

Joseph Frank Rogani



School of Informatics

**Division of Information
and Communication Studies**



**Università degli Studi di
Parma**

Dipartimento dei Beni Culturali

MSc International Information Studies

Library Consortia and E-Journals

**The *Emeroteca Virtuale* and users' satisfaction
at the University of Calabria**

2004/2005

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List of Abbreviations

ALA	American Library Association
ANSI	American National Standards Institute
CASPUR	Consorzio Interuniversitario per le applicazioni di supercalcolo per Università e Ricerca
CERN	Conseil Européen pour la Recherche Nucléaire
CIBER	Coordinamento Interuniversitario Basi dati & Editoria in Rete
CIC	Committee on Institutional Co-operation
CILEA	Consorzio Interuniversitario Lombardo per l'Elaborazione Automatica
CURL	Consortium of University Research Libraries
CSA	Cambridge Scientific Abstracts
DOI	Digital Object Identifier
EV	Emeroteca Virtuale
FAQ	Frequently Asked Questions
FTP	File Transfer Protocol
GAELIC	Guateng and Environs Library Consortium
ICOLC	International Coalition of Library Consortia
JANET	Joint Academic Network
JSTOR	Journal Storage
LISA	Library and Information Science Abstracts
MALMAD	The Israel Centre for Digital Information Services
MELVYL	The Catalog of the University of California Libraries
OPAC	Online Public Access Catalogue
PALCI	Pennsylvania Academic Library Connection Initiative
PCI	Periodicals Contents Index
PDA	Personal Digital Assistant
PDF	Portable Document Format
SABINET	South African Bibliographic and Information Network
SBN	Servizio Bibliotecario Nazionale
SDC	System Development Corporation
SDO	Standards Development Organizations
WWW	World Wide Web

Acknowledgements

I would like to thank the people who completed the questionnaire and were available for the interviews.

Special thanks go to Prof. Anna Maria Tammaro (University of Parma), who followed my efforts and supported my studies with enthusiasm and patience.

I give my thanks also to the teachers and tutors I met at the University of Northumbria, where I spent an interesting and useful period of study.

Finally, I would like to thank anyone who encouraged me to go on with this research.

Declaration

This dissertation is the sole work of the author, and is developed from a research proposal submitted by the author in Year two, Session 1 as part of the BP101 Unit (Independent study unit for Information Studies 2) of the course.

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Abstract

The interest in academic library consortia has recently grown: this seems to indicate the necessity of collaboration for academic libraries, particularly in spite of increasing costs of collection materials and electronic resources. Furthermore, libraries now need new guidelines for conducting cost-effectiveness and cost-benefit analyses and benchmarks for making decisions. Instruments and practices are needed to assess whether users are really satisfied with the resources libraries provide. Academic libraries need more and more reliable, comparative, quantitative baseline data across disciplines and institutions as a context for interpreting qualitative and quantitative data, in order to understand what is happening locally and how to improve services.

Given for granted the importance of such issues, this research intends to focus on the use of a library consortium service, the *Emeroteca Virtuale*, at the University of Calabria, Italy. The purpose is also to better understand users' satisfaction with this particular consortium service and their expectations as regards the library system's electronic services.

A short, introductory but important analysis is reported in this research, concerning the online services that some main editors provide users with. This allows the reader to better understand the state-of-the-art of online services related to e-journals. Some details are given in this research, underlining the most important services currently available on the international market for both researchers and librarians.

Then, after having defined a literature review, in order to get usable results both quantitative and qualitative methodologies were used, according to the observing and questioning technique so to obtain triangulation. For each methodology that was used, purposes, advantages and limitations for this research are clearly stated.

First of all, after a focus group that meant to gather illuminative and generalized data, a questionnaire was carefully prepared and then submitted to patrons, choosing a sample made of 1,350 people. The questionnaire, composed of twenty questions, was submitted both on person (meeting people, not only at libraries but also at laboratories, faculty departments and other places around the campus) and via e-mail. Then, twenty of them were also interviewed and important findings were gathered. Quotes from users are reported in this research, showing feelings and observations that will certainly help us to better manage a future change in the e-journals service provision at our campus.

The questionnaire's response rate was quite good (41.48%), as 560 people over 1,350 answered the questionnaire. This research shows how, notwithstanding a good familiarity

with the Library System web page (43% of users), 64% of respondents do not use the Emeroteca Virtuale in their study or research activity. Frequency of use, as well as reasons for use and non use of this tool were investigated and results are reported in this research, which also shows what are the main problems users face while performing their searches in the Emeroteca Virtuale.

Furthermore, thanks to this research, we now know what kind of suggestions users can give in order to improve the use of the Emeroteca Virtuale, while their research habits were investigated.

The questionnaire also intended to measure users' satisfaction with the services provided by the Emeroteca Virtuale and to evaluate the impact on users of some initiatives that the Library System could propose.

Results reported in this research are quite interesting and they demonstrate not only that users are interested in having more journal titles available and an improved service for remote access, but also that they would be particularly satisfied if more information and more training on the use of electronic tools were provided at the libraries.

What is more, a usability test was performed, involving 5 people from different categories, in order to assess the ease of use and the usefulness of the *Emeroteca Virtuale*. The participant observation intended to focus on this digital tool, while comments from users were carefully noticed by the researcher, outlining users' behaviour while performing the scheduled three different tasks. Furthermore, the number of clicks of the mouse and time needed to perform each task were also measured. Finally, a post-test questionnaire was submitted and results show that most users find it easy to perform searches in the Emeroteca Virtuale.

The final analysis led to the drawing up of logical findings and conclusions based on data. Results of the whole investigation are reported using graphs and citing quotes from interviewed users, adding a qualitative perspective to the research.

Results finally allow us to define the level of users' satisfaction with the electronic services at our campus and, in particular, with the Emeroteca Virtuale.

Recommendations for further research are also given, together with a definition of the limitations of this research.

Finally, since no previous study had been done at our University, this work can be considered useful in order to fill the gap and is a good starting point for further improvements:

we know our patrons deeper and we are now prepared to manage new changes to improve access to e-journals at our campus especially through consortium agreements, as well as to improve new services in order to meet users' satisfaction.

Chapter 1

Introduction

1.1 Presentation of the Research and Problem Statement

The potential amount of electronic content available to academic researchers is tremendously increasing; for this reason, it is more and more important both to buy electronic access at cheaper solutions and to improve our knowledge on how users perceive the tools used by library consortia in order to deliver information. As a library manager involved in the management of electronic resources at the University of Calabria (Italy), the researcher is interested in the new development of library consortia solutions and, in particular, in how users perceive the consortia services provided through our Library System.

What the researcher intends to show here is that nowadays consortia have become an important way of doing business and extending access to information for patrons at our University.

It is known that today many libraries are turning digital, or are improving electronic services among the more traditional ones [Lesley M. Moyo, 2002]. Sometimes they start as brand new digital libraries, with no paper-based documents. What seems important in this evolving scenario is that libraries of every kind are experiencing the benefits of “being together” [Neil R. Wylie and Tamara L. Yeager, 1999]. So, library consortia appear as a possible solution for everyone who aims at having, at lower costs, a global and precise access to a vast amount of information that is not only useful for those who carry out scientific research but also for all those who work in different fields of knowledge [Anna Maria Tammaro, 1999].

Web portals worldwide, like just for example, the Boston Library Consortium portal [Mary E. Jackson, and Barbara G. Preece, 2002], now provide everyone with online access to library catalogues and to different kinds of digitised content and services, e-journals and e-books. Another famous example is the OhioLINK, which provides shared online research databases and full-text retrieval services [Arnold Hirshon, 1995].

All this helps to understand how important electronic information is in our society and, in particular, for academic realities, which represent (or at least, should represent) a firm point of reference and the right way to improve knowledge. This is true not only for researchers and

teachers, but also for students, professionals and common people who attend libraries (physically or virtually) in order to gain the specific information they need.

The researcher was pushed to start such a research by different reasons: first, he has realized that at our University Campus, consortium agreements are well established and electronic journals represent the main information resource for most of our academic users. Then, he is convinced that user satisfaction is one of the most important objectives a library system must pursue.

What he expects to achieve with this research is, first of all, a deeper knowledge of our university patrons, in particular as regards their perceptions about the “*Emeroteca Virtuale*” (an e-journal service provided by the Italian CIBER library consortium), thanks to some observations and investigations leading to an increased knowledge both about users and the directions our library system might follow in order to improve its efficacy and efficiency within its new “electronic” shape.

What is more, the researcher personally expects to improve his personal knowledge about innovating strategies dealing with e-library management and to transfer the new acquired competencies within his daily work environment.

As regards both the design phase of the research and its practical development, the researcher had to face many problems, especially because he had to carry on the research all by himself, taking advantage of his very little spare time, after office hours.

In this first chapter, the researcher provides a very short description of what the reader will find throughout the dissertation. Furthermore, he defines here the focus of this research, explaining its aims and objectives.

In chapter two, the researcher defines the background context of this research, the University of Calabria (Italy), trying to outline its main features and how the Library System is structured with its electronic collections. What is more, a brief introduction to consortia electronic services is provided.

In chapter three, the researcher provides a literature review about library consortia in general, so to define somehow the cultural context where to insert the investigations of this research. The expected outcome of this section is to give the reader a brief overview about issues affecting library consortia within the context of the new information society. The idea is to make the reader understand the importance of library consortia and then to outline the need of continuously monitoring the reaction of users to every important change in information delivering within the evolving electronic libraries.

In chapter four, the researcher introduces the reader to the methodology used in this research for data collection and analysis, showing that both quantitative and qualitative techniques have been used. Both the direct observation of users and the submission of a survey have really helped to achieve a better understanding of our patrons' needs.

In chapter five, the results of this research are finally reported. Here, graphs are shown indicating findings in more detail. Furthermore, in this section the researcher intends to demonstrate, thanks to the gained data, that monitoring customer satisfaction and implementing new technologies related to e-journals are useful and necessary steps to follow in order to improve the quality of the services we deliver.

In chapter six, the researcher introduces his conclusions about this research, the overall results and personal achievements this work has brought, also indicating possible further research and improvements.

In chapter seven, he tries to show the reader what are the limitations of this research, defining a reflective review.

Finally, a bibliography and four appendixes are appended.

1.2 The Gap

As regards the present situation at our University Campus, consortium agreements are well established and electronic journals represent the main information resource for most of our academic users. However, until now, there is no indication of how consortia services are perceived by patrons at our University.

For this reason, it would be useful to measure and evaluate the campus digital library [Anna Maria Tamaro, 2000] and, in our case in particular, to find out how the consortium service called "*Emeroteca Virtuale*" (EV) is perceived.

In order to fill this gap, it is necessary to evaluate the impression that teachers, students and staff have about the scholarly information provided by library consortia in terms of ease of access and usefulness; underlining, in particular, which kind of services and journals consortia offer and what else our patrons would like to have access to.

In order to make cooperation really effective for our users, such issues must be considered and satisfaction about both library quality [Anne Martensen and Gronholdt, 2003] and electronic services must be investigated.

1.3 Definition of the focus, aims, objectives and questions

This research starts from the fact that consortia have become an important way of doing business and extending access to information for our patrons at the University of Calabria.

The focus is on how our users perceive the services provided by library consortia agreements [Arnold Hirshon, 1999], as well as on how those services can actually improve global access to information within an ever developing learning centre. In fact, in such a new service environment, consortia leaders are trying to figure out how best to support and serve their member libraries, and e-reference is one of those services expected to add value [A. Peters, 2002].

Moreover, as it has already been suggested [Jennifer Rowley, 2000], libraries now face a number of critical questions due to the transition from print to electronic journals. In such a context, consortia play an important role [Li Aiguo, 2003] while we try to understand whether our Library System should discontinue print subscriptions, if our users are satisfied or not with the services provided by consortia and what else they need.

Furthermore, in order for consortia to be more effective, it would be important to have much higher quality and more consistent data about usage than we have now [Ann Okerson et al., 2003]. In this respect, this research aims at a better understanding of how our university patrons use the “*EV*” consortium service. So, this research primarily deals with the ever expanding journals access through consortia services and, in particular, it focuses on the satisfaction of users about our Library System service called “*Emeroteca Virtuale*”.

1.3.1 Definition of the Aim

The main aim of this research is:

- To provide evidence of the necessity to support cooperative initiatives to improve the dissemination of scholarly information.

1.3.2 Definition of Objectives

The main objectives of this research are:

- To outline users’ satisfaction related to the quality and usefulness of the consortia services provided by our digital library;
- To understand what kind of actions are mainly necessary to improve online access.

Library users now experiment the new environment of Digital Libraries that involve different electronic resources and services like databases and bibliographic systems and, of course, the

World Wide Web. The observation of how this e-information is used is useful not only to evaluate digital libraries, but also to understand how research is evolving.

1.3.3 Research questions

This research intends to find an answer to the following questions:

- a) Do our users know the Library System website?
- b) Are users aware of the “Emeroteca Virtuale” and with what frequency do they use it?
- c) What are the main reasons to use or not to use the “Emeroteca Virtuale”?
- d) What is the user’s level of satisfaction with the “Emeroteca Virtuale”?
- e) What kind of suggestions can users give us both to improve satisfaction with the “Emeroteca Virtuale” and with other e-journals at our campus?

1.4 E-libraries and user satisfaction

As already pointed out [Nancy Buchanan, 1995], early in 1994, you could find lots of library resources on the Internet. Library catalogues, electronic books, electronic periodicals, periodical indexes, reference sources were already available. Furthermore, U.S. Government documents were available by Telnet, Gopher, World Wide Web and FTP.

Then, when in 1994 the browser Mosaic was freely distributed, it enormously improved the World Wide Web that had been invented four years earlier at CERN. Mosaic introduced the Hypertext and the idea that you could “browse” from an information bit to another simply by a click.

Today, it is widely known that commercial sites aim at the complete satisfaction of users’ needs. Within this context, the researcher thinks that also today libraries have to develop some instruments that are able to distinguish between different kinds of customers and to identify “*preferred customers*” the moment they sign on, treating them differently from other users.

The right technology to do this already exists and it is based on data mining techniques that exploit the vast amount of data, which each company or, as in our case, a library can gather about their “*clients*” and store in customer files hosted into more or less great data warehouses.

According to the idea that users should want to search any kind of information through every means, e-libraries are already a reality and many physical libraries are turning digital: data and library records, previously scheduled on paper, are recorded onto large databases which give the chance to save space and time. These databases are also available on the Internet so that a remote user can take advantage of them. Moreover, e-books are today a

revolution in reading, while e-journals are already a widespread reality as well as print on demand books and video on demand services. Of course this doesn't mean that physical libraries are going to die or that the change process is immediate.

In order to satisfy users, information must be organized keeping in mind that users and their expectations are different. Especially in academic and scientific fields you would expect researchers to deeply use electronic materials, as well as print reading and face-to-face outlets. And also the Internet should be largely used, keeping in mind that on the Web things are different: users face web usability before deciding if they are really interested and before spending their money [Jacob Nielsen, 2000].

As Tim Berners Lee used to say, the World Wide Web is like an immense book where you can find everything. Actually, the Web is becoming the "*de facto*" standard for delivering database content and that's why many academics now choose to publish their papers on the Web. Obviously, it is also necessary to consider the question of information reliability: in fact, resources within a digital library are more reliable than surfing the Internet without any guide [Howard Richardson, 2001].

1.4.1 Users' satisfaction with the Emeroteca Virtuale

In order to measure and evaluate the impact of the new Library System consortium service called "*Emeroteca Virtuale*" on our users, at first the researcher decided to prepare and submit a questionnaire that defines the profile of our patrons and that helps to carry out a survey, also supported by interviews, in order to collect specific data and personal impressions, while making some direct observations on users. Finally, data are analysed and the results obtained are presented in this work and represent the core of this study.

The other sections of this work are necessary to make the reader aware that we need not only to continuously improve cooperative agreements, but that we also need, as professional librarians and library managers, to monitor the reaction of our users to the ever-changing electronic services that library consortia are delivering.

References

- 1) Aiguo, Li (2003). *Calis: acquiring electronic resources*. In “Library Collections, Acquisitions, & Technical Services”, Vol. 27, Issue 2, pp. 261-267.
- 2) Greenberg, Paul (2002). *CRM at the Speed of Light: Capturing and keeping customer in Internet Real Time*. New York: McGraw-Hill/Osborne.
- 3) Hirshon, Arnold (1999). *Libraries, Consortia, and Change Management*. In “The Journal of Academic Librarianship”, Vol. 25, Issue 2, pp. 124-126.
- 4) Hirshon, Arnold (1999). *The development of library client service programs and the role of library consortia*. In “Library Consortium Management. An International Journal”, Vol. 1, Issue 3-4, pp. 59 – 75.
- 5) Jackson, Mary E. and Preece, Barbara G. (2002). *Consortia and the Portal Challenge*. In “The Journal of Academic Librarianship”, Vol. 28, Issue 3, pp. 160-162.
- 6) Martensen, Anne and Gronholdt, Lars (2003). *Improving Library Users’ Perceived Quality, Satisfaction and Loyalty: An Integrated Measurement and Management System*. In “The Journal of Academic Librarianship”, Vol. 29, Issue 3.
- 7) Moyo, Lesley M.(2002). *Collections on the Web: some access and navigation issues*. In “Library Collections, Acquisitions & Technical Services”, Vol. 26, Issue 1, pp. 47-59.
- 8) Nielsen, Jacob (2000). *Designing Web Usability*. Indianapolis, Ind.: New Riders.
- 9) Okerson, Ann et al.(2003). *International Coalition of Library Consortia Statement of Current Perspective and Preferred Practices for the Selection and Purchase of Electronic Information*. In “Serials Review”, Vol. 29, Issue 1, pp. 3-4.
- 10) Peters, A. (2002). *E-reference: How Consortia Add Value*. In “The Journal of Academic Librarianship”, Vol. 28, Issue 4, pp. 248-250.
- 11) Richardson, Howard (2001). *Solving Access Problems*. In “ONLINE”, pp. 16-22.
- 12) Rowley, Jennifer (2000). *The question of electronic journals*. In “Library Hi-Tech”, Vol. 18, Issue 1, pp. 46 – 54.
- 13) Tamaro, Anna Maria (1999). *Consorti di biblioteche. La cooperazione non è più un mito*. In “Biblioteche Oggi”, pp. 80-84.
- 14) Tamaro, Anna Maria (2000). *Misurazione e valutazione della biblioteca digitale*. In “Biblioteche Oggi”, pp. 66-70.
- 15) Wylie, Neil R. and Yeager, Tamara L. (1999). *Library Cooperation*. In “New Directions for Higher Education”, Issue 106, pp. 27-35.

Chapter 2

Fieldwork

2.1 Introduction: libraries today

Making better business decisions leads a modern library (considered as a business enterprise) to success. The *decision-making* process is nowadays helped by the new technologies, which provide efficient tools to consolidate data and uncover relationships, patterns and trends, giving the manager the possibility to access, understand and utilize information and metadata.

With this premise, we can't forget that one of the pillars of modern librarianship is *resource sharing*, that just new technologies have helped to increase. The main objective of resource sharing is to maximize the availability of materials and services while minimizing expenses.

As a consequence, since libraries cannot be comprehensive in their collections, a good management of the new library will have to take into great account the need for co-operation.

In such a new environment, it appears clear that networking in library and information systems leads to a series of benefits, like sharing experiences, creating sources for resources, developing strategic alliances, facilitating collaboration and co-operation, training and development of professional librarians.

Talking about networking also means pointing at electronic libraries: librarians will increasingly need to provide their traditional services, as well as new ones, in some digital format rather than necessarily expect face-to-face contact with users.

The information services manager responsible for the electronic library will have to consider a number of issues relating to the provision, control and flow of information in an electronic space. These issues will be both managerial and technical, and will deal with resource discovery, resource delivery, resource utilization, infrastructure provision and resource management.

Of course, what will be crucial to the success of electronic libraries is the quality of information content. In fact, libraries, not only will have to decide how much to hold and manage in electronic form, and how much in traditional form, but also will have to decide how much to access from different regional, national and international digital collections. Furthermore, the quantity of online digital information keeps increasing every year. So it is necessary to know how to preserve both the information and the tools to access that information. Access to electronic resources will need to be considered from a number of

different perspectives, that is to say considering users, subject discipline, information providers and available technical infrastructure.

In general, we should note that the impact of information technology on the human resources function has been both pervasive and profound. In a plan to improve the quality of the library services, IT systems can generate large quantities of information previously unavailable to the organisation, becoming a potent weapon for lowering administrative costs, increasing productivity, seeding response time, improving decision making and enhancing user services.

2.2 Environmental background context of this research: the University of Calabria

The University of Calabria, situated in Southern Italy, is a medium-size university. Its didactic and scientific activities started in the academic year 1972-1973 and it is a major example of a residential university campus in Italy.

The university campus is organized in quarters where about 3,000 students live; it also gives hospitality to some teachers and their families. Today the University has about 30,000 students, an annual budget of more than 40 million Euros and land, buildings and equipment worth more than 400 million Euros. The teaching staff consists of about 900 units, including full professors, associate professors, assistants and researchers; technical and administrative staff consists of 800 permanent units and 62 temporary ones.

The University campus is situated in a green area, close to the village of Arcavacata, four kilometres from the historical centre of Rende and ten from the town of Cosenza. At present it includes a bank and two cash-points, a post office, a university bookshop, an Internet point, sports facilities, a travel agency, social and recreational facilities, refreshment-rooms, a twenty-four hour a day first-aid station, a newsagent's, a tobacconist's, a stationer's, a photocopy shop, a University Catholic Chapel and the University Parish Church.

The University is organized in six Faculties (Arts, Economics, Engineering, Mathematical, Physical and Natural Sciences, Political Science, Pharmacy) and 23 Departments. It offers 43 "Laurea" Degree Courses, 22 Second Degree Courses, and other 3 "Laurea" Degree Courses (unbroken cycle – 5 years).

All departments have research programmes, which stimulate and enrich the teaching activity. There is an extensive contact with other Italian and foreign universities and research establishments.

The University Library System consists of three main libraries (Humanities, Science and Technology, Economics and Social Sciences) and all its electronic services are managed by

the Office for Library Automation. This system is located in a brand new building, which was inaugurated on 7 February 2001 by the President of the Italian Republic, Carlo Azeglio Ciampi. It is a self-service library system and the reader can go through the bookshelves within the three libraries. Measuring 20,000 square metres, this building is one of the biggest in the south of Italy, with 900 seats and 300 network points. On 31 December 2003 the Library System owned more than 400,000 physical documents, provided access to more than 7,000 e-journals and to a lot of databases.

2.3 The University Library System¹

As we know, libraries are facing more and more difficult situations and making decisions is becoming more and more complex, since both human and economic resources are becoming scarcer. In this context, consortia are clearly important since they assist libraries in implementing and managing the process of change and collection development [Yasar Tonta, 2001].

Our library system is directly involved in the process of change and has chosen to benefit from services provided by library consortia, primarily as far as access to e-journals is concerned. Databases and other forms of e-content are also available.

At the moment, our university campus has access to many e-journals (almost 9,000) from the major publishers (like Elsevier, Blackwell Science, American Chemical Society, Kluwer and Wiley) thanks to a consortia service provided by CIBER-CASPUR. Another consortium agreement gives us access to some economics databases like Econ-Lit and others. *JSTOR* is provided by another Italian consortium, CILEA.

As regards CIBER, access to online journals is organized within a Web portal called “*Emeroteca Virtuale*” and the present research focuses just on the use of this portal, as the researcher thinks it is important to understand how this kind of services are perceived by our users and to find out if they would like to have something different from what we now provide them with.

A lot of our users demonstrate a great interest in the Library System activities: both students and teachers often ask for specific services and wonder how their libraries can fully satisfy their growing needs. However, among them, some rarely come and visit the library, though they still try to keep informed: many e-mails are received and phone calls arriving every day show that our library system is quite “visible” to our users. Notwithstanding this, it is evident that remote services could be enhanced in order to better meet our users’ distance-

¹ For more information, please visit the library system website at < <http://www.biblioteche.unical.it> >.

learning needs, particularly if we consider the home poor context where many students generally live (think about isolated little villages without effective and well working infrastructures) and library consortia surely represent a good chance to satisfy these needs. In fact, it must be considered that access often gives the opportunity to provide specific academic information also to those users who are not always able to live at the Campus.

Library Consortia generally get products at a lower cost than individual libraries, because they offer publishers the opportunity to sell to a very large number of users at once and to save on their marketing and administrative costs [Ralph Alberico, 2002]. What is more, research has demonstrated that access is more convenient than ownership [Anna Maria Tammara, 1998].

<i>Consortium Name</i>	<i>CIBER “Emeroteca Viruale”</i>	<i>CILEA</i>	<i>SIBA</i>	<i>Burioni</i>
	Elsevier	JSTOR	EconLit	PCI Full Text
	Blackwell Publishing		Current Contents	PCI Index
	American Chemical Society		ABI Inform	OED (Oxford English Dictionary)
	Kluwer Academic Publisher		CSA	
	Kluwer Law Online			
	Wiley Interscience			
	Nature Group Publishing			
	Institute of Physics			
	Cell Press			
	University of Lecce – Coordinamento SIBA			
	ISI Web of Knowledge			

Tab. 1 Consortia collections at the University of Calabria

A wide range of specific scientific documents are available, which would be almost impossible to gather in a printed format.

Furthermore, online access also allows us to gather different kinds of information resources that generally satisfy the varied needs of our users at a much more convenient cost if compared to print subscriptions. However, cost is not the only factor involved in the choice: the different services that editors are generally able to provide through consortia agreements are important elements that influence the acquisition decision-making process.

2.4 Features of the Emeroteca Virtuale

The Emeroteca Virtuale is designed to provide electronic access to full text articles (viewable both as PDF files and HTML) for many of the scientific, technical, and medical journals to which the institutions participating in the consortium agreement subscribe. Patrons can browse journal titles, search for specific information, or research subjects areas in detail. Through the bibliographic page, one can access relevant information about the articles including titles, author names, and article abstracts. Furthermore, starting from the following web page (fig.1), the *EV* provides registered users with peculiar features, which are shown more in detail in the following sub-paragraphs.

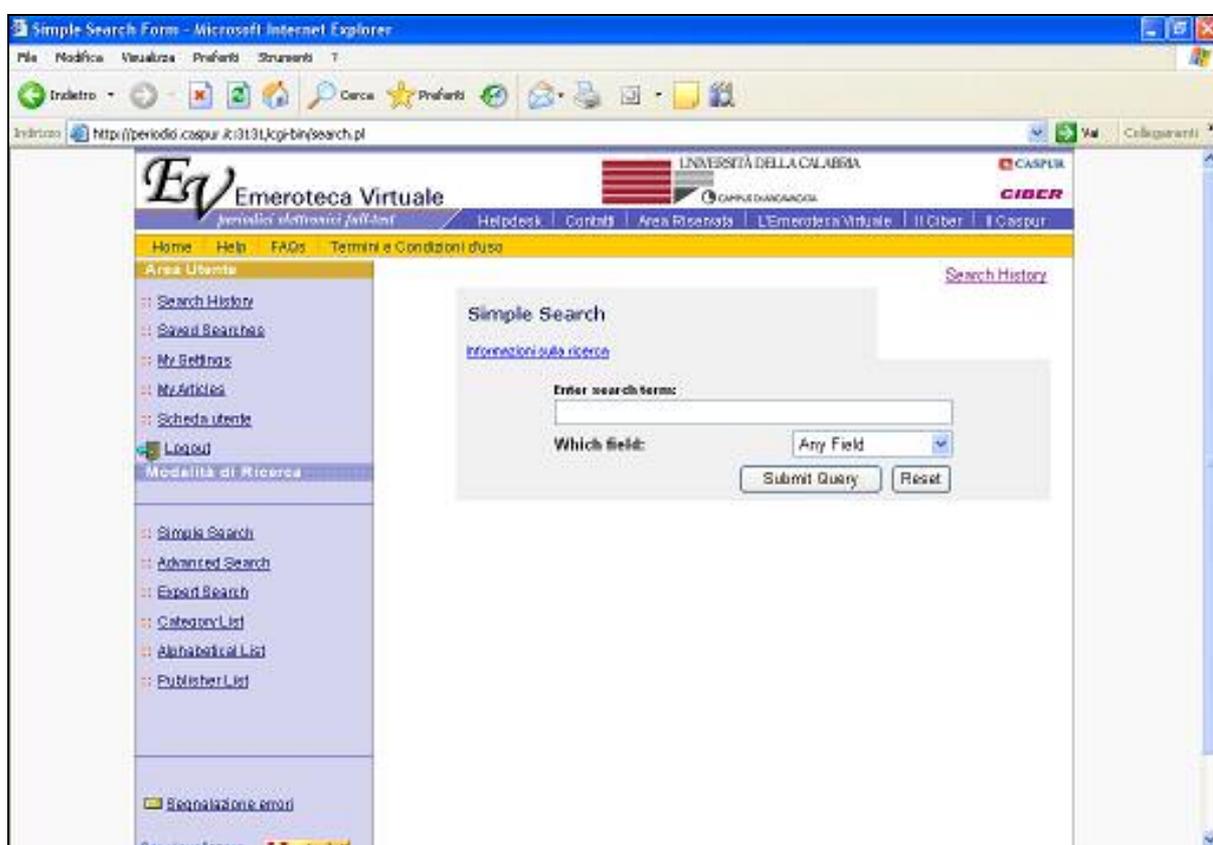


Fig. 1. The *Emeroteca Virtuale* web page reserved to registered users

CrossRef links are also available. CrossRef is a collaborative linking service that stores the address of articles, allowing users to link to the location for the full text of articles for participating publishers. CrossRef does not host the full text or abstracts of any journals, but simply enables linking to and from the journals contributed by participating publishers. Of course, access to full text documents at the journal publishers' web site may require a separate subscription agreement with the publisher.

2.4.1 Search History

The first feature we find once entered the personal reserved area is the “Search History”. In this section, one can have a precise idea of all previous searches performed.

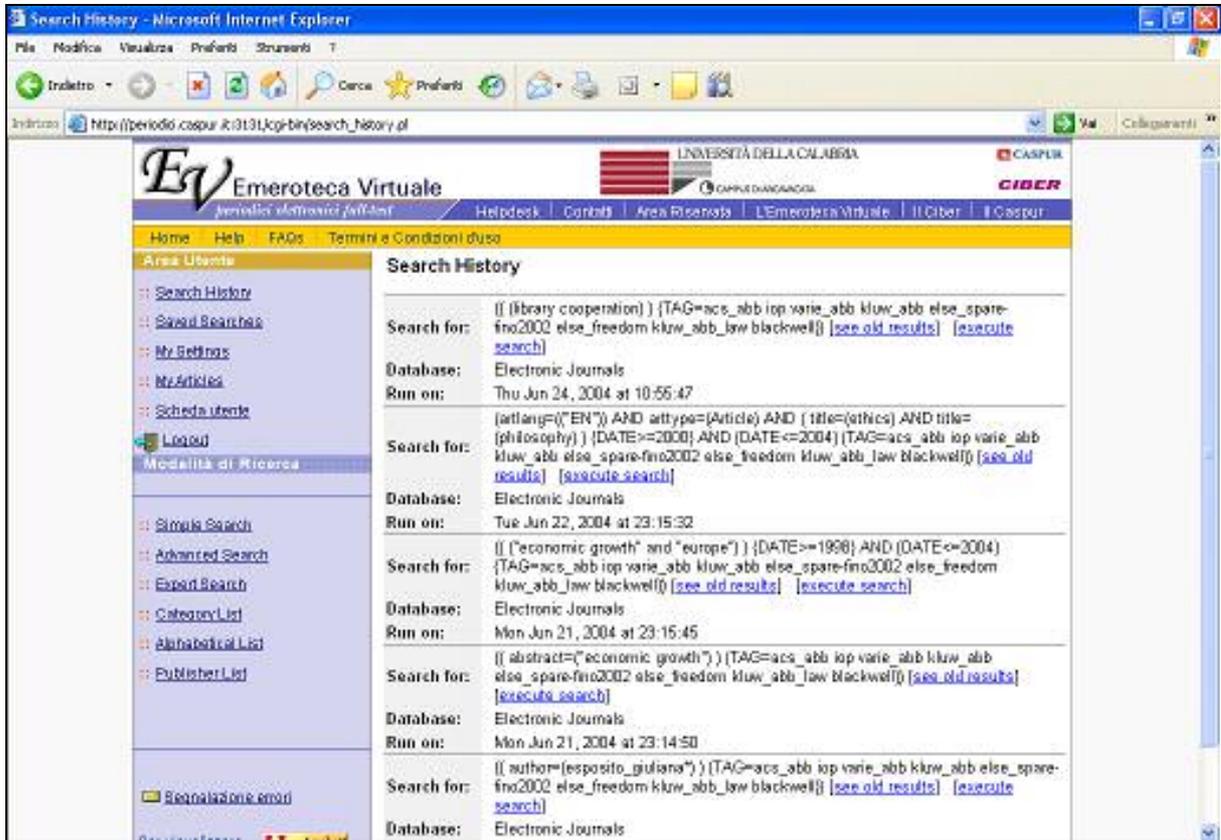


Fig.2. The “Search History” feature on the Emeroteca Virtuale

For each entry, the researcher can decide both to see old results or to execute search again.

2.4.2 Saved Searches

As shown in the figure below, saved searches can be rerun, edited, suspended or deleted.

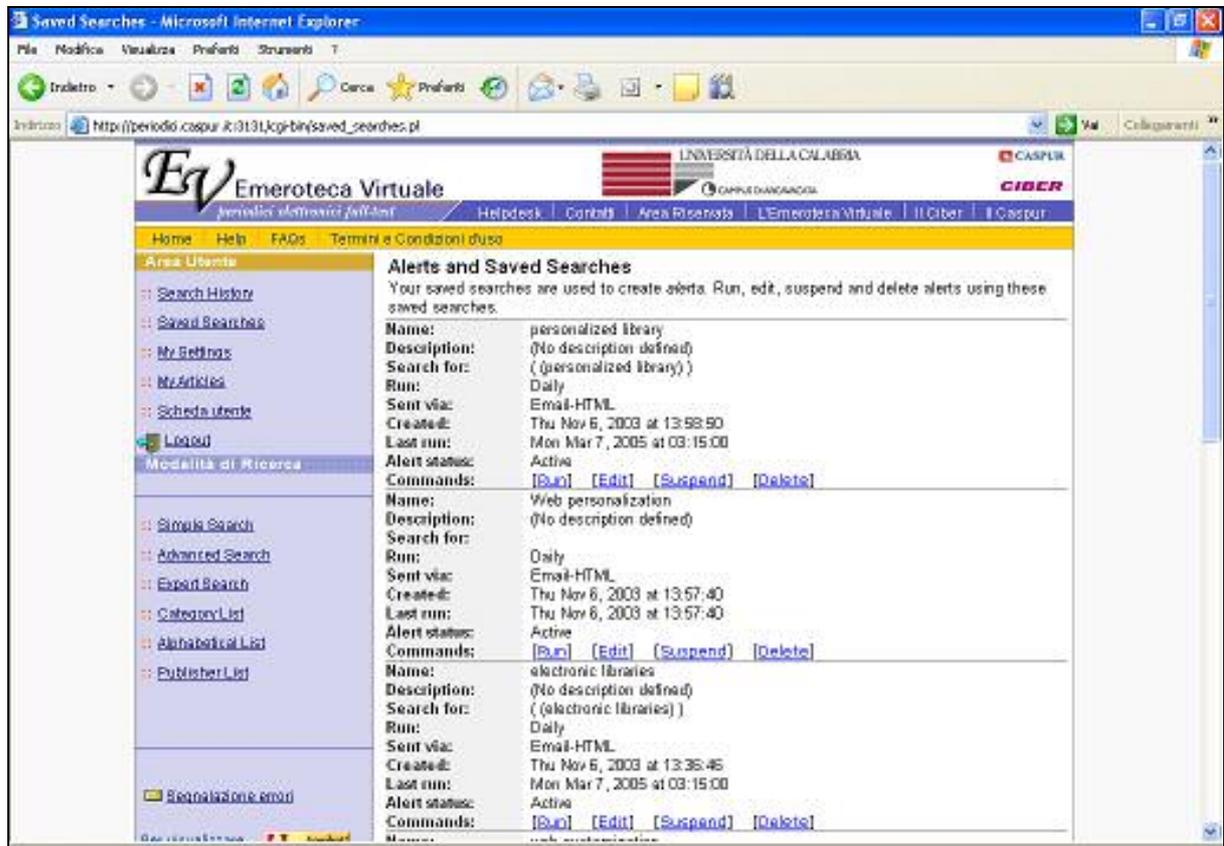


Fig. 3. The “Saved Searches” feature on the Emeroteca Virtuale

These saved searches are used by the system in order to create alerts that are sent to the mail box of registered users.

2.4.3 My Settings

In this section, the system allows a user to set preferences about the default search form, the entries in search history, the e-mail address where alerts must be sent, the automatic search frequency, the limit to article searching and the preferred format for the automatic search delivery.



Fig. 4. The “My Settings” feature on the Emeroteca Virtuale

Finally, preferred settings can be saved or fields can be cleared for new settings.

2.4.4 My Articles

In this section, users can permanently store all articles they have selected during their searches and both the link to the full-text and that to the bibliographic page are present.

