A comparison between five Polish and five Spanish medical academic library web sites

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Abstract

This article discusses about the comparison of five Spanish and five Polish academic library web sites. On first time it was selected the type of the library to be evaluated, medical academic libraries, and on the second one it was choosed the criteria to evaluate it. Have to say that it was selected the polish library web sites which has an english version. There are two dimensions to evaluate, on one hand the information content of the service, and on the other hand, the usability, that is the users interaction basically focused to the interface design of the web site.

Key words
Evaluation, academic library, medical library, web sites, usability criteria, content criteria

Introduction

<u>Why the evaluation is necessary</u>?

The process of the evaluation is an instrument to guarantee that the planification and the objectives established in a organiation are carried out. Many institutions use this tool to improve the quality that offers in their services. This process of the make better the quality at Spanish universities starts on the decade of 90th. Nowadays, the works continue at academic field. At university, the library are the main point where the information is saved and at the same time, is the place where it's distributed at all of memebers of the community. Library constitute an important support service to two function which are the raison d'etre of the university institution: research or knowledge creation, and the teaching or communication of this knowledge.

In this way, the evaluation of academic libraries is necessary for different reasons: the evaluation permit to know the strengths and weaknesses points in the library to find the level of efficiency to give correctly and effectively the services that their users need. The service like the object of this article, the academic library web site. But for Marchionini (2000) the main reason is that the objective of the evaluation is to know the impact that the library has on the social scope, in this case at university community.

Mainly, the evaluation works in a library is oriented to the users: if we have much clients, if we give good products and good services. In this process are evaluated each one of the services in the library to have solutions for this one that not work effectively and to do the corrections that are needed.

There are many authors who made contributions to theorical development of this process, such as Lancaster, who said that "evaluation is to establish a comparison between the objectives proposed by the institution under study and the execution carried out, so it can be determined if there was some variation in implementation, and if this has happened, if it has been in a desired direction and how far has behaved well. This task is of great importance as it makes it possible to determine to what extent the unit of information (in this case, a library) is able to cope with the demands of its users information, identify limitations and failures of their services and make suggestions that

contribute to its improvement." (Lancaster 1993).

Other studies in the area by Claire Guinchat and Michael Menou establish that "is a research that makes his hypothesis and objectives, define the phenomena it is necessary to analyze, join up data in different ways (documents, observation, measurement, interviews, etc.) analyzes and draws from them conclusions".

However it's possible to extract the similar final conclusion from all of them. More or less with the evaluation the institution seeks to achive optimize the resources, adapt the services offered to users needs and make continuous improvement.

Usually the evaluation is linked to the term quality. To measure the quality of services offered in a library there are numerous stage agencies and regulations that have quality evaluation plans. Although in this article is to let the whole part of the planning process to focus solely on the analysis of academic library web site service.

Developement of ICT

Nowadays we live in a society called of the information and it recived this name due to the big quantity of information is produced and consumed a cross of the communications ways, every day in each social context. With the growth and development of information and communication technologies the immediacy characterize the channels by the scientific information is transmited.

Digital documents and digital resources appear with new propierties different to printed documents. For example the diversity of formats, the variety of kinds of information like images, sounds or multimedia that could be linked to the text documments. ICT tools can be used to find, explore, analyze and change information, and can be used to give users quick access to documents and specialized resources.

In the academic field these documents sometimes are the digital version of printed documents and many times it's the new documents which works like a faster vehicle to communicate the scientic information. Because with the ICT the collaborating between scientifics coleagues are more easier and faster. But in academic area not only scientifics has information needs, there are other users as students or teachers, and then the libraries has the task of collecting, processing and storaging digital documents as the same as printed, with the objective of make easier the retrieval of the information to users.

Furthermore, libraries in the society of information are the cultural entities where citizens can acces to the resources that ICT contribute. Therefore, libraries guarantee the legitimacy of information equality that everybody have. Libraries are open doors to the culture, informarion and education, and also, realize the task of linking the tradicional and new information media, managing and ordering the acces to the knowledge.

The information systems of academic organizations are part of the development of the ITC, along with the facilities offered by the network like the possibility of consulting the same document simultaneously by multiple users, as often as required and unlimited hours and covering geographical barrier for example. Expand and diversify extraordinarily the possibilities of data recovery, so it's necessary specific indicators and parameters to evaluate. Codina (2001) told us that the digital resources has distinct propierties from analogic resources, and it's for this reason that we can speak about parameters and evaluation indicators particulars.

Research sources and metodology

In the first time it's selected the object of the research, in this case it's definied the type of the libraries are to be analysed. From electronic resource EBIB (http://www.ebib.info/en/index.php?option=com_wrapper&Itemid=27) where is organised the list of the Polish libraries by type, it's choosed five academic libraries of Medicine. It's need to mention that one criteria to select the libraries is the language, that the library web site has the english version (see the Appendix I).

Other element observed in the moment of select the faculties of Medicine are that the web site of Spanish medical academic libraries are included on the web site of the university library with all of the rest faculties catalogues of these university.

