple choice, knowledge test. In 6 of the 24 questions the paper group did better, though statistically speaking this was not significant. On the other hand, in 18 cases the 'webpage group' scored better of which 6 had a statistical significance of 90% or higher.

Group discussions were held with 31 students. In these mixed discussions, students explained how they had experienced studying in their respectively different ways. This helped us to better interpret the results of the quantitative part.

The conclusions of this project can be summarized as follows: Students have problems with long consecutive texts and prefer reading comprehensive chunks immediately followed by exercises and questions. Students study actively, that means that they make notes and summarise read material in their own words. This turns out to be very difficult with present day electronic equipment. The fact that the questions are tied to the text in the electronic version contrary to the paper version, where the questions were all at the end of the text, stimulated to answer the questions immediately. So, also here we see that our students dislike long linear texts as was already witnessed in the first test.

## Third Study: Paper with Website versus Interactive Mind Map

Our third and last project entailed a comparative experiment between studying from an interactive mind map (on a pc) and on the other hand a paper document accompanied by a webpage with additional information, such as video material, a definition list, test questions and summaries (see: <http://nyjmolen.home.xs4all.nl/geowijzer.htm>).

The interactive mind map presented exactly the same content and literally the same text, though not as one single linear piece of text. The text was cut up into pieces that were presented in a logical scheme (see: <http://nyjmolen.home.xs4all.nl/mindmap.htm>). Videos, definitions, and test questions were also integrated in the mind map. A total of 173 students participated in this experiment. After studying for 30 minutes they had to fill out a multiple choice knowledge test. In this experiment we discovered no significant differences in the results between the two experimental conditions.

Also here, group discussions were held with, in total, 25 students. In these discussions we learned that the participating students faced problems and advances in both presentations.

Though, the interactive mind map introduced a learning curve, as it was a new way of presentation for them, this way of learning turned out to work quite well for most stu-



dents who used it. Since they had only 30 minutes to study, getting a 'summary', as they perceived the folded mind map was, was particularly useful. If they would have to study larger texts for a longer period, they considered an interactive mind map less useful. This is mainly due to the fact that they were afraid of missing a good overview. Also, they might miss essential information and context when they would only learn from a 'summary', they thought. As we experienced in the first test, scrolling a screen is considered cumbersome. Also, because a mind map can be folded out, it is not clear on first inspection how large the complete map would be. In other words, they found it hard to estimate the size of the study material and consequently how to make a plan on dividing time between the various subjects presented.

Many people in the 'paper group' checked the additional webpage that was provided. There was no material barrier not to do so, as the pc was right in front of them with the page ready on it. In their normal 'study reality' however, most of the students in the discussion groups, hardly ever visit an additional webpage that comes with a paper study book (many study books provide such a site). The barrier is too great and these students don't expect to find anything useful on such a page. Often such websites demand 'complicated' login codes, these students claim. Also, switching from a paper book to an online device is a barrier if you aren't convinced about the advantages it offers. If such a site would indeed provide means to study actively (tests, games, etc.) these students would very much be interested to consult it. When we let them brainstorm about the possibilities of such a website, most of them even got really enthusiastic. It could bring a welcome variety in ways of studying and it could help them to study actively.

These are only a few important results of our studies. Complete reports (in Dutch) are available on our website. In the ideal situation students like to study actively. Very basically that means that they feel the need to write things down on scrap paper, make summaries, underline words et cetera. Ideally it means they can 'do' something in an (inter)active way with the material. Think about tests and games. And that is where the opportunity for e-learning material lies: using the (inter)active potential of technique. Obviously we have to be aware that our results are a mixture of various components, such as the technology we tested, the study methods our students use, as well as, the kind of professional, non-academic, students of our school. So, it proves again that novel technologies are not of a one-size-fits-all kind. Pedagogical methods, the way study material is written, the possible technological dependence of study materials, such as interactive maps and videos, as well as the kind of material, level of abstraction and the ambitions of the students play all a role.

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## Information Sharing as a Habit of Citizenship Is there an Obligation to Share?

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**Abstract:** Citizenship is a key component for a civil society and government. An important question is the role of information and ICT in citizenship. We argue that the core concept of public information depends upon the active participation and obligation of the citizen. There is a tension between citizenship and obligation. The philosophical tenets of the "republican tradition" of citizenship emphasize political agency and involvement in civic affairs, and imply a robust sense of citizen obligation. The "legal status" conception of citizenship is a liberal definition that minimizes obligation and emphasizes equality and individual freedom.

Using examples drawn from the contribution of information by citizens to a number of citizen science projects, we argue that further developments in the realm of ICT will place a growing obligation on citizens to share information with the state and others. Citizen science projects have emerged in the past 10 years; among these are Zooniverse, the Evolution MegaLab, and OPAL (Silvertown, 2009). These projects have capitalized on the growing popularity of the Internet to recruit people to contribute to large data-gathering projects.

Concurrently, individual people are producing more data. The government has been slow to capitalize upon the increase of data artifacts, but Internet companies are using web analytics, data mining, and social networking. Will it be long before the government asks for a similar share of the data emitted by people in their everyday activity?

The way forward must include reciprocal actions on the part of the government, businesses, and individuals. Everyone must be involved for information sharing to benefit the greatest number of people.

## Introduction

Modern data sharing practices and the development of information and communications technology present a challenge to the balance between the benefits and risks of sharing information with the state, organizations, and other individuals. This issue overlaps with ongoing discussions around the definition of citizenship and the balance between rights and obligations presented by membership in modern society. We argue that citizen science is an example of data sharing that is rapidly growing and presents clear benefits to the participants and users of this information. In the future



such an example may be used to argue for the benefits of further information sharing on the part of all citizens.

### Obligation and Citizenship

Bellamy (2008) defines citizenship as:

*a condition of civic equality. It consists of membership of a political community where all citizens can determine the terms of social cooperation on an equal basis. This status not only secures equal rights to the enjoyment of the collective goods provided by the political association but also involves equal duties to promote and sustain them – including the good of democratic citizenship itself.* (17)

He identifies three components of citizenship: membership, rights, and participation. These three components are in a delicate balance and have varied in emphasis over historical time. The "republican tradition", tracing back to the Greek city states, emphasized the obligations of citizens to participate in government and public affairs. The "liberal tradition", tracing back to Rome and the Enlightenment, emphasized the rights of individuals to equal treatment under the law. Other scholars of citizenship support this general outline of the concept (Cohen, 1999; Kymlicka & Norman, 1994; Leydet 2011).

The appropriate balance between obligation and rights continues to be a topic of current discussion. Some have argued that current societal trends are devaluing citizenship through the growth of consumerism and the decline of political community. Potential responses to the perceived decline in citizenship include more participatory fora for people to express their opinions and citizenship education (Bellamy, 2008). Citizen science is one potential avenue for encouraging civic participation and citizenship education.

### Citizen Science and Data Sharing

"Citizen science [is the] participation of the general public in scientific research" (Couvret, Jiguet, Julliard, Levrel, & Teyssedre, 2008). The continuing development of the Internet and other communication technologies over the last 20 years has contributed to the growth of citizen science projects in a number of different disciplines. Some scientists argue that we are entering a new era of scientific discovery, a data-intensive "fourth paradigm" of scientific investigation. In this new paradigm scientists are recording, and analyzing massive amounts of data from new observation and simulation tools (Gray 2009). Citizen science is a tool for cost effectively collecting and analyzing the vast amounts of new data generated by data-intensive science (Bonney et al. 2009; Silvertown 2009).

eBird is one of the more prominent citizen science projects and was officially launched in 2002. The project is sponsored by the Cornell Ornithological Laboratory and has collected over 21 million data points since its inception. Volunteer observers report field observations using standardized online forms. Large-scale phenomenon, such as bird migration, lend themselves to distributed data collection and the result has been significant research advances in understanding bird migration, diseases, and ecology (Sullivan et al., 2009).

These voluntary projects represent a new form of active participation by people in scientific projects. The projects also represent a different attitude toward voluntary information submission. Our argument in this paper is that such benefits may extend beyond the sciences to the information gathering needs of governments and other public organizations. Once the benefits are recognized in a scientific setting it may not be long before other organizations begin to seek out the same benefits and potentially call upon citizens' obligation to share data.

### Implications for Public Information and Data Sharing

The amount of data produced is growing. In the scientific world the data deluge was recognized in 2003 (Hey & Trefethen, 2003) and has been growing steadily ever since (Bell, Hey, & Szalay, 2009). As noted above, citizen scientists have contributed 21 million data points over nine years. Measuring data production in people's everyday lives is more difficult, however, as of July 2010, Facebook reported more than 50 billion photos and 2 trillion objects cached with 130 terabytes of logs every day (Johnson, 2010), all by citizens from around the world.

To date the government and the state have been slow to capitalize on the growing number of data artifacts people leave behind, instead Internet companies have taken the lead through the use of web analytics, data mining, and social networking. Companies like Facebook encourage people to share data with their friends and turn that information over for commercial purposes at the same time. Currently citizens create and share data through organized efforts such as eBird or in organic efforts such as the use of social media including Facebook. This means data sharing is treated as a privilege rather than an obligation or a right. Looking at the benefits and risks of data sharing suggest that people, as citizens of a state, must consider both the obligations and the rights. The argument can be made that it is an obligation for a citizen to participate in data capture and sharing when the focus is on issues that affect society as a whole.

The first benefit suggests data sharing is an obligation since it addresses building a better understanding of the environment both ecologically and sociologically. As people make observations about their environment they are acting as sensors and providing data that would otherwise be too costly to capture effectively. Capturing these data provides a more complete picture than could be observed with technology and magnifies society's ability to understand the environment. It is hoped this understanding could help inform responsible public policy. The second benefit, facilitating citizen engagement with important issues such as understanding the effects of global climate change through recording changes in bird populations, suggests data sharing is a right since it allows all citizens to become equally engaged with important issues that affect them. It is hoped that this engagement will lead to a better educated citizenry that can help shape public policy. The third benefit, that the shared experience from data sharing will bind people together even across geographical boundaries, also suggests a right.

The major risks associated with data sharing could distort citizen obligations and jeopardize citizen rights. If every citizen is a sensor, there is a danger of a loss of privacy and ultimately a loss of trust in fellow citizens and the government. This could have a chilling effect on citizen participation in government and public affairs. Another risk is that the data captured is incorrect thus allowing the dissemination of inaccurate information which could affect the creation of public policy.

Will it be long before the government asks for access to the data emitted by people in their everyday activity? How will the growth of serendipitous data collection be reconciled with the responsibilities of citizenship? The safest way to proceed must include reciprocal actions on the part of the government, businesses, and individuals. For information sharing to benefit the greatest number of people everyone must be involved.

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## Self-service Libraries - a Success Story? A Discourse Analysis of the Discussion of Self-service Libraries in the Daily Press in Sweden and Denmark <sup>1</sup>

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**Abstract:** Public libraries are facing new conditions since the digital revolution, a lot of the services that libraries traditionally offered can now be offered online. Libraries in Denmark and Sweden are trying to adapt to these changes by reinventing themselves in various ways and one of these ways are to become self-service libraries. In a self-service library one can check out books in a machine after opening hours without any staff present. The purpose of this paper is to expose the conscious and unconscious views that appear in the discussion concerning the self-service libraries in Swedish and Danish daily press.

Politicians and library managers in both countries describe this as a technical change with better service to the library users. The users themselves are not interviewed to the same extent. Due to the closing of a vast number of Danish libraries in the last years it was possible for Danish libraries to get financial support from the Danish Agency for Libraries and Media's 6 million Danish kroner fund aimed at supporting the transformation to self-service libraries, but that was not possible in Sweden. The librarian seems to be valued higher in the Swedish articles while the users in the Danish articles come across as more independent. When the Danish articles describe self-service libraries they use words associated with openness while the Swedish articles focus on the lack of staff.

In this study the critical discourse analysis method of Norman Fairclough has been used. The empirical material is derived from 67 articles in both national and local daily press in Sweden and Denmark between July 2nd 2004 and March 15th 2010.

## Introduction

Automation technology is making its entrance in libraries, automatic check out machines are for example already a common sight. Politicians and librarians are trying to figure out how the libraries can benefit from increased automation and one trend is to replace librarians with online services and libraries without any staff.

Self-service libraries were introduced in Denmark in 2007 after a reform that merged municipalities opened up for a reduced spatial density of libraries. This is what happened in Silkeborg-municipality where several of the small-town libraries were closed and replaced with Denmark's first self-service library in the town of Gjern. It was done as a cost saving measure but was celebrated as a success in the press when statistics

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<sup>1</sup> This paper is based on an unpublished master's thesis co-written with Lars Månsson (2010) *Meröppet eller personallöst – En diskursanalys av diskussionen i svensk och dansk dagspress om de obemannade biblioteken [A discourse analysis of the discussion of self-service libraries in the daily press in Sweden and Denmark]*.

showed an increase in lending for the remaining library but a loss in total for the municipality. Swedish experiments with self-service libraries began in 2004 when a vending machine style lending library was installed in a shopping mall in central Stockholm. This project aimed to make library services accessible to new groups. Swedish press later described the project as an expensive venture with disappointing result. How media describe the introduction of self-service and what aspects that is being highlighted in the debate is relevant to study since it helps forming public opinion. Åse Hedemark, that has published research on how media reports about libraries in general, describes why the library as an institution is sensitive to public opinion as follows. "Since the public library is a politically driven institution and depends on cultural policy decisions, the outside world's beliefs and concepts are important to the library's continued legitimacy" (Hedemark, 2009).

The purpose of this paper is to expose the conscious and unconscious views that appear in the discussion concerning the self-service libraries in Swedish and Danish daily press.

### Method and Material

A discourse analysis was made since that is one way to understand how the language is reflected in both conscious and unconscious perceptions. Discourse analysis can be a tool to highlight and increase understanding of the governing ideas and attitudes conveyed from different spheres of influence, such as mass media. The concept is hard to define, but a simplified description could be that it is a way to understand the world (Börjesson & Palmblad, 2007). The method is based on Norman Fairclough's critical discourse analysis, in which keywords are used to analyse text (Fairclough, 2003). Things that were studied was text genre, what the library was called, persons that were interviewed or writers of op-ed, the underlying reasons, name of the librarian and their role, name of users and themes. This type of discourse analysis was chosen because it takes a critical view of "true" knowledge such as articles in daily press. The empirical material is derived from 67 articles (33 Swedish ones and 34 Danish ones) which discussed self-service libraries, in both national and local daily press in Sweden and Denmark between July 2nd 2004 and March 15th 2010.

There has been previous research made in how media reports about libraries before, for example Hedemark (2009), which have been used to gain knowledge about the disciplinary context. However, self-service libraries are a new invention that has not been studied before.