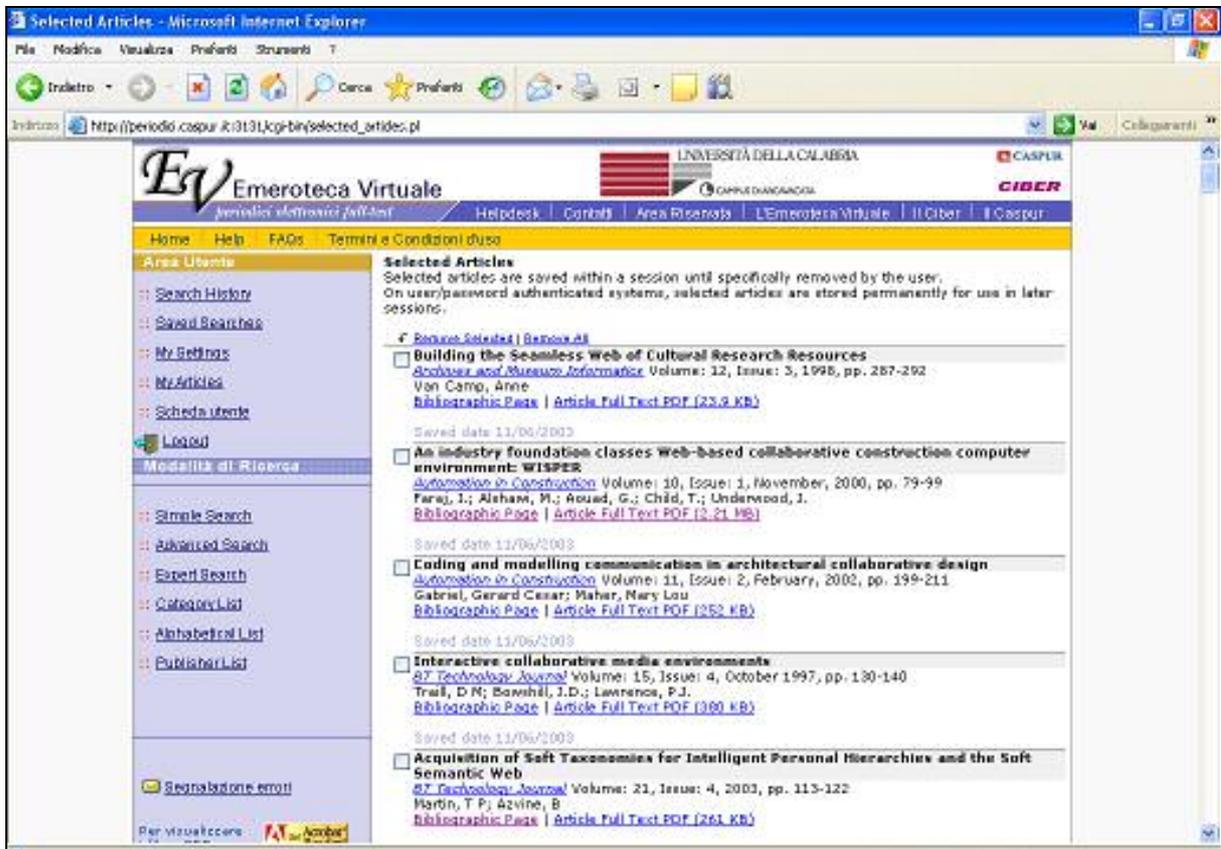


Fig. 5. The “My Articles” feature on the Emeroteca Virtuale

Selected articles remain in this area until removed by the user, who can choose to remove them all or just selected ones.

2.4.5 User Profile (Scheda Utente)

This is the section where registered users fill in personal data. Many of these data are mandatory, like name and surname, the name of the institution, the e-mail address where to send alerts, the password chosen, a secret question and the related answer, just in case a user forgets his password.

Fig. 6. The “User Profile” (Scheda Utente) feature on the Emeroteca Virtuale

Finally, a “Logout” link allows the registered user to exit the reserved area and go back to the Emeroteca Virtuale’s home page.

2.5 Services from the major editors available on the Emeroteca Virtuale

All different editors, whose links are introduced on the Emeroteca Virtuale home page, provide users with some personalised services, which are available once a user has registered with the editor’s website. Because there is not enough space in this work, just some main examples from all editors for lack of space in this work, details related to some main editors present in the *EV* are given here below.

2.5.1 Blackwell Publishing

Blackwell Publishing provides librarians with a reserved area called "The Librarian Site". In this reserved space, it is possible to retrieve further information about the online journals collection and purchasing options for library consortia, browse through recent issues of a Newsletter and keep up-to-date with the latest developments in Blackwell's journals publishing. The "Marketing Resources" link, which is present in this area, allows the downloading of materials for promoting online journals to faculty and students. Then, information about Blackwell's online journals Collection and Blackwell Synergy are also available in Chinese, Japanese, Arabic, Russian, Spanish, French and Portuguese.

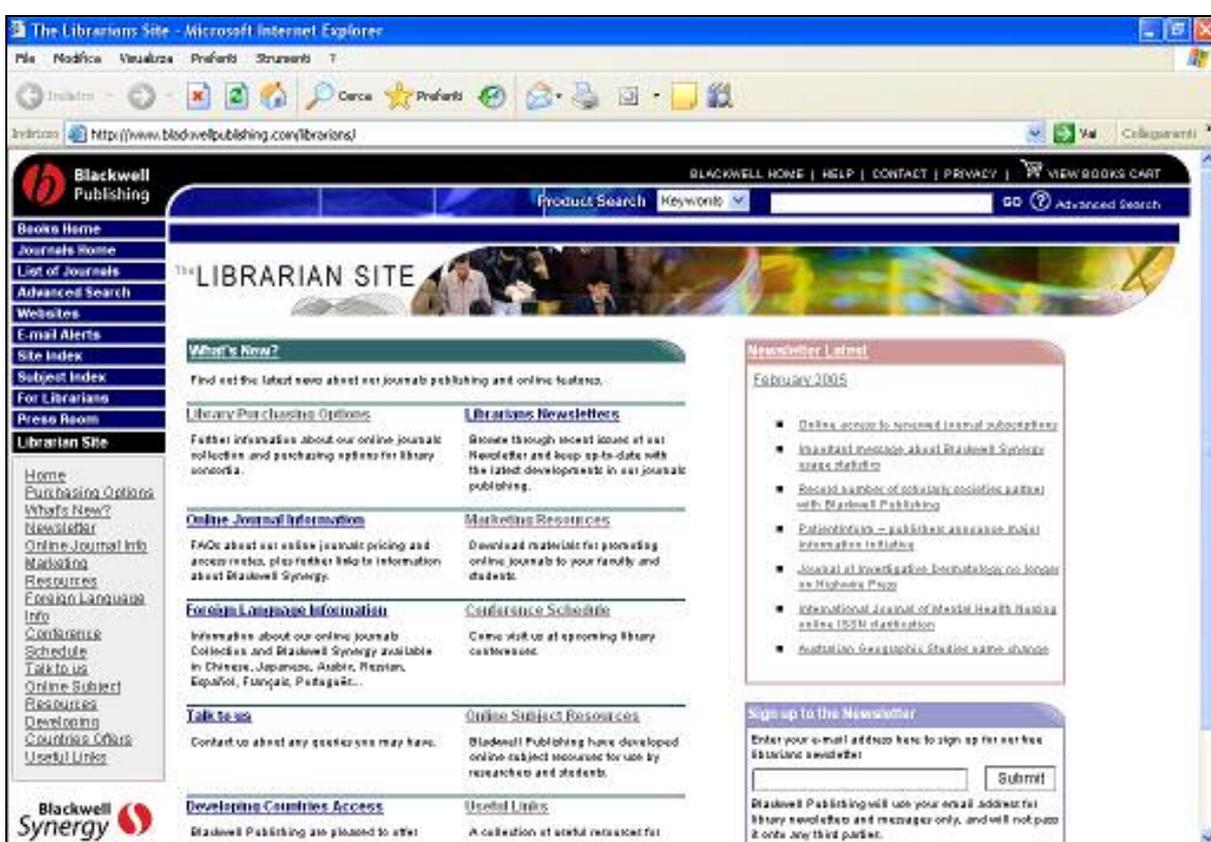


Fig. 7. The Blackwell's Librarian Site

Blackwell also provides access to Blackwell Synergy, which is the online journals service from Blackwell Publishing, a dedicated digital space where it is possible to find more benefits for both librarians and researchers. For example, a researcher can save searches to run again at a later date, set up search alerts so to receive an email whenever an article matching the performed search is published online, purchase single articles using a credit card, read sample issues for free, save favourite journals and articles, customize the homepage so that one's favourite journals appear first.

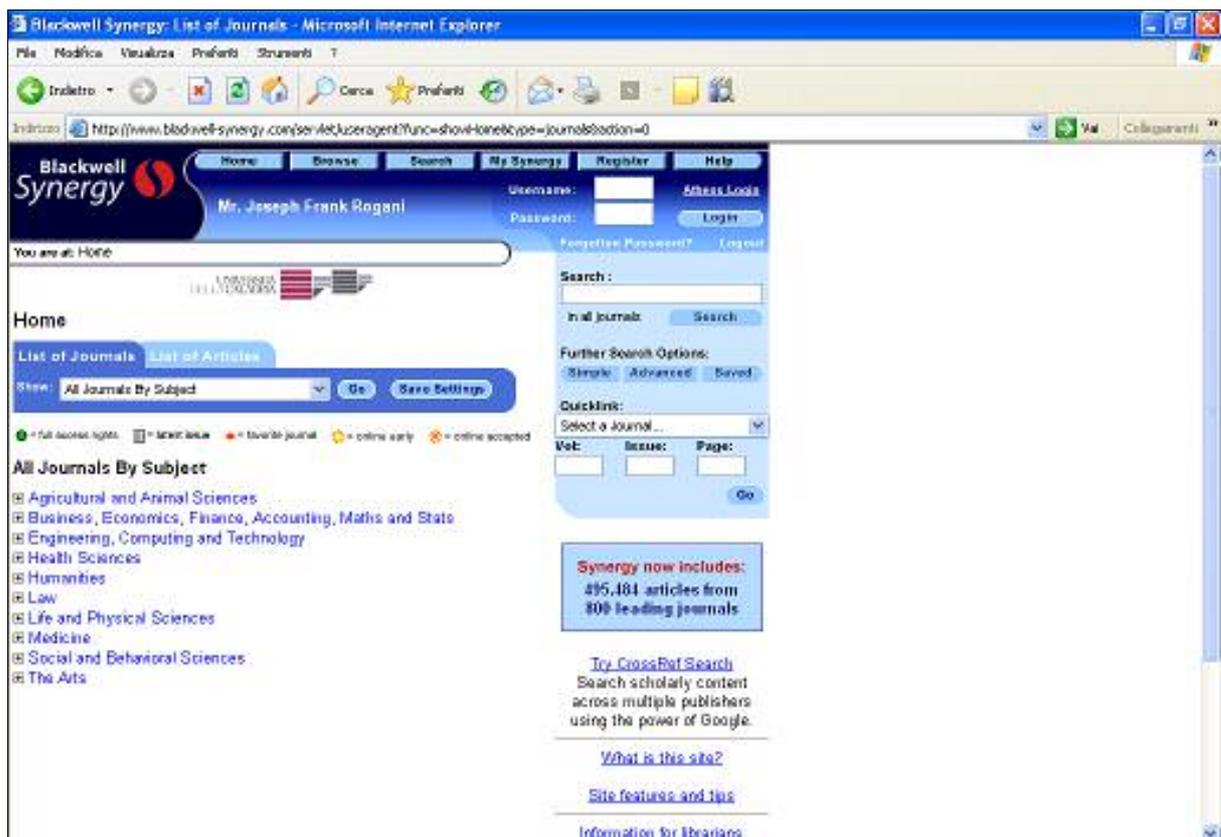


Fig. 8. User's personal page on Blackwell Synergy

Furthermore, a lot of useful links for librarians are provided and subscribers benefit from many services. In fact, they can access the full-text articles for subscribed journals, link to the abstracts of cited articles in other journals using the CrossRef and database links, link forward to articles that cite this article and also access Online Early articles, where available. In particular, this latter service called OnlineEarly (articles online before print), provides fully finished, peer-reviewed articles, available online before the print issue is published, enabling readers to access information faster.

Today, editors not only provide services to users but more and more they try to meet also authors' requirements. Blackwell, for instance, has just launched a new service dedicated to authors: it is called **Online Open** and offers authors who wish to publish their research in a Blackwell journal the opportunity to ensure that their article is immediately made freely available for all to access online. This new pay-to-publish option is an important part of Blackwell's response to the calls for open access and the editor's commitment to viable high quality publishing on behalf of societies. The only difference from traditional publishing derives from the fact that readers can access all Online Open articles without restriction, something that may not be available for subscription-based articles.

2.5.2 Wiley InterScience

As it is shown below (fig.9), also Wiley provides products, services and useful resources for both librarians and researchers. As it happens with other editors, registered users can benefit from e-mail alerts, alerting them via email, when an article matching their search has been published.

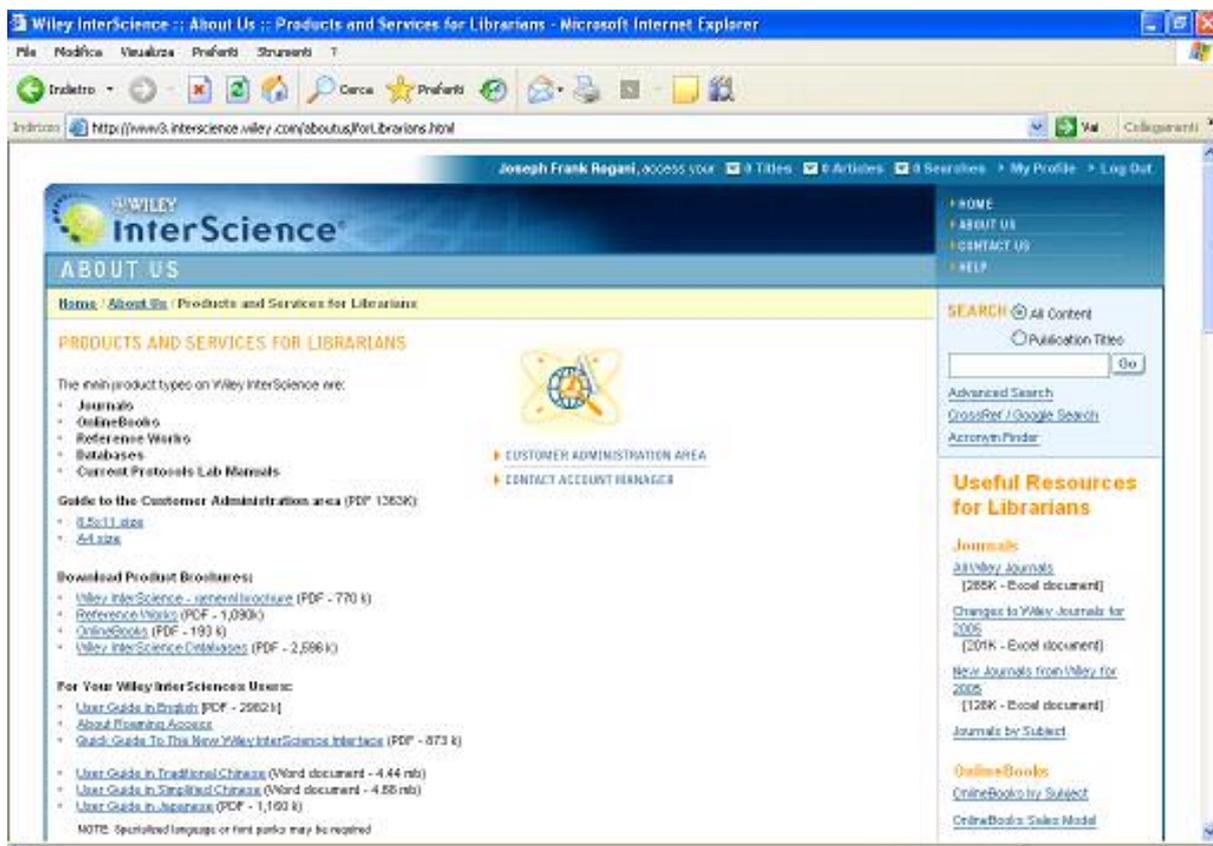


Fig. 9. Wiley Products and Services for Librarians

Down the above page, on the right, a user can find more resources as reference works, databases, current protocols manuals, a list of collections available on the Wiley InterScience database, and a link to register with the Wiley InterScience Newsletter.

The **Roaming Access** service frees researchers from the confines of their institution's IP address range. Activated via a link in a reserved section called "My Profile", it enables remote password access to full-text licensed content from any laptop or web-enabled computer in the world. Then, the service called **EarlyView** presents full-text, peer-reviewed, copyedited journal articles online, before the release of the compiled print issue. The **MobileEdition** transmits tables of contents and abstracts from the latest issues of selected Wiley journals directly to one's PDA (Personal Digital Assistant). It supports all the major handheld platforms and works automatically with desktop synchronization software. The section

“Saved Searches” allows you to retrieve, edit, and re-run your saved search to find new or archived material matching your search parameters. New searches can be saved as you search. Another service called “Saved Titles” helps you manage your research quickly and efficiently by saving an archive of journal and book products that you access most regularly. You can also take advantage of the convenient “Titles Alert” feature to automatically notify you when new content in a saved journal has been published.

Special purchase options are also available, with the possibility to purchase individual documents in unsubscribed content via Pay-Per-View or with ArticleSelect tokens. Then, the “My Profile” section also gives you a chance to read free sample articles and chapters from journals, reference works, and online books. A special service is the provision of WebEx-based product demonstrations to showcase the features and functionality of WileyInterscience online databases (fig. 10).

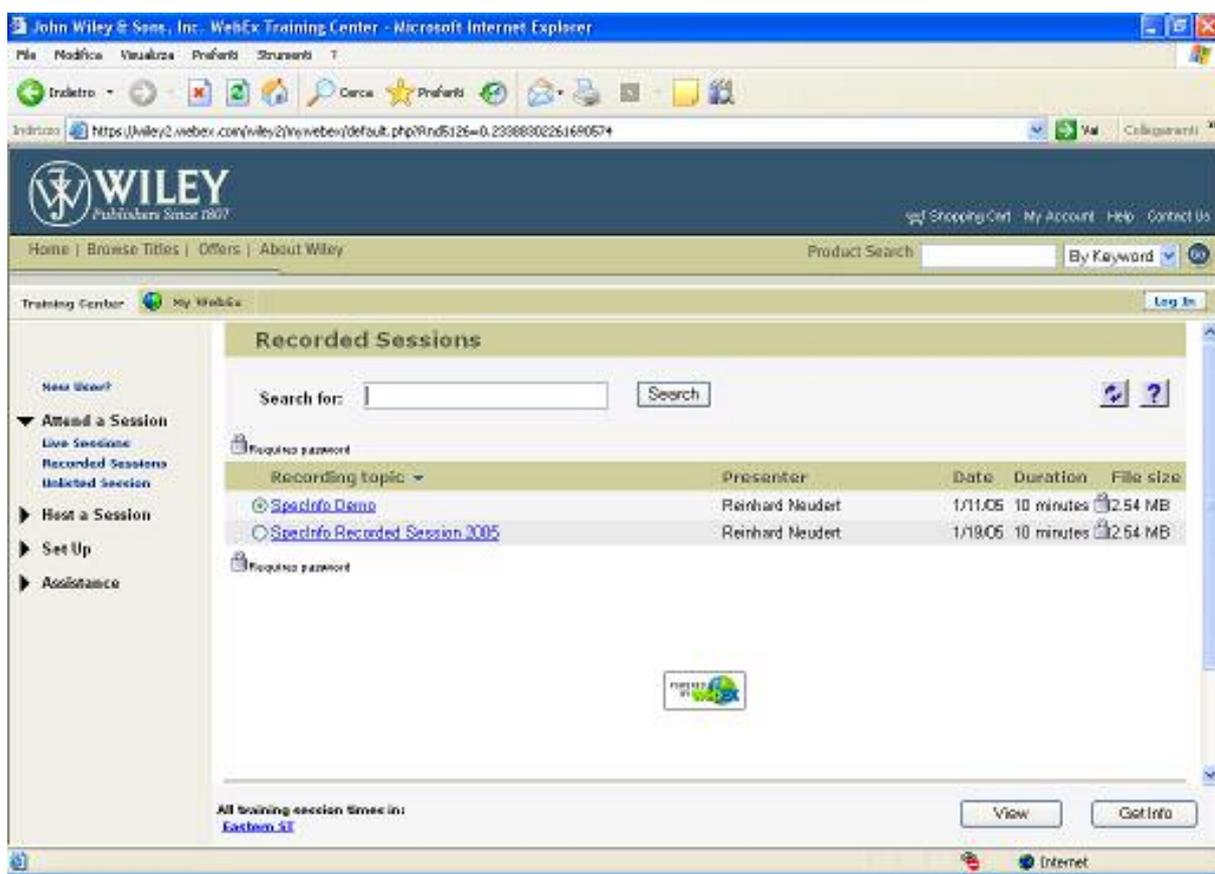


Fig. 10. The Wiley WebEx-based tutorial

Thanks to this service, for which a specific password is required, it is possible to register for live seminars or to view recorded sessions.

2.5.3 Kluwer – Springer

SpringerLink is the new web portal by Springer that includes journals by Kluwer Academic and where new services for librarians are also available. It is considered the premier electronic data source from Springer for researchers in biomedicine, life science, clinical medicine, physics, engineering, mathematics, computer science, humanities, and economics. As in the previous cases, also this editor provides its users with peculiar services, as the “Table of Contents Alert” and the “Keyword Alert”. In the first case, the user is allowed to select publications for which she wishes to receive notifications of new issues. In the second case, one can instruct SpringerLink to automatically resubmit specified searches on newly published content and deliver notifications when relevant articles are found.

Considered that user education is today a very important issue for libraries, an attractive service provided by SpringerLink is the online tutorial (fig. 11), with sections for librarians, authors and researchers, including insights on benefits, access, personalization, functionalities and features.

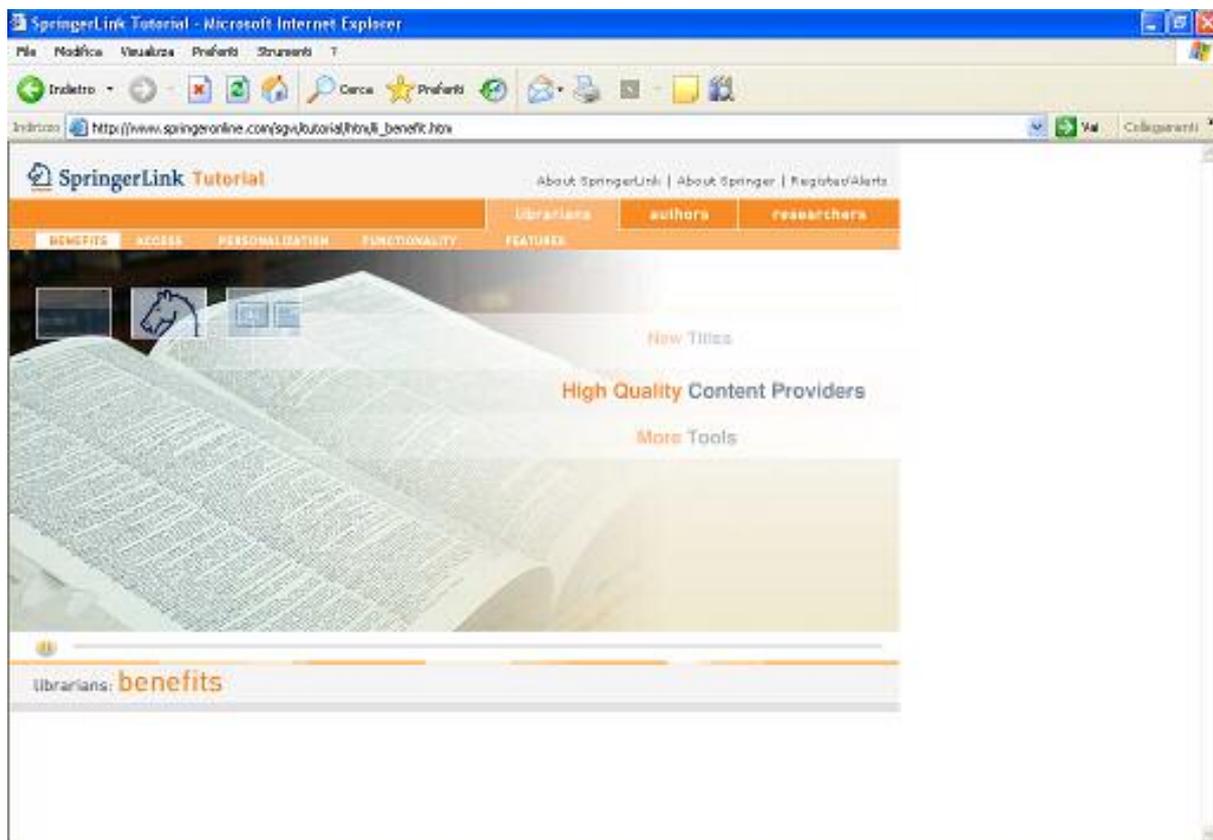


Fig. 11. The Online SpringerLink Tutorial

In particular, as regards librarians, this tutorial shows in detail how SpringerLink provides easy access to the best and broadest range of up to date scientific, technical and medical publications, tools and features that make it easier for researchers to help themselves, a wealth of links to take users wherever their scientific interest lead them, and publication management tools that enable you to integrate online content with your own on site resources.

As the tutorial says, for maximum convenience, users can access SpringerLink directly or remotely. Subscribers at institutional workstations log in automatically through IP authentication. Registered users, accessing SpringerLink via the Internet, simply enter their user IDs and Passwords. Because Athens authentication is supported, users can log in using their existing Athens user names and passwords. Even non subscribers can explore SpringerLink resources as guests, with free access to a search engine and all journal tables of contents. They can view abstracts of all online content as well a sample issues.

If a non subscriber finds a journal article or a book chapter they like to read in full text, either in HTML format or as a downloadable PDF, they do not have to buy a full subscription top do so: they can register for free and use SpringerLink's unique "pay-per view" feature. For a nominal fee, anyone can open the door to expanded research, simply ad affordably.

As the tutorial underlines, easy of use means more than simply providing intuitive menus: it also means letting users tailor their SpringerLink experience to suit their own needs and preferences. Springer Link favourites lets users create direct links to their preferred journal series and volumes right from the SpringerLink home page. They simply click on the series and volumes they want, confirm the selections and the links appear right on the SpringerLink home page whenever they log in. Then, thanks to the "Alert" feature, each user is given a personal assistant who immediately notifies them whenever their preferred publications are updated.

For librarians, SpringerLink provides automatic recognition and visualization of authorized and registered users, eliminating many log-in problems, allowing librarians to spend less valuable time helping users recovering lost passwords. Protection of intellectual property in citations is ensured by the DOI (Digital Object Identifier) support, while linking features enable libraries to systematically integrate SpringerLink journals directly with your institution existing OPAC. SpringerLink also provides you with online usage figures via the Metapress. Compliant with Level 1 of the Counter Code of Practice, this resource lets you track user demand, obtaining data for reports and make better informed decisions.

2.5.4 JSTOR

JSTOR is a major consortia resource at our University, providing users with numerous full text articles of past issues of many important editors. Also in this case, it must be underlined that, not only our patrons benefit from the full text consultation, but also librarians can benefit from dedicated services.

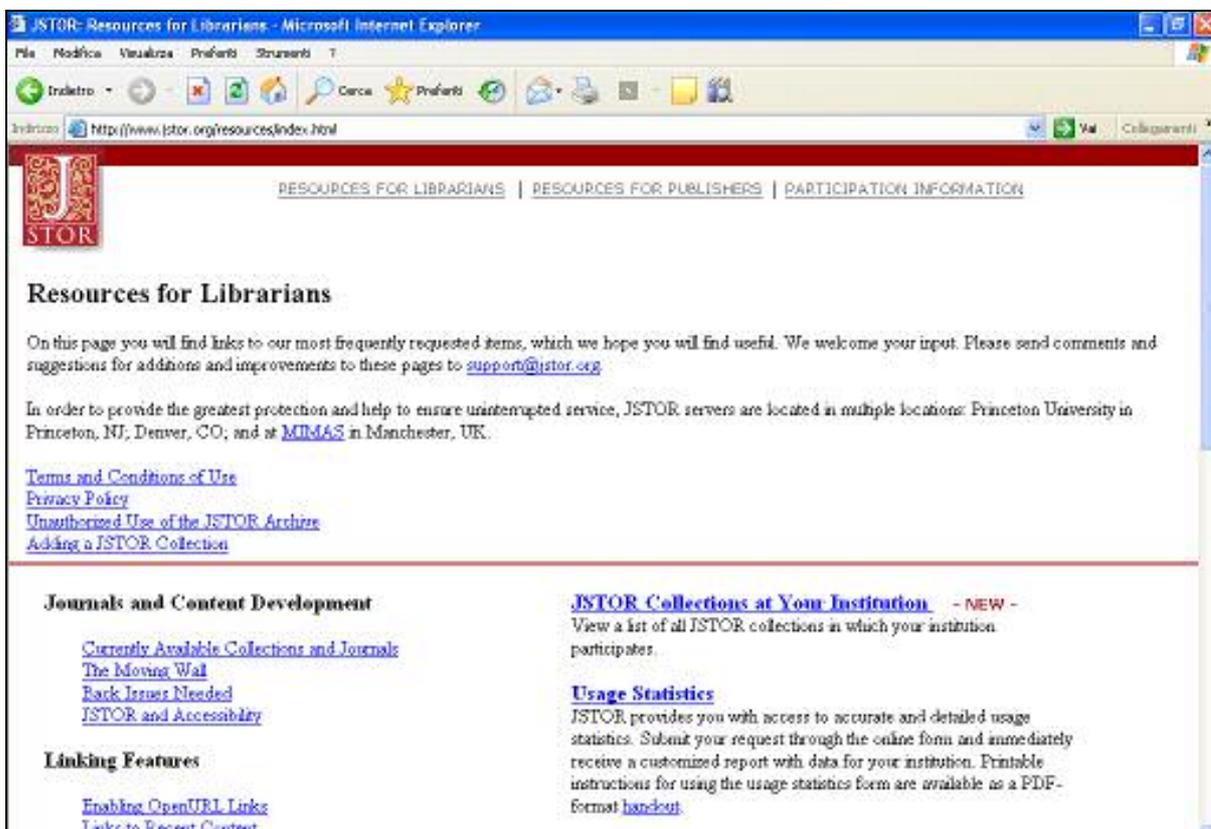


Fig. 12. JSTOR Resources for Librarians

Apart from linking features and usage statistics (JSTOR provides librarians with access to accurate and detailed usage statistics), librarians can rely on additional resources (shelf labels, logos, printed material information), news and info, technical information (about system requirements, remote access, printing from JSTOR, and other technical topics), handouts to help introduce JSTOR to students and faculty, a mailing list (to receive content release updates, interface news, and announcements of special events) and the possibility to view a list of all JSTOR collections in which your institution participates. Then, the “provider designation” is a brief statement displayed on the JSTOR interface indicating that access to JSTOR has been made possible by your library.

2.5.5 The American Chemical Society

Another important consortia access provided by the Emeroteca Virtuale concerns The American Chemical Society (ACS). This editor also provides librarians with a reserved area, called “Librarian Resource Centre”, where professionals can find a lot of useful information and links.

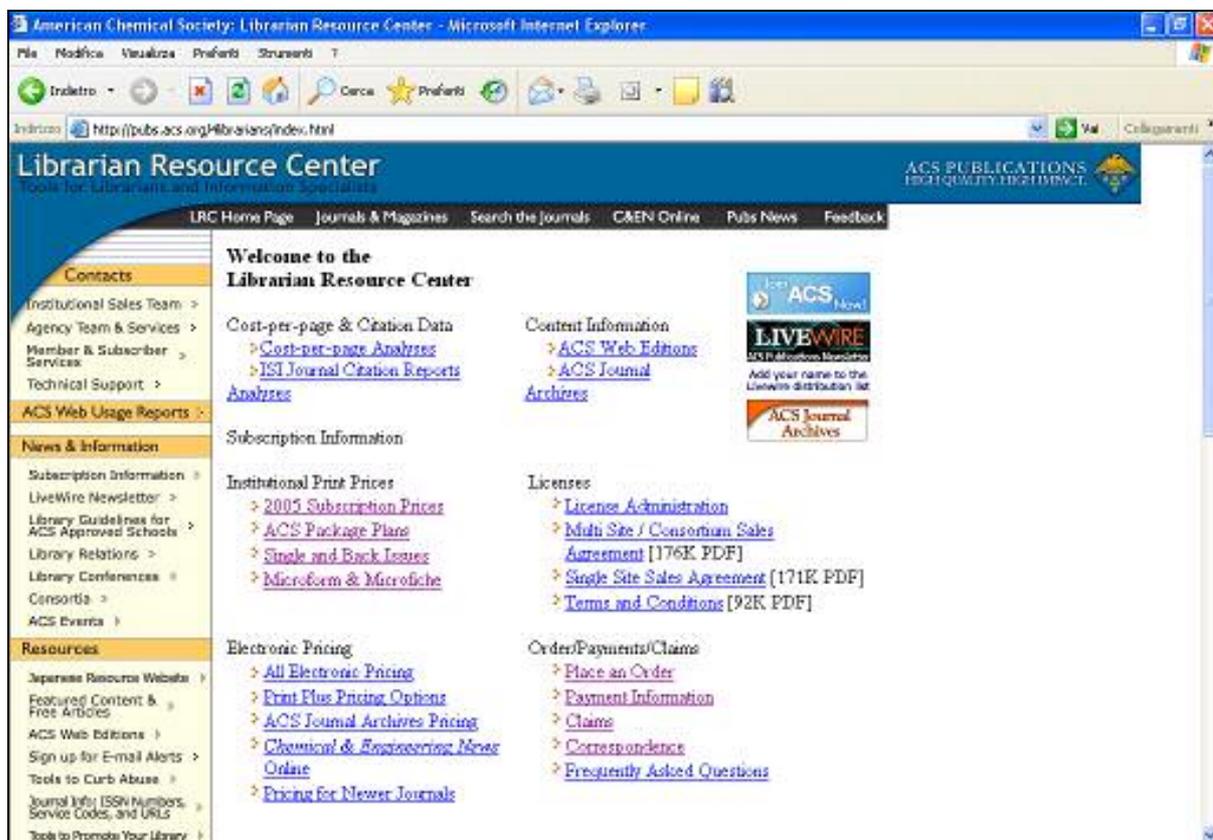


Fig. 13. The American Chemical Society Librarian Resource Centre

ACS is now broadening access to research articles published in its 33 scholarly journals. The Society is introducing two new experimental policies that define how readers can view free digital versions of ACS articles beginning one year after publication. First, in response to public access guidelines recently released by the NIH, the ACS will post, for public accessibility 12 months after publication, the peer-reviewed version of authors' manuscripts on the National Library of Medicine's PubMed Central during 2005.

Second, as a value-added service to ACS authors and a method of further opening access to its content, the full-text version of all research articles published in ACS journals will be made available at no charge via an author-directed Web link 12 months after final publication. Allowing unrestricted access to articles 12 months after publication is an expansion of the Society's current practice of permitting 50 downloads of authors' articles free of charge during the first year of publication. This initiative will go into effect during 2005

References

- 1) Alberico, Ralph (2002). *Academic Library Consortia in Transition*. In “New Directions for Higher Education”, Vol. 2002, Issue120, pp. 63-72.
- 2) Tammaro, Anna Maria (1998). *L'accesso conviene*. In “Biblioteche Oggi”, Issue 7, pp. 60-64.
- 3) Tonta, Yasar (2001). *Collection development of electronic information resources in Turkish university libraries*. In “Library Collections, Acquisitions & Technical Services”, Vol. 25, Issue 3, pp. 291-298.

Chapter 3

Literature Review

3.1 E-libraries and Consortia: new services to improve information access

The idea to share information and to spread it everywhere (which found its first “technological” promoter in Vannevar Bush) had already been got somehow in the U.S., where, just in the 1880s, libraries started working together to share their collections [Sharon L. Bostick, 2001].

In 1945, Vannevar Bush first talked about his *Memex*, a system able to memorize every book and document so that one could freely retrieve them also in future times. That was the first idea of “multimedia” and its first application dates back to 1965, when Ted Nelson introduced his Xanadu, a project that until now hasn’t been developed.

Today, multimedia libraries are those that have documents in different formats, while, just because of new formats of documents and new needs from different users, more and more libraries are turning digital: many of them directly see the light as “digital libraries”, managing different kind of “objects”, that contain, or are themselves, information.

In 1886, the *Library Journal* published an article by Melvil Dewey about “library co-operation”, while a year earlier E.A. Mac had presented, in the same journal, his views on “Co-operation versus competition” [Reason Baathuli Nfila & Kwasi Darko-Ampem, 2002].

In 1939, during the symposium organized by the ALA and called The Library of Tomorrow, R.B. Downs expressed his futuristic view of library co-operation in a paper entitled: “*One for all: a historical sketch of library co-operation, 1930 - 1970*”. His study was so greatly appreciated that in 1970 the US Office of Education commissioned the System Development Corporation (SDC) to carry out a nation-wide study of academic library consortia. The aim of this study was to gather as much information as possible about the activities of academic library consortia providing guidance to those libraries that were forming, or planning to form, consortia. The published results demonstrated that the main reason to form consortia was the possibility to share and improve resources while one of the last ones was to reduce costs.

Later on, in the 1900s, the Library of Congress started a cataloguing project according to which it provided cataloguing for participating libraries. Between the late 1960s and the early 1970s, consortia in the U.S.A. began to flourish: not only students at one university could enjoy resources at another, but also libraries of different types started to band together to form

a cooperative entity, also thanks to automation, which then was going to see the light. Actually, automation is a very important purpose in this landscape, giving the chance of creating large databases, which can be accessed from remote positions in a variety of ways. Like this, users will have a great deal of information available, sometimes within free consortia and most of the times, instead, charging users for membership.

Then, it was in the mid-1990s that leaders of individual consortia in the U.S. started some informal meetings, which later led to the foundation of ICOLC, the International Coalition of Library Consortia. The aim was, and still is, to create a link between consortia and vendors. Today we also hear of “super consortia” that are intended to focus on a specific purpose, in particular dealing with the acquisition of expensive electronic products to serve a large number of researchers.