With ten library web sites selected, five of them Polish and the other five Spanish. it's the time to choose the correct criteria to evaluate it, and exist two diferents aspects in the evaluation of web site service, on the one side, the usability and the aesthetic presentation of the web, showed from a general point of view that it could be applied to all type of web sites. The usability could be described like the users interaction with the content basically focused to the interface design of the web site.

Althought usability concept isn't exclusive from a unique scope, and for that exist various definitions, some one are proposed by oficial normalizing institutions, which make it the most widely accepted in our area of knowledge. For example the Intenational Standard for Human Computer Interaction and usability: ISO/IEC 9241 *Ergonomic requirements for visual display terminals (1998)* with the Guidance for usability where the term is definied like the capability of the software product to be understood, learned, used and attractive to the user. And also, the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.

As mentioned by Guillemette (1989) who argueed that usability refers to the degree to which documentation can be effectively used by target readers in the perfomance of task under enviromental requirements and constraints. Edward Kit (1995) for example indicates thet the objective of usability is to adapt the software to work styles of real users rather than forcing users to adapt their work styles to software. In all of this definitions identify the main concepts which are utility, efficiently and users satisfaction related with the use of the library web site service.

There are many literature published about usability and the variety of methods to evaluate it like the paper "Strategies for evaluating Software Usability" where Fitzpatrick includes the large assortment of evaluation methods: observation, questionnaire, interview, empirical methods, huristic methods, cognitive walkthroughs review methods and modeling methods.

In Anglo-Saxon world refered to five classic criteria: authority, accuracy, objetivity, currency, coverage. Also added access, navigation and design. But Nielsen in his literature synthesize heuristic methods and provide the decaleg of gerenal rules to evaluate the usability on web sites (Nielsen y Morkes 1998) where proposed the criteria like: Visibility for user can know in each moment the state of the web. Visibility of content organitation, information and resources not saturated. Correspodance between system and user real world and information needs, and easy navigation, uniformity of style and concept in all pages of a site so the user does not become disoriented. Easy identification of function and resources to make easy the acces and not force the user to memorize the procedures. Flexibility, the interface have to respect personal users needs making avaible different versions of resources and differents tools for expert use. Efficiency find easily the relevant information to user. Efficiency preventing mistakes and facilities for correct it. Help tools and instructions for use the web site. From all of this literature had been chosed some ones items to evaluate the ten library web site proposed.

The format adopted for the presentation and representation of information is critical for their use, for usalibility deal to do that interfaces colud be friendly, and the users can easily find and acces information content. For that, this field of knowledge is related with disciplines like Informatics,

Psicology, Sociology, Antopology and Industrial design.

Between other objectives, ones of the most important in the academic library is that the web site could be an service where the user can find relevante informaction for their work, specalized in their area of knowledge, for this, on the second way of this article, the evaluation pay attencion in the content of the web sites. In opposite of the usability criteria, content criteria are specific for medical academic libraries.

Usually the medical libraries of universities of medicine has attached an university hospital then the specific libraries has a particular characterisitics related with subject, users and serves. This libraries are limited to one subject or a group of interrelated topics. It aims provide specific information services for the development of those services, teaching and research. Paying attention to services, training, specialization, continuous education of health personnel, research and health management.

In relation to users, although belonging to public institutions, usually medical academic libraries are consulted by a certain type of users, usually health professionals, doctors, nurses, physiotherapists, midwives, MIR staff, medical students, pharmacists, administrative staff. There is a close relationship between the place where is located library, which is material and users who demand their services.

In relation to its information services, the priority of libraries specialist is to provide information, accurate and useful, easily and effectively, and shortest possible time, also when this users are looking for medical information it's important that the source are realible.

Some studies examined the most importants criteria to evaluate library web sites. As the publication about this subject are much many, and the features could change depending of the special content of the academic libraries, the questionnaire designed for this article are constructed with ideas and concepts elected from different specific literature.

From the authors rewied Cohen and Still (1999) identified four purposes of a library web site which are informational, reference, research and instructional. In the same way Dewey (1999) selected access, reference, information and user education services. Coffta and Schoen (2000) examined loan policies, contact information and holdings. Bradley P. Tolppanne, Joan Miller and Martha H. Wooden (2000) considered the following categories: navigation tools, library information, information access services, information retrieval forms, policies, individual library department pages, Internet information and links, reference guides, instructions and tutorials.

Chao in his article "Assessing the quality of academic libraries on the Web: The development and testing of criteria" prepared a questionnaire which was formed with sixteen quality criteria which are reduced to eight. Chao considered the most important evaluate the presentation, the content, graphic design, compability, services, search capability, institutional information and information about links, and leave eight of the sixteen criteria identified at first. This are integration, speed, head and tittles, reliability, navigability, collections and new, helps and authority

We have chosen just a few of the criteria proposed by the authors because the features for design, navigability, help information, usability and Human Computer Interaction are discussed in a different questionnaire. One way to do an ordered analyse of the content of medical academic library web sites taking into account the revised purposed are the next categories: library information and policies, information services, information OPAC, Medical resources and bibliometry, data bases and related links, education services and mother institution relation.

The criteria Authority is not necessary to include in the evaluation because in this case the authorithy's web site is the university library. The University as an academic and cultural center has an established reputation and inregrity that will provide value and veracity to the web site.

