

Developing a model of educational academic library websites

A case study of Iraqi state universities' library websites

A Dissertation Present to the Faculty of the Simmons College Graduate
School of Library and Information Science

In partial fulfillment of the requirements for the Degree of Doctor of
Philosophy

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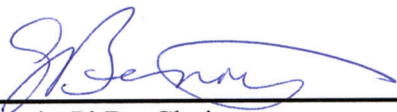

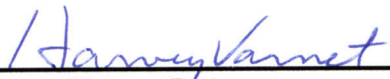
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

"اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ  خَلَقَ الْإِنْسَانَ
مِنْ عَلَقٍ  اقْرَأْ وَرَبُّكَ الْأَكْرَمُ  الَّذِي عَلَّمَ
بِالْقَلَمِ  عَلَّمَ الْإِنْسَانَ مَا لَمْ يَعْلَمْ " سورة

العلق: الآيات 1 - 5 .

In the name of Allah "God," The Merciful, The Most Merciful

*"Read in the name of your Lord who created
 Created man from a clinging substance 
Recite, and your Lord is the most Generous 
Who taught by the pen  Taught man that
which he knew not. " The Holy Quran : Surat Al-
'Alaq: 1 - 5.*

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Abdulateef Hashim Khairi

Simmons College Graduate School of Library and Information Science

ABSTRACT

With the advancement of Internet technology, establishing library websites has become an important issue. However, an Internet presence is not enough unless these websites are effective in achieving the objectives for which they were established. With respect to the Iraqi state university central libraries, a quick review of their websites shows that they have many shortcomings in providing the services and features that are expected by ordinary patrons.

This study has two major goals: (1) to determine the current state of Iraqi university library websites and (2) to articulate a model to guide the development of these sites by examining the sources of the issues facing these library websites' development. The study also considers the issues that face the development of an Iraqi-specific model for electronic educational resources and the ways in which these resources can be more useful.

Measuring and evaluating Iraqi university libraries' websites are the foci of this dissertation, in which the entire Iraqi national education system of state universities is considered as a single case study using a mixed-methods approach. The study sample includes the entire population of the library websites of the Iraqi state universities that are identified from the Iraqi Ministry of Higher Education and Scientific Research website. The study consists of three data-gathering exercises: a survey of library directors, interviews with library directors (or a representative of the administration), and a questionnaire for Iraqi LIS faculty members.

This study analyzes and measures the Iraqi universities' libraries' websites by studying the services and features they currently offer and by comparing them with the core components of international academic library websites which have been identified in the professional literature. The list of core components was presented to the Iraqi library and information science (LIS) faculty members to determine what they believe fits the unique needs of Iraqi users. Then, these core components are compared with the components offered by each of the Iraqi university libraries' websites to find out how many of the services and features are currently provided and what prevents these websites from offering the missing services and features.

In general, the Iraqi state university library websites are surprisingly deficient in the services and features they provide. Some of these websites offer a fair number of services, according to the list of services and features collected from the literature. However, other libraries' websites provide very limited services and features. These disparities are affected by several factors, such as whether the library directors have LIS credentials and whether the library staff has LIS credentials and computer skills. Other Iraqi state university library websites need improvement in terms of the quality of their services and features as well as the quantity of these services and features from the perspective of their patrons.

The study concludes with a suggested model for the Iraqi academic library websites' services and features. Study conclusions further suggest that the Ministry should verify the information offered through its website, correct some of the data about the state universities, and unify the official data provided for the public in all official channels. Finally, the study suggests a future research study of Iraqi state university libraries' website usability.

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DEDICATION

This dissertation is dedicated to the memory of the kindest person I have ever known, my father and my first teacher, from whom I learned the value of learning and teaching, and who instilled in me the values of determination, motivation and persistence. May God's mercy bless his soul and make him rest in peace. And may God bring us together in Paradise. "God willing", Amen

To my magnificent and lovely mother, the spring of kindness and compassion, for her unconditional love. I truly could not have done this without your sincere prayers.

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Abdulateef H. Khairi

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Chapter One: Introduction

Preface

With the advancement of Internet technology, establishing library websites has become an important issue: "With the application of information and communication technologies in libraries, the concept and the role of library and librarian is dramatically changing, especially with the invention of Internet. The importance of the Internet and the World Wide Web in libraries can no longer be questioned" (Kalra and Verma, 2011, p. 139). Ongus, Kemparaju, and Nyamboga stated that, "In conjunction with computer technology, libraries are increasingly being equipped with information infrastructure (or infostructure), which enables their users to rapidly access information from outside the libraries' (four walls). This mainly occurs by means of websites on the Internet" (2006, p. 61-62). Organizations and institutions (including government institutions) rapidly establish and consolidate their positions on the Internet to deliver their message to the public. On the one hand "organizations of all types are recognizing the importance of the World Wide Web as a tool, not only for gaining access to information, but also as a means of disseminating information about their activities, products and services" (Kalra and Verma, 2011, p.139). On the other hand, as another way to solve the problem of physical space limitations, the "Library website is an extended service which solves the limitation problem of space and distance" (Shieh, Hnng, & Chen, 2009, p. 492). However, some university libraries may still not provide their patrons with these essential services, especially distance delivery services. "Although many consider the library to be the heart of the university, the use of the library is often not incorporated into courses being prepared for distance delivery." (Lebowitz, 1997, p. 303). Recently, Francis noted that "In order to educate and serve these

students, universities have had to develop new methods of instruction and new work flows within academic and support services. These techniques continue to change with new advances in technology and increased expectations of distance learners. One area that has long offered support to distance students and continues to reshape its resources is the library." (2012, p. 19).

However, being on the Internet itself is not enough unless these websites are effective in achieving the objectives for which they were established. "Just having a website available is not sufficient; it must be designed with specific users in mind" (Pegoraro, 2006, p. 4). In 2010, Katsanos, Tselios, & Avouris noted "A prime objective of websites' designers is for people to be able to access, find and use the information and services easily. Users access a website with some information needs and expectations about where to seek information" (p. 195-196). Schaupp (2005, p. ii) noted that "In building a successful website the design must match the organization's objectives and these objectives need to be clearly defined." In terms of the library itself, Lebowitz (1997, p. 307) stated that "One goal of an effective program of library services should be to ensure that students are aware that, albeit at a distance from their parent institution, they have a full array of services available, provided by a staff which is concerned with fulfilling their needs." Lombardi (2000, pg. 10) noted that "The library, we hear, is pretty much over unless it can remake itself into an academic Yahoo, an intellectual Google, or some other competitive hyper-textualized, multi-threaded, linked, digital resource." Likewise, Dougan & Fulton (2009, p. 217) indicated that "Library Web sites must compete against easy-to-use sites, such as Google Scholar, Google Books, and Wikipedia, for students' time and attention. Library Web sites must therefore be designed with aesthetics and user perceptions at the forefront."

With respect to the Iraqi state university central libraries, a quick review of their websites shows us that they are facing many issues, and they have many shortcomings in providing the

services and features that are expected by ordinary patrons. These issues and specific shortcomings will be demonstrated in the review of the websites later on in this study.

Measuring and evaluating Iraqi university libraries' websites are the foci of this dissertation, in which the entire Iraqi national education system of state universities is considered as a single case study through a mixed-methods approach. This study analyzes and measures the level of service provided by the Iraqi universities' central libraries' sites by studying the services and features that are currently offered by these websites, and by comparing them with the core components of international academic library websites which have been identified in the professional literature. The list of core components was presented to the Iraqi library and information science (LIS) faculty members to determine what they think as specialists and as actual users through their personal experiences dealing with library websites, to see what they believe fits the unique needs of Iraqi users of those services and features, and later comparing this list of services and features with those offered by each of the Iraqi university libraries' websites, to find out how many of these services and features are currently available and provided by these websites, and what prevents them from offering the missing services and features (if any) on their websites.

The goal of this study is to apply the conclusions of this dissertation to improve these libraries' websites and urge them to provide core service and feature components. The objective of this study can be generally summarized in two major goals (1) to determine the current state of Iraqi university library websites and (2) to articulate a model to guide the development of these sites by examining the source of the issues facing these library websites' developments.

