



Sofia Axonidi

**Digital Reference Services in a digital environment:
user's perceptions of the Library and Information
Center of Harokopio University**

Supervisor: Anna Maria Tammaro

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Abstract

Digital Reference Service operates as a supplementary service for traditional libraries by embracing the potentials of new technologies with the purpose of supporting distant users. On the contrary, in digital libraries the service is based on algorithms and the human intermediation is often absent raising thoughts of how this service would be functional for users in this environment.

The study examines the value of human intermediation in a digital library from the users' perspective. Human intermediation can be integrated in a digital environment through personalized services, such as the Digital Reference Service. The focal point of the study in investigating the perceptions of users was set by the research questions and it is about the usefulness of the Digital Reference Service; the feelings that the implementation of this service would give rise to; and the effectiveness of serving users information needs.

This aim of the study was attained by identifying any users' awareness of the Digital Reference Service and its potentials; by considering the users' feelings towards using the service; and finally by detecting the elements of the Digital Reference Service which should be improved in accordance with the users' needs. The Library and Information Center of Harokopio University was used for conducting the case study which was based on semi-structured interviews of with a view to collecting valuable data.

The results of the research were analyzed through the constant comparative process answering the established objectives. The findings show that the users would embrace a personalized service, which would facilitate the process of satisfying their information needs. Nevertheless, the salient issue was the expansion of the role of the Library and the skills of librarians, in order to continue supporting users by minimizing the constraints of the distance.

Key words: Digital Reference Service, Digital Library Functionalities, Personalized Service, Users and Digital Reference Service, Users' perceptions, Human intermediaries.

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List of Abbreviation

DRS: Digital Reference Service

LIC: Library and Information Center

HUA: Harokopio University

IFLA: International Federation of Library Associations and Institutions

RUSA: Reference and User Service Association

ALA: American Library Association

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Declaration

I certify that all material in this dissertation which is not my own work has been identified and that no material is included for which a degree has previously been conferred upon me.

Sofia Axonidi _____ (Submitted electronically and unsigned)

Chapter 1: Introduction

Libraries no matter if they are in traditional, hybrid or digital form perform the same function; users' satisfaction by meeting their unique information needs. Traditional libraries support users and help them to achieve their information needs through indirect services, such as cataloguing, shelving, Opacs, open access (Chandwani, 2010). Beyond these provisions, libraries support the specific requirements of each user in order to discover appropriate information from proper resources within the least amount of time (Chandwani, 2010). This is the Reference Service process, where librarians after a reference interview with users, orientate and clarify users' information needs, so that they can recommend, evaluate and deliver the appropriate information resources (RUSA, 2015b; Chowdhury, 2002).

Over the years and along with the advent of technology both libraries and their services were transformed. Many traditional libraries became hybrid enriching their collections with digital objects (digital collections). Therefore, their core service, the reference service, had to be modified under the new conditions. Digital Reference Service is the name of these new services, which provide similar support despite the alteration of the means. A distinctive definition of DRS was given by Lankes (2004) who explains that DRS is "a network of expertise, intermediation and resources out at the disposal of a person seeking answers in an online environment".

The crucial point of this service is the human interaction, as users are able to contact librarians exploiting the potentials of the new technology. Chandwani (2010) and Dollah & Singh (2009) distinguish three basic factors of DRS; the human (user and librarian), the medium (email, chat etc.) and the resources (printed and electronic).

1.1. Statement of the problem

Studying the literature the researcher became aware of the existence of many definitions that describe digital libraries as a digital collection consisting of digital objects. This induced the researcher to wonder how the users of a digital library could contact the librarians to ask for their support, when there is not an easily accessible service. Additionally, digital libraries seem less competitive than the websites of other

providers, which offer personalized services unsparingly showing to their visitors that someone is available to help them and urge them to communicate with their staff.

The literature triggers thoughts on whether it is feasible for a personalized service, such as DRS, to be integrated in a digital environment taking into consideration the main problems of underfunded and understaffed services, and how effective such a service could be for users. Many papers examine the DRS from the spectrum of its technical implementation and the accuracy of the replies. However, it has not yet been examined how users embrace this service in a digital environment.

1.2. Research questions

The above considerations were articulated into the research questions focusing on:

R.Q. 1) How useful can the existence of the DRS be for users?

R.Q. 2) How do users feel about this personalized service in a digital environment?

R.Q. 3) To what extent can DRS be effective in serving information needs?

1.3. Aim and objectives

The aim of the study is the investigation of the users' perceptions regarding the existence of DRS in a digital library. The objectives of this investigation were formulated in order to:

- identify users' awareness of DRS and their potentials;
- consider users' feelings towards using DRS;
- detect the DRS elements that are in need of improvement in accordance with the users' needs.

1.4. Methodology

The research started by reviewing the literature and detecting the relevant points that would lead to its implementation. Qualitative methodology was selected to interpret the users' understandings and beliefs. The method of instrumental case study was

used and the Library and Information Center of Harokopio University was selected for conducting the research. The interview was the suitable technique for the collection data, since the researcher had immediate interaction with the subjects who were questioned on a personal basis and were able to provide details. Purposive and snowball sample participated in the process, due to the particularity of the investigated topic.

Constant comparative analysis was implemented for the segregation of the collected data into elements in order for the objectives to be met. For this purpose a concept framework (see Appendix III) was structured classifying the categories and subcategories of the data

1.5. Limitations

The main limitations of a study can be the lack of time and resources. In the present study these resulted in the examination of only one academic library. For instance, if users from other academic libraries could be interviewed, a broader framework could be defined causing additional elements to emerge.

An additional constraint was the technique used. Although the interview provides insight data, it does not allow for the participation of an extended sample. The reasons are the time that is required for conducting the study and then the time for elaborating on the data.

1.6. Outline of the Thesis

The structure of the thesis consists of five chapters.

Chapter 1. Introduction: This chapter presents the layout of the thesis explaining the DRS, stating the problem and defining the research questions, aims, objectives, methodology and limitations.

Chapter 2. Literature review: This chapter determines the DRS and its implemented types and formats; the guidelines from IFLA and RUSA for applying DRS are described; it concludes by underscoring the lack of human interaction in digital libraries and justifying the usefulness of DRS in digital libraries.

Chapter 3. Methodology: This chapter establishes the structure of the research clarifying the research questions and objectives, the research approach, the research methodology, the ethics, the research method, the research sample, the research technique and the qualitative analysis.

Chapter 4. Analysis & Discussion: This chapter describes the case study presenting general information about the Library. Then, the analysis displays the findings in categories in accordance with the objectives. The results are discussed in the same section, so that a coherent understanding to be determined.

Chapter 5. Conclusion: This chapter concludes the concepts of the analysis, how these correspond to the research questions and objectives, and culminate with the researcher suggestions.

At the end of the thesis are enclosed an alphabetical list of the cited references using APA Reference Citation Style and appendices of the interview guide in English and in Greek language, the concept framework and the transcriptions.

Chapter summary

This chapter introduces the Digital Reference Service and how it has evolved from its origin, the Reference Service. The merit of this service, which is the human interaction and how it enables users to electronically submit their inquiries to librarians, is also stressed. This point stimulates the articulation of the problem, the research questions, aim and objectives. Then, the structure of the research methodology is briefly presented as well as the limitations of the present study.

Chapter 2: Literature Review

2.1. Introduction

This literature review aims at determining what the term Digital Reference Service entails by providing a broader view of the issue to readers of this research. This chapter is structured around four topics. Firstly, Reference Service is defined explaining the transition from a traditional library to a digital environment. The various types of the DRS are described enlightening the available formats. There is a reference to the suggested guidelines of IFLA and RUSA. Finally, the definitions of digital libraries are discussed and DRS are examined in this environment.

The inspiration for the topic of this thesis was drawn by reading the literature, while the researcher was looking for services that can be applied in digital libraries. An attractive service was the Digital Reference Service due to its personalized character. However, from the very beginning, it became obvious that this service is primarily applied as supplementary service to traditional libraries. Since the orientation of the search was on digital libraries, the lack of articles was noted. Consequently, the study demanded that the researcher should start with examining articles referring to the DRS in a traditional environment in order to clarify the overall framework of its implementation.

Thereinafter, several articles scrutinizing the use of the DRS in a digital environment and pointing out the significance of a personalized service in digital libraries were singled out. That clue triggered further the scope of the thesis and orientated the search. Articles were detected in various databases, where the researcher had full access through Oslo and Akershus University College of Applied Sciences (HiOA). These databases were *Emerald*, *ScienceDirect*, *EBSCO*, *Web of Science*, *E-LIS: E-prints in Library & Information Science*, *Google Scholar*, *ACM Digital Library and Scopus*.

The key words used for retrieving relevant results were: “*digital reference services*”, “*virtual digital reference services*”, “*academic libraries*”, “*digital libraries*”, and they were exploited alternatively. As the search was progressing, further terms were included, such as “*Greek libraries*”, without recalling the expected material. Even

though the publication date was specified with a view to retrieving recent papers, the search was proved fruitless due to the particularity of the theme. The advent of the DRS in traditional libraries was around 2004 with the majority of papers having been produced at that period. An additional limitation was the selected language of publication, which was primarily the English language.

2.2. From Reference Services to Digital Reference Services

Libraries incorporate numerous services for supporting their community. Reference services in traditional libraries belong to these; facilitating the contact between users and personnel of libraries. Librarians after having a reference interview with users, orientate and clarify users' information needs, recommend, evaluate and deliver the appropriate information resources (RUSA, 2015b; Chowdhury, 2002). These resources derive from the material of the library collection, the databases, the library catalog, a possible collaboration with other institutions etc. in accordance with the unique information needs of each user (RUSA, 2015b).

With the advent of new technologies, the traditional services of the libraries have to adjust to the upcoming technological trends and exploit the provided potentials. The evolution of the libraries is imperative in order for them to be competitive and cope with the easy access to information on the Internet, which has negatively affected their usage.

Thus, libraries have incorporated the new technologies in their services aiming at strengthening the communication means, approaching remote users, especially distant ones, and supporting their information needs. Digital Reference Service integrates these attributes, where the transition from traditional Reference Service to digital one incorporating the development of the web technologies (Chowdhury and Margariti, 2004). The term DRS is used in the literature with various definitions as others use it to refer to Virtual Reference Service, Online Reference Service or Electronic reference service.

An initial definition of DRS had been given by Janes, Carter and Memmott in 1999 (as cited in Malik and Mahmood, 2014) stating that "digital reference service is a mechanism by which people can submit their questions and have them answered by a library staff member through some electronic means (email, chat, web forms, etc.),

not in person”. Reference and User Service Association (RUSA) takes the DRS definition further pointing out, that users are able to communicate with the library and submit their queries remotely without being restricted by the time or the place (RUSA, 2010).

Therefore, the DRS consists of three basic components: the human (user and reference librarian); the medium (e-mail, chat etc.); and the resources (printed and electronic) (Chandwani, 2010 & Dollah and Singh, 2009). The merits of the implementation of this service are designate by Dollah and Singh (2009):

- Availability for use at anytime and anyplace
- Expanding the interactive learning of users
- Comprehensive answers, as staff has more time to elaborate on the inquiries
- The written replies minimize ambiguity.

In contrast, the constraints of DRS are:

- Absence of in person interaction, which in advanced inquiries may complicate the process requiring more details for the information needed and delay the process
- In asynchronous means, the immediate replies are not certain.
- Purchasing appropriate hardware and software
- Costs (Dollah and Singh, 2009).

2.3. Digital Reference Services: types and formats

2.3.1. Types of Digital Reference Services

Digital Reference Services are applied through two main categories; the asynchronous mode and the synchronous one. The former involves electronic forms and e-mail, so that users deliver their requests to the personnel, who may reply later, normally within 24 hours. Thus, librarians have the time to process inquiries delivering the appropriate resources and increasing the accuracy of the responses (Shachaf and Horowitz, 2008). On the other hand the synchronous mode enables real time communication between users and staff by exploiting instant messages and chat tools (Malik and Mahmood, 2014)

Shachaf and Horowitz (2008) detect a difference between these services stating that with the asynchronous service a thorough research is conducted, but further explanations are limited. On the contrary, a synchronous channel can be fruitful to identify the information needed as explanations can be asked and given so as to achieve an effective communication with the desirable results.

Additional differentiations between these categories are the anxiety that participants in the session would feel. For instance, with the synchronous service both participants, due to the pressure of responding quickly, may not articulate their answers comprehensively, whereas with the asynchronous communication both members have the opportunity to structure their written speech.

Nevertheless, Lankes, Collins and Kasowitz (2000 as cited in Profeta, 2007) established 12 features that render the operation of DRS adequate, namely, being: “authoritative, accessible, fast, private, consistent with good reference practice, clear in user expectations, reviewed regularly, provides access to related information, noncommercial, publicized, instructive, and offers training to experts”. These characteristics may ensure a successful session by satisfying the users’ information needs.

2.3.2. Formats of Digital Reference Services

The initial tools for the support of distant users were solely the telephone and the fax. These tools have been evolved through the years exploiting the advantages of technology. Nowadays the DRS provides numerous options for distant communication, which are divided in the below formats of the two core types (Vijayakumar and Vijayakumar, 2005; Chandwani, 2010; Yang and Dalal, 2014).

- ***Asynchronous type of communication:***
 - ***E-mail:*** it is the most convenient mode of communication as the majority of users are familiar with its use. Users are able to send their inquiries at any time expressing their queries in a free style format.
 - ***Web forms:*** these are structured forms with predefined fields (e.g. personal details, select the category that their inquiry belongs and type their

queries) which the users fill. Hence, it is ensured that adequate information is gathered to define the submitted information need.

▪ ***Synchronous type:***

- ***Chat:*** it could be compared with the traditional reference service, since users type their request and receive a reply at the same time. It is a method for quick answers to short inquires and details about the information inquired can be asked. Chandwani (2010) points out that this format is a challenge for the personnel who are required to respond in ten minutes (as it has been estimated) with apt information, while dealing with in place activities at the same time. A considerable issue is the “short of nonverbal cues” that provides extra details for the expression of answers to each user (Han and Goulding, 2003). However, Chandwani (2010) suggests that the process can be handled effectively by setting particular times of the day that staff is online providing real time assistance, using predefined messages, standard greetings etc.
- ***Instant Messaging:*** this is similar to chat with the difference that specific software has to be installed in the library’s and patrons’ terminals.
- ***Video Conferencing/ Web camera services:*** This service provides straightness in communication as both sides can exploit the written and oral form eliminating the physical constraints. However, Yang and Dalal’s (2014) research shows that it is not frequently used as only two out of 362 institutions operate it.
- ***Learning Forum:*** this is a space where users have the option to discuss a relevant with the library issue with the other members of the community. Librarians can play the role of the administrator orientating the framework of conversation, suggesting some topics for discussion etc. This forum can be similar to a normal forum encouraging users to talk and express their thoughts on anything related to the library collection, improvements, knowledgebase etc.

2.4. Guidelines for Digital Reference Services

The International Federation of Library Associations and Institutions (IFLA) and the American Library Association (ALA) examined those factors that are necessary for installing the DRS in libraries and they established the preconditions for running this service effectively.

2.4.1. International Federation of Library Associations and Institutions (IFLA)

Early in 1998 IFLA's corresponding Group of Reference evaluated the invasion of new technology in the workflow of a library which will influence the reference services as well. At that time IFLA started to set up guidelines for the use of the DRS placing users' needs in the center of attention, so that the effectiveness of the service could be achieved. The first step of the guidelines suggests articulating the framework of the policy, such as the aims of the DRS implementation, as well as the characteristics of the addressed community. The realistic planning follows clarifying crucial factors (cost, software) that affect the implementation of DRS.

In conjunction with the above the preparation of the staff is equally significant in order to handle the process of the DRS appropriately and achieve a successful contact with end users. Additional considerations are the interface, legal issues, promotion, evaluation and collaboration (IFLA, 2008). Furthermore, IFLA deals with some practical issues about the means of communication between staff and users. It describes the content guidelines both for asynchronous communication (e.g. email) referring to the structure of the written responses; and for synchronous communication, such as the chat session, providing some questions to facilitate the reference interview (IFLA, 2008).

2.4.2. Reference and User Service Association (RUSA)

RUSA is a division of the American Library Association (ALA) focusing on library services and materials, reference and information services, and collection development. RUSA undertakes projects and activities considering people's needs with the information sources, services and materials (RUSA, 2015). Regarding the

DRS, RUSA (2010) stated that they increase the spectrum of users by bridging the communication gap between the personnel and distant or disable users.

This organization also established guidelines for orientating the application and maintenance of the DRS in libraries including a broad range of factors that should be considered. Some of the topics of the guidelines refer to the costs of DRS, the planning team, the selection of the software, the organization of the service, the service behavior, the infrastructure needed, marketing, assessment etc. (RUSA, 2010).

2.5. Digital Reference Services in Digital Libraries

2.5.1. Digital Libraries definitions neglect human interaction

Sloan (1998), having studied numerous definitions of digital libraries, concluded that they make no reference to human interaction and to the role that librarians play. Studying various definitions of digital libraries that have been given through the years, different views emerge that relate to the background of the writers.

Borgman (1999) comments on the evolving process of definitions, which at the beginning describe digital libraries, such as “databases and information retrieval and thus on collecting, organizing and providing access to information resources” and then as “life cycle of creating, searching and using information”. This development explains how the expectations of digital libraries changed, requiring more than the plain functions of a database.