The information about the traditional library is always important for users to know the opening

hours, adress, e-mail and library and loan policies. Chao call this feature Integration. The second one purposed are related with the library services. If on the library web site are information about loan, interlibrary loan, reference and bibliographic service. The possibility to renew the loan on line and command the bibliographic searches by internet, in a reference answering service. And also, the possibility to inform users of new acquisitios as a function of the information needs of each one, that is to say, the presence or not the selective dissemination of information in accordance with the established profile for each user.

Next one is about the OPAC. If the catalogue is collective with all the faculties of the university or if its an individualized specific catalogue of medicine. If give the tutorial and the possibilities to create and export bibliographical lists.

The point number four is about de data bases. If this tool enables a library to link numerous resources with each other. If it has a description of each one data bases. If the access of full text it's for free, this is that you an link directly from a databases record to the electronic article in library subscription, or with permission.

An other important point for this library users are the medical resources. It's very important that the library web site link with medical search engines, medical sites and portals to the users has a unique tool that unify the necessary materials for the researc activity. And also for the students identify the medical resources and learn to work with there for their teaching activity.

And the last feature to evaluate is the relation with the mother institution, this is, with the access of the university home page, information about the faculty, the departments or with the subjects, and the information connected with teaching like educational materials, recommended bibliography for the subjects belonging to medicine career, and also information connected with research.

This content criteria used to evaluate the object of this research are related in the appendix II, and the methology followed to assess the important content elements of web sites has been rated in a binomial positive value if the site contains the element and score in a negative value if it lacks or if it isn't so clear or could be confused for the user.Iit can see in appendix IV, tables 1 to 4.

Results

With the test of usability, the results obtained show that Polish libraries web sites are built in a clear arquitecture of information, to permit that the user knows in every moment the section in which it is located, but some of the webs analized (3 from 5) haven't got Breadcrumbs. It's one of the most util and easy hepls to understand for the user, because it not only shows users where they are currently located in the site's architecture, but it allows them to back up levels with links to each one of superior hierarchical levels. In these case, is the design of the web who is responsible for maintaining the user located.

For example, Poznan University of Medical Science use the heading of the web with the tittle to identify the section which is showed, and the logo to come back to home page. In other cases like Ludwika Rydygiera Medical University in Bydgoszcz Rydygiera and Medical University of Gdansk keep the same coherency in the design of structures in the various pages of the website. It means that keeps the menus and the headings for each of the sections or items and just change the space reserved for the body text.

At the same time, two from five of Spanish libraries web sites use also breadcrumbs, *l*ibrary of University of Valencia and University of Cantabria. But in the case of those which do not have this resource of navigation and guidance, medical library of University of Granada, Madrid and Córdoba, as well as Polish libraies web sites, it keeps the heading and use a drop-down menus.

From a design standpoint, drop-down menus are an excellent feature because they help clean up

a busy layout. If structured correctly, drop-down menus can be a great navigation tool, while still being a usable and attractive design feature.

Most commonly, drop-down menus are used to pull all of the pages in a certain category together in one organized element. This is essentially sub-navigation, where a drop-down element contains all of the different categories for a certain section of the website.

As well as Medical University of Pomerania in Szczecin web site use a drop-down menus where include like a item the library services. In this case these menu helps to identify easily the level of the hierarchy where the user web browsing and also, identify the services offered by the university. The rest of the Polish libraries web sites analised have their own web site separated from the university page. But it's linked with the mother institution. In case of Spanish medical libraries web sites, are part of the general university library.

The list of the evaluated usability items

1.   Clarity (visibility to user could known where is and where can go)
2.   Design and presentation (colors, language, type and size of letters, menus)
3.   Navigation (easy navigation, uniformity of style and concept in all pages of a site so the user does not become disoriented)
4.   Division (information and resources not saturated)
5.   Information (Help tools and instructions for use the web site)
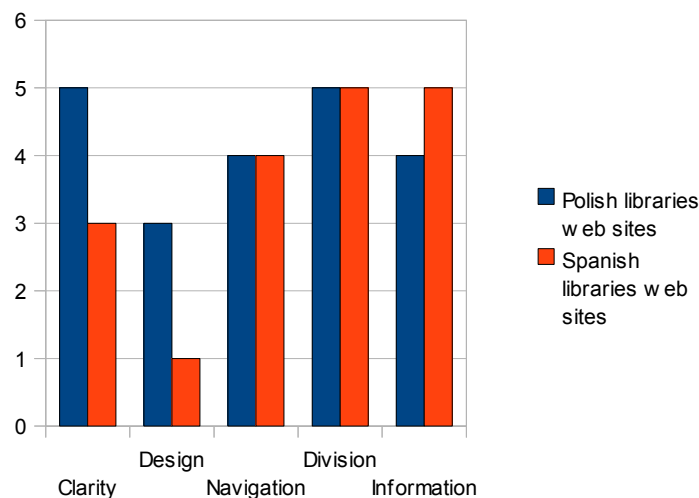
Figure n1. Five items of Usability

Polish libraries web sites, contrary to Spanish ones, seem to attach more importance at items related with the Design and Presentation. Three from five Polish libraries web sites use colors that mantain a contrast between a light background with headings and darker lyrics while the other two web sites analyzed use a color too dark for the background whith the letters in white, whatever could satured minimally user's view.