While there are many libraries in Iraq, this study will focus on university libraries. “Library” will refer solely to the Iraqi university central libraries of the nineteen state universities that are supported by the Ministry of Higher Education and Scientific Research and listed on Iraqi state universities list offered by the Ministry official website (Appendices 1 and 2). The study will include the entire population of the nineteen state universities which are the entire population of state universities.

The libraries’ mission is to provide comprehensive resources and services to support educational, research, and the entertainment needs of their university communities. “The mission of academic libraries is to support the educational and research activities of their parent institution through the provision of collections, services, and user education. Providing support for teaching, learning, and research is the focus of academic libraries.” (Curzon and Quinonez-Skinner, 2010, p. 11). To fulfill this mission, I believe - which the literature suggests and supports as well - that librarians should think more broadly when they try to serve their community inside and outside their physical locations, given the prevalence of Internet-based resources and changing user expectations.

The purpose of this study is to examine the Iraqi state universities' understanding of local data and resource needs, by examining the similarities and differences of the population of Iraqi libraries by combining the data collected by interviews and questionnaires. Collectively these data could provide a baseline of access through the interface to national resources and their contents and suggest opportunities for improvement.

Furthermore, the study will help us to understand how the Iraqi national educational libraries' websites work. Further, this study will consider the issues that face the development of an Iraqi-

specific model for electronic educational resources, and the ways in which they can be more useful. Using what we learn, we will have a better understanding of how library website design can serve the needs of Iraqi information services. Refining this model will help Iraqi librarians to achieve their missions and by extension arrive at an idealized model for future Iraqi academic library service websites. I cannot claim that the study conclusions will be read by, and integrated into the work flow, of the subjects, but hope that the new Iraqi leaders, decision-makers, and library directors and staffs will use the results of this study, which might help them to achieve their missions.

Reflective Inquiry

Statement of Problem

The emergence of Iraqi governmental and non-governmental institutions' websites is relatively new. Al-Bayati (2001, p. 30) and Al-Aubaidi (2001, p. 16) noted that the first Iraqi website on the Internet was established by the Iraqi government on April 29, 1997. However, in the last few years, especially after the war in 2003, it has been demonstrated in a study for Azzuhairi (2008, p. 5) that there has been a notable increase in the number of websites and in Internet resources generally “likely because of the increase of governmental and public information activities on one hand, and the lifting of restrictions on freedom of speech and use of the Internet on the other.”

Nonetheless, compared with other countries in the Arabic World ¹ or other international institutions' websites, there appear to be significant deficiencies in the performance of many of the Iraqi websites, especially in the field of Library and Information Science (LIS). Khalifa (2005) conducted a study on the LIS websites in the Arab world countries. He found that among all Arab countries, each has LIS specialized websites, except Somalia, Djibouti, Comoros Islands, and Iraq. His information may not be precise about Iraq, but it indicates the failure of Iraqi libraries to provide direct access to their websites and their content when they have been searched for on the Internet. Even a cursory review of the contents, interface design, and availability of resources through other Arabic-language educational institutions' websites suggests that there are differences in the Iraqi sites that may affect the libraries' fulfilling their mission to provide access to Iraqi web-based materials. If we consider that as important criteria for the success of the websites, we can say that a significant number of Iraqi websites appear to lack these criteria.

There is very little Iraqi literature that deals with Iraqi websites issues in general, and there is no body of literature specifically studying Iraqi libraries' websites (which is one of the main study problems, as well as its significance). A cursory review of the sites' design and content, based on the principles of design in IEEE (2001-1999) and Farkas & Farkas (2001) and the principles of designing usable web interfaces in Nielsen (2000) and Jadav (2003) suggests there is no consistent, logical manner with which the end-user can establish for him- or herself a model to help interpret and navigate the site. There are limited contents, services and features in the Iraqi university libraries' websites and the information on the websites is not organized in a

¹ The Arab countries world is a short-hand way to refer to the countries connected by Arab culture and the Arabic language. It covers the regions of North Africa, Middle East and the Arabian Peninsula. There are currently 22 countries in The Arab League (also formally known as The League of Arab States). (Arab World Ministries, 2012, pg. 1-2).

quickly deduced logical manner, or in a way that makes it easy for users to use and explore. Therefore, the Iraqi libraries websites' users often find themselves having a difficult time finding the information that they need. Consequently, users must spend more time and effort than usual to find and obtain the information from those websites; this was very clear from personal experience in surfing and examining these websites in the process of conducting this study and collecting the required data from these websites. Despite the sites being part of the national educational system, there is no equivalent national academic information policy to guide the libraries' websites².

Consequently, it is useful and creates an important contribution to improving Iraqi university libraries' services by studying their current state in order to propose improvements. In this paper, the nineteen Iraqi libraries' websites are compared based on a variety of features to demonstrate those designs and contents that may show the characteristics and strengths or the weaknesses that might exert negative impacts on those websites. Subsequently the results may provide suggestions and practical solutions to improve the design of the websites, the information contained there, and information services that they include.

Statement of purpose

Naturally, when librarians created their websites, they were trying to serve their patrons onsite and offsite, but how useful these libraries' websites are beyond providing information about the library itself, and how much these libraries' websites are different from each other are

² Discussions (followed by personal interviews with a number of directors of Iraqi state universities central library) in the symposium papers of: The Challenges of Iraqi University Libraries in transition to the E-Society. Bagdad: Ministry of Higher Education and Scientific Research. November 23, 2011.

explored in this study, in order to learn the main issues that are facing the development of an Iraqi-specific model for electronic educational resources. Specifically, I sought to answer these questions: What is the current state of the Iraqi state universities' library websites? Are they providing the core service and feature components that meet and correspond to the expectations of Iraqi LIS faculty members? What issues face the development of an Iraqi-specific model for electronic academic resources?

Measuring and evaluating the Iraqi state university central libraries' websites is the focus of this paper, with the goal of applying the results to improving Iraqi library websites. "Measuring website success is critical not only to the web development process but also to demonstrate the value of library services to the institution" (Whanga, M., 2007, p. 93). The outcomes of this study will help to establish a set of shared best practices in Iraqi university libraries' websites based on a variety of essential components such as content, services and features that they provide with the most current, effective, valuable and important library services. If these best practices were adopted, they may lead to more effective Iraqi libraries' websites, and more consistent experience for Iraqi libraries and librarians across Iraqi libraries' websites, which may also serve as a useful starting point for future library websites redesigns across Iraqi university and academic libraries in general, and possibly for other libraries' websites outside Iraq as well.

The study might provide insights into the problems and constraints faced by the libraries of the countries in the Third World, especially those in unstable or war conditions. In Iraq the lifting of restrictions and openness to the world through their websites after a long period of isolation, prevention, restriction of freedom of speech and openness to their communities and foreign communities as well, particularly since the countries in the Middle East, the Arab countries in general, and neighboring countries in that region of the world are undergoing revolutions that are

toppling the old regimes with repressive regimes. These countries will need to develop their institutions and services, and libraries will be one of the leading institutions that will need to develop and expand their services and features. The study is a showcase for national educational libraries' websites in these countries through a comparison of Iraqi national educational libraries which are government-sponsored as examples for such libraries in similar situations. The study will also be a good opportunity for Iraqi libraries' (and other libraries) websites to assess the levels of their websites, services provided, compared with each other and with the services and future features that are provided by other advanced libraries' websites in the rest of the world.

Research Frames and limitations

Research Population and Sample

While there are many libraries in Iraq, this study will focus on university libraries, which are the central libraries of the nineteen Iraqi state universities that are supported by the Ministry of Higher Education and Scientific Research and listed on the Iraqi state universities' list offered by the Ministry's official website (Iraqi Ministry of Higher Education and Scientific Research website, 2012). The study will include the entire population of the nineteen state universities that are the entire population of state universities (Listed in Appendices 1 and 2). These universities were selected because they serve the largest portion of the Iraqi society which are the young men and women. This portion of Iraqi society is the wider sample of educated and most frequent users of the Internet in Iraqi community, who are supposed to be the future leaders in Iraq, and will serve Iraqi society in all their categories and fields. These universities were also selected because they are supported and funded by the Iraqi government.