The most comprehensive definition was given by Borgman et al. (1996 as cited in Borgman, 1999) pointing out the active role of digital libraries. They state that the construction, collection and organization of digital libraries are related to the information needs of the users, providing them the opportunity to interact with others and with resources.

However, other definitions present the operational merits of building a digital library and neglect human interaction and especially the provided services. For instance, Witten, Bainbridge and Nichols (2010, p.7) in their book define digital library “as a focused collection of digital objects, including text, video, and audio, along with

methods for access and retrieval, and for selection, organization, and maintenance of the collection”.

Early in 1996 Ding, Hahn, and Komlodi (1996 as cited in Sloan, 1998) stated that digital libraries could stop from being a simple digital collection and develop by implementing “intermediary services”. Choi (2006) and Chowdhury (2002) reviewing the literature came up with the same assumption; the major focus of digital libraries was on the technical elements, because the interest was in building them and not in expanding the services in a digital environment.

Nowadays, digital libraries, having to compete with many challenges, need to be modified and transformed into an “information service center rather than being merely an information warehouse” (Choi, 2006). Similarly Liu (2008) pointed out, that beyond the design of a digital library; digital services require also attention so as to use the collection effectively. Sloan introduces another aspect that should be carefully considered when he says:

“people may well begin to believe that, as physical barriers to access to information are reduced through technological means, the services of the librarian are no longer as necessary” (Sloan, 1998)

Taking all the above into consideration, it is made evident that the role of a digital library is to act as an active information point, which orientates users through digital services helping them to reach accurate information with the support of authorized personnel, namely, the librarians. We are inevitably led to the ascertainment, that a personalized service in the digital environment, such as the DRS is imperative.

2.5.2. Aspects about DRS in Digital Libraries

Nevertheless, few writers have openly discussed the issue of the Digital Reference Service of being this kind of personalized service, which can be equally integrated in a digital library. Chowdhury (2002) is one of them who embrace the issue of personalized services in digital libraries highlighting the role of the human intermediate in the DRS. She maintains that digital libraries, apart from being information access centers, have to be adapted in information service providers continuing the training and information literacy of users (Chowdhury, 2002).

Lankes (2004) gathers the outcomes of the International Conference of Digital Library-Advance the Efficiency of Knowledge and indicates the five phases of integrating DRS in a digital library. In detail, the competitive advantage of digital libraries compared to other institutions is pointed out stating that digital libraries, with the support of human intermediaries as guides, connect users with resources. Human intermediation, in addition, does not provide a plain list with the apt resources, but acts as a synthesizer reviewing the resources and reassuring their validity.

The DRS can also be exploited as a collection developer (Lankes, 2004). The process of responding to users inquiries could be beneficial for evaluating the current resources, recording the shortage of a digital collection and identifying the imperative enrichments. The role of resource creator can be similarly supported by the DRS. It would contribute to the population of a digital library and the creation of digital objects that can be used independently. The final role, which emerges by this digital service, is that of the annotator. An option is provided to user who can add comments and annotations to objects of the digital library, so that they can give their feedback showing dynamic involvement.

In 2008 Buckland confirms that DRS has not been fully integrated in digital libraries yet and stresses the benefits of incorporating this service in a digital environment. The major merit is the distant support to users, especially young ones who are not used in exploiting the potentials of a library and they prefer to work on their tasks during out of the ordinary working hours. Librarians will be able to expand their social role, and train users to retrieve accurate information in accordance with their precise information needs.

Chapter Summary

Reference Service of traditional libraries still plays a core role in serving the community effectively. With the advent of technological innovations the Reference Services expanded to the Digital Reference Service providing various functionalities in order to achieve their ultimate goal; the support of users.

The main characteristics of the Digital Reference Service are that users are able to approach the library staff at any time and any place by various means. The applied

formats are of the asynchronous type; e-mail, web forms, and of the synchronous one; chat; instant messaging, video conferencing and learning forums.

Two important associations, IFLA and RUSA, have already established the guidelines that should be followed, in order for the implementation of Digital Reference Service to be successful.

Moreover, it is feasible for the potentials of Digital Reference Service to be exploited in a digital environment and increase the provided services. In the literature, digital libraries are approached from various perspectives with the majority of them to focus mainly on how they can be built. To be specific, what has been discussed more extensively is the life cycle of the provided information, the organization, preservation, selection and access to digital objects; focusing less on the functionalities and services.

Several writers, however, stress the absence of qualified personnel who can support the information needs of users. The lack of human intermediaries in digital libraries comes in contrast with the operation of traditional libraries, where the presence of staff is their distinctive merit (Chowdhury, 2002). Digital Reference Service applied in digital libraries will be beneficial for two main reasons. Firstly, because the role of librarians in the digital era is endured; and secondly because of the support it can provide to distant users.

Therefore, digital libraries by providing a Digital Reference Service extend their traditional role by supporting distant users and by helping them to reach credible information resources.

Chapter 3: Methodology

3.1. Introduction

The definition of methodology derives from the Hellenic language and is a combination of two words “meta” and “hodos”. Glazier (1997, p.239 as cited in Powell, 1997) explained that the former means “after” and the later means “journey”. Methodology possesses a substantial place in the structure of a research, as every single part is clarified in order for the initial research questions to be answered.

Specifically, the purpose and the aims of the research questions are structured within the methodology, so that the researcher is prepared to carrying out the process. The research approach of interpretivism and the qualitative methodology are also presented. Then, the method of the instrumental case study and the applied technique of the interview are described. The chapter concludes with the constant comparative analysis that was utilized for the analysis of the data.

3.2. Research Questions and Objectives

While the literature review was analyzed, it was indicated that there is a gap in applying a personalized service, such as Digital Reference Service, in the digital environment. This observation has also been made by other writers, but what has mainly been examined is the technical implementation of DRS and the accuracy of the replies. However, the perspectives of users regarding the value of human intermediation have not been investigated. Consequently, the research was constructed on the following Research Questions:

R.Q. 1) How useful can the existence of DRS be for users?

R.Q. 2) How do users feel about this personalized service in a digital environment?

R.Q. 3) To what extend can DRS be effective in serving information needs?

It is obvious that common elements of these three questions are the users and the DRS. The first question concerns the usefulness of DRS, while users search on a digital environment. It is also worth considering what they feel knowing that someone is available to support them, during the search. The last question is established for examining the effectiveness of solving information needs through a digital communicational channel.

These elements contribute to the formulation of the aim of this thesis which can be described as: *the investigation of the users' perceptions towards the existence of DRS in a digital library*. The objectives of this investigation were to:

- identify users' awareness of DRS and their potentials;
- consider users' feelings towards using DRS;
- detect the DRS elements that are in need of improvement in accordance with the users' needs.

3.3. Research Approach: Interpretivism

The critical theory of the research paradigm, interpretivism, is the foundation of this research, according to Pickard (2013, p.11), "current thoughts and social structures" are examined. The characteristics of interpretivism respond to the requirements of the study. Relativism supports the plurality of individual realities, which are partial components of the context. Transactional, refers to the interaction between known and knower constructing the knowledge of the researcher. Empathetic interaction is another characteristic of interpretivism, where the researcher interacts and interprets the object (meanings) based on his/her knowledge. Transferability is the apposition of the data accompanied by a detail framework in order to be transferable (Pickard, 2013).

The correspondence between the above principles and the characteristics of this study is evident throughout this research. Relativism is testified during the research, since the discussion with each Participant approaches various aspects of DRS regarding their mood, previous experience, knowledge etc. The second characteristic is the continual modification and enrichment of the researcher's knowledge in every step of the research, because diverse stimulations for DRS has emerged. Empathetic interaction is the subjective interpretation of the data by the researcher to determine

the elements that are collected from the Participants. Transferability is the synthesis of the findings which are supported with aspects from other writers.

3.4. Research Methodology: Qualitative

The productive methodology used, so that all the above mentioned characteristics could apply, is qualitative. Qualitative methodology “contributes to science via a logical chain of reasoning, multiple sources of converging evidence to support an explanation, and ruling out rival hypotheses with convincing arguments and solid data” (Suter, 2012).

According to Gorman and Clayton (2005 as cited in Pickard, 2013) qualitative methodology is the optimal depiction of reality. It examines the theoretical framework of a topic, which are based on the ordinary life and seeks out the answers through a human research instrument. Qualitative methodology examines values and elements underlining the problems of a case, while with the use of quantitative methodology “sample sizes, manipulation of treatments and true experiments” are examined while the researcher is seeking for solutions (Suter, 2012).

The human as the research instrument organizes and constructs the framework of these values and conveys experiences, beliefs and feelings of a situation, in order to approach the understanding of the sample. The procedure followed in order to reach the notions of the data is the formulation of categories, and links among them, as well as the creation and interpretation of themes (Suter, 2012).

For the purpose of the current thesis, qualitative research is exploited aiming interpreting the users’ perceptions and beliefs regarding the usefulness of Digital Reference Services in the Digital Library. This is achieved by using the humans as the bare source for the collection of data.

3.5. Trustworthiness in Qualitative Research

Trustworthiness is related to the validity of findings, concepts, and interpretations. Lincoln and Guba (1985 as cited in Suter, 2012; Pickard, 2013) refer to the impact of the below elements:

- Credibility
- Confirmability
- Dependability
- Transferability

Credibility is ensured, since the transcriptions of the interview were sent back to the Participants before being analyzed, asking them to confirm that the content was in agreement with their perceptions. Since they had their own words in writing, they were requested to read and add extra points. Credibility is also secured in the Chapter of Analysis where evidence of the participants' statements is provided and while discussing the findings relevant opinions from other papers are also provided.

Confirmability diminishes the bias of subjectivism by confirming that the results are not assumptions of the researcher, but they can be confirmed from the raw data (Pickard, 2013).

Dependability is verified through the description of the method and technique, which affirms the relevance with the study (Pickard, 2013).

Transferability is the generalization of findings in other contexts, which is supported with detailed arguments. Therefore, it is explained how the objectives were accomplished, so that the implementation of the research to be feasible by other researchers.

3.6. Ethics

Connaway and Powell (2010) stress the importance of securing participants anonymity especially in qualitative research, where the researcher has immediate contact with the participant. They recommend that any personal details be hidden and any reference be concealed under pseudonyms (Connaway and Powell, 2010).

In the current research the privacy of all Interviewees was ensured by asking them to sign a consent form (see in Appendix II). The consent form was given to all Participants to be signed before the initiation of the interview. It included the title of the research, the name of the researcher and her supervisor and the purpose of the

research. They were also asked to read the list of statements before they fully agree.

This list ascertains:

- their agreement to participate;
- their voluntary participation and their right to withdraw;
- their consent for the exploitation of the findings only for research purposes;
- their anonymity;
- their agreement to be audio-recorded.

3.7. Research method: Instrumental case study

According to Connaway and Powell (2010, p.80) a case study is defined “as an exploratory technique and can be used for investigating organizational structure and functions or organizational performance” where “intensive analyses of a small number of subjects rather than gathering data from a large sample or population”.

Stake (1994 as cited in Pickard, 2013) elaborates on the different types of case studies naming the intrinsic case study, the instrumental case study, and the collective case study. The Instrumental case study was implemented in the present research as the focus was the investigation of DRS in a digital environment, so the case was not more than a “vehicle” for accomplishing the investigation (Pickard, 2013).

An academic library was selected as a single case study because:

- Users of academic communities have demanding information needs
- They have the inclination to use new technologies and digital resources with many of them not examining the credibility of the selected information
- The environment of academic libraries renders the implementation of the DRS fruitful

Melchionda (2007) points out that users explore the potentials of the Internet, but this has affected the use of a library’s reference services. This statement reinforces the researcher’s decision to choose the Library of Informational Center (LIC) of Harokopio University. Even if the LIC has not yet applied personalized services in the digital environment of the institutional repository, this selection was based on two factors; the willingness of the staff, who are interested in incorporating new services,

and the small size of the university that render the detection of a suitable sample feasible.

3.8. Research Sample: Purposive and Snowball Sampling

After the selection of the organization, the researcher attempted to define the profile of the targets that could correspond to the needs of the research. Graduate and undergraduate students were approached with the purpose of having an introductory discussion about the upcoming research. The topic and the core points were explained to them, in order to detect whether or not, they had the background and the experience to conceive how DRS could be incorporated and used in the digital repository of LIC.

Early in the procedure, it was realized that graduated students were not familiar with the Library and did not know the digital repository, ESTIA. An interesting instance was, when the researcher introduced herself and her profession mentioning that she is a librarian, a graduate student replied: *“Sorry, I do not read books”*.

The next step was to approach undergraduate students, assuming that in the second cycle of their studies, they will be more interested in LIC provisions. The outcome (with the exception of one student) was not satisfactory, as neither these students could think of alternative uses of ESTIA, and when the new communication methods with the staff were mentioned, they replied that for distant communication they prefer just to use phone calls.

The above elements made clear enough, that a mature sample was imperative. Therefore, it was decided that the sample should be purposive. The common elements of the sample set; they have to be familiar with the library and receptive to the use of innovative technologies. The contribution of the chief librarian of LIC, Ifigenia Vardakosta, was crucial in directing the suitable participants for the research.

The final sample is composed only of women; a postgraduate student from the Informatics and Telematics Department and five professors. Four professors belong to the faculty of the Home Economics and Ecology Department and one to the Special Teaching Staff in German Language.

During the interviews, the writer met passionate people, who recognize the role of the LIC in their academic process. They embraced the research and in turn they

suggested colleagues, who could contribute to the data collection effectively. As a result, a snowball sample came up meaning that “participants point towards other individuals in the same population” (Connaway and Powell, 2010).

3.9. Research technique: Interview

Since the DRS has not yet been applied in digital environments, it was decided that the interview is the appropriate technique to investigate users’ aspects in depth. The interview contributes to the collection of qualitative and rich data, and determining subjects’ understandings, beliefs, worries, and feelings (Pickard, 2013). It was selected among the other techniques (questionnaire, focus group etc.), because the Participants could argue their statements, whereas in a questionnaire probably their answers would not be so descriptive. Using an interview as a research method offers additional opportunities gained, such as: (Pickard, 2013; Connaway & Powell, 2010):

- stimulation of subjects to express their thoughts and considerations
- clarification of misunderstandings
- observation of non-verbal signals
- short time of participation
- high response rate.

On the other hand, the interview presents some shortcomings as regards the procedure. A core concern is the possibility of bias from the part of the interviewer. According to Powell (1997) evidence of bias might harm the validity of the interview, if the interviewer exaggerates the responses of the participant; does not secure the confidentiality of the process; have a formal contact with the interviewee; he/she is dressed inappropriately.

The above characteristics, in combination with the established objectives, led to the selection of the suitable type of interview. Semi-structured interview met the established requirements providing the researcher with the opportunity to discuss with the sample allowing, in this way, their points of view to be expressed, instead of receiving rigid replies as is the case with structured interviews (Pickard, 2013). However, the approach of a guided interview (see Appendix II) was considered suitable, due to the unfamiliarity of the researcher to conduct interviews. The use of

an interview guide made the researcher feel more comfortable to include all themes in the discussion and at the same time to maintain focus on the interviewee.

3.10. Formulating the interview guide

The thematic structure of the interview guide facilitated the gradual development of the discussion and ensured that the interviewee's understanding could evolve logically (Pickard, 2013). The structure was also divided in accordance with the established objectives of the research.

The first section included some basic steps for the initiation of the discussion, such as:

- asking for the Participants' permission to be audio recorded;
- presentation of the researcher (profession, master studies);
- asking the Interviewees to present themselves
- explanation of what the Reference Service is and how it is applied in the physical environment of a library.

The second section focuses on providing answers around the objective of identifying users' awareness of DRS and their potentials. It was discussed about: The flow of the discussion contained:

- the communication means that interviewees used to contact the staff in general, so that their relation to the Library could be determined;
- a question with the purpose of encouraging all interviewees to define or assume what DRS really are only by listening to the term;
- a detail description of DRS and the applied forms was given by the researcher, with the purpose of helping participants understand the core point of the research;
- a question examining whether the Participants had used DRS in other digital environments, so as to recall their previous experience and facilitate the discussion ;
- a question trying to identify the existence of any DRS form in LIC and if they feel satisfied with that, in order for similar services to be recorded.

The questions of the third section contributed to the gathering of DRS elements that should be improved in order to meet the users' needs. Therefore, they were asked about:

- the form of communication they would prefer for expressing their information needs and the reason for this selection. In this way the tendencies of the subjects would be recorded;
- the kind of information that they would seek for through DRS, so that the anticipations of the service could be detected and explained;
- the facilities (software, interface etc.) that would make the DRS accessible from the users' perspective;
- the position of DRS in the environment of the digital repository, ESTIA, in order for the use of the service to be facilitated.

The last section of the interview guide focused more on the Participants' feelings, which would be evoked by the use of DRS. They were questioned:

- if they considered that equally accurate information could be received via in-person communication and via the use of DRS. This comparison revealed the users' preference giving them the space to argue why they selected each option;
- if they would be reluctant to use the service. The worries and considerations of the Participants would be useful to ensure that the drawbacks of DRS application would be avoided;
- about those elements that would motivate them to use DRS. This topic revealed the incentives that they would expect from their library, in order to gain their trust.

3.11. Pilot Research

Two pilot researches were carried out with the participation of two postgraduate students of Harokopio University. They belong to the department of Geography and Home Economics and Ecology; and both were a random selection in the process of testifying the content and process of the interview. The pilot research revealed that several questions had to be simplified, in order to be understandable by the subjects. This process was also creative for the researcher in order to be fluent and improve the

oral structure of the discussion. Additionally, the duration of the interviews was about 15 minutes.