In the case of Spanish libraries, the library's Web Cantabria and Valencia are a good example with a white background and the letters and headings of darker color. The other's ones has a strong

contrast because they combine a variety of colors in the letters of the menus.

Regarding with type and size of letters, four of five Polish libraries use an standar size, as the same as four of the Spanish ones. While library of Medical University of Pomerania, library of Universidad Complutense of Madrid and University of Cantabria takes into account the web accessibility and has graphic buttons to change the font size, labeled A, A-, A+, and A++ or small font, medium font and large font.

Another element analyzed in this paragraph is language. In Polish web sites is possible to change the language to English site with the graphic icon in the heading or in the menu, like Colegium Medicum. There are visualy easy to identify although user unkown one of two languages. Instead of Spanish libraries the option to switch to English version is in the main page of the university. Except the Medical library of Granada, it's in the main page of the general library.

In the next two items, Polish libraries, the same to Spanish ones, seems to give the equal importance to easy navigation and division the information. It's very important the structure of the web and the direction that information follows not change without order to user not became disoriented. The position of the navigational elements should be the same on every page of the site. In this web sites, there are a uniformity of screen stile and uniformity also in the structure of web. That means that the structure of the web is fixed, the menus always occuped the same part of the screen and when the information changes, it does just in the part of the screen reserved for the text.

The last usability item is related with the instructions and helps tools. On one hand the information about library and instructions for use the catalogues is evaluate in content questionaire, and on the second hand, in Polish libraries it's possible to find feedback with the librarians, rules for using the net in Medical University of Pomerania, librarian assistance in Library of Medical University of Lublin, guideline in Ludwika Rydygiera Medical University, with information about how to became user, how to search an article, journals or books. And in the last one, Medical University of Gdansk, the user could ask to the librarian.

In the case of Spanish libraries, it offers some services for resolution of doubts and consultation with the librarians, like user's training and aks to the librarian in University of Valencia. In University of Granada the library answer the user and has instructions to find the relevant information. In University of Madrid has "Help", Frequently Asked Questions, ask the librarian, guides and tutorials. In University of Cantabria, in the web of general library has courses and traning for users to learn how to find the information. And the last one, University of Córdoba has FAQ and ask the librarian.

In the second part of the study, the results of the content analysed shows that Polish libraries gives particular importance to the features related with the information of traditional library. All of them with dates like the adress, opening hours and contact, and the others one as Medical University of Pomerania, Medical University of Lublin and Medical University of Gdansk with more information like history, regulations, structure, prices... As the Spanish ones. Some ones like University of Granada and Córdoba has also documents about the evaluation and quality of the library.

About the services offered in the library, Polish libraries in their web sites (1 to 5) gives information about loan, and four to five gives about interlibrarian loan, while in the web site of Medical University of Pomerania, University of Valencia, Complutense of Madrid and University of Cantabria is possible to renew loan and book by Internet. All of them shows the regulations and prices for the loan. Some of the Spanish ones has also a services to loan computers.

Furthermore, library of Poznan University of Medical Science explain that reference and bibliographic service prepares bibliographic specifications for a particular topic based on computer databases, Medline and the database of Polish medical literature. The rest of libraries not refers to this service. Equal as library of University of Granada and Complutense library which give

information about bibliographic service.

However, the library of Ludwika Rydygiera Medical University has attached the Regional Medical Information Centre. Also, library of University of Valencia has attached Archives, European Documentation Centre, Public Economy, Social and Cooperative Documentacion Centre, and North-South Documentation Centre. It should be noted that Spanish universities have a special service to care for people with disabilities.

The list of evaluated content items

1.   <u>Library information</u>
1.1   Library adress, telephones, e-mail
1.2   Opening hours
1.3   Library policy

2.   <u>Services</u>
2.1   Loan and renew loan
2.2   Interlibrary loan
2.3   References and bibliographic services (on line)
2.4   Computer services
2.5   Reprographical services
2.6   New adquisicions and Selective Dissemination of Information (SDI)

3.   <u>OPAC</u>
3.1   Collective
3.2   Individual
3.3   Tutorial
3.4   Bibliographical lists

4.   <u>Databases</u>
4.1   Access university network
4.2   Full text (books, journals,)
4.3

5.   <u>Medical Resources</u>
5.1   Medical search engines
5.2   Medical sites and portals
5.3   Interesting links related
5.4   Other medical libraries
5.5   Bibliometry: Journal Rankings, Bibliometry sources

6.   <u>Mother Institution</u>
1.   link to university home page
2.   for teaching (recommended bibliography, materials by subject)
3.   for research

Items of Web sites Content chart (left-axis categories, top to bottom):

- for research
- for teaching
- link to university home page
- Bibliometry sources
- Other medical libraries
- sites and portals
- Medical search engines
- Full text
- DB Necessary University Network
- Bibliographic lists
- OPAC Tutorial
- new adquisicions
- Reprographical service
- Computer service
- bibliographic service
- Interlibrary
- Loan
- Library policy
- Opening Hours
- Library adress

