Web 2.0 tools integration in Online Public Access Catalogue (OPAC) – users desires and motivation
Abstract

This research aimed to investigate the desires of the users of Library on Gender and Equality (LGE) about a future Online Public Access Catalogue (OPAC) containing Web 2.0 functionalities. The concepts of participation, information pluralism and community building in relation with Web 2.0 tools in libraries’ catalogues were introduced under the theoretical approach provided by Social Critical Theory of Jürgen Habermas. A qualitative research based on semi-structured interviews with users of the LGE was conducted and the collected data that were analysed with the thematic analysis method, revealed positive users’ impressions regarding the introduction of Web 2.0 tools in the LGE’s OPAC. The research also disclosed users’ desires and suggestions regarding specific Web 2.0 features and their common motivation to participate and contribute to be the opportunity of communicating with like-minded people.

Keywords: libraries, OPAC, Web 2.0, participation, communication, community-building, Social Critical Theory, Jürgen Habermas, public sphere, communicative action, lifeworld, qualitative research, thematic analysis, semi-structured interviews.
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Athens, Greece, May 2014

Konstantina Pentarchou
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<tr>
<td>CST</td>
<td>Critical Social Theory</td>
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<td>ICT</td>
<td>Information and Communication Technologies</td>
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<td>Integrated Library Systems</td>
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1. Introduction

Information and Communication Technologies (ICT) have evolved rapidly since 1970s and new products became ubiquitous in people’s everyday lives (Dahlbom, 1993). The appearance and the evolution of ICT/Information Systems (IS) until the advent of the Internet was interconnected with the business and the organizational environment. Computerization which emerged in the 1960s in the industrialized world with data processing tools, continued in the 1970s with the transition to the Management Information Systems (MIS) for administrative control and monitoring. In the 1980s the development of personal computers was marked by the perception of “office automation” (Ward and Peppard, 2002; Dahlbom, 1996, pp.32-33). The third era of ICT development and implementation in organizations began in the 1980s with the Strategic Information Systems as a “new weapon to improve their competitiveness” (Ward and Peppard 2002, p.25). The advent of the Internet in the 1990s as a popular means of communication was welcomed by many organizations as a way to increase their sales and profitability through web-based services offered to their customers (Olson and Boyer, 2003, p.225). The second generation of the World Wide Web, Web 2.0 appeared in the beginning of the millennium and enabled people to use Internet in their every day lives as a medium for communication, for acquiring knowledge and information and for entertainment. During the last decade many organizations around the world having realized the opportunities offered by the Web 2.0 began to utilize these tools in their web-pages (Tredinnick, 2006; Mansour, 2013) in order to provide more and better services to their customers.

In this challenging environment, libraries as organizations responsible for the dissemination of information were also challenged by the technological developments. The evolution from the card cataloguing to the modern Integrated Library Systems (ILS) was a long process that lasted from 1970s until the end of the 1990s. At first the changes had low impact on the libraries’ users apart from the improved circulation procedures and the better-produced bibliographic lists, as automation applied only to the internal library procedures. A significant change for the users came with the appearance of Online Public Access Catalogues (OPACs) in the 1980s. In Greece, these changes took place in the late 1990s. Today the Integrated Library Systems (ILS) are the basic software of all the libraries’ functions and have transform libraries to organizations that are highly dependable on technology to carry out their basic operations. Modern ILS are composed of different modules integrated in a unified interface which manages procedures like: acquisitions, cataloguing, circulation, serials and the OPAC, the web interface that users use to locate library’s material. In most libraries, OPACs’ search and display capabilities are restricted in searching and displaying bibliographic records in the form of structured metadata entered by librarians.

However the emergence of Web 2.0 tools and applications enabled the development of a new environment, where participation and the users’ interactions play a central role (Anyaoku, Orakpor, and Ezejiofor, 2012). Libraries could also take advantage of the utilization of such services and create new channels to the traditional knowledge distribution models. Thus, libraries are expected to educate users to use the new technologies in order to move to a more virtual workplace and to encourage users’ participation in library’s operations and users’ forums (ibid.). In reality many librarians,
especially in developed countries are already well informed about Web 2.0 and its
capabilities. Blogs are used for sharing information, RSS feeds for providing updates of
resources or collections, social tagging for facilitating search and discovery, and social
networking services for establishing personalized connections with users and
exchanging information and ideas with them (Anyakhu, Orakpor, and Ezejiofor, 2012,
p.32). However, librarians’ effort should go beyond creating Facebook pages, Twitter
accounts, and RSS Feeds. The current trends urge them to investigate their users’ desires
regarding the introduction of Web 2.0 tools in a more systematic way in their libraries in
order to provide better and accurate information and to enable communication and
interaction.

In the library context, Web 2.0 technologies could play a significant role in satisfying
the evolving needs of library users by developing new services such as

“virtual reference, personalized OPAC interfaces, or downloadable media that
library users can use in the comfort of their own homes” (Casey and Savastinuk,
2006, p.1).

Birdsall (2007) considers Web 2.0 as a social movement which arises out of the
interaction between technological developments in communication and the basic
universal human right for users to communicate and to participate. Thus, the most
revolutionary change offered by Web 2.0 adoption in libraries is the expectation of user
participation into the librarians’ traditional operations (Casey and Savastinuk, 2006).
The advanced roles to participate and communicate given to the users encourage the
transition from the “traditional vertical, top-down, passive one-way flow of
information” to the “interpersonal, horizontal, multi-channel, interactive electronic
communication” (Birdsall, 2007, p.1) and lead to users’ activation and empowerment.

In Greek libraries, the utilization of web-based tools is still used in a limited way
compared to other European countries. Although many of the Greek libraries had made
some efforts to incorporate Web 2.0 into their web-pages, they do not utilize them in
their most important asset, their OPACs. However, a few years ago the Panteion
University Library (Panteion University, 2008) developed the OPACIAL, an enhanced
OPAC which includes tagging functionalities, tag searching, user annotations, ranking
functionalities, and the use of reference tools (Kakali and Papatheodorou, 2011). Although
significant progress has been made during the last decade in the architecture
and planning of libraries’ buildings, library collaborative networks, OPACs, and internet
connections, the Panteion University Library’s initiative has not yet been followed by
other Greek Libraries.

Nevertheless, the integration of Web 2.0 tools presupposes librarians and users
engagement and involvement in the design and the implementation of new OPACs in
order to be successful. As Wagner and Piccoli (2007, p.51) underline:

“Rather than fighting human nature by trying to force the participation of user
groups throughout a project, we should broaden our thinking about development
and implementation methodologies to reflect what happens in practice. We find
that in practice user participation can be most powerful after ‘go live’ when
users are truly engaged”
1.1 Aim

Due to the possibilities offered by the Web 2.0 technologies and the limited use of these in the Greek libraries this research’s aim was to qualitatively investigate users’ desires and suggestions of Web 2.0 features to be integrated in a library’s OPAC in order to improve the library services offered to its users.

The research questions are as follows:

1. Which Web 2.0 features do the users suggest to be integrated in the OPAC and why?
2. What motivates the users to contribute with content in the OPAC with the use of WEB 2.0 and why?

The research was performed at the Library on Gender and Equality (LGE) in Athens, Greece, a special public library with a specific focus on issues of gender equality and history of the women's movement. Users of LGE participated in the study and the LGE’s OPAC was used as the catalogue that was intended to be reformed.

1.2 Topic Justification

The outcome of this investigation will hopefully provide a starting point for elaborating a project plan for the reformulation of LGE’s OPAC. However, the deeper expectation is to raise other Greek librarians’ awareness on engaging users to a more participatory culture through Web 2.0 tools and applications in libraries websites and OPACs. Web-based technology evolution urge libraries to offer more quality services to their users (Xu, Ouyang, and Chu, 2009) and also to exploit users participation in order to enrich their catalogues content by social tags and user’s classification schemes (Kakali & Papatheodorou, 2011). Users on the other hand are more than familiar with Web 2.0 tools and applications in their everyday personal and professional lives as social media have “become ubiquitous and important for social networking and content sharing” (Asur and Huberman, 2010, p.1). But the utilization of these features while browsing or searching in a library’s OPAC as enhanced tools is still new and unfamiliar to Greek libraries’ users and librarians.

The application of Web 2.0 in the OPACs aims to destabilize the traditional conception of information and knowledge existence independent of the user, which dominates library and information profession. As Tredinnick (2006, pp.231-232) argues, libraries, by implementing knowledge management practices, treat knowledge as independent of the user. Therefore, information and knowledge are managed as they can be acquired, stored and classified through their objective characteristics using standardized classification schemes. Web 2.0, in contrary, treats information and knowledge as concepts constructed through social interaction, and during the interaction between users and information systems. Tredinnick (ibid.) refers to folksonomies as entities that are constructed by the users when they interact with libraries’ collections. Similarly, wikis are created by users in collaboration with other users. Based on Tredinnick’s line of reasoning:
Taking advantage of the new possibilities offered, this study’s wish is to introduce the concept of Web 2.0 in libraries websites and OPACs in a systematic and user-driven way.

1.3 Scope and Limitations

Web 2.0 technologies by the means of blogs, social network sites, wikis, video sharing sites, are ubiquitous in people’s everyday lives all over the world as communicative, entertainment, marketing, educative mediums. This research is focused on a different use of the Web 2.0, as Library’s OPAC’s enhancers in order users’ participation in librarians’ dominated operations to be encouraged and the enrichment of Library’s catalogue with users’ views and comments to be achieved. Habermas’ Social Critical Theory offers the appropriate ground for this research to focus on concepts like participation, communication, emancipation and democracy. The users of the Library on Gender and Equality (LGE) were chosen to participate among other Greek libraries due to my personal interest, as I have been working there for fourteen years. Being aware that the integration of Web 2.0 tools in the OPAC in conjunction with the lack of staff and the limited economic resources available requires a great effort from the Library’s personnel, this study constitutes a first exploratory stage of a Participatory Design project for the development of a new OPAC for LGE.

1.4 Thesis Disposition

The rest of the thesis is structured as follows: In chapter 2 Web 2.0 concept and the opportunities offered by these technologies in organizational level and to libraries more specifically are presented. A brief analysis of the basic “elements” of Library 2.0 follows and the chapter closes with the changes that the introduction of Web 2.0 is expected to bring in the library environment. In chapter 3 the Critical Social Theory is discussed with a focus on the theory of Habermas in relevance with Information Systems and Libraries. Continuing to the chapter 4 the Research Setting, the Research Design and the Methodology are described. Empirical Findings are presented in chapter 5, followed by the Discussion in chapter 6. The Conclusions, Contributions to research and to practice, Reflections and suggestions for Future Research are exposed in chapter 8.
2. Web 2.0 in Organizations

Web 2.0 was first mentioned by Tim O’Reilly as a business revolution guided by the idea “to build applications that harness network effects” by the means “to get better the more people use them” (2006 cited in Jashapara, 2011, p.210). Treddinick (2006, p.229) argues that applications like blogs, wikis, RSS, social network sites introduce a more democratic phase in the organizations enhancing the role of the user by ceding the control of the information. Aharony (2008) summarized the main characteristics of the Web 2.0 concept in the following way:

- Individual production and user-generated content which refers to self-publishing, personal publishing and self-expression
- Capacity for “harnessing the power of the crowd”
- Architecture of participation by the means that the new services can improve and facilitate user participation.
- Network effect, describing the increase economic value to existing users of a service, as more people start to use it
- Openness as it works with open standards, using open source software, making use of free data, reusing data, and working in a spirit of open innovation

In addition to these features the following can be added:

- Facilitation of communication and communities’ creation. New technologies enhance the communication between users and enable the creation of user communities, through which the exchange of ideas and views is facilitated (Kim and Abbas, 2010, p.212).
- Low cost. Some of the major tools of Web 2.0 technologies have low or no cost as access is free in most of them, since all that is required is a simple registration.

In organizations, Web 2.0 technologies were first used in the corporate intranets in order to facilitate information and knowledge flow within the organization (Treddenick 2006, p.232). Therefore, these technologies were expected to function as enablers of transformation processes by empowering knowledge collaboration and sharing based upon democratic and participatory values. However, Mansour’s empirical study on wikis used in the formal organizational operations concludes that social media usage seems to reflect the organizational bureaucracy and to maintain the organizational structures and practices (2013, p.110). Mansour suggests focusing our research on the perspective of immiscibility in order to understand:

“the interplay between technology and organization through their distinct characteristics that may drive the emergence of various kinds of tensions or incompatibilities in the practice of using technology” (ibid, p.112).

On the other hand Baird and Parasnis strongly support the utilization of social media in the organizational context, arguing that organizations need to “unlock the potential of
social media” in order “to reinvent their customer relationships” by training their employees into internal social media programs. Such initiatives may also “offer the company a vehicle for capturing fresh, innovative concepts for improvements” (2011, pp.30-31). The truth is that as the spread of Web 2.0 evolves, there is an increasing number of companies that use social media and other Web 2.0 tools as a way to encourage customers’ participation and derive value from it. Web 2.0 features deployed in marketing strategies provide real-time customers’ feedback on existing or new products and services. According to Parise and Guinan (2008, p.6) the benefits of exploiting user-generated content derived from Web 2.0 technologies overcome possible risks of defamation for the companies that occur from consumers’ control of information flow.

2.1 Web 2.0 in Libraries

The appearance of Web 2.0 offered the opportunity of a wide range of applications and tools to be introduced into libraries’ environment in order to share library’s and community’s news with users, to promote library’s services, to provide information literacy, etc. The term “Library 2.0” introduced by Michael Casey in September 2005, reflects libraries’ effort to take advantage of the new developments in order to attract users’ feedback. Maness (2006) defines Library 2.0 as “the application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections”. He further describes these technologies as “user-centered and socially rich” as they include users’ presences in the library’s web-presence and also “communally innovative” as they provide the opportunity to the users to change the library along with the community’s changes over time. Stephens and Collins (2007, p.255) argue that Library 2.0 is not just a set of Web tools but the “application of open, participatory thinking to library services”. However, the term is still treated with skepticism by scientists due to its similarities to Web 2.0 concept. But the objections go beyond the meaning and the value of the term as many librarians believe that the term is confrontational because the version number “2.0” seems like a declaration that there was an outdated “Library 1.0” which needed to be replaced (Habib, 2006). In the meanwhile Furner (2007, p.3) presented the specialized term “OPAC 2.0” as:

“a model for the redesign of catalog[ues] as social OPACs that purposefully invite the users of catalog[ues] to participate not only in the exploration and exploitation of catalog[ue] records, but also in their creation”.