3.12. Conducting the Interview

The appropriate period for conducting the Interview was June, since the academic duties of the subjects were completed, and they could devote time for the interview. Appointments were arranged after they had been informed that 20 minutes of their time would be required for the completion of the interview. The interviews conducted in the Greek language which proved to reinforce the exchange of information.

The average time of the interviews was 18'05'' with the shortest lasting 9 minutes and the longest 26'48''. The duration of the pilot interviews was exceeded, as with some participants the interview evolved in a fruitful conversation exceeding the frame of the thesis and providing additional information about the role of library.

While the interview was in progress, some participants were confused and deviated from the purpose of the research. The Researcher did not interrupt them avoiding to prevent their thoughts. However, they were encouraged to express their thoughts and the researcher attempted to connect what they had in their mind with related parts of the research in order relevant data to be elicited.

3.13. Recording the Interviews

Before the interview started, the writer explained both the topic and the purpose of the research to the Participants. She asked for their permission to record the interviews ensuring them for the anonymity of the recording, and explaining that this will help the writer to focus on the conversation. The consent of the Interviewees with the recording, as mentioned before, was the first question for respecting ethical considerations.

The recording equipment was the mobile device of the researcher, which was handy without causing nervousness to the Participants. The only issue with the device was the saving format of the recordings, which was in .3ga and not in .mp3, and could not be recognized by the PC. This was solved with the use of an online converter.

3.14. Transcription of the Interviews

The next stage of the interview process was the transcription of the interviews. Through transcribing the conversation everything was transferred in writing and translated in English facilitating the detection of variables and eliminating a prejudiced analysis. The transcribed documents were sent to each Participant to verify the written data and add further information. Their approval was received either by email or after reminder calls were made. Having approved their inputs, personal information was omitted securing their anonymity. In consequence, each transcript was codified by the label “Participant 1”, “Participant 2” etc.

3.15. Qualitative Analysis: Constant Comparative Analysis

According to Suter (2012) the goal of the qualitative data analysis is the generation of various ideas by minor target, whereas quantitative analysis attempts to generalize outcomes applicable to the majority of the population. The focus of this research was exactly the same; to focalize on precise subjects that could provide in-depth data about the usefulness of the personalized service, DRS, in a digital environment.

Pickard (2013) distinguishes four common strategies for processing the analysis. The constant comparative analysis was applied to collect, compare, code the data and classify them in concept categories. Stauss and Corbin (1998 as cited in Pickard, 2013) were the introducers of this strategy and its partial phases; open coding, axial coding and selective coding.

The open coding is the process of identifying and extracting concepts, properties and values from the data of transcriptions (Pickard, 2013; Suter, 2012). Therefore, it is important that each transcription be read thoroughly for the detection of concepts. When this process is completed, the concepts are gathered and compared to each other, in order for the appropriate name-label of the category to be defined. This category is formulated with individual properties and values that provide details and characterize the category.

Corbin and Strauss (2008, 198) maintain that “Open coding and axial coding go hand in hand”, as they are applied almost simultaneously. The axial coding refers to the internal classification of a category. The related elements are linked together

formulating an integrated meaning. Thus, subcategories are structured and enriched with properties, and the result of this coding has to provide “tentative answers to your research questions” (Suter, 2012, 355).

The selective coding is the final phase of the constant comparative analysis, as the categories and subcategories have been identified. A conceptual framework is sprung, which collect all categories and subcategories under one or two core concepts, and stimulate suggestions and future matters (Pickard, 2013). In this study the conceptual framework comprises the prevailing concepts; users and DRS, which are consisted of the categories; users’ awareness, users’ feelings, and elements for improvement (see Appendix III).

Chapter Summary

This chapter outlines the structure of the research throughout the methodology. The research questions and objectives were established, which are the basis for the implementation of the research. The research approach of interpretivism, in specific the critical theory, embraces the theoretical framework and leads to the selection of the qualitative methodology. The vehicle for accomplishing the research was the instrumental case study and the Institution selected was the Library of the Informational Center of Harokopio University. Purposive and snowball sample corresponded on the standards. The research technique of the semi-structured interview was considered appropriate for capturing in depth data from users regarding DRS. The strategy of the constant comparative analysis was utilized as the data analysis technique implemented, in order for the overall framework to be determined.

Chapter 4: Analysis & Discussion

4.1. Introduction

This chapter presents the Library and the Information Center of Harokopio University, which is the instrumental case study for answering the research questions, as they were established previously. The operational frame of the traditional library is defined providing details about its history, mission and users. Specific emphasis is given to the digital repository of LIC, ESTIA.

Constant comparative analysis was used for analyzing the collected data of the interviews. The findings of this analysis are categorized into three broad thematic categories meeting the established Research Questions and the Objectives of the research, as these are referred to in Chapter 3.

The first category is about the users' awareness as regards DRS, determining their communication channel with the Library and their awareness about the examined service. The discussion through the Interviews allowed the users' feelings to emerge expressing the feelings that DRS would cause, if it was implemented. Finally, the Respondents several times pointed out the elements for improving DRS, such as location, promotion, and requirements.

The chapter includes the thematic categories and their divisions, subcategories. The results are accompanied by quoting statements of the Respondents and enriched with relevant points from other papers and articles.

4.2. Library and Information Center of Harokopio University

The Library and Information Center (LIC) of Harokopio University was selected to be studied as a case study in order for the researcher to examine the readiness of its users' community, towards a future implementation of the DRS into the digital library. Harokopio University (HUA), where the Library belongs, fully operates from 1993 in the city of Kallithea, a suburban of Athens in Greece.

HUA is consisted of four departments; the Department of Home Economics and Ecology, the Department of Nutrition and Dietetics, the Department of Geography,

and Department of Informatics and Telematics. The University also provides four postgraduate programmes; one in Sustainable Development, a second in Applied Nutrition and Dietetics, a third in Applied Geography and Spatial Management, and a fourth in Education and Culture (Harokopio University, 2012). The population of the HUA in 2014 was 2.509, including the Specific and Laboratory Teaching Staff Member (EDIP) and the postgraduate and graduate students (MOPAB, 2015).

HUA has a central library on the campus, which was established in 1991. LIC is recruited by four librarians and operates as an autonomous service, whose mission is to collect, elaborate and disseminate information in regards to the scientific areas of the University, and to literate users for selecting appropriate information resources by exploiting new technologies (Harokopio University: Library and Informational Center, 2012). These purposes are accomplished by the below objectives, as these are stated in LIC website (Harokopio University: Library and Informational Center, 2012):

- Collection development: selection, acquisition, organization and management of collections of books, journals (print and electronic), databases and audiovisual material.
- Access to a large number of electronic resources (databases, journals, thematic portals, etc.).
- Support provided to users by the authorized personnel of the LIC.
- Providing the equipment (software and hardware) for the smooth and uninterrupted operation of the LIC.
- Information literacy programmes for detecting information sources.
- Constant improvement of the LIC services by applying new developments in the fields of librarianship and information.
- Cooperation of the LIC with other local or foreign Libraries, Institutions and Organizations.
- Evaluation of users' satisfaction towards the provided services.

Regarding the community of users that the LIC serves, this includes three broad categories; internal, external and graduate users. Internal users are the users, who work or study in all departments of the HUA, such as faculty members, administrative

staff, teachers and undergraduates, postgraduates, PhD candidates, graduates. The next category includes those users, who belong to scientific community beyond HUA holding the right of access to resources and services without borrowing the material. The graduate users category comprises the users, who have completed their academic studies, but they have ongoing information needs. The LIC, for that case, provides them with the possibility to expand their right of borrowing material by paying an annual fee of 30 euro.

The LIC also maintains four digital collections; the historical archive of HUA¹, the subject gateways Diaito² and Gateway for Social Sciences³ and the institutional repository ESTIA⁴. For the purpose of the research, particular focus was given to ESTIA as it provides advanced functionalities and has the potentials to integrate the DRS, as compared to the other digital collections.

ESTIA is an institutional repository that collects, organizes and disseminates the grey literature of HUA, namely the theses of undergraduate and postgraduate students and PhD dissertations (see figure 1.). Its functions have been developed allowing students to submit electronically their theses or dissertations by the self-deposition method.

Having exploited the provisions of DSpace, users are able to search for digital objects by a simple and advanced search and browse through the community list, titles, authors, subjects and issue date. In case that someone needs further information to detect material for a specific topic, he/she can use the “Help” option. This option displays contact information with the staff of the LIC, but any digital personalized services is not provided.

¹ <https://istorikoarxeiohua.wordpress.com/>

² <http://diaito.hua.gr>

³ <http://portal.lib.uoa.gr/polep/>

⁴ <http://estia.hua.gr:8080/dspace/>

Αναζητήστε στο DSpace

Αναζήτηση

Εύρεση Αναζήτησης

➔ Αρχική

Πλοηγηθείτε

- ➔ Κοινότητες & Συλλογές
- ➔ Τίτλοι
- ➔ Συγγραφείς
- ➔ Θέματα
- ➔ Ανά Ημερομηνία

Εγγραφείτε σε υπηρεσίες:

- ➔ Ενημέρωση μέσω email
- ➔ Το DSpace μου (εξουσιοδοτούμενοι χρήστες)
- ➔ Επεξεργασία προφίλ

➔ Βοήθεια

➔ Σχετικά με το DSpace

ESTIA >

ΒΙΒΛΙΟΘΗΚΗ ΚΑΙ ΚΕΝΤΡΟ ΠΛΗΡΟΦΟΡΗΣΗΣ ΧΑΡΟΚΟΠΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ

ΚΑΛΩΣ ΗΛΘΑΤΕ ΣΤΟ ΨΗΦΙΑΚΟ ΑΠΟΘΕΤΗΡΙΟ ΤΗΣ ΒΙΒΛΙΟΘΗΚΗΣ ΚΑΙ ΚΕΝΤΡΟΥ ΠΛΗΡΟΦΟΡΗΣΗΣ ΤΟΥ ΧΑΡΟΚΟΠΕΙΟΥ ΠΑΝΕΠΙΣΤΗΜΙΟΥ.

Η **ΕΣΤΙΑ** περιέχει προπτυχιακές - μεταπτυχιακές εργασίες και διδακτορικές διατριβές (**Γκριζά Βιβλιογραφία - Grey Literature**) που έχουν εκπονηθεί στο Χαροκόπειο Πανεπιστήμιο.

(Επικοινωνήστε μαζί μας μέσω e-mail: [library](#) ή [administrator](#))

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Για να δείτε το

ΤΕΛΕΥΤΑΙΑ ΝΕΑ:

[10/06/2009] Νέες υποβολές στο ψηφιακό αποθετήριο ΕΣΤΙΑ. Δείτε τις επιλέγοντας "Πλοηγηθείτε ανά ημερομηνία".

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


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[ΣΥΛΛΟΓΗ ΓΚΡΙΖΑΣ ΒΙΒΛΙΟΓΡΑΦΙΑΣ ΑΛΛΩΝ ΙΔΡΥΜΑΤΩΝ \[11\]](#)

[ΣΥΛΛΟΓΗ ΔΙΠΛΩΜΑΤΙΚΩΝ ΕΡΓΑΣΙΩΝ ΚΑΙ ΔΙΔΑΚΤΟΡΙΚΩΝ ΔΙΑΤΡΙΒΩΝ \[1859\]](#)

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Figure 1. Home page of ESTIA

4.3. Users' Awareness

A series of questions contributed to the overall frame of the users' awareness of the DRS to be captured. First, what the Reference Service in a traditional environment is, was explained to the Respondents, thus the central direction of the interview was clarified from the beginning. The following step was to determine their relation with the Library, when they need to apply their questions. Then, they were introduced to the Digital Reference Services by being asked to determine or assume what DRS is about and if they had used analogous services before. During the conversations, the comments of the Respondents revealed the usefulness of DRS.

4.3.1. Contact with the staff

At the beginning of the interview, the Respondents were asked in general about their preferable ways for contacting the staff with the purpose of solving their information needs. The prevailing way was the in person communication as it is stated by Respondent 5:

“ [...] there is one to one type of service here. Really, there are personalized services here. I won't send an email to Ifigenia (the chief librarian) since I can call her”

Next in preference were two other means of communication namely calling the Library and sending emails. However, one Respondent pointed out, that she did not contact anyone due to the long distance between her and the Library and preferred searching the Internet.

These findings clarify the existent communication level between the users and the Library personnel. The above mentioned ways of communication are the effects of the small size of the university and the library rendering the cultivation of personal relations with the users feasible.

4.3.2. Determining Digital Reference Service

Having explained what is defined as Reference Service, Interviewees were asked to determine DRS or if they were not aware of it, to make an assumption. The Respondents did not know and could not assume what it was about. Others confused

DRS with social media, mentioning that they were informed that they could send an inbox to the Library and contact it electronically through this mean. Another misunderstanding was had to do with the search engines, because they considered DRS to be a database. In contrast, only one Respondent articulated a relevant explanation approaching DRS functionalities. She described it as a website for submitting inquiries and discussing with the staff, in particular:

“Yes, it would be a website where I could submit inquires that I'm looking for a certain topic in a certain thematic field, where I could find information, if there are books or if you [the staff] could orientate me. And through this I could receive instructions and options about the resources, such as the materials of the Library or the agreement with these journals or collaborations with other universities. Therefore, the interested person will have the option of selecting among these sources in a database.” (Respondent 6)

4.3.3. Experience with DRS

A following part of the conversation was about the previous experience of the Respondents regarding the use of DRS. Through this, their readiness to perceive this kind of service, which has not yet been applied in Greek digital libraries, was deduced. Interviewees revealed that they were experienced in using e-mail. By using e-mail services, they directly asked for information about articles from publishers or authors. Only few of them were familiar with the chat service, because of its rare implementation by providers. A particular quotation points out the merits of chat; the availability of the employee and the immediate answer:

“While I was searching in other websites, it happened to use chat as it popped up and I did not face any problem typing and receiving an answer. I have to confess, that I was feeling safe that someone was there and available to help at any time according to your needs. But since we do not have it, we persist in using email.” (Respondent 2)

4.3.4. Usefulness of DRS

The value of DRS was pointed out several times, highlighting the importance of being supportive for the users and minimizing the distance. Particularly, Respondent 6 introduced an interesting aspect of the potentials of DRS. She mentioned distinctly, that librarians would handle the inquiries and interests of users effectively by maintaining thematic archives. Her precise words were:

“The Library could distinguish and categorize the interest groups and maintain an archive about the Library’s process without having to reply to the same questions constantly. Maybe someone in the future faces a research inquiry similar to mine, so it wouldn’t be necessary for the librarian to search for the same things again. A thematic database is created with categories and their subcategories.”

In general, it is obvious that the core functionality of the DRS is offering distant support by providing accurate directions to the users’ inquires as it is indicated by the Respondents. Moreover, an interesting point was made regarding the further exploitation of the service namely, the creation of an archive. This archive could gather inquiries assorting them into thematic topics. This would be beneficial for the staff to effectively handle requests without consuming extra time to reply to the same questions. As a result, the responding time would be minimized affecting positively both the service effectiveness and the users’ satisfaction.

Taking that thought further, a database could be set up grouping and displaying electronically the frequently asked questions (FAQ), which the users could consult before submitting their questions. In addition, statistics could record the information needs of distant users, so that the library would be able to reform its provisions.

4.4. Users’ Feelings

The Interviews offered the opportunity to reveal the Respondents’ feelings regarding the implementation of the DRS in various sectors. First of all, it was revealed how they would feel about the existence of this service. In a relevant question, they were asked about their preference between DRS and in person communication pointing out

the merits of both. In the last paragraph some feelings of reluctance that would be generated by using it, could not be omitted.

4.4.1. Feelings about the existence of DRS

The Dominant feelings towards DRS are the convenience and safety it provides. It was stated, that a distant support system would be extremely convenient for fulfilling the upcoming needs. Respondent 6 specifically mentioned:

“[...] When I am on vacations, far away from Athens, I won't be anxious about accomplishing my job.”

Concerning the safety of the sessions, it was pointed out by Respondent 2, that she had felt safe in using DRS previously, as someone was available for answering her inquiries. Transferring the implementation of DRS in the environment of a Library, she was asked, if she would be suspicious by its use:

“No! I am not suspicious. I believe that if someone answers on behalf of the Library, I take it for granted that he/she is authorized to reply and the provided information has his/her “signature”. It isn't as impersonal as it seems”

Therefore, anxiety and safety are the feelings that were evoked in the Respondents, during the interview. Both feelings were described positively, since the DRS would surmount the anxiety of postponing their inquiries which could also be answered even from a distance.

Regarding the feelings of safety, the role of the staff was emphasized. As long as the replies are given by the authorized staff of the library, the Respondents will not be suspicious either of the credibility of answers or the service itself. This point verifies the established characteristics of Lankes, Collins and Kasowits (2000 as cited in Profeta, 2007), who mention among others that an acceptable DRS should be authoritative and consistent with good reference practice.

4.4.2. Comparing DRS with in person communication

Throughout the interview the Respondents expressed their preferences and worries about DRS and in person communication. A specific question motivated them to consider and argue, whether or not equally accurate information could be received by

both communication channels. The Respondents stressed the usefulness of both techniques emphasizing further the merits of DRS.