Legend:
Polish libraries web sites
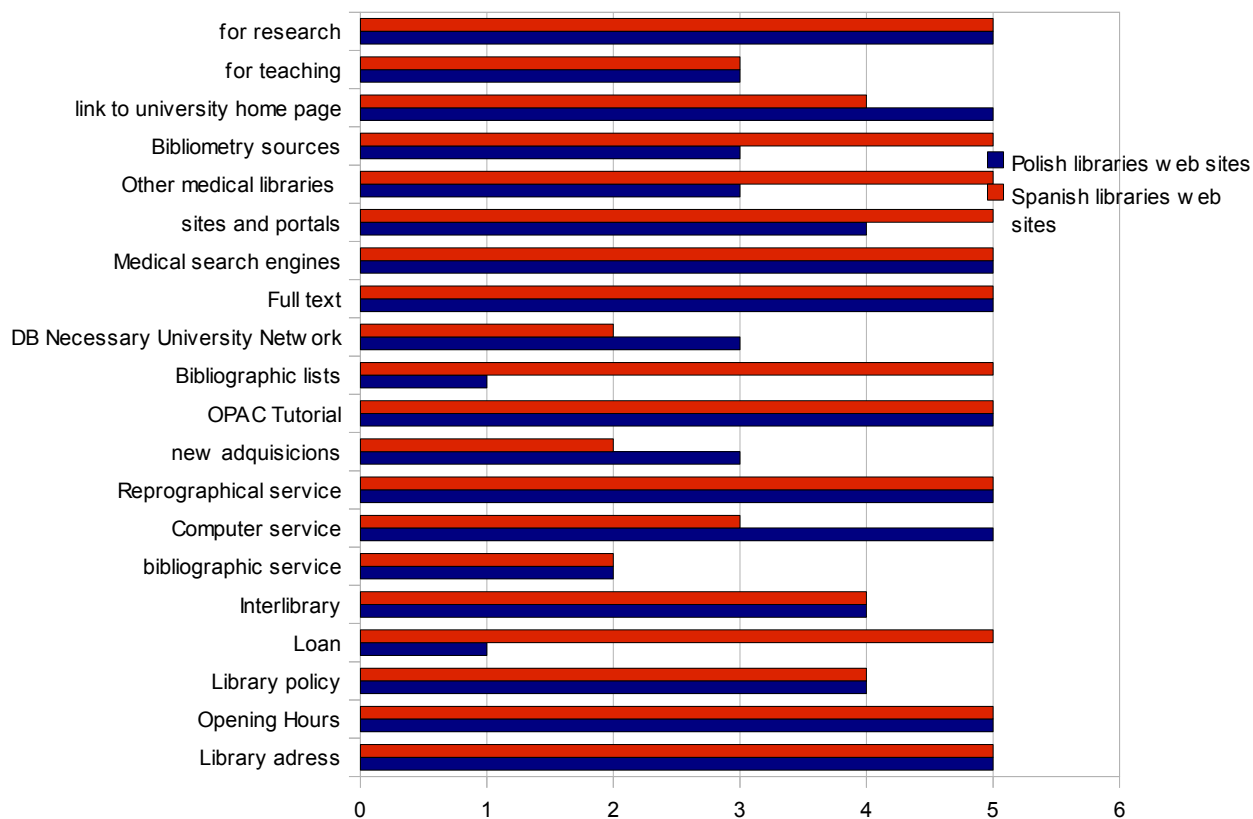Spanish libraries web sites

X-axis: 0 1 2 3 4 5 6

Figure n 2. Items of Web sites Content

The results of item reference to OPAC shows that all the libraries has an Online Public Access Catalogue with the materials of the library collection. Also it has different catalogues depending on each library how order their materials. For example Catalogue on foreign journals, on national books and journals, dissertations, subjects related with Medicine, electronic resources, scientific productions of the university and historic materials, rare books and special collections.

In all the Spanish OPACs is possible to export bibliographic records selected in differents formats like MARC, Refworks, pro-cite, full or abbreviate presentation. In opposite, just one Polish libraries offered the possibility to export the results of the research in a bilbiografic list. This web site is the library of Medical University of Pomerania.

In the web sites of library of University of Valencia present a selection of databases Multidisciplinary, Humanities, Sports, Basic Sciences and Health, Social Sciences, Low and Economy. Some ones are Open Access and the rest are avalaible with university subscription and the user can consult through University Network. But also, it gives information about how to consult databases from University Networks outside. For each one database shows an explanation about subject area, chronology coverage, language, producer, update period and user guide.

To access at Database on University of Granada is always necessary to work in a University Network. In the case of UCM, there are organized by tipology, bibliographical, stadístics, journals with full text, reports, reference and electronic books. It has restrigend acces, it's only for UCM users. Also give information about the content and update of the databases..

In the case of library of University of Cantabria the text are in Open Acces, it's not necessary to work in university Network. In opposite, the acces to databases and electronic publications which are subscrit the University of Córdoba are restringed to work in the University Network, for users

with registration.