Some of these universities had other websites in the past (and some of them are still available), the study will take into its consideration only the current and the official web sites of these Iraqi university libraries' web sites during the study period between June 1 - October 1, 2012.

Language limitations

The Arabic language will be the focus of this paper given that it is dealing with Arabic websites. Naturally, the majority of Iraq's population are Arabs, with a limited minority of Kurds (with two or more different languages and local dialects), and a very limited minority of Turkmen and other small ethnic groups (who speak Arabic besides their own languages). Most of the libraries' websites in our sample provide a larger amount of data and information in Arabic than any other languages, which in our case is the English language that some of them provide. Because they were established to serve the Arabic speaking users as their primary goal, the study and its tests will take into consideration studying and analyzing the Arabic side of these libraries' websites.

Chapter Two: Literature Review

Introduction

This literature review, will survey the literature broadly, reviewing some of the main previous studies that addressed the subject of academic library websites and their services, to briefly highlight the various known and frequently available services and features in the academic library websites that have been addressed in the literature, and citing some of the main points of the various studies and methods employed, as well as noting the main Iraqi literature that relate to this study. This will allow the study to give readers a good in-depth background on the field and to establish the baseline and a list of the main services and features provided by a university or college library website to be used for the comparison of the Iraqi Universities library websites later.

Academic library websites: their services and features

When Vannevar Bush (1945) published his famous essay “As We May Think,” he proposed that science can be put to use to organize the vast record of human knowledge. Through his vision of an information workstation, or what he called "The memex," he opened the door to all information technologies to be used in libraries. In the “Information age,” libraries still use information technologies in their physical locations, but they are also able to use them to reach their patrons outside their physical locations and all over the world using the Internet to solve the problems of space. "Library website is an extended service which solves the limitation problem of space and distance" (Shieh, Hnng & Chen, 2009, p. 492). This reminds us of two of

Ranganathan's five laws of library science (Ranganathan, 1931) "The library is a growing organism" and "Save the time of the reader" in which he sheds light on two important issues that will highlight the debate of this paper. These principles or "laws" (as he called them) inspired other, later principles "or laws" such as those of Noruzi (2004), who created "The five laws of the web":

1. Web resources are for use.
2. Every user his or her web resource.
2. Every web resource its user.
4. Save the time of the user.
5. The web is a growing organism.

Information technologies in general and the Internet in particular had made huge changes in libraries and at the same time, have given them new challenges. Some fifteen years ago, Xiao, Mosley, and Cornish noted that "To meet these challenges, provide better and faster library services, and maintain a leadership role in information technology, libraries must change. They need to master a new medium of communication, develop new relationships with patrons, and adapt their resources and service structure to this newly defined technological environment. To accomplish this, libraries must take the initiative in applying various Web technologies to their public service roles and internal operations, making the Internet an integral part of the library's infrastructure." (1997, p. 15).

Cohen and Still (1999) studied the library homepages of fifty Ph.D.-granting institutions and fifty two-year colleges, and compared them from the perspective of their content, functionality,

and their location within their academic institutions. In their study, they also identified a core common content that exists across these academic library websites that included many library services and features such as contact email link, update date, news/events, description of departments, services and policies, links to search engines, institutional OPAC and other OPACs, and e-resources.

In 2000, Bao noted that "The library's home page represents a new platform for the delivery of library services" (p. 195). The presence of libraries on the internet, as well as at physical sites, has become one of the important issues for libraries to address. "The library's virtual presence in many ways now rivals its physical presence in importance" (Lyons and Kirkwood, 2009, p. 333).

Agingu (2000) compared the library websites of publicly supported Historically Black Colleges and Universities (HBCUs) with the websites of other publicly supported institutions in the Southeast. In his study, Agingu found out that most of the HBCUs libraries were using their websites mostly to provide information about their libraries and collections. He offered some recommendations on what the HBCU libraries could do to improve their websites, make them more useful, and serve their users in a better way. Agingu noted that "a useful Web site should be easy to access and locate. A Web site that cannot be found is as good as one that does not exist" (p. 36).

Tolppanen, Miller and Wooden (2000) studied the websites of 133 academic libraries that serve medium-sized universities. They recorded all these library website features. They identified in their study the 31 core components which were present in most of the libraries that have been surveyed. Their study concluded that the navigational and design aspects of library websites need to be improved, and they need to make them easy to use by their patrons. It also

mentioned that these medium-sized academic libraries websites provide access to many information services and features, such as the online catalog, full-text databases, and many other features such as the information about the library and the library policies. Later, Tolppanen et al. (2005) re-examined the same 133 academic libraries from the previous study that serve medium-sized universities in their previous study. They visited these library websites, and recorded all services and features that these library websites provided. Tolppanen et al. identified 42 core components which were present in over fifty percent of the libraries that had been surveyed, and then compared the results from the second study with their previous study, which allowed them to identify the changes that were made in these library websites during the period between their two studies.

Wang (2001) studied the library websites for Alabama's four-year public university libraries. He analyzed the remote resources and services that these libraries offered from their websites. He noted that "Online catalogs and electronic databases are the main stream of resources and services for remote access. Research guides, Internet links, reference services by phone and email, and library information are gaining popularity. The results also point to new types of resources for remote users, such as e-books, e-reserves, special collections, and interactive reference service" (p. 3). Osorio (2001) aimed to identify the trends in the design and the content of home pages for websites of forty-five Science-Engineering Libraries in the USA and Canada. Osorio analyzed the design features and the content elements of these libraries home pages. In his results, he found that these home pages have many of the elements found in other academic home pages; he also found that they have the problems and limitations typically found in similar home pages.

Nielsen and Tahir (2002) listed ten basic guidelines for the websites:

1. Include a one-sentence tagline. This summarizes what the purpose is for the site or what the company does.
2. Write a window title with good visibility in search engines and bookmark lists.
3. Group all corporate information in one distinct area.
4. Emphasize the site's top high-priority tasks.
5. Include a search input box.
6. Show examples of real site content beyond the home page.
7. Begin link names with the most important keyword.
8. Offer easy access to recent homepage features. If you have moved it, tell them where you put it.
9. Do not over-format critical content, such as navigation areas.
10. Use meaningful graphics. Decorating the page with stock images with little purpose slows page download.

Nowadays, there are a large number of library websites, databases, and digital libraries that provide their users with different kinds of information services, and even entertainment. Thus, most information institutions (including libraries) are naturally rushing to establish and consolidate their positions on the Internet to deliver their message to the public, trying to satisfy their patrons' needs, and following other information institutions that already have their own websites.

However, some library websites do not provide the main services and features that their patrons expect, or they have these services and features but they are very difficult to find, use or even explore. Others do not work properly and ultimately do not satisfy their patrons, attract more patrons, or even keep the existing patrons. Schaupp (2005, p. 2) considered these challenges and noted "Although companies and other organizations have spent millions of dollars on the creation and maintenance of their websites, they are still struggling with how to effectively evaluate user satisfaction and how to measure the success of a website from the organization's perspective." The websites should be carefully designed, making their services and features effective and easy to use, in order to meet criteria that can lead to improved user performance. "To be successful, websites must be useful, easy to use, easy to navigate, and easy to understand," stated Smith (2007, p. vi) which shows us how important it is for these websites, their services and features to be designed carefully and tested in practical ways.

Konnur, Rajani, & Madhusudhan (2010) evaluated the content and quality of five selected academic library websites of the city of Bangalore in India based on many evaluation criteria. They identified identify these five academic library websites, and to show the different features in the Academic Library Websites according to the geographical setting, as well as identifying criteria for the evaluation of academic library websites, and ranked the selected academic library websites based on the identified criteria. Joo, Lin, & Lu (2011, p. 11) discussed the importance of library websites when they noted that "As the website serves as a key gateway to library services, evaluation of library websites has attracted increasing concern amongst researchers."