One of the concepts underlying the idea of a consortium, I think, is also the possibility to give access to a great deal of information to a great deal of potential users. It is true that most of this information is limited to affiliated users; but it is also true that many could be the ways to turn this information completely public. And this is, as we know, one of the main purposes of libraries. The idea is not new. In fact [Nancy Courteney, 2001], due to the increased desire for higher education and more information in general, unaffiliated users during the 1960s in the U.S., started to press academic libraries asking for public access, also considered that many public libraries could not manage the big flows of users, who kept growing in number because of the increase in population.

Later on, during the 1980s, at the beginning of automation, the need to serve the general public was still there, while another tool was seeing the light: online database searching, which provided faster and more convenient access to traditional abstracts and indexes and, what is more, access to databases which did not exist in printed form.

Modern libraries, especially the academic ones, must take into consideration the tendency to massively use the new technologies, WWW included. At the same time, *co-operation* and *integration of resources* are strategic tools to manage global information. In fact, adopting the new electronic technologies improves the interoperability among documentation networks and heterogeneous systems, so that to create a network of relationships with other institutions, gaining more complete information.

Actually, interoperability means the ability of a system, or product, to operate in combination with other systems or products without asking the users for special efforts. Interoperability means being actively involved in the process needed to assure that systems,

procedures and the culture of an organization are managed so that to maximize interchange and re-utilization of information.

The final result of any research is content [Sam Brooks, 2001]. Information integration is needed and it will be possible only making library resources function together as a cohesive unit. Peer-reviewed content is an indicator of the quality of scholarly materials contained in databases as well as comparing electronic content to print materials already held in the library. Though, it is important to accurately consider the possibility to cancel print subscriptions in favour of database access, since it happens many times that a vendor is forced to reconsider its license agreement with the aggregator because of a scarce revenue from the on line version of its journals.

As ICOLC states:

“The use of licensed electronic information resources will continue to expand and in some cases become the sole or dominant means of access to content”

making clear that the measurement of the use of these resources is improved by the electronic environment. It is now possible to exploit the great amount of information kept by the many aggregated databases available, which, apart from periodical content, includes encyclopaedias, dictionaries, biographies and more, all now available through *cross-reference* tools (often offered by the same vendor), which give the user the possibility to search simultaneously in different databases.

3.1.1 Access versus ownership

The US National Information Infrastructure Working Group on Copyright, while giving a glance at electronic information, prefers to talk about licenses and contracts, which are more and more invading the field of information interchange. Actually, the concept of “copyright” [Ann Okerson, 1996] is usually associated to something you can physically perceive, like in the case of a printed book.

At the beginning, the copyright was linked to the early printing technologies in two ways. On the one hand, whoever used a printing press to violate copyright could be punished with the confiscation of what had been produced; on the other hand, high-speed printing press enhanced the power of copyright. In this way, the author could see his production printed in many copies and the publisher could rely on a great portion of the publication revenue.

It's easy to understand how copyright could be easily disregarded with the use of modern technologies. However, the U.S. Copyright Act, for example, states that copyright begins from the moment of creation, when the work is “fixed in a tangible medium of expression”. So, you are supposed not to use a work in a way that could damage the author.

Among these media, what about electronic journals? If you have a book on your shelves at home, do you really own it? You probably own the physical object, but content is protected by copyright.

Problems arise because now much of that content is available in networked electronic forms: actually, anyone can simply forward through e-mail, for instance, the content of an article. Besides, just a few years ago, many libraries had to take the risk of losing the information acquired once its “leasing” ceased.

Today, many libraries are guaranteed to have continued access to electronic full text databases thanks to consortia, that, in most cases, are run by a central unit anticipating payment when some of the affiliated libraries cannot afford it.

3.2 Library Consortia: the what and why

We could say that the immediate precursors to consortia are the standards development organizations (SDO) aiming to set standards on a national basis. Usually, these organizations cover a great deal of technical areas, have got established policies and procedures, and are expected to provide a hearing to any of all interest groups. In the United States, a particular example of such organizations is the ANSI (American National Standards Institute).

In more detail, we can define a consortium as an aggregation that aims at *co-operation*. It is acknowledged to be a limited time venture created to achieve a single goal (for instance, in our case, to buy electronic resources at lower prices). However, sometimes it happens that the consortium has a broader mission, and will try to set multiple standards necessary to enable the evolution of a new category of business services and products.

Actually, nowadays, every kind of business has a “global” connotation [Antonio Foglio, 1996]. Globalisation wants partnerships at all levels, especially if you consider the technological innovation process with all related implications, like research and the achievement of “total quality”. In fact, the global technological process can’t be afforded by just one enterprise but it requires the co-operation of many actors to keep the quality level high.

While at the beginning consortia supported the automation process of affiliated libraries, they are now interested in different things, like digitalisation of old documents, resource sharing, licenses negotiations and more. You can start a consortium deciding whether to share all resources or just traditional or electronic ones. The partners can be libraries, university institutions and different entities.

3.2.1 Why to form consortia

Today, [David Khol, 1994] there are two main reasons for the creation of consortia:

- The sharing of existing physical resources
- The purpose of identifying and addressing common needs arising from developments in Information Technology.

Many new consortia are growing worldwide, and most of them mainly focus on electronic resources. In fact, libraries can have a common interest in co-operative projects that will benefit all students and faculty of the related institutions, while the Internet and the WWW give a chance to improve library services. Finally, costs are controlled and regional storage facilities are provided.

All this is the result of different imperatives that libraries are now facing, like financial shortcuts, changing in publishing industry, rapid growth of information technology, need to gain total quality of services. The consortium seems to be the best solution: so, libraries are able to achieve a heavier contract power. It must not be forgotten that universities and research centres, which are the actual founders of the researches whose results are then published by commercial editors, should at least share the copyright, in order to avoid the risk of paying twice for a research.

3.3 Consortia and the changing libraries

Most of the initiatives for digital co-operation come from the academic and the research fields and cases are not rare where libraries prefer a decentralized co-operation for fear of losing autonomy and efficiency. Library consortia are also a sign that libraries are changing. As it is known, libraries generally have stable budgets, which must now find a balance between the need to purchase print material and the new demand for electronic resources. Also at the organizational level, libraries are more and more keen to accept team management rather than hierarchical structures [Arnold Hirshon, 1999].

Furthermore, the new Web Technology forces libraries to think about how to create digital libraries and how to better develop Web portal interfaces. In these cases, consortia can actually help libraries to choose the best purchasing options as well as to analyse the quality of resources. So, what are important are not just costs but also libraries' improvement in terms of total quality and change management. As regards large consortia, they generally aggregate information and obtain state funds to purchase information. Consortia help libraries better manage changes by analysing the quality of all content from various providers and by serving as aggregators for member libraries.

Part of this change started in the past, when needs of different kinds pushed libraries to aim at a consortium co-operation. Some of the early consortia served libraries in the search for items not owned locally, others were more concerned with document delivery.

In America [Barbara Preece, 2001], today many consortia choose to aggregate their catalogues as union or virtual catalogues. The expectation, while selecting either the virtual or union catalogue option, is that the catalogue will offer the possibility to integrate resource sharing, interoperate with other systems and link to external databases and resources. The difference between virtual and union catalogue is that the former links the different catalogues of the members while the latter is the unifying catalogue among the consortia's members, which combines the resources of consortia members, like MELVYL, a centralized database representing the cataloguing from libraries that participate in the California Digital Library².

Digital libraries, compared to traditional ones, provide more services, like sophisticated search engines and the ability to browse a great deal of material quickly. Alliances are very important for libraries if they want to survive in the present information era. Relationships are needed with editors, information providers and, mostly, with other libraries. Actually, the new consortia exploit the Information Technology tools, which help eliminate the limits previously encountered by the bibliographic network [Anna Maria Tammara, 1999].

Today, thanks to the Web, it is possible to access virtual and single catalogues. One of the most recent aims of consortia is to assure a quantifiable saving to the affiliated library or to get more and better services with the same expense.

It is clear that many could be the reasons for the creation of a consortium. However, cost reduction, OPACs' integration with the electronic documents delivery, and the acquisition of a national and international power on different themes, copyright included, are the main reasons for which a consortium exists.

3.4 Library Consortia and the sharing experience: the OhioLINK

Editors have always taken advantage of the electronic environment to set strict limits to the use of information. That's why consortia try to create an equilibrium between commercial interests and the needs of those who use the information provided for study and research.

Consortia should also carry on some projects to digitise rare documents and to create new databases. Furthermore, since the storage of digital information is more complicated than the traditional one, consortia will also negotiate the storage as part of the license. In fact, just a coordinated management of licenses is the most important element of consortia.

² For more information, you can visit <<http://melvyl.cdlib.org>>

Of course, a final aim is also the sharing of resources, a field where university libraries are more active: think about OhioLINK, a consortium composed of 56 university libraries that receive state funding; Palci (Pennsylvania Academic Library Connection Initiative), which is a local federation of 38 libraries; and CIC (Committee on Institutional Co-operation) that is a federation of 12 universities with 13 libraries.

In particular, as regards OhioLINK, in the mid-1980s, in order to face the need for additional library accommodation, the Ohio state-supported higher institutions proposed a co-operative network including a shared central catalogue with local sub-systems. The management of this consortium remains with the universities, despite the state funding. [Clayton and Gorman, 2001].

The consortium gathers higher institutions whose main focus is to share electronic access. Thanks to a union catalogue for holding, customers can search and request materials not available locally from remote databases. Then, materials are usually delivered within 48 hours through a contracted 24-hour delivery service.

Some services, however, overlap, such as the inter-library loan, while others are unique to regional systems, especially in the continuing education sector [Tina M. Schneider, 2002]. Ohio's seven regional library systems, in fact, serve 314 libraries in 64 of Ohio's 88 counties. All of the systems deal with continuing education, technology and training as well as resource sharing. Furthermore, their services are tailored to meet local needs. Many libraries, however, no matter how networks have developed, are still bound to serve their local communities in relation to their physical structures.

According to Schneider's study, most libraries joined their library systems in the 1970s and 1980s, in particular "to promote multiple library co-operation". Other reasons were inter-library loan and continuing education services. That research found out that even though OhioLink is an important presence in academic libraries, regional library systems still offer services that cannot be duplicated, being their mission different from that of OhioLink.

3.5 Library Consortia world-wide

It would be too long to cite all library consortia that have been created all around the world, in Europe as well as in Africa like, for instance, SABINET (South African Bibliographic and Information Network) or GAELIC (Guateng and Environs Library Consortium) [A.A. Alemna and I.K. Antwi, 2002]. Important consortia projects in UK are CURL, the Consortium of University Research Libraries, regarding the major British universities that saw their computer centres linked to share information, thanks to JANET, the Joint Academic

Network. Actually, the sharing of cataloguing information and the costs of developing electronic library resources, have been sensibly improved by the existence of consortia. In Italy, SBN and CIBER are just some major examples. In particular, the CIBER consortium proposes a service called “*Emeroteca Virtuale*” that represents the specific object of this study.

For a quality service, libraries that intend to cooperate must seek a matching between collective needs and local requirements. Furthermore, resource-sharing agreements lead to savings on the cost of individual items and subscriptions, as well as savings in terms of material processing and maintenance, and technology costs. Actually, though saving money is not the only reason for choosing consortia, this form of aggregation should result in substantial financial savings.

Quality is also important. The more librarians know the criteria for selecting quality materials, the more the consortium will be rich.

So, consortia represent the future for co-operation and an increasing number of publishers, vendors and aggregators are negotiating consortia agreements. Thanks to consortia, the focus is no longer on repositories of information but on gateways to information, like web portals, which give “access” to information.

Especially because of the growing inability of libraries to own whatever is required, libraries now choose access, even if this has often been left in the recent past as the option for more peripheral materials.

Today’s digital technology allows us to represent, archive, reproduce and transmit forms, colours and sounds of any kind and the future scenario is to be found in the convergence of computer, television and telecommunications. Just to keep themselves within this new scenario, libraries have joined many initiatives in North Europe, North America and Australia. It’s just the case to remember that in 1997, the British Government diffused an important document dealing with the role of public libraries in the Information Society, entitled *New Library: the people’s network*. In this document it is proposed to create a network of services and the arrangement of a centralised agency for copyright management and licenses negotiations.

Since the Web makes it difficult to understand exactly the relations among authors, users, distributors and aggregators of information, it is necessary to think about a structure that tends to:

- find out if the Web contains what we are looking for
- make agreements on the use of it
- buy just what we are interested in and have selected

Within this entire framework, it is clear how important the electronic publishing is, involving every aspect of scientific and academic communication. New business models are required and both editors and libraries will have to understand the ever-changing needs of users, who are becoming more and more asking. University publications will probably find a place in the library web servers and librarians will help to organize a great deal of information.

Libraries will provide users with access to the increasing digital resources also thanks to international consortia policies.

3.6 E-journals: consortia services and users' satisfaction

As it is now clear, e-journals have increasingly become the focus for research and development in recent years. Within this context, it appears necessary to find out how much satisfied users are with consortia services related to e-journals provision. In fact, not only library consortia provide users with a vast amount of resources thanks to numerous collections, but they also guarantee a series of services that range from remote resource sharing to the management of personalised web interfaces and document delivering, and to resource discovery. Actually, consortia are developing resource discovery tools and access strategies, promoting exploration and allowing scholars to establish connections across collections.

Furthermore, on the one hand, consortia can reduce duplication of effort by negotiating standard license agreements to benefit members, reducing the need for each institution to manage complex contracts with multiple vendors. On the other hand, library consortia can also coordinate the investments on technology in order to promote standards to facilitate sharing.

All these consortia activities have a direct connection to what the final user perceives in terms of quality services and personal satisfaction. Since library consortia do not provide only collections, but above all services about collections, it is evident that the relationship between users and services has to be constantly monitored and analysed in order to understand if patrons are truly satisfied with the services they use. What the researcher means is that, in order to understand if a service really works, it is fundamental to know not only its users (the context where they live, study or work, who they are and what they do) but also what they think, what they say, what they use of that service and how they do it.

3.6.1 E-journals usage: some examples of users' surveys

In particular, some studies exist on how e-journals are used and appreciated by users like, for instance, the Café Jus Project, where attention was concentrated on students attending master's courses, who were supposed to make a large use of e-journals. The study was based on a structured questionnaire that could be used in conjunction with hand-on access to an electronic journal. Topics analysed were: the relevance and quality of the articles in the commercial and free electronic journals they were examining; possible problems of access, upon which comments from students were taken; the layout and navigation; the perceived advantages and disadvantages of electronic journals [Hazel Woodward et al, 2005].

Another important survey is the one conducted at Israeli universities about the use of the main source of access to electronic databases and e-journals, which is the MALMAD Consortium, the Israel Centre for Digital Information Services [Judith Bar-Ilan et al., 2003]. This provides access to a large number of electronic data sources through the Web.

What is important about this study is the fact that its results supplement the statistics MALMAD collects and receives from the service providers and publishers on the usage of electronic data services. In fact, results provide first-hand data not only on frequency of use, but also about the perceived importance and satisfaction or dissatisfaction with different aspects of existing services. Furthermore, this study also investigated about the ways users access the Web, trying to define whether they were satisfied or not with their connectivity and whether they needed any kind of instruction to improve their ability in using the system. The response rate was of 44.7 % against a total amount of 1,331 questionnaires. The questionnaire included 20 questions: closed, both multiple choice and Likert scale, partially open, and open questions. The variables that were studied included demographical data, access to the Web and Web literacy; satisfaction with content, coverage and access to the electronic data services; preference between printed and electronic services and more.

Other studies about journals usage [Fabrizia Bevilacqua, 2003] reveal that the use or non-use of e-journals can be related to a multiplicity of factors, such as: number of full-text titles, availability of back issues, awareness of the service, promotion, lack of technical skills and some more.

References

- 1) Alemna A.A. and Ant I.K. (2002). *A review of consortia building among university libraries in Africa*. In "Library Management", Vol. 23, Issue 4 -5, pp. 234-238.
- 2) Bar-Ilan, Judith et al.(2003). *A Survey on the Use of electronic Databases and Electronic Journals Accessed through the Web by the Academic Staff of Israeli Universities*. In "The Journal of Academic Librarianship", Vol. 29, Issue 6, pp. 346-361.
- 3) Bevilacqua, Fabrizia (2003). *Usabilità e uso dei periodici elettronici*. In "Biblioteche Oggi", Vol. 21, Issue 3, pp. 5-12.
- 4) Bostick, Sharon L. (2001). *Managing Technology. The History and Development of Academic Library Consortia in the United States: An Overview*. In "The Journal of Academic Librarianship", Vol. 27, Issue 2, pp. 128-130.
- 5) Brooks, Sam (2001). *Integration of Information resources and Collection Development Strategy*. In "The Journal of Academic Librarianship", Vol. 27, Issue 4, pp.316-319.
- 6) Clayton, Peter and Gorman G.E. (2001). *Managing Information Resources in Libraries*. London: Library Association Publishing.
- 7) Courteney, Nancy (2001). *Barbarians at the Gates: A Half-Century of Unaffiliated Users in Academic Libraries*. In "The Journal of Academic Librarianship", Vol. 27, Issue 6, pp. 473-480.
- 8) EU-NSF Digital Library Working Group on Interoperability between Digital Libraries: Position Paper. In <<http://www.iei.pi.cnr.it/DELOS/NSF/interop.htm>> (Last accessed February 1st 2005).
- 9) Foglio, Antonio (1996). *Alleanze strategiche per l'impresa. Scegliere e gestire le alleanze vincenti*. Milano: Franco Angeli.
- 10) Giordano, Tommaso (2000). *INFER: Osservatorio italiano sulla cooperazione per le risorse informative*. In "AIB Notizie", Vol. 12, Issue 11, p. 15.
- 11) Giordano, Tommaso (2000). *Digital Resources Sharing and Library Consortia in Italy*. In "Information Technology and Libraries", Vol.19, Issue 2.
- 12) Hirshon, Arnold (1999). *Libraries, Consortia, and Change Management*. In "The Journal of Academic Librarianship", Vol. 25, Issue 2, pp. 124-126.
- 13) Khol, David (1994). *OhioLink: a vision for the 21st century*. In "Library High Tech", Vol. 48, Issue 12, pp. 29-34.
- 14) Nfila Reason Baathuli & Darko-Ampem Kwasi, (2002). *Developments in academic consortia from the 1960 through to 2000: a review of the literature*. In "Library Management", Vol. 23, Issue 4 -5, pp. 203-212.
- 15) Okerson, Ann S.(1996). *Buy or Lease? Two models for Scholarly Information at the End of an Era*. In "Daedalus. Journal of the American Academy of Arts and Sciences", Vol. 125,

Issue 4, pp. 55-76. Article found at:<<http://www.library.yale.edu/~okerson/daedalus.html>>, last accessed February 10th 2005.

16) Preece, Barbara (2001). *Union and Virtual Catalogues in a Consortial Environment*. In "The Journal of Academic Librarianship", Vol. 27, Issue 6, pp. 470-472.

17) Schneider, Tina M.(2002). *Academic Libraries and Regional Library Systems: how do they stand today?* In "The Journal of Academic Librarianship", Vol. 28, Issue 3, pp.141-146.

18) Tammara Anna Maria (1999). *Consorti di biblioteche: la cooperazione non è più un mito*. In "Biblioteche Oggi", pp. 80-84.

19) Woodward, Hazel et al. (1998). *Café Jus: an Electronic Journals User Survey*. In "Journal of Digital Information", Vol. 1, Issue 3, Article No. 11 <<http://jodi.ecs.soton.ac.uk/Articles/v01/i03/Woodward/>>. As current as Feb. 10th 2005.

Chapter 4

Methodology

4.1 Literature review

First of all, in order to carry on this research, a literature review was needed. For this reason, books, journals (both printed and online), research reports and conference proceedings were taken into consideration. These materials were mostly found within the Library System resources (OPAC, online journals, databases), but fundamental importance had also some resources provided by other libraries, as it was the case of LISA (a major indexing and abstracting service for LIS researchers), which was at first available thanks to a personal password-protected connection (provided by Northumbria University at Newcastle – UK), and then to a new consortium purchase from CSA (Cambridge Scientific Abstracts) at the University of Calabria.

Some grey literature, like annual reports and white papers, were also of some interest as well as networked resources (indexes, databases, directories and abstracting journals).

References are listed at the end of each chapter and a comprehensive bibliography is appended at the very end of this research.

4.2 Research techniques for quantitative and qualitative data collection

Whenever we wish to know a particular social phenomenon, either individual or collective, we have two main ways to collect information: *observing* and *questioning*.

On the one hand, observation is necessary to study all evident behaviours, while, on the other hand, questioning is necessary in order to explore motivations, feelings, beliefs, perceptions and expectations.

The need for *triangulation* justifies the use of both **qualitative** and **quantitative** research techniques. For this reason, information gathering relied primarily on the following tables:

Method	Data Sources	Output
Literature Review	Books, journals, indexes and databases	Underpinning of rationale and method
Focus Group	Two people from the Library System Staff, two students and two researchers	Illuminative and generalizable data
User observation	Students, staff, researchers.	To get users' perceptions about a specific library online service
Case study techniques: interviews to <i>key informants</i> , possibly using interview schedules with open-ended questions;	Students, researchers, teachers and staff	Interactive and evaluative role of key informants to research in order to get contextualized and user-centred data
Closed-questions questionnaires also submitted on person and via e-mail	Students, researchers, teachers and staff	Background, general and quantifiable broad-based data

Table 2 Summary of Research Methods and Outputs

4.2.1 Focus Group

4.2.1.1 Purpose

The focused group interview is a common form of social and market research. These interviews involve groups of around 5-12 participants who are conducted through a series of structured questions by a moderator (see appendix 1).

For the purposes of this research, a focus group was organized involving the library system staff, some researchers and some students. In particular the group, which was composed of six people, included staff working with journals and web management in some way, two students and two researchers.

The session was useful in order to:

- Testing question wording
- Defining a better population sample for observations, interviews and questionnaires
- Evaluating and discussing the consortium service called “Emeroteca Virtuale” that is provided through the Web by CIBER .

Furthermore, during the focus group it was decided where to conduct the observation section on users.

4.2.1.2 Advantages for this research

Qualitative data derived from focus groups are extremely valuable when we want to achieve vivid and rich descriptions. In fact, focus groups are an increasingly popular way to learn about opinions and attitudes. Focus groups are not polls but in-depth, qualitative interviews with a small number of carefully selected people brought together to discuss a host of topics.

As it has been shown also by other studies [C. Jenkins et al, 1997], focus groups are widely used for investigating a group of people working together. A focus group analysis is truly *qualitative*. You use the participants actual words and behaviours to answer your questions, rather than counting response options and you do not need complex sampling techniques.

4.2.1.3 Limitations of the focus group for this research

The most important limitation was the little experience of the researcher acting as a focus group moderator. In broader terms, notwithstanding this actual limit, however, the researcher tried to put into practice some good suggestions [R & D, 1979], like the fact that researchers “*must be articulate, but also good listeners*”, and that they “*must have intellectual ability, yet show common sense and be 'down to earth'*. *They must show imagination, yet be logical. While an eye for detail is essential, they must have conceptual ability. They must show "instant" empathy, yet project themselves neutrally. They must be needed. While thinking analytically, they must tolerate disorder*”.

Another limitation is due to the fact that the chosen sample is not representative of a population, so data cannot be treated statistically. Focus groups do not measure: they are just useful to collect some information so that a story can be told. Finally, in focus groups you usually gather people who never met each other, in order for them not to worry about what it will be said during the session.

4.2.1.4 Composition of the focus group

The composition of a focus group is usually based on the homogeneity or similarity of the group members. Bringing people with common interests or experiences together makes it easier for them to carry on a productive discussion.

For the purposes of this research, six people were invited from the campus' library system, who are all involved in journals and web management (as regards staff) and interested in the daily use of e-journals (students and researchers).

4.2.1.5 Design

In order to gather people for the focus group, some telephone calls were made, giving a fast overview of the purposes of this research and trying to outline the importance of final results for a better organization of online consortia purchases and access at our campus in order to improve customer satisfaction. Students were contacted personally.

Then, at the starting of the focus group, the participants were reassured about the voluntary and confidential nature of their participation. Furthermore, it was scheduled to explain participants why they had been chosen for the focus group, telling them about what they had in common in terms of personal involvement in the work related to e-journals and in terms of interest in using the library digital tools.

In order to get many possible replies, open-ended questions were prepared, so avoiding those that could be answered "yes" or "no". The path followed by questioning went from an introductory and warming-up phase, straight through a transition phase, to get to key questions and final ones.

It was decided to avoid direct questions about possible solutions concerning access to consortia e-journals, so that to avoid a probable feeling of being tested among the participants. The design of the focus group scheduled that people would discuss topics among themselves, talking to each other, asking each other questions about what they would hear, and generally reacting to each other.

It is a totally different dynamic from an interview and, in our specific case, this session was planned for a limited purpose, that is testing questions to submit to users, how to better select the population sample and, in broader terms, whether or not the consortia service called "EV" is at the moment satisfactory for the one who makes researches.

In order to capture data from the focus group session, I decided to take notes while audio recording was not allowed by participants.

4.2.1.6 Location and analysis

For convenience, the focus group was organized at a meeting room provided by the economics library, since this library also hosts the office for library automation where the researcher works. The setting was very simple: unfortunately, there was no availability of one-way mirrors or particular sophisticated recording equipment but just a quite long table with chairs around.

For lack of time to dedicate to this research, the focus group analysis started two days later, writing down both questions and answers and making valuable summaries of the focus group session.

4.2.2 Participant Observation

4.2.2.1 Purpose

Assumed that an important objective of this research was to evaluate users' satisfaction with the consortium service named "Emeroteca Virtuale" at the University of Calabria, it was considered important to use the observation method in order to.

- Collect objective information about users' approach to e-journal searches through the Emeroteca Virtuale
- Evaluate the ease of use of this tool
- Identify important problems and issues related to the practical use of the services provided by the Emeroteca Virtuale, gathering possible interesting suggestions.

4.2.2.2 Advantages for this research

Through participant observation, the researcher not only observes and listens to users, he also tries to interact with the user under observation while participating in the user's actions and search routines.

It must be clear that observation does not intend to measure the user's capabilities in using, in our case, the Emeroteca Virtuale. Instead, the observation in this research was conceived to understand what happens in the interaction between user and digital tool, which is the only one to be really tested.

Thanks to participant observation, we were able to collect some important information about the relationship between our patrons and the digital tool here studied.

4.2.2.3 Limitations for this research

Some researchers could think that the main limitation of the method used for this research would be that observation was "overt", that is it was not hidden. According to Labov, in fact, as a paradox, by hiding the observation process we want to observe how people react to situations and facts when they are *not* observed. This kind of observation would provide us with more genuine information about users' behaviour [William Labov, 1972].

In any case, observation can never be omni comprehensive.

4.2.2.4 Sample selection

As most of the users of the Emeroteca Virtuale are among students, teachers and researchers, it was decided to conduct observation with three people belonging to each of the above mentioned categories. Users were invited to participate to a test session in order to perform some simple tasks (see appendix 2).

4.2.2.5 Design for data collection methodology

Once the sessions for the test had been defined, it was important to prepare for the collection of data during observation. Since we decided to make an unobtrusive observation, it was decided to take some notes during the session. In particular, notes were taken in relation with the description of the task performed, the impressions of the moderator and the complains or suggestions provided by users.

In this case, it was important to clearly distinguish between the researcher and the users' interpretations, while exactly reporting the users' comments and their opinions. For this purpose, a grid was previously prepared wherein the researcher inserted data.

4.2.2.6 Pilot test

In order to understand whether the task chosen for direct observation was valuable or not, a pilot test was carried out, which involved three people: one from staff, a teacher and a student. Results showed that the test could be submitted.

4.2.2.7 Location

For the observation session, the library of economics gave the availability of a dedicated computer within the multimedia room.

4.2.2.8 Analysis

Actually, in the observation methodology the process of data analysis begins during the observation itself. In fact, it is a sort of continuing process, during which the research begins to analyse data step by step, as they are gathered: in this case we talk about a "grounded theory".

The first phase for the analysis of observation is description. As the anthropologist Clifford Geertz used to say, it is important to make a thick description: the researcher should describe not only what he hears and sees but also meanings and interpretations.

The next step is classification: while observing the user's behaviour, the researcher tried to define some occurrences in time and some similarities among the different subjects observed (confused, certain of one's actions, expert browsing of the tool).

Finally, all problems encountered, steps in the task submitted, feelings, interpretations and meanings gathered during the observation session, were reported in a narrative and reflective way and are shown in chapter five.

4.2.3 Interviews

4.2.3.1 Purpose

A major aim of this research is that of outlining the level of satisfaction of our patrons as concerns the consortia service called “*Emeroteca Virtuale*”, which is the main gateway to most of the online journals available at our campus.

However, other online resources are available and it is also important to understand if a unique access to all available e-journals is expected.

For these reasons, it was decided to carry on a series of qualitative face-to-face interviews with staff, students, teachers and researchers from the departments belonging to the different libraries at our campus (see appendix 3).

The interviews intended to:

- Explore which are the preferred ways of searching an online article
- Explore whether or not the *Emeroteca Virtuale* satisfies all researchers’ needs
- Understand whether students and researchers would prefer a particular kind of access to e-journals
- Define the reasons why researchers use the “*Emeroteca Virtuale*” and why not

4.2.3.2 Advantages for this research

The most important aim of the qualitative interview is to understand the *perspective* of the analysed subject, that is understanding how the interviewed people see the world, trying to get their terminology and the complexity of their individual perceptions and experiences [Piergiorgio Corbetta, 2003].

For this research in particular, it was very important to define the level of general satisfaction of the university patrons as concerns the library consortia services. So, it was necessary not only to gather data about patrons, but we also needed to let them talk, so that they could tell us about their search habits, their preferences and feelings.

4.2.3.3 Limitations for this research

In a way, we can say that the kind of immersion of the researcher into the social reality through the interview is not so deep like in the case of the participant observation.

In fact, though we could get some information about personal opinions and feelings, the interview did not give us a clear idea of what were, for instance, the practical difficulties in using a tool like the *Emeroteca Virtuale*. Furthermore, the selected sample is not representative of the entire population that is being studied.

That’s why this method was used in combination with observations and questionnaires.

4.2.3.4 Sample selection

Interviews scheduled for this research considered the definition of a sample of key informants and the clarity and precision of simple questions. The sample was made of twelve students, two teachers, two researchers and four people from staff, making a total of 20 people interviewed.

People for the interview were not selected on the basis that they were particularly representative of the population, but just because they were considered “interesting customers”. The idea of customer included mainly researchers and students, but also teachers and staff.

In particular, the researcher considered those people among staff that have an evident positive attitude towards the new technology and the reason is also that today, in the changing process that affects libraries, the researcher thinks that the library staff should be more and more involved in research programs and activities dealing with the new evolving digital scenario. This also implies the need to make research and to be always updated.

Undergraduate and graduating students were considered because they often use e-journals and have demonstrated to be very interested in some tutorials that the library system has organized on the use of e-journals at our campus. Finally, teachers and researchers were considered because it often happens that this category makes a lot of complaints about e-journals.

4.2.3.5 Design of the interview

At first, it was necessary to define, in broader terms, what to ask. For the purposes of this research, it was considered important to focus on questions where the response is not pre-determined, but chosen by the respondent and expressed in natural language.

In fact, the most difficult task in qualitative interviews is to make people talk. It was also very important to consider that the interviewer, while making his interview, did not have to express any kind of approval or disapproval with respect to the opinions expressed by the interviewed person [B. S. Phillips, 1971].

To summarize, the design of the interview was the following:

- ✓ Preliminary explanations of the research when possible interviewees were contacted, trying to make them understand what they were asked for
- ✓ Different forms of questions: descriptive, structural and probing
- ✓ A general layout of interview questionnaires but not a restrictive one, since it was decided to make a non-structured interview, in which the interviewed person is free to talk, while the interviewer has a path to follow concerning the arguments that must be talked about but giving himself the chance to explore new areas of investigation

- ✓ A particular attention to language, so that both the actors of the interview can easily understand each other [R.L Kahn and C.F Cannel, 1967]
- ✓ A pilot, that is a very small-scale trial before the main investigation
- ✓ A 30 minutes-time per interview

As regards users' satisfaction, particularly interesting is the expectation survey proposed by the University of Waikato [Nicola Harwood and Jillene Bydder, 1998].

4.2.3.6 Defining questions

The interview questionnaire [M.Q. Patton, 1990] has taken into consideration, as far as possible, the following kind of **open-ended questions**:

- *Experience/behaviour questions*, which ask about people's activities
- *Opinion/value questions*, which cover beliefs, for ex. "What do you think about?"
- *Feeling questions*, which say more about a person's emotions
- *Knowledge questions*, which seek factual knowledge about a particular topic
- *Sensory questions*, which allow the researcher to step into the respondent's shoes, for ex. "What do you notice first when you access the Library System website?"
- *Background/demographic questions*

In particular, the themes of the proposed questions mainly regarded:

- ✓ Users' profession
- ✓ Users' opinion about the EV
- ✓ Use of full-text articles provided by the EV
- ✓ Frequency of use
- ✓ Reasons for using or not using the EV
- ✓ Satisfaction about the services provided by the EV

4.2.3.7 Analysis

The qualitative analysis was case-based, since the main objective was to deeply "understand" the interviewed people. Results, in this case, are presented in a narrative way, using the same words of the interviewed people and trying not to alter the data which have been gathered. Results are reported in chapter five.

4.2.4 *The questionnaire*

4.2.4.1 Purpose

In order to have a deeper knowledge of our users, a questionnaire survey was submitted to teachers, researchers and students. The main purposes were to:

- Identify the area of study of people interviewed
- Assessing the use or non-use of the consortium service called “EV”
- Assessing the methodology followed to search online full-text articles
- Identifying possible practical problems in the use of the “EV”
- Discovering the level of satisfaction among users as regards the “EV”
- Identifying the users’ opinion about possible initiatives to undertake in order to improve access to e-journals.

4.2.4.2 Advantages for this research

The main advantage for choosing to submit a questionnaire was the possibility to get a quite good amount of data from different people at low costs or, like in the case of questionnaires sent via e-mail, at zero costs. For this research, questionnaires were mainly submitted meeting users personally (within libraries, at laboratories, at the canteen, near lesson rooms), but many of them were sent via e-mail, in order to save further time, and it was decided to use closed questions. Closed-questions are useful to help memory and they stimulate analysis and reflection.

4.2.4.3 Limitations for this research

Apart from the fact that generally questionnaires tend to describe ideal situations and not reality, the main limit of a closed-question questionnaire is that it does not consider the alternative responses that the researcher did not think of [A. V. Cicourel, 1964].

Then, closed questions may influence answers also in those people who do not have a clear opinion on the argument treated in the questionnaire. Finally, questions do not have the same meaning for everyone.

4.2.4.4 Sampling and Key Informants

In order to start data collection, first of all a sample must be defined out of a population. A population consists of individuals or elements, and these could be persons or events. The aim of sampling is to save time and effort, but also to obtain consistent and unbiased estimates of the population status in terms of whatever is being researched.

After having identified the population to be researched and arranged access to it thanks to a sampling frame, the researcher decided how to select the sample itself.

Key informants representing a wide variety of interests within our Campus were chosen among

- Teachers, researchers and students interested in consulting electronic journals, with particular concern to the campus consortium service called “Emeroteca Virtuale”.

4.2.4.5 Questionnaire design and data collection

In order to collect quantitative data, it was decided to use a **questionnaire**, composed of **closed questions**, which are those where the respondent provides an answer that fits into a category pre-defined by the researcher. In this case, both questions and answers are standardized.

Considering the different limitations that a closed-question questionnaire involves, it was necessary to conduct an explorative study, using the same questions but in “open-ended” format, submitting them to a sample taken from the same population to which the questionnaire was supposed to be submitted. In this context, the programmed interviews were useful to get important information.

Then, just before questionnaires were submitted, a pre-test was performed, in order to assess questions and to test the simplicity and efficacy of questions. The pre-test was based on the actual closed-question questionnaire that would have been further submitted to patrons.

Data collection was carried out meeting people within the university libraries and laboratories but also sending the questionnaire via e-mail, supposing that the response rate would have been high, on the basis that e-journals available thanks to the EV are very required at our campus.

The main variables considered by the questionnaire were:

- ✓ Use/non use of the Emeroteca Virtuale
- ✓ Reasons for use or non use
- ✓ Training and support in use
- ✓ Satisfaction about the services provided by the Emeroteca Virtuale
- ✓ Expectations about further improvements of the service.

4.3 Methodology for data analysis

The analysis of data was variable-based. At first, questions were submitted to the representative sample of the population studied. Then, the objective was to create a *data matrix* where to put hard, objective and standardized data.

In such a survey, the studied subjects were passive and a certain distance between researcher and studied elements had to be allowed. The process of data analysis involved both:

- Data Analysis, which is all about sorting
- Data Interpretation, which is all about attributing meaning to the data previously sorted.

The approach followed implies that what has been understood has to be accurately described, and data have to be reconstructed into a “recognizable reality” for the study participants.

For this reason, the following steps were taken:

- Familiarisation, which means building up knowledge of the themes and issues contained in the data;
- Systematic description, for which it was necessary to categorise and classify, as well as to index the contents of our qualitative data;
- Reflection, which involved displaying the data, using charts, diagrams or graphical representation of the results;
- Explanation and Description
- Interpretation.

Finally, the analysis led to the drawing up of logical findings and conclusions based on data. As regards the analysis of qualitative and quantitative data, Microsoft Excel was used.