In specific, The Interviewees pointed out those characteristics of DRS that render it credible for use, such as its effectiveness, speed and directness. Particular prominence was also placed on distant support, as this constraint is overcome. Additionally, two Respondents stressed the accuracy of the retrieved information by using DRS instead of in person communication (blue colour in figure 2.). Respondent 6 justified it as follows:

“In some cases you may receive more accurate information than with in person communication. It isn’t easy to be served, when the Library is crowded. When you are at your office and an inquiry comes up, it is easier to write it down and articulate it. Whereas with in person communication... Both have pros and cons. During the in person communication you will start discussing with the other about how he/she is, talking about irrelevant issues and you will lose your train of thoughts. But being at your office and having a specific inquiry, you can handle it better.”

As the black colour in figure 2, indicates a Respondent maintained a mediocre position reporting that by both means equally accurate information would be received. Her argument was that since in both cases requests would be replied by the same authorized staff of the Library, it would not be raised any doubt.

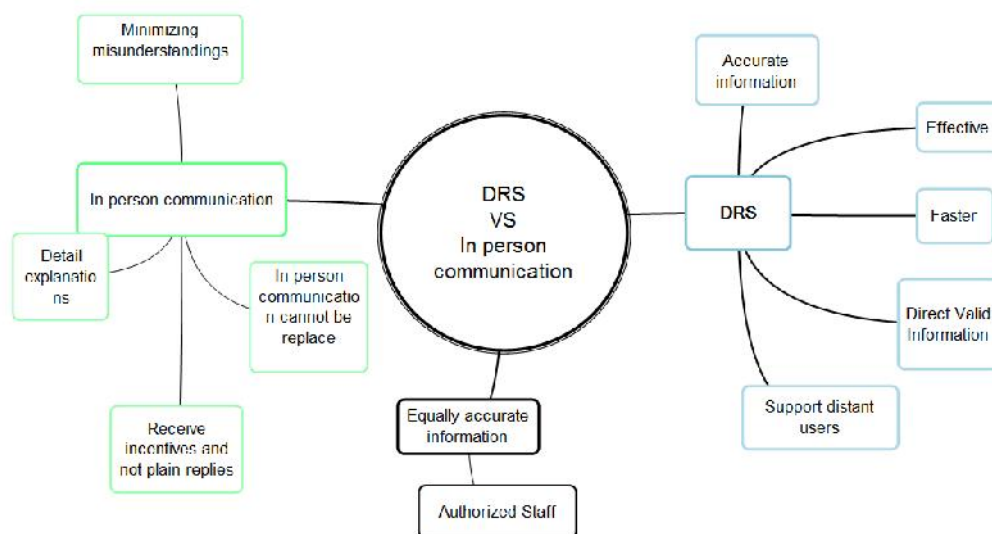


Figure 2. Comparison DRS with in person communication

On the contrary, others were advocates of the advantages of the traditional types of communication (green colour in the figure 2.). Some Interviewees commented on the minimization of misunderstandings and detail explanations that are provided, while discussing face to face with the librarian. Moreover, the staff has the flexibility to orientate and stimulate them further without giving plain replies.

In that section the usefulness of both communication methods was underlined either being digital or in person. The Respondents argued on each case based mainly on the reply and the response time. A particular aspect revealed the strength of the written as compared to oral communication stating, that, since the Respondent would be at her personal space, it would be more convenient to articulate the request and be precise.

In contrast, others mentioned that the in person communication triggers and develops their thoughts by receiving incentives and not straight replies. It is also feasible to provide feedback and further details regarding the information need, so that the librarian can detect the core of the need. Consequently, their claim that in person communication cannot be replaced is fully justified. In contrast, the survey of Ruppel and Fagan (2002), trace the point of view of users asking them the cause for not making inquiries during in person communication. The findings revealed the unwillingness of the staff to help, their laziness to move away from the computer, the

users' embarrassment for not knowing, the users' desire to be discreet and not intrude, and the users' conviction that they would not receive satisfactory replies.

Another interesting reference emerged the importance of the role of the staff in both communication channels reporting, that the answers would be equally accurate as long as the authorized staff of the Library would reply in each case.

The above attributes underscore the convenience that is gained by using DRS as far as the time, speed, immediacy, distance, validity and accuracy are concerned. Another element, that was also highlighted, was the steady role of the traditional Reference Service process during which misunderstandings are minimized, while explanations are provided and incentives are given. Comparing the elements of this section with those of the 4.1.1 section, where the current communication modes with the staff were recorded, it seems that even the Respondents, who use the in person communication more frequently would choose DRS.

4.4.3. Reluctance to use DRS

In the section of the users' feelings a question about what, if any, would make them reluctant to use the DRS, could not be omitted. The majority of the Respondents declared that nothing would render the application of the system ineffective since: *"You complete some tasks directly, it isn't necessary to wait until the next morning"* (Respondent 6).

However, some distinguished few points that would make them hesitant to use this service. For instance, a Respondent referred to the privacy of the session. Others focused on the willingness of the staff to correspond appropriately and facilitate the process.

An interesting approach was presented by Respondent 2, who expressed her worries about the Chat service for the reason that it does not maintain the history of conversations. Precisely, she stated:

"[...] it cannot keep the history; this could be a problem for me, if I cannot rely on this discussion to organize causes and difficulties. You could not use tangible information about: who you had chatted with, on which day and what you had talked about. It is different, when you have

a written text with the exact words that were used as an answer, something that it is feasible with email; and it is different when the conversation is vanished from the communication box.”

Privacy is a noteworthy issue, and, according to Lankes, Collins and Kasowits (2000 as cited in Profeta, 2007), it plays a crucial role in gaining users' faith and improving the trustworthiness of the service. IFLA's (2008) guidelines for DRS also mention, on the section of legal issues, the significance of clarifying to patrons the “privacy and confidentiality issues” related to the established legislation.

4.5. Elements for improvement

The Discussions with the Respondents caused the emergence of several suggestions that could be considered by LIC in the future, before the application of DRS, so that its effectiveness can be ensured. For instance, they claimed that the role of the Library had to be modified; and besides the staff, what is further required is some alteration not only in general but also with regards to DRS implementation. Additionally, the resources for supporting this particular service should be examined carefully. Focusing more on DRS, the Interviewees justified the formats and the reasons that they would select to submit inquiries. The type of inquiries, which could be articulated through a digital service, was also discussed. Closing this section, suggestions were made about the improvement of the DRS functionalities, its desirable location in the digital library, as well as requirements about the service and motivation for increased usage.

4.5.1. Role of the Library

This part indicates the importance of marketing, with the purpose of spreading the service. By marketing the DRS, the users' community could be informed about the contacting options for delivering an answer to the Library. Kibbee (2006) determines how important and challenging is for academic libraries to externalize the “value-added online information service” in order to approach users, mainly the undergraduates.

Beyond the pure service, Respondent 2 and Respondent 5 emphasized the promotion of the Library's role. Connaway and Radford (2011) hold equivalent views mentioning that the change of a library has to be promoted by creating relationships with the users. This statement was supported by Respondent 2 when she said:

“ [...]it is just that motivations should be found so that youths will get involved with libraries. Before someone gets in touch with a Library and uses any service such as chat, he/ she has to have a friendly relationship with the Library, which is not so easy.” (Respondent 2)”

“Many students ignore the Library services saying “Do Google”, but Google isn't a valid resource and neither is Wikipedia. As the Library services exist it has to be promoted we (the Library) are equally efficient; we will find you books beyond the Library. Many of us pass through the Library thinking that the staff will suggest only 3-4 books and that's all. [...]I didn't know that a Library has these provisions.” (Respondent 5)

The comment of Respondent 5 *“I didn't know that a Library has these provisions”* may be the strongest element, emerging from the whole research. Unfortunately, Sloan's predictions regarding the future of libraries (1998) are verified, after almost two decades discussing the components of the definitions of digital libraries. He concluded that *“people may well begin to believe that, as physical barriers to access information are reduced through technological means, the services of the librarian are no longer as necessary”*. This view should serve as food for thought and stimulate further discussion, beyond the DRS, about the role of libraries in our society.

Considering the above in depth and relating it to Tammaro's paper (2007), in which she asserts that libraries will always be the mediators between users and resources the demand to transform librarians into *“educators”* still exists. It is important that users stop believing that a library is capable of suggesting only materials from its own collection. The esteem of a library would be improved by pointing out its usefulness to the society.

4.5.2. Staff

Vital elements for improvement are the Respondents' suggestions about the staff. The following figure presents (see figure 3) their suggestions, categorizing them in two parts. The first records some general proposals about staffing, while the second is directed to the staff from the spectrum of DRS.

The Respondents, first of all, pointed out the issue of understaffing that the Library faces. Few Respondents expressed their worries that there is not adequate staff to correspond to the requirements that DRS implementation entails.

Beyond the recruitment issue, Respondent 3 mentioned that the staff could collaborate further with the professors informing them about the new services in order to communicate these directly to their students. Precisely Respondent 5 said:

“It is necessary to be informed about its existence. If we (professors) know it, we can promote it to our students”

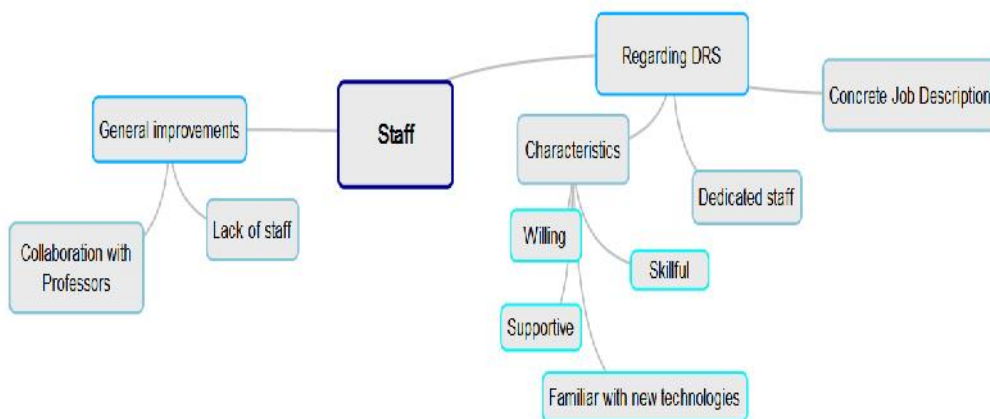


Figure 3. Staff

The second branch of the Figure (see figure 3) focuses on the staff's performance regarding the DRS. A framework is composed with the desirable characteristics that the personnel should possess in order to deliver an effective session through DRS. These are willingness, skillfulness, supportiveness and familiarity with new technologies. Consequently, the existence of skillful personnel would secure the credibility and trustworthiness of the service. Connaway and Radford (2011) propose that users would gain DRS sympathy if three factors have been applied by librarians;

“knowledge, and accuracy of answers/information; positive attitude; communication skills”.

The need for personnel familiarity with new technologies is reported by Melchionda, (2007) who explicitly states that the profession of librarians will survive through the constant developments, if only they take up an active role with “strong user-centered perspective”. Taking that statement further, librarians’ active role includes the observation of users’ behavior and the recording of their activities, so that the service can be improved towards the direction that users implicitly indicate (Han and Goulding, 2003).

An Additional element related to the staff was that dedicated staff would be appropriate for handling users’ inquiries. Tamaro (2007) has stated that librarians should be adjusted to current demands and be mediators between digital resources and users, embracing novelty and ameliorating their communication and pedagogical skills. Therefore, librarians would be capable of expanding the reference service in a digital environment detecting the precise information needs of the users and suggesting suitable resources.

Job description is the last element relating to staff performance. Respondent 5 revealed the necessity of a concrete job description in order the personnel to be aware of the boundaries of the service. Stormont (2001) after the empirical implementation of Live digital reference, through chat, realized how demanding it was to handle it simultaneously with the in person communication from the reference desk. After some trials Temple University library distributed the responsibilities to different locations, so that the “librarian can give full attention and concentration to the user”. Such an action requires extra staff or extra working hours.

4.5.3. Resources

Resources were mentioned solely by Respondent 6 stating that the lack of Human Resources and Financial Resources would not render the implementation of this kind of services feasible. The below dialogue enlightens further these points:

Respondent 6: *When the Library is open and has to serve its public, you can't at the same time give the specialized information that a researcher will ask for.*

Res: This brings to the surface an additional factor, the lack of staff.

Respondent 6: *It is a combination of all these elements. Maybe what is needed is a person dedicated to the task of answering inquiries. You can't serve the public and at the same time be online for these services. Everything is about resources; human resources; financial resources.*

Res: The financial factor is equally crucial for setting up DRS.

Respondent 6: *Definitely. Updates are required. You saw what happened with ESTIA a few weeks ago, we lost some data.*

The above points are confirmed by Yang and Dalal (2014), who, after inspecting the precondition of running the format of chat, concluded that it is challenging to sustain the quality level of the performance of the software and of the staff that handle it, since library budgets are shrinking and recruitment has ceased.

4.5.4. Preference for DRS formats

Having explained to the Respondents the use of DRS and the applied formats, they were asked to denote those that would facilitate them in submitting their inquiry. Respondent 6 made a broad comment about the relation of selecting a format with the nature of the information needed, so she believed:

"[...] that every option should be provided so as to select the appropriate in accordance with the occasion."

Regarding the prevailing formats as these emerge from the Interviewees, it seems that Emailing is the most frequent choice. Their explanations mentioned its convenience adding that the Interviewees were familiar with that service and used it in their daily routine. Emailing was also characterized as the less intrusive format, since the staff could manage the flow of the work and as a cost effective means of communication.

The other choices were Chat and Text messaging, because of the immediate response and availability. These types operate similarly, and as mentioned in Chapter 2, the only differentiation has to do with the software. Stormont (2001) reports that these DRS formats cause uncertainty to users (and librarians), as they cannot perceive the reactions and whether or not the recipient is still connected. In contrast, in Chow's and Croxton's research (2014) chat was the prevailing format due to its effectiveness, efficiency and satisfaction. An interesting point made about chat was the flexibility of combining several tasks simultaneously (Chow and Croxton, 2014).

It was surprising that no Respondent mentioned web forms, video conferencing and learning forums at all. Video conferencing, such as Skype, was observed in low preference scale on Chow's and Croxton's research (2014). The received justifications focused on the software that should be installed and the awkwardness of meeting unknown people online (Chow and Croxton, 2014).

4.5.5. Types of inquiries

Closely related to the previous category of the preferable format, the Respondents were questioned about the type of inquiries that they would submit through DRS. A general reply for the kind of inquiries was related to the provisions of the Library. Other responses were divided into simple inquiries and specific inquiries. In simple inquiries, questions about resources and new acquisitions were included. A distinctive comment was made by Respondent 1 justifying why she would not type a lengthy text:

“No, a simple description. When someone is looking for something, he/she will not lose time by writing a long text; with a small question, he/she expects to receive exact information through a coherent response.”

Regarding the specific inquiries, only one Respondent mentioned that she would request advanced information. In specific, she would ask for material to accomplish her task, such as organizing seminars. Kibbee (2006) has conducted research for the type of inquiries that are made by unaffiliated users. The majority of them were looking for bibliographic information, while others required instructions for

structuring a research and about the library policy such as borrowing materials and having access to electronic resources (Kibbee, 2006).

4.5.6. DRS Functions

The sample proposed a number of services that would render the use of DRS more attractive. Lots of comments were made about the infrastructure of the service focusing on a friendly and simple website. The following point emphasized the corresponding time of the answers indicating how significant it is to receive immediate and quick feedback. Another crucial factor was the circulation of the service. They pointed out that online information and reminding emails for the existence of the service would raise users' awareness and increase its usage.

4.5.7. Location of DRS

The Respondents' contribution was exemplary indicating proper positions for placing DRS in the digital environment. The Interviewees mentioned that the use of the service would be functional if it was to be placed on the main website of the Library. Yang and Dalal (2014) discuss also the integration of a DRS into the main webpage of institutions concluding that it depends on the type of institution, annual budget, number of undergraduates and highest degree granted.

The Respondents focused on the Home Page of the Institutional Repository, ESTIA, saying that a central point would be preferable. Stormont (2001) also points out the significance of displaying the service in a discernible spot and not at the bottom of the Page. Similarly, Respondent 4 stated that it would be crucial to add a permanent sign reminding the existence of the service and facilitating the access. Mu et al. (2011) recognize that the steady appearance of DRS is effective for users, as they are able to submit their inquiries at the same time, without returning to the central page.

According to Respondent 5, DRS should be supportive and approachable with the purpose of supporting users. Otherwise, if results are not retrieved from a website after a few efforts, the users tend to visit other websites without struggling and wasting time. The reasons were demonstrated by Respondent 2:

“At the home page of the website. I think in a central point. The time spent on each website is not more than a few seconds, about 5 seconds based on what I knew-maybe it has changed now-. It should be obvious so I can find what I want quickly and simply, I would prefer it instead of wasting my time in other websites.”

The representation of DRS in the digital library was a consideration of Respondent 1. She suggested a Welcome Text, which *“could appear at the beginning as your enter the repository saying “Welcome, we provide this service”*. A Supplementary proposal was made by Respondent 5 regarding the depiction of the DRS. She stated that an attractive icon, such as a flashing icon or a picture of a person with headphones would be practical for users.

“A friendly and simple website that it (DRS) will be directly noticeable. A help flashing icon; a picture of a person with headphones, which can even operate (DRS) automatically, it can be attractive and make you click and ask something. To make its existence noticeable in any way because many users don’t know it; you said that it doesn’t exist, but if it is applied, it has to be obvious, clear, discernible, conspicuous in order for someone to become aware of the fact that he can ask for help.. Many of us are used to different systems and probably we don’t know, we will assume that it is our business to find what we need, that we don’t have extra help.”