Hill (2012) analyzed a sample of 20 library websites from the Historically Black Colleges and Universities (HBCUs). She examined the current state of electronic access at these universities' library websites. The findings of this study discuss the extent to which these

websites provide patrons with access to library materials and services. The findings also indicate that HBCUs still face some challenges in technological service provision but their library websites show some evidence of progressing to bridge the digital divide. In her discussion, Hill (2012) stated that "Analyzing a small sample of HBCU and non-HBCU library Web sites does not allow for broad generalizations about library services at all of these institutions but such analysis does give some insight into the types of electronic access library patrons at HBCUs currently have" (p. 10).

Ziaei and Nooshinfard (2012) studied the status of 68 library websites that belong to the universities' central libraries in Iran. They evaluated these library websites from a marketing perspective, using a checklist that was developed by studying texts and seeking experts' viewpoints gather the data about those libraries websites.

From a broader perspective, Lyons and Kirkwood's (2009) study focuses not on academic library websites in general, but on academic business library websites. Their sample included 75 academic business library websites. Lyons and Kirkwood focused on libraries in the United States, but they included libraries from outside the United States as well. The results of their study indicate that though their sample of business libraries may not be consistent in integrating resources throughout their entire websites, all of them integrated resources to some extent in their company research guides.

Joicy and Varghese (2011) gave an informative preview of the contents and design of the Research and Development institutions websites in India. In their study, they evaluated and analyzed 77 of the 246 Research and Development institutions identified in the India Research Institutions website. Their study revealed that these institutions have a web presence and varying

levels of services, and the majority of these institutions provide informative links to contacts, copyright, news and events, and history, and some also include a few other features. They also found that the majority of these institutions' websites are good in terms of navigating matter and finding the information in them.

Iraqi academic libraries and their websites

The lack of technological and practical progress in the field of library and information science in Iraq is somewhat disappointing, especially since the first libraries in the world were founded in Iraq. Casson (2002) and Du Toit (2002) talked about this library history and mentioned the library of King Ashurbanipal, thought to be the world's first library, as well as other early libraries in Iraq. Unfortunately, the situation for Iraqi libraries today is not up to the level of other libraries. In most cases, Iraqi libraries are governmental institutions that are directed by government policies and regulations. "Academic libraries can also be impacted and controlled by legislation or governmental regulations" (Curzon & Quinonez-Skinner, 2010, p. 13). Instead of continuing to drink from the wonderful common springs' history that Iraqi libraries once had, the majority of Iraqi libraries drink from the common springs of their successive governments and their policies, and they have undergone very monotonous and relatively slow development. The huge gap and isolation from the world that Iraq has experienced since the beginning of the 1980s due to the Gulf Wars and other conflicts have also contributed to the slow development of Iraqi libraries.

In addition to these issues is the absence of cooperation among most of the Iraqi university libraries which was demonstrated years ago by Al-Wardi and Muslim (1996) and again at the

11th conference of Information about the university libraries held by the Iraqi Association of Library and Information (1998). However, this issue is not being dealt with nor was it mentioned by the Iraqi library directors in the interviews that I conducted for this dissertation.

Today, libraries are trying to provide their patrons with more services through their websites. In fact, some websites appear as stand-alone integrated libraries rather than simply websites that provide patrons with information and data about the libraries and their collections and contents. “In many ways a library's website is the library. It used to be that library websites contained information about resources, not the resources themselves, but that's all changed. Now users can, for instance, retrieve full-text articles without leaving the comfort of their homes or dorm rooms. Gone are the days when they had to travel across campus and into the library itself to retrieve a copy of an article.” (King & Jannik, 2005, p. 235). Unfortunately, this is not the way that the Iraqi academic library websites look. There is no Iraqi literature that actually addresses the particular topic of the Iraqi libraries' websites. Most Iraqi literature deals with the traditional issues of the Iraqi academic libraries or general issues about the Internet and web pages in general. I will seek to demonstrate some examples of similar studies that relate to the focus of the current paper. Some of the literature cited here is dated, but these citations are important to show a trajectory of work.

In his Master's Thesis, Al-Rawi (1989) described information services that were offered by the Central Libraries in the Iraqi Universities. He reviewed traditional information services that are offered by these libraries, and the very few technical services that were available at that time. He suggested offering updated traditional and technical information services on these libraries through the model that he presented. Kindilchie (1997) discussed the Internet, covering its

importance and characteristics and demonstrating the possibility of using Internet applications and features in the libraries and information centers.

Abdul-Aali (2001) described in his master thesis the information services in the central library of Mosul University. He pointed to the importance of establishing more current and modern services such as web services. Al-Bayati (2001) addressed the issue of information networks in Iraq, and pointed to the Internet, its history and uses in Iraq, suggesting the possibility of investing its capabilities to provide more modern information services in Iraqi libraries and information institutions.

Al-Aadily (2004) and Al-Zubaidy and Al-Aadily (2006) surveyed the Arabic language websites on the Internet, categorizing them into various subject fields. They evaluated them on three points: Content, Design Efficiency, and the Ease of Reach. They determined the problems they are facing, and the reflection of these problems on the websites' activities. Both studies aimed to develop standards and factors of success for Arabic websites. Khairi (2006) demonstrated the general services provided by the Internet, indicating the special services and features for libraries and other information institutions such as OPACs, Reference Services, Electronic Resources Collections, On-Line Databases, Current Awareness, and some other services. He suggested offering these services and features in the Iraqi and Arabic libraries, and trying to provide more modern library services on the libraries' websites.

Azzuhairi (2008) described the Iraqi governmental websites, showing how they have been indexed by the search engines, and evaluating them in a comparative study. Jirjees (2010) considered Iraqi libraries and other information institutions, showing the difficulties that they are

facing in the modern age. He recommended that they should adopt more modern information services, and develop their current services such as those available on their websites.

Part of this study included general surfing and initial tests on the Iraqi university libraries' websites. Most of them still have some initial technical problems, and some of their pages and links are presently under development from the time they were initially established. The content of Iraqi University libraries' websites, library services, features, and the information available on them do not meet the needs, ambitions or expectations of their prospective patrons; they are not even updated in regular basis.

Browsing the Iraqi state university central libraries' websites in our sample, or even other Iraqi academic libraries' websites in general, shows that some of them are still far away from having an effective presence on the Internet, while others have only limited pages within their Institutions, colleges and universities websites. The Khalifa (2005) study (mentioned above) could not find any Iraqi academic libraries' websites (of all Iraqi LIS websites) on the web or in the web directories at that time.

In a previous pilot study made for this study (Khairi, 2012) the central library websites of the five major Iraqi universities in Baghdad (in addition to the Iraqi National Library and the Iraq Virtual Library project) were examined. These five Iraqi universities were Baghdad University, the University of Technology, Nahrain University, Mustansiriyah University, and the Iraqi University (links are provided in the references). It was demonstrated that these library websites offer very limited services. Most of the information that they provide are in the Arabic interface side of websites, and ever since they were established, the English-language side of them is either empty, or "Under construction" or it just refers the user to the other Arabic interfaces

within the websites that are not related. Maybe having an English side is not a priority, but if they intend to include it, they should finish it at some point.

The Iraqi National Library and Archives is in a little better situation than other Iraqi libraries because it has its own website that is not just a small page in the institution's website (as it is for the mentioned universities). However, it is still far from meeting the needs and ambitious of its users. The library website does not provide actual library information services, except for the limited service of the library OPAC. This OPAC has been recently created, but nevertheless, it has not been logically structured. The OPAC does not give the user many choices, the search results do not give the basic data about the library resources (such as the call number or status), and the results that the OPAC provides are not even sorted in a logical manner (for example, sorted by relevance, alphabetically or even by the department that holds the material). Except for this limited OPAC service, the library website only provides basic information about the library, its departments, and its general activities, with very limited links to a few archival documents and a few magazines.

There is also the project of the Iraq Virtual Science Library (IVSL) which is an ambitious, ongoing project that is constantly expanding and developing. It contains global databases and diverse sources. It is currently available, but still partially under construction and development (Iraq Virtual Science Library, n.d.), with relatively limited access to the Iraqi academic scholars and the employees of the universities and a few other official institutions. The IVSL provides users with free, full-text scientific journals and a few collections of online educational materials. The link to the IVSL project is provided in all Iraqi universities' library websites, and available to use by these libraries' patrons after some registration procedures.