Polish libraries has a good organitation to work with databases, for example, Poznan University of Medical Science organise the list of databases in two, on the one hand databases accesible in University nertwork and on the other hand the free biomedical databases. As the same as Medical University of Pomerania which also gives the description of the source. In opposite, for example Library Medical University of Lublin and Ludwika Rydygiera Medical University order it in abstract and bibliographic, and in full text databases. And the last one, Medical University of Gdansk, combine both, free accesible and full text.

Polish web sites are well equipped with tools and medical and librarians resources on line. In terms of links and medical engines, among the sites analyzed must be amphasized as more complete at Poznan University of Medical Science, Medical University of Gdansk and also Medical University of Pomerania. All of this contain resources such as biomedical search engines like PubMed or Scirus, sites and interesting portals related with biomedical information like for example Reuters, Medscape or Refworks.

It's very important take into account that it has an special item for Bibliometry, and this is very interesting on biomedical libraries because in medical research, the bibliometric instruments are quite necessaries for measure the scientific activity, the quality in research groups or literature, and its impact. This web sites has tools like journal rankings which is the Impact factor, and links to bibliometrics resources like Science Citation Index from ISI Web of Knowledge or Impact factor form the Journal Citation Reports. Also Ranking of scients and bibliometric analysis from the departaments and units of the univeresity. As main medical publishers like Blackwell and link with others medical libraries nationals, from Europe and America.

Library Medical University of Lublin link a compilation of portals where saw the last news related with medical sciences and organise like a thirty search tools in scientific, Polish and foreign. In the case of Spanish ones, the library of University of Valencia, Córdoba and Granada, in theirs web sites collect not only research tools, medical engines, interesting portals of Medicine, news about Biomedicine, but also, links to other universities and libraries in Medicine, Oficial Institutions, hospitals and professional associations all around the world. Have to say that usually, in Spanish web sites there are the same bibliometrics resources, impact factors,immediacy index... However there are some diferences. For example Polish libraries also link to Copernicus index while Spanish libraries doesn't use it. But in addition, UV with the CSIC are producers of Spanish Medical Index, the list of biomedical scientific journals, which indexed by authors, institutions, bibliographic references and cites.

Like has been said before, the web site of the library of Medical University of Pomerania is the same web that the university. This one together with the Library of Medical University of Lublin are the unique that have for teaching a Student page with news and specific literature. PMU offer a course about Source of Medical Literature to provide students with the sources of scientific information and also offer bibliography of scholary achievements of the scientific workers of PMU since 1994. Similar to Poznan University of Medical Science which has for research one item to access at publications of University and a link to University home page.

In this way, in the web site of the library of Medical University of Gdansk are prepared a list with a selection of textbooks for the first year students. In addition, library has a didactic classes on line obligatories for all of the first year students. Also exhibitions and conferences. In the point for research it gives the instructions for authors and materials about science information like the values of inpact factor if the articles published in the journals includes in Science Citation Index, between others.

Three of the five web sites of the Spanish libraries analized hasn't got a specific resource for teaching, and the courses that are offered for schoolars are for teaching them in library information search. Although the library of Granada University has materials for support to teaching and courses to introduce the students on a specialized search resources. In addition web sites relying with the institutional repository.

At last, hasve to say that UCM are one of the most completly libraries web sites related with teaching and research because it includs resources guides and recommended bibliography for each subject in medicine studies. And also tools and didactic materials, evaluation and quality criteria in a scientific literature, bibliometry, e-prints and the institutional repository.

Conclusions

As said Chao (2002) the World Wide Web is one of the most appealing media for academic libraries to serve their constituencies, and how was expresed by Battleson (2001) Web sites have become an integral part of the information access mission of academic libraries. Therefore, this tools are very important in order to users can answer their information needs even without users has to go to the library. Web sites must be accesible and friendly and it's essential analyse and evaluate it to know their current operation and elements, and then if it's necessary, make improvements.

This research saw that in terms of usability, libraries has worked to improve their web sites and are built taking into account users needs, and also, are paying attention in the user-computer interaction, using usability elements which benefits the clarity and easy navigation for the user could see information contents of the web site and not miss browsing in their items.

The most remarkable results obtain in this research in usability analisys saw that there aren't much more difference between Polish and Spanish libraries webs sites in navegability terms, in uniformity of style, and in the division of content on the web, for the resources aren't satured. As the same as information item, instructions and help tools for use the web site obtains an excelent results.

In contrast, there are some differences in terms of clarity, that is, if the users could know where they are and where can goes. The main difference reside in there are three Polish libraries working with breadcrumbs while Spanish ones are just two, and also, Polish libraries has obtained two points over Spanish due to in all of this web sites the structure not change, keeping the heading and the body of the text. All of this let the user identify the elements of the web site and know the hierarchical level where is working.

In design and presentation exist a bigger diference, Spanish web sites combine a great variety of colours while Polish ones make contrast just combining one dark color on the background and letters in white.

In the content analisys the results saws that Polish libraries web sites, as the same as Spanish ones, exposing such elements as library policy, opening hours, interlibrary loan, bibliographic and reprographical service, and the points of access to the information about their materials collections, this is the OPAC, are positively informative.