Discussing further her thoughts, Respondent 5 pointed out that DRS could appear as a scrolling text reminding its existence to users.

Res: And the last question; in which place of ESTIA would an indication of this service be practical; namely at interface?

Respondent: *I think at the most obvious place. I think at the home page or to have something such as a scrolling text saying “in case you have a difficulty, we are here to help you” or “don’t hesitate”.*

Res: An attractive text.

Respondent: Which could present a face rendering it more personified; even if it is just an automated response. “We are here to help you” or if it was possible automatically after the third wrong attempt or if someone –I don’t know if a computer has this potential-remains too long connected to the website without retrieving results, a pop-up window could appear asking “Do you need any help?”. And everything will say “Please”.

[Laughter]

The pop-up window could be beneficial, as it would remind users of the role of librarians in the digital environment proving that the staff would still be available to help them. This function also contributes to the marketing of the service itself proving to the users how manageable it is (Mu et al., 2011).

Furthermore, Mu et al. (2011) maintain that the name of DRS has to be attractive for enhancing its usage; it “should speak directly to the user and be relevant to his or her need”. Yang and Dalal (2014) investigating further the used terms, came to the conclusion that the most popular name was “Ask a Librarian”, whereas terms like: “Chat”, “AskUs”, “Need Help?”, “Research Help”, “Contact Us” were less preferable.

4.5.8. Requirements

The last sentence of the above dialogue with Respondent 5 raised another essential question, that is, the constant need for updating the software and the services of DRS. Stormont (2001) communicates his experience in applying three different kinds of software. At the beginning, commercial software was selected due to its small cost, but issues came up, when updates and supports were needed. Then, a program was designed in collaboration with librarians and university students which was customized for the upcoming needs; the problem with this program was when students were not available to run it. Finally, the library purchased another commercial program, which provided support and upgrades rendering the cost meaningless. This difficulty of selecting an apt software could be minimized or surmounted, if common standards had been established. Librarians should match effectively the characteristics of the software in order the users’ demands to be served.

4.5.9. Motivation

“Advertising and marketing are traditionally weak areas in libraryland” according to Stormont (2001). Combining this with the broken technology and improper usage instructions, the usability of DRS could be harmed (Nilsen and Ross, n.d. as cited in Mu et al., 2011).

Almost all Respondents agreed that motivation would be of utmost importance for circulating and increasing the usage of DRS. Several of them indicated that LIC would have to promote the service both to professors and students. By promoting DRS to professors most positive results would be achieved, as they would recommend it to their students.

Some of them stated that successful promotion would be realized by the operating effectiveness of the service itself, such as quick and valid responses. Mu et al. (2011) conclude that the word of mouth was proved to be the most powerful mean, despite any marketing strategies and promotional materials. A distinctive comment by Respondent 5 on the researcher’s question about what would motivate you to use DRS, was:

“Its efficiency. But at this time the Library has to prove that it (the reply) would be faster than when I search by myself. I’m sure that this is the same for all colleagues, when we are searching for a paper; we want to find it quickly, why should I use the Library as an intermediate, if I can find it through other resources?”

Additional elements about users’ stimulation were the credibility of use and the trustworthiness of the service; the nature of the service regarding the minimization of the distance and the provision of easier and immediate access to information.

Stormont (2001) presents the paradigm of Temple University library which in an attempt to promote the use of DRS, they conducted a contest for the Respondents of the services. Even if Stormont’s paper is written more than a decade ago, these actions are still effective in approaching users.

Chapter Summary

This chapter presented the findings of the interviews aggregating them in relevant categories. They were separated in three core categories; users' awareness, users' feelings and elements for improvement; which are consisted of corresponding subcategories.

Users' awareness is a depictive category with the purpose of enlightening users understanding and experience towards DRS. It includes elements regarding the modes of communication with the staff, how users could determine DRS, their experience with other similar digital services; and concludes with drawing attention to the usefulness of this service.

The users' feelings towards DRS were detected during the interview process. It was shown how they would feel if this service were implemented and what they would opt for between DRS and in person communication. Some feelings of reluctance towards DRS usage were also stated considering issues such as privacy and staff willingness.

The detected elements for improvement raised numerous issues that the Library should reflect upon prior to incorporating DRS in its digital environment. The Respondents pointed out the role of the Library under the new conditions, as well as the improvements that both the staff and the required resources should undergo. The Interviewees also focused on DRS expressing their preference on those formats that they would opt for using, the type of inquiries that they would submit, the services of DRS, DRS position in a digital library, the requirements for the service and the motivation that would be expected if its usage was to be enhanced.

Chapter 5: Conclusions

5.1. Introduction

In this chapter the findings of the analysis are summarized taking into consideration the established research objectives.

5.2. Conclusions based on the research objectives

The main aim of this study is the investigation of the users' perceptions towards the existence of the DRS in a digital library. The aim was achieved through the research objectives, which:

- identify users' awareness of DRS and their potentials;
- consider users' feelings towards using DRS;
- detect the DRS elements that are in need of improvement in accordance with the users' needs.

5.2.1. Users' Awareness of DRS

The first objective was to determine the users' awareness and understanding of what the DRS really is. After having explained to them the Reference Service, they were asked to assume what the DRS is. Several Respondents were not aware of it while others confused it with social media thinking that they can use this medium to submit inquiries.

Nevertheless, it was proved that they had a basic experience in using similar digital services in commercial and other websites, which rendered easier for them to conceive the implementation of this service.

From the beginning and after having explained to them the functionalities and facilities of the DRS, the Interviewees indicated the usefulness of the service. They especially stressed the usefulness of the system in the provision of distant support by the staff of the Library. An interesting recommendation on how the potentials of the DRS can be exploited was made by a Respondent who suggested the creation of thematic archives. This is based on the notion that the submitted inquiries of users will

be analyzed and categorized, so that the staff can effectively manage the sessions without wasting time to reply to the same questions.

5.2.2. Users' Feelings

The DRS evoked positive emotions in the Respondents making them feel comfortable with a future implementation of the service. It was mentioned that they would not be anxious of waiting to visit the Library space in order to have their inquiries answered, since they could achieve it in distance. Safety was another concern that the Respondents reported regarding the value of the responses. They that they would not doubt the credibility of the replies, as long as the responses came from the authorized staff of the library.

The feelings of the users towards the service were also detected by asking them, if they believed that the information received from the DRS is equally accurate with the information received via the in-person communication. The advantages of both modes were underlined by the participants who stressed the immediacy and directness of the DRS on the one hand and the ease of the in-person communication on the other. Beyond the optimistic emotions, users were asked to consider any points of reluctance that would make them feel uncertain to articulate an inquiry electronically. It seems that the privacy of the session could be an issue of consideration, which according to Lankes, Collins and Kasowits (2000 as cited in Profeta, 2007) would gain or not the users' trust in using the service.

5.2.3. Elements in need of improvement

Throughout the interview the Respondents indicated significant elements that would be valuable when considering the implementation of the DRS. They underlined the role of the Library and the staff mentioning the alterations that would be required. A noteworthy point mentioned that the role of the Library should be promoted. The Respondents argued that nowadays the Library has to demonstrate its provisions and attract users by persuading them that is updated and well prepared to correspond to their information needs.

Similar thoughts were expressed about the staff. Two different aspects were stated mentioning both general suggestions and specific suggestions for the DRS. As far as general suggestions are concerned, the enrichment of the staff was mentioned pointing out that, under the present conditions of understaffing, additional services and responsibilities would be a drawback for the operation of the LIC. Another proposal, that the Library could implement, was the collaboration between the library staff and the university professors. It was suggested that a chain for spreading the actions of the Library should be created involving the staff who would inform the professors and they, in turn, would communicate these actions to their students.

Additional suggestions were made about the staff's performance in order to apply the DRS. The focal point was those characteristics that the librarians should possess for the correspondence to be successful. The willingness, skillfulness, supportiveness and familiarity with new technologies were indicated. The Respondents realized that the personnel would be required to expand the in-place provisions in the digital environment, thus dedicated staff would be ideal to undertake the operation of the DRS. Taking into consideration the work load of this service, a concrete job description was recommended in order for the limits of the DRS to be established and the its process to be enhanced.

The human and financial resources were also stated as the factors that should be examined thoroughly before the implementation of the DRS. Therefore, the flaws could be minimized.

Moreover, the Respondents' preference for the DRS formats was recorded along with supportive arguments about which format could facilitate them when submit their inquiries. A broad aspect was that the selection of the appropriate format depends on the nature of the specific information need. However, among the formats the e-mail was the prevailing one due to the users' familiarity with this means. They also underscored some further merits of this format, such as its cost effectiveness and the flexibility it offers for staff in their effort to handle the flow of work effectively. Chat and Text messaging were two more formats mentioned, mainly because of the immediate answers that they could provide users with. These elements depict the preferences of the users and are of great assistance to the personnel when they have to decide on the suitable format for addressing the community's information needs.

A further element to be examined before the implementation of the DRS, which is relevant to the formats, are the type of inquiries that the Interviewees would request through the DRS. The division was between simple and specific inquiries. For simple inquiries immediate responses were demanded, whereas for specific inquiries coherent and extended responses were anticipated

Another recommendation concerned the functions of the service. Various proposals indicated that the DRS would be more attractive if it were integrated in a friendly and simple website. The location of the service in the digital environment would play a similarly important role in promoting its usage. Many Respondents stated that they would prefer the DRS to be easily discerned and accessible so as to avoid wasting time on detecting it. Its depiction would be crucial for in order to draw attention and make its existence noticeable.

Finally, the Respondents emphasized the importance of motives to opt the format of DRS. An incentive could be derived from the effective and credible replies that staff provides.

Further thoughts

Implementing a service similar to the DRS can be a challenge, especially when considering the difficulties that academic libraries have to handle. However, it is imperative to take advantage of the provisions of the web and exploit it “as a new medium of communication and interaction” (MINERVA EC Working Group “Quality Accessibility and Usability”, 2008). DRS can play an important role in securing the community of a library with the purpose of directing and guide them towards credible resources. Therefore, a library will continue to support its users in order to eliminate them “*to believe that, as physical barriers to access to information are reduced through technological means, the services of the librarian are no longer as necessary*” (Sloan, 1998)

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Appendix II: Consent Form & Interview Guide in English



International Master in Digital Library Learning _Sofia Axonidi

Title of research: “Digital Reference Services in digital environment: users’ perceptions of the Library and Informational Center of Harokopion University”

Researcher:

Sofia Axonidi
International Master in Digital Library Learning
s_axonidi@yahoo.gr

Supervisor:

Prof. Anna Maria Tamaro
Universita Delgi Studi di Parma
annamaria.tamaro@unipr.it

This research is conducted by Sofia Axonidi as part of her thesis in International Master in Digital Library Learning supervised by professor Anna Maria Tamaro. The purpose of this research is to investigate users’ perceptions on the application of Digital Reference Services to the digital environment of the Institutional Repository “ESTIA”.

Before proceeding with the interview, please read the following information and sign as long as you agree:

- **I agree to participate in the research.**
- **I am aware that my participation is voluntary and I maintain the right to withdraw at any time.**
- **I understand that the provided information is confidential and only the researcher and her supervisor will have access to it. My identity will not be revealed in any case or connected to the findings of the research.**
- **I agree to be audio-recorded EXCLUSIVELY for research purposes.**

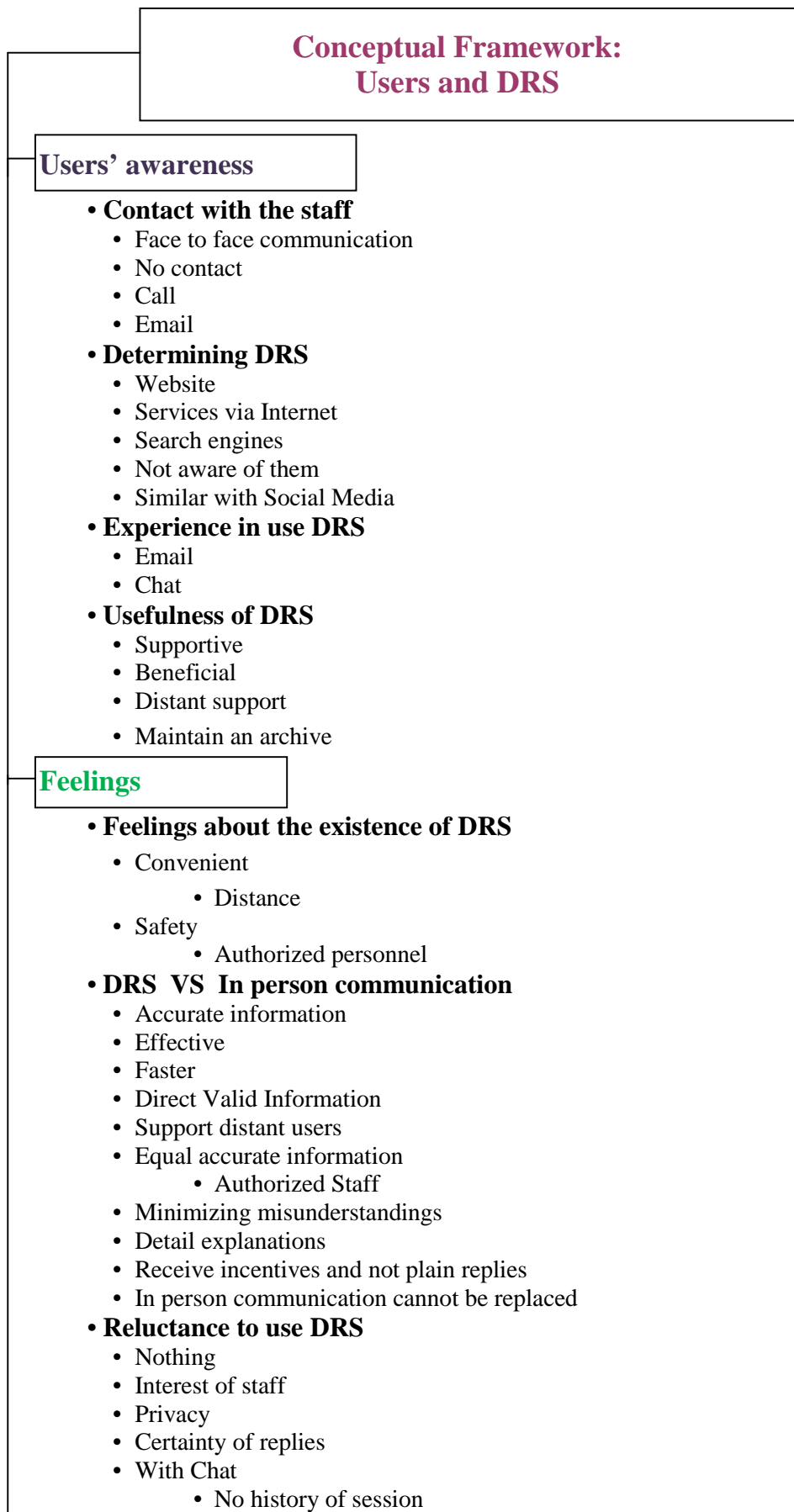
Researcher:

Participant:

Interview Guide:

- Do you agree to have your interview audio recorded?
 - Introduction of the researcher.
 - Introductory information of the participant (name, education, profession)
- 15) Brief description of Reference Services.
 - 16) Which means do you frequently use for expressing your inquiries to staff of the Library and Informational Center (LIC)?
 - 17) Do you know what Digital Reference Services (DRS) are? If not can you assume what they are?
 - 18) Explaining the DRS, referring the forms.
 - 19) Have you ever used any Digital Reference Service in other digital environments?
 - 20) Which forms of DRS are applied by the LIC? Do you feel satisfied with them?
 - 21) Which format of DRS (chat, e-mail, web form, learning forum) do you feel that will serve you effectively when expressing your need? Why do you think that it will be more convenient?
 - 22) What kind of information will you ask through DRS?
 - 23) What will render the use of DRS convenient?
 - 24) Do you think that you will receive equally accurate information via in-person communication and via the DRS?
 - 25) Is there something that can make you feel reluctant to use the DRS?
 - 26) What will motivate you to use DRS?
 - 27) Which do you think will be the appropriate place for DRS to be installed in the ESTIA digital environment so as to facilitate its use?
 - 28) Would you like to add anything else?

Appendix III: Concept Code Tree



Conceptual Framework: Users and DRS

Elements for improvement

- **Role of Library**
 - Marketing
 - The service
 - Its role
- **Staff**
 - General
 - Collaboration with Professors
 - Lack of staff
 - Regarding DRS
 - Characteristics
 - Willing
 - Skillful
 - Supportive
 - Familiar with new technologies
 - Concrete Job description
 - Dedicated staff
- **Resources**
 - Human Resources
 - Financial Resources
- **Preference to DRS formats**
 - Depends on the occasion
 - Email
 - Familiarity
 - Convenient
 - Less intrusive
 - Manage the flow of the work
 - Cost effective
 - Chat
 - Immediate response
 - Availability
 - Text messaging
- **Types of inquiries**
 - Depends on provisions
 - Simple Inquiries
 - Resources
 - New acquisitions
 - Not loose time by writing
 - Specific Inquiries
 - Material for organizing seminars

Conceptual Framework: Users and DRS

Elements for improvement

- **DRS Functions**
 - Infrastructure
 - Friendly and Simple website
 - Immediate and quick answers
 - Corresponding time
 - Diffusing its existence
 - Online information
 - Reminding emails
- **Location of DRS**
 - At the main website of library
 - Home page of ESTIA
 - Central Point
 - Obvious
 - Quick and Simple detection
 - Welcome Text
 - Attractive icon
 - Flashing icon
 - A picture of a person with headphones
 - Scrolling text
 - Permanent sign
 - Reminding DRS existence
 - Easy access
- **Requirements**
 - Updating the software
- **Motivation**
 - Promotion of service
 - Quick responses
 - Validity of responses
 - Efficiency
 - Staff
 - Credibility of use
 - Minimize the distance
 - Easier and immediate access to information

Appendix IV: Transcriptions

Transcription of Interview 1

Res: *Do you agree the interview to be recorded?*

Respondent: *Yes, I agree.*

Res: A few words about you.