Conclusion and summary of the literature review

In addition to presenting the theoretical aspects and shedding light on previous studies to this one, this review enabled me to analyze these studies, and to prepare a list of the most important and the most common services and features offered by university libraries' websites in general. Many of these studies summarized and highlighted what is available in hundreds of academic library websites in many geographical locations around the world. This made it possible to identify the most prominent, and the most common of these services and features, and that helped to identify the baseline and the core components which were present in most of these library websites.

This list, which will be presented later on to the Iraqi LIS specialists, presents the most prominent and important services and features that fit the particular case of Iraqi sites of academic libraries from their professional point of view, and then measures the level of the Iraqi universities' library websites in their current situation.

After a review the literature, citing some of the main points of the various studies and methods employed, I have established a foundation for the most prominent services and features that are reported in these studies. Attached here (Table 1) is the list of core service and feature components of the academic library websites, that are the most prominent services and features that have been mentioned in the studies noted in the literature review including, in the corresponding field, the various studies that have been addressed.

Table 1: List of core service and feature components of the academic library websites mentioned in the literature.

<i>No.</i>	<i>Websites Services and Features</i>	<i>Addressed by (Resources)</i>
1.	About the library: Library building, hours, Physical address, Description of departments, Services, Staff directory, Mission statement.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Bao (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Lyons, & Kirkwood (2009). - Joicy, & Varghese (2011). - Kim (2011). - Hill (2012).
2.	Library News: Announcements, Events, Activities.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Osorio (2001). - Tolppanen et. al (2005). - Joicy, & Varghese (2011). - Hill (2012).
3.	Library OPAC	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Lyons, & Kirkwood (2009). - Konnur, Rajani & Madhusudhan (2010). - Kim (2011). - Hill (2012)
4.	The ability to search the Library OPAC in several ways: the author, subject, title, keyword ... Etc.	<ul style="list-style-type: none"> - Tolppanen et. al (2005). - Khairi (2006). - Lyons, & Kirkwood (2009). - Konnur, Rajani, & Madhusudhan (2010). - Hill (2012).
5.	External Links to other libraries or other institutions, their OPACs and services, etc.	<ul style="list-style-type: none"> - Cohen, & Still (1999). - Agingu (2000). - Osorio (2001). - Tolppanen et. al (2005). - Konnur, Rajani, & Madhusudhan (2010). - Joicy, & Varghese (2011)

		- Hill (2012).
6.	Home page search engine feature.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Osorio (2001). - Nielsen & Tahir (2002). - Tolppanen et. al (2005). - Khairi (2006). - Konnur, Rajani & Madhusudhan (2010). - Kim (2011). - Joicy, & Varghese (2011).
7.	E-Resources and other textual contents (eBooks, e- journals/periodicals, etc.)	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Bao (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Lyons, & Kirkwood (2009). - Konnur, Rajani, & Madhusudhan (2010). - Kim (2011). - Joicy, & Varghese (2011). - Hill (2012).
8.	Searching Online Databases	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Bao (2000). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Lyons, & Kirkwood (2009). - Konnur, Rajani, & Madhusudhan (2010). - Kim (2011). - Hill (2012).
9.	Interlibrary loan services: Request forms, Book renewal form, the circulation policy and the interlibrary loan policy.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Hill (2012).

10.	Form to place material on reserve, Description of holdings materials	<ul style="list-style-type: none"> - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Tolppanen et. al (2005). - Hill (2012).
11.	New acquisitions	<ul style="list-style-type: none"> - Tolppanen, Miller, & Wooden (2000). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006).
12.	Ask a librarian: answer reference questions, request reference assistance through the library's Web site, mail, phone, SMS.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Konnur, Rajani, & Madhusudhan (2010). - Kim (2011). - Joicy, & Varghese (2011). - Hill (2012).
13.	Alumni or former students' services	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Bao (2000). - Kim (2011).
14.	Purchase request form: Users can submit book purchase requests and suggestions.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Hill (2012).
15.	Site map, or other users' guides	<ul style="list-style-type: none"> - Cohen, & Still (1999). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Osorio (2001). - Tolppanen et. al (2005). - Lyons, & Kirkwood (2009). - Kim (2011). - Joicy, & Varghese (2011). - Hill (2012).
16.	Links to the main institution, and other institutions	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Bao (2000). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Wang (2001). - Osorio (2001).

		<ul style="list-style-type: none"> - Tolppanen et. al (2005). - Konnur, Rajani, & Madhusudhan (2010). - Kim (2011). - Joicy, & Varghese (2011).
17.	The ability to interact with the library: 2.0 applications, Social networking sites, and RSS feeds.	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still (1999). - Agingu (2000). - Tolppanen, Miller, & Wooden (2000). - Osorio (2001). - Tolppanen et. al (2005). - Lyons, & Kirkwood (2009). - Joicy, & Varghese (2011). - Hill (2012).
18.	Employment and Job opportunities	<ul style="list-style-type: none"> - Tolppanen, Miller, & Wooden (2000). - Tolppanen et. al (2005).
19.	Communication: Contact email link, Mailing address of library, Phone number, and other Contact Information	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Cohen, & Still, (1999). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Osorio (2001). - Tolppanen et. al (2005). - Khairi (2006). - Konnur, Rajani, & Madhusudhan (2010). - Joicy, & Varghese (2011). - Hill (2012).
20.	Page update date: Showing the date of the last update	<ul style="list-style-type: none"> - Cohen, & Still (1999). - Agingu (2000). - Tolppanen et. al (2005) - Konnur, Rajani, & Madhusudhan (2010).
21.	Visitor counter	<ul style="list-style-type: none"> - Tolppanen et. al (2005). - Whanga (2007).
22.	Frequently Asked Questions (FAQs)	<ul style="list-style-type: none"> - Xiao, Mosley, & Cornish (1997). - Tolppanen, Miller, & Wooden (2000). - Agingu (2000). - Osorio (2001). - Tolppanen et. al (2005). - Kim (2011). - Joicy, & Varghese (2011). - Hill (2012).
23.	Library home page link on the first page of their parent institution's home page, and accessible from the parent institution's home page with a direct link	<ul style="list-style-type: none"> - Cohen, & Still (1999). - Bao (2000). - Agingu (2000). - Tolppanen et. al (2005).

Chapter Three: Methodology and Research Questions

Methods

Following the model of Yin (2011) for case study research, a case study approach was used in this study in which the entire Iraqi national education system is considered as a single case study. A mixed-method approach was used to deal with the data that were collected.

In addition to preparing the list of core service and feature components of the academic library websites from literature that has been mentioned earlier, and explaining the use of these components in the Iraqi library and information science "LIS" faculty members questionnaire (appendices 6 and 7) the study consists of three data gathering exercises: a survey to directors of libraries, interviews with directors of libraries (or a representative of the administration), and a questionnaire of Iraqi LIS faculty members. In addition, there is an analysis of Iraqi university central libraries' websites for the availability of services and features according to the list of core service and feature components from literature.

The study sample

The study sample included the entire population of the library websites of the Iraqi state universities. The entire population of the nineteen Iraqi state universities that are included as the study sample was identified from the Iraqi Ministry of Higher Education and Scientific Research website (appendices 1 and 2).

Preparing the list of core service and feature components of the academic library websites

As has been mentioned in the summary and conclusion of the literature review in the second chapter, a list of core service and feature components of the academic library websites was prepared. The use of this list will be explained in more detail in the questionnaire of the Iraqi library and information science "LIS" faculty members (appendices 6 and 7). In general, the list shows the most important and the most common services and features offered by academic libraries' websites in general. Many of the studies that have been used to prepare this list summarized and highlighted what is available in hundreds of academic library websites in many geographical locations around the world. These studies made it possible to identify the most prominent and the most common of these services and features and helped to identify the baseline and the core components which were present in most of these library websites in order to compare them with what is available in the Iraqi universities' websites. These studies were presented to the Iraqi LIS specialists for a selection of the most prominent and important services and features in this list that fit the particular case of Iraqi academic libraries' websites from their professional point of view, and then the Iraqi universities' library websites were measured in their current situation.