### Findings

The study of the Danish and Swedish daily press resulted in four main categories to identify the underlying reasons. The cost reduction-category for example includes words such as survival strategy, competition and rationalisation, while words such as availability, service development and marketing are placed in the customer perspective-category. Both countries have a similar distribution between words that are seen as related to cost reductions compared to the ones that describe how the customers benefit from the change. Additionally it can be seen that statistics, that seeks to raise lending- and visitor statistics, makes up a large portion of the keywords when the underlying reasons are described in Denmark, whereas reference projects, success in other self-

service libraries, are more central in Swedish press. The reference projects mentioned in Swedish articles are mainly Danish projects while Danish press refers to other Danish self-service projects. The word success is associated with higher lending statistics but the interpretation of the data differs between the articles. An example of this is a project that was reported to have a 50% increase in lending in one article but only 20% in others were figures had been compensated for the closure of surrounding libraries.

One trend that can be seen in the source material is how the two countries differ in terms when self-service libraries are described. Danish newspapers tend to use words that describes the extended opening hours such as 24/7 library and self-service while Swedish newspapers tend describe them in wordings that highlights the lack of staff. The later gives the impression of an article writer that sees this change as a change for the worse while their Danish colleagues focus on the positive effects that the change might bring.

In few articles one could read about happy library users that nowadays are able to use the library more since the opening hours are longer, but more often it is politicians or library managers that are interviewed about what they believe that the users wants and expects. That these groups are interviewed frequently may be explained by that the introduction is a cost saving measure, at least in Denmark. The Swedish articles mention that the new technology is motivated by a wish to free resources and meet the needs of new library users. When the users themselves were interviewed they showed a difference in attitudes, in Sweden they were more suspicious to the new idea and predicted a development to completely unmanned premises but the users on the Danish side mentioned positive aspects like being able to find the time to go to the library more often. There is also a difference in what the articles calls the users, the Danish articles call them borrowers or users while in the Swedish articles they often are called visitors.

The themes that emerged in the articles were that this change was only a technical change, for example the articles focused on the new chip technology. A lot of the Swedish articles discussed CCTV monitoring and if surveillance cameras should be allowed in libraries or not and whether the library users would gain or lose service by this idea. In Denmark CCTV monitoring is allowed but not in Sweden because libraries very rarely are affected by crime and also due to integrity reasons. This led to discussions about who should be denied entrance during the unmanned hours; age limits are for example in place to minimize vandalization and gangs.

Danish articles describes how much financial support from the Danish Agency for Libraries and Media's 6 million Danish kroner funding each library will get for installing the new technology e.g. CCTV, new lending machines and electronic locks. Some of the Swedish articles also mention the cost but the Swedish libraries don't have a fund to get financial support from.

### Conclusions

The purpose of this paper is to expose the conscious and unconscious views that appear in the discussion concerning the self-service libraries in Swedish and Danish daily press. This study shows that the underlying attitudes and perceptions in the Swedish daily press regarding self-service libraries are more negatively charged than the Danish press. This is shown by the words they use to describe self-service libraries and what

they say about the librarian and their work. I can see two explanations for the difference in this study. One is that Denmark has closed libraries at a higher rate during the last few years so that self-service may be seen as a better option than no service at all, while the other difference is how the role of librarian is being mentioned in the studied material. Swedish daily press describe the staff as highly educated driving spirits that are passionate about their job contrary to Danish daily press where they are described as someone who can be replaced with intelligent web services and search engines. This could be explained by a more active participation in public debate by Swedish library professionals, for example in debate articles, while the views of Danish library professional is conveyed in a passive form in interviews and short comments as a part of a news story. It can also be seen that representatives of Danish library interest groups more often is chosen to give their view on changes rather than having first-hand accounts from affected librarians, both groups however argue that this lack of service hardly can be seen as an improvement.

The names the Danish articles calls the users indicate that they are more active themselves than their Swedish counterparts, which in the Swedish articles are called by a more passive name. The words that are being used in the Danish discourse indicate that the Danish library users are independent and rational and that service for openness therefore is a fair trade. This discourse also contains wordings associated with decreased funding and this may depict a closed library as the likely alternative to a self-service library in the eyes of the public. The Danish users are not interviewed as much as the Swedish ones, possibly because the introduction of self-service libraries are cost focused rather than focused on user needs.

The articles also show that the discussion about self-service libraries is a debate that set new technological solutions against personalized service from trained librarians. Some articles describe librarians as a guard that easily can be replaced by CCTV monitoring.

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## University Students' Attitudes towards e-Books Experiences from Hungary

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**Abstract:** My research project aims to provide an overview of the current situation regarding university students and among of e-books, what are students' attitudes toward e-books and e-book readers. The paper is based on a questionnaire survey conducted among a total of 100 university students from the fields of adult education, humanities and social sciences. The results show that e-books and e-book readers have been gaining higher and higher importance in the information society. University students use electronic documents, mainly for the purposes of orientation, study and research. The electronic version of the traditional press was the type of electronic document that students used most often, followed by textbooks and lecture notes. They usually used the possibilities of free downloads provided by electronic libraries like Hungarian Electronic Library or Google Books. Most university students don't read often electronic books – as they prefer the printed versions. Moreover they usually don't really know what the difference is between the e-book and the e-book reader. The paper highlights multiple aspects of the importance of use the e-books and e-book readers especially in the higher education.

## Introduction

In the information society an increasing amount of data is accessible only through digital media. The devices being used to get access to information are developing rapidly. My academic and practical librarian experience shows – as far as the library use and library visits are concerned – that it should be paid more attention to the emergence of electronic books. This is the reason why I started to do research on e-books. Before my research, I considered that there is not given enough importance to the rapid spread of electronic books in Hungary. The success and popularity of the e-books led to the appearance of the e-book readers.

When I decided to do this research, in Hungary has not been existed research about the students' attitudes toward e-books and e-book readers. In addition, I wanted to know if e-books would give place to the printed books. I supposed that these tools will complement each other in everyday life.

In the course of my research one of the biggest problems was how to define e-book. Indeed, there is no unified, punctual definition for e-book; I think this is the reason for the different understanding of the concept. It is therefore not surprising that the majority of students were not aware of what the concept of e-book is.



## Methods

My research is based on a questionnaire, which was distributed in the University of Pécs, Faculty of Adult Education and Human Resources Development. I asked 100 university students. I asked them what they mean on e-books, how often they read e-books and what kind of device they use for reading e-books. Most respondents studied library and information science and andragogy. The sample is not representative therefore the research is only a snapshot of the students' views.

## Results

First we asked our respondents what they read most often. They could select their answers from newspapers, online news portals, printed books and electronic books. The most popular was online press (44%) followed by printed versions of books (24%) and finally electronic books (4%). (Figure 1) All together 70% answered yes to the question whether they read electronic books.

### What do you read most often?

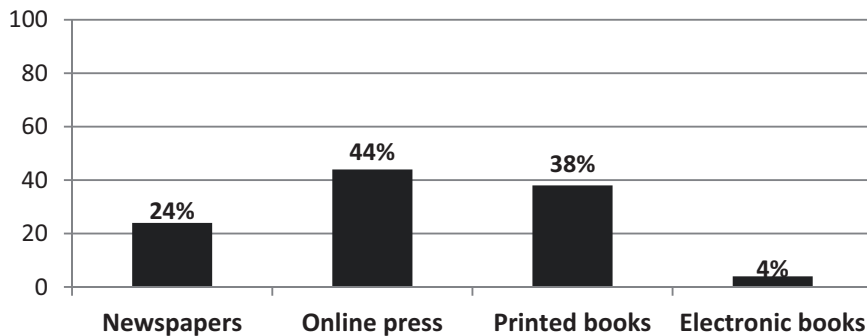


Figure 1

We also asked how often they read electronic books. As figure 2 shows the use of these resources is relatively rare as 16% does not read such documents at all, and more than 50% read e-books more rare than weekly. Nevertheless 61% think that e-books will not gain more importance in the future than it has now.

The next question was what they like to read electrically. The majority of students (67%) read the electronic version of the printed press. On the second and the third place with 34% and 48% there are non-fiction, reference works, textbooks and lecture notes. We can say that university students use electronic documents, mainly for their studies and research. (See: Figure 3)

E-libraries are virtual places, which are providing us with free access to e-books. This is the reason that the questionnaire contains a question giving options (electronic libraries, sources) where they can download electronic documents from. Among the options

Hungarian and English language e-libraries can also be found. The students usually use both of them, because both the Hungarian Electronic Library (70%) and Google Books (40%) are selected often. (Multiple choice was allowed.) (See: Figure 4)

### How often do you read e-books?

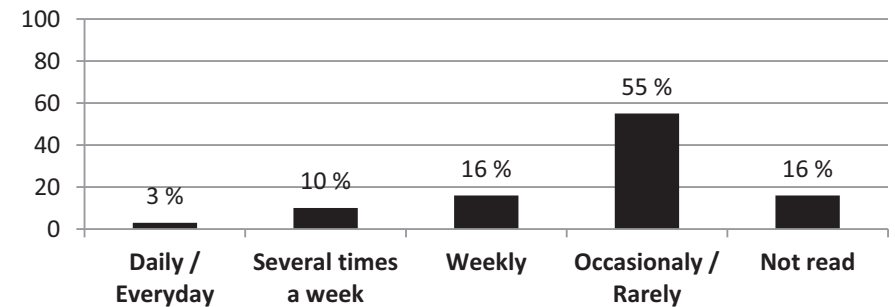


Figure 2

### What do you like reading electrically?

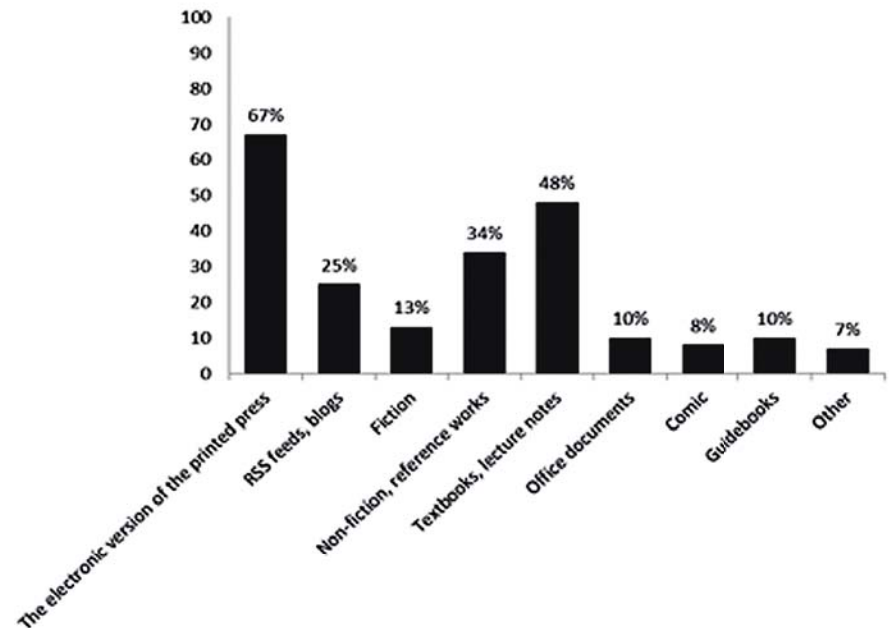


Figure 3

### Which are those electronic libraries/ sources where you usually download electronic documents from?

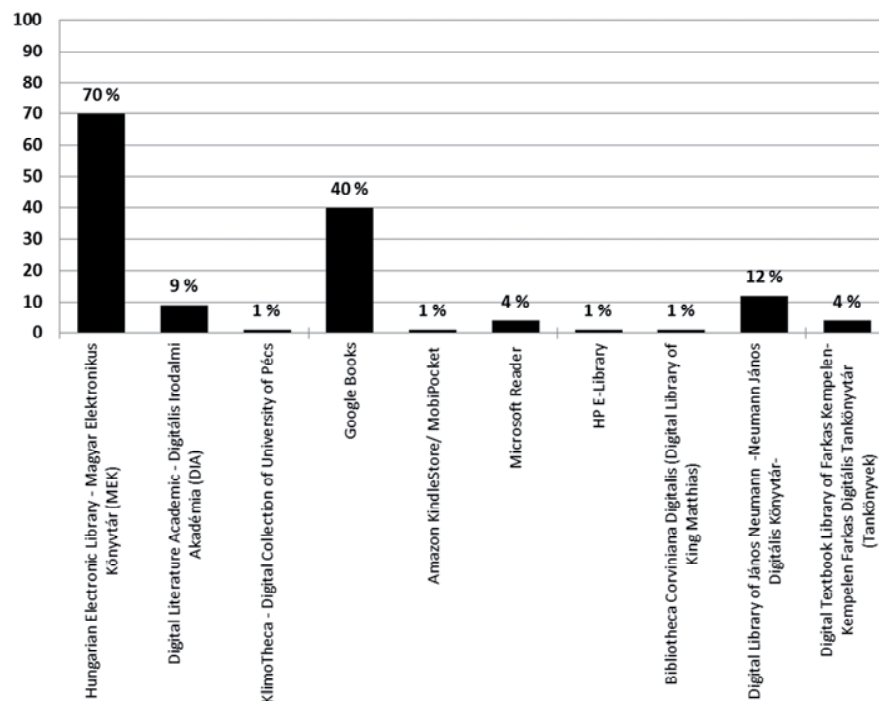


Figure 4

### Discussion and Conclusion

The results show that the Y generation gives higher importance for e-books in their everyday lives. Although they are not aware of this tendency as a great majority thinks that the importance of electronic documents would not be higher in the near future. We observed that this change reached our young respondents. While online press gained place against traditional forms of media we have to wait for a real breakthrough in the case of e-books.

E-books can play an instrumental role in consuming special literature in general and in education in particular. While printed literature used for the students' studies is relatively expensive e-books can give access to knowledge cheaper or even free of charge. This is a major advantage that can be pushed by the role players of higher education. The retrieval of information and documents is also easier using these tools for educational or research purposes.

Nevertheless most university students still use more printed literature than electronic, and they also prefer printed versions when both are available. Furthermore they usually

don't really know what the difference is between the e-book and the e-book reader. This is a challenge for the librarians to provide more information and more relevant services in the field of e-books to be able to take the advantages of these devices.

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## Topics Regarding Access to European Information Institutions European Union so Close and yet so Far

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**Abstract:** From the 1990s, the Parliament, the Council and the European Commission adopted a new approach to disclosure of their working papers. Legal instruments to regulate and allow a fairly broad access to internal working documents of these institutions were created. European institutions also exploited the potential of Information and Communication Technologies, developing new instruments to register the documents produced and make them accessible to the public. The commitment to transparency sought to show a more credible European government, and reduces the democratic deficit. However, the data analysis regarding access to EU institutions documents shows that general public is still far from direct contact with European bodies.

### Transparency as a Prerequisite of Good European Governance

The earliest origins of transparency idea can be identified in Chinese or Greek political doctrines. However, only in eighteenth-century authors, such as Jean-Jacques Rousseau, Immanuel Kant and Jeremy Bentham, is possible to find a more obvious connection with the concept of transparency developed, stated and applied in the twentieth century (Hood, 2006, 5-10).

In the last decades of the twentieth century, transparency has become one of the most important doctrines of governance, creating new rules regarding how the state relates to citizens, how it makes decisions and keeps accounts.