Moreover, Furner supported that user tagging is one of the most promising services that libraries could offer to their users. Users’ tagging is equalized to collaborative indexing since the user tagging has almost the same characteristics as indexing provided by librarians (Furner, Smith and Winget, 2006, cited in Furner, 2007, p.2): The user-tagging is explained as:

- user-oriented: tags are generated by users
- empowering: users have the chance to record their own knowledge about the library’s resources
- democratic: tagging is a free opportunity given to the users
- collaborative: the sum of tags existing in library’s database represents the work of multiple people.
• distributed: no single person is required to tag all of the resources, and no single resource needs to be tagged by all of the people in a given community
• dynamic: The description of a resource may change over time, as different people add different tags to it
• cheap: tagging is free of charge and “taggers” do not get paid
• instructive: tagging offers the potential of learning to the “taggers”

Furner’s suggestions are vitally important to be followed by the libraries globally given that the prevalence of OPACs as the most important automated retrieval systems that people use (Fast and Campbell, 2004, p.138) is threatened by powerful search engines and other free content providers. In a research carried out by Fast and Campbell (2004, pp.138-146) the participants although they admired the highly structured data presented by the OPACs, they declared their preference for popular search engines like Google for information retrieval (ibid., p.144). According to Fast and Campbell the traditional information retrieval design which is supported by the OPACs does not meet users’ expectations anymore which are shaped by the new potentials provided by the search engines (ibid., p.138). Moreover, the growth of distributed technologies, the widespread presence of open models expressed through open access, open source software, open knowledge networks, open communities and the emergence and the spread of online social networks offer new dimensions for sharing and communicating (Lougee, 2009; 2002). The new research methodologies and the new learning modes accompanied with the expectations of unhindered access create a challenging new environment for libraries. As Lougee (2009, p. 615) claims

“If the library is to be focused on supporting user processes, it must understand those processes. This becomes increasingly critical as those processes change in response to new content and capabilities in the network environment”

Therefore, libraries are expected to be at the forefront of technological developments in order to continue satisfying their users’ needs in the perpetual changing digital world. In fact a number of researches during the last years indicate that efforts have been made. Social network sites, instant messaging, social bookmarking, podcasts, blogs, RSS, wikis have been implemented by many libraries around the world. Xu, Ouyang and Chu (2009) performed a survey in 82 academic libraries in the US. They found that instant messaging, blogs and RSS were used extensively compared to social bookmarking, social networks and podcasts. In addition Liu’s (2008) research in 111 of the 125 research libraries in the US and Canada, belonging to the Association of Research Libraries (ARL) showed that instant messaging was used in almost all of them. In China a research conducted by Han and Liu (2010) reported that more than two-thirds of the 38 most significant university libraries had implemented one or more Web 2.0 features in their websites with OPAC 2.0 and RSS to be the most frequent used and instant messaging, social networking, blogging and wikis to be used less. Biigues-Garcia and Gimenez-Chornet (2012) found that 15 of the 51 national libraries in Europe can be considered as Libraries 2.0.

In Greece many libraries utilized Web 2.0 functionalities in their websites and created Facebook pages. However, their OPACs are still updated only by the librarians while the users continue to be passive receivers of the information displayed on the screen. The only exception is the Panteion University Library, which developed and introduced OPACIAL, a prototype library information system which incorporates Web 2.0 functionalities providing to the registered users the opportunity of adding and viewing
other users’ tags, opinions and ratings apart from the traditional display of the bibliographic record (Gavrilis, Kakali and Papatheodorou, 2008, pp.153-154). Gavrilis, Kakali and Papatheodorou presented the new catalogue and investigated the acceptance by a small group of students and faculty members through questionnaires, interviews and experimental use of the system. The research revealed that the users rated highly the tagging functionality noting that the tags can play a complementary role to the existing subject headings in order to “to describe more precisely the OPAC records, or to correct a wrong subject term” (ibid., p.157). However, the functions of commenting and tag cloud were rated lower compared to the tags, especially by faculty members. Nevertheless the majority of the participants stated that they found the presence of both subject headings and tags very useful and that they would reuse OPACIAL and would also recommend it to their friends (ibid., pp.156-158).

Therefore, libraries are required to change their orientation from the collection-centric model which is based on “well-bounded collections”, “controlled descriptive practice” and “a generally reactive mode of service” (Lougee, 2009, p.613) to a new organizational model where collaboration is enabled, the library community is engaged and the knowledge resources of the library and the community are leveraged (Lougee, 2009, p.622). Thus, libraries are urged to redefine role by demonstrating technological alertness and organizational agility in order to sustain their viability in the Web 2.0 environment. The utilization of Web 2.0 features in the OPACs is expected to transform libraries into organizations where participation, communication and collaboration are prevailing values.

But under the pressure of these significant changes it is important that libraries preserve their identity. Their heavy dependence on technology could make them vulnerable due to the thoughtless adopting of new technologies could thread their organizational identity. The successful implementation of new and innovative technology in every organization requires a carefully organized plan prior to new technology implementation (Ward and Peppard, 2002, p.1-5). As Buckland warned back in 1998 “the challenge for all concerned with libraries, is to determine how, whether and when” the new technology “should be used” (1998, p.1). Given that libraries are constantly “buffeted by new technological advances” (Lankes, Silverstein and Nicholson, 2007, p.17) should ground any technological change onto a framework of the key organizational elements affected by the change and a plan which firstly must originate from the library’s mission and users’ needs (ibid.). Xu, Ouyang and Chu (2009, p.329) present a framework of Academic Library 2.0 “components” which are defined as the “corresponding specifics” that enhance the successful implementation of Web 2.0 technologies in libraries. Librarian 2.0, User 2.0 and Information 2.0 are the basic aspects that need to be analyzed in the library environment in order important organizational changes to take place, see Fig. 2.1. In the current study this framework is used as a supportive tool in the discussion of the findings related to the users’ views of Web 2.0 functionalities.
2.2 Librarian 2.0

The changing library environment first of all requires a shift of librarians’ focus from processes such as “developing, making accessible and mediating collections” to users, by adopting the new emerged role of facilitator in users’ interactions among one another, and with librarians (Maness, 2006). Librarian 2.0 is a new concept which introduces a change of the profession and refers to the required IT skills and knowledge of librarians (King, 2007), to attitudes or ethos (Stephens, 2006, pp.12-13), or to the role and influence the librarian “can and should have within his or her organization” Cullen, (2008, p.).

Xu, Ouyang and Chu (2009, p.329) state that “Librarian 2.0 faces more challenges than ever before to offer quality services to library users while keeping pace with the rapid development of Web 2.0 technologies and encouraging user participation in libraries”. They describe Librarian 2.0 to be creative, user-oriented and to encourage users’ participation and also to act as a contributor, an organizer, a facilitator and a coordinator regarding the assigned new roles. However, most of the researchers agree that the ability to engage with and use technology and to meet users and community needs are traits that confer key competencies. According to Partridge, Lee and Munro (2010, p.330) librarians in the Web 2.0 world, experience a cultural change in their profession and they are required to adopt a “different mindset or attitude”.

Riedler and Eryaman (2010, p.89-100) propose a new perspective of librarians’ roles based on Freire’s critical pedagogy, which recognizes that learner and community experiences are central to the education process. Transferring this concept into the library context, they claim that “the role of the transformative library and its staff is to facilitate the production of knowledge rather than its transmission” (Riedler and
Eryaman, 2010, p.89-100). Freire’s notion of libertarian pedagogy applied in the library environment promotes learning in libraries to be a dialogic process during which the librarian and the user construct knowledge together. Riedler and Eryaman claim that applying Freiman’s critical pedagogy in the library context “could inspire the development of a transformative and community-based library model” and could lead to the transformation of libraries into democratic spaces.

2.3 Users 2.0

From the users perspective, the interaction with the product triggers a process where first “a user's personal reconstruction of the designer's intended product character” is constructed (Hassenzahl, 2005, p.33). This “personal reconstruction” depends on users’ personal standards and expectations, the products features and the current situation of use. Different judgments about the same product among different people can be explained by different pre-existing standards and expectations. There is also the possibility of different judgments for the same product within the same person which can be explained by the situation of use and depends on the increasing experience of the user interacting with the product.

The traditional approach of Human Computer Interaction (HCI) is to evaluate the product or service from the perspective of whether the task of the person uses it has been accomplished or not and if the product or service was easy to use. This approach views person as a “user” and the product or the service as a “tool” and the main concern is to check its usability. Although this approach raises some serious concerns, it is outdated because it tends to “dehumanise” people failing to include other aspects of humaness such as emotions and feelings that people experience during their interaction with a product or a service (Jordan, 2005, pp.XI-XII). Usability was a major issue during 1980s and 1990s but more recent approaches have started to take other more human factors into account like engagement, enjoyment, fun and even “felt” experience (Rogers, Sharp and Preece, 2011, p.23).

As long as computers were just work tools the issue of completing tasks was understandably significant, but after they:

“moved out of the office into the living room”, enjoyment has become also a major issue, although it is now recognized that “work tasks are performed better if they are enjoyable” (Blythe and Wright, 2005, p.XVI).

This change was also recorded in the web reality through the appearance and the functionality of the websites as most of them were transformed from static to interactive, encouraging users to contribute into their content. In this way, Internet became an interactive medium distinguishing itself from the traditional media, which continue only to disseminate information and do not collect users’ feedback. Under these circumstances in the Web reality, static content is considered to be outdated providing only one way communication from IT developers to users. Interactive websites, on the other hand, which provide two-ways communication and interactive content, guide users to experience their navigation in different ways. Moreover according to Rogers, Sharp and Preece (2011, p.1-2) the products that require users interaction were designed primarily with the user in mind and they are easy and enjoyable to use, while technologies that do not require users’ interaction are designed with a focus on
functionality, effectiveness and efficiency. Thus, the focus of the way we use and interact with technology has moved from the usability as a quality objective to the positive user experience.

2.3.1 User Experience

ISO 9241-210:2010 defines User Experience (UX) as "a person's perceptions and responses that result from the use or anticipated use of a product, system or service" adding a more analytical definition in an explanatory note which clarifies that “user experience includes all the users’ emotions, beliefs, preferences, perceptions, physical and psychological responses, behaviors and accomplishments that occur before, during and after use”. And continues:

"User experience is a consequence of brand image, presentation, functionality, system performance, interactive behaviour and assistive capabilities of the interactive system, the user's internal and physical state resulting from prior experiences, attitudes, skills and personality, and the context of use."

Although there is no widely accepted and shared definition of UX, Scapin et al. (2012, p.2), summarizing the literature on the topic adopt Hassenzahl and Tractinsky’s definition (2006, p.95) of UX as a consequence of a user’s internal state by the means of predispositions, expectations, needs, motivation, mood, etc., the characteristics of the designed system such as complexity, purpose, usability, functionality, etc. and the context within which the interaction occurs. Also researchers and practitioners participated in Law et al.’s survey (2009, p.722) supported the statements that UX is a new notion in the HCI domain, grounded in user-centered design practices with “dynamic, context-dependent and subjective” nature “stemming from a broad range of potential benefits [that] users may derive from a product”. Therefore, Rogers, Sharp and Preece (2011) propose a number of users’ emotions and felt experiences derived from the interaction with a system and can be either desirable or undesirable, see Table 2.1.
Table 2.1. Desirable and undesirable aspects of the user experience (Adopted from Rogers, Sharp and Preece, 2011)

Given that positive UX is linked with positive users’ attitudes and stances to interact with technological tools such as desire to repeat use and positive decision (Law and van Schaik, 2010, p.313), positive users’ emotions and felt experiences constitute an encouraging factor for a digital product development.

2.4 Information 2.0

The third component of Xu, Ouyang and Chu’s framework (2009, p.329) is Information 2.0 which differs a lot from Information 1.0 (Table 2.2). Information 1.0 was presented linearly while nowadays the presentation via hyperlinks is the norm. In the new online environment of libraries, information providing can be performed collaboratively by both librarians and users through Web 2.0 tools like tagging and blogging. So that the information flow which was traditionally one-way has changed into “N-way” in Information 2.0 as the communication takes place among librarians and users in all possible directions (Xu, Ouyang and Chu, 2009, p.330)
The introduction of Web 2.0 in libraries’ catalogues enables libraries to revitalize their services and their interactions with users. Some libraries have already inserted folksonomies and social bookmarking in their OPACs. Social bookmarking or social tagging is the users’ labeling practice which helps them to organize their information resources by adding personal tags or using other users’ tags. The term “Folksonomy” was coined by Thomas Vander Wal and describes the emerged classification schemes that arise from users’ tags (Tredinnick, 2006, p.231). The exploitation of more Web 2.0 technologies in the library environment and particularly in OPACs could transform libraries catalogues into active participatory spaces of information exchange.

Farkas expanding the participatory potentials that Web 2.0 offers, characterizes them as social software tools that allow people to communicate, collaborate and build communities online, encourage knowledge and ideas to be syndicated, shared, remixed, reused, and new knowledge to be created through “the wisdom of the crowds” (2007, p.1-8). Obviously the new technological developments bring many changes in the traditional library environment as users’ participation and collaboration are welcomed and encouraged (Stephens and Collins, 2007, p.253). Most significant changes are considered to be that libraries catalogues become richer by users’ contributions and the users themselves develop a sense of belonging to a community of like-minded people (Furner, 2007, p.5).

2.5 Transforming Libraries to Participatory Organizations through Web 2.0

The concept of participation has a long history of defining efforts in political studies and by most authors the existence of different intensities of citizen participation is equalized to different levels of citizens’ power and reflects different levels of democracy (Arnstein, 1969; Parry and Moyser, 1994, pp.44-62; Bishop and Davis, 2002; Carpentier, 2011, pp.15-38). Combining participation and democracy Carpentier characterize the notion of full participation as “never-to-be-reached ideal” which “functions as an important democratic utopia” and we ought to strive “to move closer toward it” (Jenkins and Carpentier, 2013, p.267).

Although Jenkins and Carpentier criticize Web 2.0 platforms that overpromise and under-deliver regarding users’ participation, they agree that there is some value in using the term of participation as a reference not to actual practices but to expectations based on the assumption that Web 2.0 platforms may set the preconditions for struggles.
towards the prevalence of participatory culture (Jenkins and Carpentier, 2013, p.273). Depending on this view users’ participation and involvement in library’s operations empower the users (Furner, 2007, p.5). In addition, the libraries’ role as organizations that promote democratic ideals is enhanced. Carpentier and Dahlgren set engagement as a prerequisite for participation given that people have to feel invited, committed and empowered in order to decide to participate (2011, p.8). Moreover, Carpentier argues that the penetration of participatory culture in an organization depends strongly on organization’s structure and leadership (Jenkins and Carpentier, 2013, p.277). Jenkins adds that participatory organizations encourage “ongoing participation as part of their members’ lifestyles” and this process raise members’ awareness to care about organizations issues, about the community and about their own identities and roles (Jenkins and Carpentier, 2013, p.280). Another argument is that users’ participation in library operations could encourage people and especially youths to undertake more active roles in their social and political life by becoming powerful public actors and “breaking out of old patterns of marginalization and nonparticipation” (Riedler and Eryaman, 2010, p.95). The above mentioned arguments propose that Web 2.0 tools could transform libraries into participatory organizations which encourage their users’ involvement and participation into traditional librarians’ operations leading libraries to be centers of expertise and fields of participatory democratic practices (Jenkins and Carpentier, 2013, p.277).