Participants

University library directors: The library directors (or a representative of the administration) are drawn from the entire population of Iraqi state university central libraries. The pool of nineteen library directors (or a representative of the administration) were asked in several ways (by asking them personally and directly, via email, and by telephone) to participate in a survey of

fifteen questions (appendix 4) followed later on by interviews with nine open-ended questions (appendix 5). The survey and the interview helped to situate their understanding of the goals and services provided by the institution's websites, gathering the history and demographic data about the institution, the library, and the library website. In addition, the surveys and interviews helped to find out the most frequent issues that are facing Iraqi university libraries that prevent these libraries from developing their websites and providing the best possible services and features to their patrons from their point of view and their position in the library administration. Each director was provided with the survey (appendix 4) at least a week before the interview. The library directors (or a representative of the administration) were interviewed by the researcher between September 26, 2011 to May 22, 2012. This follows Jones' (2012) example of studying users where there is no baseline institutional data.

The data that was collected in the directors' surveys and interviews will, first, give the researcher and the readers an overview of these libraries and their websites. Later on, these data will be used to compare the services and features that are offered by each of these libraries and the impact of additional factors such as the academic background of the library director and having qualified staff at the level of services that are provided by these libraries on their websites.

Iraqi LIS faculty members: For the questionnaire for the Iraqi LIS faculty members (appendices 6 and 7), Eighty-nine LIS faculty members were surveyed. The participants sought for this part were by people who have a Masters or PhD. degree in LIS, and are working or have worked in the three Iraqi LIS schools at the university level (which are Mustansiriya, Mosel and Basra). These participants had at least three years of experience in the LIS field, to insure that they have at least the minimum experience and practice in the field. They were asked to

complete the questionnaire if they had at least fair skills in using computers [because very few of them still do not], and used (or at least had the knowledge about) libraries' websites and their services. They were chosen because of their expertise as specialists in LIS first, and then as prospective users of these services, by having achieved at least a Masters degree, which requires a lot of research and inquiry and the use of different sources of information (such as library websites and other information technologies). Their help in completing the questionnaire provided their impressions, opinions and suggestions about the questionnaire that was prepared.

The questionnaire was distributed in paper form to participants who are Iraqi colleagues working in Mustansiriya LIS school by handing it personally to them. A few questionnaire forms were left in the mail boxes of the other colleagues that I could not reach at that time (because of the summer vacation). These participants were asked to return the questionnaires to me personally or to leave them in my mailbox at our LIS School's information desk (our department secretarial - as we call it).

More paper forms had been sent to the other two LIS schools in Mosel and Basra for distribution to the LIS faculty members, but because of time constraints, the difficulty of re-sending these paper questionnaires because of poor mail services, and the large geographical distance from Baghdad to Mosel and Basra, the colleagues in Basra and Mosul were asked to skip the paper forms and to fill out the electronic forms online. The links were provided to them via my two colleagues at these schools, and a few obtained them directly through their personal contact information, such as emails and Facebook accents lists. The paper questionnaires were distributed and re-collected in the period during the month and a half between the dates of May 30 to July 15, 2012.

As mentioned, because of the time issue and the difficulty of re-sending these paper questionnaires, the same questionnaire was distributed in an online form, using "Estebyans" questionnaire website (<http://www.estebyans.com>). The online questionnaire was distributed to fifty-one participants who are (or were) working in the Mosel and Basra LIS schools and to three colleagues who are currently outside Iraq. In order to increase the number of participants in the survey, I contacted many of the persons who were included in the questionnaire by all available means (using my personal communications such as phone lists, e-mail addresses, and Facebook accounts) in order to encourage them to answer the questionnaire and share their experiences and opinions. The online form of the questionnaire was made available to the participants for a month and a half between the dates of June 12 to July 27, 2012.

Materials

The surveys were provided in paper form and handed to the directors personally; others were provided in electronic form via their email, as a part of their preparation for the interviews. These surveys are descriptions of the organizations' data such as their university and library establishment dates, library traditional and digital materials, their website foundation, and directors' background.

The interviews with the directors (or a representative of the administration) aimed to collect more information and data about the descriptions of the organizations' services, missions, and their library website. In addition to collecting more data about those libraries and their websites, the interviews aimed to find out the most frequent issues that are facing Iraqi university libraries and that prevent these libraries from developing their websites and providing the best possible services and features to their patrons from their point of view and their position in the library

administration. The interviews revealed the most frequent issues facing the development of an Iraqi-specific model for electronic educational resources.

The LIS faculty members' questionnaire consisted of a paper questionnaire (appendix 6) and an online questionnaire (appendix 7). Estebians online questionnaire tool was selected because it supports Arabic-language input. The questions consist of response selections using a Likert scale and open-ended questions.

Procedure

The library directors received a survey sent to them via emails (and in paper form for few of them) at least a week before the interview (appendix 4).

Face-to-face interviews were used for the collection of data. Each director met with the interviewer, having arranged approximately half-hour appointments. The interviewer collected the survey forms, and then asked interview questions about their institutions, and their library website. The interview questions were open ended (appendix 5). In addition, to collect more data about those libraries and their websites, the interviews aimed to find out the most frequent issues that face Iraqi university libraries and prevent these libraries from developing their websites and providing the best possible services and features to their patrons from their point of view and their position in the library administration. The goal of the interviews was to find out the most frequent issues that face the development an Iraqi-specific model for electronic educational resources.

For the Iraqi LIS faculty members, the paper forms were distributed to participants who are Iraqi colleagues working in Mustansiriya LIS School by handing it personally to them. A few questionnaire forms were left in the mail boxes of the other colleagues that I could not reach at that time (because of the summer vacation). These participants were asked to return the questionnaires to the researcher personally or to leave them in the researcher's mailbox at the LIS School's information desk. The questionnaires were personally received by the researcher from the participants or from the mailbox. More paper forms had been sent to the other two LIS schools in Mosel and Basra for distribution to the LIS faculty members, but because of time constraints, the difficulty of re-sending these paper questionnaires because of poor mail services, and the large geographical distance from Baghdad to Mosel and Basra, the colleagues in Basra and Mosul were asked to skip the paper forms and to fill out the electronic forms online. The paper questionnaires were distributed and re-collected in the period during the month and a half between the dates of May 30 to July 15, 2012.

In order to increase the number of participants in the survey, the online form was posted using Estebyans questionnaire website. The online questionnaire was sent to fifty-one participants who are (or were) working in the Mosel and Basra LIS schools and to three colleagues who are currently outside Iraq. The participants were contacted by all available means (using direct personal communications such as phone lists, e-mail addresses, and Facebook accounts) in order to encourage them to answer the questionnaire and share their experiences and opinions. The online form of the questionnaire was made available to the participants for a month and a half between the dates of June 12 to July 27, 2012. The data were coded, saved, and filed in SPSS sheet forms to be analyzed later.

Programs and Software

With respect to statistical matter, the study will be using SPSS 17 (PASW Statistics 17.0) to analyze the statistical data that will be collected, in order to examine the percentages and the ratio frequencies. The frequency distributions will give the researcher and the reader a picture of the available services and features that are provided in the Iraqi libraries' websites, as well as showing the participants' demographic backgrounds, and will compare the available services to the list of core service and feature components of the academic library websites. The list will be assessed later for the significance of the components' presence in the Iraqi university websites by actual patrons represented by LIS faculty members in the questionnaires. In addition, the list will compare the Iraqi libraries' websites with each other to indicate the level of services and features that are currently offered by the Iraqi university libraries' websites and to show the different levels between the Iraqi university libraries that provide these services and features.

For the online questionnaire, Estebians online questionnaire tool will be used because it supports Arabic-language input.

Problems Anticipated

The main problem this paper anticipated was that any of these websites might make changes during the study period, which might give different results. I am aware of the situation so it is better if the content of the sites reflects a particular date. All of these library websites were inspected the week of September 23 - 29, 2012 so the contents reflect that point in time; it is possible, of course, that some sites may have been updated since data collection. Inspecting these

library websites will be performed at night time in Iraq, to avoid any possible amendments and updates on those websites during the inspection process.