Maastricht Treaty (1992) introduced the principle of transparency of the decision-making process, as the right of access to information, in order to strengthening “the democratic nature of the institutions and the public's confidence in the administration”. This position was reinforced in the European Councils held in Birmingham (October, 1992), Edinburgh (December, 1992) and Copenhagen (June, 1993) and by the Commission work in this area.

During 1993-1994, the Council, the Commission and later the European Parliament adopted a common Code of Conduct on Access to Document (1993). The provisions applied to documents in the possession of each of the institutions, regardless of the format in which they were registered. Documents in the possession of an institution but

not produced by it were not covered by the regulations, meaning that information authored externally could not be accessed, which was a significant restriction.

Documents could be accessed physically by means of in loco consultation or the forwarding of a copy at the expense of the applicant. However, at that time there was no public register of documents and ordinary citizens could experience great difficulty in supplying the relevant forms of identification to enable them to consult the material they wanted. Moreover, access to a document could be denied in a wide range of circumstances defined in generalised terms, including protection of public interests, protection of the individual and individual privacy, protection of commercial and industrial secrecy, protection of Community financial interests, protection of any requested confidentiality or in order to guarantee secrecy for internal Council and Commission decisions.

These EU measures regarding document access had a dual aim. They were directed towards opening up European bodies to public scrutiny, providing citizens with access to information that could enable them to take part in the debate on Europe, and they also helped to make the legislative process more transparent by improving information on the decision-making process itself.

In 1997, the Amsterdam Treaty established that decisions should be taken as openly as possible and as closely as possible to the citizen. In addition, the right of access to information was embedded by the Treaty with Article 255 providing to any citizen of the Union and to any natural or legal person residing or having its registered office in a Member State the right to access European Parliament, Council and Commission documents, without the need to specify any reason. Following this article, European institutions adopted Regulation 1049/2001 on public access to European Parliament, Council and Commission documents.

Regulation 1049/2001 adopted a very broad definition of a document as «[...] any content, whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording) concerning a matter relating to the policies, activities and decisions falling within the institution's sphere of responsibility» (Article 3). This approach refers to the right of access to information rather than the right of access to documents, given that the medium is not a defining element in terms of granting or denying access to content. Anyway, not all documents must be made public but any refusal of access could only constitute an exception and had to be justified. A new important issue of the Regulation was the possibility of partial access to documents (Article 4). The right to full access prevailed: all documents held by an institution, including those produced internally and those received from third parties, had to be accessible to the public (Article 2).

In 2005, Commission launched the “European Transparency Initiative” and start to review the Regulation 1049/2001. The European Parliament gave its opinion on the Regulation through the work of MEPs Michael Cashman (2006) and Marco Cappato (2008). Following this work and to achieve greater transparency in the legislative process and bringing EU provisions into alignment with the Aarhus Convention regarding access to environment information, European Commission presented a proposal to change the Regulation 1049/2001 (COM (2008) 229). This reformulation led to an intense debate in Parliament. The discussion focused mainly on the definition of the

concept of “document” (Article 3), on the Regulation scope of application (Article 2), on relation between the right of access to documents and the right to personal data protection (Article 4) and on Members States rights to restrict access to their own documents.

The Commission Proposal defines document as “(...) any content whatever its medium (written on paper or stored in electronic form or as a sound, visual or audiovisual recording) concerning a matter relating to the policies, activities and decisions falling within the institution's sphere of responsibility drawn-up by an institution and formally transmitted to one or more recipients or otherwise registered, or received by an institution; data contained in electronic storage, processing and retrieval systems are documents if they can be extracted in the form of a printout or electronic-format copy using the available tools for the exploitation of the system” (Article 3a). This wording implies a more restricted access to documents because it excludes the information produced for internal circulation. Moreover, contrary to Regulation 1041/2001, this proposal does not seem to necessarily consider the databases as documents.

Due to these and other aspects that were not appreciated by the Parliament, in 2009, the Cashman Report was voted with substantial amendments to the Commission proposal. However, Parliament decided not to adopt any legislative resolution and no formal position was forged in this first reading.

#### EU Information Provision via Europa Gateway

Following Regulation 1049/2001, the European Parliament, the Council and the Commission created Internet tools for documents register. Citizens were therefore guaranteed knowledge of unpublished content relating to all institutional spheres of activity. Internal documents, including those that were not yet definitive versions or were not destined to be published, became identifiable and could be consulted and accessed by actors who were not EU staff. It became possible to consult, for example, preparatory decision-making and policy initiative documents, including preliminary drafts, interim reports, draft legislative proposals or decisions, explanatory documents, statistics, memoranda or studies, as well as correspondence between institutions, Member States, citizens and companies.

The European Parliament created the register of documents which provided access to documents produced since 1999.<sup>1</sup>

The public register of Council documents, available since 1 January 1999, contains references for this institution documents which are based on an automatic filing system. Therefore non-sensitive documents presented to the Council or one of its preparatory bodies which are destined to serve as a basis for deliberations, and documents that may influence decision-making processes or reflect the state of work on a particular dossier are automatically cited in the register.<sup>2</sup>

<sup>1</sup> Available at [www.europarl.europa.eu/RegistreWeb/search/simple.htm?language=EN](http://www.europarl.europa.eu/RegistreWeb/search/simple.htm?language=EN) [Access 29.11.2011].

<sup>2</sup> Available at [www.consilium.europa.eu/documents?lang=en](http://www.consilium.europa.eu/documents?lang=en) [Access 29.11.2011].

The Commission register includes documents with COM references (legislative proposals, other communications and reports prepared by the Commission for the Council and/or other institutions and the respective preparatory documents), C references (referring to official documents that are the responsibility of the Commission, some of which are forwarded to the Council or Parliament for information purposes), agendas (from 2003 onwards) and minutes of Commission meetings (from 2001 onwards) and SEC documents (not classified in other categories).<sup>3</sup>

The Commission documents register supplements the PreLex database on institutional procedures.<sup>4</sup> This enables a systematic and integrated view to see the involvement of European institutions (the European Parliament, Council, European Economic and Social Committee, Committee of the Regions, Central European Bank, Court of Justice, etc) in the decision-making process. With PreLex the procedural phase, institutional decisions, names of individuals, services responsible and references for documents can be identified. The database follows all Commission proposals (legislative and budget proposals and the signing of international agreements) and communications from the time they are sent to the Council or the European Parliament. The hyperlinks allow for direct access to the electronic texts available.

In addition to these main resources, the European institutions also offer other databases that allow working documents to be accessed and the decision-making process and the role of the actors involved to be monitored. The Council, for example, provides a database for ordinary legislative procedures, the Parliament offers the European Parliament’s Legislative Observatory (OEIL) and the Commission has created the DORIE database, an archive of documents on institutional matters. The archives of each institution also offer access to internal documents dating back over 30 years.

It can therefore be concluded that, via the Internet, European citizens’ benefit from a wide range of mechanisms that provide access to documents and institutional procedures. Data on the use of these resources will now be analysed.

Table 1: Documents entered each year in the register (Parliament, Council & Commission)<sup>5</sup>

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Parliament	28.828	33.654	28.356	30.833	43.468	41.930	54.980	48.711	51.457
Council	375.154	92.381	116.181	113.398	152.006	161.100	185.292	176.099	174.146
Commission	11.889	11.876	12.808	12.394	12.623	13.179	15.695	18.063	18.661

<sup>3</sup> Available at <http://ec.europa.eu/transparency/regdoc/recherche.cfm?CL=en> [Access 29.11.2011].

<sup>4</sup> Available at <http://ec.europa.eu/prelex/apcnet.cfm?CL=en> [Access 29.11.2011].

<sup>5</sup> All data were retrieved from the annual reports on public access to documents from European Parliament, Council and Commission. Cf. [www.europarl.europa.eu/RegistreWeb/information/report.htm?language=EN](http://www.europarl.europa.eu/RegistreWeb/information/report.htm?language=EN) [Access 29.11.2011]; [www.consilium.europa.eu/documents/policy-regarding-access-to-council-documents/basic-texts-on-transparency.aspx?lang=en](http://www.consilium.europa.eu/documents/policy-regarding-access-to-council-documents/basic-texts-on-transparency.aspx?lang=en) [Access 29.11.2011]; and [http://ec.europa.eu/transparency/access\\_documents/index\\_en.htm#](http://ec.europa.eu/transparency/access_documents/index_en.htm#) [Access 29.11.2011].



Table 1 shows that the amount of documents entered in the Council register is each year always higher than those in the Parliament and the Commission register, although it should be borne in mind that the Council calculates all the language versions of each document, which exponentially increases the number of registrations since some may exist in two and others in all 22 of the official languages. In order to obtain a more accurate and coherent picture it would therefore be convenient for all institutions to use the same criteria to calculate the number of registrations available. It should also be noted that the method for calculating existing registrations is not clearly explained in the reports. It would be important to establish some common criteria to all the institutions in order obtain more specific and comparable data.

Table 2: Number of visits to Council and Commission register<sup>6</sup>

	2005	2006	2007	2008	2009	2010
Council	1.064.039	1.722.354	2.078.602	895.299	1.176.017	1.411.312
Commission	109.780	71.241	39.013	40.845	44.538	48.557

Table 2 shows that the Council register is used much more intensively than the Commission register. In terms of numbers of users, there has been a decrease over time in the use of the Commission register, whereas the figures for the Council register have always risen. Although the reports do not provide any explanations for these numbers, it may be recalled that the Commission, makes intensive use of the PreLex database in addition to its documents register, and this may be the reason why users feel less need to make use of the register.

## Conclusions

Transparency policy of EU institutions has become increasingly an urgent mission as the scope of European decisions was more extensive, affecting almost all aspects of Member States citizens daily life. In this context, the opacity or administrative secrecy could foster distrust and a tense relationship with citizens, making the acceptance of the Community integration process.

For an effective transparency the involvement of citizens are needed. Citizens must take part in decisions and have to take responsibility. Transparency is realized only in a dynamic process of participation, involving the institutions and the public. However, while transparency seems to be moving at a good pace, through appropriate legislation and the use of ICT, the dynamics of participation runs out with a very weak involvement of citizens. Citizens seem still very marked by the traditional model of relationships with public institutions where they had to be obedient and passive receivers. Even when they take a more proactive and questioning role, it's mainly as personal and punctual complaint, not inquiring general procedures. Although the European institutions have legal and technological tools that allow greater proximity to citizens, it is necessary to develop initiatives to make the EU accessible to all.

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## E-Motion of the Manager of Cultural Institutions Experiences within ERASMUS IP LibCMASS at State University of Library Studies and Information Technologies in Sofia

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**Abstract:** ERASMUS and its related programmes offer important opportunities to many scholar-  
ly fields of education and training such as Library, Information and Archive Science. These  
opportunities also bring cultural interaction between the countries and students. Bulgaria, Croatia  
and Turkey, 3 countries that share lots of similarities through their cultures but they have many  
differences in their everyday lives. They share a part of history but, more important, are keen to  
build a common future. One of the efforts on that path was an ERASMUS IP ‘Library, Infor-  
mation and Cultural Management – Academic Summer School’ (2011-ERA-IP-7) held in Sofia in  
fall 2011. This paper focuses on the analysis of the programme, in terms of organization, re-  
sources involved and lessons learned as well as current and international experiences of pro-  
gramme participants.

### Introduction

Library and information science (LIS) is one of the fields under the effect of highly  
changing environments and developments of technology. Changing environments and  
advancements in technology have also affected LIS education as well. In this context  
LIS departments generally update their curriculums and participate in projects such as  
ERASMUS. IP ‘Library, Information and Cultural Management – Academic Summer  
School’ (IP LibCMASS, 4-17 September 2011, 2011-ERA-IP-7), which is one of the  
related projects carried out by three countries within the scope of ERASMUS Lifelong

Learning Programme. This project aims to create interdisciplinary educational pro-  
gramme and learning environment in which participants will acquire the knowledge  
and skills relating to the contemporary challenges of the management of libraries, mu-  
seums, archives and information technology centers and the policy response to higher  
education and the European Union initiative on “New skills for new jobs”. The target  
group are students (BSc and MSc) in library and computer science, information tech-  
nology and cultural and historical heritage from State University of Library Studies and  
Information Technologies (SULSIT, Sofia), Hacettepe University in Ankara (Turkey)  
and University of Zagreb (Croatia). Within the context of this aim these universities  
were chosen to collaborate within Intensive Programme in terms of their similarities  
such as small scholarly communities, small languages and similar LIS education struc-  
tures but also strong will to educate and prepare new young professionals for the chal-  
lenges in a highly changing working and studying environments (Todorova, 2011).

### Foundations of the LIS Education or Why Is the Intensive Programme Needed

Despite the problems three countries are facing, they are well aware of the importance  
of new information and communication technologies implementation and all show a  
great interest in education of the new library professionals. Bulgaria, with its Sofia  
University “St. Kliment Ohridski” has the longest tradition, since the undergraduate  
programs for the education of library professionals are taught there since 1924. Similar  
to Croatian, whose programs for the LIS professional education formally started in  
1986 when the Department of Information Sciences at the Faculty of Humanities and  
Social sciences was founded, Bulgarian programs are offered as full-time study pro-  
grams but also as part-time studies which can be very useful for the library employers  
interested in gaining professional degree. On the other hand Turkish librarianship edu-  
cation started with courses after the first course was offered by Istanbul University  
Library in 1925 and LIS programs was started in 1954 at the Ankara University as  
undergraduate programs. That is to obtain enhancement of theoretical knowledge with  
the practical aspects.

Many students are not as lucky as that and often feel very confused when the need to  
bridge this two aspects occurs. Universities, confronted with the demands of competi-  
tive markets, try to establish interdisciplinary curriculums but sometimes internal or  
external conditions are standing in the way of its fulfillment.

That is one of the reasons programs like Intensive Programme are needed; wisely de-  
signed and with the right candidates involved, this programs, even though they are very  
short-termed, can offer valuable experiences. IP Library, Information and Cultural  
Management – Academic Summer School was especially significant because of the  
field it covered, it aimed to provide its participants with not only international but in-  
terdisciplinary experience as well so that, throughout the best practices from every  
field, profile of the new cultural manager can arise.