2.6 Catalogues’ Enrichment through “the Wisdom of the Crowds”

At this point a critical examination of the power dynamics existing in the libraries, where librarians’ expertise dominates, appears to be essential in order to be established more participative and active roles for libraries users. Traditional library operations and OPACs underline the assumption that library users ought to be passive recipients of information and librarians are experts in information capture, codification and distribution methods (Riedler and Eryaman, 2010, p.92). This assumption risks marginalization of the users as ignorant, inexperienced and unvoiced (Stephen and Collins, 2007, p.255) and restricts their roles to the expression of information needs and the construction of search queries (Furner, 2007, p.1). With the appearance of new technologies and their worldwide implementation in library web-sites some librarians express their objection about “new-fangled inventions” like Web 2.0 judging of the quality of the content presented in social network sites rather than of the effectiveness of Web 2.0 features as information tools (Joint, 2010, p.491-492). Another critical argument is proposed by Oberhelman (2007, p.6) who is referred to the anonymity of an author of a comment or a forum, as a fact that may question the quality of such a resource as a reference. But he also acknowledges that adopting web-based sites librarians offer to their patrons “an expanded, more complex understanding of authority, objectivity and the value of information itself” (ibid.).

According to Furner web-based application provide enhanced and enriched data from various sources about library resources (2007, p.3) and improve the effectiveness of retrieval of library records and discovery of resources (p.5). Thus, the contribution of library users is valuable from a knowledge management perspective as users form a community of practice which creates knowledge complimentary to the knowledge

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1 (Farkas, 2007, pp.4-5)
provided by librarians. Knowledge is produced through interaction and conversation afforded by Web 2.0 and Library 2.0 applications (Kim and Abbas, 2010, p.212).

2.7 Building “communities of like-minded people”

Open conversations within social sites lead to a sense of community and belonging (Stephens and Collins, 2007, p.253) as Web 2.0 tools cultivate the ground for sharing opinions and insights among the community members and guide to the establishment of common understandings (Kim and Abbas, 2010, p.212). Moreover, researchers claim that knowledge creation and sharing is more efficient when it is created and shared among users than through expert-based systems as users share similar cognitive needs (Kim and Abbas, 2010, p.213). Further, Furner claims that Web 2.0 in the library context engenders a sense of community among library users in separate and remote locations (Furner, 2007, p.5). Chad supports that Library 2.0 succeeds through connecting technological potentials and community capabilities

“to deliver valuable, valued and world-class services directly to those who stand to benefit from them, whether they (ever) physically enter a library building or not” (2005, p.11).

Libraries become democratic and educational sites for the users community if library operations are seen as interactive processes during which the users “reflect critically on the information provided as aware members of the community” (Riedler and Eryaman, 2010, p.93). Moreover, users’ interaction helps in developing a democratic environment focused on the central notion of community with shared values like social justice, rights and equality (2010, p.94).

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2 (Furner, 2007, p.5)
3. Theoretical Framework - Critical Social Theory

In this chapter the Critical Social Theory of Frankfurt School is discussed briefly. Afterwards follows an analytical review of the basic concepts of Habermasian Critical Theory. An introduction to Critical IS Research and the contribution of Critical Social Theory to libraries as organizations that can be viewed as space of communicative action closes the chapter.

This research will build on Critical Social Theory of Habermas viewing the Web 2.0 features as mediums for encouraging users’ participation in libraries’ as a “public sphere” (Habermas, 1991, pp.27-31; 1996, pp.360-364) of the online communities which represent the “social space” where “communicative action” takes place and “communicative freedom” is a presupposition (Habermas, 1996, p.360-361). Encouraging users’ participation contributes to information pluralism and community building among libraries’ users and simultaneously constitutes a starting point for criticizing OPAC’s unilateralism for providing only through librarians’ lens.

Jenkins (Jenkins and Carpentier, 2013, p.266) argues that:

“critical theory has offered us the best tools for understanding those forces that might deflect a more participatory culture”

Critical Social Theory (CST) has its origins in the Horkheimer’s Institute of Social Research at the University of Frankfurt. The works by Horkeheimer, Adorno, Fromm and Marcuse are widely known as the works of the first generation of the Frankfurt School of Critical Theory. Their works are focused on providing a coherent and systematic critique of the social reality, intending to the improvement of human condition (Ngwenyama, 2002, p.116). However Critical Theorists were often criticized for over generalization due to their inability to predict the social changes after the end of Second World War, their inability to exploit the epistemological critiques of positivism and their dependence on dogmatic ideas of Marxism and Freud’s theory of subconscious. As Klein and Huynh (2004, p.164-165) highlight

“it is surprising to discover how “uncritical” the first generation was towards its own methodological, philosophical and sociopsychological assumptions”.

The second generation of critical social theorists Jürgen Habermas and Karl-Otto Apel developed their work exploiting the post-positivist debates, phenomenology and systems theory but above all they responded to their opponents’ critique. The second generation theorists have moved away from Marxism as well as from the dependence on Freud’s theory of psychoanalysis. However, Habermas’s idea of the reconstruction of societies’ trajectory evolution relies analogically on Freud’s proposition of healing neurosis (Klein and Huynh, 2004, p.165).
3.1 Critical Social Theory of Habermas

Although CST in general descended from both existentialist and cognitive-rational streams of thought about human action traced back to Kant’s critical writings, Habermas work is more relevant to the cognitive-rational stream. The existentialist approach focuses on the conditions that shape human consciousness of “being” in a life-world with certain social practices that are subconsciously accepted as natural, given and immutable. Habermas on the other hand focuses on human reason which serves to decode social messages and make sense of the world. Human reason derives from the “lifeworld” by the means of lived experiences which consist of the subconscious impressions, feelings and meanings retained in human memory.

The fundamental goal of CST is to urge natural and sociocultural sciences in a way that produce better knowledge which will lead to the emancipation of humans removing the obstacles and the constraints in order to achieve freedom. For Habermas CST’s approach is based on reviewing the history of societal evolution, learning from historical mistakes and retaining the best insights in order to use the obtained knowledge in proposing an approach of critical historical reconstruction (Klein and Huynh, 2004, p.159). This way the members of the society would recognize the unwarranted forms of domination and their self-delusions which prevent them from social emancipation.

Habermas CST is inspired from the idea of a better society which will be the result of “formative processes” of emancipatory education not limited to the general education during adolescence but continually enlighten public consciousness through emancipatory public discourse and critique (Klein and Huynh, 2004, p.167-168). Emancipatory public discourse takes place in a well-functioning “public sphere” which according to Habermas is a space free of domination stemming from norms of “groupthink”, state control and vested interests (ibid, pp.169-170).

The intellectual and empirical domain of CST of Habermas is social action which is oriented towards other human beings through communication or means-ends relationships in a social context. The formation of human species in society is the result of socially organized work and modes of communication which are not predetermined and can be interpreted as self-formative. So humans are self–formulated through their socialization and modes of communication.

By the theory of communicative action Habermas introduces the relationships between knowledge and rationality, rationality and different social action types and action types and world relations which are implied in different types of social action. Knowledge and rationality are defined broadly and the link between knowledge and rational action is constructed by defining the different uses of language in each of the action types (Klein and Huynh, 2004, p.180-181).

Moreover, a very important concept in his theory is the action orientation. Habermas based on an unofficial version of Weber’s action theory developed the model of purposive-rational action which rests on the premiss that the actor has sufficiently precise purposes to accomplish (Habermas, 1984, p.285). The orientation of the action is characterized as towards success when it is following technical rules of action or rules that aim to influence the decisions of an opponent and is characterized as towards...
reaching understanding when it is oriented by agreed norms of behavior, common expectations and mutual understanding (Habermas, 1984, p.286).

In order to reduce “the profusion of action concepts employed (for the most part, implicitly) in social-scientific theories” he distinguishes human action into four categories: teleological, normatively regulated, dramaturgical and communicative action (Habermas, 1984, p.85). The first three are parasitic to communicative action because their language use is restricted while in communicative action the communication is completely unrestricted (Klein and Huynh, 2004, p.183).

Teleological is further divided into instrumental and strategic action. Teleological action is instrumental if it is applied to nature or other non-social domains of action. Human action is strategic when it is directed towards other social actors which are considered as opponents or competitors and their strategic actions have to be taken into account in order the best strategy to be elaborated (Klein and Huynh, 2004, p.183). Although instrumental actions are not social actions by their own like strategic actions, they “can be connected with and subordinated to social interactions […] as task elements of social roles” (Habermas, 1984, p.285). Teleological actions are goal-oriented, presuppose an objective world (Habermas, 1984, p.87-88) and are based on rules that embody technically and strategically useful knowledge (Habermas, 1984, p.333). Language is used “as one of the several media through which speakers oriented to their own success can influence one another in order to bring opponents to form or to grasp beliefs and intentions that are in the speakers’ own interest” (Habermas, 1984, p.95)

Normatively regulated action refers to members of a social group who are expected to comply with a norm by the means of fulfilling a generalized expectation of behavior (Habermas, 1984, p.85). Language is used “as a medium that transmits cultural values and carries a consensus that is merely reproduced with each additional act of understanding” (Habermas, 1984, p.95) The concept of normatively regulated action presupposes the existence of two worlds: the objective one with the existing states of affairs and the social world to which the actor belongs as a role-playing subject (Habermas, 1984, p.88).

The concept of dramaturgical action, as Habermas says, does not refer neither to the individual actor, nor to the member of a social group. It refers to the participants in interaction which constitute the public for one another and their aim is to present themselves to one another under a stylized image of themselves (Habermas, 1984, p.88). Thus social action is an encounter in which participants form a visible public for each other and perform for one another. This kind of performance enables the actor to present himself to his audience making visible something of his subjectivity that he would like to be seen. The scale of self-presentations ranges from the sincere communication of actor’s own intentions, desires, moods, etc., to cynical management of the impressions the actor arouses in others (Habermas, 1984, p.93). So dramaturgical action requires the presupposition of two worlds: subjective and objective. (Habermas, 1984, p.90) and “language is the medium of self-presentation” (Habermas, 1984, p. 95). According to Klein and Huynh (p.190) “the advent of web and the widespread use of multimedia forms of communication, dramaturgical action has become quite relevant” and offers opportunities for further research.

The main and most analyzed by Habermas concept of social action is communicative action which takes place through language and the actors adopt “an attitude oriented to
reaching understanding”. The participants are not guided by “their own individual success” but to “pursue their individual goal under the condition that they can harmonize their plans of action on the basis of common situation definitions”. By “reaching understanding” Habermas means a process of reaching agreement among the participants which is not “induced through outside influence” but it is “accepted or presupposed as valid by the participants” and rests on common background of values and meanings about the world (Habermas, 1984, p. 286-287).

However, in communicative model of action, action is not equated to communication but

“language is a medium of communication that serves understanding, whereas actors, in coming to an understanding with one another so as to coordinate their actions, pursue their particular aims” (Habermas, 1984, p.101).

Under this perspective language is relevant only from the pragmatic view which integrates the three world concepts, objective, subjective and social, into a common framework of interpretation for all the speakers (Habermas, 1987, p.120). During this process participants “reciprocally raise validity claims that can be accepted or contested” (Habermas, 1984, p.99). This interaction is considered as successful if those involved arrive at a consensus (Habermas, 1984, p.106). Then participants become consociates that are intimately linked in an intersubjectively shared form of life and offer and expect solidarity from each other as members of the same community (Habermas, 1990, p.244).

The concept of the “lifeworld” is introduced by Habermas’ as a necessary complement to the concept of “communicative action (McCarthy, 1984, p.xxiii). Lifeworld is the background of meanings and values that derive from lived experiences (Klein and Huynh, 2004, p.194). The structural components of the lifeworld are culture, society and personality and correlate with cultural reproduction, social integration and socialization accordingly and are based in different aspects of communicative action. Thus communicative practice of people’s everyday lives aims to reach understanding about their situation and serves to the transmission and renewal of cultural knowledge. Communicative action of people may also aim to coordinate their actions and in this case serves in achieving social integration and establishing group solidarity. Communicative action from the perspective of socialization aims to internalize value orientations of the social groups that people belong to and serves in the formulation of personal identities (Habermas, 1987, p.208).

Another very important concept of Habermas is “public sphere”. The development of public sphere is described by Habermas historically starting from Middle Ages in European monarchical and feudal societies where there was not distinction between private and public realms. The public sphere took shape in late 17th and 18th century when the bourgeoisie emerged as a result of the developing market economy and is defined by Habermas as the “sphere of private people come together as a public” (1991, p.27). This conceptual space of public sphere was located between the public authorities sphere and private sphere (Habermas, 1991, p.30) and citizens were freely engaged in public discourse and formulated the public opinion (Habermas, 1991, p.117-129). Public sphere comprises communicative networks that through the press and nowadays through mass media facilitate
“art-enjoying persons to participate in the reproduction of culture and citizens to participate in the social integration mediated by public opinion” (Habermas, 1987, p.319).

Mass media permit free communication processes to take place releasing them from statio-temporally restricted contexts by establishing a network of communications which is not limited by space and time (Habermas, 1984, p.390). Public sphere is the space where the democratic process of public discourse takes place. Thereby public discourse generates a “communicative power” and contributes to the process of opinion and will formation (Habermas, 1996, p.155-168), which is defined by Cohen as “the horizontal, communicative relation among equal citizens” (1999, p.388).

3.2 Critical IS Research

In recent years there is an increasing interest in critical approaches in IS research which begins to be reflected in an significant number of articles in “alternative” journals and conferences on critical management studies research (Walsham, 2005, p.225). This turn is justified according to Walsham (2005, p.226) by the fact that “enormous asymmetries of wealth and power”, that exist, urge for a critical investigation of the existing status quo in order to strive for favorable changes for people that are disadvantaged. Thus, Walsham suggests that IS researchers have the ethical obligation to engage in critical thinking by the means to adopt a “prolonged course of action […] since the issues to be addressed are complex and deep-seated in nature” and even to oppose existing vested interests though it is sometimes painful and dangerous (2005, p.227).

Additionally Cecez-Kecmanovic claims that it is every researcher’s obligation

“to actively engage in the transformation of IS practices that will contribute to a more democratic workplace with greater degree of autonomy and human agency, and ultimately lead to less repressive and more equitable social relations” (2005, p.23).

Critical IS research emerged as a reaction to positivist and interpretivist research and thereby attaches criticism to both. The former is criticized for serving the interests of dominants by enhancing power relations and control over the dominated and the latter for being passive limiting the purpose of research to understand social reality instead for trying to change it. Although critical IS research is characterized by diversity in topics, objectives, methods and philosophical roots there are certain basic assumptions that distinguish this approach from positivist and interpretive research.