References

- 1) Cicourel, A. V. (1964). *Method and Measurement in Sociology*. New York: The Free Press.
- 2) Corbetta, Piergiorgio (2003). *La ricerca sociale: metodologia e tecniche*. Vol. 1-4. Bologna: Il Mulino.
- 3) Harwood, Nicola and Bydder, Jillene (1998). *Student Expectations of, and Satisfaction with, the University Library*. In "The Journal of Academic Librarianship", Vol. 24, Issue 2, pp. 161-171.
- 4) Jenkins, C. (1997). *User studies: electronic journals and user response to new modes of information delivery*. In "Library acquisition : practice & theory", Vol. 21, Issue 3, pp. 355-363; Pullinger, D. and Baldwin, C.(1997) *SuperJournal: what readers really want from electronic journals*. In: "Proceedings of the 4th electronic library and visual information research conference. ELVIRA4", 6-8, De Montfort University, Milton Keynes", edited by C. Davies and A. Ramsden. Aslib, pp. 145-153. URL: <<http://www.superjournal.ac.uk/sj/elvira.htm>.> [Last accessed: February 10th 2005]; Eason, K., Yu, L. and Harker, S. (2000). *The use and usefulness of functions in electronic journals: the experience of the SupeJournal project*. In "Program", Vol. 3, Issue 1, pp. 1-28.
- 5) Kahn, R.L. and Cannel, C.F. (1967). *The Dynamics of Interviewing*. New York: Wiley.
- 6) Labov, William (1972). *Sociolinguistics Patterns*. Philadelphia: University of Pennsylvania Press.
- 7) Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods*. 2nd Ed. Sage.
- 8) Phillips, B.S. (1971). *Social Research. Strategy and Tactics*. New York: Macmillan.
- 9) R & D Sub-committee on Qualitative Research (1979). *Qualitative Research - A Summary of the Concepts Involved*. In "Journal of the Market Research Society". Vol. 21, Issue 2.

Chapter 5

Results of the Research

5.1 Use of the service “Emeroteca Virtuale”

The Emeroteca Virtuale is now a consolidated service provided by our University Library System’s website. It is a consortia service created by CIBER and technically supported by CASPUR. The general theory moving this study was that this digital tool is a new way to make research at our University and that library consortia, today, are the very new horizon of academic research. For the aims of this research, at first the researcher was interested in understanding who our users are and how familiar they are with our Library System website. Then, use (and non use) of the Emeroteca Virtuale was investigated, trying to understand the reasons according to which a user is prone to use the system or not, and to find out whether or not users were aware of the service called “Emeroteca Virtuale” (see appendix 4).

5.1.2 Response Rate

The response rate was quite good. In fact, 560 people answered the questionnaire out of a sample of 1,350 users, making a total response percentage of 41.48%. Though our University counts almost 30,000 students, 900 teachers and 800 people from staff, the researcher believes this sample can be considered quite representative of the entire population and that all results of this research can give us an important view of our users’ impressions about the Emeroteca Virtuale.

In the last column of the following table (tab. 3), percentages regarding the respondents over the whole campus have been aggregated. This means that, first of all, since it was not possible to retrieve the exact number of doctorate students at our University (and that doctorate students who responded were just thirteen over thirty contacted), they have been considered as “students” in this column. In this way, respondent students represent 1.60% of the whole campus.

Then, researchers, full professors and associated professors have all been considered as “professors” here: respondents of this category represent 4% over the whole campus. Librarians and technical-administrative staff have been aggregated as “staff”, with a response rate of 2.62% over the whole campus. Finally, we have left the item “other” alone, which also includes part-time students and external collaborators. The response rate is of 2.22% out of the total sample population, corresponding to 30 people.

Profession	Contacted	Respondent	Respondent % for each category over contacted people	Respondent % for each category over total sample population	Respondent % for aggregated categories over whole campus
Student	1,155	460	39.83%	34.08%	Students 1.60%
Doctorate student	30	13	43.33%	0.96%	
Researcher	30	23	76.67%	1.71%	
Associate Professor	30	10	33.33%	0.74%	Professors 4.00%
Full Professor	30	3	10.00%	0.22%	
Librarian	30	15	50.00%	1.11%	
Tec-Admin Staff	15	6	40.00%	0.44%	Staff 2.62%
Other	30	30	100%	2.22%	
Totals	1,350	560		41.48%	

Tab. 3. Profession of respondents: percentages for each category over contacted people, sample population and the whole Campus

As regards students in particular, we should then notice that most of them (28,923) are resident users. Following, we report a table (tab. 4) showing the details related to the users' province of residence.

As one can observe, according to this table most students (18,426) live in the province of Cosenza, where the University is located. This data let us suppose that most users should be full- time students, spending much of their time at the campus and consulting e-journals from the University computer stations.

Students who have their residence in CALABRIA	
Province of Residence	Enrolled
REGGIO CALABRIA	1,858
CATANZARO	4,743
CROTONE	2,122
VIBO VALENTIA	1,774
COSENZA	18,426
Total	28,923

Tab. 4. Province of residence of students at the University of Calabria³

³ Data provided by the statistics office at the University of Calabria

At this moment, the University of Calabria also enrolls 540 students coming from other Regions (for a total amount of 29,463 students) and the following table shows the related details:

Users who have their residence out of CALABRIA

Region of Residence	Enrolled
ABRUZZO	4
BASILICATA	159
CAMPANIA	54
Datum non defined	59
EMILIA ROMAGNA	36
FRIULI VENEZIA GIULIA	3
LAZIO	21
LIGURIA	4
LOMBARDIA	26
MARCHE	2
PIEMONTE	6
PUGLIA	59
SARDEGNA	2
SICILIA	81
TOSCANA	6
TRENTINO ALTO ADIGE	5
UMBRIA	3
VALLE D'AOSTA	4
VENETO	6
Total	540

Tab. 5. Region of residence of students at the University of Calabria

It must be underlined that access is mostly guaranteed thanks to IP recognition procedures. However, the consortium service *Emeroteca Virtuale* provides institutional users with a user ID and a password for remote connection, though, at the moment, this service is limited to the consultation of e-journals by Elsevier (1,975 journals). So, we could say that online access at our campus is mainly used as an extension of local collections, since access from home is very limited.

Finally, here follows a summary graph showing that most of respondents were students (almost 40% of the contacted students and 34% of the entire sample population), who were widely reached within the whole University.

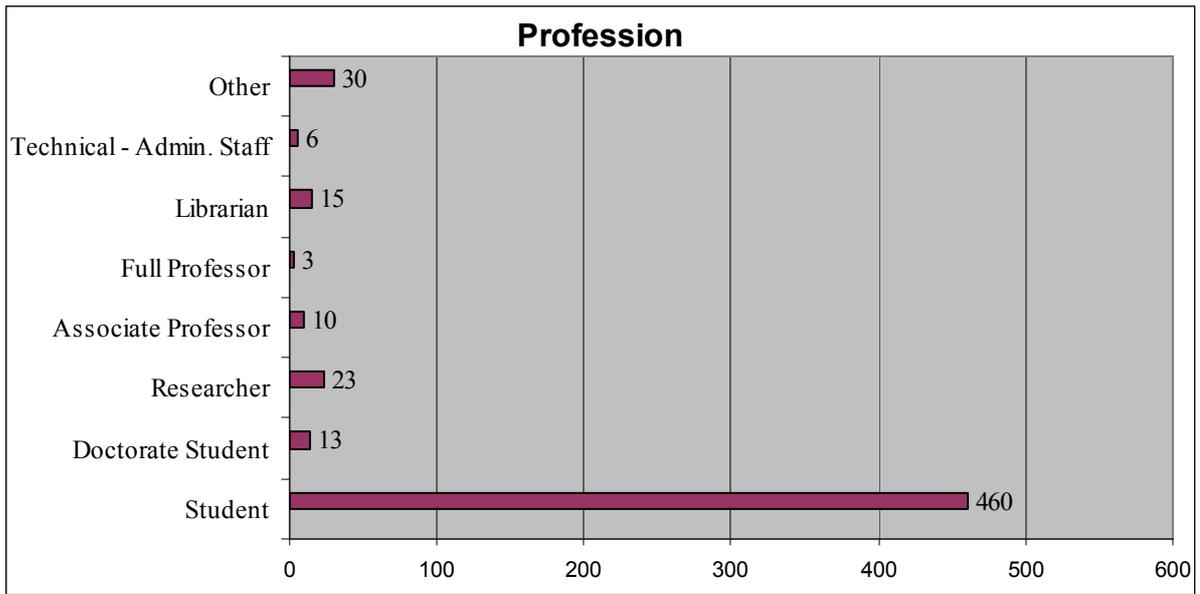


Fig. 14. Profession of respondents

5.1.2.1 Characteristics of respondents

Users were also asked to kindly indicate which was their area of study and related Library, together with some other information related to their sex and age, kind of degree pursued (if students), their education titles. The graphs here below show the details:

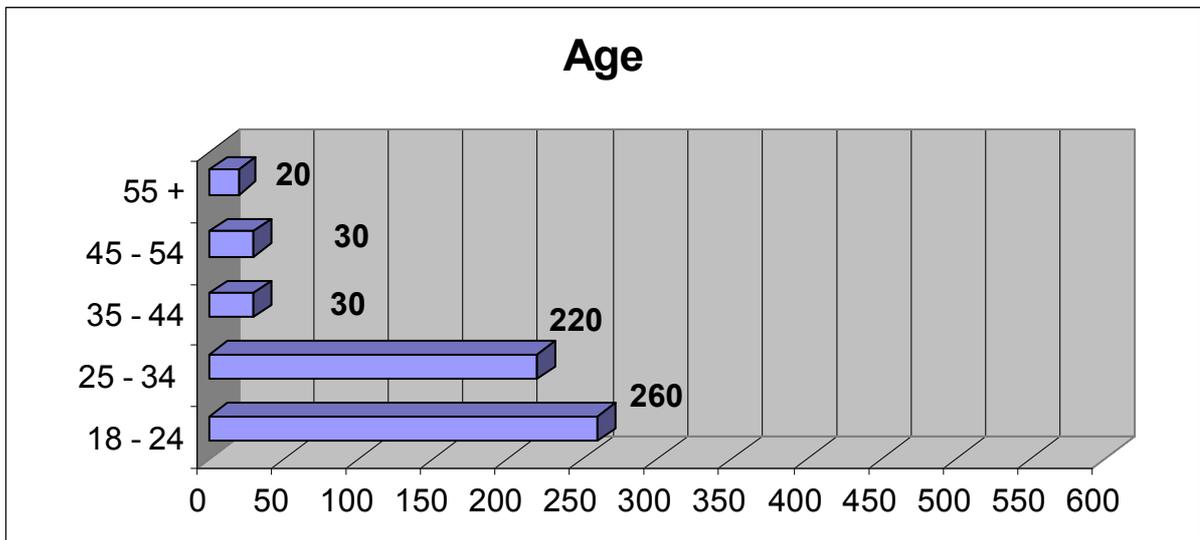


Fig. 15. Age of respondents

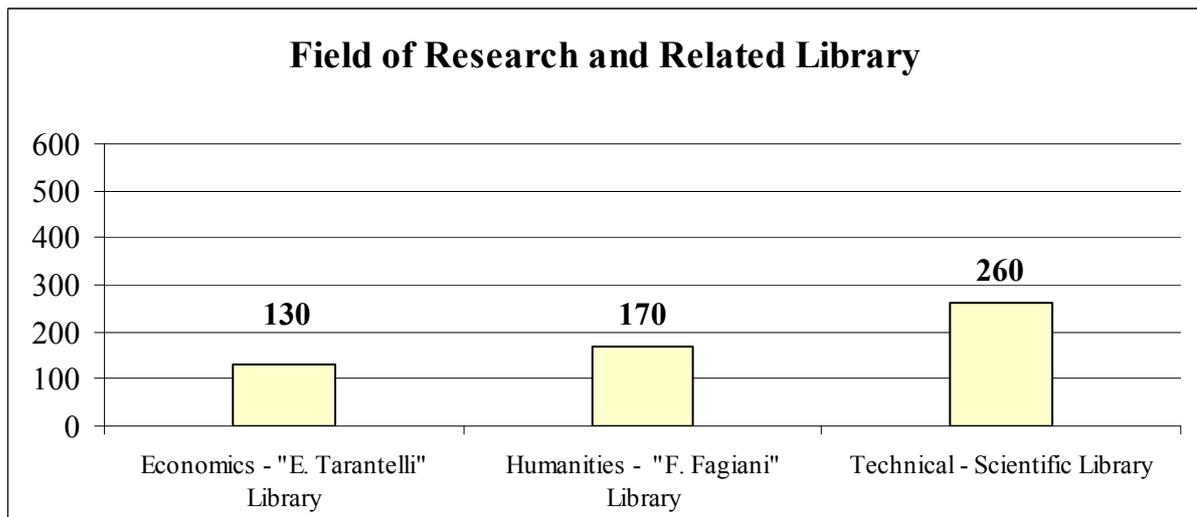


Fig. 16. Field of research of respondents

As it is shown, most of the respondents belonged to the scientific area and their age was between 18 and 24 years. Furthermore, most of them, being students, had a high school diploma (75%) but some a University degree (14%), others were specializing for teaching at schools, or had a Master (3%).

Education

High School Diploma.	75%
University Degree	14%
Specialist School for School Teachers	6%
Master	3%
Doctorate	1%
Post-Doctorate	1%
Total	100%

Tab. 6 Education level of respondents

5.1.3 Questionnaire Results

The questionnaire results say that most of the respondents (43%) are “quite familiar” with the Library System web page, while just a few (5%) are totally unfamiliar. Some others, 29%, said they were a little familiar and 23% said they were “very familiar”.

We report these results also in the following graph:

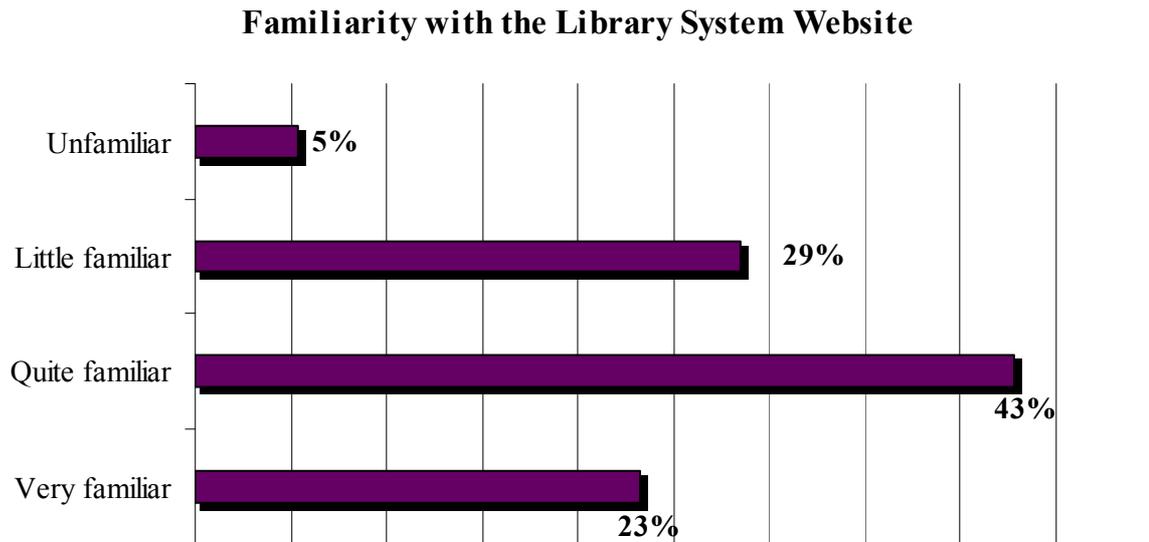


Fig. 17. Familiarity with the library system website

Furthermore, when asked how they would rate their experience in using the digital tools provided by the Library System, most of our patrons (45%) considered themselves as “quite expert”, while many others admitted having no experience at all (38%). Just a little 5% declared to be “very expert” and no answer came from 12% of respondents.

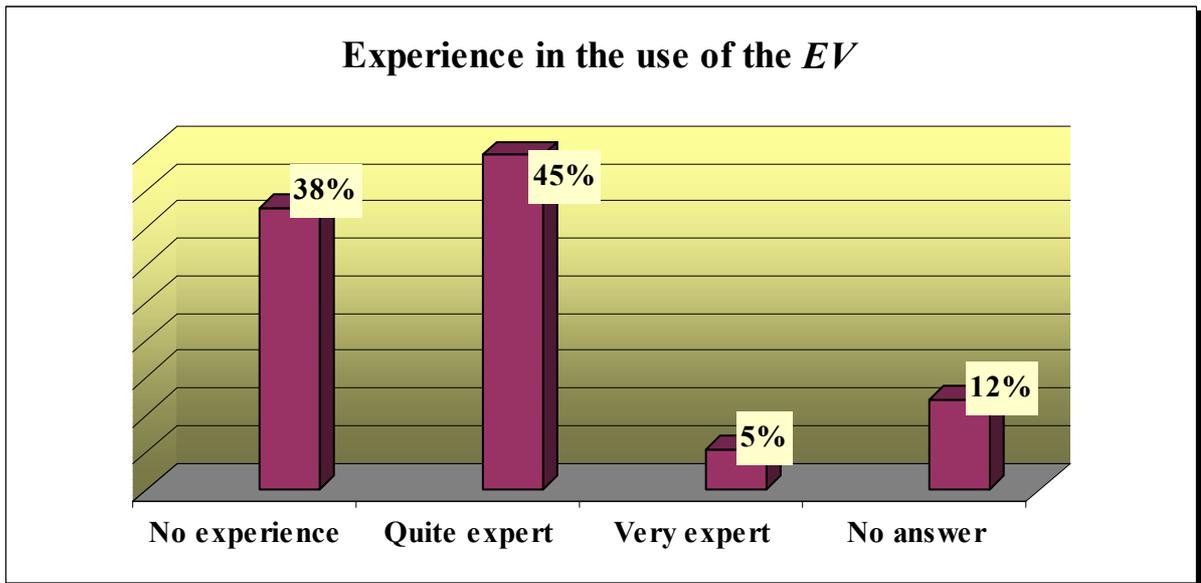


Fig. 18. Experience in using the Emeroteca Virtuale (EV)

Then, results show that a quite considerable number of users is not aware of this consortium service and, so, they do not actually use it in their study or research activity (64%).

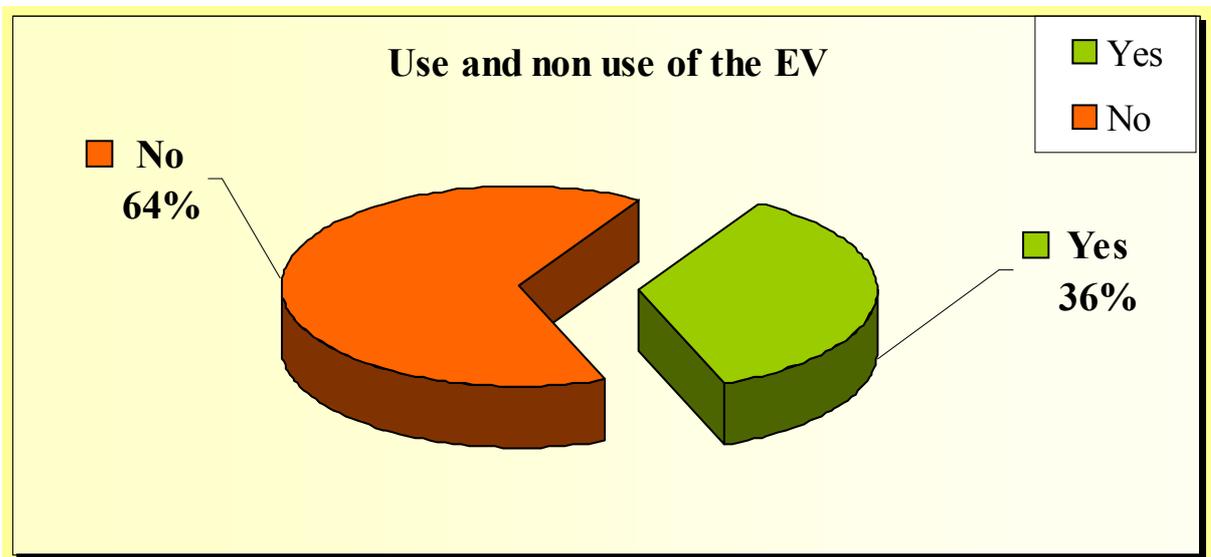


Fig. 19. Use and non use of the EV

The questionnaire also included the option “other”, where users were asked to put their personal motivations for using or not using the service (questions 10a and 10g). As regards in particular the frequency of use (question 10c), 33% of respondents wanted to add personal comments, which are described below. Among them, 24% declared to use the service “once

or twice a week” and another 22% declared to use it just “once or twice every six months”, while just 8% seems to use the Emeroteca Virtuale more than once a week.

These results must be read keeping in mind that most of all respondents are students. Actually, it is probable that there are a large number of researchers and teachers, who were not reached by the questionnaire and that, instead, massively use the online journals provided by the Emeroteca Virtuale.

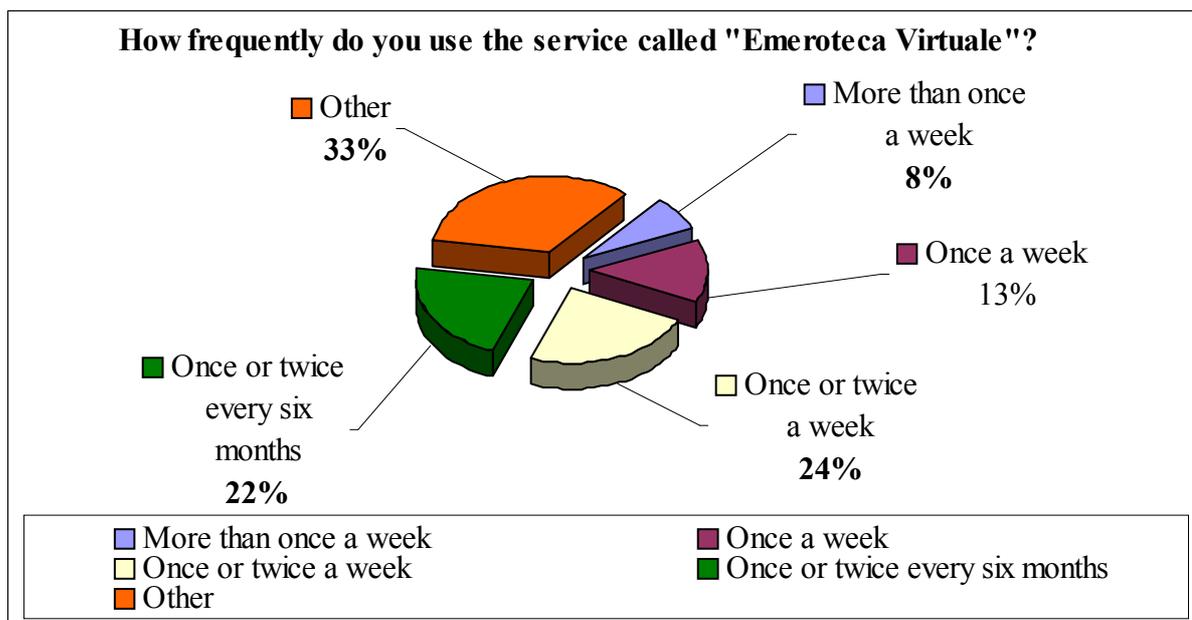


Fig. 20. The EV consortium service: frequency of use

The “other” option let us know the particular reason why the user cannot declare a frequency of use: in fact, four people simply declared:

“I do not use the service”

and eight declared

*“I have **never** used the service”*

Other comments were all similar to the above mentioned, and others were:

“At the moment I have no need to use e-journals...”

“I haven’t used it yet...you should provide users with more information on how to use this tool. It is not always clear how to proceed...”

“It depends on the availability of a computer....”

Some closed-questions in the questionnaire were also transformed into open-ended ones during interviews and used in order to have, together with the quantitative results of the questionnaire itself, also a “qualitative” perspective and a deeper knowledge of users’ feelings. For instance, this is the case of the question that aimed at knowing how the user learnt about the service called Emeroteca Virtuale (question 10d). Both in the questionnaire (using the option “other”) and during interviews, it was clear that many respondents had never heard of the Emeroteca Virtuale.

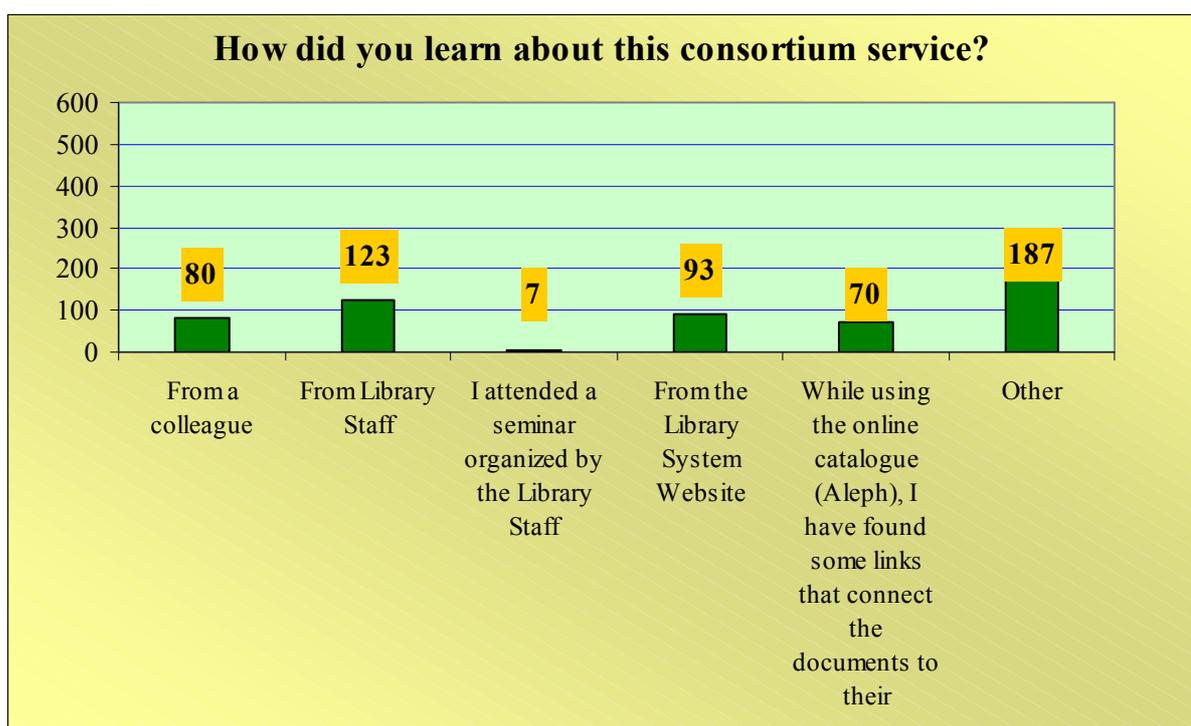


Fig. 21. Knowledge of the service called Emeroteca Virtuale

As it is clear from figure 21, the Library Staff play a major role in spreading the needed information about the available digital tools at our University: 123 people (about 22%) declared to have received the information from library staff.

Also the Library System website has a great importance: 93 people (17%) benefited from the information provided online by the Library System. Communication among colleagues seems to be efficient for about 14% of respondents (80 people) and the library catalogue also gives its contribution for 70 people (13%).

In fact, the online catalogue has a particular feature thanks to which a user is able to first locate the document and then, clicking on a proper link, to view the online version of the document itself: while opening the online version, the user can find out that the journal is provided by the Emeroteca Virtuale. In particular, this happens with journals from Elsevier

and Kluwer Publishing. Further implementations of the system will let us be able to provide links for many other journals, just starting the search session from the catalogue.

As regards the option “other”, results show that the questionnaire itself has been a very important tool in order to inform people about the Emeroteca Virtuale. Following are reported the most frequent quotes from users:

“..I had no idea that such a service was available. I’m preparing my final dissertation and my teacher suggested me to use it...”

“..I didn’t know anything until this morning...with this questionnaire...”

“I am getting this information right now...thanks to this questionnaire”

“...right now...”

“..answering this questionnaire...”

Since this research also aims at evaluating users’ satisfaction with the Emeroteca Virtuale, it was considered interesting to find out whether the experience that users declared to have in the use of the Emeroteca Virtuale was the result of self-study or if users got some help to understand the features of this service. So, patrons were asked to indicate what kind of support they had received in order to use the Emeroteca Virtuale. In the section of the sample (composed of 373 people) that answered they knew the Emeroteca Virtuale, 65% declared they received no support at all, while 19% took advantage from the “Help” page. Then, 8% declared to have attended a workshop organized at their area library and another 8% said they received individual support.

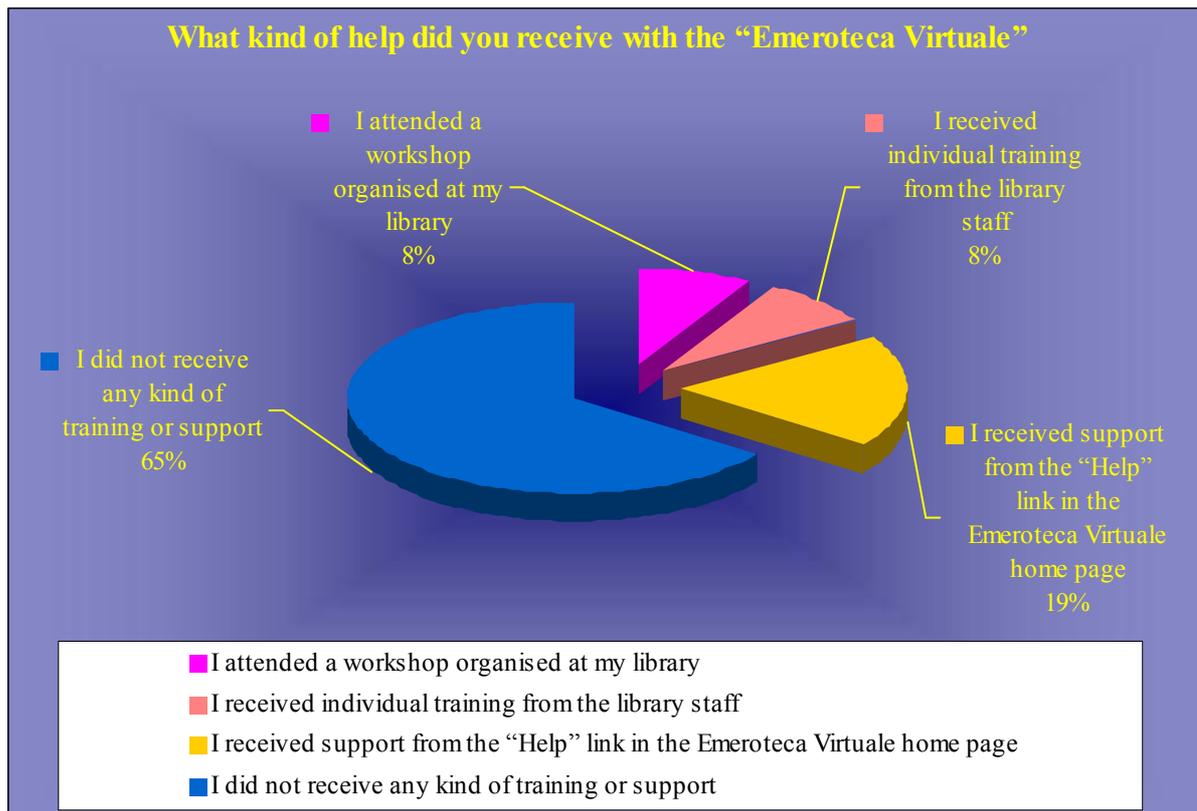


Fig. 22. Help received with the Emeroteca Virtuale

5.2 Difficulties and advantages in using the Emeroteca Virtuale

At first, the questionnaire was designed to let us know whether respondents used or did not use the Emeroteca Virtuale. According to this first information, users were asked to show the reasons why they did not use this service (question 10a) and, in the case they did instead, what kind of problems they encountered while performing their researches (question 10h). Furthermore, users were also asked to explain the reasons why they used the Emeroteca Virtuale, choosing among different possible answers (question 10g). Each of the above questions included the “other” option with a blank space where users were free to add personal and different answers and they were also allowed to indicate more than one answer among the items proposed.

As figure 23 shows, 32% of the sample is not aware of the Emeroteca Virtuale, which turns to be the main reason for not using it. Another significant result is that 18% of respondents declare to prefer reading printed journals, 17% of them do not find enough back files and just 10% affirm that the reason why they do not use the EV is for technical difficulties.

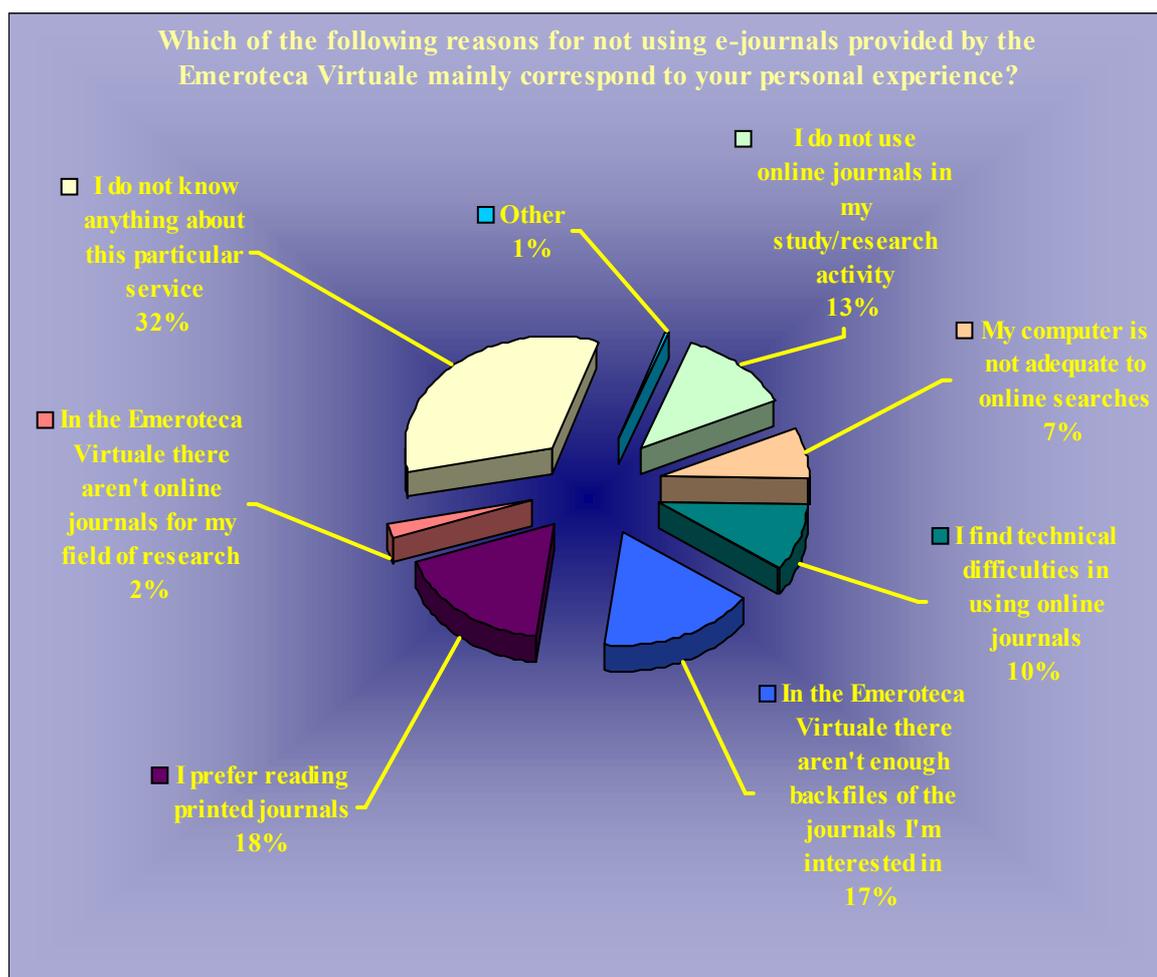


Fig. 23. Reasons for not using the Emeroteca Virtuale

So, reading from paper seems to be still the preferred way to read. Actually, this is important while considering the possibility to move from print to online subscriptions, which is the main trend today, especially thanks to library consortia activity [David Ball, 2003].

Furthermore, it is clear that it is necessary to find out more about our users' needs in terms of interests for particular journals' availability: in fact, 2% of users declared they do not find journals for their field of research. However, it would be interesting to better understand why 13% declare that they do not use online journals in their study or research activity: possible answers may come from question 10a, as figure 23 shows, even though, reading the results shown in that figure, we should remind that those percentages are related to all the investigated sample.

Finally, 2% declare that their computer is not adequate for online searches and comments came from 1% of respondents in the "other" section:

"I like this service but the network is too slow..."

“I don’t find Acrobat Reader installed in some computers at the library...you need it in order to read PDF files...”

“I do not know what to say...”

During interviews, other comments were gathered, to which the researcher thinks more attention should be paid. Here are some examples:

“I think that the EV should be more easy to use...” **Student**

“...it’s not possible, you know....papers are just in English...I do not know English...isn’t it possible to have the Italian version of papers?” **Researcher**

“..I like to study at the Library and to use e-journals there...but. ..I mean ...say [sic]... when you make a search...you often get results that are not useful...and I feel I’m wasting time...” **Student**

“...The EV is good...also the alert service...but you know...I would like the library to send me updated papers directly to my office in print...isn’t it possible?” **Teacher**

5.2.1 Reasons encouraging the use of the EV

More and more researchers appreciate the possibility to comfortably stay at their desk and having a vast amount of information available under a simple click of their PC mouse and, what is more, whenever they want, 24 hours a day for 7 days a week. This was one of the hypotheses that moved the discussion of the focus group towards some questions to submit to our users. As we said, the general theory was that the Emeroteca Virtuale is a brand new way to make research at our University.

More hypotheses supporting this theory were that the EV makes it possible to have fresher articles and in a shorter time. Starting from this, question 10g, which gave users the possibility to indicate more than one option, reported that the main reason that encourages the use of this consortium service is that “Emeroteca Virtuale” is available 24 hours a day and saves time (27%), while the possibility to find the electronic version of journals of interest, which are not available in print at the library, is another factor (14%) that determines the preference towards the EV.

Ease of use and the possibility to search more years at a time are important factors that retain 13% of preferences each.