### Communication and Collaboration or How Was It to Work as a Part of International and Interdisciplinary Team

After the selection procedure and summer break, on 4th September the IP LibCMASS  
started in SULSIT, Sofia. It was obvious that upcoming 14 days will be very hard-  
working but also very enjoyable since the program expected full class arrangements

from 9 to approximately 4.30 p.m. but it was also very clear that the coordinators did excellent job: the group of 23 students (14 from Croatia and Turkey and 9 from Bulgaria) was heterogenous in every aspect; there were Bachelor and Master level students involved, all of them with different interests under the scope of library and information studies; some of them were interested in cultural management and heritage preservation, some in heritage presentation in real or virtual world, some were more computer-oriented and interested in implementation of new IC technologies to the cultural institutions, and some were particularly interested in digital libraries but they all had one thing in common, a wish to exchange their experiences and to grow better in their own fields. This aim was supported by the methodology of the program as well; firstly through assignments given to students in their national teams and, most importantly, by mixing and dividing students into international teams collaborating in workshops and presentations during the classes. The diversity was also shown through 4 main topics of the program: library, information and cultural management; preservation and access to cultural heritage and digital libraries; intellectual property and information brokerage and information technology in libraries, archives and other cultural institutions combined with information literacy presented to the students by 18 lecturers (12 from Bulgaria, 4 from Croatia and 2 from Turkey), all of them well-known experts in the field of their expertise. Cooperation, collaboration and communication are three words best describing the program. Project management and communication teacher-student was based on its own IP LibCMASS website <http://libcmass.unibit.bg/> and e-learning platform ILIAS, which guaranteed the long-term sustainability of the IP LibCMASS. It was created and used for all project preparation and implementation work. All related material and information for lecturers and students as itinerary, tasks, educational materials, bibliography, organizational information, useful links, news and PR activities and etc. could be found there on time. Website was a central communication place during the project but also afterwards, for now it also serves as a platform for programme and material evaluation, remarks and photo documentation.

### Findings

The final evaluation of Erasmus IP in Sofia has been documented on the penultimate day; two questionnaires were filled in, one by students and the other by lecturers. Most lecturers graded the program with highest marks, especially the project management, information and communication and offered cultural and guiding tours. Contact to other participating lecturers and students during IP programme was evaluated as excellent or very good by fourteen lecturers (77.7%) and 94.4% of lecturers have evaluated IP excellent or very good in terms of cooperation with students during lecture/workshops.

In the second part of the assessment of the IP LibCMASS another questionnaire, which aimed to provide critical information about IP in terms of general overview, was filled by 23 student participants. Satisfaction levels of the students about academic activities and pedagogical aspects of IP are displayed in Table 1.

As it was highlighted in Table 1, the capabilities and expertise of the professors and the activities such as workshops, international and national team tasks and other activities besides the general course are rated as very high by more than 80% of the students. On the other hand 43.4% of the students have evaluated the number of hours taught as very highly or highly satisfactory and 59.1% of them have described the expected learning

outcomes as very highly satisfactory. At the end of the analysis, 87% of students evaluated the IP in general as excellent while the other 13% rated it as very good.

Table 1. Satisfaction level of participants about academic activities and pedagogical aspects of IP LibCMASS

	Very High		High		N/A		Satisfactory	
	N	%	N	%	N	%	N	%
The number of hours taught	10	43.4	10	43.4	3	13.2	0	0.0
The equipment used*	16	72.7	6	26.3	0	0.0	0	0.0
The capabilities and expertise of the professors*	19	86.4	2	9.1	1	4.5	0	0.0
The overall quality of teaching	15	65.2	6	26.0	1	4.4	1	4.4
The expected learning outcomes*	13	59.1	8	36.4	0	0.0	1	4.5
The activities besides the general course*	18	81.8	4	17.2	0	0.0	0	0.0

\*1 participant didn't reply to this question

### Conclusion

The IP LibCMASS intended to show that the most important thing for a new cultural professional is to communicate and collaborate; to be in the motion all the time for that it might be the only way "small" scholarly communities can be competitive on the scholarly and business market. Collaboration between students with different cultural and educational backgrounds was a tremendous enrichment for the future and resulted in stimulating professional and personal partnerships. The fact that universities from Paris and Vilnius have shown interest to be a part of the project in Zagreb 2012 and Ankara 2013 is only one more detail witnessing its quality.

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## Parma Co-Lab Constructing Crossroad Environment between Research and Teaching

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**Abstract:** Some experts and professors at University of Parma spontaneously join together to create a virtual organization to transcend barriers and create invisible bridges between disciplines. Co-Lab aims to meet needs concerning knowledge and learning development, collaboration for education by applying Open Educational and Social Network Resources. Communication and sharing are obtained using different tools and channels, considering targets and context.

The problem is not about IT tools, already available to use, but the creation of a mindset and paradigmatic change in methodologies that must include advanced tutoring, coaching and the involvement of all actors. Collaboration and the development of a project ground for everybody might upgrade learning performances inside the University. Data are needed about users, technologies, activities, and expectations. Educational frameworks such as Masters and courses have been reinterpreted as collaboration experiences and methods to gather actors have been designed through an experimental environment. Interviews to teachers and students are used to tune up the type of service needed. Experimental approach is therefore needed in order to develop methods and good practices. Support and tutoring resources can be trained through an “uncourse”, to apply learning tools and research contexts by working on real projects together. Organization, technology and knowledge are considered as entangled and all necessary to Co-Lab development. Heterogeneous background of the start up community is an added value. The metaphor of the crossroad represents the multilayered web of creative interactions needed to work and collaborate in a teaching and researching digital environment.

### Background and Purpose. The Problem.

In present knowledge society learning and educational methods and ways of thinking are basic and important elements, together with techniques for knowledge creation.

We are facing a situation that shows a spontaneous and spread use by citizens of network and technologies as dialogue and social environment, for confrontation and opinion exchange.

It is necessary to consider at the same time technologies, knowledge and culture for learning (Hutchison, 2006).

Literature on e-learning underlines that some obstacles for online or blended learning diffusion can be teachers' lack of technological expertise, sustainability and shortage of resources, including sometimes the quality of products. Such problems are also present at University of Parma; in spite of the availability of some updated IT applications and tools, resources are often not enough to supply an organizational support to teaching.

### The Possible Solution

The proposal rose up inside the Faculty of Arts and Philosophy among a group of teachers and experts, sensitive enough to information technology innovation and willing to solve precise teaching problems: it was to give birth to a sort of informal co-operation: the digital Co-Lab.

Data updated at July 2011 show that professors and experts from the Faculty of Arts and Philosophy are those, together with Faculty of Engineering ones, who mostly are using learning environment at University of Parma (35,7% of the total on line courses).

The team assumes that listening to needs and the evaluation of educational experiences made on line by students and experts can bring significant improvements of teaching and research performance without necessity for particular investments.

Digital Co-Lab has been founded upon 3 basic principles (3C): COLLABORAZIONE (Collaboration and Co-Operation), CONDIVISIONE (sharing of techniques and methods, environments, software and contents – Open Access), CREATIVITA' (creativity and creation) Longhi, Monaco, Tammaro, Valero, Valla, 2011).

Our purpose is using e-collaboration style to discover and exploit opportunities offered by IT tools, the Internet and network to reach goals together with others (Sancassani, Brambilla, Menon, & Marengi, 2011).

### Methods, Materials and Procedures

We observed activities and events during their sequence, trying to give advices and support in real time. Observation was carried out both through tutor presence and the use of different methods of communication (Facebook groups and pages, use of Moodle forum activities)

We carried out qualitative interviews asking for the feedback of professors who were involved in METAV Master, concerning pros and cons of the experience, their idea of course structure, possible improvements and a creative use of activities and resources they would suggest.

We made proposals for a creative use of tools and systems in order to give professors the opportunity to choose some activities and methods that could be used.

The proposals included a creative usage of user roles and features inside Moodle Learning Management System, in order to create an ideal environment for interactions and the birth of a community.

Our team started laboratories and seminars to involve students, professors, teachers, experts and researchers.



## Interviews to Master Course Professors

Structured interviews were very useful as a qualitative methodology, to determine the satisfaction degree of professors concerning the actual installed Moodle Platform, and their ideas concerning best practices and future creative educational activities.

Most professors asked for additional tools to show things to students and interact with them; that shows that they were not aware of webinar services at University. Many of them asked for applications that are in fact already available on the platform; this means that they are not conscious of all the possibilities that available platforms offer and that it will be necessary and useful to pursue a slightly different point of view concerning service level and approach. All interviewed experts underlined the importance and effectiveness of the social format for Moodle courses, and an active participation in forum activities. This can give evidence that a social approach inside courses can help to reach student better involvement. The majority of professors asked for a more functional and flexible version of the platform, as concerns file management and tools to increase interactivity and co-operation.

The opinions we gathered from interviews convinced and led us to the installation of an alternative version of the LMS platform for Co-Lab team, in order to test, together with teachers and students, the advantages of Moodle 2.x releases.

## openEyA Laboratory

We started a laboratory for the creation of online educational competences and the development of specifically methodologies and contexts, as the use of multimedia contents is concerned, and a new way of co-operation with Science Dissemination Unit of International Centre for Theoretical Physics; we are testing openEyA ([www.openeya.org](http://www.openeya.org)), that is their open source solution for lecture and events recording. Co-Lab team organized some tutorials for experts, teachers and students, in order to spread the voice and get users' opinions. Tutorial sessions were practical and participants could join and test the solution immediately.

Both teachers and students showed great will to learn how to use such tools and students started recording lessons and seminars together with teachers, and interviews to professors.

Next steps will involve experimentation on mobile devices (Apple iPad), and an iTunes-U channel created on ICTP iTunes-U platform, in order to offer open resources obtained by recordings carried out with EyA system.

## MIXMeS Laboratory, an Uncourse to Co-operate on Real Projects

Considering the unconference model, where meeting are driven by participants, we proposed a project driven learning event, a learning by doing and cooperative learning experience, where voluntary experts, teachers and researches can join and decide together the projects they want to work upon; after a survey to investigate attitude and concepts on IT tools and their usage level among future participants, a brainstorming session to identify interesting topics and projects and a training period on the Co-Lab on line Learning Platform, participants start working on educational and research projects, acquiring competences and skills concerning the right choice for the specific context and needs. We decided to adopt a plurality of methods and tools, to be coherent

with project purposes: in order to choose the best tools and methods participates will have to test and verify them in specifically situations and contexts. Participants are going to use and test webinar and chat tools, as Adobe Connect, Google+ hangouts and Skype. They will use social and e-collaboration environments, such as video and image sharing platforms (iTunes-U, YouTube, YOUNipr, Moodle, Vimeo, Flickr), online scheduling tools (Doodle, Google Calendar), Social Bookmarking and Social Reading activities to pursue social learning and will explore the opportunities offered by mobile learning in order to understand if students and teachers are ready for mobile learning and teaching (Valla, Comelli, 2009), (Corbeil, Valdes-Corbeil, 2007).

The laboratory is on the way, and is going to start between December and January 2011. The pilot project will involve participants from the Department of Foreign Languages of Faculty of Arts and Philosophy.

## Findings and Results at the Present Moment

The starting idea sprung up last year and nowadays, after a one-year activity, the Digital Co-Lab managed to make the most of some existing initiatives and aggregate professors by spreading criteria and teaching innovative methods; the Co-Lab team gave all those who were interested in experimenting in a specifically education and research field, an effective support to enhance teaching. We are now gathering further data concerning experimenting in educational frameworks as Master degrees and proficiency courses, as the Digital Librarianship Learning Program and the Master degree in audio-visual media translation.

## Conclusion

We are convinced that we are on a the right path and that it's worth going on in this direction, and hope we will be able to give quantitative evidence of it through an improvement of online and blended courses and experiences among those who co-operate with us, and the improvement of student results deriving from learning evaluation and from the evaluation of the satisfaction degree.

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# Internet Social Network Related Behaviour and Some Privacy Paradox Issues

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**Abstract:** Internet provided a faster flow of information and easier and faster access to required information, except that since virtually no one controls the human interactions on the Internet, it allows for freedom of speech as it existed in unprecedented way in previous media. Today individuals communicate and form relationships through Internet social networking websites such as Facebook, MySpace, etc. These sites, designed to increase ease of information sharing online and help persons keep connected in ways previously impossible also represents a great issue. As a result of using social networks one's private life can very easy become non-private because of Internet security issues and responsibility of keeping information private. Young people do not seem to pay much attention to their own privacy when creating profiles on social networks, but they create distinction between actions in the real world to social roles in cyberspace and linked activities in cyberspace. The survey consisted of 21 item collecting demographic data, Internet general usage activities and social networks related behavior. The items were multiple choice type and open ended type questions. The results showed subject's awareness of security issues considering privacy on social networks, but it also revealed some risk-taking behavior, i.e. significant percentage of users allows everyone to approach they profile data, or they reveal some identity traceable information. In general, we may conclude that students show security awareness in certain degree, but there is a space for improvement.

## Introduction

Back in the 1960s when scientists have started developing of the Internet as a military technology they did not expect that it will become the main communication and information tool in the next half of the century. Development of the Internet had great influence on development of human communication and information sharing. Individuals have begun to create their virtual identities, and to show a huge shift in behaving to other people in real and in virtual world. With this started, as Castells (2001) said, creating of the Internet culture. It includes four layers: techno-meritocratic culture, hacker culture, enterprise culture and a communitarian culture. For this paper the most important layer is the last one. Social forms, processes and the manners in which the Internet is used are shaping communitarian culture. Users find it's "non-hierarchical, (has) free communication and the ability to find their own destinations to the network, otherwise, in the case of not finding the destination, creating and publish their own information. Development of communitarian culture opened door for creating first forms of social networks where people gathered and expressed their opinions, found information or simply meet new people and spend leisure time in chatting" (Castells, 2001).

Today social networks are the basis of communication of modern man, and most users are young people who by large are not aware of the consequences that may occur due to exposing their private life on the Internet. Individuals, corporations, as well as governments, may use or misuse that information for different purposes. In an age of digital media we probably do not have much privacy left. The privacy paradox is defined as a sense of false safety (Barnes, 2006). According to Barnes (2006) we live in a paradoxical world of privacy: "On one hand, teenagers reveal their intimate thoughts and behaviors online and, on the other hand, government agencies and marketers are collecting personal data about us. Commercial social networking sites thrive "on a sense of immediacy and community". (...) Teenagers are learning how to use social networks by interacting with their friends, rather than learning these behaviors from their parents or teachers. (...) Currently, a new type of communication behavior is emerging amongst teenagers as they explore their identities, experiment with behavioral norms, date, and build friendships." The privacy paradox arises from inconsistent Internet behavior strategies – while adults are concerned about privacy, teenagers are revealing personal information more freely. Furthermore, various parties (marketing companies, school officials, government agencies, sociopaths etc.) collect personal data tapping on this self-revealing tendency (Fogel & Nehmad, 2008). Furthermore, this sense of false security and control is enhanced with the lack of awareness of the Internet public nature; chatting alone in your room does not mean your Internet use is private also (Livingstone, 2008). As some researches do point out, narcissistic tendencies are quite present on social networks interactions (Buffardy & Campbell, 2008).

## Methodology and Procedures

Thus understood, the privacy paradox may be operationalized as a discrepancy between the perception of privacy users have and the objective privacy certain behaviors possess. We identified eleven typical social network self-disclosure data and we asked subjects to identify do they behave in such manner ("Yes/No" response) and to assess its risk level (Likert scale). We also wanted to collect some socio-demographic data.

We conducted a three phase research trying to identify the intensity of privacy paradox, self-revealing strategies and some other aspects of social networking. The first phase consisted of applying 21 item survey to 41 Croatian LIS students. Next, we applied this survey on-line and collected 100 more subjects. Finally, we asked several (N=5) IT experts to assess the risks. The final phase provided us with objective risk assessment, and we identified three of the highest and the lowest ranked items and executed some statistical analysis.