Respondent: *I am a master student of Informatics and Telematics Department.*

Res: Regarding Reference Services in general, it is the process where a user contacts with the staff of the library asking information for his/her research; generally for covering his/her information need.

Which means do you use frequently for expressing your inquiries to staff of the Library and Informational Center (LIC)?

Respondent: *The in person communication isn't convenient for me with the library, as I mentioned my profession is Informatics, so I use more electronic means. I use more HEAL-Link for finding articles especially from IEEE. I don't use books at all, because of my profession.*

Res: During the search, when you are looking for articles did you have any contact with the staff of the library?

Respondent: *At the beginning, when I didn't know how to use resources, yes I asked their help, but nothing further.*

Res: Do you know what Digital Reference Services (DRS) are? If not, can you assume what are they?

Respondent: *I don't know.*

Res: Reference Services are the contact with the staff of the library for supporting your search of retrieving relevant resources.

Respondent: *For example, if someone asks a book, they check online if it is available, something like this?*

Res: This happened with OPAC. By listening DRS, can you estimate what could it be?

Respondent: *I don't know about it.*

Res: Digital Reference Services (DRS) are the support from the staff of the library electronically either with synchronous or asynchronous means. The means are email, chat, predefined forms, instant messengers...

Have you ever used any DRS in other digital environments?

Respondent: *No.*

Res: Which forms of DRS are applied by the LIC? Do you feel satisfied?

Respondent: *I think email is used more.*

Res: Are you satisfied by its use?

Respondent: *Not so much.*

Res: Which format of DRS do you feel that will serve you effectively for expressing your need? Why do you think that it will be more convenient? Namely, if these means, could help you.

Respondent: *Of course and they will be supportive.*

Res: Which mean will you select.

Respondent: *Email and text messaging.*

Res: Why these?

Respondent: *They are more convenient for a daily use. The first thing that most of us do, when we wake up, we connected in Facebook and email.*

Res: Indeed, they are part of our daily program.

Through these services what kind of information will you ask?

Respondent: *What do you mean?*

Res: I mean a simple question or a detailed inquiry?

Respondent: *No, a simple description. When someone is looking for something, he/she will not lose time by writing a long text; with a small question, he/she expects to receive exact information through a coherent response.*

Res: What will render convenient the use of DRS by your perspective?

Respondent: *Definitely a skillful personnel is required being familiar with new technologies, willing for this service, hence it will be more attractive. Another important factor is the lack of personnel in the library.*

Res: Do you mean dedicated staff?

Respondent: *Dedicate and willing staff for processing effectively this task. It is impossible one person to handle too many things. Distribution of tasks should be applied in accordance with the needs of library and the students that it serves.*

Res: So your main point is about the staff.

Do you think that you will receive equally accurate information with in-person communication by using the DRS?

Respondent: *The interpersonal relations can't be replaced by the electronic means, but I think that I would receive valid information with a direct way.*

Res: What will make you feel reluctant using DRS?

Respondent: *Nothing. You can have access from anywhere at any time.*

Res: You don't point out something negative.

Respondent: *No.*

Res: What will motivate you to use DRS?

Respondent: *More information about the existence of these services and mainly to be aware of the credibility of their use, thus I'll use them for support.*

Res: Regarding the location of DRS; which will be the appropriate place for DRS in ESTIA for facilitating their use?

Respondent: *An example, what do you mean?*

Res: I mean to be obvious at website, as permanent icon on side column or to appear as pop up message.

Respondent: *It could be as icon on the desktop.*

Res: A permanent icon on the website.

Respondent: *Yes. Or it could be appeared at the beginning as your enter to repository saying “Welcome, we provide this service”.*

Res: So as a welcome page. Would you like to add anything else?

Respondent: *No. I believe that if they are applied appropriately, they will be embraced.*

Res: Thank you very much!

Respondent: *Thank you too!*

Transcription of Interview 2

Res: Shall we record the interview?

Respondent: *With pleasure.*

Res: Very good. The purpose of the research is about the Digital Reference Services (DRS) of digital libraries and in digital environments generally. Our focus is on ESTIA, which is the institutional repository. A Few words about me; I am a master's student in my final semester and this is part of my thesis aims at detecting users' perceptions and if this kind of service could be easily used in their daily routine.

Respondent: Ok. Very well.

Res: A few words about you.

Respondent: *I am an EDIP member; do you know what this is? It is a Specific and Laboratory Teaching Staff Member (EDIP) since 1993, I was the first who entered this University, I have been working for many years. I had been elected as a Lecturer, but I didn't accept the position continuing from the other position for personal reasons. I studied law, pedagogy- it is my second degree-, I hold a PhD degree from Harokopion University. At the same time, I dealt with journalism working as a reporter on television and I have studied literature in the National Book Center Book and in a Small Technical University specifically with the author Michelle Fays. I have been awarded in literature competitions as I am interested in writing and here (at University) I am participating in many modules as coordinator and I am also responsible for Laboratory courses including quality tasks with theoretic parts.*

Res: And you belong to the Department of Home Economics and Ecology.

Respondent: *I have taught courses on entrepreneurship and environment the last years.*

Res: In which department do these courses belong?

Respondent: *The Department of Home Economics and Ecology, but now there is a possibility one of the courses- a seminar that I offered last year at (platform) "Academic Skills" Department of Home Economics and Ecology- to be taught at the*

Department of Geography. I have been teaching in both master programs of Sustainable Development since 2002.

Res: Regarding the Reference Services, I will explain how they are used in traditional libraries, before we examine the Digital Reference Services (DRS). It is the relation between the library's staff with the users; when someone has information needs and looks for specific information, he/she addresses the request to the staff in order for the precise need to be identified and credible resources to be detected. This is about the traditional part.

Res: Which means do you use to contact to the library's personnel in order to find information?

Respondent: *The traditional mainly. When I visit the library and due to the particular relation that I have with the book, the touch and as I am a visual type, I want to touch it, feel it and keep notes on it, it is more convenient. The personnel of the library, especially Mrs. Vardakosta (she is the chief librarian of the library), and the environment are very friendly because of the interpersonal relations with her. She always gives priority to each of us either by meeting face to face or by calling the library.*

Res: And this happens for all kind of users.

Respondent: *All, all of them. This occurs with all types of us, it is a diachronic value. I am here from 1993 to today, even if everything has changed, the relation and treatment of the library's staff towards the users remains equally friendly, they do not urge us to use electronic resources, which would be faster for them without having us to interrupt them from their tasks. Staff is still useful even in the traditional way.*

Res: Very Good. Have you heard about Digital Reference Services (DRS)?

Respondent: *Yes I have heard about them through the academic seminars of "Academic Skills" that we created as some courses were conducted on purpose in the library' in order to inform us. Mrs. Vardakosta made three presentations showing how we could effectively organize our information from some programs, Mendeley and some others, she pointed out how we could organize better citations combining the search and the appropriate use.*

Res: She presented the tools.

Respondent: *We attended a small presentation about the tools. It was short, so it was not adequate for sinking in.*

Res: This was about the electronic tools. Regarding DRS it is similarly about the communication between the staff of the library with its users by exploiting new technologies and means.

Respondent: *Right. I did not answer.*

Res: No, it is ok. This question was about figuring out the understanding level before giving my explanation of what it is.

Respondent: *This is correct.*

Res: The used means are either synchronous such as chat, instant messages, or asynchronous like an email or predefined forms.

Respondent: *Mrs Vardakosta here implements these. They [DRS] are Facebook, groups, aren't they?*

Res: Facebook is provided as a communication channel, but it is not included in this category. It is used more for promoting and informing the academic community, whereas DRS are personalized services. For instance if a user has a specific request, he/she can deliver it to the librarian and receive an answer.

Respondent: *In this section, some updates that are sent by Mrs. Vardakosta about cooperation with publishers, she sent us the links through emails regarding the topics of interest, which is very convenient for me. I will be tempted to open them and search more in it. I wouldn't do it, if she didn't send an email.*

Res: Have ever used any of the DRS in other digital environments, beyond the library? As I mentioned DRS are chat, predefined forms, email...

Respondent: *Sure, sure.*

Res: So you are familiar with these.

Respondent: *Absolutely.*

Res: Ok, and from these means of DRS, which do you detect to be applied in library? Chat, email.

Respondent: *I use mostly the email as I have been supported more with this.*

Res: Do you feel satisfied from its use? Not from the perspective of the received information from the library, but from your point of view as you submit an inquiry.

Respondent: *I am satisfied. Although I do not use it frequently, because the nearness to the University renders it easier to visit in place or to call the library, thus the difficulty [of contacting the staff] is eliminated. So I prefer the in person contact to electronic information.*

Res: Through this kind of service what kind of inquiries do you believe that you could submit? I mean that if you are searching for information, could you use this service? An example: Let's assume that you cannot visit the library's space and you are connected from your computer, what kind of questions could you ask?

Respondent: *More about the enrichment of new titles related with the topics of my interest, namely if there is something relevant to the content of my search.*

Maybe during public holidays, I would ask about the opening hours to make sure that someone would be there.

Res: Well. So you think that you could be served through these.

Respondent: *Certainly.*

Res: Which mean from these could be suitable for you? Chat as an example is that you submit a question and you will receive a reply at the same time.

Respondent: *I am aware of it. We do not have this; I think we do not have it.*

Res: No, it does not exist [in the digital library]. The questions are theoretical.

Respondent: *While I was searching in other websites, it happened to use chat as it popped up and I did not face any problem typing and receiving an answer. I have to confess, that I was feeling safe that someone was there and available to help at any time according to your needs. But since we do not have it, we persist in using email.*

Res: This was a broader question about how you could feel.

Respondent: *Definitely the existence of chat would be convenient.*

Res: Ok. What do you consider that would facilitate you more to use similar services, if they existed?

Respondent: *First of all the information, in order to use something you have to know its existence. The diffusion of information, the immediacy and the response of course.*

Res: Is there another element such as software, equipment, functions?

Respondent: *Definitely a well designed website, the environment of the website, when it is friendly, it attacks you to remain longer.*

Res: Do you think that you will receive equally accurate information as you do with in person communication by using the DRS?

Respondent: *Of course. There is not any credibility consideration.*

Res: Probably you feel like this because we are referring to this specific library and there is not...

Respondent: *No! I am not suspicious. I believe that if someone answers on behalf of the library, I take it for granted that he/she is authorized to reply and the provided information has his/her "signature". It isn't as impersonal as it seems.*

Res: Indeed

[Laughter]

Res: And what will make you feel reluctant to use this kind of services? Which point will set you thinking by using it or will make you have doubts?

Respondent: *I would not have any doubts. But if I asked for information through a chat session, I would not have a written proof. As you are discussing in a chat, it [the conversation] is deleted, it is lost.*

Res: It cannot maintain the history.

Respondent: *Exactly, it cannot keep the history; this could be a problem for me, if I cannot rely on this discussion to organize causes and difficulties. You could not use tangible information about: who you had chatted with, on which day and what you had talked about. It is different, when you have a written text with the exact words that were used as an answer, something that it is feasible with email; and it is different when the conversation is vanished from the communication box*

Res: If you use email respectively?

Respondent: *I wouldn't have any problem with email.*

Res: Thus only with chat use, you are detecting a difficulty.

Respondent: *Yes, because of the lack of maintaining the history of the session.*

Res: What will motivate you to use DRS? On the other side...

Respondent: *If there was a specific incentive?*

Res: Exactly, if there was a specific incentive that will make you...

Respondent: *First of all, it minimizes the distance, as we mentioned before, if I was at home and I couldn't call Ifigenia [the chief librarian], I would have easier and immediate access to information.*

Res: Regarding the institutional repository, ESTIA, in which place, do you consider that it would be user friendly this kind of reference services?

Respondent: *At the home page of the website. I think in a central point. The time spent on each website is not more than a few seconds, about 5 seconds based on what I knew-maybe it has changed now-. It should be obvious so I can find what I want quickly and simply, I would prefer it instead of wasting my time in other websites.*

Res: This is the point that I am investigating, the extent of usefulness especially in digital libraries. When you are searching, maybe you do not retrieve results or you retrieve irrelevant results, will it be useful if a permanent column existed that could support users?

Respondent: *Sure, because if you need to return to previous page, it is not easy anymore, the time for the page to be loaded, a local network with many users can cause issues, it would be more convenient to find it at first glance.*

Res: Abroad, these services are used on the central website of the libraries, there are not exclusively used in digital libraries, where many users access information by distance.

Respondent: *I see your point. Whatever it is obvious, it accounts more, as there is a vast amount of information, so the time is considered to be a luxury..*

Res: Very well. Would you like to add anything further?

Respondent: *Oh. That was all?*

[Laughter]

Respondent: *Very well.*

Res: Is there any point that you would like to discuss further?

Respondent: *No, I do not have to add something in relation with your inquiries; it is just that motivations should be found so that youths will get involved with libraries. Before someone gets in touch with a Library and uses any service such as chat, he/she has to have a friendly relationship with the Library, which is not so easy. In our case, the library is accessible, but in other institutions where the conditions are not appropriate, none of the students, that I know, visit it either for studying or for support. Students are struggling by themselves, so the access to the library has to be easier and then the rest will be solved.*

Res: Indeed, spatial difficulties exist. This is overcome here as the library is near the entrance.

Respondent: *Really here we are very close.*

Res: Thank you very much for your time.

Respondent: *You are welcome.*

Transcription of Interview 3

Res: *Do you agree the interview to be recorded?*

Respondent: *Yes, I agree.*

Res: A few words about you.

Respondent: *I am Special Teaching Staff in German Language at Harokopio University and I am Post Doctor Researcher in Educational Psychology.*

Res: The topic of my research is about Digital Reference Services (DRS) focusing mainly on the digital library. The library of Harokopio preserves many digital collections, so our focal point is the Institutional Repository, ESTIA. My aim is to figure out DRS usefulness for users and emerging suggestions.

Regarding what Reference Services are, before we narrow to DRS. In general Reference Services are when users communicate their inquires to the library either for finding a book or something more advanced; articles, various materials. It is the communication process with the staff of the library for supporting and orientating to appropriate resources.

How do you contact with the staff for receiving similar information?

Respondent: *I contact mostly with the personnel; I visit and discuss with them. Since all have access to information through electronic means and I'm able to find some articles from the Internet, but if I have a difficulty to find an article, which is extremely important for a project that I have to accomplish, either it is needed for a conference or a seminar, I address to staff of the library for retrieving the article that I need. I mean to order it.*

Res: Beyond the in person communication, do you use other means for contacting?

Respondent: *Through HEAL-Link.*

Res: For contacting with the staff.

Respondent: *I use the in person contact, email and I call them. The Library has also account in Facebook, I'm member so I can contact and be informed about library's activities through this as well.*

Res: As we define what Reference Services are, can you assume what DRS are?

Respondent: *I assume that they are through the Internet or social media or email.*

Res: Have you used DRS, beyond library, in other digital environments?

Respondent: *Of course through the Internet and I have subscribed to Google Scholar for receiving notifications by stating keywords of my interest receiving everyday notifications. I am member in ResearchGate where I am informed for uploaded projects of my colleagues.*

Res: Digital Reference Services are the communication with the staff exploiting the potentials of technology. DRS are divided to synchronous and asynchronous type. Synchronous includes chat, a kind of Skype, instant messenger, and asynchronous includes email, predefined forms. Therefore, if someone during the search tries to find information, he/she will be able to have an immediate contact with the staff. Library will support better its community especially distant users directing them accurately in accordance with their information need.

Respondent: *Very well. I would like to say that I use the corresponding service of EKT (National Documentation Center of Greece), as I have submitted my PhD dissertation there. It is very useful mean. And when I have an inquiry, beyond the asynchronous –I don't have Skype account- I use chatting for asking and waiting for their reply. Not with email, I write in relevant boxes my questions, it is usually quick and immediate.*

Res: Through this research, I investigate if it would be easy for being incorporated in library's environment.

Respondent: *I understand it. I mentioned that I don't have Skype, so I can't use these services. But then I thought the other ways that I use.*

Res: There are many potentials, I just present all...

Do you detect some of these means to be used by the library; Email, Chat, Skype in order to contact with them, when you have a need?

Respondent: *I usually prefer the in person communication with the staff as I know that they will help me promptly. Maybe, because I'm closer to the building, it is easy to approach and discuss with them. Otherwise, I will use other means, when I'm in distance or abroad. Email is used mainly.*

Res: And through these services which will serve you effectively for expressing your inquires?

Respondent: *I think chat; I will use it more as I will have immediate response. When you are a scientist, you need immediate information, so you can receive immediate information through chatting.*

Res: Indeed. What kind of information will you ask through these services?