Another important problem faced by the research, is the lack of cooperation by the administrations of some of these universities' libraries, either by not answering the library directors' surveys, or refusing interviews with the library directors to collect the required data about those libraries and their websites. Previous experience suggests difficulties for many reasons, including the well-known disturbing administrative routine in many Iraqi governmental institutions. In addition, there are some special Iraqi security circumstances and consequences that effect everything in Iraq (that are difficult to discuss or explain easily in this study) which may affect gaining full cooperation from the administrators. I also anticipated some sparse data from the surveys and interviews of these universities' library directors.

Research Questions

The questions to be answered by this study are:

- What is the current state of the Iraqi state universities' library websites? Are they providing the core service and feature components that meet and correspond to the expectations of the Iraqi LIS faculty members?
- What issues face the development of an Iraqi-specific model for electronic academic resources?

To study question one, it is useful first to contextualize the question by explaining to the reader the Iraqi national educational system as a background to the question and some of the unique problems facing the system and nation that necessitate a uniquely indigenous solution.

Iraqi state universities are defined as government institutions that are centrally directed, managed, and funded by the Iraqi government. They follow administratively and financially the Ministry of Higher Education and Scientific Research (Ministry of Higher Education and Scientific Research website, 2012). They are distributed in all provinces all over Iraq, although five of them are located in Baghdad, and the other fourteen are located in the major known cities in Iraq (See appendix 3: A map of Iraqi state universities).

Iraqi state universities felt a bit neglected and witnessed separation from other international universities and scientific institutions around the world. Iraqi state universities experienced several events that caused upheavals and as a consequence, the universities were neglected and under-funded (Azzuhairi, 2008, p. 5). They were affected by the circumstances of the first Gulf war (Iraqi - Iranian war) from the beginning of the 1980s, the United Nations' economic and scientific sanctions imposed on Iraq after its entering into Kuwait, followed by the conditions of the second Gulf War in 1991, and the subsequent wars that lasted until the fall of the former regime (Saddam regime) in the war of 2003.

In a PhD study in 2011, Casey (p. iii) mentioned the crises faced by academic libraries such as financial issues, when she wrote about the decision-making and planning in these libraries noting that "Library managers can use strategic priorities as a guide in decision-making and planning in response to external change such as the recession of 2007-2009. During this financial

crisis, there was no indication about the ways library directors used strategic priorities as a framework for these decisions" (p. iii).

But what has been faced by Iraqi Academic libraries goes much further than just financial crises as mentioned above. The general conditions of the country still place it in the circle of tension and conflict. Consequently, Iraqi universities and their libraries (among other education institutions) suffer from many brutal conditions. One of these conditions is the huge gap between them and the rest of the libraries in the world, for example, the huge gap in the technology field and the use of information technologies in these libraries. As mentioned earlier, what has been noted by Al-Bayati (2001, p. 30) and Al-Aubaidi (2001, p. 16) about how the emergence of the internet and websites is relatively new, and that the first Iraqi web site on the Internet was established on April 29, 1997. Also mentioned was the study by Azzuhairi (2008, p. 5), Iraqi websites expanded after the war in 2003 witnessing notable increases because of the increase of governmental and public information activities on one hand, and the lifting of restrictions on freedom of speech and use of the Internet on the other.

In a previous pilot study (Khairi, 2012) the data collected and the interviews indicate that Iraqi library websites may not satisfy the needs of the regular users, or even the libraries' administration and staff. Iraqi library websites are experiencing significant challenges. On the one hand they are suffering from lack of experience in dealing with websites, services and features that they offer through their sites. On the other hand, they also suffer from poor understanding by the administration and the decision-makers of the importance of the library itself, and the importance of the traditional and digital services that they provide, which directly affect the development of these libraries, their services and capabilities, and the lack of funding and support provided to them by their administration and the decision-makers.

Therefore, we can note the confusion and the lack of unified policies for the services and features that are provided by those university libraries' websites, because they came as irregular individual attempts, and they vary according to the different Iraqi universities, their size, and potential, as well as the background of the administrator of these libraries (whether they were LIS specialists or not), their staff backgrounds, the library potential in general, and their physical, human and technical capabilities.

Chapter Four: Research and Dissertation Data

Introduction

This chapter presents the research and the results of the data collection presented according to the procedures outlined in the Methods section and report on the data.

The data have been collected through the questionnaire followed by the interviews. The list of the core components' services and features provided by international academic library websites which have been identified in the professional literature (mentioned previously in the literature review) has been used as the basis for a comparison with what is available in the Iraqi university libraries' websites in the study sample.

In addition, the interviews summarize the data that have been collected from the Iraqi university libraries' directors (or a representative of the administration), and present the most important impediments to providing the core components of services and features in those Iraqi university library websites.

Study Sample

The study sample included the entire population of the library websites of the Iraqi state universities that was identified by the Iraqi Ministry of Higher Education and Scientific Research “Ministry” website (Appendices 1 and 2). The entire list of nineteen Iraqi state universities listed in the Ministry’s official website was considered as the study sample.

The Ministry website itself has many issues with respect to inclusion of the names of these universities and their own data, such as the different names that the Ministry website calls the

universities within the Arabic and the English versions. As an example, the Ministry website listed Kirkuk University (جامعة كركوك) with this name in the Arabic version of the website, as well as in the university website itself, while it is listed “Al-Ta'ameem” University (جامعة التأميم) in the English version of the Ministry website, but “Al-Ta'ameem” is the name of the Iraqi provinces where the university is located, not the university name.

There are also some differences because of linguistic matters or the question of difference in translation, such as using “University of...” or “.... University,” but they still need to unify official titles of these universities, and use the correct and precise unified names in all official publications. In addition to that, there are misspelling issues with these universities’ English names which have different spellings in the Ministry website and the Iraqi Universities’ websites such as “Mustanseriya University” (الجامعة المستنصرية) which is in fact “Mustansiriya University” as well as “University of Wassit” (جامعة واسط) in the ministry website and “Wasit University” in its website.

It is also notable that there are other differences in other data between some of these universities’ websites compared with what is mentioned in the ministry website, such as the establishment date of many of these universities, which might give the impression of a lack of an accurate centralized information system, and a failure to follow up with the accuracy of the data included in the ministry's website and in the various university sites. This might be attributed to including the dates of issuance of the Ministerial orders of establishment for some of those universities in some places, and the actual establishment and inaugurated date of those universities in other places; but they still need to unify official titles of these universities, and use the official unified names in all official publications as noted above.

The main point of the above argument is that there are inconsistencies in language and expressions in English and Arabic that vary within and between both the institution and the Ministry websites. There is a lack of branding, of expressing the institution, making it difficult for Arabic-speakers and others to identify the institutions even before the visitors to the sites can begin to use available resources. These inconsistencies affect many aspects of the institutions. One is the stability and identity of the institution. If the technical infrastructure seems too variable, users question the trustworthiness of the institution.

Below is a table (2) of the Iraqi state universities, their establishment dates, their libraries' establishment dates, and their locations in the different Iraqi provinces. The map of the region shows the approximate geographical locations of Iraqi state universities (appendix 3).

Table 2. Study population: The Iraqi State Universities, their establishment dates, libraries' establishment dates, and locations

University Name	University Name in Arabic	University Establishment Date	Library Establishment Date	Location (Iraqi provinces name)
1. University of Baghdad	جامعة بغداد	1957	1959	Baghdad
2. University of Mustansiriya	الجامعة المستنصرية	1963	1/1/1964	Baghdad
3. University of Basrah	جامعة البصرة	1/4/1964	10/1/1964	Basrah
4. University of Mosul	جامعة الموصل	1967	1967	Mosul
5. University of Technology	الجامعة التكنولوجية	1/4/1975	1975	Baghdad
6. University of Kufa	جامعة الكوفة	1987	1987	Al-Najaf
7. University of Tikrit	جامعة تكريت	23/12/1987	1990	Salah ad Din
8. University of Al-Qadisiyah	جامعة القادسية	1987	7/8/1993	Al-Qadisiyah
9. University of Al-Anbar	جامعة الأنبار	1987	1988	Al-Anbar
10. Iraqi University	الجامعة العراقية	1989	1989	Baghdad
11. University of Babylon	جامعة بابل	1991	4/25/1991	Babylon
12. Al-Nahrain University	جامعة النهرين	1993	1993	Baghdad
13. University of Diyala	جامعة ديالى	1998	1999	Diyala
14. Karbala University	جامعة كربلاء	2002	2002	Karbala
15. Thi-Qar University	جامعة ذي قار	1/30/2002	2002	Thi-Qar
16. Kirkuk University	جامعة كركوك	1 /17/2003	10/15/2003	Al-Ta'ameem
17. Wasit University	جامعة واسط	January 2003	4/4/2004	Wasit
18. University Of Misan	جامعة ميسان	2007	2007	Misan
19. Al-Muthana University	جامعة المثنى	2007	2007	Al-Muthana

* The data in this table are combined between the Ministry website, University websites, and the survey and interviews data.