In addition, should be noted that OPACs from all Spanish libraries web sites analyse in this research allows make an bibliographic list and exoport bibliographic records selected in differents formats like MARC, Refworks, pro-cite, full or abbreviate presentation. In opposite, just one Polish libraries web site offered this option.

Other remarkable result is that Spanish are more than Polish libraries giving the possibility to book and renew loan materials by Internet.

In opposite, in the item of computer services, Polish web sites stand out in two points over the Spanish, and also, in new adquisitions the score is again higher at a point.

In relation to the specialized contents in Medicine has to be said that the differences between these two groups of webs sites aren't so great and Polish sites as the same as Spanish, offer a lot

of medical resources for teaching, for research and a compilation of medical search engines. Just in Bibliometry sources and the compilation of medical sites, portals and links to other medical libraries, the score is higher in one o two Spanish web sites libraries.

Even though in more Spanish web sites it's obligatory come under the university network to be able to work with medical and biomedical databases, than Polish ones which have open university network, however, the access to full text is possible in all of these.

At last, the indicator tied with the relation with mother institution is the link to university home page from library web site and all the Polish web sites have it. Have to be in account that one of Polish library is included in the same university web. And just one Spanish web site haven't got this link.

In conclusion, have to said that now aren't large the differences between the elements that compose the medical library web sites. Although differences continue exist in terms of arquitecture and design, and also distribution of contents. Nevertheless, this library service are ready with the best specialized resources need for teaching and reseach in Medicine.

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Appendix I:
The academic medical library selected to evaluate and their url

<u>Polish libraries</u>

•   Biblioteka Główna Akademii Medycznej w Poznaniu
Poznan University of Medical Science
http://www.ml.usoms.poznan.pl/index.?lang=eng

•   Biblioteka Główna Pomorskiej Akademii Medycznej w Szczecinie
Medical University of Pomerania in Szczecin
http://www.ams.edu.pl/english/library

•   Biblioteka Główna Uniwersytetu Medycznego w Lublinie
Library Medical University of Lublin
http://www.bg.am.lublin.pl/en/

•   Biblioteka Medyczna Collegium Medicum im. Ludwika Rydygiera UMK w Bydgoszczy
Ludwika Rydygiera Medical University. Collegium Medicum. University Nicolaus Copernicus in Bydgoszcz Rydygiera
http://en.biblio.cm.umk.pl/

•   Biblioteka Główna Akademii Medycznej w Gdańsku
Medical University of Gdansk
http://biblioteka.gumed.edu.pl/en/

<u>Spanish libraries</u>

•   Biblioteca de la Universidad de Valencia.
Library of University of Valencia
http://biblioteca.uv.es/valenciano/bibliotecas/de_campus/b_medicina/b_ciencias_med.php

•   Biblioteca de la Universidad de Granada
Library of University of Granada
http://www.ugr.es/~bibgesmedicina/

- Biblioteca de la Universidad Complutense de Madrid
Library of Complutense University of Madrid
http://www.ucm.es/BUCM/med/index.php

- Biblioteca de la Universidad de Cantabria
Library of University of Cantabria
http://www.buc.unican.es/
http://pc41.buc.unican.es/LaBuc/centros/MED.asp

- Biblioteca de la Universidad de Córdoba
Library of University of Córdoba
http://www.uco.es/servicios/biblioteca/centros/med/index.html

Appendix II:
Table of usability analysed features

Polish libraries
Usability items

	Biblioteca Glowna Akademii Medycznej w Poznaniu	Biblioteca Glowna Pomorskiej Akademii Medycznej w Szczecine	Biblioteca Glowna Uniwersytetu Medycznego w Lubline	Biblioteca Medyczna Collegium Medicum Ludwika Rydygiera ydgoszczy	Biblioteca Glowna Akademii Medycznej w Gdansku	
1 Clarity	YES	YES	YES	YES	YES	5 de 5
2 Design	YES	YES	NO	NO	YES	3 de 5
3 Navigation	NO	YES	YES	YES	YES	4 de 5
4 Division	YES	YES	YES	YES	YES	5 de 5
5 Information	NO	YES	YES	YES	YES	4 de 5

Spanish libraries
Usability items

	Biblioteca de la Universidad de Valencia	Biblioteca de la Universidad de Granada	Biblioteca de la Universidad Complutense de Madrid	Biblioteca de la Universidad de Cantabria	Biblioteca de la Universidad de Cordoba	
Clarity	YES	YES	YES	NO	NO	3 de 5
Design	NO	YES	NO	NO	NO	1 de 5
Navigation	YES	YES	YES	NO	YES	4 de 5
Division	YES	YES	YES	YES	YES	5 de 5
Information	YES	YES	YES	YES	YES	5 de 5