Respondent: *I will search for resources, journals that are locked and I have to pay for having access, so the library could help me by providing them for free and immediate or paying a low fee, that is affordable instead of paying it through Internet. I could also find useful theses for the seminars of University, which focus on the pedagogical psychology; and for the assignments of trainees, who have to accomplish about 2000 words, I want some theses and I ask help from the library for finding specific theses that I don't have access.*

Res: What will facilitate the use of these services, if they exist?

Respondent: *The online information, only this.*

Res: So, the diffusion of the library.

Respondent: *I want to have frequent information by the library. As many times they send us email about the access in some organizations or journals. This is very useful.*

Res: Beyond this, will something else be useful for you? Such as software...

Respondent: *Definitely, it has to be fast. For example HEAL-Link, I have noticed through conversations with students, it crashes. Nowadays students don't have the skills to search alternatively, as we do, they use only HEAL-Link and they can't move on their search for articles. At this stage a service could exist by the library; an employee to operate the chatting for supporting them.*

Res: At ESTIA's interface...

Respondent: *Excuse me, something else. Professors could also motivate students to use the library. I think this is the most important. For instance, with the discussions that I have with them (students), I realized that they have been assigned tasks without been informed where and how they can search. I'm sure that library isn't responsible for this; to inform each student about subject indexing of articles. They will ask help*

from the library, but if students from a whole semester, who are approximately 50 active students, address how library can handle it? Professors have to inform them how to do it. So maybe....

Res: Should be collaboration between professors and librarians.

Respondent: *Exactly. Library conducts seminars to new users-students, maybe it is a necessity to organize seminars for us; the professors of University.*

Res: Perhaps, this will be better. They will organize seminar to small group of professors, and they address to more students with their turn, so more students will be literate.

Respondent: *Of course. We talk everyday with many students.*

Res: Truth be told, professors have closer relations with student than the library with them.

Respondent: *Exactly. And master students too. Recently, I taught a master program and I realized that their assignments are very detailed, but now when they are asked to participate in a conference, they are a bit anxious. At this case library could orientate them detecting the bibliography, the resources; and with some way- I don't know if it's library's business-they should learn how to make a PowerPoint. I mean if (this kind of) seminars have to be organized by the library.*

Res: Some libraries in abroad have some guides and tutorials with basic instructions.

Respondent: *For introductive information of course. I consider if library was recruited with more staff, it can implement it. It doesn't have adequate staff, so it can't operate as abroad.*

Res: This can be a drawback for applying DRS due to the lack of staff, it would be required someone to be online for answering.

Respondent: *Sure, it is needed staff for working not 24 hours, but about 12-15 hours. We are all experienced with libraries in abroad. I carried out my PhD dissertation abroad and when I am traveling for conferences, I visit academic libraries. I have realized that our library is a miniature of reading room-library that needs more staff.*

Res: And only that it's maintained by four librarians from the morning to night....

Respondent: *But they can't do it practically. There are many issues, such as administrative. One from four has to be (devoted) there, another one has to be at the front office serving students, the other one to supervise the area for controlling users' attitude...*

Res: Indeed, there are many issues.

Do you think that other obstacles will prevent the implementation of these services (DRS) in ESTIA?

Respondent: *An additional problem?*

Res: Something that making you reluctant to use them.

Respondent: *No, I'm satisfied with ESTIA. I use it and I recommend it not only to our students, but also to trainees, who study for 5-6 months, namely they are not permanent here. I suggest them to visit the library and use ESTIA; I write it on the blackboard using it as standard; how they can use through ESTIA. I believe that it works very well based on the potentials of the University. And if there is a locked thesis, I know that staff can help me.*

Res: Ok. If in ESTIA's environment there will be the potential for immediate communication, will be something to hesitate you?

Respondent: *No, nothing! It will be very convenient for me. It will be extremely useful that contribution in ESTIA for completing my tasks.*

Res: This is what I research about, since someone enter to this digital collection, something could support him/her during the search.

Respondent: *With keywords, names, surnames, in every way that I could find it.*

Res: A support from the staff could exist provided by these means.

Respondent: *It could be, but we are returning to the same point (the lack of staff). Personally, ESTIA was very useful for conducting my dissertation, the seminars with the trainees, who are educators form different educational scales and master students; all are able to use it; it has large volume of theses.*

Res: Which will be the appropriate place for DRS in ESTIA for facilitating their use? At ESTIA's interface where DRS could be obvious for everyone facilitating the communication?

Respondent: *At the home page of the library and I will suggest, without being sure if it can be done, at the website of University. At the home page of University without endeavoring to detect it, don't take it for granted that all are familiar, even if it seems strange the trainees, who are from 25 to 60 years old by various educational backgrounds. We can't take it for granted that they have accomplished previously assignments during their bachelor studies. They are many in every academic year, who don't hold a master degree, which means that if they haven't accomplish assignments, they have never search in any repository, either this is EKT or ESTIA or else. But if at the home page of University appeared this potential for realizing them about the access (to ESTIA), I believe for their personal reason, they will visit it and read a thesis. This will be also beneficial for ranking the University at higher level, because of the quality of these theses.*

Res: As you said, it is a bit controversial with abroad where at the home page of universities, library is distinguished.

Respondent: *Here you have to search and search to subcategories for reaching library. Many times I refer it to our students; the library is a miniature of abroad libraries. Therefore, in that Greek environment you hold this (good) level library; I can't understand why don't you promote it appropriately? Other universities with low level (libraries) promote it more. The good things are usually hidden.*

Res: Beyond the home page that they (DRS) will be user friendly, do you believe that a permanent column will facilitate during the search?

Respondent: *Definitely similarly with Google Scholar and Facebook that have it as side column. Frequent email could be also sent for reminding the service. There are colleagues who don't borrow even books from the library. I am the first enrolled user of the library, but I'm trying in regular base to borrow some books for personal reasons. It is unique the feeling of touching, smelling the book. Since you are a member of a team, you have to support it. I now that other colleagues don't use it. I needed recently the new version of SPSS and I searched in library's catalog; the guide, manual of new version wasn't existed, so I contacted with the chief librarian to inform her. This is the point of the contact with the library; I am able to submit an inquiry and receive an answer or to be examined. Only through this way, library can operate.*

Res: Through this can be supported effectively the academic process, as they (staff) can't know the needs of each module.

Respondent: *For this reason we are called scientists, it isn't possible to know what will be useful for each professor and his/her field. They can't be constantly updated for each course, only with our feedback, library's performance can be maximized.*

Res: This has also a qualitative impact to students.

Respondent: *Of course, as we will convey how the library works and motivate them to visit it.*

Res: Regarding the DRS, what will motivate you to use DRS? We mentioned further information, is there something else?

Respondent: *I'll ask something extreme, personalized information.*

Res: You mean to know with whom do you talk?

Respondent: *No, something more extreme. There are four departments with various programs. Aggregating the interests of each department and delivering informative emails. Library could conduct a research to all professors of University endeavoring to categorize their interests about new material, new subscriptions, new researches, new entries in ESTIA etc. For instance in my field, I could receive updates about pedagogical psychology.*

Res: It is not a utopia, but it is very difficult to be applied.

Respondent: *I know, but this is that I want.*

Res: Returning again to DRS, do you think that you will receive equally accurate information with the in person communication?

Respondent: *Some needs in person communication and others need the digital. I don't know, I would suggest a combination of both. If I separate in percentages, it would be 70% and 30%. 70% to digital and 30% in person, but I would like always to remain the in person.*

Res: The aim through this is to understand how you would feel in regards the quality of the responses.

Respondent: *It depends on the precise replies and the contact with the staff. At this time due to my experience the communication with the staff, I wouldn't minimize the in person.*

Res: Exactly, since the same people will reply to you....

Respondent: *Exactly, so why not? But if I should translate it in percentage, I would in 70% and 30% respectively, because of the provision of distant contact. I could namely be at my place, vacations or abroad and I could ask them; not for any other reason.*

Res: To the point, it tries to secure and serve the community, even distant users. It can be considered as a strengthen factor for the role of the staff, as they are the only one who can handle it and it is difficult to be done automatically.

Respondent: *No, only the staff is cable to do it. It is a personalized service.*

Res: Ok. Would you like to add something further?

Respondent: *I don't think so.*

Res: Thank you very much for the conversation.

Respondent: *Thank you too.*

Transcription of Interview 4

Res: Do you agree the interview to be recorded?

Respondent: *I agree.*

Res: A few words about you.

Respondent: *To introduce myself?*

Res: Yes

Respondent: *Well, I am Assistant Professor at the Department of Home Economics and Ecology in Harokopion University.*

Res: Before we focus on **Digital Reference Services (DRS)**, I will explain you what is in general Information Services. These are the communication process between a user with the staff of the library in order to help him/her to detect the needed information either it is a simple; book, article etc. or something more advanced such as for the accomplishment of a task. Overall, it is the communication process with the staff. We aim to examine if all this can be transformed in digital services.

Res: When you want to detect information, how do you contact with the staff of the library; through which means?

Respondent: *Either I visit the space of the library or I search via computer.*

Res: And when you cannot find something or you face some difficulties? Do you use any electronic mean for approaching them or do you still prefer the in person communication?

Respondent: *It has not happened to be in a so difficult position that I cannot cope with.*

Res: Ok

Res: Regarding Digital Reference Services. They are used purely through electronic devices and new technologies, so that distant users can be reached. These services can be applied either as synchronous such as is chat, Skype or asynchronous like an email or predefined forms, where someone can submit his / her inquiries and in other time to

receive the answer from the library. Do you distinguish some of these services to be applied in your library?

Respondent: *I have not used any kind of these services.*

Res: Just if you know the existence of these.

Respondent: *Honestly I do not know. I think that through email you can be informed by the library, but I am not definitely sure.*

Res: Have you used other similar means in other digital environments? Not only from libraries generally.

Respondent: *Do you mean through emails or these did you refer previously?*

Res: Email, chat or skype, if you have used them in another platform for various purposes; either in commercial platforms.

Respondent: *For searching a bibliography or generally in my daily routine?*

Res: In general in your daily routine.

Respondent: *In general, yes I have used them.*

Res: So you are familiar.

Respondent: *Yes, I am especially with email and Skype.*

Res: Ok

Res: Regarding the library, you detect that only email is used.

Respondent: *Personally, I do not use anything, but I have the impression that there is this potential.*

Res: Ok

Res: Which of the means that I mentioned, do you believe that facilitate you for searching information?

Respondent: *I think the email, of course under conditions.*

Res: Such as?

Respondent: *An immediate and quick answer.*

Res: This is important.

Res: What kind of information do you believe that could you ask through email; something complicated, something simple?

Respondent: *I would ask information more about the literature or a journal or a book. Whatever is related with the search, not something technical.*

Res: Ok.

Res: What will render convenient for you the use of DRS? For instance the software or something related with the personnel.

....[cease]....

Res: I mean that if these services were existed, what will motivate you to use them.

Respondent: *Definitely the mood of the staff, their immediate response and the validity of their answers.*

Res: And what will make you feel reluctant for using the DRS?

Respondent: *I think that all are related with the staff's interest, namely if the communication will not be appropriated and will not ease the process, I would not proceed in this.*

Res: Ok. So you are orientated to the communicative part.

Res: Do you think that you will receive equally accurate information with in person communication by using the DRS? I mean if you compare the DRS with the interpersonal communication.

Respondent: *I believe that certainly the in person contact is different as you can give more explanations or ask something further.*

Res: Do you detect that this would affect the credibility of the responses?

Respondent: *No, maybe the enrichment will be affected, usually during the conversation something new can be emerged, something different, which may lead you to other paths.*

Res: Regarding ESTIA in which place, do you believe, will it be useful, if this kind of services were existed, thus they could be accessible and used easier?

Respondent: *When you say in which place of ESTIA?*

Res: At interface. In the depository, ESTIA, in which place could be.

Respondent: *At the website; at which place? I have to visit the page.*

Res: It isn't necessary. Just now as we discussing. Which position will be convenient for you to see this service, such as click here or ask the librarian, so you could use it directly as a service?

Respondent: *I cannot understand, when you are asking in which place, I have to imagine the page and if the service will be at the right top or at the center or at bottom?*

Res: Yes, in a broader view. I mean to be presented only at the home page, at a permanent side column so during the search process you can use this service.

Respondent: *Maybe the second option will be more supportive as you will have it in your mind and it is not needed to return back or to visit another place for submitting the question. Thus it will be a good idea to be presented permanently at each [search] step and with a click to have access to the relevant form that you have to fill and send.*

Res: Do you have to add something regarding the DRS?

Respondent: *Nothing further comes to my mind.*

Res: Thank you very much for you participation.

Transcription of Interview 5

Res: Do you agree the interview to be recorded?

Respondent: *I agree.*

Res: Few words about you, your specialization.

Respondent: *I am an assistant professor in Nutrition Behavior and Health, in the Department of Home Economics and Ecology. I am dietician and I am teaching the nutrition courses.*

Res: Regarding the Information Services. I introduce you in general to these; when a user searches materials for covering his/her information need and addresses to library's staff in order to support and orientate him/her to valid resources, beyond books, articles, journals, websites for solving the inquiry. This occurs in traditional libraries. When you have a similar inquiry, which means do you use for expressing it?

Respondent: *When I want to find articles, I use two search engines; Scopus and PubMed. The access to Scopus is (funded) through the library. If I can't find relevant results, I'm talking in general about my search process; there is the possibility to send an email to correspondent author, who almost quickly replies, I'm doing the same, as you get citations like this. I'm writing that I am interested in his/her paper asking if he/she can send it to me. 99% send it, if there isn't alternative access. Until now I'm satisfied with the subscriptions that I have through the library of Harokopion, as I find 8 to 10 papers that I want. A second way is to contact with the library-I haven't use it for a long time- and for those (materials) that we don't have subscriptions, we pay a low fee and they send it in electronic format nearly the next day, on the condition that another Greek library hold it. It happened to use this in the past, as it is very useful, the process is also easy and the staff delivers it the next day. I and my master students don't have difficulties in retrieving resources.*

Res: So you select the in person communication, when you ask support of the library.

Respondent: *When I'll contact with the library, I'll be well prepared with the exact information that I need, I won't ask them to search on behalf of me. Sometimes master students visit library asking for support without mentioning that they have already search for the topic of their interest. I'm conveying their experience, that the staff is*

well informed about the materials helping them in maximum. The team is aware of the materials of all fields; there are geography, computers and other (programs). Many students ask that they are looking for this and library's staff direct them correctly where they can find it. It is simple to find resources. So when I'm going to library, I know precisely what I'm looking for or if I don't, I can ask through this process.

Res: This is the main point, how you communicate with the staff, when you need support.

Respondent: *I don't know if it is outdated manner.*

Res: No, no. There isn't out of date way. I just want to find out the prevalent option. Well, have you heard before about Digital Reference Services (DRS) or can you assume what are they?

Respondent: *Is it similar with search engines? Is it the same? Is something like Scopus? Are you referring to ESTIA?*

Res: I don't mean ESTIA, but a service that could be applied to ESTIA. In general DRS are the communication process with the staff of the library exploiting new technologies.

Respondent: *Only in our library?*

Res: Exactly, as the focus of the thesis is for this library. They (DRS) are applied abroad to other libraries.

Respondent: *What do you mean; to send them an email?*

Res: You could send an email, use chat or a kind of Skype, video conference, forum.

Respondent: *Sofia, the university is small, so I am not using these. I had worked abroad, where libraries had to serve dozens of students and assistant professors, you were compelled to do it. There was no time to have an in person relation (with the staff), there wasn't adequate staff for one to one basis; there is one to one type of service here. Really, there are personalized services here. I won't send an email to Ifigenia (the chief librarian) since I can call her, but I know for existence of similar services, as I know that there are others (facilities), there is support for other things to ask them that I want something. I can also enter electronically without bothering them and to order a book. I thought that you meant resources, no.*

Res: No. To the point, these services endeavor to bridge distant users with the library. When someone searches for information in distance and faces difficulties for any reason, a communication channel could be existed.

Respondent: *It is very useful.*

Res: Exactly. You are trying even in distance to support your community providing the same qualitative information.

Respondent: *And many students are long distance learners if they don't come to university every week.*

Res: Especially master students.

Respondent: *So you need a good library for responding; and not searching without result.*

Res: Or while you are searching, someone could help and orientate you to the correct direction. Have you ever used DRS in other digital environments beyond libraries, in various commercial websites?

Respondent: *For finding resources?*

Res: Not only for resources, in general, if you have used email, chat, Skype.

Respondent: *Of course. For receiving information electronically, of course. But I don't have Facebook, if you are asking about this.*

Res: No, this is social media.

Respondent: *I use frequently Skype for communicating with foreign colleagues, but till this I don't have...*

Res: Generally for searching information from other...

Respondent: *I'm searching at Scopus and PubMed, Public Medline, if you know it.*

Res: Even in these, when you need support, do you approach them through email, chat, I am not aware of the provided functions in these.

Respondent: *Do you mean for receiving their reply? If something comes up, you can contact with them.*

Res: So through email mainly.

Respondent: *I have also account in Research Gate where colleagues of mine ask my papers and I do the same with them. It is another way, students can also use it, you are allowing others to follow you, you upload all your papers, you are replying to questions and you are in contact with others. I use mostly Research Gate.*

Res: Ok, when you are in contact with other users through this, do you use email or is it something like a forum?

Respondent: *It is automatic. It is a website.*

Res: So, they comment.

Respondent: *It is known, many colleagues have accounts in it.*

Res: I have heard about it.