Positivist IS research aims to apply scientific explanation of phenomena and discover universal laws in designing and operating processes of IS and in the relationship between IS and people, organizations and society. Meanwhile interpretivist research aims to understand IS in the social, organizational, political and cultural setting through people’s meanings while interacting with technology. On the other hand critical IS research drawing upon critical social theory aims to reveal the ways that IS are misused as mediums of control and domination and additionally to inspire transformative social practices that will release their liberating and emancipatory potentials (Cecez-Kecmanovic, 2005, pp.19-24).
Critical IS research has been accused for utopianism, arrogance and illegitimacy regarding its liberating and emancipating purposes but these objectives are worthy of pursuit even if they are only partially achieved according to Cecez-Kecmanovic (2005, p.23-24). Another point of critical IS weaknesses was introduced by Adam (2005, p.123-131) suggesting an ethical turn in IS in order to “offer a more rational discourse and alleviation of technocratic oppression through the possibility of emancipation” through the expansion of the ethical dimension of critical IS based on communicative ethics of Habermas. As she underlines it is suprising that still critical IS haven’t highlighted more to the strong ethical foundation provided by the emphasis on emancipation and communicative rationality within critical IS and IT professionals are still guided by rule-focused professional code of ethics. Additionally Walsham (2012) argues that the IS field needs to emphasize on ethical goals through an increased use of critical approaches to support the poor of the world in their everyday lives in order to make a better world for everyone as it is supported by critical IS theorists.

3.3 Critical theory and Libraries

Habermas is referred to libraries only in his work “The Structural Transformation of the Public Sphere” in order to explain the replacement of coffee houses, salons and German “Table Societies” by the newly established first public library. This first library along with the book clubs, reading circles and existing subscription libraries were developed as spaces of public sphere of individuals belonging in “bourgeoisie strata” in the middle of 18th century (Habermas, 1991, p.51). Nevertheless the concept of “public sphere” where “communicative action” takes place and “communicative freedom” is a presupposition (Habermas, 1996, p.360-361), fits perfectly in the libraries’ environment. This is emphasized by Buschman who argues libraries’ presence in democracies “embody and enact much of Habermas’ classical definition of the public sphere” (2005, p.2) as libraries preserve and promote rational discourse through organizing their collections and providing unfettered information access to all people and above all they offer the potentials to criticize authority and arouse debates.

Libraries are institutions with a main mission is to provide comprehensive resources in support of the research, teaching, and learning needs of its users. These resources are presented through their catalogues as metadata in the form of bibliographic records which include information about books and other materials and are based on cataloguing rules, classification schemes and indexing terms. Librarians use all these standards in order to offer to users more and better access points to the books and other material users are searching for. But in order libraries to accomplish their mission they are expected to change their orientation from the collection-centric model to a new organizational model. This change can be performed by encouraging the collaboration among librarians and users and promoting the democratization of library environment.

Riedler and Eryaman referred derogatorily to the positivist model which still dominates many libraries and according to it libraries are considered as “repositories of information” and librarians as “caretakers of those resources” (2010, p.90).

Moreover, subject heading, classification schemes and controlled vocabularies, which are tools broadly used by the librarians, generally reflect the biases of the cultures in which they are created. The selected terminology and the hierarchical structures reflect the mainstream version of concepts and relationships and marginalize those outside the
mainstream (Olson 1998, p.235). Thus according to Olson librarians must be aware of their ethical responsibility to the “otherness” (Olson 1993, p.111) by breaking the limits of dominant standards in order to give voice to those marginalized. Among Olson’s suggestions social bookmarking and tagging is highlighted as a way for librarians to share some of their power over knowledge with users (Olson, 2001, p.22)

3.3.1 Divergent Views

Although Web 2.0 applications appears to expand users’ participation and communication potentials, there many voices that express their scepticism regarding the participatory and communicative role of Web 2.0 sites. According to Jenkins (Jenkins and Carpentier, 2013, pp.272-273) many of those platforms that are based on Web 2.0 technologies emphasize on individual self-expression and not on a collective cultural production. Moreover he adds that sites like YouTube

“assert ownership over what participants produce and set constraints on how this content can circulate and the user-generated content becomes exploited for the profit of the platform owners”

and as a result participants have limited power and no benefit from the site’s success (Jenkins et al., 2013, cited in Jenkins and Carpentier, 2013, p.273). Adding to this Cammaerts (2008, p.362) wonders who owns the copyright of the user-generated content and Petersen (2008) claims that Web 2.0 technologies exploit the users’ generated content for capitalism’s benefit and transform users to losers. Cammaerts (2008, p.358) deconstructs the notion of blogosphere as a public sphere referring that apart from viewing it

“as alternative citizen journalism, as participatory media enabling citizens and activists to produce their own content, as a social platform to communicate with friends and family, and as a vehicle for airing (counter-hegemonic) viewpoints”

It can also be

“a propaganda instrument, a marketing tool, and a distribution channel”.

These attributes differentiate blogosphere from Habermassian public sphere defined as a realm in people’s social life where individuals freely assemble and discuss their opinion and through communicative rationality formulate public opinion (Habermas, 1974, 1989, pp.). Furthermore Cammaerts continuing criticizes the statement that new media offer citizens new opportunities to engage and participate independently and critically in the online public sphere as he claims that every renewal in history goes hand in hand with processes that reinforce power relations and hegemonies and particularly new internet technologies like blogs in order to ensure their viability promote and disseminate the capitalist consumer society through advertising (Cammaerts, 2008, p.360).
4. Research Setting, Design and Methodology

In this chapter the research setting, design and methods of data collection and analysis are presented. The research principles of validity and reliability and the ethical considerations are also presented in the last part of the chapter.

4.1 Research Setting

4.1.1 Library on Gender and Equality (LGE)

Library on Gender and Equality of the General Secretariat for Gender Equality (LGE) is a Greek public library, located in Athens that has been operating since 1984 as an open-access and lending library. LGE collects Greek and other languages documentation, related to issues of gender equality and history of the women's movement. LGE is the only library in Greece responsible for gathering and distributing knowledge, both historical and contemporary, to anyone concerned with women's status in Greece and all over the world. Apart from collecting new books, the library is also engaging in acquiring old, rare, and valuable documents, as well as visual material. Its aim is to archive this material which marks the beginning and progress of women's struggles for equality, as well as to make it available to all the interested parties (General Secretariat for Gender Equality, 2006). LGE occupies two librarians and has 554 active members. Every year approximately 1000 users visit the premises of LGE and 300 distant users are served via e-mail, fax or courier services.

Although LGE has made considerable efforts in providing web-based services to its users during the last years, it still offers the traditional OPAC services.

In the OPAC of LGE there are three search options: Simple search, Advanced search and Locate term in the indexes. In the Simple search tab, the users can search in all the indexes, or in the indexes of the title, the authors, the publishers or the subjects. Through the Advanced search tab, the users can search with additional information such as ISBN/ISSN, local classification, call number, entry number and resource, combining keywords using Boolean search logic and setting year of publication, location, language, acquisition date and type limitations. Using a simple case scenario the user chooses the search option and types a query in the search box or the search boxes if s/he uses Boolean operators. Then s/he selects the index and sets the limitations if the Advanced search or the Locate term options are chosen. After clicking the Search button, the first page of the search results appears.

The first page of the search results presents a summarized overview of the records as resulted from the search criteria, see Fig. 4.1. In LGE’s first page of the results the users can see a limited presentation of the record which includes the title, the first reported author, the publisher, the date of publication, the shelfmark, the type of the material and the availability information.
The second page of the detailed presentation of every record apart from the information already presented in the first page, provides information about all the creators, the subjects, the abstract, the item details and the link to full text if exists, see Fig. 4.2.

LGE’s OPAC is a traditional OPAC by the means that although it offers much information about the bibliographic records, the information is provided exclusively by the librarians. The users’ roles are restricted to read the information and use the link to the full text when it is available. The aim of this study is to investigate users’ desires and suggestions of which Web 2.0 features to be integrated in the Library on Gender and Equality (LGE)’s OPAC to improve the library services. Given that LGE still provides a traditional OPAC with no Web 2.0 functionalities it was necessary to find a reference library with Web 2.0 tools embedded in OPAC to present to the participants of the research. Multnomah County Library, which is presented in the next section, provides many Web 2.0 functionalities through its OPAC and for that reason it was chosen as a reference library.
Figure 4.1 Web OPAC of Library on Gender and Equality (LGE): first page of presenting search results
Figure 4.2 Web OPAC of Library on Gender and Equality (LGE): page of presenting a record’s analytical data
4.1.2 Multnomah County Library, Portland, Oregon, USA

Multnomah County Library is the oldest public library in the state of Oregon and dates its existence since 1864. Apart from the Central Library there are also 18 neighborhood libraries that make up a library network which houses nearly 900 computer stations for the public and a collection of two million books and other library materials. Multnomah County Library serves nearly one-fifth of the state's population with a wide variety of programs and services. In its mission and philosophy statement, see Appendix I, it is mentioned that aims to enrich “lives by fostering diverse opportunities for all people to read, learn and connect” and that “upholds the principles of intellectual freedom and the public's right to know by providing people of all ages with access and guidance to information and collections that reflect all points of view” (Multnomah County, 2013). According to Jennifer Steward, from Account Management, 450,000 people are the members of Multnomah County Library network and the previous OPAC system which is still in use has been used since September 2005. The new OPAC was introduced in February 2013, and they have almost 122,000 active users of this new catalogue.

Multnomah County Library’s OPAC (Multnomah County, 2013) offers to its registered users a wide range of Web 2.0 functionalities apart from the traditional search potentials. More analytically there are two search options: Search and Advanced Search. Through the Search functionality, the users can search the catalogue for records through keywords everywhere or in the indexes of the title, the author, the series, the subject, the tag that users have added to the record, the list in which any of the users has placed the record, or the user who has placed the record in his/her shelves. The Advanced Search service offers the opportunity of searching in more indexes like Award, Identifier, Geographic Region, Genre, Publisher, Call Number, setting limitations for language, collection, content, audience, place of availability, date of publication and format. In addition, users can combine keywords using Boolean search logic.

The first page of search results presents a summarized overview of the records that meet the search criteria, see Fig. 4.3. In this page, users can modify their search, choose a record and place a hold or add it in their completed, in progress or for later shelves. They can also choose to view the detailed presentation of the record, see Fig. 4.4, where they can find availability information and item details provided by librarians and information about the record like comments, age suitability, summary, notices, quotes, and videos derived from the users and placed in the page under the label “community activity” In the right frame of the same page there are the subject headings of the record provided by the librarians and below there are tags, lists that include the title and similar titles, provided by users. Registered users are offered the potential to rate the record, add a comment, tags, similar titles, private notes, notices, age suitability, summary, quotation and video and also add a title in their shelves or save it to a new or existing list, see Fig. 4.5 & 4.6.
Figure 4.3 Web OPAC of Library on Gender and Equality (LGE): page of presenting a record’s analytical data
Figure 4.4 Web OPAC of Multnomah County Library: page of presenting a record’s analytical data
Figure 4.5 Edit options for registered users
Figure 4.6: More edit options for registered users
4.2 Research Design

The current research is based on qualitative research approach. Qualitative research methods are mainly used in the social sciences to study social and cultural phenomena. Their focus is to explore and understand the meaning individuals or groups ascribe to social problems or issues (Creswell, 2009; Myers and Avison, 2002, p.4).

According to Kaplan and Maxwell (2005, p.32) qualitative methods are the appropriate methods for understanding how users perceive a system and what meanings the system has for them as it is difficult to investigate their perceptions in depth through quantitative methods. The qualitative data is helpful in order to understand the system from the points of view of the users. Another argument to use a quantitative study is what Lewis and Ritchie (2003, p.267) write:

“The particular value of qualitative research lies in its ability to explore issues in depth and from the perspectives of different participants, with concepts, meanings and explanations developed inductively from the data”

As exposed earlier the purpose of this research is not the empirical generalization of the outcomes in different settings and contexts (Lewis and Ritchie, 2003, p.264) as it is a work-based thesis which aims to draw out users’ recommendations and action lines (Hart, 2005, pp.18-19) about Web 2.0 features in LGE’s OPAC. Thus, a qualitative approach was chosen as it offers a way to explore the meanings and the perspectives of the library users regarding advanced OPAC’s options and even better how they experience their participatory role during navigation in an OPAC with an integration of WEB 2.0 tools. Social Critical Theory provides the appropriate theoretical lens for investigating the established power relations in libraries environment and understanding the different views of the involved stakeholders.

4.3 Data Collection

Qualitative research employs several data collection methods like interviews, observation, document analysis, etc. In order to select the suitable method that would be appropriate for the data collection in relation to the aim and the research questions, I used semi-structured interviews in order to shed more light in my research purpose and to get an idea of the desires of participants after interacting with the OPAC. Therefore during the interviews the informants were expected to express their thoughts, perceptions and even their feelings about the use of WEB 2.0 tools in libraries freely. Additionally individual interviews are the most widely used qualitative research method because they provide a focus on the individual’s personal perspectives and a better understanding of “the personal context within which the research phenomena are located” (Ritchie, 2003, p.36). Moreover, semi-structured interviews enable researcher to exemplify the questions by reformulating the initial question and additionally to clarify the participants’ answers by asking follow-up questions (ibid). Another key feature of the interviews as data collection method is presented by Legard, Keegan and Ward (2003, p.142). They argue that interviews can be generative as new knowledge or thoughts are possible to be created in participant’s mind during the interview process.
4.3.1 Population, Selection Criteria and Participants

Library on Gender and Equality of the General Secretariat for Gender Equality is a special public library, as already mentioned, open to the general public in Greece and abroad. Hence everyone may be considered as a potential user and is free to visit the LGE and study. The users who wish to borrow library’s material should be registered. The registered members of the LGE are 554 people, 462 females and 92 males.

The recruitment of participants involved all the users of the LGE that visited its premises during a period of three weeks. They were informed about the research purpose, the research process, and were invited to participate. The selection criteria was the following: to have an advanced English language level in understanding and to be a quite experienced internet user in order to be able to use the Multnomah County Library OPAC as much as possible during the limited time they had to try it. Membership was not a prerequisite. Thus, the users of the LGE that expressed their willingness to participate were asked about their English language level and their easiness to use libraries’ catalogues.

The number of participants is 8, 7 female and 1 male, and they were between 19 and 50 years old. Their backgrounds/professions are as follows:

- 1 librarian
- 2 under-graduate students,
- 1 lawyer and PhD student,
- 1 lecturer
- 1 Greek language teacher,
- 1 graduating student librarian and
- 1 sales manager and post-graduate student who was the only male participant

This was a strategic sample as the participants were chosen to represent all the age ranges and professional and educational categories of the LGE users. Moreover the majority of the LGE users are women, so effort was made to recruit at least one male participant.

4.3.2 Interview Procedure

The interviews were carried out in the premises of LGE between the 24th of March and the 11th of April 2014. One of the interviews was performed in a lecturer’s office in order to adapt to her/his work-load. The interviews lasted 60-90 minutes following an interview guide, see Appendix III, and they were structured in three phases. They were conducted in Greek language, and all of them were audio recorded after the signed and oral permission of the participants.