The fact that the EV is more convenient than physically going to the library is determinant for 11% of users, while 9% declare that the online journals provided by the EV are more updated compared to the print format available at the library.

Journals provided online by the Emeroteca Virtuale are available both as PDF and HTML pages. In this latter case, references are “clickable”: this means it is possible to jump directly from the bibliographic reference to the full text of the cited article. This feature attracts 10% of users.

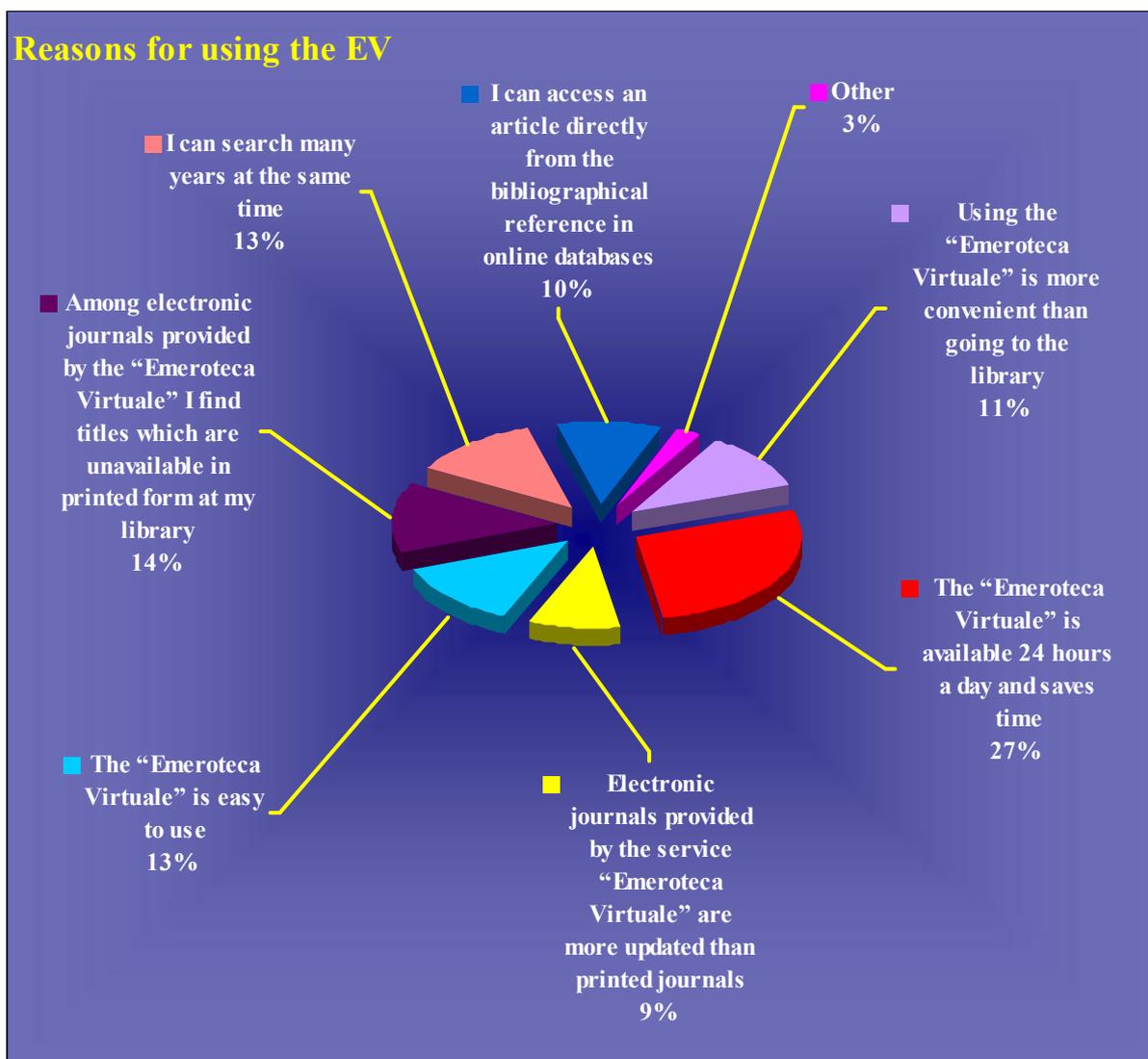


Fig. 24. Reasons for using the Emeroteca Virtuale

As Fig. 24 shows, 3% of users have indicated “other” reasons. In particular, we report here some of the more significant answers chosen among those written in the questionnaire and those got from interviews:

“...Supposed that contents are completely exhaustive, I would expect no interruption in the 24 hours service, the possibility to import contents from other databases...possibility of making hyper-textual researches...I don't know...in any case it is convenient to use it!”

“...it is important to be always updated about new contents in my discipline of study...and the EV gives me this chance.”

“I definitely love the possibility to get alerts of new articles directly into my mail box! Great!”

“...this portal, yes...I mean the EV gives me the chance to chose from different types of searches...”

“...you can set the system to have personalized results...that is good!”

“..It's a good service that I can also use from home...with no need to go to the library...”

5.2.2 Suggestions to improve the use of the EV

One of the questions of the questionnaire (question 10b) was scheduled to let people freely express what kind of suggestions they would give to improve both the awareness of the digital service called Emeroteca Virtuale and the actual use of this tool. Answers were of different types but just a very limited number of people, 12 users over a set of 560 respondents, wrote something onto the questionnaire.

All other respondents left this space blank; they did not even write down whether they had nothing to say. The twelve suggestions that have been gathered through the questionnaire are literally reported here below:

“Seminars to teach the potentialities of this service”

“You must advertise through the University portal, the Web page of the Aleph catalogue, and through distribution of advertising leaflets”

“Promotion of the service, dissemination of information and more user education for this particular tool...”

“Pay attention to subscriptions!...”

“Make recurring controls on the accessibility of subscribed journals”

“I have no suggestion to give”

“No suggestions for the moment”

“To increase the number of available e-journals”

“To make consultation easier”

“To complete all series”

“Promote the service more (not only within the limited librarians’ sphere)”

“Publicize it and make it adequate and complete”

5.2.3 Problems in the use of the EV

As we have seen above, most of the people interviewed do not use the online journals provided by the Emeroteca Virtuale, though this information does not tell us they do not use e-journals at all.

Furthermore, since, however, a considerable number of people actually use the Emeroteca Virtuale, it was considered important also to find out what kind of problems may arise while using this digital tool. The results of this particular investigation come from question 10h, to which just 460 users answered over the respondent sample made of 560. This means that, though it was possible to answer to more than one items among those proposed, some people did not answer at all this particular question.

Most of these respondents (28%) declared that they do not find within the EV an adequate number of e-journals related to the discipline of interest, while a considerable percentage (24%) still prefer to read from paper. Another main problem that many of the respondent users (17%) find is that they are not allowed to access some titles from home.

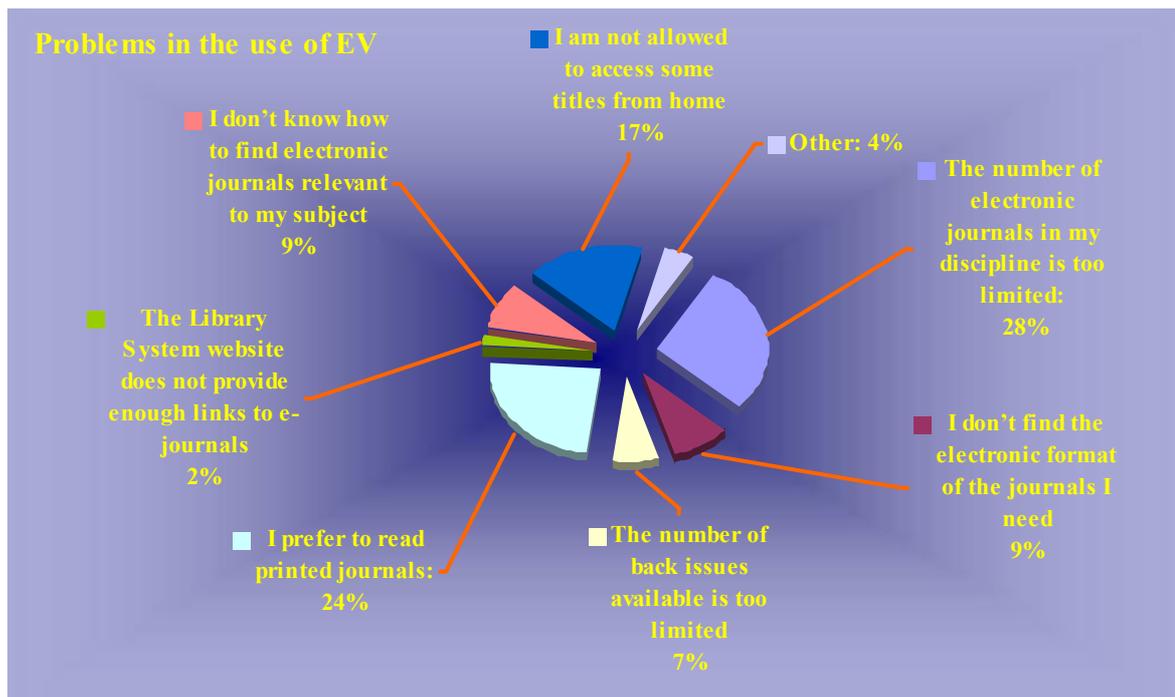


Fig. 25. Problems in the use of the Emeroteca Virtuale

Two other problems are that users do not find the electronic version of the journals they need (9%) and that they do not know how to find them (9%). It is evident that back issues are fundamental for a certain number of users (7%), while 2% of them complain that the Library System website does not provide enough links to e-journals. The “other” option has been filled in by 4% of users, whose most meaningful comments are herein reported:

“..I think that, in order to properly evaluate the remarking of possible problems, it is not possible to answer some questions without specifying the area of interest (see also question 11)...”

Teacher

“...I just don't know!”

Student

“You indicated a few problems to choose among..!”

Researcher

“Sometimes it happens that, within a year of a journal, some issues open up and some other don't...and I know for sure we paid for the print subscription!”

Teacher

“...you know...when I use the advanced search...well...it gives back wrong items! Or maybe... am I not able to use it?”

Student

“...I don't think that this tool will have a great success”

Student

“You cannot totally rely on e-journals...if you go to the library you know you will find the print format...on the computer...you never know...” **Researcher**

As it is clear from the comments above, there is still a certain reserve in using the digital tool: the print format seems to be more comforting for different users. Then, actually we should improve our control over the efficient access to online journals, which sometimes do not open their issues even if the related subscription has been completely paid. Then, more attention should be paid to the technical functionalities of the different kinds of searches a user can perform within the Emeroteca Virtuale.

5.2.4 Research habits of users at the University of Calabria

The Emeroteca Virtuale, notwithstanding its limitations for which users complain, remains a useful and innovative search tool. However, the researcher wanted to find out more about our users and for this reason a particular question was scheduled (question 10f) in order to discover which were the preferred ways to seek online content. Also this question included the option “other” and allowed users to give more than one answer, indicating all possible steps used while making a research but, however, without specifying the preference order.

In the case of this question, the 560 respondents indicated 730 different ways of making a search for online journals. For this reason, percentages for this question have been calculated over a total of 730 and indicate the amount of preferences totalised by each way of searching among the items proposed.

Results were quite unexpected, since most of the cited ways was “to look at a Web engine” (25%). Just at the second place we find the Library System catalogue, Aleph, with 21% of citations in the preferences.

The Emeroteca Virtuale home page is the third choice with only 12% of preferences, followed by the specialist web guides for the disciplines of interest (11%).

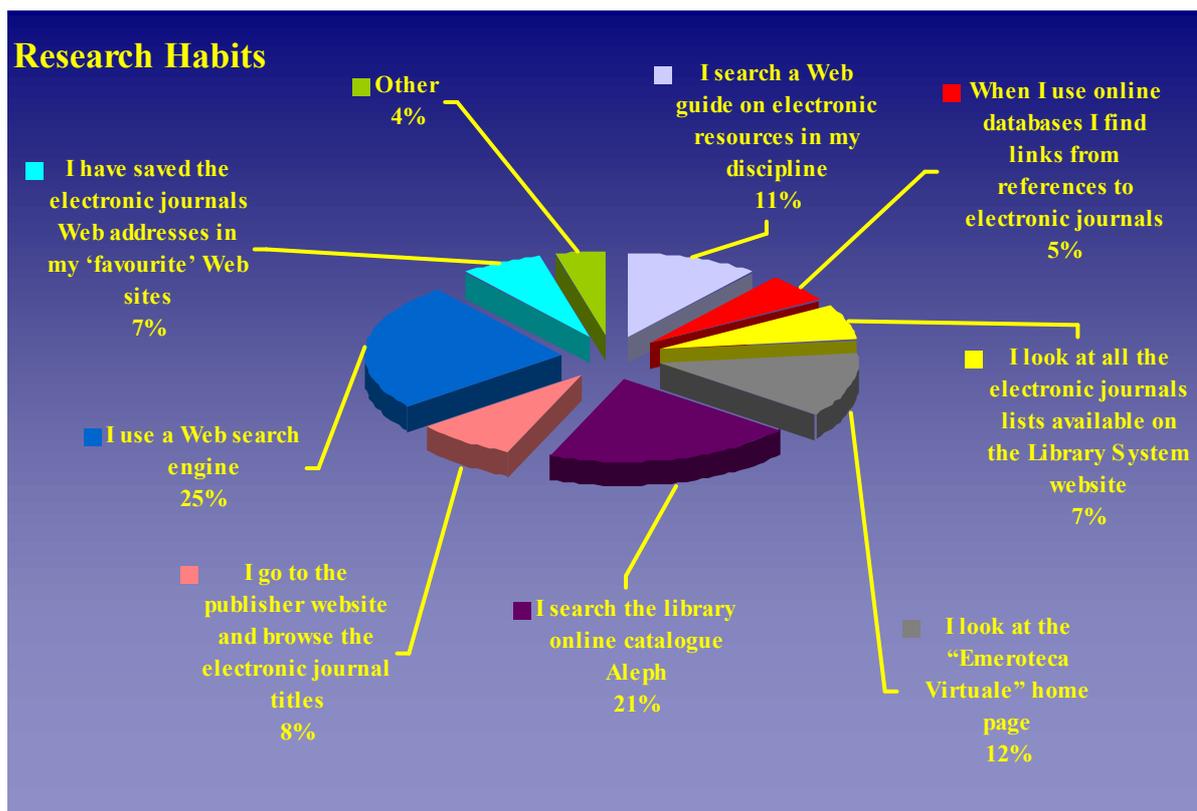


Fig. 26. Research habits of users at the University of Calabria

Immediately after that, we find that another preferred way of searching for online journals is to go to the publisher's website (8%) and, following, saving the e-journals web address within the personally "favourite" websites (7%). Another 7% of preferences goes to the lists of e-journals within the Library System website, while 5% of preferences relate to the possibility to jump from references to full-texts. Finally, 4% represent the indication of "other" ways: actually, people who wrote something, did not show an effective way of searching for online journals. In fact, respondents used the white space to say almost the same thing:

"I usually do not use online journals....electronic journals.."

"I repeat it...I did not know anything about this service!" [not actually answering the question]

"I have never used the service..."

5.3 Users' satisfaction with the Emeroteca Virtuale

In order to go deeper and to better know our users' satisfaction, a table was planned in the questionnaire to be submitted to our patrons. This table, which helps users to answer question

11, includes a series of items for which respondents were asked to indicate their degree of satisfaction, from “unsatisfied” to “very satisfied”. Another option was allowed, that is “I don’t know”.

5.3.1 Number of titles available

The first item in question number 11 is related to the availability of e-journals titles within the Emeroteca Virtuale. Results show that most of the respondents (32%) are satisfied with this service provided by the CIBER consortium, while 16% are unsatisfied. Then, 14% of them are not very satisfied at all and 11% declare to be “very” satisfied. A consistent number of people, 27 % of respondents, is not able to express an opinion whatsoever.

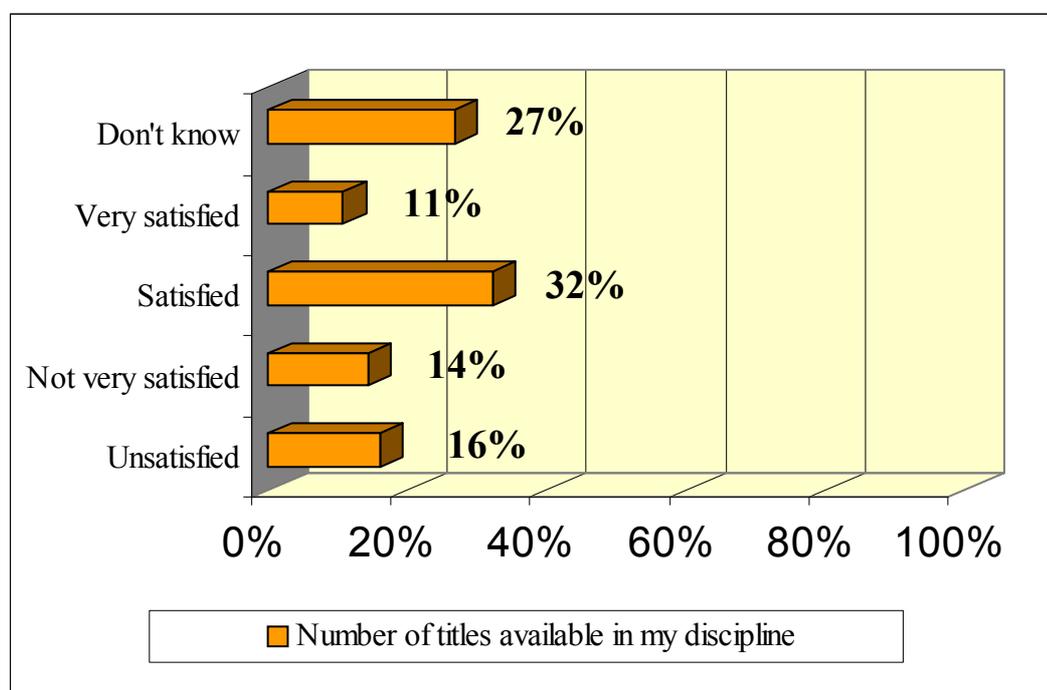


Fig. 27. Satisfaction with the availability of e-journals titles

5.3.2 Journals updating

Certainly, another important factor conditioning user satisfaction is the updating of e-journals in the EV collections. As regards this factor, 14% of respondents are very satisfied, against 21% of people completely unsatisfied. In the middle, we find 13% who is “not very satisfied” and 23% who declare to be “satisfied”. A considerable percentage of respondents (29%) just don’t have an opinion.

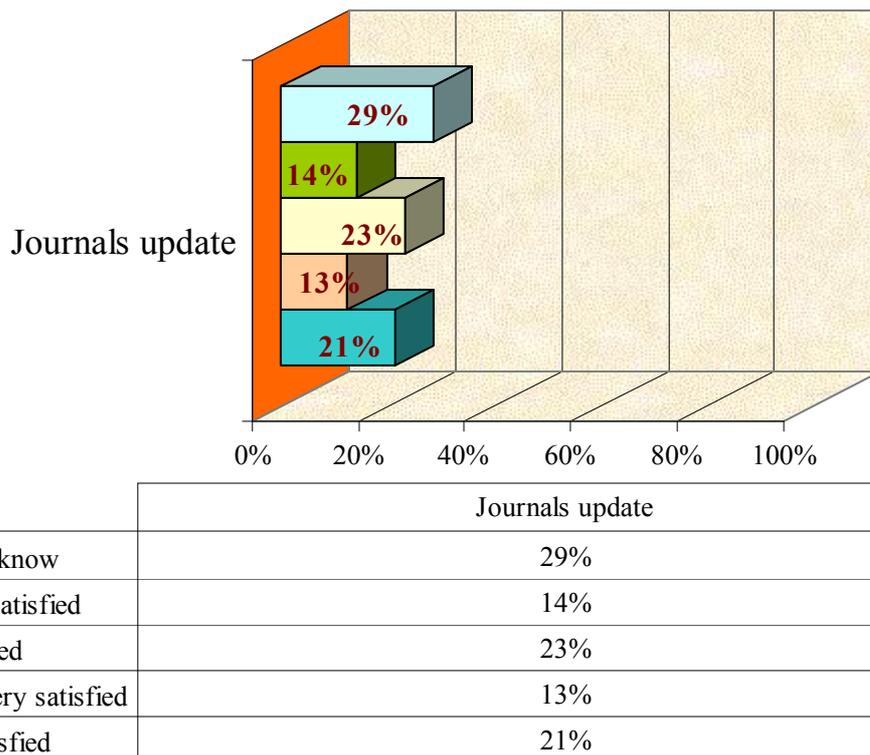


Fig. 28. Satisfaction with journals updating

5.3.3 Speed of access

As it usually happens while navigating a website, the different speed of connection over time caused by technical problems, (limited to particular work stations or that affect the entire network) determines a change in user satisfaction. As it is known [Jacob Nielsen, 2000], it is likely that a very slow connection induces one to stop his navigation or redirect it towards faster websites or to perform it at a better location rather than the library. In our case, we generally do not have particular problems because the University is directly linked to the national broad band network, and possible connection problems are mainly due to internal technical temporary difficulties. Furthermore, it may also happen that the server, onto which the Emeroteca Virtuale runs, needs some revisions. In these cases the connection is interrupted directly from the main source, while users are immediately informed through messages on the library system home page.

As a result of our investigation we have found that most of the respondents are satisfied (32%), while 21% are “very” satisfied. On the contrary, 11% are “not very” satisfied and another 11% is not satisfied at all. Still, we have a group of 25% of respondents who do not know how to estimate the speed of access to e-journals.

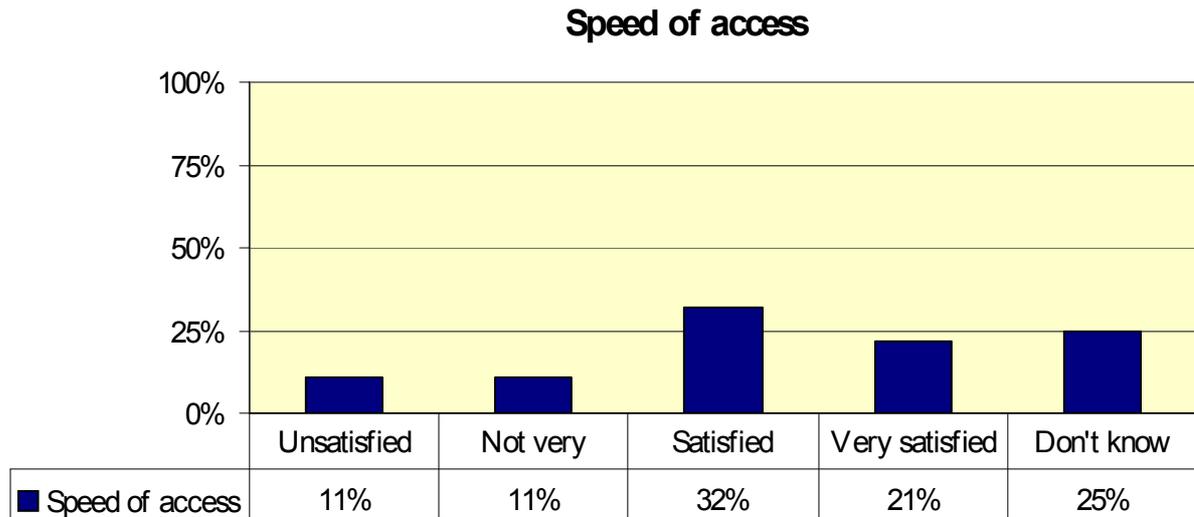


Fig. 29. Satisfaction with speed of access

5.3.4 Ease of use

The problems connected to the usability of websites have been widely discussed, also with relation to library websites [Jenny Craven, 2000].

In our case, it was just important to test the usability of the Emeroteca Virtuale home page, at least in simple terms of easiness of use perceived by our patrons, so that to find out their level of satisfaction. Deeper tests are here proposed as further research, because we are convinced that the constant monitoring of users' behaviour in the use of this tool can suggest us important changes in order to improve its efficacy and efficiency.

Results show that 51% of users declare that the Emeroteca Virtuale is quite easy to use: among them, 34% are "very" satisfied and 17% are just satisfied. Lack of satisfaction comes from 28% of patrons: in particular, 17% are not very satisfied and 12% declare complete dissatisfaction. A considerable 20% just don't know.

Ease of use

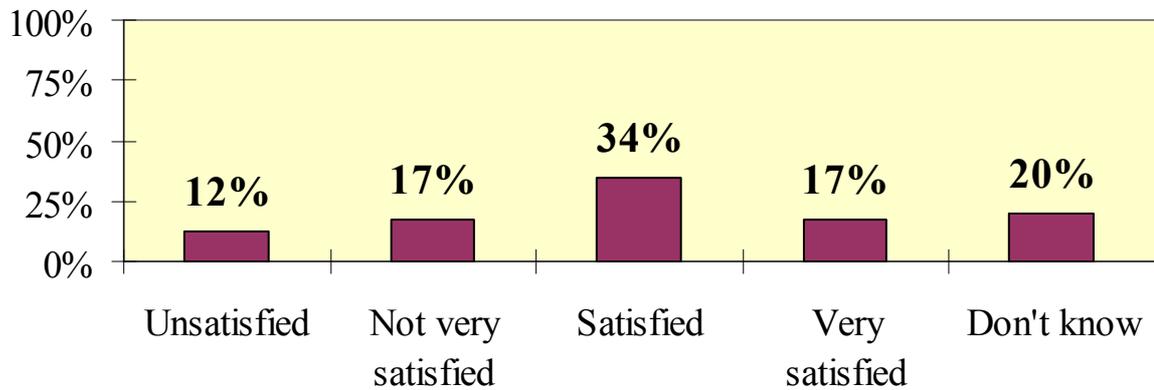


Fig. 30. User satisfaction with the ease of use of the *EV*

5.3.5 Availability of back issues

It is almost given for granted that most of the researchers, for the different purposes of their studies, need to consult back issues of some journals in their field of research. This need is immediately translated, within daily library routine, into a series and constant requests about the possibility to enlarge the library collections also in its electronic formats.

This need obviously influences user satisfaction about the overall service, which might be perceived incomplete the moment it would not provide enough back issues. In particular, however, results show that most patrons (31%) are “very” satisfied and that some others (11%) declare they are satisfied. Instead, 21% of them are “not very” satisfied and 4% are not satisfied at all. Finally, many users (33%) do not know what to say.

Availability of back issues

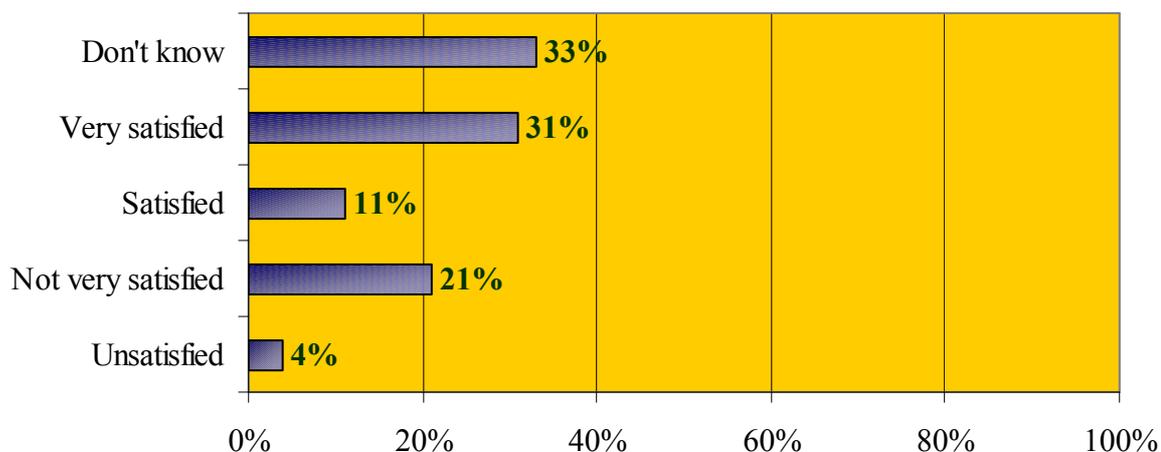


Fig. 31. User satisfaction with the availability of back issues in the *EV* e-journals

5.3.6 Cross-links to full text articles

The attention of the researcher has been attracted by the fame CrossRef⁴ has recently gained, together with some specialist software like SFX from EX Libris⁵, related to the possibility a user has to jump from references and citations directly to full-text articles. In particular, one answer the researcher meant to get from the questionnaire was how much satisfied users were with the possibility of making cross linking within the Emeroteca Virtuale, though this feature is something different from SFX.

Actually, this is possible starting from the HTML version of full text-articles, which, usually, are mainly consulted in their PDF version. Results of this research tell us that 39% of patrons are very satisfied, 27% are just satisfied with this service, while 20% are completely unsatisfied. Then, 10% are not very satisfied and 4% just don't have an opinion. So, most of the patrons (66%) show a positive feeling towards this service.

⁴ For more information, you can visit the website < <http://www.crossref.org> >, last accessed March 07th 2005

⁵ For more information, you can visit the website < <http://www.exlibrisgroup.com> > last accessed March 07th 2005

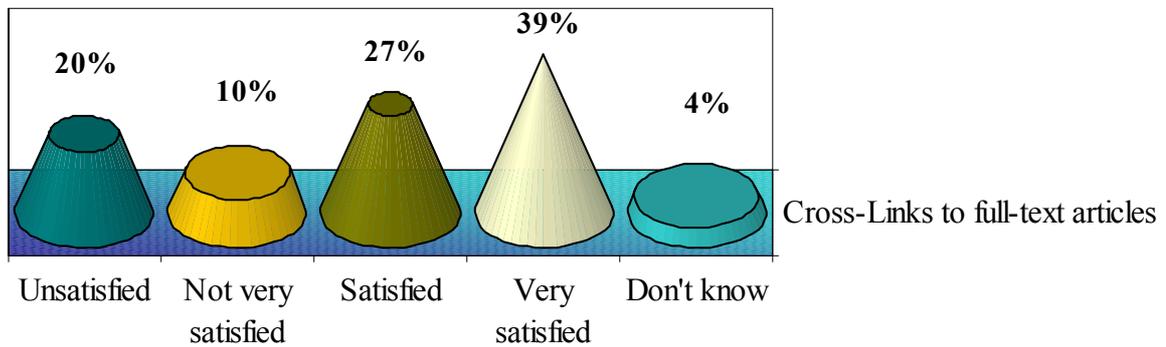


Fig. 32. User satisfaction with cross linking to full-texts

5.3.7 Access from home and personalised services

One of the most important features the Emeroteca Virtuale provides is the possibility to register for the website navigation, which allows “registered users” to have a series of benefits. In particular, these advantages relate to the possibility to save personalised searches and make a “history” folder, to instruct the system to perform a particular advanced search periodically, to have “e-mail alerts” directly into one’s mail box, introducing new interesting articles linked to the parameters of the research previously indicated.

According to our findings, 38% of users are satisfied, 7% are “very” satisfied for a total amount of satisfaction that equals to a percentage of 45%, which is a quite good result. However, it should be also considered that a total 20% of users are somehow unsatisfied (13% not very satisfied and 7% unsatisfied).

Again, there is a large number of people who just don’t know what to say (35%), mainly because they haven’t discovered yet the possibility to register within the EV home page, or because sometimes they make confusion between the registration with the EV and the registration at the library desk in order to receive the loan card, or just because they do not know about the EV at all.

In fact, frequent comments during interviews were the following:

“You know...I’m not registered with the library...I don’t have the library card!”

“Just tell me...what about my personal data that I give to the library?”

“Good service at the library but at home...no...it’s a waste of time from home...you know...too much money to spend for the connection!”

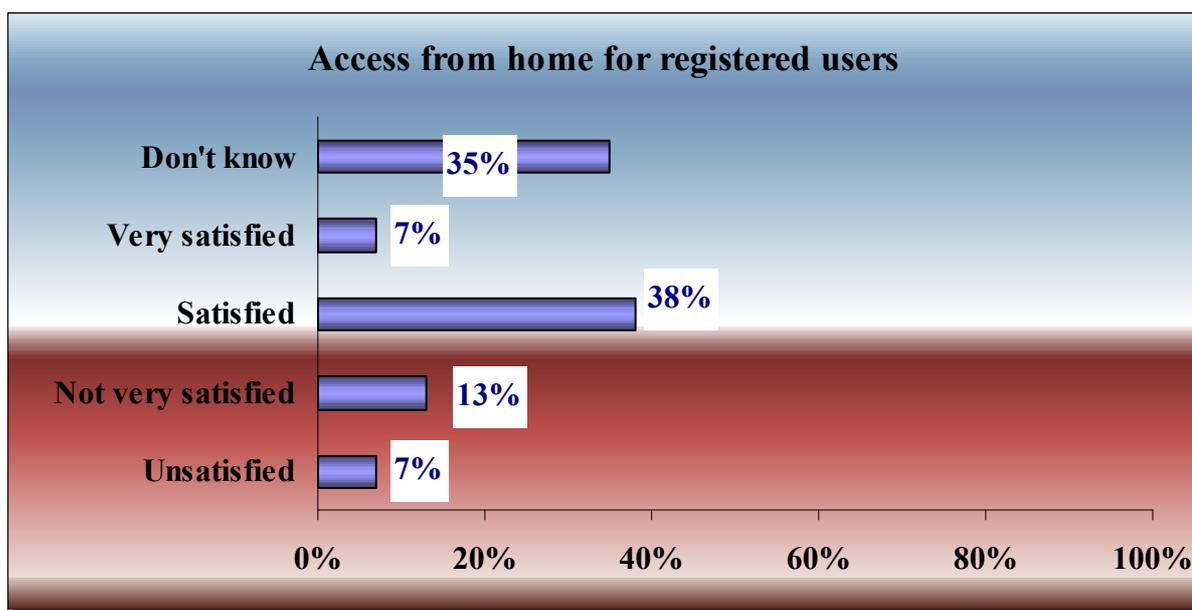


Fig. 33. User satisfaction with access from home

As regards the feature that allows users to receive e-mail alerts whenever a new article is published, results show that most of them (32%) are “not very satisfied” and another 29% are “unsatisfied”. This makes a total negative result of 61% of patrons who do not obtain satisfaction from this service, against 30% of users who declare to be “satisfied” and 6% who are “very” satisfied. Finally, 3% of users just don’t know.

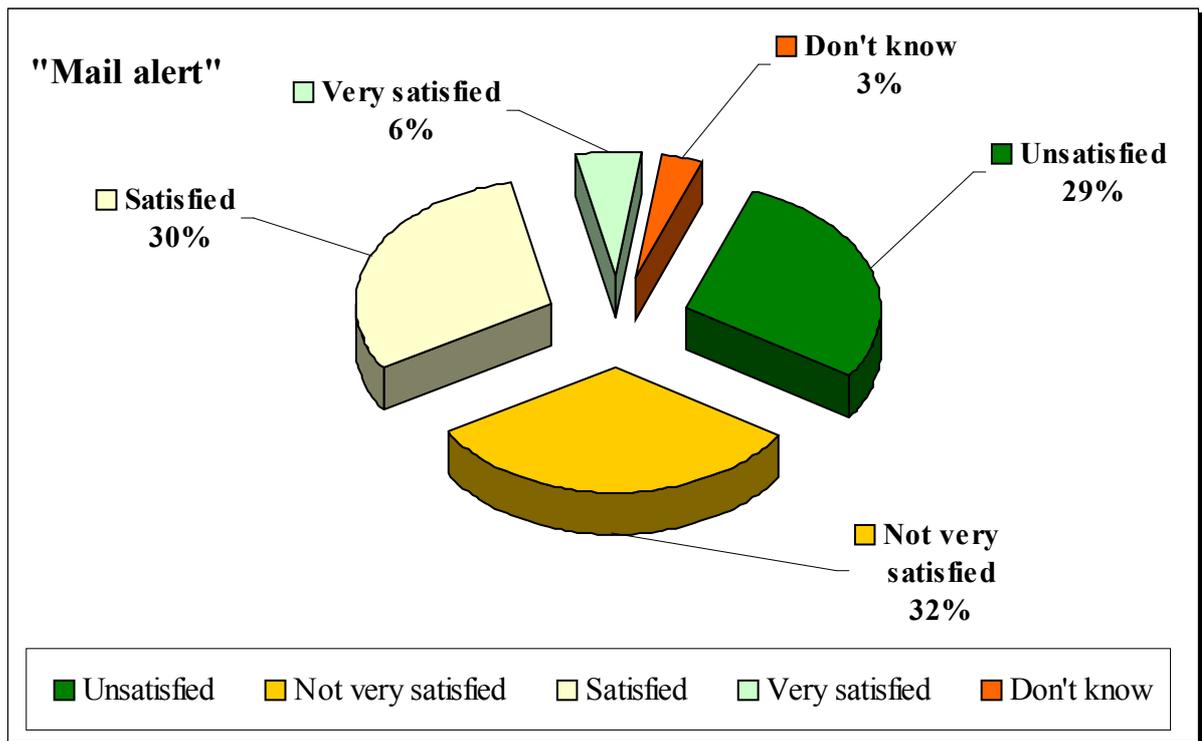


Fig. 34. User satisfaction with the “New Issue Alert” service provided by the EV

At last, users were also asked whether the possibility of making personalised searches was satisfactory for them or not. Results tell that more than half of users (51%) are satisfied: in particular, 30% are “very” satisfied and 21% declare to be satisfied. On the other side, 26% are “not very satisfied” and 20% are unsatisfied at all, which means 46% of users who do not feel satisfied. Finally, 3% admits to have no particular feelings.

Furthermore, other comments came from interviewed users who declared:

“The Emeroteca Virtuale is not so innovative...also some editors provide almost the same features...”

“Yes, it’s very useful to find new articles into your mail box...”

“I like the fact that different kinds of searches are possible...”