## Results and Discussion

Our subjects were young adults (M=20,38 years, s=2,34), 35 of them males, 104 females. No significant effects were found for the gender or age variables. Almost all (91%) of our subjects had a Facebook profile, and only 6% had more than one social network profile. On the average, their profiles were opened more than three years ago (M=3,26, s=1,22), and most of them (mode) have 150 friends. Most of them (mode) visit five profiles a day and spend an hour on such activity.

The significant difference between the phases one and two showed only on two variables: one considering the unlimited visibility of profile, and the other considering re-

vealing instant-messenger ID. In both cases, phase one subjects showed lower risk-assessment also, which is to be expected considering privacy paradox phenomenon.

Considering the difference in security risk assessment, no significant differences were found between expert and subject groups, although this may be attributed to small sample size ( $N=5$ ) and non-normal distribution for some assessments (Shapiro-Wilkis test was used). Experts assessments possess high consistency.

Of the three items assessed by experts as the most unsecure, the subjects' answers showed only one to be distributed normally – revealing personality data; the other two had U-shaped distribution. Those who revealed their personality data, also were prone to reveal their personal interests ( $p=.507$ ,  $df=139$ ,  $p<.05$ ), and there is also a causal effect ( $\chi^2=13.03$ ,  $df=1$ ,  $p<.01$ ).

When their perception of security was correlated, it showed significant correlation levels with personal interests ( $r=.58$ ,  $df=39$ ,  $p<.05$ ), revealing one's real name ( $r=.63$ ,  $df=39$ ,  $p<.05$ ), revealing one's personal photo ( $r=.66$ ,  $df=39$ ,  $p<.05$ ). Using ANOVA, significant levels of influence were measured for all three variables (respectively  $F=14,584$ ,  $p<.01$ ;  $F=5,643$ ,  $p<.01$ ;  $F=7,176$ ,  $p<.01$ ). It is interesting that we found positive correlations between revealing personality data and revealing personal photo and the real name. If only privacy issue was to be relevant here, we would expect inverse proportionality. Such finding would be consistent with another factor, though – the need for self-representation. Considering Buffardi & Campbell's (2008) findings, it would suggest narcissism.

Of the several items we identified as low-risk, three sustained normality test (revealing your free e-mail account, viewing other people's profiles and revealing one's real name). Revealing free e-mail account was linked to revealing personal interests ( $p=.391$ ,  $df=39$ ,  $p<.05$ ), and the causality was also present ( $\chi^2=8.89$ ,  $df=1$ ,  $p<.01$ ). Revealing one's real name was correlated with revealing one's photo ( $p=.177$ ,  $df=139$ ,  $p<.05$ ) and revealing personal interests ( $p=.178$ ,  $df=139$ ,  $p<.05$ ). There is also a significant influence of revealing one's name to revealing personal photo ( $\chi^2=5.10$ ,  $df=1$ ,  $p<.05$ ).

Considering the perception of security of those items, we may observe similar pattern: revealing one's free e-mail account is proportional to revealing one's photo ( $r=.57$ ,  $df=39$ ,  $p<.05$ ) and real name ( $r=.48$ ,  $df=39$ ,  $p<.05$ ). Both those relations are of causal nature also (ANOVA, respectively  $F=4,507$ ,  $p<.01$ ;  $F=2,863$ ,  $p<.05$ ). Writing on other people's profiles is correlated with revealing one's photo ( $r=.41$ ,  $df=139$ ,  $p<.05$ ) and one's real name ( $r=.45$ ,  $df=139$ ,  $p<.05$ ), and the causal relation is established here also (ANOVA respectively  $F=3,556$ ,  $p<.05$ ;  $F=3,057$ ,  $p<.05$ ). Finally, revealing one's name is in addition correlated to revealing one's photo ( $r=.69$ ,  $df=139$ ,  $p<.05$ ), revealing personal interests ( $r=.59$ ,  $df=139$ ,  $p<.05$ ), and revealing one's personality data ( $r=.63$ ,  $df=139$ ,  $p<.05$ ). All those relations are of causal nature also (ANOVA respectively  $F=11,094$ ,  $p<.01$ ;  $F=2,989$ ,  $p<.05$ ;  $F=7,147$ ,  $p<.01$ ;  $F=6,214$ ,  $p<.01$ ).

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<sup>1</sup> We remind that the most of our subjects have Facebook profile. Since the network's norm from the very beginning was to use your real name when creating profile, and the option of using pseudonime was allowed later on, we considered this is a low-threat data.

## Conclusion

We may conclude that our subjects are in some degree aware of security risks when divulging personal data online. On the other hand, we may stipulate that privacy paradox, as well as security concerns on social networks are influenced by a need for self-presentation, namely narcissism.

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# From Content to Format, from Reader to User

## Changing Focus in an E-book Market

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**Abstract:** E-book market is constantly changing. When e-books became very popular, we could witness development of e-book formats, e-reading devices and e-book market itself. Now we can also observe a change in the way promoting digital literature. At the beginning of e-book development the most important thing was content, the literature itself, and everything else was secondary to it. Nowadays content doesn't play the most important role anymore. E-book providers uses titles as a form of advertisement which is meant to attract as many people as it's possible. However, e-book formats are becoming more and more important. If you want to buy an e-book from Amazon, you also have to have a Kindle. And if you decide to buy a Kindle, you must remember that you won't be able to read books in e.g. ePub format on it. When Google announced Google Book Search project, with all the files available in ePub format, Amazon tried to block this project, threatened by the possibility of losing many Kindle users because of it.

Content will always be important for users, but access to this content is increasingly determined by the device that they're using. That's why biggest e-book providers consider readers as users of a specific e-reader. As a result, reader is only free to choose e-reader brand, but choosing titles depends on a specific offer for the device he uses. E-book developers are aware of this situation and use it to their advance. This paper try to show all perspectives of this situation, trying to analyse what users are expecting from e-books and e-reader providers nowadays.

### Introduction

E-book market is constantly changing. When e-books became very popular, we could witness rapid development of e-book formats, e-reading devices and e-book market itself. Now we can also observe a change in the way of looking at digital literature and digital reading. I will try to show how e-readers have become more and more important, trying to overcome the importance of digital literature itself. My paper is based solely on the figures and facts from the US e-book market and there are few reasons for that.

First of all, US e-book market is the biggest in the world and is valued for \$441.3 million in 2010 (AAP, 2011) which stands for about 8% of the whole book market revenue. For comparison, according to International Publishers Association that percentage stands for 4,5% in UK, 1,6% in Spain, 0,7% in Germany, 0,5% in France and 0,2% in Italy (Jones, 2011).

Secondly, all the innovations made by the US market affects all the others e-book markets around the world. By observing US market, we can try to predict how our national markets will develop and react to new technology breakthroughs. Also, considering the fact that in USA e-book market functions for the longest period of time, we can estimate our own adoption rate in this market sector.

Last, but not least, US e-book market is the best analysed and monitored market in the world. AAP regularly publishes monthly market reports and quarterly reports, same as Goldman and Sachs, Harris Interactive or Forrester Research, from which most of them are available free. This gives a massive amount of statistical data for analyse and comparison.

### US e-Book Market Overview

When we try to understand the laws of market, one of the methods is to look at the actions of the most successful organisations and that's the approach I would like to take in my paper. According to a report made by Goldman Sachs Group Inc. Amazon generated 58% of e-book sales in 2010, Barnes & Noble achieved 2nd place with 27%, third was Apple with 9% (McCracken, Townsend, Keehner, 2011). It leaves only 6% of e-book market for the rest of the competition. Relying on this numbers, we can say that Amazon is the biggest e-book provider in USA, having only two serious competitors – B&N and Apple.

In physical book market the biggest bookstore is the one that offers most titles on reasonable prices and ensures easy and fast process of buying. There are of course many other conditions that influences market shares, however those are the most obvious and important ones. Let's have a look at e-book market according to those conditions.

When it comes to number of books available via each of those providers, B&N claims to have over 2 million of Nook books available, same as Sony Reader Store. Amazon's Kindle Book store boasts over 865 000 titles and Apple's iBookstore offers 150 000 titles (Sammy, 2011). B&N, Apple and Sony also states that using their devices people can also read many titles from digital libraries, because their using ePub format, which is supported by every reader except for Amazon's Kindle. According to those numbers B&N and Sony should be the biggest e-book providers. However, situation is exactly opposite. With iPad it can be explained by the nature of the device which hadn't been made for a purpose of reading e-books, it's just one of its functions. But why B&N and Sony, claiming to have over two times bigger collection than Amazon, fails to it so apparently? It's because almost 85% of e-books from B&N and Sony collections are free, most of them being Google Books scans. When we filter out those, we see that in fact Amazons Collection is over two times larger than the competition's.

Amazon also tried very hard to have competitive prices of e-books. It started \$9,99 strategy, selling most of e-books on the said price, while the same titles were available in other stores for even \$5 more. It was blocked by Apple and coalition of HarperCollins, Hachette Book Group, Macmillan, Penguin Group Inc., and Simon & Schuster Inc. They blocked it by the "agency model" which gives publishers power to set the price of their e-books sold by distributors. Amazon filled a lawsuit against that practice and still sells e-books from other publishers for lower prices. Amazon is said to be losing money on e-books to boost the adoption of its Kindle (Lasar, 2011). Amazon is



also open for self-publishing authors, gives them its platform to promote their stories for a share in sales. As a result on Amazon we can usually buy traditionally published e-books from \$6.99 to \$14.99 and self-published books from \$0.99 to \$2.99. With that pricing Amazon leaves competitors far behind.

When it comes to convenience in buying e-books, Amazon is also a leader. It's impossible to browse through iBookstore without having an Apple device. As a result a potential buyer doesn't know what he will get when it comes to an e-book offer. B&N and Amazon collections are available not only for Nook and Kindle users, you can browse them and buy even from a "normal" computer or cell phone. However, if you're a Nook user, to connect to the B&N collection, you have to have access to a WiFi network. Seems quite obvious, but Amazon has managed to top that. Some of the Kindle models have free 3G Internet connection in over 100 countries in the world. If you're a Kindle user, you just have to be in a mobile network range and you can shop in the Kindle store. Getting an e-book takes you less than a minute and makes it the most convenient way of obtaining digital literature.

We can see that Amazon has an edge over opponents in every aspect that we mentioned at the beginning of this section. It's understandable that they're topping the e-book market. However, in the physical book market the leader is B&N and generated 17% of books sold in 2010. That's hardly comparative to Amazon's 58% domination. Taking that into consideration, there must be something else that gives Amazon the edge over other competitors. This edge is Kindle.

#### E-Readers' Rise to Power

Books are not only text itself. When we speak about traditional books, we know that a book contains text and physical form. There are many physical book attributes (format, paper, font and others), however every book has its one physical form, that cannot be changed. Subsequent editions of the same title can look absolutely different, however each book, once sold, cannot be edited. As a result, in our home library we have many books in many formats. With e-books the situation is completely different.

An e-book doesn't have one, unchangeable physical form, it can be displayed on many devices. On every device, the looks and possibilities vary, making it essential for a reader to choose one, that best suits his needs. According to Forrester's survey, the most popular device used to read e-books is still a laptop (35% of readers), next are Amazon's Kindle (32%), iPhone (15%), Sony e-Reader (12%), netbook (10%), Barnes & Noble's Nook (9%) and iPad (9%) (Abell, 2010). When we take into consideration that Kindle was released in 2007, it's a big success for this device. According to Goldman Sachs Group Inc. Report, Amazon has 67% of the e-reader market (B&N has 22%) (McCracken, Townsend, Keehner, 2011). We can also notice that 53% of all e-books are being read on devices designed solely for that purpose.

Many studies also show, that an e-reader user reads more than a person who doesn't use such a device. According to Harris Interactive's poll 8% of Americans have an e-reader. Among them, 36% read from 11 to 20 books per year, while among people without an e-reader it's only 19%. E-reader owners also buy more books. From 6 to 10 books last year were bought by 30% of e-reader users, and only by 16% of people not owning such a tool (Harris Interactive, 2010). It became apparent for e-book providers that they

should attract readers not only by a literature selection, but also, and even especially, by their e-reading device.

Biggest e-book providers produce and sell their own e-reading devices, and each one presents a different approach. Apple started with the iPad, iBookstore is just an added feature for tablet users. In this case it's not a device made for e-books, but e-books offered for the specific device. For Amazon and B&N e-books were the first priority. Both companies made their own e-reader using e-ink technology, however, with time Kindle started to be much more popular. B&N decided to make a device which would be a compromise between e-reader and tablet, while Amazon continued to improve its original device, sticking to e-ink technology. In a result when a potential user chooses an e-reading device he also chooses what kind of e-books he will be able to read on it and what else he can do between reading.

In a popular understanding iPad is best for users that read only occasionally and seek a device that allows many other activities. Kindle, on the other hand is made for reading e-books and can't do much more. It doesn't hurt your eyes while reading, but you don't have a colourful display. Nook from B&N offers some kind of compromise – it's a simplified tablet made especially for reading, but offers web browsing, colour and touchscreen. However, that kind of opinion is no longer a truth.

Amazon's Kindle, its' flagship product, is being advertised stronger than e-books, like it was said Amazon prefers to lose some money on e-books in order to increase Kindle sales. Amazon also improves its e-reader constantly and makes it more available for potential users, B&N follows the same track.

First edition of Kindle was available for \$399, but every new edition was cheaper. Right now Amazon not only cut the price of Kindle, but also made it possible to choose from several options. The basic version of Kindle costs \$79, which is almost 4 times less than 4 years ago. The most advanced version is available for \$189. Nook Simple Touch is available for \$99. The drop in prices didn't stop the technology development, nowadays e-readers are approximately 2 times smaller and lighter, have four times more shades of grey, much more memory and battery life which goes up to 2 months of running without a recharge.

Kindle also allows multitasking, letting user to read and listen to music at the same time, which is impossible on iPad. Kindle also has full web browsing ability and free web access for life. Contrary to the popular opinion Kindle even has games. Of course those are not that dynamic like flash games, but are suited for its' users, offering logical entertainment. In fact, the only real disadvantages of Kindle in comparison to tablets is lack of colourful display, no video and inability to open most popular e-book format – ePub. Colourful e-ink is already invented and it's only a matter of time when Kindle adopts it. Amazon signed an agreement with Overdrive that will allow Kindle users to lend books from public libraries in USA. This means, that Kindle will have to adopt ePub format, which is the most popular in those libraries (Thurrott, 2011). And for those, who want dynamic colour display and more advanced games Amazon just launched Kindle Fire, Android based tablet which is two times cheaper than iPad.

It seems that all the advantages are on the Kindle side. Amazon is still selling more e-books every year, since April 1, 2011 has sold 105 e-books for every 100 traditional books (Tsukayama, 2011). However, its' e-book market share is dropping. Two years

ago Amazon had 75% share, while this year's stands, as it was already said, at 58%. Since Kindle users can so far only buy e-books from Kindle store, it means that users of other devices are buying more than before. B&N announced that its' e-book market share has overcome its' overall book market share, which means it exceeded 17%. It was also stated, that Nook customers spends 20% more money than they did before getting e-reader. It means that Amazon competition is trying to find alternative methods to promote their devices and collections. When you can't overcome your opponent in technology or convenience, you must aim at exclusivity.