The first phase started by a presentation of my research aim including an explanation of their rights and my obligations of keeping their data confidential. Then I asked the participants to read carefully and to sign an informed consent form. The first four warm-up questions were followed by questions about how they use the existing libraries’ catalogues and interactive webpages. During this phase their search strategies in libraries’ OPACs, their familiarity with Web 2.0 technologies and also their habitual interaction with social networking sites was investigated.
During the second phase of the interviews, I presented the Multnomah County Library OPAC. Then the participants were able to use some free time to navigate and interact with the catalogue without any guidance. This “training” phase aimed to provide the participants insights by the utilization of the Web 2.0 tools in a library’s OPAC.

In the third phase the participants were asked to describe their general experience, to characterize the OPAC they just used, to indicate the Web 2.0 tools they liked best, to report their motivations to contribute and barriers not to contribute and finally their criteria of taking other users’ contributions seriously.

4.4 Data Analysis

In this section the data analysis method that was used to provide understandings and explanations about the qualitative data is presented. According to Thorne (2000, p.68) “data analysis is the most complex and mysterious of all the phases of a qualitative project” and as Creswell (2009, pp.183-190) states it is a systematic process that involves six different steps starting from preparing the data for analysis, studying them in order “to obtain a general sense of information and to reflect on its overall meaning” (Creswell, 2009, p.184), moving to a deeper more detailed analysis, organizing them into categories and labeling them. The next step is to generate a number of themes as the major findings of the research which display multiple perspectives from the individuals, “supported by diverse quotations” (Creswell, 2009, p.189). Thematic analysis is a process of “encoding qualitative information” (Boyatzis, 1998, p.vii) that is the researcher chooses words or phrases that serve as categories for particularly data sections. It is a flexible method of analyzing data. The researcher follows either a deductive approach driven by a theory or an inductive approach driven by the empirical data to create categories. A third strategy is to use a hybrid that incorporates both the data-driven and the deductive approaches (Fereday and Muir-Cochrane, 2006). Then the researcher is expected to decide the mode in which the themes will be presented, usually through a visual presentation like figures or tables. Finally, an interpretation of the data follows as meanings derived from a comparison of the findings with the theory or the literature. Interpretations may urge to criticize the established norms and call for reformation and change of the existing situation.

In this study, a thematic analysis was carried out based on the inductive data-driven approach guided by the research questions. The whole process can be described in the following steps:

• The analysis started by transcribing verbatim and translating the interviews from Greek language to English language. During this procedure I gained a general understanding of the participants’ narratives and what they were telling.

• The next step was to read the narratives several times in order to identify themes and the labels that would prevail. Utilizing the word processing application, I linked every emerged theme with different color so that when it was located in the words of a participant it was highlighted with the theme color.

• The last step of this process was to copy every highlighted part of the interview and paste it in a table where the participants nicknames were being pasted in the vertical columns and the emerged themes were placed in the horizontal rows Therefore,
every participant was interlinked with the themes through his/her words, see Appendix VI.

4.5 Validity and Reliability

The current research was conducted following the basic principles for validity and reliability suggested by Lewis and Ritchie (2003, p.277-279):

- The sample of the participants was strategically collected and representative to reflect all the different needs and perspectives of the different ages, professional and educational groups of the LGE’s users.
- The deviant responses of one participant regarding the integration of Web 2.0 tools in libraries’ OPAC cannot be assessed and used for generalizations. They were reported in order to underline the need for more extensive researches among Greek libraries’ users and librarians.
- The data collection procedure continued until saturation was achieved in terms of iterations of participants’ answers which interpreted that more interviews would not reveal any new information.
- A full description of the design of the research has been presented in the data collection and data analysis method section so that the methods can be assessed by everyone interested.

Nevertheless as it has mentioned previously the results of the current research are not offered for generalizations and apply to the specific library. The proposed research approaches offer situated knowledge about the specific library’s users perceptions. Different research approaches in different contexts may deliver different results.

4.6 Ethical Considerations

Ethical considerations have a particular significance in qualitative studies as participants express their views in an unstructured manner and some issues that emerge reveal sensitive personal data (Lewis and Ritchie, 2003, p.66-71).

Regarding this study the participants were informed orally and by the informed consent form, see Appendix IV, about the purpose of the study, the researcher’s identity, the way that the data would be used, and their rights before, during and after the interviews. Before they signed the informed consent, they were asked to read it carefully and ask for clarifications.

Fairness and equal treatment are indisputable values and consequently they had been applied in the current investigation. Anonymity and confidentiality of the participants are also very critical issues and must be given particular thought by the researcher. Thus, in order to prevent the disclosure of participants’ identities and sayings I ensured that research data would be accessible only by me and my supervisor as they are kept in a secure place until the completion of the research. Afterwards, all audio data and transcriptions will be deleted. Prior the interviews I ask the participants to decide whether they would permit the recording of the interviews or not. They also indicated their decision in the informed consent by ticking “Yes” or “No”.
An additional challenge I had to confront was the fact that I have been working as a librarian for fourteen years in the LGE. Therefore, I had to adopt and move between my professional role and the role of the researcher. My first effort was my official post as a librarian in the particular library not to act as a pressure for the compliance of the participants to participate in the research. Thus during the recruitment and when they were asked to sign the informed consent they were assured that their refusal to participate would not affect the relationship with library’s personnel (Bell and Nutt, 2012, p.78).

Moreover, in order to ensure the legitimacy of the conducted investigation prior the interviews, I informed the authorities of General Secretariat for Gender Equality and asked for permission to conduct the research in the premises of LGE.
5. Empirical Findings

Chapter 5 presents the empirical findings analyzed through the thematic analysis method. Extended quotations of the participants help in better understanding their views and suggestions.

In this chapter the empirical findings will be presented. Seven themes emerged out of the thematic analysis of the empirical material. The seven identified themes are based on the interviews recordings and transcriptions and they are:

Theme 1: Users’ General Impression
Theme 2: Opportunities and Benefits
Theme 3: Information Overload,
Theme 4: Responsibility
Theme 5: Motivations to Participate
Theme 6: Barriers to Contribute
Theme 7: Community Building and Communication

The themes are described in a random order and quotes are used to illustrate the participants’ wishes and suggestions.

Users’ general impression: Interesting, joyful, enjoyable
The participants were surprised by the possibilities offered by the Web 2.0 tools in the Multnomah County Library’s OPAC. They said that the experience was totally different compared with the OPACs they had visited up to the time of the interview. The use of the Multnomah County Library catalogue was characterized as interesting, joyful, useful, and enjoyable. Participant F said:

“It was a rather interesting experience to find so different information, even about the atmosphere of the book from the users who had read the book”.

Participant B explained that s/he has visited only his/her University Library’s catalogue and described the joyfulness using Multnomah County Library catalogue with the following words:

“It was a really joyful experience. I was able to use this catalogue in a different way compared with my department’s catalogue”

The Web 2.0 tools integrated in the OPAC was also a new experience. Participant D stated that although s/he had visited many libraries’ catalogues, s/he had not seen a catalogue like this before, s/he explained:

“It was enjoyable. I couldn’t imagine a library could offer such a tool”.

3 The participants’ names or their professions are not used but they are presented as: Participant A, Participant B, and Participant C …etc according to the chronological order of the interviews.
Opportunities and Benefits offered by Web 2.0 Integration into OPAC

Opportunities offered by Web 2.0 integration into OPAC is another theme that was identified. Multnomah County Library’s OPAC offers a plethora of opportunities which encourage the users to participate and contribute. Therefore participants described this catalogue by using many different positive-stance adjectives and by exposing the opportunities which this catalogue offers.

An interactive and multidimensional catalogue was what Participant C highlighted, s/he said:

“It is an interactive and multidimensional catalogue as it provides information in different levels from different sources”

Participant E noted that the catalogue is:

“smart, comprehensive, innovative and exceptional, not only from the informative perspective, but also from the participatory perspective”.

A rich catalogue was also a benefit with the integration. Participant F stated that it permits in depth and detailed presentation of the books but s/he added:

“...it is also a demanding and challenging catalogue because the user needs time to choose from all these features what to utilize”.

Additionally, Participant F, said that the advantage of this catalogue is that it offers a pluralistic view of the books:

“These integrated tools offer a pluralistic view of the books and this is a positive aspect of this kind of OPAC”

Participant D said that it is “a valuable asset” for a library to have such a catalogue because apart from gathering users contributions which enrich the library’s knowledge database it also provides to its users a “floor to express their opinions”.

The catalogue was characterized as interactive and joyful for encouraging users to stay in the site for a long time without being bored by Participant B. S/he also stated:

“It is also modern unlike many other catalogues that present the records in an academic way. And it is very easy to use because everything is very clear”.

In addition to the all the opportunities and benefits, Participant H included the user-friendly dimension of the catalogue even for people not familiar with Internet. S/he also characterized it as attractive and pleasant when s/he said:

“This catalogue is a user-friendly catalogue, easy even for people that don’t know much about Internet, and above all attractive and pleasant”

However, Participant A expressed a diverging view compared to the other interviewees when s/he argued that the integration of Web 2.0 tools in the OPAC is not a good idea. S/he justified her opposition by saying that it is useless and worthless.
“Too much noise for something useless. I have never used tag cloud during my searching process in OPACIAL. It is worthless”

Participant A continued by explaining that libraries may permit users contributions in a limited area of their websites in order the communication with librarians to be facilitated. S/he said:

“Libraries may develop a forum area into their websites to let the users communicate with each other and with the librarians, add their comments, ask their questions and make their suggestions. But not in the OPACs”

Some participants referred specifically to some tools. Tagging was a potential that was discussed as considerably supportive and helpful for users. Participant C noted:

“To follow a tag that you think is relevant to what you are searching for can be very helpful for your research”

As s/he explained tagging plays a significant role in the search process and the retrieval of information:

“Tags sometimes introduce concepts or topics of the books that the librarian hasn’t locate”

Nevertheless s/he stated that the tag cloud in Panteion catalogue is not noticeable since s/he hadn’t noticed it till the time when the interview was held:

“I haven’t noticed the tags in that catalogue so I have never used them. Perhaps if it was more obvious I would. Something like a pop-up or some kind of indication to show that it is there”

Participant D argued for the importance of tagging for people conducting research:

“I think that adding tags with suggested terms to the records is very good and supportive for other users that do a similar research in the field”.

Tag clouds are more useful than subject headings, according to Participant G and s/he became familiar using them in Panteion catalogue. S/he said:

“I use Panteion catalogue only through the tag cloud. I don’t use the subject headings at all because the tag cloud is more appealing and more prominent in the page than the other information”

Creating lists and adding books to shelves was also mentioned as important tools that offer many benefits to users. Participant F characterized these features as “time-saving” for researchers that usually spend a lot of time to locate books in different libraries. S/he also mentioned another opportunity offered by visiting someone’s lists and shelves, s/he said:
“Lists and shelves give a picture of every registered user about what he/she has read and whether you share common interests with him/her. This defines whether you will follow or ignore his/her suggestions”.

Comments were identified to be a very useful tool as Participant C found it useful to read other users’ comments as “I was helped to locate very interesting material for my research”.

Nevertheless the content dimension was introduced as very important by some participants. They claimed that comments are useful only when they are focused on the content of the book. More analytically Participant C said:

“They must be focused on the content of the books and not used for rating a book. In fact the option to rate the book exists in this catalogue. You don’t need to write in the comment whether you liked it or not. You can rate it. I would only be based on other users’ comments if they were focused on the content and well justified”

Participant F stated that s/he would like comments to reflect a familiarity and an in depth knowledge about the topic.

Other participants said that they would not like to see extensive and general or off-topic comments. Additionally Participant H suggested that the contributions of the users should be checked and filtered by a library’s employee because as s/he said:

“It would be inappropriate for a library page to host buffoonery or offensive content”.

Information Overload
One of the emerged themes refers to the information overload that occurs from the increased information flow resulting from the integration of Web 2.0 tools in the OPAC. An amalgamation of various resources may entail excessive information with risks for the users to lose the focus on their research plan. As Participant A said:

“Inside the catalogue comments and rating might be useful but sometimes it could also cause disorientation. I believe that they just make the description too overloaded”

Although there is a risk of disorientation due to all the available information, Participant G said that library users are usually researchers or students who are doing research and in general they follow a research strategy. Nevertheless she claimed that knowledge is always beneficial, she said:

“Users usually know what they are looking for and follow some kind of research strategy to discover the books on their research topics. But there are also users who are unaware of what they are looking for. However even these users at the end will acquire knowledge, maybe different from their initial target. But knowledge is never bad as it always broadens your mind and the way you think”.
The risk with information overload was also what Participant B paid attention to, s/he claimed:

“There is definitely a risk there but there are always risks when you decide to read a book from the back cover or because a friend or a colleague suggested it to you. This risk, apart it wouldn’t kill you, it will broaden your horizons”.

Participant F considers that the plethora of information provided by Web 2.0 tools it could be confusing but:

“…these tools provide much information and therefore are helpful to develop a first insight about books”.

Responsibility - Who is Responsible for Contributing to OPAC
Responsibility was an additional theme that emerged from the analysis of the interviews. It concerned the question of who is responsible for transmitting knowledge through libraries’ catalogues and whether users’ contributions could be a helpful resource of knowledge for other users providing a pluralistic view of the books. Two diametrically opposed views were identified. Participant A argued that:

“Librarians are more experienced in indexing and providing information about books and so that the information they provide is more valid compared to the information from other sources”.

S/he continued:

“OPACs are librarians’ job. After all cataloguing is librarian’s primary duty”.

Participant D expressed a different opinion by characterizing OPACIAL\(^4\) as an innovative catalogue for letting users contribute and encouraging knowledge flow:

“…so that experts in specific topics share their knowledge with novices and everyone is learning something even from someone who is not an expert”

The value of users’ contributions was justified by Participant E when s/he said:

“Users have actually read the books while librarians have read diagonally the books in order to index them”.

Another interviewee, Participant C, made a similar reflection on the responsibility to contribute with information:

“Librarians are not expected to locate every theme or approach written in a book that it would be valuable for a researcher to support his/her theory”.

Participant G said that with “One click” the user can read apart from the information coming from librarians, views and comments uploaded by other users “who can be either specialists on the subject or novices in the topic”.

\(^4\) OPACIAL is the OPAC of Panteion University (see 1.1)
Motivations to Participate
Motivation to participate with comments or added content was also a theme identified in the empirical material Web 2.0 tools integration in an OPAC motivates scientists to share their knowledge about the resources of information. Participants of the current research were impressed by the presented catalogue and claimed that their motivation to participate would originate from their intention to help other people in their research. They mentioned as possible reasons to contribute the instances to have something useful to say, to add another point of view, or to express their disagreement about a comment that they consider misleading.