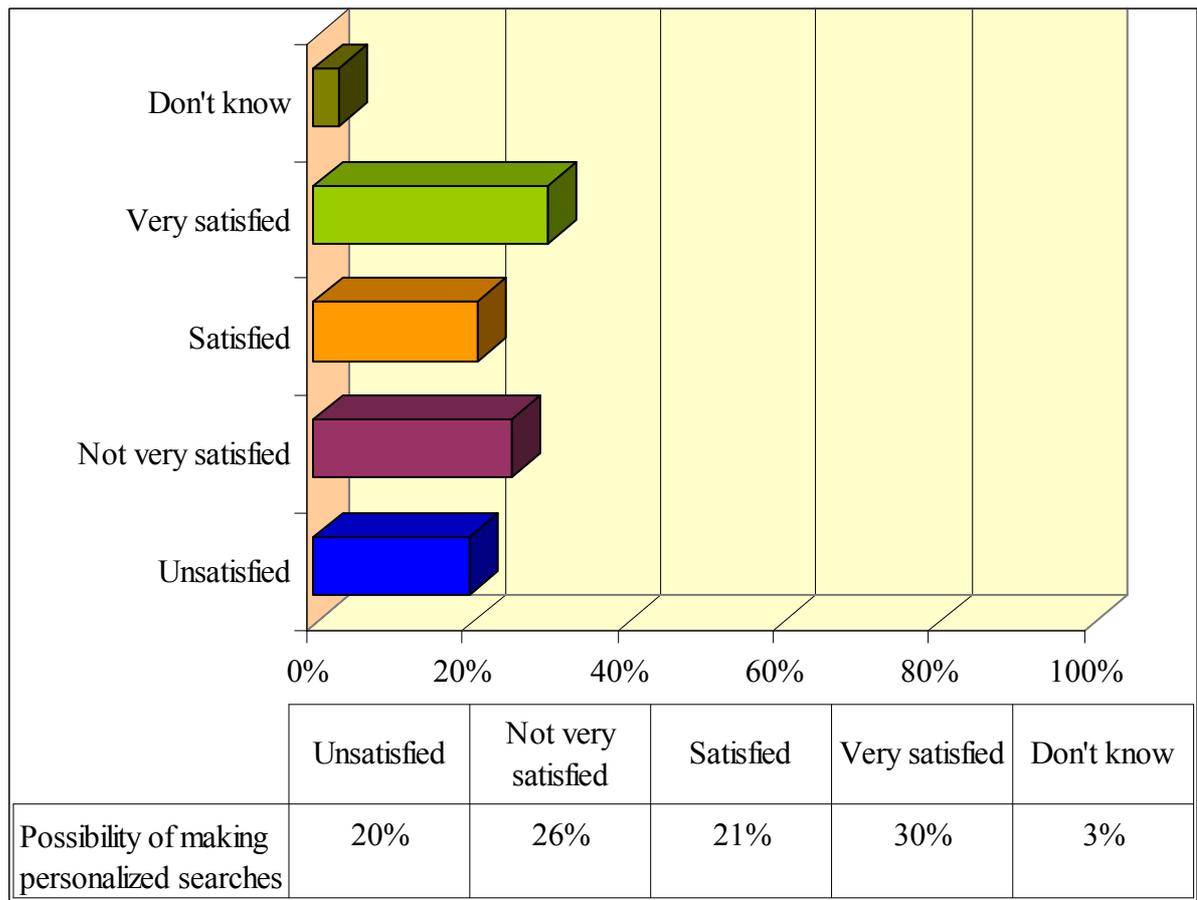


Fig. 35. User satisfaction with personalised researches

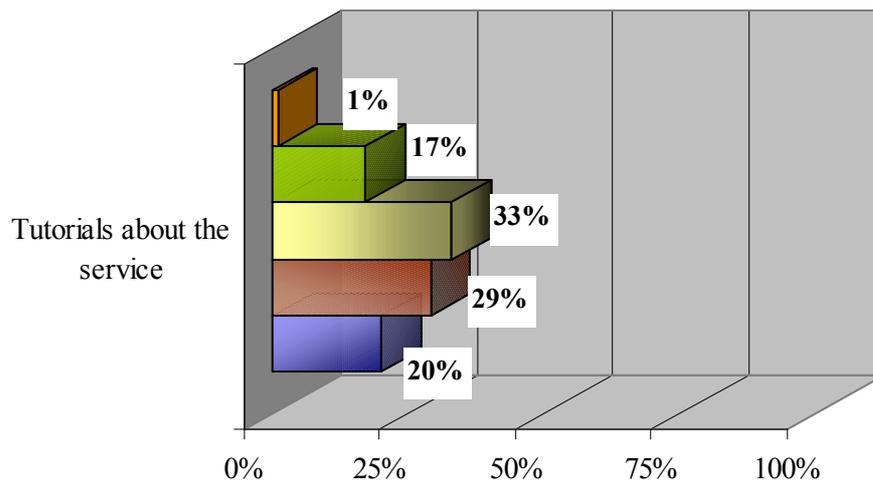
5.3.8 Tutorials for user education

An important information that both the questionnaire and the interviews have brought is that many users complain about the lack of specialist seminars on the use of the Emeroteca Virtuale. In fact, 29% are not very satisfied and 20% are completely unsatisfied (total: 49%); but 41% of comments are positive: in fact, 17% of users are “very satisfied” and 33% are satisfied. Just 1% of respondents do not have any interest in the question. The difference between the positive and the negative positions is very slight, but comments gathered during interviews give no space to doubts:

“I think that the Emeroteca Virtuale is not known because no one at the library has ever told us anything...”

“The use of the service should be easily explained within the library system website”

“...you know...it would be useful to have the library explaining you how to use such things”



Tutorials about the service	
Don't know	1%
Very satisfied	17%
Satisfied	33%
Not very satisfied	29%
Unsatisfied	20%

Fig. 36. User satisfaction with tutorials on the use of the EV

5.4 Users' ratings of some initiatives to improve satisfaction with access to e-journals

The last section of the questionnaire contained a table where to gather suggestions from patrons on the usefulness or not of some initiatives that the Library System might start in order to improve the overall users' satisfaction. Users were asked to express an opinion about the suggested actions, choosing an item within a range that went from "useless" to "very useful", choosing the option "I don't know".

5.4.1 Integration of the EV with the online library catalogue

The first suggestion proposed is the integration of the Emeroteca Virtuale with the online library catalogue. It is not rare that requests in this direction come from different categories of patrons, especially teachers and researchers but also library staff, who usually gather impressions, comments and opinions of the library users. The most part of respondents (54%) resulted favourable: in fact, 42% declared that they would judge this initiative "useful" and 12% said it would be "very" useful. Just 15% said it would be useless and 8% expressed no opinion.

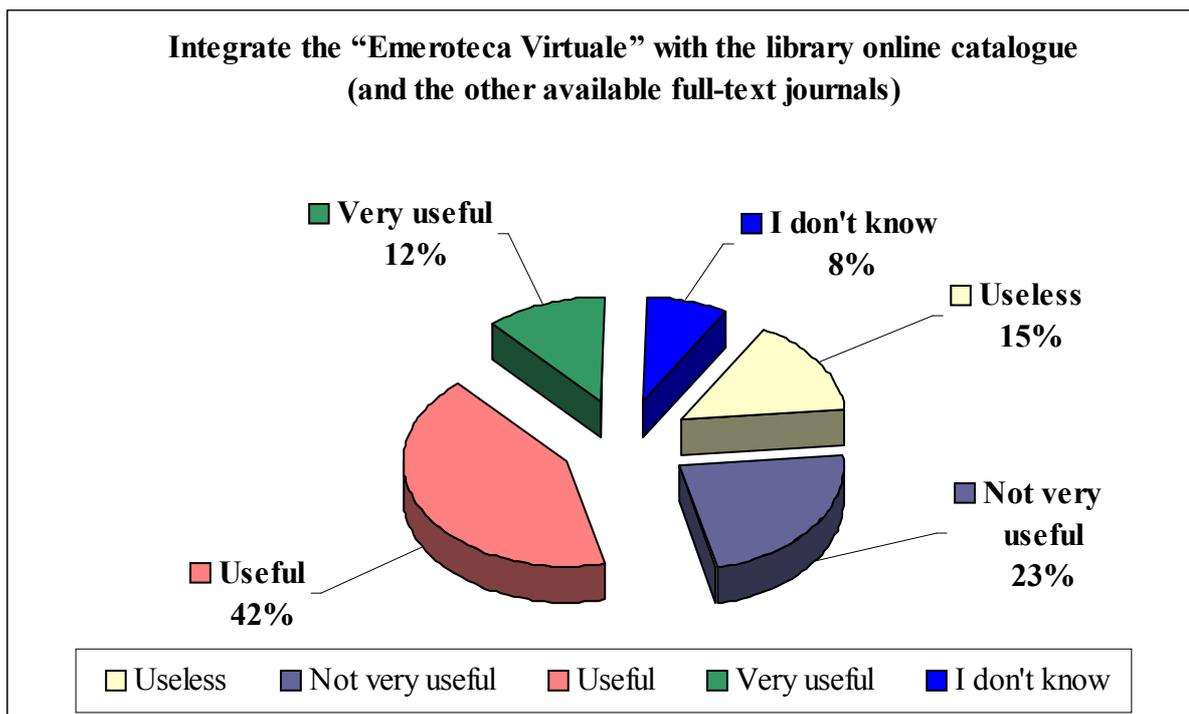


Fig. 37. Integration of the EV with the library catalogue

5.4.2 Creation of a new web page dedicated to e-journals

One of the initiatives that the library system could start in order to improve access to e-journals could be that of creating a brand new web page, where to put journals ordered according to different criteria. For instance, a simple web page where one could find journals ordered by subject of study, or a web page in which to order e-journals alphabetically by title. Another idea is to create a completely brand new portal just for e-journals, with more features with respect to the ones currently available and with the implementation of links from bibliographic references to full –text articles.

5.4.2.1 E-journals ordered by subject

The first possibility examined is that of creating a web page where e-journals are ordered by subject. As regards this, 41% of users consider this initiative “very” useful, while 21% declare it is useful, for a total 62% of patrons who encourage such a choice. On the contrary, 9% think this initiative would be “not very useful” and 20% are convinced it is useless. Finally, 9% of patrons just don’t know what to say.

Create a separate web page where all journals are ordered by subject

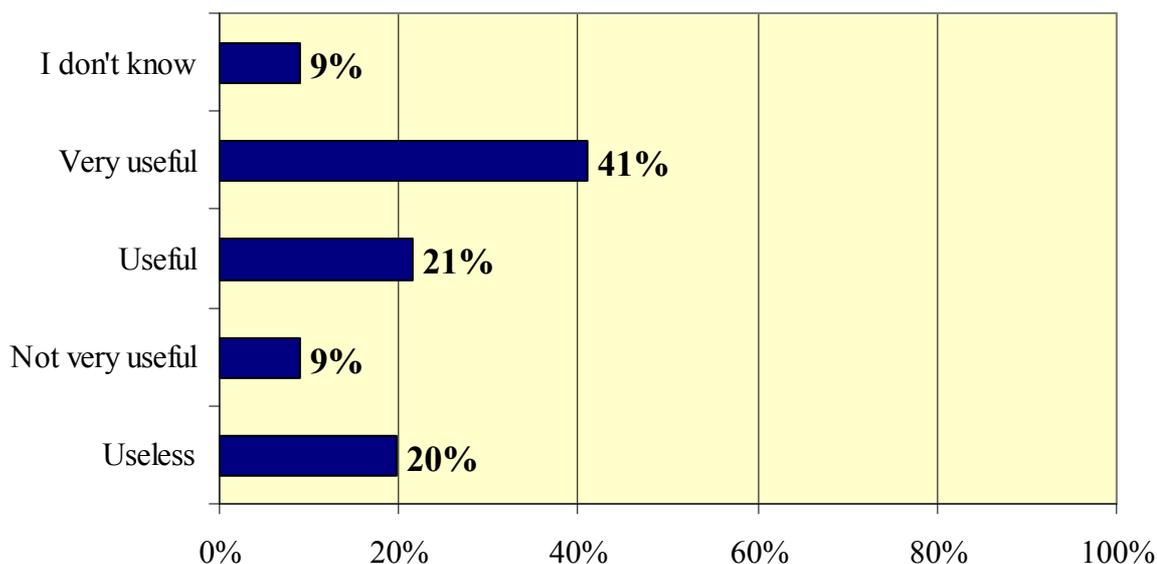


Fig. 38. Users' opinion about the creation of a web page with journals ordered by subject

With relation to this particular initiative, some users who have been interviewed try to give more suggestions:

“I think that it would be also useful to keep, as an added option, also the information about the availability by editor...”

“The number of subjects in the Emeroteca Virtuale should be increased...”

5.4.2.2 E-journals ordered by title

Another possibility is that of ordering e-journals by title: this option is frequently displayed in all e-journals portals, EV included. What we wanted to investigate here was the possibility to gather into a unique web page all e-journals available at our University according to a title order. Results demonstrate that this idea would be welcomed by the majority of our patrons (59%) while there is another considerable percentage of people (31%) who think that this solution wouldn't change much in search performances. Comments on this point were different and some of them also show that some users gave suggestions but did not have a clear idea of features provided by the EV (see comment c):

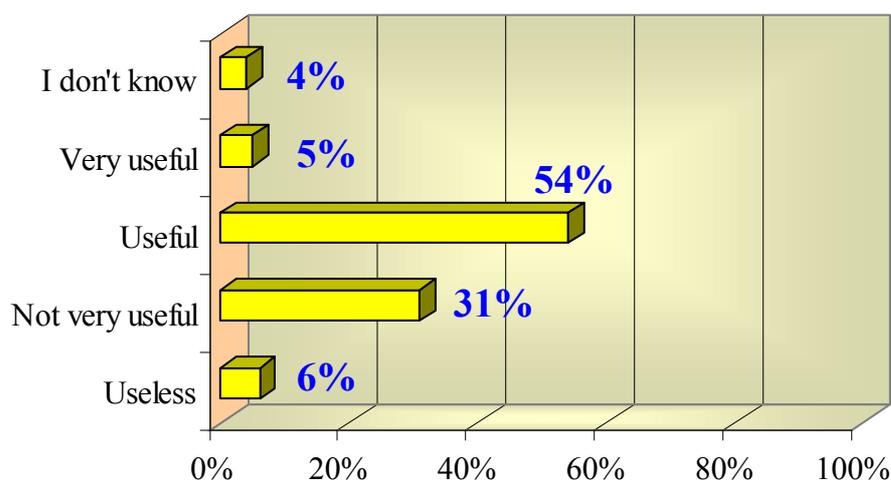
a) *“I don't believe this order...by title...would really help me find more things...”*

b) *“Maybe it would be useful to have an idea of every journal published within a subject....the title order doesn't help me if such a list is not really complete...”*

c) *“I would like to find such order... but also the publisher order...”*

There was also someone (6%) who declared that no valuable use would come out of such initiative, while 4% just did not know.

Create a separate web page where all journals are ordered by title



	Useless	Not very useful	Useful	Very useful	I don't know
■ Create a separate web page where all journals are ordered by title	6%	31%	54%	5%	4%

Fig. 39. Users' opinion about the creation of a web page with journals ordered by title

5.4.2.3 Links from bibliographic records to full-text e-journals

As we already said above, full-texts in the Emeroteca Virtuale are mainly provided in PDF, though, it is not rare to find the same articles also in HTML format. In this case, it is very often easy to find direct links from references in articles to the full-texts of other journals and articles. What is more, it is likely that it will be more and more important to find databases of different disciplines offering such a feature.

Results of this enquiry show that 58% of users are confident that creating a portal with an implementation of the suggested feature would be of great use (53% “useful” and 5% “very useful”). This initiative is rated useless by 17% of the questioned people while 21% think that is “not very” useful. A final 4% did not know what to declare.

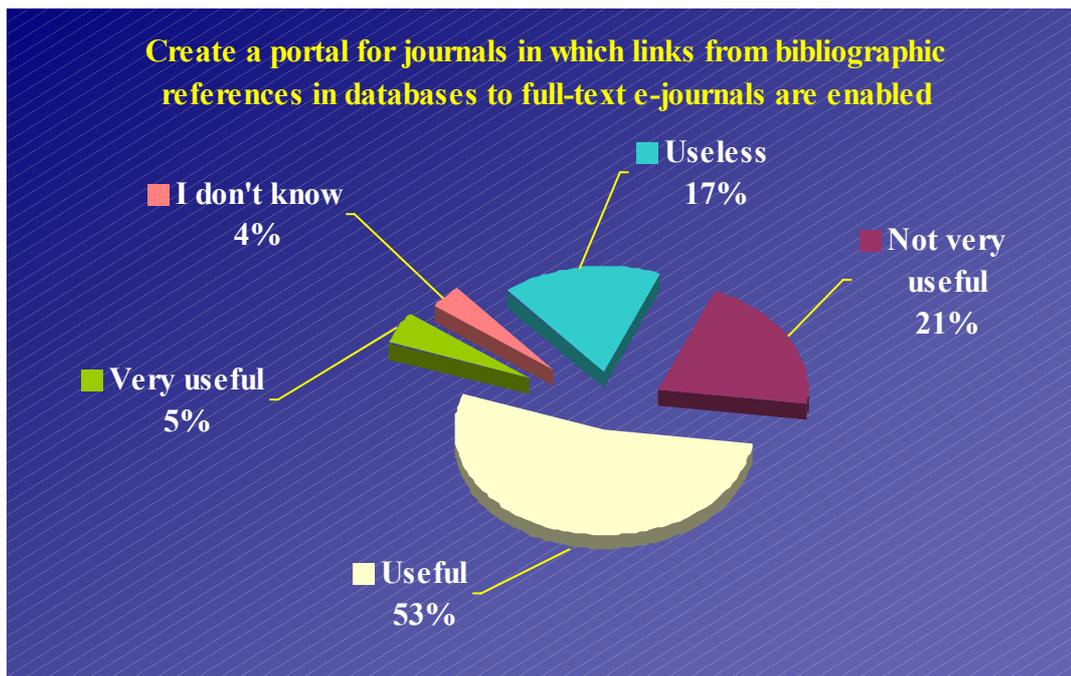


Fig. 40. Users' opinion about the creation of a web portal with improved links to full-text articles

5.4.2.4 Increase of consortia purchases

The Emeroteca Virtuale is a good example of how a library consortium can manage to have quality and interesting e-content at the best prices on the market. What is more, forced by fund constraints, libraries today have many difficulties in deciding whether or not to invest in consortia purchases. We wanted to ask our users what was their thinking about this issue. The discussion about the necessity or not to spend more for online licenses than print subscriptions is well known.

The results of our questionnaire inform us that 50% of users think that our library system should increase its consortia purchases: 23% of patrons consider this initiative useful and 27% of them say it is "very" useful. For 25% of users, there is no special usefulness in increasing consortia licences: 14% said that this initiative is "not very" useful and 11% declared that it is useless. Another 25% of users did not seem to have an opinion as regards this point.

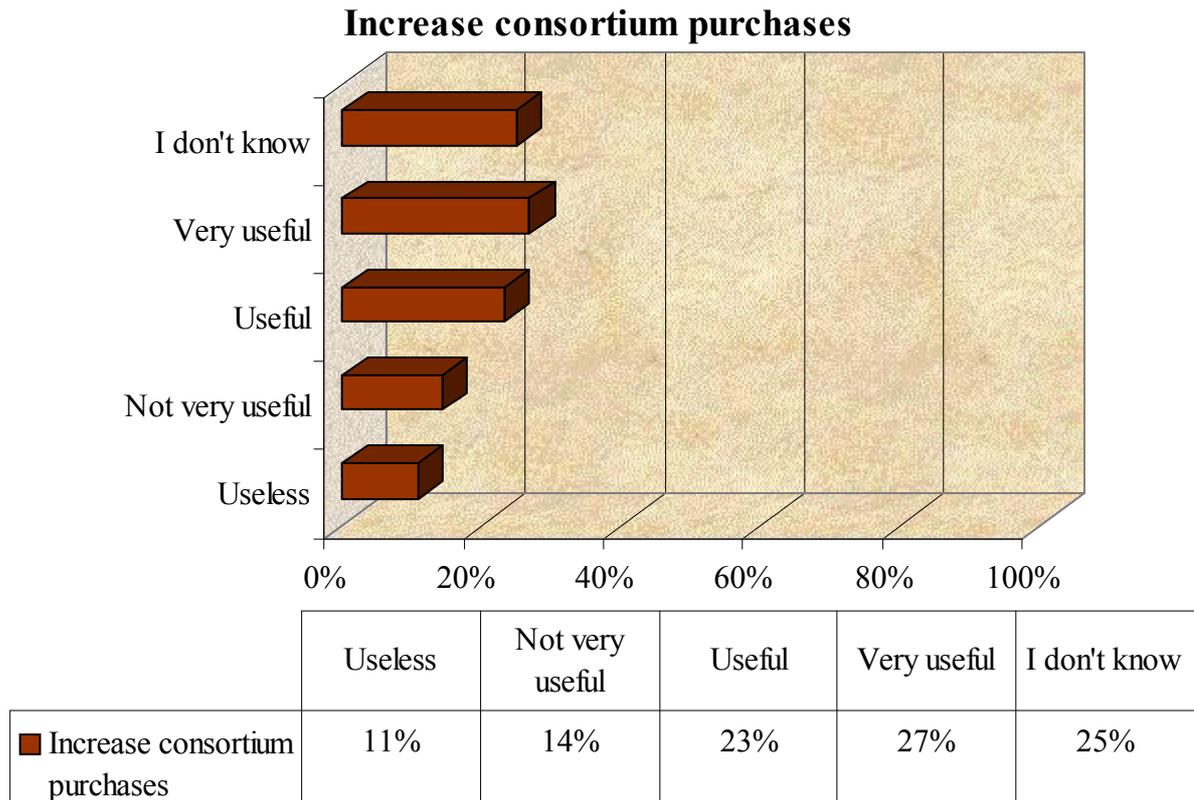


Fig. 41. Users' opinion about the increase in consortia purchases

5.4.2.5 Cutting of print subscriptions

While investigating the use of e-journals within the Emeroteca Virtuale, the researcher was also interested in understanding whether e-only subscriptions could somehow substitute print subscriptions.

It's evident that today the trend is to direct library funds towards access licenses, though many still argue that it is not convenient to completely leave the destiny of library contents in the hands of technological tools rather than paper [Ralph Alberico, 2002].

For this reason, it was decided to ask users their opinion about a possible initiative to cut print subscriptions in favour of e-only licenses. Most users (44%) do not consider this choice a useful opportunity: in fact, 26% said it is useless and 18% said it is "not very" useful. Against this negative result, 18% said it is useful to cut print and 23% declared that this choice is "very" useful. At last, 15% of users said they did not know.

Among this 15% of users who did not know what to say, some gave an explanation for their lack of opinion during the interviews:

"...I don't know what to say...I don't use this service"

“...I don’t have enough knowledge to judge...!”

Some others, instead, underlined their idea that it is necessary for libraries to find new funds for electronic access, even if this means cutting print subscriptions:

“...You know...the world is digital...you must improve your service offering more digital access to contents...”

“...I don’t think you can keep your paper growing...where will you put all that paper?”

Cut of print journals in favour of e-only licences

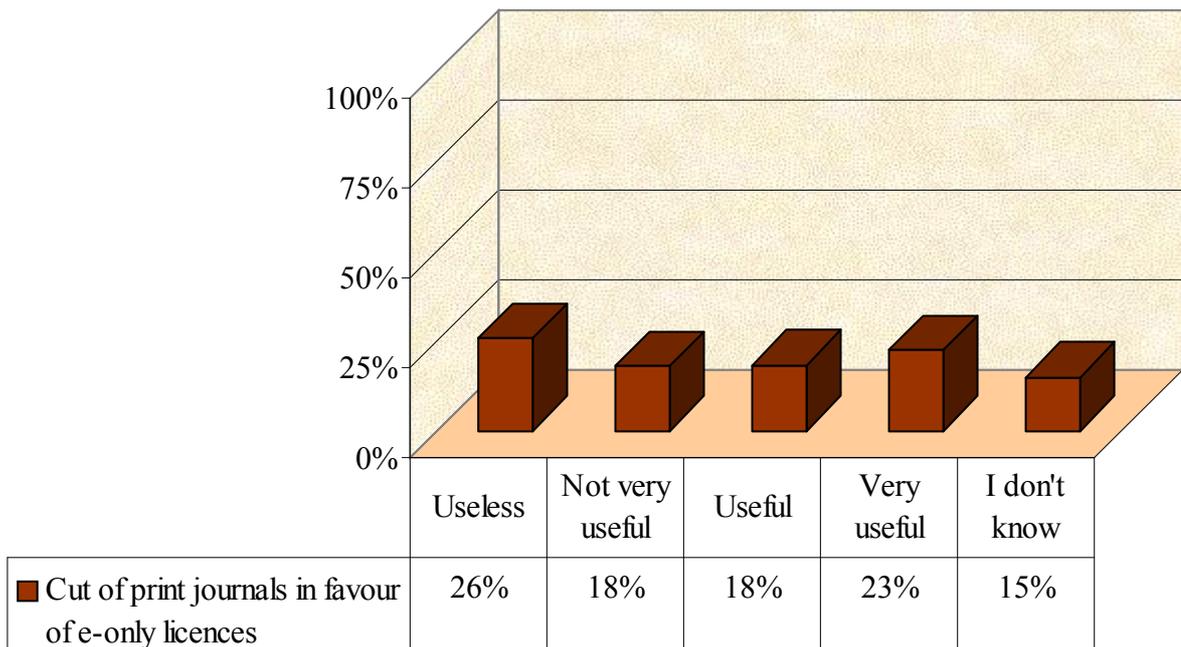


Fig. 42. Users’ opinion about improving e-only licences

5.4.2.6 Improving access from home

One very recent service that the Emeroteca Virtuale now provides users with is the possibility to connect remotely. This possibility, though, is reserved to registered users. Since its start, the service has had a great success, and the library system is now trying to improve further this service. In order to understand whether it is necessary to keep following this path, we asked our patrons what they think of this innovative service. As fig. 43 shows, most users (67%) declared to be satisfied and said this is a useful service: in particular, 34% said it is a “very” useful service and 33% said it is useful. Instead, 14% declared it is useless and just 6% said that it is not very useful. Finally, 13% just didn’t know.

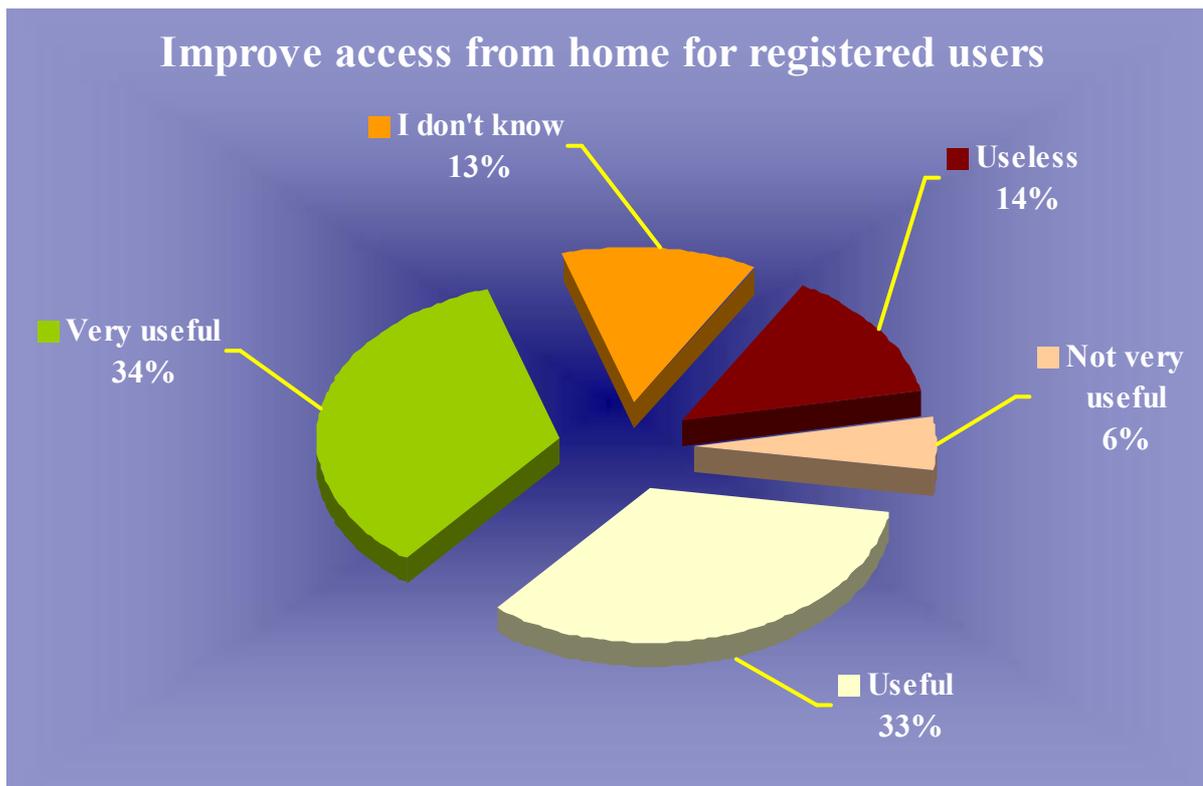


Fig. 43. Users' opinion about the initiative to improve access from home for registered users

5.4.2.7 User education on the use of the service

Both the questionnaire and the interviews have demonstrated that our users do not feel very satisfied with their knowledge about library services. In particular, many respondents declared that the questionnaire itself has represented for them the first source of information related to the existence of the Emeroteca Virtuale. Then, most users agree that it would be better if more information were given by means of tutorials and seminars.

As figure 44 shows, 62% of answers (49% of users declare that tutorials would be “very useful”, while 13% say they would be “useful”) confirm the need for formal education about the use of the Emeroteca Virtuale. The library system should then start a program for users' education as in other universities worldwide. A minority of people doesn't think tutorials would be of some use: 13% say that this initiative is “not very useful” and 6% of patrons say it is simply useless. Some other users (19%) do not think anything.

Tutorials on the use of the service

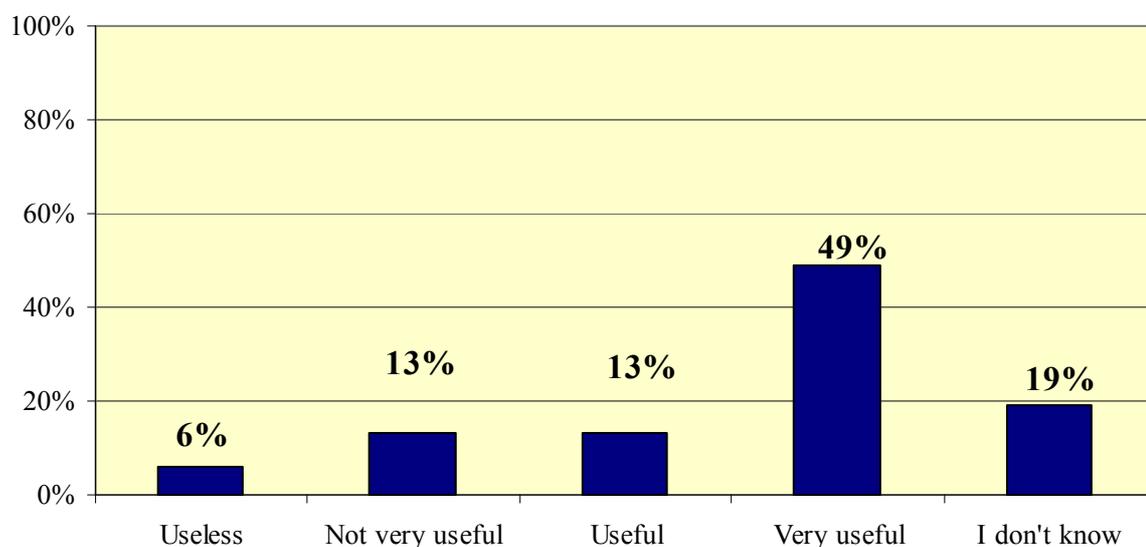


Fig. 44. Users' opinion about the initiative of providing seminars on the use of the *EV*

5.4.2.8 Personalised services and the “New Issue Alert”

Users today are more and more demanding and the library system must be able to face their requests with ever growing efficacy and efficiency. The moment the library decides to provide electronic services, it is necessary to set a permanent monitoring of both the perfect functioning of the service itself and of the users' satisfaction with that service.

For this reason, the researcher tried to discover if the service called “New Issue Alert” provided by the *EV* was welcomed by our users or not and what they thought about possible implementations. Then, in order to have a wider view, the researcher asked them about the implementations of all possible personalised services within the *EV* and for all e-journals consultation.

5.4.2.8.1 The “New Issue Alert” service

As regards the New Issue Alert service, results show that more than half of users (55%) declared this service is useful: in particular, 35% said it is “very useful” and 20% said it is “useful”. Just 33% of users did not find particular usefulness in this service: 19% declared it is “not very useful” and 14% said it is completely useless. Finally, there were some patrons (12%) who just did not know.

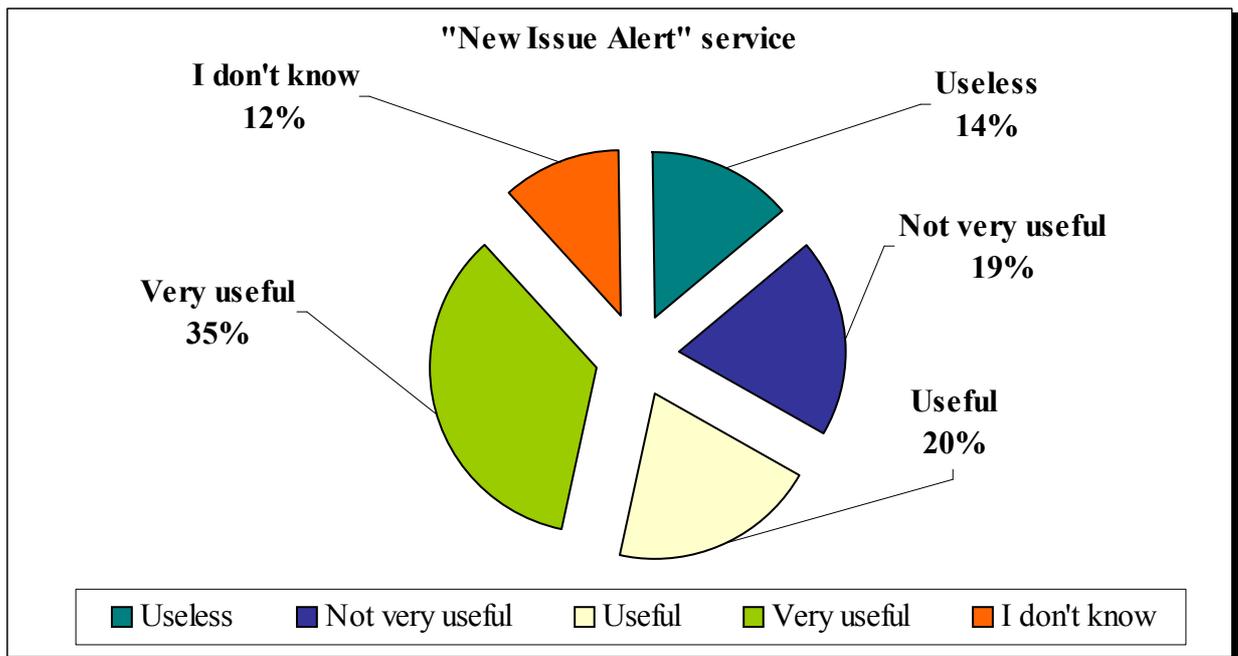


Fig. 45. Users' opinion about the "New Issue Alert" service of the *EV*

5.4.2.8.2 Improving personalised services

Finally, the questionnaire tried to investigate the general feelings about the initiative to improve personalised services for e-journals access. Obviously, we expected responses to be almost totally positive with a very high rate of "very useful" and "useful" answers. Instead, though a total positive percentage has been reached (60%), 10% of users declared that this initiative is "not very useful" and another 5% said it is completely useless. A great number (25%) declared to have no idea.

Improve personalized searches and services

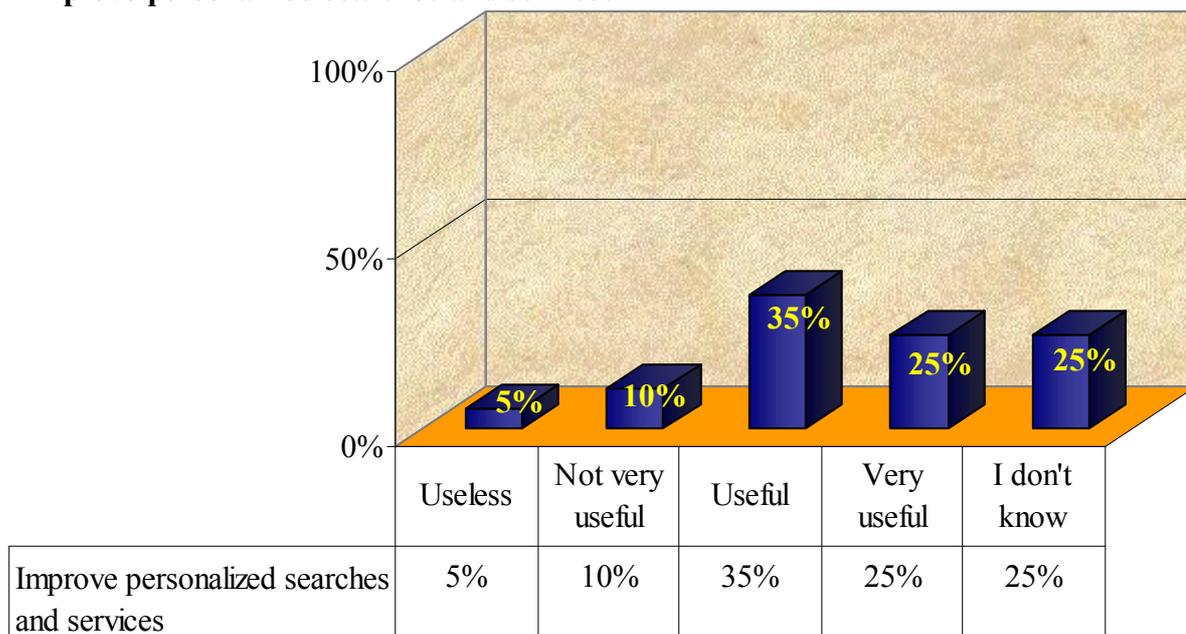


Fig. 46. Users’ opinion about the opportunity to improve the personalised services of the *EV*

5.5 The participant observation: results of the test

On the basis of a past experience of the researcher, a simple test was prepared to submit to a limited number of people (5 users) in order to evaluate the ease of use of the “Emeroteca Virtuale” and the level of users’ satisfaction with some features provided by this digital tool (see appendix 2).