Respondent: *I have some top coauthors, 18 followers and I have uploaded my articles. It is very convenient showing the questions and answers.*

Res: This is a part of DRS.

Respondent: *For instance look this question, if someone knows, he/she answers. So a dialogue is started between us. You receive some points as active you are.*

Res: This is the point, the communication.

Respondent: *Here it is appeared that Benyamin something follows you. It facilitates the exchange of papers. And he is Iranian.*

Res: Ok. So you are familiar with this kind of communication.

Respondent: *I am. I use it. There are more sophisticated discussions.*

Res: Do you detect any forms of DRS to be applied by the library?

Respondent: *I use ESTIA, when I want to find students' thesis or dissertations of PhD. I search with keywords and I try to find them. The problem is that you can only read them, you can't download. This is a drawback for students, because they have to read the whole dissertation, so they have to visit the library for printing it.*

Res: Just, if you know if library applies some of electronic communication manners for contact with the staff. As we mentioned chat or Skype.

Respondent: *I haven't ever disturbed them through these means. I know that I can renew my (borrowed) books, but I don't use it. Probably, because I am constantly here, so it is not needed. Maybe during the summer; when I'll try to work in distance.*

Res: Which format of DRS; chat, e-mail, Skype; do you feel that will serve you effectively for using them?

Respondent: *In order to contact with the library's staff?*

Res: Exactly.

Respondent: *I think email; it is less intrusive. Because with Skype and others...Does something operate with Skype having a person available at any time?*

Res: There isn't something now. This is the purpose of my research.

Respondent: *Look, some questions may be automated. If there are standard questions, questions and answers, they can be automated for not required staff behind this. Regarding others (means), I would prefer email.*

Res: Why would you select it?

Respondent: *I think that it is cost effective, as the employee is able to manage the flow of the work. Resources are required, too many human resources for being available someone 24 hours for supporting you.*

Res: And from your point of view? Indeed it is important for the staff.

Respondent: *From my perspective it will be convenient, if someone was available all the time. I could click both was computer or people and ask what I can do, how I can find something, but automatically. Otherwise, it would be very difficult for all these people to exist a natural presence behind it for replying.*

Res: What kind of information will you ask through DRS? Simple one, such as you are looking for a material, or advanced.

Respondent: *I don't know what they (staff) could give me. The only thing that I can think that if I'm looking an article desperately or if a new scientific sector emerges and I don't know what resources exist or if it is worth to deal with it- it happened before to send students ask what literature exist for something that I'm not familiar- the staff to do a search for us. For instance we have many people that interest about arts, archaeology at masters. They are teachers, not scientists, so they ask me to*

conduct unusual thesis that I don't know precisely if it is valid. The library at that point is supportive informing us about the existed bibliography.

Res: Consequently you would ask equivalent information electronically.

Respondent: *Yes, if there is adequate material here.*

Res: Thus it would not complicate for you to request advanced inquiries, would it?

Respondent: *But would they reply? I don't know if it is included to their job description. Because it seems that the staff does your own work; I consider that their role is to find the resource and not to evaluate if it's closer to your topic. It is your responsibility to figure it out.*

Res: What will render convenient the use of DRS?

Respondent: *A friendly and simple website that it (DRS) will be directly noticeable A help flashing icon; a picture of a person with headphones, which can even operate (DRS) automatically, it can be attractive and make you click and ask something. To make its existence noticeable in any way because many users don't know it; you said that it doesn't exist, but if it is applied, it has to be obvious, clear, discernible, conspicuous in order for someone to become aware of the fact that he can ask for help.. Many of us are used to different systems and probably we don't know, we will assume that it is our business to find what we need, that we don't have extra help."*

Res: This has pointed out from other participants; the importance of promoting and marketing of this kind of service would play a vital role.

Respondent: *It is necessary to be informed about its existence. If we (professors) know it, we can promote it to our students, especially in Greece where the majority of universities are small.*

Res: Do you think that you will receive equally accurate information with in-person communication by using the DRS?

Respondent: *Perhaps it would be more effective. It would be faster and as you are trying to write it down, you will be more precise that I'm looking this... It will be the first step to submit it electronically and if there is a misunderstanding then I would try the in person. But you would be more targeted and if someone replies to you there would be any problem.*

Res: Is there something making you reluctant for using this service? There would be a point that you would have some considerations.

Respondent: *No, I don't think that I had any problem. I assume that the conversation would be private, right?*

Res: Maybe yes, there are different implementations of DRS.

Respondent: *So I wouldn't have any problem.*

Res: You focus more on security issue.

Respondent: *Yes, I would like to be sure that it will not lost, someone will find it and will reply.*

Res: Your focus is also on the efficiency of it.

Respondent: *Of course, after the marketing, a trial period should exist for receiving feedbacks if it (service) is understandable, if they like it; and this to operate. Basically Sofia I believe that as years pass- I am many years in academia- sometimes library was everything, you couldn't live without it, you had to know everything. I still remember to visit library in England looking for old books that was pictured in slides. You felt satisfaction when you found what you needed. 50% of my effort was to find the resources. Nowadays, it is consider easy to find information, but the evaluation is difficult. Many students ignore the Library services saying "Do Google", but Google isn't a valid resource and neither is Wikipedia. As the Library services exist it has to be promoted we (the Library) are equally efficient; we will find you books beyond the Library. Many of us pass through the Library thinking that the staff will suggest only 3-4 books and that's all. All journals are in electronic format, I search everything electronically. The older think that the library works as it worked during the decade of 90s which is false. Personally, if I am in too difficult position, I will contact with the library. I motivate more my PhD students to use library for learning how to search. But for my tasks, maybe I am impatient, I don't stay so much or I contact directly with the author asking to send me. It is faster and more efficient. I didn't know that a library has these provisions.*

Res: Because of my thesis, I started thinking to that direction. The gap that has been caused due to the Internet, where you can find much information but the credibility is affected and many aren't aware of the criteria of valid information.

Respondent: *Exactly. It is unthinkable for master students.*

Res: It isn't taken for granted that all master students are aware of it.

Respondent: *They submit their thesis with citations just websites. Another important problem, irrelevant with your topic, in Great Britain we had a strict system for plagiarism, what it means, and its penalties if you copy. Here it isn't established completely. I explain to students that if they find something and want to use it, they have to paraphrase it and not to cut and paste it. There are systems; we have bought one, detecting it, but sometimes they are tempted. They need further train.*

Res: Indeed, information literacy programs are needed.

Respondent: *I think that the library can help us more on this, namely to schedule with us and render compulsory what is plagiarism, how I can retrieve resources. Instead of professors indicate to each student about their faults. It is needed to reinforce students' skills for searching efficiently and quick; to know about good researcher, the keywords, the search fields, the combinations.*

Res: While I was in internship, library organized similar seminars and made it compulsory for Erasmus.

Respondent: *I know their doing a great job, but students of final semesters aren't still aware.*

Res: Ok. Let's go back to DRS. What will motivate you using them? It would make it easier while you search.

Respondent: *Its efficiency. But at this time the library has to prove that it (the reply) would be faster than when I search by myself. I'm sure that this is the same for all colleagues, when we are searching for a paper; we want to find it quickly, why should I use the library as an intermediate, if I can find it through other resources? To be honest for thesis and dissertations I don't have alternative choice, so I'll address to library.*

I'm still thinking of finding resources and not to contact with someone. I feel that it is mine responsibility to find it.

Res: The point is to find resources but to have the support of the library. This service is generally used in other websites as help. I was thinking that in digital collections

there isn't something specific for users to contact at the same time that they are searching.

Respondent: *This would be extremely useful. It is annoying after 3-4 different keywords that don't retrieve results; you close this website and move to the next. It would be also supportive, if it was pointed out from the first time (that you enter in the website) this help.*

Res: This was my thought, you (library) can support community and you will not be lost as library.

Respondent: *Indeed*

Res: And the last question; in which place of ESTIA would an indication of this service be practical; namely at interface?

Respondent: *I think at the most obvious place. I think at the home page or to have something such as a scrolling text saying "in case you have a difficulty, we are here to help you" or "don't hesitate".*

Res: An attractive text.

Respondent: *Which could present a face rendering it more personified; even if it is just an automatic response. "We are here to help you" or if it was possible automatically after the third wrong attempt or if someone –I don't know if a computer has this potential- remains too long connected to the website without retrieving results, a pop up window could appear asking "Do you need any help?". And everything will say "Please".*

[Laughter]

Res: Very interesting. This point wasn't mentioned till now by others and indeed is very interesting to detect after few minutes if user is non-active for activating the service. Do you have to add something further to this?

Respondent: *No.*

Res: Very well.

Respondent: *That was all?*

Res: Yes. Thank you very much!

Transcription of Interview 6

Res: Do you agree the interview to be recorded?

Respondent: *I agree.*

Res: I would like to tell me few words about you, your specialization etc.

Respondent: *I am a Specific and Laboratory Teaching Staff Member (EDIP) at the Department of Home Economics and Ecology in Harokopion University. My specialization is Sociology of Rural Areas.*

Res: Before we focus on the Digital Reference Services (DRS), I will explain you what Information Services are in general. Information Services belong to traditional libraries, where users contact with library's staff as they searching for information, in order to receive from the staff directions about appropriate and credible resources.

Respondent: *Are you referring to electronic resources?*

Res: Not only to these; they can be printed materials.

Res: Which means do you use for contacting with the personnel? Do you visit them in place? Do you use electronic means?

Respondent: *Due to the lack of time, I am not visiting the library so much. I use more the Internet.*

Res: But if you need information, how do you contact?

Respondent: *In the past, I used more the library.*

Res: Usually, did you visit the library or through telephone or email?

Respondent: *I am not close to the building, so I preferred to call. However, I like more visiting the place. I'm missing this relation with the library; the location, the staff. Previously, I liked borrowing books, searching, but now I don't have plenty of time.*

Res: So you are using other sources.

Respondent: *Mostly yes. Digital resources, websites, electronic journals, but I preferred always to be at library for studying, searching.*

Res: This was about traditional Reference Services; can you assume what are Digital Reference Services (DRS)?

Respondent: *Yes, it would be a website where I could submit inquires that I'm looking for a certain topic in a certain thematic field, where I could find information, if there are books or if you [the staff] could orientate me. And through this I could receive instructions and options about the resources, such as the materials of the Library or the agreement with these journals or collaborations with other universities. Therefore, the interested person will have the option of selecting among these sources in a database.*

Res: This is more or less DRS; the traditional services are lasted bringing closer users with the staff of the library by exploiting the potentials of new technologies.

Respondent: *It is a necessity of nowadays, a need maybe comes up from your place during the night.*

Res: This is the purpose of DRS to approach distant users providing similar services.

Respondent: *Exactly. When I am on vacations, far away from Athens, I won't be anxious about accomplishing my job.*

Res: This is the point of these services, even for distant users, master students. So through these services are provided chat, email, video conference like Skype, instant messengers, predefined forms, that someone can use for submitting inquires to staff, who has to reply. If there is the possibility of synchronous services such as chat that you are typing and at the same time...

Respondent: *Even books' renewal could be done, I don't know if this is applied to us. When I was in England, it wasn't necessary to visit library for renewing books, only when I had to return the books, I visited the library.*

Res: The same it happens here [at library] by calling or sending email. This can be an aspect of DRS, but the main focus is during the search. Can you detect any means of chat, email, predefined forms in the library?

Respondent: *To our library?*

Res: If it is used any means this period.

Respondent: *Mainly by calling, perhaps I wasn't in such distance, so it was easier to call for asking information.*

Res: In regards DRS; such as email?

Respondent: *This. I don't know if there is something else.*

Res: Which from these services will be convenient for expressing your information need?

Respondent: *All will be ok for me, I wouldn't have difficulties. It depends on the conditions each time. I believe that every option should be provided so as to select the appropriate in accordance with the occasion.*

Res: Have you ever used similar services in other digital environments; beyond libraries, even in commercial websites?

Respondent: *No, I don't. Though email mainly, when I'm searching something from publishers.*

Res: What kind of inquiries do you think that could you submit through this digital environment?

Respondent: *Mostly about the resources, where I could find something that interested me expecting to lead me even to other libraries in Greece or to resources that library collaborates.*

Res: So you are orientated to this kind of questions. Could you submit advanced or only simple inquiries?

Respondent: *As I'm not familiar, I couldn't ask complicated information at the beginning.*

Res: More introductory?

Respondent: *Are we still referring only to our library?*

Res: Yes

Respondent: *You can't ask directly advanced inquiries. It also depends on the staff, if there is adequate number of staff for replying and focusing to each session.*

Res: Indeed. From your point of view, would you feel convenient?

Respondent: *Maybe yes, I wouldn't have any consideration. I would just think about how they could easily reply.*

Res: So your focus is on credibility of the answer because of the load of the job and the lack of staff?

Respondent: *Not about credibility, only if it would be manageable for the service [the library] to cope with this.*

Res: It is an important factor. What will facilitate the use of these services? Let's assume that you are in the institutional repository, ESTIA.

Respondent: *The existence of a specific place that you could submit inquires.*

Res: Something regarding the means, the software, the staff.

Respondent: *Of course if it [the appropriate infrastructure] doesn't exist, it [DRS] couldn't operate. Additionally, it is essential to be aware that you'll receive an answer to a reasonable time; how immediate answer could be.*

Res: It's true. It plays important role. Do you think that you will receive equally accurate information with in person communication by using the DRS?

Respondent: *In some cases you may receive more accurate information than with in person communication. It isn't easy to be served, when the Library is crowded. When you are at your office and an inquiry comes up, it is easier to write it down and articulate it. Whereas with in person communication... Both have pros and cons. During the in person communication you will start discussing with the other about how he/she is, talking about irrelevant issues and you will lose your train of thoughts. But being at your office and having a specific inquiry, you can handle it better.*

Res: You mentioned an interesting point that it hadn't stated so far. What will make you feel reluctant by using this kind of services?

Respondent: *Nothing. I welcome these innovations, generally I like using technology. I like trying these new things, I am positive. I believe that all have... The in person communication can't be replaced, it is immediate and warmth, but there are moments that you have to complete some tasks straightly, you will send an inquiry from your home late at night. You complete some tasks directly, it isn't necessary to wait until the next morning.*

Res: And you are completing at the same time without having something in abeyance. What will motivate you to use DRS?

Respondent: *The promotion of it. Many times there are things that you don't know, so you can't use them.*

Res: And you find them by chance.

Respondent: *There are some pilot tests for some things without being applied in ordinary life. I'm not referring to this in specific, in general; some things are promoted but they don't operate.*

Res: This is another options, that you can search for using it and then you realize that it is out of order.

Regarding the interface of ESTIA, in which position would be user friendly this kind of reference services?

Respondent: *At the main page of library; at the contact and search page.*

Res: I'm focusing more on ESTIA as it is purely a digital collection. Consequently, when you searching in it...

Respondent: *It could be at the main website of library, not of university.*

Res: At the main page a similar service exists that doesn't use. I'm talking more on the digital collection thinking that if someone access directly to ESTIA and not through the main page.

Respondent: *Perhaps you will have a general question, beyond the digital collection.*

Res: Mine focus is on digital collection for the purpose of my thesis, because users maybe enter directly there, skipping the main website of the library. I was thinking that it would be difficult visiting different pages for submitting a question and precious time would have been lost.

Res: Do you have to add anything else in regards DRS?

Respondent: *Just that it would be useful these kind of services to be applied in our library. Our library provides high level services for 20 years now. These [services] would facilitate both employees for organizing their tasks in the library, it can't be compared calls that are rung and users are approaching with gathering and*

answering totally the inquiries specific times during the working hours. So I believe that it would be helpful for librarians and users equally.

Res: It is an approach to secure your community for addressing to other websites.

Respondent: *When the Library is open and has to serve its public, you can't at the same time give the specialized information that a researcher will ask for.*

Res: This brings to the surface an additional factor, the lack of staff.

Respondent: *It is a combination of all these elements. Maybe what is needed is a person dedicated to the task of answering inquires. You can't serve the public and at the same time be online for these services. Everything is about resources; human resources; financial resources.*

Res: The financial factor is equally crucial for setting up DRS.

Respondent: *Definitely. Updates are required. You saw what happened with ESTIA a few weeks ago, we lost some data.*

Res: When I was organized the survey, I had entered to ESTIA for studying some its parts and I was shocked that I couldn't have access.

[Laughter]

Respondent: *And the damage hasn't still repaired completely. It is not only to start something, it is also important to be able to maintain it.*

The positive with this [DRS] is recording of each inquiry, thus library could distinguish and categorize the interest groups and maintain an archive about the Library's process without having to reply to the same questions constantly. Maybe someone in the future faces a research inquiry similar with mine, so it wouldn't be necessary for the librarian to search for the same things again. A thematic database is created with categories and their subcategories. The point is if you can maintain it with 2-3 people.

Res: It is essential for establishing also frequently asked questions.

Respondent: *It is pointed out the significance of the library. For instance, students from master programs of university have specific interests that are based on the syllabus of each program. Imagine that here with so many departments and masters it*

will be workload for the staff because of the different fields of studies. How could it be possible to be answered to these inquiries? It is very difficult.

Res: This was discussed with other participants, about the role of professor for orientating library's staff for the upcoming needs.

Respondent: Professors should be prepared by themselves for orientating effectively students. Each university has specific research fields, thus more our students search for materials instead of external users, who will think Harokopion for their search. It is not absolute; I know people from Open University interested in civilization who are studying to our library.

Res: Ok. That was all from me. Thank you very much.

Respondent: *Ok. Good luck.*