Participant H stated that s/he likes to visit websites about music and movies in his/her spare time. So something that s/he always wanted was to find a website about books and do the same with books as s/he does with music and movies. As s/he said:

“So it was always in my mind to find a website for books, to upload my personal lists, to comment books, to rate books like I do with music and movies”

She also expressed disappointment by the fact that she cannot be a member in that library and there is no library to offer a catalogue like Multnomah County Library’s OPAC in Greece:

“Now that I have found it, it is not located in Greece. It so far away and I will never have full access to it!”

Providing useful information to other users would be a motivation for posting a comment was Participant F motivation, s/he said:

“I would definitely post a comment and add content if I believed that it would be useful for someone else as I do it already in the forums I participate”

Participant G mentioned many reasons which would urge him/her to contribute:

“I would contribute if I had something useful to say or to add another point of view, if the bibliographic description was incomplete or if I thought that someone was saying something incorrect”

Participant C was more analytical by providing an example in order to describe better her/ his motivation:

“My motivation to contribute would be to inform other scientists focused on the same field with me about books that it is not obvious from the title or the formal summary that they have references about our field. For example in books written by Mackinnon which you have here, apart from political philosophy one can also find chapters focused on law hermeneutics. In this case I would add tags to help others locate this book”

Barriers to Contribute
The reasons that would prevent participants to contribute were discussed during the interviews and defined another emerged theme. In this issue the limited free time was a
notable answer. Participants claimed that although they read other people’s comments and sometimes are influenced by them either they don’t have enough time to add their own comments or they hesitate to do it because they are “not used to”. Thus Participant A stated that s/he is not used to upload comments since s/he is not familiar with social interaction sites. However, Participant E said that s/he would hesitate to contribute if there was not significant users’ activity in the site.

Participant C and B responded similarly regarding their intention not to ascribe negative comments or rating. More specifically Participant C noted:

“I wouldn’t add comments regarding if I liked or disliked the book because it is subjective. I would rate a book if I liked it in order to welcome a good effort. But I wouldn’t rate it if I didn’t like it in order not to bias other potential readers”

And Participant B said:

“I wouldn’t criticize a book that I didn’t like in order not to bias other possible readers”

Community Building and Communication through OPAC

The sense of belonging to a community with people with shared interests was another theme that emerged from the interviews. Multnomah County Library’s OPAC provides many opportunities for registered users to build communities of interest. Most of the participants liked the community sense that existed among users. Moreover they reported that participating in a special library’s website, like LGE, where users have common interests is very helpful for someone who does research because other users may help him/her with their comments or suggestions.

Participant G said:

“Below books with the particular subject or genre you may see the same users to add comments or other content. Thus groups of people who have common interests are created and through OPAC express their need to communicate”

Participant H said that the sense of belonging in a community is encouraging for researchers to continue their projects. Participant D mentioned that regarding LGE, an OPAC like that would lead to “an active community about gender bibliography to be established”. Participant F stated that “there is definitely a community there”, as:

“You can find people who share the same interests with you, who have read the same books and you want to know their opinion about them, regardless if you agree or disagree with them”.

And s/he continued:

“You can characterize someone as common minded to you from the books he/she has read and the comments s/he created”
Possibilities to communicate are not only beneficial for the library users but also for the library. Participant G raised the issue that the communication among users is also beneficial for the library:

“This kind of communication is favorable for the library too, to build a community sense among its users because this way their ties with the library are strengthened”

Some of the participants noticed that the investigated OPAC has many similarities with social networking sites. Participant G underlined that:

“This catalogue has elements of social media sites like the comments in Facebook or the follow option of Twitter. I like that”.

Three of the participants proposed to be offered the option of answering to other users’ comments “just like it happens in social media” because it would establish “meaningful dialogues among users” and “the community sense would become more vivid”.

Participant D said that if LGE provided Web 2.0 functionalities through its catalogue it would be transformed into a forum about gender issued books and that she would like to participate in it in order to share her opinion with other people about books she has already read.

On the other hand Participant A expressed her opposition regarding the similarities that as she said exist with social networking sites like Facebook:

“I believe it would be a disaster for our professional principles if we turn libraries’ catalogues into Facebook pages”.
6. Discussion

In this chapter the empirical findings are related with the research questions and the theoretical framework. The discussion is based on the themes that emerged out of the interviews transcriptions.

This research aims to investigate users’ desires and suggestions of Web 2.0 features to be integrated in the Library on Gender and Equality (LGE)’s OPAC in order to improve the library services. Therefore the social critical theory was chosen as a theoretical framework because the concept of “public sphere” where “communicative action” takes place and “communicative freedom” is a presupposition (Habermas, 1996, p.360-361) fits perfectly in the libraries’ online environment represented by the libraries’ OPACs. Given that libraries are spaces responsible for knowledge diffusion and knowledge gives power to those poses it, encouraging users to communicate with each other and participate in knowledge creation and distribution constitutes an emancipation option that leads to the democratic values establishment among the members of every community.

This discussion of the research is based on the identified themes that emerged during the thematic analysis which are related with the aim of the research and the research questions. Finally the research findings are assessed in conjunction with the framework of Library 2.0 (Fig.3.1, p.21) as proposed and analyzed by Xu, Ouyang and Chu (2009, p.329).

Users’ general impression was one of the identified themes as the participants seemed really impressed with their interaction with Multnomah County Library OPAC. The descriptions of their general experiences as interesting, joyful, and enjoyable can be counted as included in the desirable aspects of user experiences in interaction and communication with digital artefacts (Rogers, Sharp and Preece, 2011), see Table 2.1. Regarding the Multnomah County Library’s catalogue they described it as interactive, multidimensional, modern, smart, comprehensive, innovative, attractive, pleasant, user-friendly, easy, a valuable asset. The participant’s characterizations of the catalogue confirm Maness (2006) definition of Library 2.0 to be “the application of interactive, collaborative, and multi-media web-based technologies to web-based library services and collections”. Moreover his description of Web 2.0 as being communally innovative providing the opportunity to the users to change the library along with the community’s changes over time, confirms the users’ characterizations of the Multnomah OPAC as modern. The participants commented that the Web 2.0 OPAC offers pluralistic and in depth view of the books, which verify Furner’s argumentation that web-based applications provide enhanced and enriched data from various sources about library resources (2007, p.3). Another benefit that participants identified was an inducement for users to be more active which was mentioned by Aharony (2008) as one of the main characteristics of the Web 2.0 concept and it was also mentioned by other researchers as a benefit occurred by the Web 2.0 in the library environment (Stephen and Colling, 2007, 253-255; Xu, Ouyang and Chu, 2009, p.329).

Opportunities offered by Web 2.0 integration into OPAC was an emergent theme that provide various information about participants preferences regarding an OPAC with Web 2.0 functionalities. By this way this theme answers to the first research question concerning the Web 2.0 features that the users suggest to be integrated in the LGE’s
OPAC and why. The participants expressed their preferences for some of the Web 2.0 tools like comments, rating, tags, lists and shelves. They also justified the reasons of their choice by describing the opportunities and the benefits of the utilization of Web 2.0 in the OPAC.

Comments and rating were described as the most useful tools because they introduce different views of the book as many users commented on it. This links users’ claims with Kim and Abbas’ (2010, p.212) argumentation that the users’ contributions are valuable as they create knowledge complimentary to the knowledge provided by librarians. However some of the participants concentrated their attention in the content of the comments. They proposed to be in the appropriate language and relevant to the content of the book and also to reflect a familiarity with the topics of the book.

Tagging was reported as another preferable tool as it offers the opportunity to link the book with concepts or topics that have not been located by the librarian. Moreover tagging is identified as supportive and helpful for researchers in similar issues. These approaches are consistent to Aharony’s statement that Web 2.0 offer opportunities to utilize the power of the crowd and Furner, Smith and Winget’s (2006, cited in Furner, 2007, p.2) characterizations of tagging as democratic, collaborative, dynamic and instructive.

Users also said that lists and shelves are time-saving for the researchers and also give a “picture” of the creators. These views ground Aharony’s (2008) characterizations of “individual production” and “user-generated content” as manifestations of self-expression and self-publishing and also Maness’ (2006) definition of Library 2.0 which he describes as “socially rich” including users’ presences in the library’s web-presence. Therefore the Web 2.0 features in the OPAC provide the opportunity of collaborative “N-way” information flow derived both by users and librarians, represented by the term “Information 2.0” in the Library 2.0 framework of Xu, Ouyang and Chu (2009).

The possible problems were classified in the theme information overload. A possible problem that was mentioned was that of Bawden and Robinson state that Web 2.0 and the variety and diversity of information resources contribute to the information overload (2009, p.186) but this issue existed also during the “older web” period. The solution that they propose is “the principle of taking control of the information environment” (Bawden and Robinson, 2009, p.187).

However the characterization of the presented OPAC as a demanding and challenging catalogue launches a sensation of pressure expressed by one participant which is consistent with the notion of participation in the form of voting as an civic obligation in the political context (Blais, 2000, pp.92-114).

The divergent opinion that Web 2.0 tools are useless in the OPAC is not ignored but is taken as an indication for the need of further and deeper research. The existence or not and the reasons of existence of negative stances against the introduction of Web 2.0 in the OPAC should be investigated in a larger sample of users and in different libraries in Greek territory.

The emergent theme of responsibility referred to the question about who is responsible for contributing in the library’s catalogue. Users’ contributions in libraries’ catalogues are considered to be valuable since knowledge is disseminated among users and
librarians. The domination of librarians’ as unique contributors of the OPACs was questioned by the participants and the power relations, which have been established between librarians who own and control the knowledge resources and users who are in need to discover and study these resources were challenged. Therefore Olson’s suggestion to librarians to adopt social bookmarking and tagging as a way to share some of their power over knowledge with users (Olson, 2001, p.22) and also Partridge, Lee and Munro’s (2010, p.330) statement that librarians need to adopt a “different mindset” in order to follow the cultural changes caused by Web 2.0 appearance must be taken seriously into account. Xu, Ouyang and Chu’s framework combines the above statements by describing the Librarian’s 2.0 as the librarian who continues to offer quality services to library users “while keeping pace with the rapid development of Web 2.0 technologies and encouraging user participation in libraries” (2009, p.329).

Communication with consociates, solidarity and building communities of people with common interests are the answers related to the second research question regarding users motivation to contribute.

In the library’s “public sphere” emancipatory public discourse takes place between people with common interests. In libraries’ Web 2.0 OPACs users “raise validity claims” using language as a medium of communication in order to come to an understanding and pursue their aims (Habermas, 1984, p.99-101), which are to exchange information about books and other library material with “consociates” and like-minded people. Thus the research revealed that the motivation to contribute originates from the intention to help other researchers, presenting other points of view, or providing information that is missing from the formal presentation of the book. These statements are referred to the Habermas’ concepts of solidarity. The recognition that other researchers who work in the same field are “consociates” indicates that people sharing common interests have already some kind of ties that form them into group “through intact relationships of mutual recognition” (Habermas, 1990, p.244) although they don’t know each other personally.

Another theme that emerged was the role of the advanced OPAC with Web 2.0 functionalities in the community-sense building. The participants said that Web 2.0 tools integration in the OPAC facilitate the communication among people with common interests and concerns. My findings that the integration of Web 2.0 reinforces the possibilities to communicate is in accordance with Stephens and Collins (2007, p.253) argument that the open dialogue inside social network sites lead to a sense of community and belonging. In addition Kim and Abbas (2010, pp.211-218) claim that Web 2.0 enables and facilitates users to “share problems, discuss issues and engage in dialog” leading to common understanding, “which becomes an asset of the community” (Kim and Abbas, 2010, p.212). Riedler and Eryaman’s argumentation about the critical reflection on the information provided by the users through an “interactive process” can be linked with one of the participants’ sayings that among people that share common interests, argumentation is possible. Similarly Habermas in “rational discourse” concept supports the argumentation as a stage that leads to consensus (1996, p.147). The prospect of community sense as a tie of engaging users to the library reflects the claim of Jenkins and Carpentier (2013, p.280) that through participation the organizations raise users’ awareness to care about the organization and the community that has been created.
However a theme that arose out of the research findings was the obstacles that would prevent the participants from contributing. The limited time in people’s lives is naturally a common reason that prevents them from engaging in even desirable activities. However the “habit of contributing” is an issue which has been investigating through psychological (Farzan, et.al., 2008; Rashid, et al., 2006), social psychological (Ling, et al., 2005; Cheshire and Antin, 2008) and social learning lens (Burke, Marlow and Lento, 2009; Lampe and Johnston, 2005) and also in design studies (Smock, et al., 2011; Arguello, et al., 2006; Priedhorsky, Jordan and Terveen, 2007) and my outcomes show that this issue regarding library users needs further qualitative investigation. Another reason that participants presented as strong for not contributing was if they had negative impressions about a book. However this reason like the “habit of contributing” issue is beyond the limits of this study.

Conclusively, the participants of this research as “Users 2.0” according to the terminology of the framework of Library 2.0 developed by Xu, Ouyang and Chu (2009, p.329) expressed positive views about Information 2.0 derived from the new OPACs with Web 2.0 functionalities. Thus the time has come for librarians to accept their new role of Librarian 2.0 and share with users the responsibility of contribution to OPACs.
7. Conclusions, Contributions, Reflections and Future Research

Chapter 7 presents the conclusions of the research. In the next parts the contributions to the research and the practice, the reflections and suggestions for future research are included.

7.1 Conclusions

This research aimed to investigate users’ suggestions of Web 2.0 features to be integrated in a libraries’ OPAC in order to improve the library services. This study constitutes a first exploratory stage of a Participatory Design project which aims to the development of a new OPAC for LGE.

Hence this study sought to answer the following questions:

1. Which Web 2.0 features users suggest to be integrated in the LGE’s OPAC and why?
2. What motivates the users to contribute with content in the OPAC with the use of WEB 2.0 and why?

In order to achieve the aim to study and answer the research questions, this research used the Social Critical Theory of Habermas as a worldview and a theoretical framework. The main “components” of Academic Library 2.0 was used in order to theoretically investigate the “corresponding specifics” that enhance the successful implementation of Web 2.0 technologies in libraries.

The empirical investigation was based on qualitative approach and eight semi-structured individual interviews were conducted. As method of analysis of the gathered data was chosen the thematic analysis and the outcome were the following seven themes: Users’ General Impression, Opportunities and Benefits offered by Web 2.0 Integration into OPAC, Information Overload, Responsibility - Who is Responsible for contributing to OPAC, Motivations to Participate, Barriers to Contribute and Community Building and Communication through OPAC.

The data analysis revealed that users among the variety of Web 2.0 tools proposed by the presented OPAC, prefer the Comments and Rating options as they introduce different views of the book. Tagging was also suggested as supportive and helpful for researchers in the same field and finally lists and shelves as time-saving for the research process and as revealing elements of the creator’s image. The research also revealed that communication with consociates, solidarity and building communities of people with common interests are the reasons that participants reported as main incentives to contribute to OPAC. However the barriers, preventing them from contributing are beyond the limits of the current study.