Users were asked to perform some easy tasks: first of all, they were asked to make a simple search in order to find out which journals were available in the field of chemistry. Then, they were asked to make an advanced search using both the field of interest and a chosen keyword. Finally, they were asked to register with the “Emeroteca Virtuale” and to set personal preferences regarding the “New Issue Alert” service.

The starting home page for the test was the following:

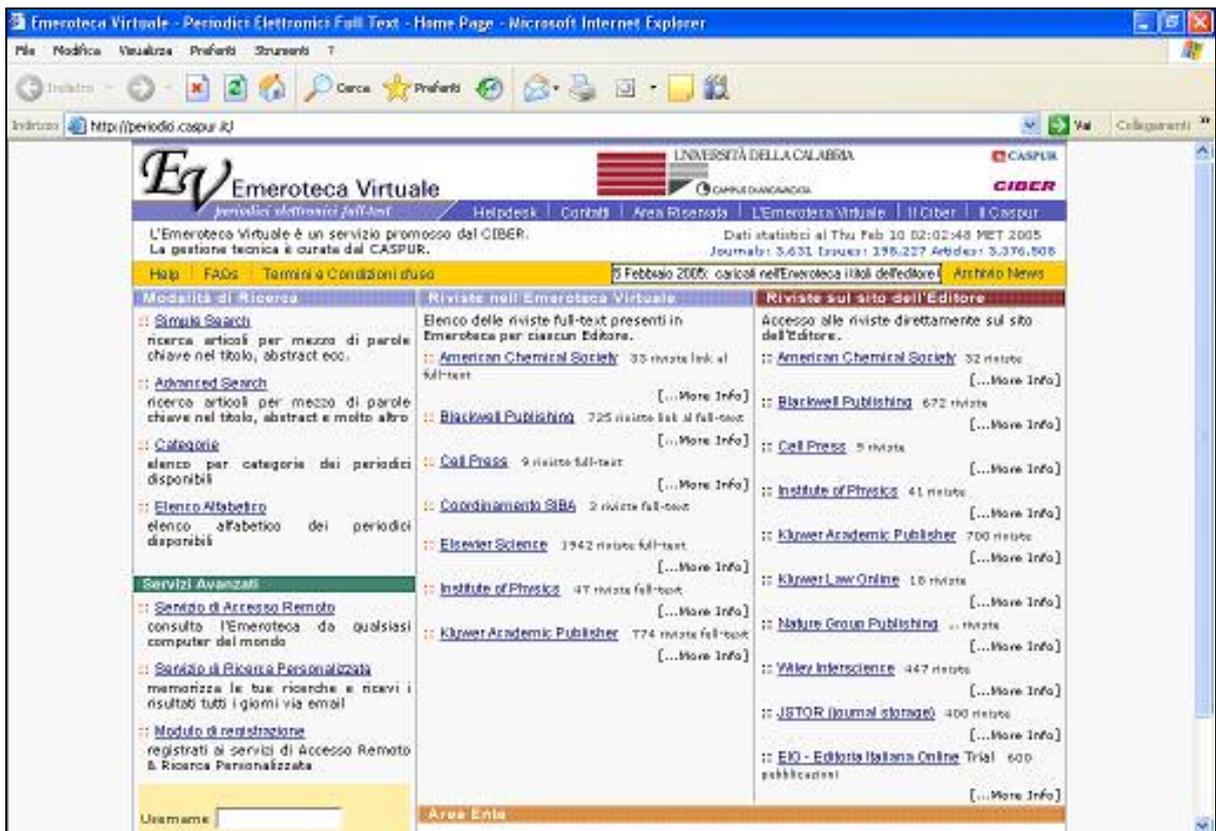


Fig. 47. The “Emeroteca Virtuale” home page (1)

Scrolling down the home page (as it can be observed in the following figure) it is possible to better locate the links that allow a visitor to register with the website.

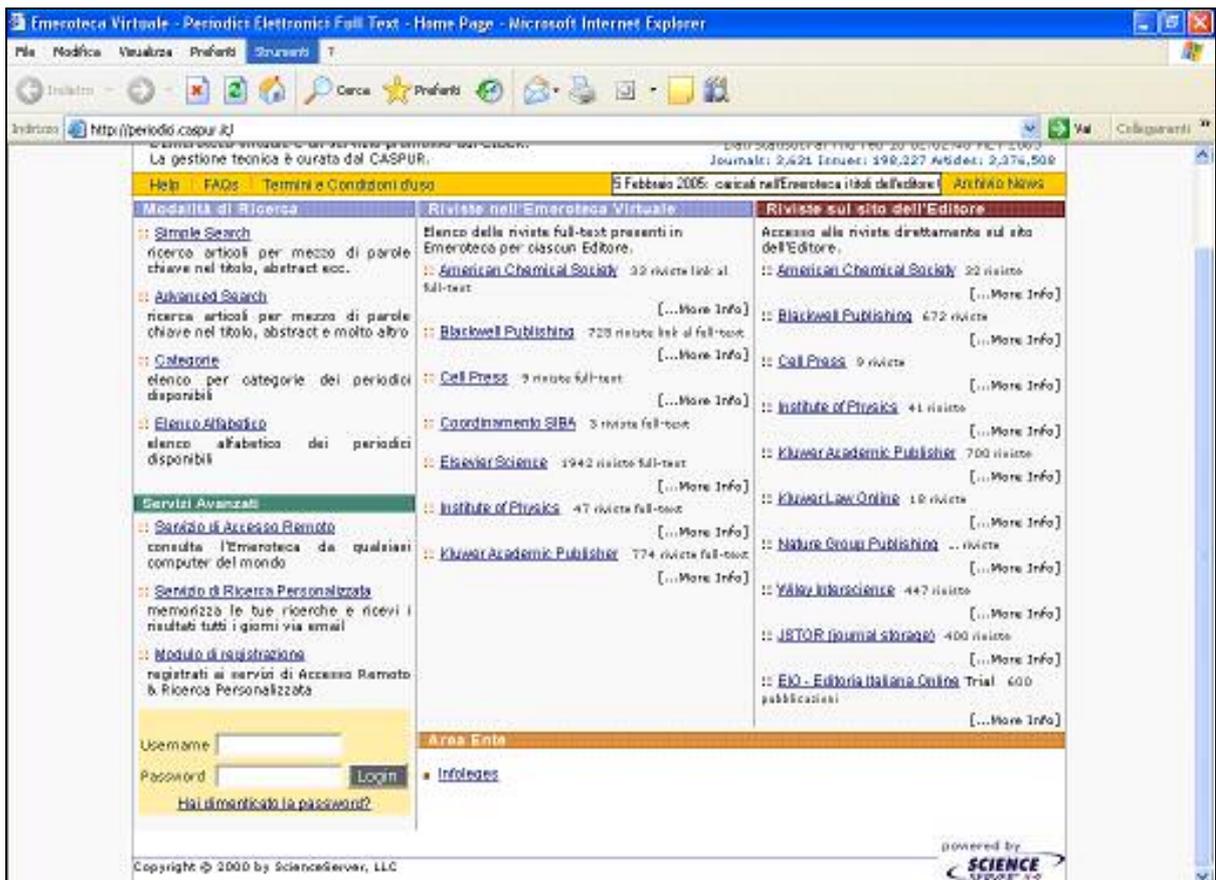


Fig. 48. The “Emeroteca Virtuale” home page (2)

5.5.1 Users’ performance: time needed and mean clicks

Through the users’ observation process, some important data related to the practical functioning of the EV digital service were gathered. For the first two scheduled tasks, users found no problems in getting the solution. In fact, for task one, 80% operated correctly while 20% faced some difficulties.

As regards task two, things are slightly different: 60% operated correctly and 40% did not.

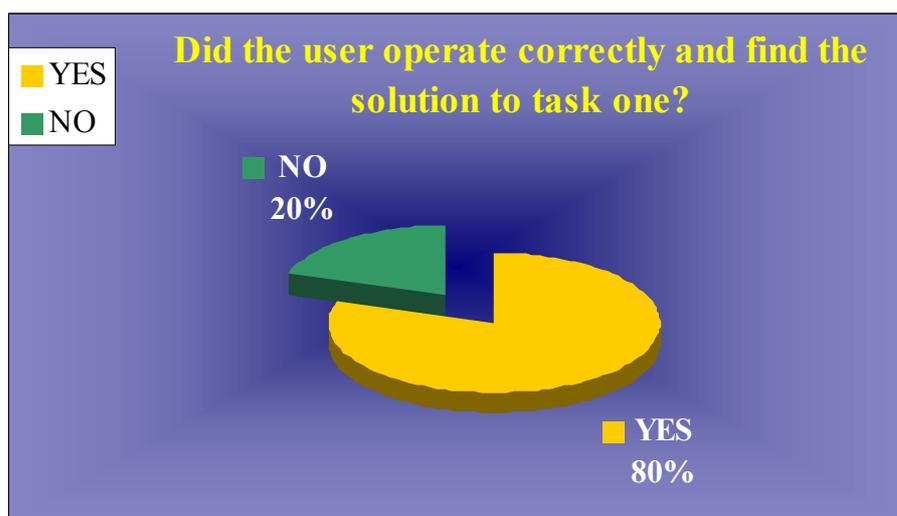


Fig. 49. Users' reaction to task one

While performing task one (which asked users to show what they would do in order to find out which journals are available regarding chemistry), patrons expressed some opinions, as they were encouraged to “think aloud”:

“Look, it’s very easy...you just click here for more subject details and that’s it!”

“There is no real problem...but you find American Chemical Society in two different columns...that’s a little bit confusing...”

During the execution of task two (which asked users to perform an advanced search in the field of chemistry using the key word “*organic*”), there were few comments:

“...I can combine different words here...”

“...Well...I can also indicate in which years to make the search...”

“...There is a vast amount of articles...with this search...but I can restrict it...”

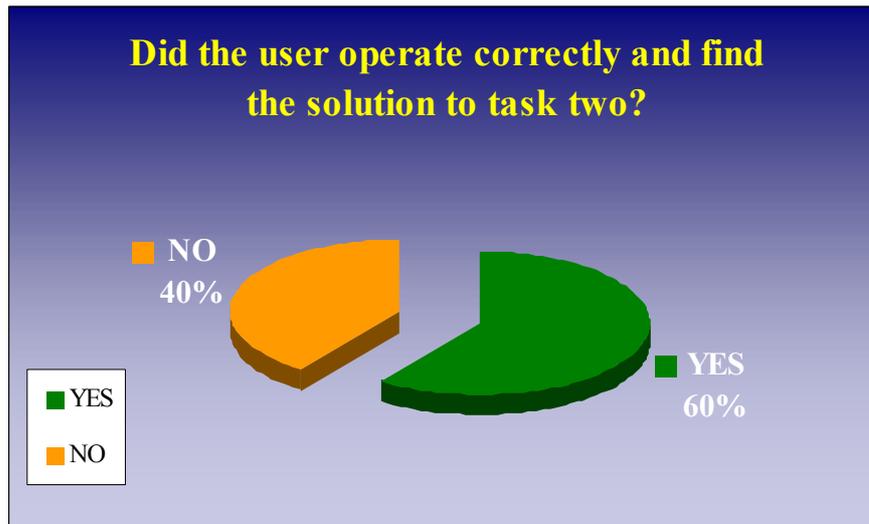


Fig. 50. Users' reaction to task two

As regards the execution of task three, users faced some little problems. As it could be observed, some of them did not easily see “where to go” in order to register with the website. In particular, there were few difficulties in finding the white spaces to fill, in order to proceed for registration, and people clicked on different wrong links before getting the right ones.

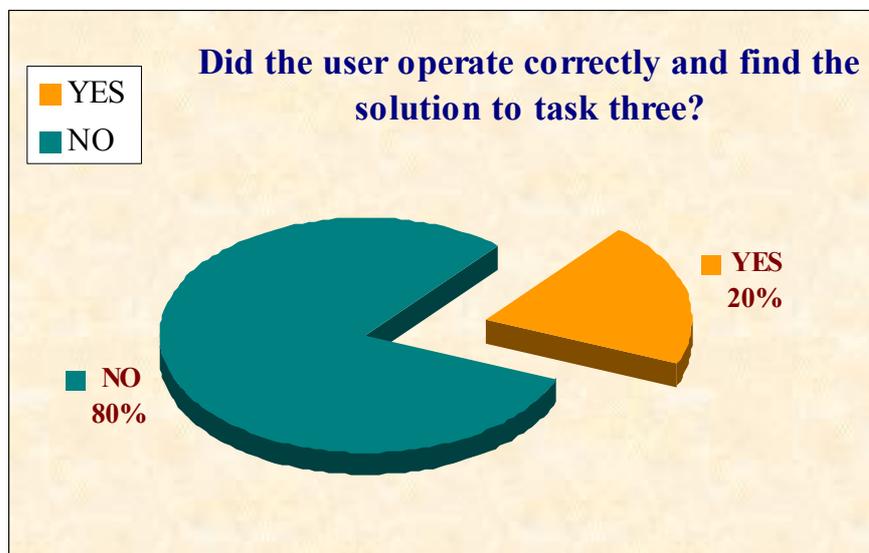


Fig. 51. Users' reaction to task three

The observation session also intended to define whether users accomplished the tasks in time and with how many mouse clicks. Results show that the average time to accomplish each task was about two minutes.

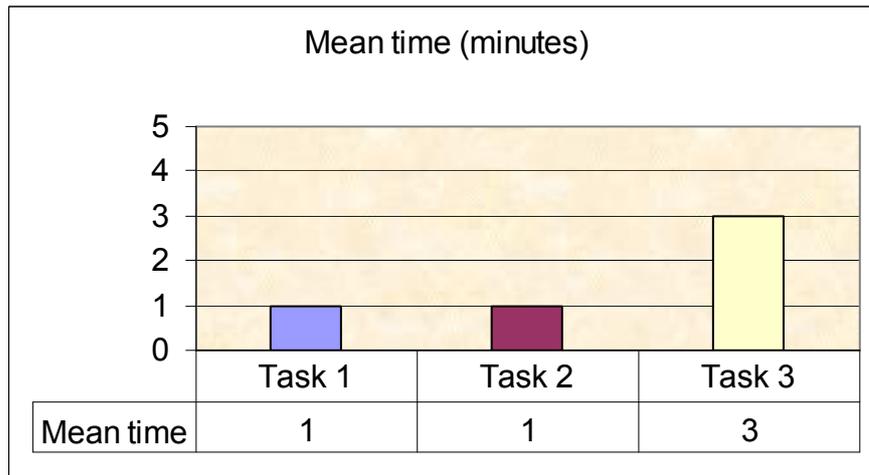


Fig. 52. Mean time needed to perform tasks

As regards the mouse clicks, task three turned to be the more complicated one, with a minimum of three clicks in order to find the right way.

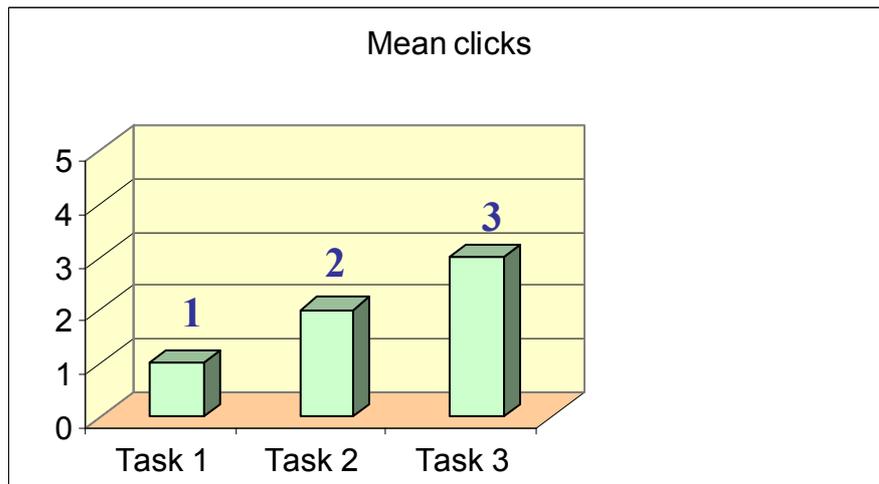


Fig. 53. Mean clicks of the mouse to perform tasks

5.5.2 Users' behaviour while performing tasks

Together with comments that were expressed aloud, it was also interesting to observe the behaviour of each user during the performance of tasks. In particular, incorrect behaviours were noticed during the performance of task three, according to which users had to register with the *EV* website. This happened because you must scroll down the *EV* home page in order to find the registration form, even though it is not actually difficult to find out. Comments expressed aloud were like the following:

“Where should I click?”

“...maybe I should go here...reserved area...”

“...here...I click on ‘registration form’ and I go on!”

In fact, most of users were prone to click on the “reserved area” link, rather than looking for a “registration form”. The following figure shows what users did while performing task three.

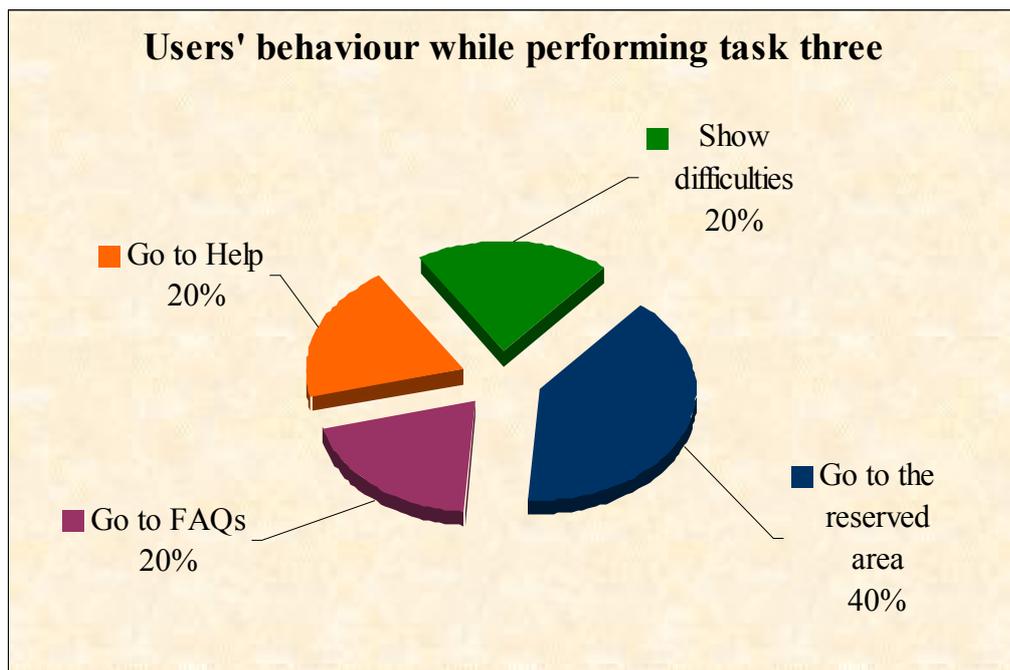


Fig. 54. Users' behaviour while performing task three

5.5.3 Post-test questionnaire

At the end of the test session, each user was kindly asked to fill in a simple questionnaire that intended to assess the ease of use of the Emeroteca Virtuale website. In particular, users were expected to express their opinion, rating some sentences from the “fully agree” to the “fully disagree” option.

In more detail, three users out of five declared to “fully agree” that it was easy to perform a single search, while one said to agree and another one disagreed.

Results are shown in the following figures.

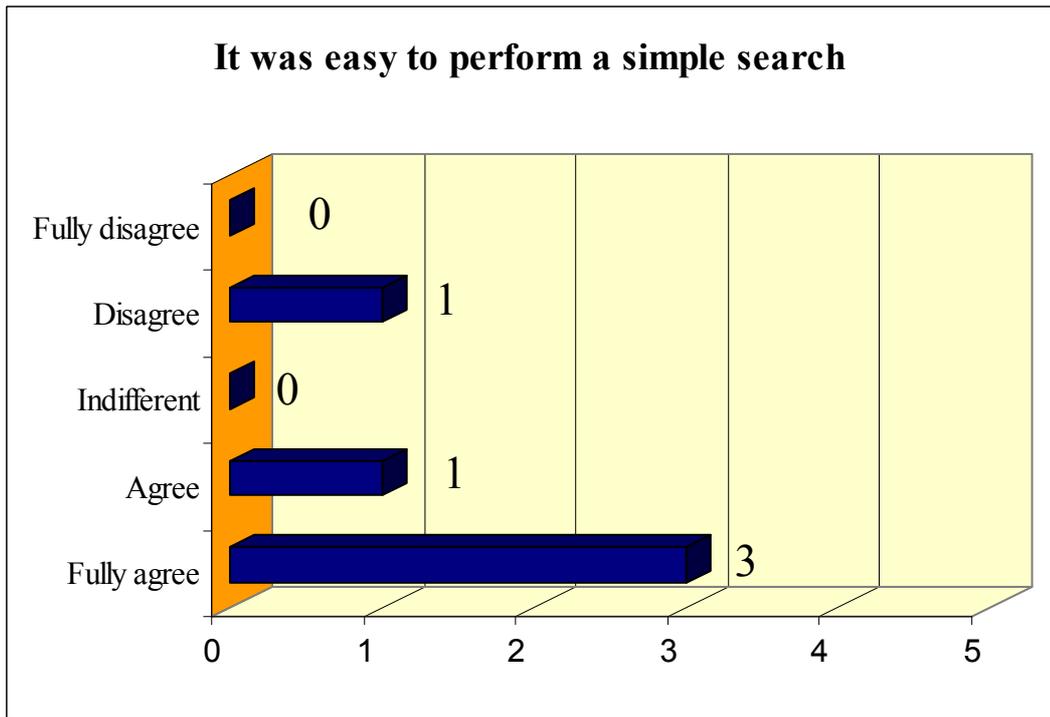


Fig. 55. Users' opinion about the easiness in performing a simple search

Then, concerning task two, just two users “fully agreed” that it was easy to perform an advanced search, while one said he agreed, one admitted to be indifferent, one disagreed. Nobody declared to completely disagree.

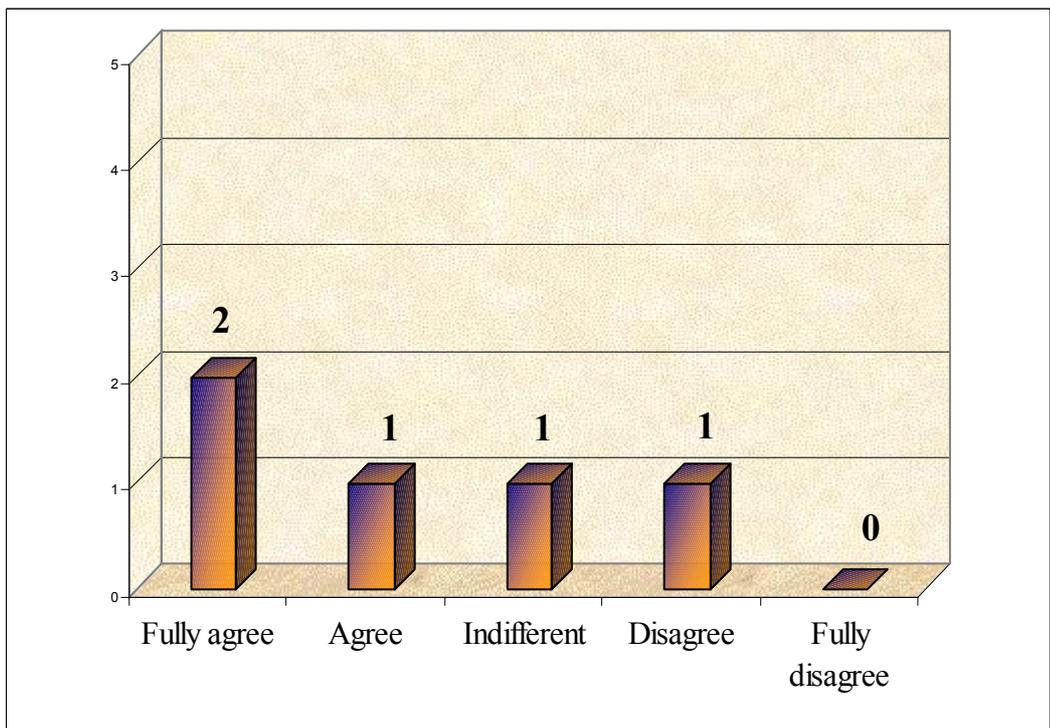


Fig. 56. Users' opinion about the easiness in performing an advanced search

Finally, the third statement of the post-test questionnaire said that it was easy and useful to register with the EV. Results show that most of tested users (40%) disagree and 20% “fully disagree” with this statement. In particular comments were like the following:

“As a complex it’s useful...but it’s not so easy to immediately get what to do...”

“I have already tried this service...but sometimes I get the information somewhere else...”

“...It’s not so immediate to register...”

Then, against the above negative result, 40% of tested users responded positively.

“I find this service really useful and interesting”

“Well...you scroll down this page a little bit...yes...quite easy to register”

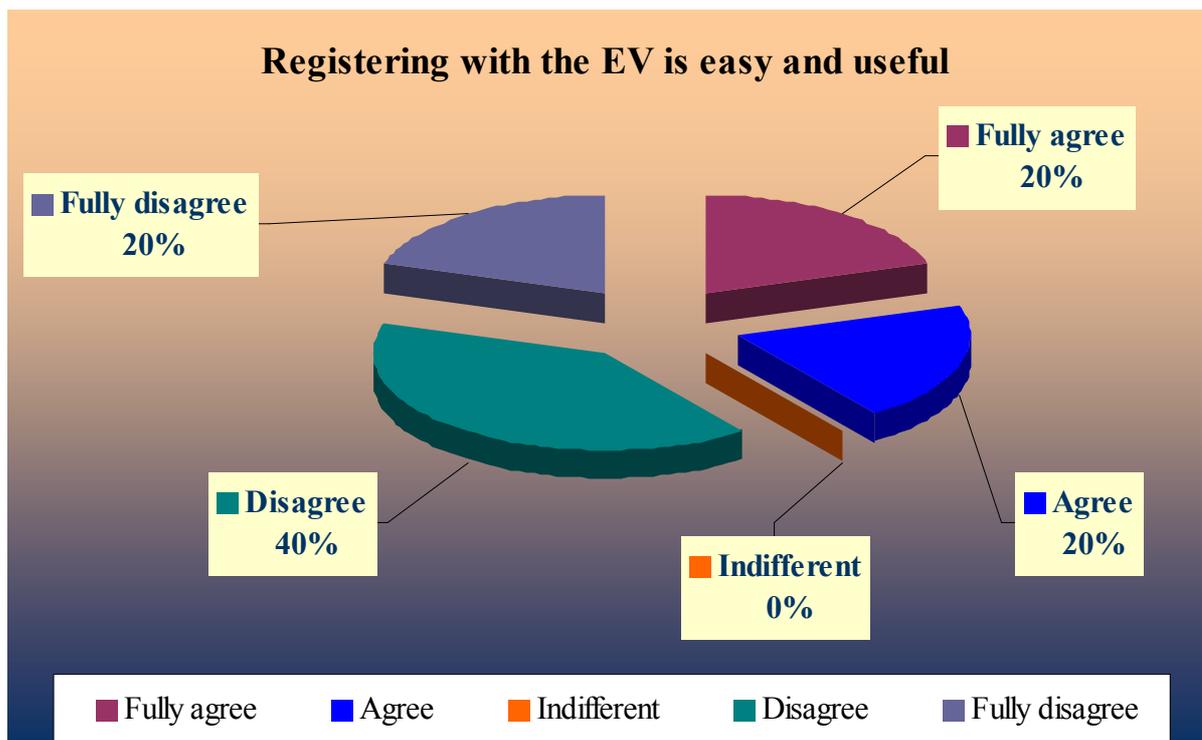


Fig. 57. Users’ opinion about the easiness and usefulness in registering with the EV

References

- 1) Alberico, Ralph (2002). *Academic Library Consortia in Transition*. In “New Directions for Higher Education”, Issue 120, pp. 63-72.
- 2) Ball, David (2003). *Public Libraries and the consortium purchase of electronic resources*. In “The Electronic Library”, Vol. 21, Issue 4, pp. 301-309.
- 3) Craven, Jenny (2000). Good design principles for the library website: a study of accessibility issues in UK university libraries. In “The New Review of Information and Library Research”, Vol. 6, pp. 25-51.
- 4) Nielsen, Jacob (2000). *Designing Web Usability*. Indianapolis: New Riders.

Chapter 6

Conclusions

As a result of our research, the service “Emeroteca Virtuale” (provided by the CIBER consortium) confirms its importance within our University Library System: users who have been questioned and interviewed declared that many are the reasons to use this electronic service: for instance, the “Emeroteca Virtuale” is available 24 hours a day, allowing a researcher to save time and, apart from an easiness in its use, this service often provides access to journals for which the print version is not available yet.

Against these positive aspects, this research demonstrates that there are also some negative factors that may induce people to avoid a deeper approach to the “Emeroteca Virtuale”. In fact, many users declared that they usually find technical difficulties in using e-journals, some others declared that back files are not enough to satisfy their research needs and that many journals, which may be interesting for their research purposes, are excluded by our collections. Finally, it is clear that many respondents suggest an increase in consortia purchases, and they often do that under the conviction that collections should be improved especially (and even exclusively) in their electronic formats.

At the beginning of this work some questions have been posed: the study that has been carried out not only gives an answer to those questions and to some others that can be examined in the questionnaire, but it also provides us with valuable quantitative and qualitative data.

Do our users know the Library System website?

At first, one of the things that had to be discovered was the level of familiarity of users with our library system website. This research shows that most of the users know our library system website quite well, but a considerable number of users confessed their little knowledge of it.

However, this information must be considered in comparison with the actual use of the Emeroteca Virtuale, which is just one of the services provided by the library system website (see the following question). Patrons were also asked to indicate how expert they felt as regards the use of this digital tool provided by our library system website: we have discovered that many respondents consider themselves quite expert and this suggested a high rate of use of e-journals.

Are users aware of the Emeroteca Virtuale and with what frequency do they use it?

Answers from the questionnaire that has been submitted for this study show that most respondents actually use the Emeroteca Virtuale. What was surprising, however, is the fact that many respondents declared they had never heard of this consortium service before the submission of the questionnaire.

It must be said that many respondents are students. However, their lack of knowledge about the “Emeroteca Virtuale” was almost astonishing, especially if we consider that most of them are students at their final year or preparing their dissertation.

Another result is that the Emeroteca Virtuale is generally used once or twice a week by many users and that only few users consult it more than once a week.

Finally, we also wanted to investigate which is the main way used to spread the information about the existence of this service: as already said above, the most part of respondents declared that the questionnaire for this research was the first tool through which they became acquainted with the “Emeroteca Virtuale”.

Then, words from library staff as well as information within the library system website turned to be the main tools to improve awareness of this digital service. In many cases, this information passed directly from teachers to students.

What are the main reasons to use or not to use the “Emeroteca Virtuale”?

This research tried to explore which are the main reasons to use or not to use the Emeroteca Virtuale at our University, considering the ever growing context of library consortia purchases.

Results confirm that there is the necessity to support new cooperative initiatives to disseminate scholarly information but it is also clear that many goals still have to be pursued if we expect an increase in users’ satisfaction.

Respondents have indicated that the main reason to use the EV is that it is always available and saves time. Then, other reasons are important too, like the fact that one can search more years at a time and that access is also possible from home, always providing updated information. Interviews gave us more insights showing that users are also happy about some personalised services that the EV provides them with.

On the other hand, there are reasons that limit the use of this digital tool: first of all the absolute lack of awareness of the existence of this consortium service. Then, many users still declared that they prefer reading from paper, while some others are discouraged by the fact

that they do not find enough documents in their field of research. This, in particular, would suggest us the implementation of new strategies to better manage consortium acquisitions.

Finally, during interviews patrons also complained about the presence of technical difficulties in using the computers at the library, which were often considered inadequate for online searches and downloading for later storage of all articles found.

What is the user's level of satisfaction with the Emeroteca Virtuale?

This research has tried to define the level of users' satisfaction with the Emeroteca Virtuale, outlining some particular features this service provides users with. First of all, the number of titles available was taken into consideration and it has been demonstrated that most of the users declare to be satisfied, even though some people complained that many interesting titles are not available from home.

Then, the same positive result came from the question investigating satisfaction with journals updates, speed of access and ease of use of the service.

Another important result is the one showing a lack in user education. In fact, many respondents would like to have more information about the services provided by the library system. In particular, as regards the Emeroteca Virtuale, results demonstrate a growing interest in tutorials explaining the use of all functions and potentialities connected to this consortium service

What kind of suggestions can users give us both to improve satisfaction with the "Emeroteca Virtuale" and with other e-journals at our campus?

The last part of the questionnaire involved a series of initiatives proposed to patrons in order to ameliorate access to e-journals at our campus. Patrons were asked to rate the level of usefulness of each proposed initiative.

Specifically, some questions insisted on consortia services and purchases, which users seemed to appreciate, while the cutting of print subscription in favour of online licenses did not get the expected result: in fact, just a limited number of patrons indicated this as a good initiative.

What was certainly clear from these last questions is that remote access to the Emeroteca Virtuale and the implementation of new personalised services are necessary initiatives that the library system should soon improve. At the same time, education on the use of the service is considered very useful.

6.1 Recommendations for further research

This research focused on the satisfaction of our users with the consortium service called “Emeroteca Virtuale”. In particular, many aspects connected to the use and non use of this digital tool have been considered, as well as suggestions given by patrons and related to possible improvements in the efficacy and efficiency of the service. This research also intended to show that consortia are now important in the daily library life.

However, it would be important to go on with the study of the relationship between the library system perspectives and users’ expectations in terms of e-journals acquisitions and management. What is more, a further analysis on what exactly users consult while using the electronic library tools and with what frequency they do it, would be a step toward a better understanding of our users’ needs.

In particular, the researcher here refers to the possibility of making log file analysis, using one of the tools now commercially available and that could help us manage usage statistics in a much more proficient manner.

Furthermore, it would be also important to make a distinction among the different fields of interest, in order to better distinguish and depict the specific users’ needs related to their area of study. It would be useful to plan different questionnaires for different targets, in order to have distinguished results for different categories.

Access to different e-journals should be considered in more details, taking into consideration not only the “Emeroteca Virtuale” but also studying the different features of other kinds of access to e-content: this would let the researcher have a wider idea about how to organize a perfect service for maximum user satisfaction.

Chapter 7

Reflective Review

This chapter contains a reflection on the different steps followed to carry out the present research. It reflects on the adequacies and inadequacies of the research process, and is intended to give suggestions for future researches.

Dissertation Proposal

At the very beginning, the research proposal of this work soon appeared too large for a study that had to be conducted in a relatively short time and with a clear lack of resources. It started as a research on international library consortia and the way they develop and promote their initiatives within different institutions, but it soon had to be shortened.

Notwithstanding the numerous attempts to get a good shaped proposal for limited purposes, it was very difficult to come, at the end, to the decision of making a case study. The use of the library CIBER consortium service “Emeroteca Virtuale” (at the University of Calabria) seemed to be a very good example in order to start and carry out a focused research. Then, it was also decided to investigate users’ satisfaction with this digital service.

Literature Review

In order to start this work and to understand where research over this theme has come until now, it was very useful to investigate the availability of studies documenting similar researches in other institutions.

The purpose was also to provide the reader with a general view about what library consortia are and what they do worldwide, underlining the benefits library users can get from them.

LISA was first searched as it is widely known as the major indexing and abstracting service for library and information science researchers.

However, other tools proved very useful. First of all, the “Emeroteca Virtuale” was considered. This, which is the main subject of this study, provides numerous full-text e-journals from various editors, with articles showing different researches made in library contexts and also related to e-journals usage and management. The most used keywords in the search for articles were: library consortia, user satisfaction, e-library and e-journals evaluation.

Focus Group

The focus group gave the opportunity to start collecting useful data on how to proceed during the whole research. People accepted the invitation to participate with enthusiasm, even though audio recording was not allowed. This provoked an increase in work, because it was necessary to reorganize notes on what was said during the session.

Notwithstanding the limited experience of the moderator, the session was easy to carry on, since participants were all involved in passionate but controlled discussion: the questioning route helped very much during the focus group. However, it was practically difficult to play as the moderator and to take notes at the same time.

At the end of the focus group, all invited people agreed that this research was a necessary step towards a deeper understanding of our users' needs and to better evaluate the efficacy of the digital tools that the Library System currently provides patrons with. What is more, further improvements in the organisation of our "digital library" were suggested.

Finally, the session was useful not only to investigate question wording for the submission of the questionnaire and for interviews but it also proved to be a precious test for other possible work groups for further projects.

Observation

The observation phase did not give particular problems, also because the researcher already had some experience as an observer, having carried out previous studies on the usability of the library system website. Notwithstanding the simplicity of tasks that users were asked to perform, this test was very useful in order both to assess the usability of the Emeroteca Virtuale and to define the level of satisfaction of our users with some features provided by this digital tool. Though the time given for each task was quite short, it was possible to take notice of many interesting users' behaviours and comments.