Kindle users have exclusive access to all azw files, from which about half of it is available only there (Sammy, 2011), there are games and features made only for Amazon's reader, they have (as it was mentioned before) free Internet access and Kindle Fire is the only tablet on which you can read newly published DC comics. Nook users have exclusive access to newly published Marvel comics, gets exclusive content for Angry Birds (one of the most popular games today), and RRS feed apps made only for Nook Color: Taptu Fashion, Taptu Food, Taptu Lifestyle. For Apple giving its users exclusive access to some content is already a standard procedure, naming all of them would take too much time.

To sum up, when we look at e-book market, we can observe a situation that never occurred in traditional book selling chain. Right now in USA we can see a clear division between users of different e-reading devices. Each group reads many e-books, however they do it in a different way because of the possibilities that each e-reader gives them. In a result there is a very small amount of titles that all of them can read. Each potential user must choose between the variety of content he will have access to, making other part inaccessible for him.

For other e-book markets that are still developing, it's a sign of times to come. The division between e-reader users is most likely to last and being adopted by our markets as well. All the innovations used and made in USA will at least partially take place in other countries. For potential users like us observing those innovations is a good method to make an informed choice of device and group of readers to be part of it.

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## Children and Youth Library 2.0 Library Services for the Net Generation

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**Abstract:** The paper presents the very basic description of key features the following phenomenon: net generation and Library 2.0, then it focuses on discussing the ways idea of library 2.0 might answer (or answered) those challenges of kids’ new needs and requirements.

The issue will be considered within two levels: On the one hand attention will be given to special software/hardware solutions: Kid/Young adults’ OPACs, library blogs, creating and maintenance of Facebook profiles, introducing to library activities other Web 2.0 tools like YouTube, Flickr, using Instant Messaging. The features of selected, representative examples of children’s OPACs will be discussed. On the other hand with equal attention the paper will address the issue of non digital dimension of 2.0 idea. How libraries organise for the young people the possibilities to contribute to library activities and to participate in its management?

### Paper

One of the very classic essays devoted to the issues of children’s books contains a description of cosy, silent place, where boys and girls are sitting calmly at the desks reading books (Hazard P, 1963). This nice picture was a kind of icon of children’s public library for over eight decades. And still there are librarians who believe that’s the way it should look like. The real question however is, whether contemporary kids, the most important part of this picture are also attracted by such a vision?

It’s easy to notice that from the beginning of the new Millennium children and youth libraries had to meet new requirements of their clients, members of the Net Generation – young people “born with the computer mice in their palms”. These kids have better computer skills, they adopted new patterns for using media, they were growing up in non-linear, Web 2.0 media environment.

They could be described as the ones who:

- are able to use (and are used to) differentiated media, able to use them to fulfil their leisure/information needs,
- expect from the media very strong experience/excitement,
- are computer savvy,
- have strong ability to (and expectations toward) function in non-linear (hypertext type) media environment

The discussed group is also frequently named after Marc Prensky with the term digital natives absorbed from his work *Digital Natives, Digital Immigrants* published in 2001. These digital natives – described above – have new vision of their public library; they expect something completely different than the sweet picture painted by Paul Hazard.

In *their* vision library offers computer augmented services, new structure of collection with all possible variety of multimedia. On the other hand they are also not willing to accept the traditional librarians’ authoritarian “shushing” attitude as well as traditional “no’s” signs (“no food”, “no drinks”, “no talks”).

For every person anyhow interested in the net generation is clearly obvious the it’s been born and raised with the stimulation of the Web 2.0. There is no need here to discuss in details this phenomenon here, it’s just enough to remind shortly that the term Web 2.0 is attributed to Tim O’Reilly and refers to a second generation of Internet-based services such as social networking sites (YouTube, Facebook, Flickr etc), wikis (collaborative, shared-content sites), communication tools (IM instant messengers – as google talks or Polish Gadu-gadu), and folksonomies (shared tagging and labelling, short for “folks” and “taxonomy”).

Not much later (2005), which is no coincidence, the concept of the Library 2.0 was born. It was developed by Michael Casey and promoted by his LibraryCrunch blog and then carried on by the other Library 2.0 “evangelists” as Michael Stephens or Laura Savastinuk.

“The heart of Library 2.0 is user-centred change. It is a model for library service that encourages constant and purposeful change, inviting user participation in the creation of both the physical and the virtual services they want, supported by consistently evaluating services. (...) While not required, technology can help libraries create a customer-driven, 2.0 environment. Web 2.0 technologies have played a significant role in our ability to keep up with the changing needs of library users” (Casey, Savastiniuk, 2006).

What is really worthy noticing within definition quoted above is clearly visible concept of two factors defining new library: new (marketing, client centred attitude) coordinated with heavy implementation of Web 2.0, social networked Internet technologies.

When one compares idea of Library 2.0 and mentioned above demands, expectations of digital natives it becomes very obvious that these two seems to be a perfect match!

And indeed: when getting acquainted with the most famous, model examples of implementations of the L 2.0 concept (as – for instance case of Kankakee Public Library, US) one may risk the thesis the children and (specifically!) young adult library services are the field of the most spectacular 2.0 experiments and achievements.

At this point of presentation it’s however necessary to declare that there is a strong difference between the possibilities of building 2.0 services for children (specifically the younger one) and for teenagers (or young adults). The abilities of the first group to use in full the options offered by (both!) concept of Library 2.0 idea are obviously seriously limited.

Children below the certain age are not able to operate the computers on sufficient level and – on the other side – are not very likely to be consulted as real partners in building co-operative library. Some parents would be probably quite reluctant to the concept of

over exposing younger children to free exploration of Internet services as Facebook or Flickr.

This statement however does not lead to the conclusion that Children's Library 2.0 cannot be built. As it will shown below there are numerous 2.0 concepts ready to be implemented to serve youngest digital natives.

### Children's Library 2.0

The most important tool which should be discussed here is the new generation of library online public access catalogues (OPAC). Those catalogues are designed that way to fit the basic needs of the youngest it means – to be used for the patrons who are not necessarily able to read! As the one of the most impressive examples of successful children's OPACs should be mentioned the trend setting catalogue of the International Children's Digital Library (ICDL).

Library 2.0 for them means special OPACs, design the way to fit their very specific needs.

It is saturated with a lot of pictures and icons, which makes the searching possible even for not reading kids. On the other hand it includes such search key feature as colour of the book cover (!) or "thickness" of volume. The design of the OPAC is centred on the user needs and requirements, even if they might be ridiculous for adults (colour of the cover) (International Children Digital Library)

As another example of using Library 2.0 features for the children services are podcasts. Here one may use the example of Denver Public Library, which installed within its website the range of sound records either downloadable or ready to listen on-line. These are book talks, fairy tale reading or recorded meetings/interviews with child-lit celebrities (authors, illustrators) visiting the Denver library. Of course – one may presume that younger kids won't be able to entertain these records just by themselves – parents' assistance might be necessary for using this service (Denver Public Library)

One of the 2.0 classics – Internet blogs are also frequently used tool for communication with youngest clients. Usually there is a very little verbal (or text) content there – this children directed blogs are saturated with icons, book covers and above all pictures used for commemorating the library events, with smiling faces of kids (blog of Public Library in Katowice, PL) .

Non-digital aspect of library 2.0 is – of course – also represented in small kids' library services. It is manifested on the following actions:

- accepting as a library users the VERY youngest clients – almost newborn babies and toddlers (in some cases pregnant mothers are invited for special activities),
- building children' friendly, safe but also very colourful library environment, with special soft furniture, thick carpets or – on contrary – areas easy for cleaning,
- engaging the special library collection policy, relied on the idea of multimediality. All formats are welcome, both print and electronic (comics, picture books but also DVD's, CD's computer games

### Young Adults' Library 2.0

As it was already stated above – when young adults' aspect of L 2.0 is presented one may think they are in the very centre of the 2.0 idea. There is whole spectre of web 2.0 tools which might be used when Library 2.0 is created, however its needles to mentioned and easy to notice that some of the ideas or concept are similar to the ones described above when children's libraries where in discussion, some ideas are just broadened.

As the example might be here called the new generation of OPACs. The ones which are designed for older audience are – because of obvious reasons – deprived of the wide range of colours and variety of iconic components but offers very rich option of interactivity. The example of Ann Arbor Public Library OPAC is one of the most frequently quoted – it allows users for tagging, recommending books to other clients, writing and publishing reviews, creating typical for social networks user profiles (Ann Arbor Public Library). The APL OPAC has a feature which is rather unique and really amusing: it generates on demand of the user the image of traditional card catalogue and allows user to ... leave on it his/her notes ("really nice book", "read it")!

Young adults' Library 2.0 (or at least its digital aspect) is all about creative implementation of social Internet applications as YouTube, Facebook, Flickr for the sake of library activities.

The most representative for describing such trends seems to be Youtube. It's needless to say that it is one of the Internet application which is most heavy used by teenagers. No wonder librarians creating Libraries 2.0 invest much interest in involving it in their efforts to make their organisations more attractive to youngsters, fitting more closely to digital natives requirement. Generally speaking there at least two libraries' strategies employed for Youtube. The first one is directed on information and promotion. The large numbers of libraries tries to be there in the net, where all their teenage clients are. They develop special promo videos (or the one produced to document library activities), meant to reach the YAs , but also to present library as the modern, innovative organisation against all stereotypes (which are still very lively!) (Salt Lake Public Library)

The second strategy is connected with involving teenagers in library activities: these are mainly video competitions. For instance young clients are asked to shot short video promoting public library ... by themselves (Allen County Public Library)! In some cases teenagers are encouraged to use the simplest cameras – the one from their mobile phones!

The Flickr is used – more or less the same way, with main difference that the photographs are in discussion.

Another 2.0 facility which should be mentioned here are different kind of Instant Messengers (IM). This application (young people are very fond of!) is used by library for fast communication with clients, but above all for implementation of service which is very 2.0 in spirit – "ask the librarian". Many libraries for the sake of promotion and communication tries to develop their Facebook profile, as an answer to ever growing popularity of this service. Previously for the same reasons some libraries installed MySpace profiles. The Internet savvy librarians really try their best to accompany their



(potential) teenage users at those Internet “places” where they are the most likely to be met!

Hence the concept of 2.0 spirit (or – as one may prefer – non digital aspect) was called it’s definitely necessary to mention so called Teen Advisory Boards. TABs are very essential for the implementation of the idea of Library 2.0. It’s a concept which is implemented in numerous US public libraries. The board of directors attract young people from local communities served by the library to establish special body, which is really involved in designing library the way young adults would like it. TABs receive some responsibilities and authorisations. Their representatives are consulted in all aspect of library activities concerning teen age group – starting from furniture and collection development as far as plans of writers visit. And what is essential TAB’s are not only consulted – their opinions really matters! As an effect TABs are really hosts of teen areas of library, providing a lot highly successful volunteer efforts for the broadening library usage and popularity among their peers.

In conclusion of this really short presentation of the implementation of the idea of children’s / young adults Library 2.0 it should be stressed that librarians activity and readiness and enthusiasm for new ideas and technologies prove that libraries are still capable of finding themselves in new not-so-bookish times, to be attractive. And young!

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## Emotions in e-Motion Pass Your Message the Right Way

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Having moved from face to face conversation to mostly electronic communication, one can assume that it is lacking non-verbal cues like facial expressions, eye contact, body positions and hand gestures which can be important in order to understand what's being said. Smileys or emoticons are used widely online in order to express additional emotion or even body gestures. Over the internet many Smiley dictionaries may be found, meaning a point has been reached where one must be familiar with the context and be able to translate the given emoticon the right way to decode the message. As Paul Andrews claimed, – *“emoticons waste bandwidth, have consistent definitions and superfluous; a well-constructed sentence needs no clarification; emoticons serve no purpose”*.

The workshop strives to address frequent users of emotions and explore what effects those have in computer mediated communication. As researched by J. Yoo, emoticons have a direct effect on various relationship outcomes, may influence liking and reduction of the sender.

During the workshop the participants will reflect about the use of emoticons and other connected ways of expressing oneself and will be able to answer questions like: do emoticons have an impact on interpreting the sender's intentions, can it help in communication and can they modify the meaning of the message?

The workshop helps to see the social impact of emoticons as well as avatars in everyday communication, perception and verbalization of non-verbal components of the message.

## No Use for Thinking Downsides of Innovation in Information Science

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**Abstract:** Technology nowadays and especially in the near future will enormously affect our daily lifestyle and causing a lot of changes around us. Some new inventions help us to make our lives more comfortable and also easier, for example navigation systems assist us in finding our way faster and make thinking about where we are and which direction we have to take next superfluous. Furthermore the Internet changes our daily life basically. To search in the Internet is easier than ever. We can “google” to find old classmates, journal articles online or look up the actor who was on the tip of our tongues. The only thing we need is to turn on our laptops, tablets or smartphones and we can find any answer we need – immediately. The Internet also changes our reading behaviours substantially. By reading texts or articles you often find links to other pages or articles, which might be interesting for you as well. So you are forced all the time in deciding whether you stay at your text or click to the link. Could you imagine how indepth-reading could be possible anymore?

### Introduction

This paper is used for the preparation of a workshop at the BOBCATSSS conference for the subtopic “My Information”. At the moment there are five students working on this paper, one student from Lithuania, two students from the Netherlands and two from Germany. In depth will be discussed the topic: “Lack of knowledge: Laziness deciding individual knowledge”. Technology is enormously affecting our daily lifestyle and causing a lot of changes around us. Some new inventions are held to make our lives more comfortable, for example navigation systems, calculators and search engines to assist us in finding our way faster and gaining deeper knowledge. But the question is, do innovative devices and good software such as calculators and search engines make us dumber? Or are they simply ingenious inventions that can really help us every day?

## Gaining New Skills

Maryanne Wolf, an expert for cognitive development of children at the American Tufts University is convinced that the Internet arouses new skills. According to her, people add the ability of receiving and classifying a really big amount of information, as well as spatial navigation of information to our skills. She even thinks that this will lead us to big discoveries. (Schmidt, 2010)

In 2009 M.W.G. Dye and C.S. Green, D. Bavelier's article the data imply that action video game players of age from 7 to 22 have "enhanced attention skills that allow them to make faster correct responses to targets, and leaves additional processing resources that spill over to process distracters flanking the targets." (Sweller, J, 1999) Video games have significant impact on laparoscopic surgical skills. Video games may help improve technical interface between surgeons and screen-mediated applications, such as laparoscopic surgery. Games might be used as training tool. (James C. Rosser Jr, 2007)

## Google Effect Memories

It is hard to remember where we could find information before the Internet was there. Betsy Sparrow, a psychologist at Columbia University just completed a study (Sparrow, 2011) on how Google use impacts our memory. Sparrows study shows that the frequent use of search engines and other digital databases, the way we retain information in memory, completely changed. In the centre of the new study is the concept of the so-called "trans active" memory. In simple words: we can't possible keep all data and facts in our head. But we know who knows it from our environment, and can fall back on when needed. This role of knowledge storage will not frequently be handled by Google and Co. But how does this affect our behaviour? This issue was devoted by Sparrow and her colleagues in four experiments. In one of these experiments, 60 volunteers should first read 40 different statements of a computer and then manually reflect. One half of the participants suggested that the computer would automatically save all. The other half has assumed that everything would be deleted. Every person should remember as much information as possible. Those participants who thought, that the computer will delete everything, memorized most.