Polish libraries
Content items

	Biblioteka Glowna Akademii Medycznej w Poznaniu	Biblioteka Glowna Pomorskiej Akademii Medycznej w Szczecine	Biblioteka Glowna Uniwersytetu Medycznego w Lubline	Biblioteka Medyczna Collegium Medicum Ludwika Rydygiera ydgoszczy	Biblioteka Glowna Akademii Medycznej w Gdansku	
1 Library Information						
Library adress, telephones,	YES	YES	YES	YES	YES	5 de 5
Opening Hours	YES	YES	YES	YES	YES	5 de 5
Library policy	YES	YES	YES	NO	YES	4 de 5
2 Services						
Loan and renew loan	NO	YES	NO	NO	NO	1 de 5
Interlibrary loan	YES	YES	NO	YES	YES	4 de 5
References and bibliographic	YES	NO	NO	NO	YES	2 de 5
Computer service	YES	YES	YES	YES	YES	5 de 5
Reprographical service	YES	YES	YES	YES	YES	5 de 5
new adquisicions and Selecti	YES	YES	NO	NO	YES	3 de 5
3 OPAC						
Tutorial	YES	YES	YES	YES	YES	5 de 5
Bibliographic lists	NO	YES	NO	NO	NO	1 de 5
4 Databases						
Necessary University Networl	NO	NO	YES	YES	NO	3 de 5
Full text (books, journals)	YES	YES	YES	YES	YES	5 de 5
5 Medical resources						
Medical search engines	YES	YES	YES	YES	YES	5 de 5
Medical sites and portals	YES	YES	YES	NO	YES	4 de 5
Other medical libraries	YES	YES	NO	NO	YES	3 de 5
Bibliometry sources	YES	NO	NO	YES	YES	3 de 5
6 Mother Institution						
link to university home page	YES	YES	YES	YES	YES	5 de 5
for teaching (recommended b	NO	YES	YES	NO	YES	3 de 5
for research	YES	YES	YES	YES	YES	5 de 5

Spanish libraries
Content items

	Biblioteca de la Universidad de Valencia	Biblioteca de la Universidad de Granada	Biblioteca de la Universidad Complutense de Madr	Biblioteca de la Universidad de Cantabria	Biblioteca de la Universidad de Cordoba	
	Biblioteca de la Universidad de	Biblioteca de la Universidad de	Biblioteca de la Universidad	Biblioteca de la Universidad de	Biblioteca de la Universidad de	
1 Library Information						
Library adress, telephones,	YES	YES	YES	YES	YES	5 de 5
Opening Hours	YES	YES	YES	YES	YES	5 de 5
Library policy	YES	YES	YES	NO	YES	4 de 5
2 Services						
Loan and renew loan	YES	YES	YES	YES	YES	5 de 5
Interlibrary loan	YES	YES	YES	NO	YES	4 de 5
References and bibliographic	NO	YES	YES	NO	NO	2 de 5
Computer service	YES	NO	YES	YES	NO	3 de 5
Reprographical service	YES	YES	YES	YES	YES	5 de 5
new adquisicions and Selecti	NO	NO	YES	YES	NO	2 de 5
3 OPAC						
Tutorial	YES	YES	YES	YES	YES	5 de 5
Bibliographic lists	YES	YES	YES	YES	YES	5 de 5
4 Databases						
Necessary University Networl	NO	YES	YES	NO	YES	2 de 5
Full text (books, journals)	YES	YES	YES	YES	YES	5 de 5
5 Medical resources						
Medical search engines	YES	YES	YES	YES	YES	5 de 5
Medical sites and portals	YES	YES	YES	YES	YES	5 de 5
Other medical libraries	YES	YES	YES	YES	YES	5 de 5
Bibliometry sources	YES	YES	YES	YES	YES	5 de 5
6 Mother Institution						
link to university home page	YES	YES	YES	NO	YES	4 de 5
for teaching (recommended b	NO	YES	YES	YES	NO	3 de 5
for research	YES	YES	YES	YES	YES	5 de 5

Appendix V:
Images of the web sites

Polish libraries web sites

ibuk.pl
czytelnia on-line

Kolekcja *in focus*
(dostęp bezpłatny do 31 marca 2010)

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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

MAIN LIBRARY
Medical University of Lublin

Welcome

Welcome

The Library of the Medical University of Lublin
Szkolna Street 18, 20-124 Lublin
tel./faks: 81 710 19 55, e-mail: **sekretariat@bg.umlub.pl**

MEDICAL LIBRARY

Nicolaus Copernicus University In Torun

Collegium Medicum In Bydgoszcz

| Order a book | Check account | Guideline | Search |

and Wilkins database

Please, remember that librarian exercices are obligatory on Ist year.
If you want to get a pass, you have to be trained at Library.
Please, contact with Monika Kubiak
(monikak@cm.umk.pl)

Medical Library
Nicolaus Copernicus University in Torun
Ludwik Rydygier Collegium Medicum in Bydgoszcz

Spanish libraies web sites

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🔖 El Dr. Gregorio Marañón en la Universidad Complutense: Exposición bibliográfica

El día 27 de marzo de 2010 se cumplen cincuenta años del fallecimiento del Dr. Marañón. Como homenaje la Biblioteca de Medicina de la Universidad Complutense ha realizado una "exposición bibliográfica virtual", que tendrá carácter permanente, y que pretende recoger su vasta producción bibliográfica, además de su paso por la Universidad Complutense de entonces, "la Universidad Central de Madrid".

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