Unfortunately, there was no way to video record the observation session. This would have given the opportunity to have more interesting materials to value quietly in order to get more precise results. Finally, it was decided to concentrate observation just on the "Emeroteca Virtuale", without extending the inquiry to all e-journals available within the University library system website.

Questionnaire

As regards the questionnaire, many problems had to be faced; first of all, the way to submit it. Though the library system owns data about all registered users, only few of them indicated an e-mail address at the moment of their registration with the library.

For this reason, it was decided to send the questionnaire via e-mail just to some institutional users (teachers, researchers and staff) taking advantage of a mailing list that gathers all of them. Then, other questionnaires were distributed personally, physically going to the three main libraries of the system, visiting laboratories and also meeting students at the university canteen. It was not always easy to get the students' trust and it also happened that many of them did not return the questionnaire given to them a few minutes earlier. However, lots of students were reached by the questionnaire and most of them gave interesting answers. As regards the questionnaire sent to the other categories, a bigger number of respondents was actually expected. Considering that the researcher supposes that the EV is mainly used for "professional" research purposes, he expected a greater cooperation from academic professionals, who are quite acquainted with research methodologies and gathering of data.

Interviews

After having submitted the questionnaire and evaluated the different kinds of answer, some interviews were carried out in order to give to this research a "qualitative" touch.

For this purpose, some users from different categories were contacted by phone and were asked whether they gave permission for a face-to-face interview. In order to get the conversational nature, typical of interviews, an interview guide was prepared where some questions from the questionnaire were given an "open" format. Unfortunately, also in this case audio recording was not allowed: and this caused a heavy work in taking notes and a prolonged duration of each interview.

However, all considerations expressed by users have been gathered during interviews and then literally reported into this research.

Interviews proved to be a very useful instrument of investigation: thanks to them, it was possible for many users to express their satisfaction with the Emeroteca Virtuale but also to underline the need to improve many features that this tools provides.

Limitations

The main limitation of this research is that the investigation work was carried out by a single researcher: the planning of the questionnaire and its submission to users have been done in

hard conditions, exploiting the little time available, after work hours. Interviews have been thought in order to add a qualitative touch to the whole research, but this particular circumstance (using only spare time) negatively influenced the capacity to schedule more detailed questions and to prepare more effective interviews.

Then, another constraint is the kind of sample that has been used: though the questionnaire was sent via e-mail to all categories within the campus, students represent the main part of the population considered, and this makes results not completely representative of the different kinds of users. Researchers and teachers, as well as people from staff, have also been interviewed, but actually, most respondents were students also because they were the most “reachable” target, while many users belonging to other categories (researchers, teachers and staff) were not always predisposed to the investigation and available for interviews. What is more, for this study the same questionnaire has been used for all categories, not making detailed differentiations among respondents.

This work also intended to underline the level of users’ satisfaction as regards e-journals provided by the “Emeroteca Virtuale”: though concentrating on this specific tool has helped to better focus the spectrum of this research, a closer look at the other kinds of access to e-journals at our campus would have given us a wider perspective.

Another limitation is that this research does not provide specific information on how the e-journals consulted through the “Emeroteca Virtuale” are then actually used by patrons and little information is given regarding detailed statistics on usage of specific journals in specific areas. As regards this problem, usage statistics provided by some editors were available (like the usage statistics from American Chemical Society), concerning access to specific titles from specific IP addresses at our campus but, since there was no technical possibility to make useful comparisons with the results of this research (for many reasons it was not possible to install any web analysis software on our servers), no deeper investigation was made.

Finally, though many significant interviews have been reported within this research in order to assess its quality level, more interviews would have given to this study a deeper qualitative insight.

Overall comments

Thanks to the different methodologies used, results obtained from this study give a quite detailed picture of the current use of the EV at our University and of our users’ satisfaction with this digital service. This research has also demonstrated that it is more and more important for users belonging to different categories to benefit from professional assistance in the use of every digital service at our University. In particular, both the questionnaire and the

interviews show that many patrons would like to be helped to better understand the potentialities of the EV and of any other digital service. For this reason, improvement of user education programmes should be considered.

The research has also demonstrated that it is necessary to increase and improve library consortia purchases, especially because today, the purchase of a bibliographic service often includes the acquisition of co-related electronic services, which are more and more requested by our users.

As regards the observation session, this allowed us to find out some little problems that our users face while using the EV and, obviously, this will be of great help in order to manage different kinds of support for users, especially for beginners.

Finally, as an overall result, this research has increased the interest into the EV digital service at our campus. In fact, as we have seen, the questionnaire itself was an important medium to improve awareness of the EV among our users and to stimulate their curiosity towards the enormous potentialities that e-journals offer for study and research or work.

As a last comment, the researcher thinks that today it is very important to keep researching this field, also within limited realities as that of our campus could be considered. A community can grow up only if you try to find out what people think of structures, materials, services in order to change what you really need to change.

Library consortia will keep growing and for this reason all professionals involved in library management and, in particular, in the management of electronic services, must continue to keep themselves updated and ready for new changes.

7.1 What the researcher would do better and what he wouldn't do again

First of all, in the definition of a research plan, more concentration would be soon given to the research questions, which the researcher wants to give an answer to. This will allow not to waste precious time and resources, while also allowing the researcher to better focus on the literature review, faster and with less efforts. In fact, more than two months were needed in order to reduce the focus of this research and to find the first pertinent documents for the literature review.

As regards the focus group, the main difficulties encountered were both the lack of an assistant to take notes and the denial to record the session. On the basis of this experience, the researcher not only would call participants and invite them to the session, but now he would also schedule (given for granted a bigger time availability) a pre-interview with each participant to the session in order to explain that possible recording would not affect them in

any way, and that it is just a way to better help the researcher to carry out a more precise qualitative investigation.

Again, also for the observation session, the researcher would now manage to organize a more valuable observation setting, in order to make people feel more comfortable also in front of a camera, which would be properly prepared and situated at a non – visible place, not to disturb users during the test performance.

In fact, as video recording was not allowed, many particular users' behaviours were hardly reported into notes (like face expressions, eyes movements and fatigue signs).

As regards the questionnaire, as already said above, many difficulties were faced. Lack of time was the first obstacle and a lot of time was needed to personally going around and submit the questionnaire. The researcher would now do things differently. Taking advantage of some commercially available software, he would prepare an online questionnaire. This would then be published on the library system website so that maximum appearance would be granted and a more response rate would be hopefully obtained. With this kind of tool, e-mails would be avoided. Then, different questionnaires would be now prepared for the different categories considered, in order to get more differentiated data and results.

As it happened for the focus group, also interviews posed the same basic difficulty: that is, recording was not allowed. Actually, for this problem there isn't much to do, since the researcher thinks that people should be free to choose whether to allow recording or not. However, in a possible further research, it would be useful to make some face-to-face meetings with each selected person to understand better what are the inner motivations that forbid to feel comfortable in front of a camera or with a recorder. This further investigation would be then an important section of the research itself.

With more available and previously scheduled time, web log file analysis would be of a great interest and use, because comparisons could be done between results obtained and, for example, usage statistics provided by editors. In a future work, the researcher would then schedule a deeper analysis of all documents available and related to usage statistics and would also manage to install a web log file analyser in order to proceed to automatic log file analysis.

Bibliography

- 1) Aiguo, Li (2003). *Calis: acquiring electronic resources*. In "Library Collections, Acquisitions, & Technical Services", Vol. 27, Issue 2, pp. 261-267.
- 2) Alberico, Ralph (2002). *Academic Library Consortia in Transition*. In "New Directions for Higher Education", Issue 120, pp.63-72.
- 3) Alemna A.A. and Ant I.K. (2002). *A review of consortia building among university libraries in Africa*. In "Library Management", Vol. 23, Issue 4-5, pp. 234-238.
- 4) Arora, Jagdish (2003). *Indian National Digital Library in Engineering Science and Technology (INDEST): a proposal for strategic cooperation for consortia-based access to electronic resources*. In "International Information and Library Review", Vol. 35, Issue 1, pp.1-17.
- 5) Ball, David (2003). *Public Libraries and the consortium purchase of electronic resources*. In "The Electronic Library", Vol. 21, Issue 4, pp. 301-309.
- 6) Bar-Ilan, Judith et al. (2003). *A Survey on the Use of electronic Databases and Electronic Journals Accessed through the Web by the Academic Staff of Israeli Universities*. In "The Journal of Academic Librarianship", Vol. 29, Issue 6, pp.346-361.
- 7) Barrett, Rob; Maglio, Paul P. (1998). *Intermediaries: new places for producing and manipulating Web content*. In "Computer Networks and ISDN Systems", Vol. 30, Issue 1-7, pp. 509-518.
- 8) Belcher, Martin et al. (2000). *Quality assurance in subject gateways: creating high quality portals on the internet*. In "Library Consortium Management: An International Journal", Vol. 2, Issue 3-4, pp. 81-96.
- 9) Bevilacqua, Fabrizia (2003). *Usabilità e uso dei periodici elettronici*. In "Biblioteche Oggi", Vol. 21, Issue 3, pp. 5-12.
- 10) Bostick, Sharon L.(2001). *Managing Technology. The History and Development of Academic Library Consortia in the United States: An Overview*. In "The Journal of Academic Librarianship", Vol. 27, Issue 2, pp. 128-130.
- 11) Brooks, Sam (2001). *Integration of Information resources and Collection Development Strategy*. In "The Journal of Academic Librarianship", Vol. 27, Issue 4, pp.316-319.
- 12) Cary, Karen and Ogburn, Joyce L. (2000). *Developing a consortial approach to cataloguing and intellectual access*. In "Library Collections, Acquisitions, & Technical Services, Vol. 24, pp. 45-51.
- 13) Cicourel, A. V. (1964). *Method and Measurement in Sociology*. New York: The Free Press.
- 14) Clayton, Peter and Gorman G.E. (2001). *Managing Information Resources in Libraries*. London: Library Association Publishing.

- 15) Collings, Penny; Pearce, Jon. (2002). *Sharing designer and user perspectives of web site evaluation: a cross-campus collaborative learning experience*. In "British Journal of Educational Technology", Vol. 33, Issue 3, pp. 267-278.
- 16) Corbetta, Piergiorgio (2003). *La ricerca sociale: metodologia e tecniche*. Volumes 1- 4. Bologna: Il Mulino.
- 17) Courteney, Nancy (2001). *Barbarians at the Gates: A Half-Century of Unaffiliated Users in Academic Libraries*. In "The Journal of Academic Librarianship", Vol.27, Issue 6, pp. 473-480.
- 18) Craven, Jenny (2000). *Good design principles for the library website: a study of accessibility issues in UK university libraries*. In "The New Review of Information and Library Research", Vol. 6, pp.25-51.
- 19) Davies, Clare. (1997). *Organizational influences on the university electronic library*. In "Information Processing & Management" Vol. 33, Issue 3, pp. 377-392.
- 20) Downs, Robert R.; Friedman, Edward A. (1999). *Digital library support for scholarly research*. In "Information Processing & Management", Vol. 35, Issue 3, pp. 281-291.
- 21) Dwyer, Dan; Barbieri, Kathy; Doerr, Helen M. (1995). *Creating a virtual classroom for interactive education on the Web*. In "Computer Networks and ISDN Systems", Vol. 27, Issue 6, pp. 897-904.
- 22) Eason, K., Yu, L. and Harker, S. (2000). *The use and usefulness of functions in electronic journals: the experience of the SuperJournal project*. In "Program", Vol. 3, Issue 1, pp. 1-28.
- 23) Elias, T; Morrill, S. (2003). *Our virtual reference training camp: testing the players before signing them on*. In "Computers in Libraries", Vol. 23, Issue 4, page 10.
- 24) EU-NSF Digital Library Working Group on Interoperability between Digital Libraries: Position Paper. In <http://www.iei.pi.cnr.it/DELOS/NSF/interop.htm> (Last accessed February 1st, 2005).
- 25) Foglio, Antonio (1996). *Alleanze strategiche per l'impresa. Scegliere e gestire le alleanze vincenti*. Milano: Franco Angeli.
- 26) Frances Laverne Carroll and John Frederick Harvey (2001). *International Librarianship: Cooperation and Collaboration*. Lanham, MD: Scarecrow Press.
- 27) Friend, F J (2003). *Big Deal: good deal? Or is there a better deal?* In "Learned Publishing", Vol. 16, Issue 2, pp. 153-155.
- 28) Gaur, Ramesh C. (2003). *Rethinking the Indian Digital Divide: The Present State of Digitization in Indian Management Libraries*. In "International Information & Library Review", Vol. 35, Issue 2-4, pp. 189-203.
- 29) Giordano, Tommaso (2000). *Digital Resources Sharing and Library Consortia in Italy*. In "Information Technology and Libraries", Vol. 19, Issue 2.
- 30) Giordano, Tommaso (2000). *INFER: Osservatorio italiano sulla cooperazione per le risorse informative*. In "AIB Notizie", Vol. 12, Issue 11, p. 15.

- 31) Goldberg, Tyler; Horvath, David; Neagle, Eric (2001). *Serials management: integration and enhancement through reorganization*. In "Library Collections, Acquisitions, and Technical Services", Vol. 25, Issue 4, pp. 401-407.
- 32) Greenberg, Paul (2002). *CRM at the Speed of Light: Capturing and keeping customer in Internet Real Time*. New York: McGraw-Hill/Osborne.
- 33) Harris, Lindsay; Peterson, Mary (2003). *Sharing the burden: a model for consortium purchasing for health libraries*. In "Journal of the Medical Library Association", Vol. 91, Issue 3.
- 34) Harwood, Nicola and Bydder, Jillene (1998). *Student Expectations of, and Satisfaction with, the University Library*. In "The Journal of Academic Librarianship", Vol. 24, Issue 2, pp. 161-171.
- 35) Heady, Donna M. (1996). *Cooperation Works! Successful Models of Cooperative Collection Development: Report of a Program*. In "Library Acquisitions: Practice & Theory", Vol. 20, Issue 2, pp. 190-192.
- 36) Hedstrom, Margaret. (1997/1998) *Digital Preservation: A Time Bomb for Digital Libraries*. In "Computers and the Humanities", Vol. 31, Issue 3, pp. 189-202.
- 37) Heidi, Julien (1998). *User Education in New Zealand Tertiary Libraries: An International Comparison*. In "The Journal of Academic Librarianship", Vol. 24, Issue 4, pp. 304-313.
- 38) [Heron, Peter](#); [Nitecki, Danuta A.](#); [Altman, Ellen](#) (1999). *Service Quality and Customer Satisfaction: An Assessment and Future Directions*. In "The Journal of Academic Librarianship", Vol. 25, Issue 1, pp. 9-17.
- 39) Hightower, Christy and Soete, George (1995). *The Consortium as Learning Organization: Twelve Steps to Success in Collaborative Collections Projects*. In "The Journal of Academic Librarianship", Vol. 21, Issue 2, pp. 87-91.
- 40) Hirshon, Arnold (1999). *Libraries, Consortia, and Change Management*. In "The Journal of Academic Librarianship", Vol. 25, Issue 2, pp. 124-126.
- 41) Hirshon, Arnold (1999). *The development of library client service programs and the role of library consortia*. In "Library Consortium Management. An International Journal", Vol. 1, Issue 3-4, pp. 59 – 75.
- 42) Iljon, Ariane. (1998). *The international perspective—The European union experience in library co-operation*. In "The Journal of Academic Librarianship", Vol. 24, Issue 2, pp. 151-154.
- 43) Jackson, Mary E. and Preece, Barbara G. (2002). *Consortia and the Portal Challenge*. In "The Journal of Academic Librarianship", Vol. 28, Issue 3, pp. 160-162.
- 44) Jain, P.K. (2003). *Indian Council of Social Science Research (ICSSR) Maintained Research Institutes' Libraries in India: Towards Digitization and Networking*. In "International Information & Library Review", Vol. 35, Issue 2-4, pp. 217-232.

- 45) Jarvenpaa, S.L.; Staples, D.S. (2000). *The use of collaborative electronic media for information sharing: an exploratory study of determinants*. In "Journal of Strategic Information Systems", Vol. 9, Issue 2-3, pp. 129-154.
- 46) Jenkins, C. (1997). *User studies: electronic journals and user response to new modes of information delivery*. In "Library acquisition : practice & theory", Vol. 21, Issue 3, pp. 355-363.
- 47) Joslin, Chris; Pandzic, Igor S.; Magnenat Thalmann, Nadia. (2003). *Trends in networked collaborative virtual environments*. In "Computer Communications", Vol. 26, Issue 5, pp. 430-437.
- 48) Kahn, R.L. and Cannel, C.F. (1967). *The Dynamics of Interviewing*. New York: Wiley.
- 49) Kan, H.Y.; Duffy, Vincent G.; Su, Chuan-Jun. (2001). *An Internet virtual reality collaborative environment for effective product design*. In "Computers in Industry Volume", Vol. 45, Issue 2, pp. 197-213.
- 50) Khol, David (1994). *OhioLink: a vision for the 21st century*. In "Library High Tech", Vol.48, Issue 12, pp. 29-34.
- 51) Kluiters, Chris C. P. (1997). *Delivering "building blocks" for digital libraries: first experiences with Elsevier electronic subscriptions and digital libraries in Europe*. In "Library Acquisitions: Practice & Theory", Vol. 21, Issue 3, pp. 273-279.
- 52) Kohrs, Arnd; Merialdo, Bernard. (2001). *Creating user-adapted Websites by the use of collaborative filtering*. In "Interacting with Computers", Vol. 13, Issue 6, pp. 695-716.
- 53) Labov, William (1972). *Sociolinguistics Patterns*. Philadelphia: University of Pennsylvania Press.
- 54) Lindley, Jane Ann (2003). *The Turkish National Site License (TRNSL)*. In "Serials", Vol. 16, Issue 2, pp. 187-190.
- 55) Marcondes, Carlos Henrique; Sayao, Luis Fernando (2003). *Brazilian digital library of theses and dissertations*. In "International Information and Library Review", Vol. 35, Issue 2-4, pp. 265-279.
- 56) Marcum, Deanna B. (1997). *Digital libraries: For whom? For what?* In "The Journal of Academic Librarianship", Vol. 23, Issue 2, pp. 81-84.
- 57) Martensen, Anne and Gronholdt, Lars (2003). *Improving Library Users' Perceived Quality, Satisfaction and Loyalty: An Integrated Measurement and Management System*. In "The Journal of Academic Librarianship", Vol. 29, Issue 3.
- 58) McFadden Allen, Barbara and Hirshon, Arnold (1998). *Hanging together to avoid hanging separately: opportunities for academic libraries and consortia*. In "Information technologies and Libraries", Vol. 17, Issue 1.
- 59) Meurs, Delphine (2000). *Les projets de consortium en Belgique pour l'achat de documentation électronique*. In "AIDA Informazioni", Vol. 1, pp. 23-29.

- 60) Moyo, Lesley M. (2002). *Collections on the Web: some access and navigation issues*. In "Library Collections, Acquisitions & Technical Services", Vol. 26, Issue 1, pp. 47-59.
- 61) Nakano, Russell (2002). *Web content management: a collaborative approach*. First Edition, Boston: Addison Wesley Professional.
- 62) Nielsen, Jacob (2000). *Designing Web Usability*. Indianapolis, Ind.: New Riders.
- 63) Nfila, Reason Baathuli & Darko-Ampem, Kwasi, (2002). *Developments in academic consortia from the 1960 through to 2000: a review of the literature*. In "Library Management", Vol. 23, Issue 4-5, pp. 203-212.
- 64) Oder, Norman. (2000). *Consortia hit critical mass*. In "Library Journal", Issue 1, pp. 48-51.
- 65) Okerson, Ann et al. (2003). *International Coalition of Library Consortia Statement of Current Perspective and Preferred Practices for the Selection and Purchase of Electronic Information*. In "Serials Review", Vol. 29, Issue 1, pp. 3-4.
- 66) Okerson, Ann S. (1996). *Buy or Lease? Two models for Scholarly Information at the End of an Era*. In "Daedalus. Journal of the American Academy of Arts and Sciences", Vol. 125, Issue 4, pp. 55-76. Article found at: <<http://www.library.yale.edu/~okerson/daedalus.html>>, last accessed February 10th, 2005.
- 67) Pandian, M. Paul et al. (2002). *IIM digital library system: consortia-based approach*. In "The Electronic Library", Vol. 20, Issue 3, pp. 211-214.
- 68) Patton, M.Q. (1990). *Qualitative Evaluation and Research Methods*. 2nd Ed. Sage.
- 69) Peters, A. (2002). *E-reference: How Consortia Add Value*. In "The Journal of Academic Librarianship", Vol. 28, Issue 4, pp. 248-250.
- 70) Peters, T. A. (2003). *Consortia and their discontents*. In "Journal of Academic Librarianship", Vol. 29, Issue 2, pp. 111-114.
- 71) Peters, Thomas (2003). *Graduated consortial memberships and rogue facilitators*. In "Journal of Academic Librarianship", Vol. 29, Issue 4, pp. 254-256.
- 72) Peters, Thomas (2001). *Agile Innovation Clubs*. In "The Journal of Academic Librarianship", Vol. 27, Issue 2, pp. 149-151
- 73) Peters, Thomas (2001). *What's the Big Deal?* In "The Journal of Academic Librarianship", Vol. 27, Issue 4, pp. 302-304.
- 74) Peters, Thomas (2002). *Digital repositories: individual, discipline-based, institutional, consortial, or national?* Vol. 28, Issue 6, pp. 414-417.
- 75) Peters, Thomas (2003). *Graduated consortial memberships and rogue facilitators*. In "The Journal of Academic Librarianship", Vol. 29, Issue 4, pp. 254-256.
- 76) Phillips, B.S. (1971). *Social Research. Strategy and Tactics*. New York: Macmillan.

- 77) Preece, Barbara (2001). *Union and Virtual Catalogues in a Consortial Environment*. In "The Journal of Academic Librarianship", Vol. 27, Issue 6, pp. 470-472.
- 78) Pullinger, D. and Baldwin, C.(1997). *SuperJournal: what readers really want from electronic journals*. In: "Proceedings of the 4th electronic library and visual information research conference. ELVIRA4", 6-8, De Montfort University, Milton Keynes", edited by C. Davies and A. Ramsden. Aslib, pp. 145-153. URL: <<http://www.superjournal.ac.uk/sj/elvira.htm>> [Last accessed: February 10th, 2005].
- 79) R & D Sub-committee on Qualitative Research (1979). *Qualitative Research - A Summary of the Concepts Involved*. In "Journal of the Market Research Society", Vol. 21, Issue 2.
- 80) Ram, Sudha; Park, Jinsoo; Lee, Dongwon. (1999). *Digital Libraries for the Next Millennium: Challenges and Research Directions*. In "Information Systems Frontiers", Vol. 1, Issue 1, pp. 75-94.
- 81) Rapp, David N.; Taylor, Holly A.; Crane, Gregory R. (2003). *The impact of digital libraries on cognitive processes: psychological issues of hypermedia*. In "Computers in Human Behaviour", Vol. 19, Issue 5, pp. 609-628.
- 82) Richardson, Howard (2001). *Solving Access Problems*. In "ONLINE", pp. 16-22.
- 83) Rowley, Jennifer (2000). *The question of electronic journals*. In "Library Hi-Tech", Vol. 18, Issue 1, pp. 46 – 54.
- 84) Schneider, Tina M.(2002). *Academic Libraries and Regional Library Systems: how do they stand today?* In "The Journal of Academic Librarianship", Vol. 28, Issue 3, pp.141-146.
- 85) Shachaf, Pnina (2003). *Nationwide library consortia life cycle*. In "Libri", Vol. 53, Issue 2, pp. 94-102.
- 86) Simoff, Simeon J.; Maher, Mary Lou. (2000). *Analysing participation in collaborative design environments*. In "Design Studies", Vol. 21, Issue 2, pp. 119-144.
- 87) Sit, Richard A. (1998). *Online library catalog search performance by older adult users*. In "Library and Information Science Research", Vol. 20, Issue 2, pp. 115-131.
- 88) Tamaro Anna Maria (1999). *Consorti di biblioteche: la cooperazione non è più un mito*. In "Biblioteche Oggi", Issue 2, pp.80-84.
- 89) Tamaro, Anna Maria (1998). *L'accesso conviene*. In "Biblioteche Oggi", Issue 7, pp. 60-64.
- 90) Tamaro, Anna Maria (2000). *Misurazione e valutazione della biblioteca digitale*. In "Biblioteche Oggi", Issue 1, pp. 66-70.
- 91) Tonta, Yasar (2001). *Collection development of electronic information resources in Turkish university libraries*. In "Library Collections, Acquisitions & Technical Services", Vol. 25, Issue 3, pp.291-298.
- 92) van Groenendaal, Willem J. H. (1997). *A user's view on the electronic library*. In "Library Acquisitions: Practice & Theory", Vol. 21, Issue 3, pp. 337-345.

- 93) Viktor, Desider L.; Gaumont, George; Heath, Fred M. (1997). *Building electronic cooperation in the 1990s— the Maryland, Georgia, and Texas experiences*. In “The Journal of Academic Librarianship”, Vol. 23, Issue 6, Index Issue, pp. 511-514
- 94) Woodward, Hazel et al. (1998). *Café Jus: an Electronic Journals User Survey*. In “Journal of Digital Information”, Vol. 1, Issue 3, Article No. 11 <<http://jodi.ecs.soton.ac.uk/Articles/v01/i03/Woodward/>>. As current as Feb. 10th, 2005.
- 95) Wylie, Neil R. and Yeager, Tamara L. (1999). *Library Cooperation*. In “New Directions for Higher Education”, Issue 106, pp. 27-35.
- 96) Xenidou-Dervou, Claudine (2003). *Moving from print to electronic: a survival guide for Greek academic libraries*. In “Serials: The journal for the serials community” Vol. 16, Issue 2, pp. 145-152.
- Yen, Benjamin P.-C.; Kong, Robin C.W. (2002). *Personalization of information access for electronic catalogs on the web*. In “Electronic Commerce Research and Applications”, Vol. 1, Issue 1, pp. 20-40.

APPENDIX 1

FOCUS GROUP QUESTIONING ROUTE

Question 1 (opening question)

People who are present this morning work at a library, two of them are students and two other work at a department as researchers. I would like everyone to tell whether they already know the Library System website and if they use the Emeroteca Virtuale.

Question 2 (introductory question)

This question and the next two ones are about the research habits of users.

First of all, I would like to know how do you rate your experience with the library digital tools.

Question 3 (transition question)

How do you usually proceed to find out whether a journal you are interested in is also available in electronic format?

Question 4 (transition question)

As regards your usage of the Emeroteca Virtuale, how did you know about it and how frequently do you use it?

Question 5 (key question)

One of the most important issues for my research is the use of the Emeroteca Virtuale by patrons at our University. According to your personal experience, which are the most diffused reasons to use or not to use the Emeroteca Virtuale?

Question 6 (key question)

Whenever you have encountered problems in the use of the Emeroteca Virtuale, did you find any help?

Question 7 (key question)

I would like you to reflect about the Emeroteca Virtuale home page and the organisation of e-journals within the library system website. Is this kind of organization effective for identifying and locating e-journal titles? If not, what kind of changes or improvements would it be necessary to plan?

Question 8 (key question)

In your opinion, do you think that users are currently satisfied with the Emeroteca Virtuale and the personalised services it provides?

Question 9 (ending question)

In order to improve users' satisfaction, do you think that more information should be given to our patrons about the EV and in what forms? (ex. Seminars, tutorials, web tutorials, hand-outs...)

Question 10 (ending question)

I have asked your support to analyse the use and the non-use of the Emeroteca Virtuale by our patrons and to understand what approach to the organisation of electronic resources could better meet the research habits and needs of our users. Do you think there is any aspect we have forgotten to mention? Is there anyone who would like to add something?

Appendix 2

Usability test for the Emeroteca Virtuale: observer's comment form

Date: _____

Status:

Student

Graduating student

Researcher

Staff

Area of study/research: _____

Has the participant ever used the “Emeroteca Virtuale” before?

Yes

No

What is this test?

This test intends to evaluate the efficacy and the efficiency of the Emeroteca Virtuale, a consortium electronic service that provides access to the most part of e-journals at our University.

I will just ask you to perform some simple tasks in order to find out if the system is good enough to satisfy the users' research needs.

For the first two tasks you are given two minutes. For the last one, you are given three minutes.

Once time has elapsed, I will stop you. Please think aloud while you are performing the tasks.

All task will start from the Emeroteca Virtuale Home Page:

<http://periodici.caspur.it>

Do you have any questions?

Task 1: What would you do in order to find out which journals are available regarding chemistry?

Task 2: Please perform an advanced search in the field of chemistry using the key word “*organic*”.

Task 3: Could you please register with the Emeroteca Virtuale and set your preferences for the “mail alert” service?

Task list legend

MTC = Maximum time to complete

SCC = Successful completion criteria

Task number	Task description	Task detail	Mean time used (minutes)	Did the user operate correctly to find the solution? (Yes – No)
1	What would you do in order to find out which journals are available regarding chemistry?	SCC: Start from the EV home page and make a “word” search in the list of subjects MTC: 2 minutes		
2	Please perform an advanced search in the field of chemistry using the key word “ <i>organic</i> ”.	SCC: Go to the “advanced search” section and fill in the proper white spaces. MTC: 2 minutes		
3	Could you please register with the Emeroteca Virtuale and set	SCC: Go to the bottom-left side of the EV home page (Servizi avanzati) and		

	your preferences for the “mail alert” service?	follow the link “Registration” MTC: three minutes		
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User’s comments while performing task 1

User’s comments while performing task 2

User’s comments while performing task 3

Observer's notes

Observer's notes on user's behaviour

User's behaviour during task 1	
User's behaviour during task 2	
User's behaviour during task 3	

Performance Data Summary Table

Tasks	% of participants performing correctly	% of participants performing incorrectly	Mean time used (minutes)	Mean clicks
What would you do in order to find out which journals are available regarding chemistry?				

Please perform an advanced search in the field of chemistry using the key word “ <i>organic</i> ”.				
Could you please register with the Emeroteca Virtuale and set your preferences for the “mail alert” service?				

Post test questionnaire

It was easy to perform a simple search

Fully agree	Agree	Indifferent	Disagree	Fully disagree
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It was easy to make an advanced search

Fully agree	Agree	Indifferent	Disagree	Fully disagree
-------------	-------	-------------	----------	----------------

Registering with the EV is easy to do and is useful

Fully agree	Agree	Indifferent	Disagree	Fully disagree
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Appendix 3

Interview Guide

How do you usually proceed to define a literature review for a research in your field? (For example, do you use the library catalogue, do you consult web databases or indexes?)

Once you have identified some articles, do you usually go to the library and get a print copy or do you prefer looking for an electronic version?

How important are e-journals in your academic activity?

Do you know that the Library System website of our University provides a consortium electronic service called “Emeroteca Virtuale” with lots of e-journals from the major publishers?

Have you ever used the “Emeroteca Virtuale” ?

YES	NO
With what frequency do you use it?	Many patrons have never used this service because they never heard of it or because they find it limited for their research purposes. What is your personal experience?
Who informed you about the existence of this service?	Many users have declared that they still prefer reading from print. What is your opinion regarding this point?
What kind of support or training did you receive about the “Emeroteca Virtuale” ?	What do you suggest in order to improve awareness of the “Emeroteca Virtuale” ?
What are, in your opinion, the main reasons to use this service?	Is there any particular reason for not using this electronic service?
And what are the negative aspects?	In your opinion, what kind of initiatives our library system should start to improve the use of this service?
Would you ever cut print subscriptions in order to improve this electronic service ?	
What are the features of the Emeroteca Virtuale that most satisfy you?	
How does your activity benefit from the use of this tool?	

How would you judge the creation of a new web portal for journals at our University?

Do you think that it would be useful to plan a series of tutorials (both classes and online manuals) on the use of this consortium service?

Is there any other suggestion you would like to give me to improve user satisfaction with the Emeroteca Virtuale and e-journals at our University?

Appendix 4

Questionnaire on the use of the consortium service called “Emeroteca Virtuale” and the level of users’ satisfaction

Part one: user’s data

1) Area of study/research/teaching and related library	
Economics, Social Science and Law	Biblioteca interdipartimentale di scienze economiche e sociali “E. Tarantelli”
Scientific and Technical Area	Biblioteca Area Tecnico Scientifica
Humanities	Biblioteca Area Umanistica “F. Fagiani”

2) Age

18 – 24

25 – 34

35 – 44

45 – 54

55 +

3) Gender

M F

4) Profession

Student

Doctorate Student

Researcher

Associate Professor

Full Professor

Librarian
Technical –
Administrative Staff
Other

5) Education

High School Diploma
University Degree
Specialist School for
Teaching
Master
Doctorate
Phd

6) If student, please specify the kind of degree:

Short degree
Specialist degree
Master
Specialist School for School
Teaching

Part two: use of the Emeroteca Virtuale

7) How familiar are you with the library system website?

Very familiar
Quite familiar
Little familiar
Unfamiliar

8) How do you rate your experience in the use of e-journals and databases of the university library system?

No experience

Quite expert

Very expert

No answer

9) Which of the following browsers do you use for web navigation?

Microsoft Internet Explorer

Netscape

Mozilla

Any

10) In your activity of study/research or teaching, do you use the service named “Emeroteca Virtuale”, provided by the CIBER consortium, which provides users with the most part of e-journals available at our University?

YES

NO

If your answer is **YES**, please go to question **10.b**

If your answer is **NO**, please go to question **10.a**

10.a) Which of the following reasons for NOT using e-journals provided by the “Emeroteca Virtuale” mainly correspond to your personal experience?

- (1) I don't use e-journals in my research/study or teaching activity
- (2) My computer is not adequate for online searches
- (3) I find technical difficulties in using e-journals
- (4) In the “Emeroteca Virtuale” there are not enough back-files for those e-journals I am interested in
- (5) I prefer reading printed journals
- (6) In the “Emeroteca Virtuale” there aren't online journals for my field of study
- (7) I don't know anything about this particular consortium service

(8) Other (please, specify):

10.b) Which suggestions would you give us to improve usage of the “Emeroteca Virtuale”?

10.c) How frequently do you use the service called “Emeroteca Virtuale”?

- (1) More than once a week
- (2) Once a week
- (3) Once or twice a month
- (4) Once or twice every six months
- (5) Other (please, specify):

10.d) How did you learn about this particular library consortium service? Please, tick all relevant points

- (1) From a colleague
- (2) From the library staff
- (3) I attended a course provided by the Library Staff
- (4) From the University of Calabria Library System website
- (5) Using the online catalogue (Aleph) I found links from records to electronic journals
- (6) Other (please, specify):

10.e) What kind of help did you receive with the “Emeroteca Virtuale” ? Please, tick all relevant points

- (1) I attended a workshop organised at my library
- (2) I received individual training from the library staff
- (3) I received support from the “Help” link in the Emeroteca Virtuale home page
- (4) I did not receive any kind of training or support

10.f) How do you usually proceed in order to find out if the journal you are looking for is also available in electronic format? Please, tick all relevant points

- (1) I search a Web guide on electronic resources in my discipline
- (2) When I use online databases I find links from references to electronic journals
- (3) I look at all the electronic journals lists available on the Library System website
- (4) I look at the “Emeroteca Virtuale” home page
- (5) I search the library online catalogue Aleph
- (6) I go to the publisher website and browse the electronic journal titles
- (7) I use a Web search engine
- (8) I have saved the electronic journals Web addresses in my ‘favourite’ Web sites
- (9) Other (please, specify):

10.g) Which of the following reasons to use the “Emeroteca Virtuale” mainly correspond to your personal experience?

- (1) Using the “Emeroteca Virtuale” is more convenient than going to the library
- (2) The “Emeroteca Virtuale” is available 24 hours a day and saves time
- (3) Electronic journals provided by the service “Emeroteca Virtuale” are more updated than printed journals
- (4) The “Emeroteca Virtuale” is easy to use
- (5) Among electronic journals provided by the “Emeroteca Virtuale” I find titles which are unavailable in printed form at my library

- (6) I can search many years at the same time
- (7) I can access an article directly from the bibliographical reference in online databases
- (8) Other (please, specify):

10.h) While using the consortium service “Emeroteca Virtuale”, which of the following problems mainly correspond to your personal experience?

- (1) The number of electronic journals in my discipline is too limited
- (2) I don’t find the journals I need in electronic format
- (3) The number of back issues available is too limited
- (4) I prefer to read printed journals
- (5) The Library System website does not provide enough links to e-journals
- (6) I don’t know how to find electronic journals relevant to my subject
- (7) I am not allowed to access some titles from home
- (8) Other (please, specify):

11) How satisfied are you about the consortium service called “Emeroteca Virtuale” provided through the Library System website? For each item, please tick the appropriate column

		(a)	(b)	(c)	(d)	(e)
		Unsatisfied	Not very satisfied	Satisfied	Very satisfied	Don’t know
(1)	Number of titles available in my discipline					
(2)	Journals updates					

(3)	Speed of access					
(4)	Ease of use					
(5)	Availability of back issues					
(6)	Cross-Links to full-text articles					
(7)	Access from home for registered users					
(8)	Tutorials on the use of the service					
(9)	Mail alert service					
(10)	Possibility of personalized searches					

12) How would you rate the following initiatives to improve satisfaction in the access to electronic journals within our campus? For each item, please tick the appropriate column

		(a)	(b)	(c)	(d)	(e)
		Useless	Not very useful	Useful	Very useful	Don't know
(1)	Integrate the "Emeroteca Virtuale" with the library online catalogue and the other available full-text journals					
(2)	Create a separate web page where all journals are ordered by subject					

(3)	Create a separate web page where all journals are ordered by title					
(4)	Create a portal for journals in which links from bibliographic references in databases to full-text e-journals are enabled					
(5)	Increase consortium purchases					
(6)	Cut of print journals in favour of e-only licences					
(7)	Improve access from home for registered users					
(8)	Tutorials on the use of the service					
(9)	Mail alert service					
(10)	Improve personalized searches and services					