The participants’ general impression and the aspects of their experiences interacting with the presented catalogue were positive and encouraging for the continuation of a Participatory Design project aimed to the development of a new OPAC for LGE.
The outcomes of this research indicate that the time has come for libraries to adopt a more active role in the society’s democratization. Libraries are expected to redefine their organizational identity and role and become organizations open to the society. Under this perspective, users’ participation in their operations should be welcomed. Libraries’ new role should be based on the contemporary demands of the society and infused with the values and ideals of contributing to social cohesion, to the free circulation of ideas and to the democratization of the society.

The structural and cultural transition from premises that host and preserve knowledge to live organizations that create knowledge through users’ interactions and exchange of ideas is not easy. Neither should it occur without previously libraries management investigate users and librarians’ desires and elaborate a plan in order the adaption to the new technological developments to be situated in the social and cultural context. In this crucial turnover of libraries vision and mission the Web 2.0 are the appropriate tools in order these changes to take place.

7.2 Contribution

The outcome of this investigation was encouraging from the users’ perspective and provides a starting point for elaborating a project plan for the reformulation of LGE’ OPAC. Hopefully this initiative will raise other Greek libraries awareness to introduce users’ participation through Web 2.0 tools and applications in libraries websites and OPACs in a more systematic way.

This research may also contribute to the organizational management and planning as an inspiration of the opportunities offered by the use of Web 2.0 in order to develop and implement applications for their users and employees to communicate, to spread and to acquire knowledge and information. Nevertheless the introduction of these tools should not be implemented without investigating users and employees’ views, suggestions and needs.

Finally the use of Habermas’ Critical Social Theory in Information Systems (IS) research and especially in libraries IS research could lead to the design of the technology to be based in more democratic procedures than the prevailing ones.

7.3 Reflections

7.3.1 On the use of the Critical Social Theory

The choice of Critical Social Theory as a theoretical framework and as a worldview was a major issue in the discussion with my colleagues. I could certainly choose a theoretical framework easier to analyze and be based upon but it would not reflect my personal beliefs. When I first read about CST of Habermas and its concepts I decided that on this worldview I would base my thesis. So I did! It was rather difficult to study [and understand] all these books and articles by and about Habermas and his ideas but it was also very enlightening. I do not claim that I fully understood Habermas rationale but for me it was a very promising start.
7.3.2 On the Methodology

During the process of conducting this research some problems occurred. Some of them were previously identified in the Research Proposal while others arose during the research process and took a lot of thought and effort to be overcome. From the beginning of the research the issue of the dual role I had to play, employed my attention. Afterwards the next problem arose during searching for a reference library. Another issue that needed to be addressed was to change the initial chosen research method. During the selection of the participants the problem of locating a male participant willing to participate and finally the last issue concerned the data analysis procedure.

On the researcher’s role
My dual role as a researcher and as a librarian in the specific library I believe that had a positive effect during the conduct of the research. The participants already knew me and most of them seemed to feel comfortable during the interviews. They were also familiar with the library environment, where the interviews were conducted and so that the first few warm-up interview questions were enough for them to start talking about their views openly and I think honestly. My only consideration was my professional role not to act as a pressure for the participants to participate in the research. In order to overcome this problem I tried as much as possible not to make them feel coerced to participate.

On locating a reference library
Locating a reference library with Web 2.0 functionalities in its OPAC was quite a difficult task. As a librarian, I knew that in Greece only the Panteion University Library offers the opportunity to its users to add tags to the bibliographic records. However, my intention was to investigate users’ desires to implement more Web 2.0 functionalities in the OPAC. So I tried to locate libraries in Europe but my research was fruitless. First I discovered a library in Canada and then nine more libraries in Canada and USA using the same OPAC software that supports such functionalities. Although libraries’ OPACs are usually freely accessible through Internet to everyone interested, the option to add content is permitted only to the registered users. Therefore in order to conduct my research and provide to the participants the opportunity of a fully accessible OPAC I needed to obtain registration codes from one library at least. Thus I applied via e-mails to the authorities of the ten libraries. I received only two answers: one negative and one positive from the Multnomah County Library see Appendix II.

On changing the initial research plan from workshops to individual interviews
The initial plan was to follow participatory research method in the form of workshops for collecting data. Time limitations and the workload of those who volunteered to participate urged me to change the research plan and to conduct individual interviews. However interviews proved to be an effective method of collecting data as participants were expressed freely and without being influenced by other people’s views.

On finding a male participant
Gender issues are a topic that mostly interests female researchers in Greece. Therefore the vast majority of Library’s on Gender and Equality users are women. Men constitute a percentage of 10% of total Library’s users. My effort to conduct the interviews in a representative sample of Library’s users urged me to contact more than ten male users via phone and e-mail in order to find one willing to participate. The reasons of men’s disinterest in gender issues are beyond the purpose of this study and stems out of the
gender stereotypes that still exist inside Greek society and the inability of the Greek state to abolish them.

**On the Data Analysis procedure**
The data analysis procedure was based on the translated text from Greek to English of the verbatim transcriptions of the participants’ words during the interviews. Although the process of translating raises some concerns when it is conducted by the researcher him/herself, it also provides many benefits to the better understanding of the interviews and facilitates the data analysis. After all researcher knows the research context and the conditions of the interview and could also simultaneously observe and recall the facial expressions of the participants during the interview and that provides a better understanding of the participants’ narratives.

**7.4 Future Research**

This study was involved with the concepts of participation, information pluralism and community building in relation with Web 2.0 tools in libraries’ catalogues. More research is needed in Greece and abroad in order to provide overall knowledge about the role that Web 2.0 tools could play inside the OPACs.

Moreover the fact that this research questions the traditional librarians’ role in the new libraries environment imposes the necessity of Greek librarians’ attitudes towards the integration of Web 2.0 tools in the OPAC to be investigated. Additionally more situated researches in Greek libraries should be conducted in order the utilization of the Web 2.0 technologies in the libraries’ catalogues to be based on their users’ and employees’ desires and preferences.

The barriers that participants mentioned would prevent them from contributing in a Web 2.0 OPAC were time limitations, reluctance to upload negative comments or ratings on the Internet and the lack of the “habit of contributing”. As Walsham (2012, pp.87-93) highlights contemporary IS topics like the above mentioned, “are multi-disciplinary in nature” (Walsham, 2012, p.88) and require extensive interdisciplinary approaches in order to be investigated. Thus librarians and IS scientists should cooperate with researchers from other disciplines that “have something of interest to say” (ibid) about these issues.
References


Blais, A., 2000. *To vote or not to vote?: The merits and limits of rational choice theory*. University of Pittsburgh Pre. Ch.5


Appendices

Appendix I

Mission & philosophy of Multnomah County Library

Multnomah County Library enriches lives by fostering diverse opportunities for all people to read, learn and connect.

Multnomah County Library upholds the principles of intellectual freedom and the public's right to know by providing people of all ages with access and guidance to information and collections that reflect all points of view.

We believe in:

I. The principles of intellectual freedom

- We will provide books, programs and other library resources that present a wide range of views on current and historical issues for the interest, information and enlightenment of the community.
- We will not exclude materials because of their origin or background or the views they express, nor will we remove materials because of partisan or doctrinal disapproval.
- We will challenge censorship and cooperate with all persons and groups concerned with resisting the abridgement of free expression and free access to ideas.
- We will neither deny nor abridge a person's right to use a library because of his/her age, economic levels, beliefs, race, personal or physical characteristics.
- We will make existing meeting rooms available to the public on an equitable basis.
- We will ensure regular staff training in the principles of intellectual freedom.

II. Respect for the public we serve

Regardless of age, economic level, beliefs, race, personal or physical characteristics:

- We will treat each patron in a courteous and attentive manner.
- We will give all individuals the same consideration and level of service.
- We will see that the library's behavioral rules are upheld in order to make the library a pleasant place for all patrons.
- We will act in accordance with the intent of library policies and procedures, both in their application and in any exceptions made to them.

III. Effective and efficient service

- We will strive for accuracy and quality in the services we provide.
- We will view all interaction with the public as an opportunity to promote and support the library.
- We will review and update policies and procedures as needed.
- We will provide materials for public use in a timely manner.
IV. Library resources that anticipate and respond to community interests and needs

- We will regularly review and be aware of the community profile for the area we serve.
- We will seek and respond to public input concerning services and materials.
- We will choose materials and programming based on library roles and the library mission statement.
- We will investigate and suggest innovative library services, programs and technological advancements.
- We will represent the library in community events and interact with neighborhood organizations.

V. Friendly, inviting and safe facilities

- We will participate in regularly scheduled safety programs.
- We will stay informed about emergency procedures.
- We will take the responsibility for the general appearance of our work areas.
- We will provide ongoing input to buildings and grounds projects and identify safety issues.

VI. Professionalism and employee involvement with respect for the worth and ability of each employee

In our commitment to provide a high standard of public service:

- We will provide clear written and oral expectations of job requirements.
- We will provide staff with the tools necessary to do the best job possible, including equipment, training and information.
- We will promote staff development through workshops, seminars and/or job-related courses.
- We will provide timely performance appraisals in conjunction with on-going informal dialogue between employee and supervisor.
- We will ensure meaningful recognition and acknowledgment for job performance.
- We will establish and maintain open lines of communication at all levels.
- We will ensure that personnel are selected according to library standards.
- We will allow clearly defined time for input into decision-making.
Appendix II

E-Mails with Multnomah County Library’s OPAC

Dear Sir/Madam

My name is Konstantina Pentarchou, I work as a librarian in Greece and I am doing my master thesis in Linnaeus University (Sweden) in Informatics. My topic is Web 2.0 features in the library's OPAC and I found your online catalogue to be among those that are designed to offer Web 2.0 functionalities. According to my opinion you have included Web 2.0 tools very successfully, encouraging users to participate into library operations, making them feel free to express their opinions about books and building library's users communities.

My research is based on users perceptions about using these tools in an OPAC. So I have scheduled to conduct 2-3 workshop with 4-5 participants each in order to present to them a library which provides Web 2.0 in its OPAC and afterwards to discuss their experiences and their thoughts.

That's why I wanted to ask you to help me with my project providing a registration code in order me and my research's participants to see your catalogue in full functionality. I ensure you that I will not distribute the codes to the participants and I will keep them in a safe place. Moreover as soon as my research is completed I will inform you to deactivate those codes.

Best regards

Konstantina Pentarchou

Hello Ms. Pentarchou. Thank you for contacting Multnomah County Library about our online catalog. Thank you also for your kind words. We work hard to connect with library users online.

Yes, for academic purposes, you may have a library card number to use for a short time. Would 3 months be a good time period? Please complete an online registration form at https://multcolib.org/get-a-library-card. I can then send you a library card number and password via email.

Please contact me directly and tell me if this will work for you or if you have any questions.

Thank you,

Jennifer Steward
Account Management of Multnomah County Library
jennifes@multcolib.org
www.multcolib.org
Appendix III

Interview guide

I would like to thank you for your agreement to participate in my research which will investigate your perceptions about Web 2.0 tools to be introduced in LGE’s OPAC. If you agree to participate in this interview please sign the consent form. I remind you that participation in this survey is voluntary. Therefore, you are free to choose not to participate in this research or to leave whenever you want without having any obligation to provide explanations. The interview lasts approximately 1 hour.

General questions

1. Do you agree your interview to be audio recorded?
2. Please introduce yourself (name, education, profession etc)
3. When you have a new assignment how do you find the suitable literature?
4. When you schedule a new course how do you find the suitable literature to suggest to your students? (for professors)
5. When did you start visiting LGE?
6. Have you ever visited LGE’s OPAC? (If no brief presentation of LGE’s OPAC)
7. What is your idea about LGE’s OPAC?
8. Do you use other libraries’ OPACs? Which?
9. Have you ever visited the online catalogue of Panteion (If she/he has already mentioned this catalogue we continue with the following question). (If no brief presentation of OPACIAL)
10. Are there any differences that you can mention between Panteion’s Library catalogue and LGE’s catalogue?
11. Are you familiar with the concept WEB 2.0?
12. How do you make use of web 2.0 pages? (personal, professional reasons or both)
13. Do you have a Facebook or other social network account?
14. Do you participate in blogs or forums sharing your personal opinion and on what topics? Why?

Presentation of Multnomah County Library’s OPAC and users’ free navigation

Presentation of Multnomah County Library’s OPAC. Then the participants were asked to try to find a book which they have read. “If you were trying to find it without remembering the title and the author with which keywords would you search for it?” “Look at the description of the book provided by the librarians and the tags coming from the users. Did you locate your keywords anywhere?” “Now you will be left alone to navigate in this catalogue for no longer than 15 minutes. You will be observed from a distance and you can ask for help if you need any”.

Questions after the presentation

14. Describe your experience navigating in the Multnomah County Library’s OPAC Did you find it interesting? Why? OR
15. Describe your experience to participate in the online community of Multnomah County Library? Did you find it interesting? Why?
16. Which of these tools you believe would be useful to be integrated in LGE’s OPAC? Why? Can you think of any other interactive features that could be added in LGE catalogue?

17. Now you have tested this OPAC what do you think if we decide to implement these kind of services into the LGE’s OPAC?

18. Describe the reasons that would affect your willingness to contribute to a future online LGE’s community

19. Describe the barriers that would prevent you from contributing your knowledge in a future online library’s community

20. Which criteria would you define as important in order to use other users’ contributions as a source of new knowledge?

21. Do you have anything else to add in our conversation?
Appendix IV

Informed Consent Form (in Greek)

Linnaeus University. Department of Informatics.
Master Programme in Information Systems
Φόρµα συγκατάθεσης για συμµετοχή σε έρευνα

Τίτλος της έρευνας: «Αντιλήψεις των χρηστών για χρήση εργαλείων Web 2.0 στον κατάλογο (OPAC) της Βιβλιοθήκης Θεµάτων Ισότητας και Φύλου (ΒΘΙΦ): συμµετοχή, εµπλουτισµός καταλόγου και κοινότητα χρηστών»

Ερευνήτρια: Κωνσταντίνα Πεντάρχου,
E-mail: kp222eh@student.lnu.se
konstantinapen@yahoo.gr
Τηλ.: 6947721395
Επιβλέπουσα καθηγήτρια: Christina Mörtberg
E-mail: christina.mortberg@lnu.se

Σκοπός της Έρευνας:
Η Έρευνα αποσκοπεί να διερευνήσει πως οι χρήστες αντιλαµβάνονται τη χρήση εργαλείων Web 2.0 στον κατάλογο της ΒΘΙΦ. Αυτή η έρευνα πραγµατοποιείται στα πλαίσια της εκπόνησης της Μεταπτυχιακής εργασίας της ερευνήτριας αλλά µελλοντικά θα συµβάλει επίσης στη βελτίωση των υπηρεσιών της ΒΘΙΦ προς τους χρήστες της.