## Browsing Makes Us Smarter

Recent study conducted on normal volunteers between the ages of 55 and 76 showed that "Internet searching appears to engage a greater extent of neural circuitry that is not activated during reading – but only in those with prior Internet experience." In other words, making decision what to click on we are affecting our brains, even age cannot stop brain from changing (Thompson A, 2008)

Gary Small, a Neuroscientist and expert on Alzheimer, memory & aging, has been studying the physiological and neurological effects of the use of digital media, and what he discovered backs up. He thinks that the Net causes extensive brain changes. "The current explosion of digital technology not only is changing the way we live and communicate but is rapidly and profoundly altering our brains." The daily use of computers, smartphones, search engines and other tools "stimulates brain cell alteration and

neurotransmitter release, gradually strengthening new neural pathways in our brain while weakening old ones." (Small, Vorgan, 2009, p.1)

In 2008 Gary Small and his colleague did an experiment, which showed people's brain is changing in response to Internet use. They scan the brains of a few volunteers while they performed searches on Google. In a magnetic resonance imager the volunteers were equipped with a small touchpad to navigate the Web pages. The scans revealed that the brain activity of the experienced Googlers was much broader than of the novices. As a control for the experiment, the researchers also had the task to read straight text in a simulation of book. In this case, scans revealed no significant difference in brain activity between the two groups. The most remarkable part of the experiment comes out when the test was repeated. The researchers had the novices spending an hour a day online, searching the Net. The new scans revealed that the area in their prefrontal cortex that had been largely dormant now showed extensive activity, just like the activity in the brains of the veteran surfers. "After just five days of practice, the exact same neural circuitry in the front of the brain became active. Five hours on the Internet, and the naïve subjects had already rewired their brains." (Small, 2009, p.16-17) The question is, if our brains are so sensitive that just one hour a day on the Internet can change them. What will happen if we spend more time online?

Which conclusions can we draw from this experiment? On the one hand, it is shocking how fast the brain can be altered by new activities, on the other hand, but also reassuring, for it shows how malleable and flexible, this noble organ in our head is.

## Overload of Information

Maryanne Wolf says that the Internet makes us looking for information and not to have a deep reading experience. Without that deep reading you cannot submerge yourself in a story or a character and thus it is more difficult to make a critical analysis and own thoughts. (Schmidt, 2010) According to Jonathan Spira author of "Overload! How Too Much Information Is Hazardous to Your Organization" information overload as previously stated has an impact on the brain. He approaches this problem by pointing out negative consequences such as: thoughts management incapability, difficulties in constructing ideas and thoughts (Spira, J, 2011), also effects on reasoning and thinking process.(National Security Consil, 2010) Nicholas Carr says that our mind takes information like the Internet distributes it: fast and superficial. According to his latest book "The Shallows: What the Internet Is Doing to Our Brains" the Internet is chipping away our capacity for concentration and contemplation. This proceeds from the numerous different functions a computer nowadays has and all the programmes which can be used at the same time. Carr thinks that people cannot read a long article concentrated, because a new arriving e-mail, or a blinking message on Facebook or all the other options of a computer, which are available at the same time, keep us from doing so.

As another disruptive element Carr sees hyperlinks. The coloured words in a text offer us on the one hand further information but on the other hand they encourage us to leave the site premature and persuade to hop from one source to another. This horizontally browsing makes us zipping only along the surface but not immersing ourselves in a certain topic, thinks Carr. (Carr, 2010)

## Short-term and Long-term Memories

John Sweller is an Australian educational psychologist. He worked on, how the Net and other media influence the style and the depth of our thinking. Our brains, he explained, incorporate two very different kinds of memory: short-term and long-term. The short-term memories tend to last only a matter of seconds. But all the things we've learned about the world are stored as long-term memories, which can remain in our brains for a few days, a few years or even a lifetime. One particular type of short-term memory which is called working memory, plays an instrumental role in the transfer of information into long-term memory and hence in the creation of our personal store of knowledge.

If working memories is the mind's notepad, then long-term memory is its filing system. The significance of our long-term memory lies mainly outside of our consciousness. In order for us to think about something we've previously learned or experienced, our brain has to transfer the memories from long-term memory back into working memory. "We are only aware that something was stored in long-term memory when it is brought down into working memory." (Sweller, 1999, p.4) The depth of our intelligence hanged on our ability to transfer information from working memories into long-term memories.

## Multitasking

Internet use improves the analytical skills and the capacity to perform multiple tasks simultaneously practical – multitasking – as well as the speed of image processing in the brain. The bad news is that we humans are generally not good at multitasking.

Anyone who put one's hope on multitasking pays a heavy price: the error rate of their thought and action (fast is far away from correct) is increasing. The concentration spans are shortened.

Furthermore who knows a lot, can easily combine new with old knowledge in a variety of ways. Anyone who knows little and vice versa should learn something new, every time switch back together in a network. The information overload of the Internet fosters true multitasking, but not knowledge – it prevents it. (Korte, 2010)

## Conclusion

The mind is changing, immersing oneself in a text and concentrate a long time has become more difficult. Internet is the conduit for most of the information we receive. But the Internet is also responsible for lower concentration and contemplation. People mostly zip along the surface, skim the text, hopping from one source to another and browse horizontally through the sites. Human are reading more than in the 1970's or 1980's because text is omnipresent. On the Internet and text-messages on our mobile phones our brain is adapting to new intellectual technologies. Computer takes nowadays the job of other devices like maps, clocks, printing presses, calculators, telephones, radios and televisions. All the different functions scatter our attention for example a new arrived e-mail distracts our concentration, when we are reading a newspaper's site. The computer and the Internet take an increasingly large part of our lives it is getting impossible to live without them. Therefore we have to learn to live with the advantages and the disadvantages of the Internet use and make the best of it.

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## New Perspectives to Personal Collections and Personal Information Management

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Much of the past research in information science, archival and museum studies has focused on institutional collections and organizational management of information and other assets. Only rather recently researchers have begun to put more emphasis on explicating the specific characteristics of personal information management (PIM) (Cutrell&Dumais, 2006) and personal collections (Marshall, 2008). So far, the greater part of the research has been largely descriptive and focused on a relatively narrow understanding of information and its uses (Jones, 2007). The workshop presents and discusses novel perspectives to PIM with a specific aim of broadening the perspective PIM research to encompass forms of information (e.g. material objects), factors and perspectives (e.g. personality, archiving of personal information) and special contexts (e.g. artistic and scholarly work). Using five ongoing case studies, the workshop discusses a new model of the dimensions of PIM and invites the audience to join the discussion. The workshop functions both as an introduction to the current research in PIM and as a venue to jointly discuss and develop future PIM research.

The workshop is based on a combination of short presentations and discussions. The workshop starts with a general introduction to the topic of personal information management with a specific emphasis on current challenges and research directions. After a short Q&A session, five case studies will be presented, with a specific emphasis on how they broaden the scope of earlier PIM research. Finally, a model of the dimensions of PIM and personal collection is presented and discussed by the presenters and the audience.

The anticipated result of the workshop is to give the participants an overview of the current state-of-the-art in PIM research and in-depth perspectives to some new ideas how to broaden the scope of the earlier studies. A model for conceptualizing the field will be presented and discussed.

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## iPad 2.0: Information Professionals Don't Leave Home Without It!

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As more and more of our library clientele are becoming more techno-savvy, librarians and other information professionals must keep abreast of the technology in order to assist our patrons. The Apple iPad is one of the best selling tablets in the world. Many of our library patrons of all ages own iPad computer tablets and look to the library for free downloadable books, videos, music, and other electronic resources for their iPads. This workshop will give information professionals the opportunity to learn how the iPad 2.0 is a must-have tool for research; multimedia; reading books, magazines, and other resources online; social networking; collaborations; word processing; databases; spreadsheets; presentations; graphics; photography; and other uses for assisting library patrons and other clientele as well as a tool that librarians can use to make their work and lives more efficient and fun. I will discuss real world iPad examples for information professionals and library clientele. This workshop will focus on an overview of the iPad 2.0; how the iPad 2.0 can be used for research; some of the applications or "killer apps" for information professionals; and real world examples. I will end this workshop with a discussion on lessons learned and future uses for the iPad 2.0 for information professionals.

## Skills for Work in the Library 2.0 Era How Information School Graduates Can Succeed in the 21st Century Environment

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In the 21st century, significant changes have occurred in the role of the library, within organisations, academia and public life. In the 'Library 2.0' era, there are increasing demands that librarians should develop beyond their traditional role and, among other things: teach information literacy; engage students (in the academic library system) or members of the public (in public libraries) with library services; and keep themselves up-to-date with a constantly shifting informational environment. There are increased flows of information, but at the same time a relative marginalisation of the library through the increasing use of non-traditional sources as a first port of call for library users. Mobile devices, e-books and online databases make new demands both of users and information professionals. Finding information is no longer the problem: educating users about the new informational environment is more important.

One role of BOBCATSSS should be to help LIS students with their career development. We must acknowledge that many information schools still emphasise the teaching of technical skills like classification, cataloguing, etc. Are Information Schools really addressing students' readiness to work in Library 2.0? In this workshop session we therefore wish to ask: what skills and knowledge are required to secure jobs in the 21st century library and how are LIS students to acquire them, if their own Information School does not provide them?

## Information Cockpit - a Way to Make Information Working for You Personal Web Portal for Integration of an Automatically Retrieved and Categorized Information from a Variety of External Sources

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**Abstract:** Rapid growth of responsibilities, activities, and an information flood result in lack of time and permanent weariness for majority of member of the information society. A lot of people waste time for repeating the same activities dealing with information management or document searching. To gain the skill of very efficient information use one shall design own information environment, which can automate a routine tasks, and support proper information classification according to the user needs. The capability of such efficient management is a vital for any member of the information society, and especially for those who claim themselves information specialists. The basic methodologies of efficient information retrieval and management will be presented during the workshop. Possible ways of information classification will be introduced. Participants will practice an efficient analysis of the information value and utility, as well as using of available tools for an automatic information retrieval from the net. And finally, a way of integration of different types of information environment ingredients will be presented and practiced. During the workshop participants will practice how to create a customized information portal, a web query, and how to easily and clearly classify retrieved information.

### Introduction

One may expect easy access to information and various communication tools and methods, as well as growing mobility of information, should make our life easier and more comfortable. Sophisticated information retrieval tools promise delivering valuable, needed information. But, in fact the more advanced tool, the more users' skills are required to use it fully or even properly. Information ocean faces us against the problem of quick evaluation of available information and confronts short time resources with the imperative of high quality information use. Hardly anyone can afford spending comfortably long time in order to reach proper set of data and documents. Search engines

are tools that try to help us navigate in the ocean. But there remain still few questions, like access to currently added information or selection proper document from thousands links in system answer.

### Information under Control

Basing on well practice of task management, like David Allen's Getting Thing Done (Allen, 2001, 2003) or Stephen Covey's seven habits of highly effective people (Covey, Merrill & Merrill, 1994, Covey, 1989) one can facilitate those advices in order to improve information management. To effectively reorganize information environment we need to proceed few steps. It is always worth to analyse, evaluate and change.

### Analyse and Evaluate

The first step is to analyse and evaluate own information needs. On this stage one should consider what kind of information does she/he needs and for what purposes is the information needed. The question is simple, but the answer should be honest, especially in the meaning of information usefulness. One shall avoid searching or using information that is in no single matter connected with current activity or action. The basic criteria for resources selection should be time, value and efficiency. For evaluation one may use the following matrix.

Table 1 Information evaluation criteria (source: author's own formulation)

	Important	Not important
Required	all information one really needs for making decisions or actions: facts, dates, definitions, descriptions, etc.	information that may inflect decisions or actions, but in small extend: very specific details, general background information and data.
Not really required	information being used for self-improvement, self-education, entertain or relax: fresh news to stay up-to-date with what's going on around, online courses and other educational resources, profiled (personalised) information portals.	information we receive or search but do not use in any extend: advertisements, some press news, gossips.

Another clue useful for information assessing is time required to understand and comprehend the information. There one can use the following criteria:

- language of document,
- author's writing/communication style and skills,
- details level,
- main subject of document.

### Set the Information Sources

After analysing and evaluating information needs one should search for adequate information sources. Mostly, there are few highly valuable ones, considering our needs. For example, respecting our time, it is always profitable to search for feeds channels, like RSS or Atom. Short form of messages (abstract or head of the article) allows users to evaluate initially the information and, basing on this evaluation results, to decide whether it is worth or not to pay own time to acquaint with full information.

### Classify

Then, it is quite smart to classify chosen information sources, and divide them into few classes, considering main aspects of one's activities. Classes, as unambiguous defined sets of information sources and kinds, provide users quick access to contextual information. Where the context is determined by current actions, and by connected with them information needs.

### Create

Last step is creating information-friendly working environment. There are certain tools and methods for such an undertaking. One may mention Google's igoogole (iGoogle), Netvibes (Netvibes. Dashboard Everything), or JPolite (JPolite) to mention some of them. For present paper one of which has been chosen. Namely Netvibes framework (Netvibes. Dashboard Everythingi). This tool has been chosen as an example of personalised web portals. Also one can use automatic information retrieval tools, like Google's alerts (Google. Alerts) or news (Google. News).

### Conclusions

Personalised web portals, basing on the Web 2.0 features, deliver space and tools to manage customised web zones. Such portals allow users easily access to valuable static and dynamic information. Using efficiency, and information evaluation criteria one may design and build powerful information cockpit on the base of such tools. There are widgets for RSS or Atom reading, mail box preview, web documents access, calendar managing, and many others that one can apply for very efficient information environment management. One should not miss the possibility of multilevel classification features. Those are, namely, different dashboards as main containers of information and data, and tabs as subclasses for particular kinds of sources. Dashboards may be used, among others, for gathering information connected with main live activities, like personal (or social), hobby (or interests), work, etc. For most of personal web site services are also available in mobile form, all customised information and data may be really in motion, accessible from any device and any location.

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## Digital Judgement and Critical Thinking Skills

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New web applications that emerged with Web 2.0 tools provide new challenges and opportunities in many fields as well as daily life. Web 2.0 technologies have brought new dimensions for web information resources with blogs, wikis and other applications that users can easily create or change content independently from any control mechanisms. Users' interaction with these media leads them to face with uncontrolled and unfiltered content which they are not used to use before. While increasing the quantity of information this situation makes the quality of information uncertain and raises some reliability, validity and authority issues. Since there are no filters and control mechanism between users and the information on internet, it has become a necessity for today's users who used to use controlled content from databases or libraries to use information literacy skills such as digital judgment and critical thinking skills. In the light of this information the main aims of this workshop are to help participants to develop their digital judgment and critical thinking skills and to make them aware of the importance of evaluating information found on the internet and new Web 2.0 environments. Workshop will consist of two lectures combined with the following exercises for group work of the participants and a closing discussion. It is expected by the authors that in the end of the workshop session participants' critical thinking skills will develop and their awareness about quality of web information resources and importance of critical evaluation will increase.