Διαδικασίες έρευνας:
Η συµµετοχή σας σε αυτήν την έρευνα περιλαµβάνει:
• Σύντοµη παρουσίαση του καταλόγου της ΒΘΙΦ (αν δεν τον γνωρίζετε ήδη)
• Σύντοµη παρουσίαση του καταλόγου της Multnomah County Library, Portland, OREGON, USA.
• Συνέντευξη διάρκειας περίπου µίας ώρας µε ερωτήσεις σχετικά µε τις εντυπώσεις σας από τη χρήση των παραπάνω καταλόγων. Η συνέντευξη σας θα ηχογραφηθεί µόνο εφόσον συµφωνείτε.

Κίνδυνοι:
Η συµµετοχή στην έρευνα δεν περιλαµβάνει κινδύνους καθώς το υλικό των συνεντεύξεων θα χρησιµοποιηθεί αποκλειστικά από την ερευνήτρια για τους σκοπούς της έρευνας της για τους οποίους έχετε ενηµερωθεί.

Εµπιστευτικότητα
Οι πληροφορίες που θα δώσετε θα διατηρηθούν εµπιστευτικές υπό την προστασία της ερευνήτριας. Πρόσβαση σε αυτές θα έχει µόνο η ερευνήτρια και η επόπτρια της. Όλα τα στοιχεία της έρευνας θα διατηρηθούν µέχρι της ολοκλήρωσή της και μετά θα διαγραφούν. Το ονόµα σας δεν θα αποκαλυφθεί και δεν θα διασυνδεθεί µε τα αποτελέσµατα της έρευνας.

Εθελοντική συµµετοχή και δικαίωµα υπαναχώρησης
Η συµµετοχή σε αυτή την έρευνα είναι εθελοντική. Η απόφαση να συµµετέχετε είναι αποκλειστικά δική σας. Μπορείτε να αρνηθείτε να συµµετέχετε ή να υπαναχωρήσετε αποσύνδεστα όµως ακόµα και κατά τη διάρκεια της συνέντευξης χωρίς αυτή σας η απόφαση να επηρεάσει τη σχέση σας µε το προσωπικό της ΒΘΙΦ.
Δικαίωμα να θέσετε ερωτήματα

Έχετε δικαίωμα να θέσετε οποιοδήποτε ερώτημα ή απορία επικοινωνώντας απευθείας με την ερευνήτρια πριν, κατά τη διάρκεια ή και μετά τη συνέντευξη.

Συγκατάθεση

Συμφωνώ να συμμετάσχω στην έρευνα: «Αντιλήψεις των χρηστών για χρήση εργαλείων Web 2.0 στον κατάλογο (OPAC) της Βιβλιοθήκης Θεμάτων Ισότητας και Φύλου (ΒΘΙΦ): συμμετοχή, εμπλουτισμός καταλόγου και κοινότητα χρηστών» της Κωνσταντίνας Πεντάρχου.

Συμφωνώ να ηχογραφηθεί η συνέντευξη που θα παραχωρήσω

☐ Ναι
☐ Όχι

Έχω κατανοήσει τον σκοπό και τον τρόπο διεξαγωγής της έρευνας καθώς και τα δικαιώματά μου, τα οποία δεν αποκηρύττονται με την υπογραφή μου.

Ημερομηνία υπογραφής       Συμμετέχον/ουσα       Ερευνήτρια:
Appendix V

Informed Consent Form (in English)

Linnaeus University. Department of Informatics.
Master Programme in
Information Systems
Informed Consent Form

Title of research: “Users’ desires of Web 2.0 tools to be integrated in the OPAC of Library of Gender and Equality

Researcher: Konstantina Pentarhou
Email: kp222eh@student.lnu.se
konstantinapen@yahoo.gr
Tel: +306947721395

Supervisor: Christina Mortberg
Email: Christina.mortberg@lnu.se

Aim
This research aims to investigate users’ desires of which Web 2.0 tools to be integrated in the OPAC of Library of Gender and Equality and is conducted as a part of the researcher’s Master Thesis. It will also help the improvement of the Library’s services to its users.

Procedure
Your participation in this research includes:
• Brief presentation of the Library’s Gender and Equality catalogue (if you are not familiar with it already)
• Brief presentation of the Multnomah Country Library’s Gender and Equality catalogue which is located in Oregon, USA.
• Interview which will last for about an hour. The interview will be recorded under your permission.

Dangers
The participation in this research does not include any danger while the material of the interviews will be used exclusively from the researcher for the purposes of her research.

Confidentiality
The information you are going to give will be held safe and confidential by the researcher. Only the researcher and her supervisor will have access to the research data. All the data of the research will be held until its completion and will be deleted.
afterwards. Your name will not be revealed and it will not be linked with any of the findings.

**Voluntary participation and the right of withdrawal**
Your participation in this research is voluntary. You can refuse to participate or to withdraw at any time, even during the interview. This decision will not affect your relationship with the Library’s for Gender and Equality personnel.

**Right to ask questions**
You have the right to ask any questions by contacting with the researcher before, during and/or after the interview.

**Consent**
I agree to participate in the research: "Users desires of Web 2.0 tools in Library’s for Gender and Equality OPAC", conducted by Konstantina Pentarchou.

I agree to be audio-recorded

☐  Yes

☐  No

I understand the purpose of this research and my rights

Date    Participant    Researcher
## Appendix VI

Table that interlinks the Emergent Themes with the Participants’ words

<table>
<thead>
<tr>
<th>Emergent Themes</th>
<th>Participant A</th>
<th>Participant B</th>
<th>Participant C</th>
<th>Participant D</th>
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</thead>
<tbody>
<tr>
<td><strong>Users’ General Impression</strong></td>
<td>“It was a really joyful experience. I was able to use this catalogue in a different way compared with my department’s catalogue”</td>
<td>“It was enjoyable. I couldn’t imagine a library could offer such a tool”</td>
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<tr>
<td><strong>Opportunities and Benefits offered by</strong></td>
<td>“Too much noise for something useless. I have never used tag cloud during my searching process in OPACIAL. It is worthless”</td>
<td>“It is interactive and joyful for encouraging users to stay in the site for a long time without being bored. It is also modern unlike many other catalogues that present the records in an academic way. And it is very easy to use because everything is very clear”.</td>
<td>“It is an interactive and multidimensional catalogue as it provides information in different levels from different sources”</td>
<td>“It is a valuable asset because users contributions enrich the library’s knowledge database. Moreover it also provides to its users a floor to express their opinions”</td>
</tr>
<tr>
<td><strong>Web 2.0 Integration into OPAC</strong></td>
<td>“Libraries may develop a forum area into their websites to let the users communicate with each other and with the librarians, add their comments, ask their questions and make their suggestions. But not in the OPACs”</td>
<td>“Comments should not be too general. In the contrary should be focused on the discussed theme”</td>
<td>“To follow a tag that you think is relevant to what you are searching for can be very helpful for your research”</td>
<td>“I think that adding tags with suggested terms to the records is very good and supportive for other users that do a similar research in the field”</td>
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<td></td>
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<td>“Tags sometimes introduce concepts or topics of the books that the librarian hasn’t locate”</td>
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<td>“I haven’t noticed the tags in that [Panteion] catalogue so I have never used them. Perhaps if it was more obvious I would. Something like a pop-up or some kind of indication to show that it is there”</td>
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<td>“I was helped to locate very interesting material for my research by reading other people’s comments”</td>
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<td>“They [the comments] must be focused on the content of the books and not used for rating a book. In fact the option to rate the book exists in this catalogue. You don’t need to write in the comment whether you liked it or not. You can rate it. I would only be based on other users’ comments if they were focused on the content and well justified”</td>
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<tr>
<td>Emergent Themes</td>
<td>Participant A</td>
<td>Participant B</td>
<td>Participant C</td>
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<tr>
<td><strong>Information Overload</strong></td>
<td>“Inside the catalogue comments and rating might be useful but sometimes it could also cause disorientation. I believe that they just make the description too overloaded”</td>
<td>“There is definitely a risk there but there are always risks when you decide to read a book from the back cover or because a friend or a colleague suggested it to you. This risk, apart it wouldn’t kill you, it will broaden your horizons”</td>
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<tr>
<td><strong>Responsibility - Who is Responsible for Contributing to OPAC</strong></td>
<td>“Librarians are more experienced in indexing and providing information about books and so that the information they provide is more valid compared to the information from other sources. OPACs are librarians’ job. After all cataloguing is librarian’s primary duty”</td>
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<td></td>
<td>“OPACIAL is an innovative catalogue for letting users contribute and encouraging knowledge flow so that experts in specific topics share their knowledge with novices and everyone is learning something even from someone who is not an expert”</td>
</tr>
<tr>
<td><strong>Motivations to Participate</strong></td>
<td>“My motivation to contribute would be to inform other scientists focused on the same field with me about books that it is not obvious from the title or the formal summary that they have references about our field. For example in books written by Mackinnon which you have here, apart from political philosophy one can also find chapters focused on law hermeneutics. In this case I would add tags to help others locate this book”</td>
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<tr>
<td><strong>Barriers to Contribute</strong></td>
<td>“I am not used to upload comments on the Internet. I don’t visit social interaction sites”</td>
<td>“I wouldn’t criticize a book that I didn’t like in order not to bias other possible readers”</td>
<td>“I wouldn’t add comments regarding if I liked or disliked the book because it is subjective. I would rate a book if I liked it in order to welcome a good effort. But I wouldn’t rate it if I didn’t like it in order not to bias other potential readers”</td>
<td>“During my free time I would definitely contribute”</td>
</tr>
<tr>
<td><strong>Community Building and Communication through OPAC</strong></td>
<td>“This OPAC looks like Facebook. I believe it would be a disaster for our professional principles if we turn libraries’ catalogues into Facebook pages”</td>
<td>“This catalogue should permit users to answer to one another. This way the community sense would become more vivid”</td>
<td></td>
<td>“This OPAC would lead to an active community about gender bibliography to be established. If LGE provided Web 2.0 functionalities through its catalogue it would be transformed into a forum about gender issued books. I would be happy to participate in this initiative in order to share my opinion with other people about the books”</td>
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## Emergent Themes

<table>
<thead>
<tr>
<th></th>
<th>Participant E</th>
<th>Participant F</th>
<th>Participant G</th>
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<tr>
<td><strong>Users’ General Impression</strong></td>
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<td></td>
<td>“It was a rather interesting experience to find so different information, even about the atmosphere of the book from the users who had read the book”</td>
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<tr>
<td><strong>Opportunities and Benefits offered by Web 2.0 Integration into OPAC</strong></td>
<td>“This catalogue is smart, comprehensive, innovative and exceptional, not only from the informative perspective, but also from the participatory perspective”</td>
<td>“These integrated tools offer a pluralistic view of the books and this is a positive aspect of this kind of OPAC”</td>
<td>“I use Pantheon catalogue only through the tag cloud. I don’t use the subject headings at all because the tag cloud is more appealing and more prominent in the page than the other information”</td>
<td>“This catalogue is a user-friendly catalogue, easy even for people that don’t know much about Internet, and above all attractive and pleasant.”</td>
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<td>“it permits in depth and detailed presentation of the books but it is also a demanding and challenging catalogue because the user needs time to choose from all these features what to utilize”</td>
<td>“I don’t like to read extensive comments”</td>
<td>“What users upload should be checked and filtered by a library’s employee because it would be inappropriate for a library page to host buffoonery or offensive content”</td>
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<td></td>
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<td>“Lists and shelves are time-saving for researchers that usually spend a lot of time to locate books in different libraries.”</td>
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<td></td>
<td></td>
<td>“Lists and shelves give a picture of every registered user about what he/she has read and whether you share common interests with him/her. This defines whether you will follow or ignore his/her suggestions”</td>
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<td>“I would like comments to reflect a familiarity and an in depth knowledge about the topic”</td>
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<tr>
<td><strong>Information Overload</strong></td>
<td>&quot;Although sometime the plethora of information might be confusing these tools provide much information and therefore are helpful to develop a first insight about books&quot;</td>
<td>&quot;Users usually know what they are looking for and follow some kind of research strategy to discover the books on their research topics. But there are also users who are unaware of what they are looking for. However even these users at the end will acquire knowledge, maybe different from their initial target. But knowledge is never bad as it always broadens your mind and the way you think&quot;</td>
<td></td>
<td>&quot;I visit websites about music and movies every day and exchange opinions with other people. So it was always in my mind to find a website for books, to upload my personal lists, to comment books, to rate books like I do with music and movies&quot;</td>
</tr>
<tr>
<td><strong>Responsibility - Who is Responsible for Contributing to OPAC</strong></td>
<td>&quot;Users have actually read the books while librarians have read diagonally the books in order to index them&quot;</td>
<td>&quot;Librarians are not expected to locate every theme or approach written in a book that it would be valuable for a researcher to support his/her theory&quot;</td>
<td>&quot;One click and everything is there. Apart from the information coming from librarians, the user can see views and comments coming from other users who can be either specialists on the subject or novices in the topic&quot;</td>
<td>&quot;Now that I have found it, it is not located in Greece. It is so far away and I will never have full access to it!&quot;</td>
</tr>
<tr>
<td><strong>Motivations to Participate</strong></td>
<td>&quot;I would definitely post a comment and add content if I believed that it would be useful for someone else as I do it already in the forums I participate&quot;</td>
<td>&quot;I would contribute if I had something useful to say or to add another point of view, if the bibliographic description was incomplete or if I thought that someone was saying something incorrect&quot;</td>
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<tr>
<td><strong>Barriers to contribute</strong></td>
<td>&quot;I would hesitate to upload content if there was not significant users’ activity in the site&quot;</td>
<td></td>
<td>&quot;It is always a matter of finding enough time&quot;.</td>
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<tr>
<td><strong>Community Building and Communication through OPAC</strong></td>
<td>&quot;Apart from encouraging uploading comments it would be also useful to provide the option to let the users answer to each other so that meaningful dialogues among users to take place&quot;</td>
<td>&quot;There is definitely a community there and this is encouraging for you to go on&quot;. &quot;You can find people who share the same interests with you, who have read the same books and you want to know their opinion about them, regardless if you agree or disagree with them&quot; &quot;You can characterize someone as common minded to you from the books he/she has read and the comments s/he created&quot;</td>
<td>&quot;Below books with the particular subject or genre you may see the same users to add comments or other content. Thus groups of people who have common interests are created and through OPAC express their need to communicate&quot; &quot;This kind of communication is favourable for the library too, to build a community sense among its users because this way their ties with the library are strengthened&quot; &quot;This catalogue has elements of social media sites like the comments in Facebook or the follow option of Twitter. I like that&quot;</td>
<td>&quot;The sense of belonging in a community of common interests is encouraging for every researcher to continue his/her projects&quot; &quot;It would be very nice to offer the option of answering to other users’ comments just like it happens in social media&quot;</td>
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</table>