## Crowd Sourcing & Public Information Innovating Public Library Services by Crowd Sourcing!

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Public libraries are usually paid for by public funding. In the near future, several developments make public funding of the library institution questionable. This is partly due to digitalization; to the emergence of 'digital natives', and to diminishing public support in the view of the general public. Discussions have started worldwide whether public funding of public services is still necessary, if not desirable. Some say: "We do not need a library building anymore". This might be true - but in our view, that does not automatically lead to the conclusion that the public library services are at the end of their lifecycle also.

In this workshop you will take part in a hands-on-experience on crowd sourcing the information services you deem necessary for the information society. We, the workshop leaders, think information society still needs public library services, the way they are to be funded does need rethinking, though. Crowd sourcing may well prove to be an alternative to public funding.

We start by introducing you to some effective crowd sourcing concepts from other 'markets'. Armed with these concepts, you will work in a subcommittee with 4-5 fellow participants on developing a concept of one crowd sourced library service. The concept for the service must adhere to one principle: it should be self-supporting and therefore sustainable without structural public funding.

The different teams will be led by a chairperson (students from Saxion). The workshop closes by presenting the developed concepts to the other teams and grading the concepts by your fellow concept developers.



## Organization 2.0: Building a Participatory Archives

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The University of Illinois Archives has recently launched the Evolving Archives Initiative (EVA) to develop an innovative model to create, acquire, manage, and provide access to content celebrating both important historical events and diverse individual experiences of University life and culture. College and departmental units increasingly use social media tools to encourage the campus community and alumni to share personal perspectives and remembrances of the university. However, conventional acquisition strategies do not provide guidance on how to incorporate these rich informal oral histories into more conventional institutional archival holdings. Workshop leaders will explain how the EVA Initiative is developing a participatory strategy for giving “citizen historians” the tools to capture e-media in motion. Participants will be provided with resources from the EVA Initiative toolkit (e.g., file format guidelines, metadata guidelines, and example questions to guide users through the creation of content). Topics of discussion include the pros and cons of using mobile device apps to enhance and simplify content creation and management. Workshop instructors will lead participants in discussions about how “citizen historians” can contribute to the goals and priorities of different institutional environments; for example, we will consider how this content might be incorporated into classroom instruction, thus encouraging broader and more innovative use of primary sources in the university curriculum. This workshop will be of interest to information specialists, teaching faculty, oral historians, and university administrators; its lessons can be implemented on any scale to help enhance library advancement and outreach efforts.

## Google Book Search and the Future of Librarianship The Problems and Benefits of Mass Digitizing

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Back in 2004 when Google announced their digitization project – Google Book Search – experts, as well as working librarians, were concerned that major consequences would afflict the library profession. Other said the threat was exaggerated and that the libraries would live on as before or even profit from the eventual changes.

The workshop aims to discuss and problematize the benefits and drawbacks the mass digitization area is proposing on libraries. The workshop will be divided into three phases – introduction, discussion groups and conclusions based upon the discussions in the previous phase. The vision of is to make the participants contribute to the overall understanding of the phenomenon. We do not aim to deliver answers, but to offer a chance to discussion and reflection.

## Business Case: KB National Library of the Netherlands and Innovation X.0

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In today's media-dominated world, knowledge-sharing is becoming more and more important. Managers are starting to realise that sharing workers' knowledge within a company is crucial to its success. Key to this is Web 2.0/3.0, whose rapidly increasing interactivity offers almost limitless opportunities for cooperation and knowledge sharing in companies and organisations.

### Social Media and Business Communication

What are the benefits of using social media? The risks and drawbacks? Should you use Yammer or Twitter? LinkedIn or a wiki? And how do you make sure that people still meet each other to share essential knowledge? Knowledge management is seen as an essential system for enhancing companies' creativity, and therefore success, in the coming years.

### Business Case of the KB National Library of the Netherlands

The research department of the KB National Library of the Netherlands wanted to improve its intranet and transform it into a platform for communicating and knowledge sharing on a larger scale. It wanted the NLN's staff to interact more effectively and transparently. An important part of the process of making the intranet more dynamic was to encourage employees to add and use content to and from their intranet. Social Media is an essential part of this. This business case examines the current situation regarding knowledge management in libraries and information professionals and the problems they face in implementing it. How can a company increase the value of its employees and thus its own value? And how can employees add value to the company and whilst increasing their own?

## Freedom, Equality and Internet ...When the Internet Made It Possible for Much Larger Groups to Collaborate

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The rise of the World Wide Web has resulted in a new socio-technological pattern. With the technological progress, possibilities of collaboration have broadened its limits. Groups form in new structures and work together in new ways, creating a new field of subjects relating to collaboration.

In this workshop we wish to show how groups can produce better results than individuals. Through small exercises we'll find out when and if the idea of crowd sourcing works, and try to show the possibilities and limits of working with crowd sourcing.

# How Private is Your Privacy

## A Workshop about Privacy on the Internet

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**Curriculum Vitae:** This paper is written by students from the Department of Information Services and Information Management in the specialisation program “Information and Innovation”. The authors are third year students in this program.

**Abstract:** “Privacy – like eating and breathing – is one of life’s basic requirements” (Katherine Neville). That is why we should respect privacy and grant it to everybody. But nowadays where social networks like Facebook and search engines like Google almost control the whole day, privacy loses of importance. Social networks and search engines establish more and more, new settings to get private information and furthermore to give users the feeling that nothing is impossible in the way of sharing information. One example to make the importance of privacy clear: do you realise that Google already knows so much about your searching and surfing behaviour that the same question in their search engine from two different computers gives you two different results. Scaring isn’t it?

In this paper for our workshop we will focus on different aspects of privacy mainly with relation to Google and Facebook. We will talk about the data management which includes how social networks and search engines collect our data, what use they make of our data and how or rather if our data is deleted by them. Besides that we will figure out the costumers’ awareness and which risks are behind sharing private information. Furthermore we will have a short outlook on the future.

### Introduction

Privacy has been a hot topic in the media for the past couple of years. You’re constantly being warned about your privacy and the decline of privacy in the online world. Are these solid concerns? Is your privacy really at risk?

The three members of the workshop group each did an individual literature research on the topic privacy. Before we started working on this paper we scanned these three individual literature researches for useful sources. After thoroughly reading these sources we wrote our paper based on those sources with the focus on the most important topics.

### Definition

The definition of online privacy changes a lot faster than the definition of offline privacy. A few years ago there was, except for Google, not much to do about online privacy. Now, with the upcoming of different types of social media like Facebook and Twitter, that has totally changed. Online privacy is a big issue nowadays. But what is exactly online privacy?

Online privacy is something totally different than traditional (offline) privacy. First of all the online world has a longer memory than the offline world. When you update your Facebook status, upload a video on YouTube or post a tweet on Twitter than its stays online till you delete it. But even when you delete it, it’s still not a guarantee that it’s

not online anymore. Complete deletion of data is almost impossible. This could have some serious consequences for people.

The second difference between online and offline privacy are borders. Borders are very important for offline privacy. Every country has its own national privacy laws. These privacy laws only count within the borders of a country. The online world is not bound to borders, so it is hard to control these laws on the Internet. So simply put: online activities, and privacy, don’t have borders and laws do. This is a problem that still isn’t solved.

### Awareness

According to an extensive study about social media privacy behaviour “users became more aware of social media privacy risks and adjusted their behavior accordingly” (Boyd, 2011, S.8). One reason might be that people want to protect their privacy from their future employer. Another reason is that parents want to protect their children’s privacy from sexual offenders. (Kang, 2010, S.1) But students are worried, too. 42% of students are worried that their shared personal information could have a bad influence on their later job (Barnett, 2011).

The one side is that people are aware of the problem; the other is that they are not. In an article for the msnbc.com Bob Sullivan, a technology correspondent, explains three different groups of people in the field of privacy. The first group does not care about their privacy at all showing no interest at all. The second and at the same time biggest group says they are aware but they do not know what to do to protect their personal information. Finally the third group, a small one indeed, is aware and knows what to do. (Sullivan, 2011).

Sullivan started a test and he found out even people who are experienced in “private mugging” often do not change their privacy settings. (Sullivan, 2011)

Rob Reid a scientific policy adviser for the Wich? explains it this way: “Many Facebook users have never changed their privacy settings and those who have, do it far less often than Facebook makes changes. This may reflect a disregard or lack of awareness for privacy or, more worryingly, privacy fatigue stimulated by the dizzying number of changes.”

These outcomes about customers’ awareness of privacy are mostly from the view of the United States or the United Kingdom. The privacy discussion is different in each country.

### Data Collection

In this chapter the focus will be on the search engine giant Google and the social network boomer Facebook.

#### Google

It is no secret that Google dominates the search engines (Tene, 2008, S.1440). The reasons are obvious. Google is easy to use, quick and you get many results and the answer to your requests is available all over the world. The biggest problem of the data collection Google does is that people have no idea what kind of data Google collects (Tene, 2008, S. 1435). People share their interests, needs and fears and so on and so on.

But what they do not know is that Google collects this data and with this information it is much easier to identify the originator (Tene, 2008, S. 1435).

By now Google has the biggest data collection about individuals within self-created content as well as online behaviours in the world. The user generated content is controlled by yourself and associated with your account and the online behaviour is a part of server log data which is associated to one or more cookie IDs on your computer. For you this part of the data collection is not visible. So Google collects the date, time, request, IP-address, one or more cookie IDs and other metadata. (Mitchell, 2009)

### Facebook

By now Facebook saves everything you post on your profile (videos, photos, messages...) and everything your friends or anybody post about you. But there is way more they save: your location and the time you were there. They also save how long you are on Facebook and at which time. With the new "frictionless sharing" – a social App – it will be possible for Facebook to save where the user is and what he does there. Furthermore with the Open Graph it will be possible to follow the actions of the users outside of the Facebook-platform. (Bleich, 2011, S.98)

To put it into a nutshell: Facebook collects everything, even if you delete something from your profile – it is still there (Focus, 2011).

### Risks

The most social media networks are making their money with the information they collect about their users. So the most social media networks require a profile for the user. This profile requires personal information before you can use the social media network. Providing these personal data makes the way clear for a lot of potential privacy risks: direct marketing, re-identification, profiling, identity theft, online and physical stalking, and blackmailing.

But is not only other users that form a risk for the user on a social media network. The social media network itself could be a risk for the user. It already starts at the beginning. When you want to create a profile on a social network you have to agree with the terms of service. The problem here is that the most people don't read these terms of service, so they don't know what they agree to (7500, 2010).

Another risk, especially for children and adolescents, is that they share too much information. Most of the time they are not concerned about their privacy and thus share inappropriate messages, pictures or videos. Furthermore they often don't realize that everything that they put online stays online. This behavior could have serious consequences for them in the future. (Ballet, 2009, McBride, 2011).

Besides this desk research we are also going to do some exciting field research. This field research will also be presented at the workshop.

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## The Spirit of New Professionals

### How to Boost Your Early Career through International Involvement

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Especially with the help of social media, new professionals have been able to make their voice heard in the LIS profession in recent times and to effectively organize themselves from a local level to a global scale. The latest example of this fruitful mélange is the New Professionals Special Interest Group (NPSIG) of IFLA (International Federation of Library Associations and Institutions). The group was awarded the IFLA Communicator of the Year Award 2011 for its innovative and effective outreach to New Professionals from around the world. The integration of new tools of collaboration and networking not only helps NPSIG to profile itself, but also provides important stimuli to its home association IFLA in an ever-changing environment of rapid technological development and innovation.

As a starting-point we would like to give a short overview on the practices of NPSIG and introduce the audience to the IFLA network. The participants will get an idea about the benefits of getting involved internationally as a student or recent graduate and how to make the best of the many possibilities such a huge association as IFLA has to offer.

Based on the use of social media as one particular characteristic of New Professionals, we would in the workshop part like to ask the audience to find and discuss further strengths of New Professionals. What is it that helps them to find their way into the LIS market but also supports libraries to keep track of new developments and stay fresh in mind? Let's find out!

## Videos

Vanesa Giatas Sebastián, Laia Manuel Viejobueno and Anna Noguera Rocabosch (University of Barcelona, Spain):  
Our Hidden Potential – Study of the professional reality of Information Managers  
Full video on: <http://www.facebook.com/pages/Our-hidden-potential-Bobcatsss-2012/293712667352483>

Mace Ojala (Turku City Library, Finland), Jukka Pennanen (National Library of Finland, Helsinki, Finland) and Tuomas Lipponen (Kirjastokaista, Helsinki, Finland):  
Cycling for Libraries – The Documentary  
Full video on: <http://www.cyclingforlibraries.org/cph-ber-2011/>

## Posters

Melike Akman:

Capturing Changes in Education: New Program Structure of the Department of Information Management of Hacettepe University

Andrea Buschbeck, Joana Gomes, Júlia Gouveia, Rita Vaz, Sara Mendes, Susana Almeida, Fernanda Martins:

My Information: From Diary to Social Networks

Hilary Collins Bussell:

Virtually Yours: Using Screencasts to Supplement In-Person Library Instruction

Ivana Čadovska, Tihomir Vranješ:

E-Croatia: Where Are We Now?: Research about Online Access to Public Information about Croatian Government

Adina Maria Ciocoiu, Live Kvale, Ewelina Melnarowicz:

When Academia Goes “e”

Elena Corradini:

Children’s Information Behavior: How Do They Trust Online Retrieved Information?

Elena Corradini, Martina Ferko:

How Information Professionals Change Their Way in Organizing Personal Information for Their Jobs: Results from a Survey in Croatia and Italy

Dierk Eichel:

Linked Library Data in E-Motion – How to Bring Your Library Classification into the Linked Open Data Cloud

Dierk Eichel:

Well Planned, Almost Won – How the Berlin Gender Library Faces the Library 2.0 Challenge

Martina Ferko, Biljana Djakovic, Tomislav Jakopec:

Where Is .hr domain?

Gaelle Laport, Clement Gandon:

Segmentation of Mobile Devices

Drahomira Gavranović, Ileana Kurtović, Ivana Halužan, Tina Đaković:

“Privacy of Information” – Who Is Responsible for Privacy in Social Networks?

Julia Alexandra Goltz, Doreen Thiede:

Cloud Computing and Libraries – a German Perspective

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Monika Halasz-Cysarz:

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Annabelle Koester, Sonia Theodoridou, Tomáš Janyška:

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Ryne Matthew Leuzinger: Building a Database for Instructor-Generated Educational Materials for Computer Instruction at Public Libraries

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“The Interactive Poster”: An Ideal Design in 3D Creation

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