Viewing the Iraqi university websites during the study period, and viewing them in the ministry's website, it was noted that these websites have undergone a number of amendments. The Ministry website (as an example) had many amendments and changes at different times, but it is evident that many of the issues facing the website (mentioned above) are still present. Added

to these issues are the broken links for different universities that are not accurate most of the time and do not lead to the mentioned universities, due to the modernization and renewal or even change in some universities' websites without updating some of these links in the Ministry's website.

Attached below is a table (3) with the actual and current links to various Iraqi universities and direct links to their own libraries (if any) as October 10, 2012.

Table 3. The Iraqi State University central library websites actual and current links (URLs)

<i>No</i>	<i>University Name</i>	<i>University website</i>	<i>University library website</i>	<i>Notes</i>
1.	University of Baghdad	http://www.uobaghdad.edu.iq/	http://www.clib.uobaghdad.edu.iq/default.aspx	
2.	University of Mustansiriya	http://www.uomustansiriya.h.edu.iq/	http://www.uomustansiriyah.edu.iq/m001.htm	
3.	University of Basrah	http://www.uobasrah.edu.iq	http://www.uobasrah.edu.iq	
4.	University of Mosul	http://www.uomosul.edu.iq	http://libcentral.uomosul.edu.iq/	
5.	University of Technology	http://www.uotechnology.edu.iq/	http://www.uotechnology.edu.iq/	
6.	University of Kufa	http://www.kuiraq.com/ar/	http://www.kuiraq.com/library/	
7.	University of Tikrit	http://www.tu.edu.iq/	http://www.tu.edu.iq/index.php?q=node/402	
8.	University of Al-Qadisiyah	http://www.qadissuni.edu.iq/index.php	http://www.qadis-libr.org/ http://www.qadissuni.edu.iq/nn6.htm	Have Two websites with the same data
9.	University of Al-Anbar	http://www.uoanbar.edu.iq/index.htm	http://www.anbarlibrary.com	
10.	Iraqi University	http://aliraqia.edu.iq/	http://aliraqia.edu.iq/central-library	
11.	University of Babylon	http://www.uobabylon.edu.iq/	http://www.uobabylon.edu.iq/library/Default.aspx	
12.	Al-Nahrain University	http://www.nahrainuniv.edu.iq/au	http://www.nahrainuniv.edu.iq/au/component/content/article/25-the-project/81	
13.	University of Diyala	http://www.uodiyala.edu.iq/L	http://www.uodiyala.edu.iq/PageViewer.aspx?id=205	
14.	Karbala University	http://www.uokerbala.edu.iq/	http://www.uokerbala.edu.iq/clibrary/	The link doesn't led to anything
15.	Thi-Qar University	http://www.thiqaruni.org/thi_qar/	http://www.thiqaruni.org/thi_qar/2011-06-07-09-31-54/2011-09-17-09-15-56/studies/2011-10-04-12-57-51.html	
16.	Kirkuk University	http://www.uokirkuk.edu.iq/ar/	http://www.uokirkuk.edu.iq/ar/index.php/extensions/2012-02-26-07-08-00	
17.	Wasit University	http://uowasit.edu.iq/	http://uowasit.edu.iq/component/content/category/63-library.html	
18.	University Of Misan	http://www.uomisan.edu.iq/index.php	N/A	The library is not mentioned
19.	Al-Muthana University	http://www.uoalmuthana.edu.iq/	N/A	The library is not mentioned

* The data in this table are a combination of the University websites, and the survey and interview data.

Preparing the list of core service and feature components from literature

After a review the literature, citing some of the main points of the various studies and methods employed, presenting the theoretical aspects, and shedding light on previous studies, the researcher was able to prepare a list of the core components of international academic library websites which have been identified in the professional literature (mentioned in the literature review). This list includes the most important and the most common services and features offered by the university libraries' websites and academic libraries' websites in general. Many of these studies summarized and highlighted what is available in hundreds of academic library websites in many geographical locations around the world. This made it possible to identify the most prominent, and the most common of these services and features, which helped to identify the baseline and the core components that were present in most of these library websites included in these studies (See table 1 mentioned previously in chapter two.)

The list of core service and feature components was first presented to the Iraqi LIS faculty members in the questionnaire, to find out the most prominent and important services and features that fit the particular case of Iraqi sites of academic libraries from their professional point of view, and then compared to the level of core components of the Iraqi universities' library websites in their current situation.

The Iraqi LIS faculty members' questionnaire

In the Iraqi LIS faculty members' questionnaire, eighty-nine LIS faculty members were surveyed (Appendices 6 and 7). The participants sought for this questionnaire were people who have a Masters or PhD. degree in LIS, and are working (there were seventy-seven who are the whole Iraqi LIS specialists in the Iraqi LIS schools with this qualification) or have worked

(twelve) in the three Iraqi LIS schools at the university level (Mustansiriya, Mosel and Basra). These participants had at least three years of experience in the LIS field. They were asked to complete the questionnaire if they had at least fair skills in using computers [because very few of them still do not] and had used library websites and their services. They were chosen because of their expertise as specialists in LIS first, and then as prospective users of these services, by having achieved at least a Masters degree, which requires a lot of research and inquiry in the use of different sources of information (such as library websites and other information technologies). Their help in completing the questionnaire provided their impressions, opinions and suggestions about the questionnaire that was prepared.

As described in the methods section, the questionnaires were distributed in person in paper form to thirty-eight of these participants who are Iraqi colleagues working in Mustansiriya LIS school. Some of the participants could not be reached as originally planned, for example some were away from the campus on summer vacation, so the surveys were left in their mailboxes. Whether delivered by hand or left in their mail, the participants were reminded to return the questionnaire to the researcher.

Only twenty-six of these paper questionnaires were returned. There were more paper forms that had been sent to two colleagues in the other two LIS schools in Mosel and Basra to distribute them to the LIS colleagues in their departments, but because of time constraints, the difficulty of re-sending these paper questionnaires due to poor mail services, and the large geographical distance from Baghdad to Mosel and Basra, the colleagues in Basra and Mosul were asked to skip the paper forms and to fill out the electronic forms online. The links were provided to them via my two colleagues in these schools, and a few obtained them directly through my personal contact via email and Facebook contacts lists. The paper questionnaires

were distributed and re-collected during the period of about a month and a half between the dates of May 30 to July 15, 2012.

As mentioned, because of the time issue and the difficulty of re-sending these paper questionnaires, the same questionnaire was distributed in an online form, using Estebyans questionnaire website (<http://www.estebyans.com/>). The online questionnaire was distributed to fifty-one participants who are (or were) working in the Mosel and Basra LIS schools. And to three colleagues who are currently outside Iraq. In order to increase the number of participants in the survey, I contacted many of the persons who were included in the questionnaire by all available means (using my personal contact information and colleagues' contact information, such as phone lists, e-mail addresses, and a list of friends on Facebook), to encourage them to answer the questionnaire and share their experiences and opinions. And despite all the efforts, only twenty-five of these online questionnaires were completed. The online form of the questionnaire was made available to the participants for the period of a month and a half between the dates of June 12 to July 27, 2012.

The Iraqi LIS faculty members who were participants in the questionnaire totaled fifty-one participants, but one of the participants answered the questions that asked "Average use of the Internet" with "Irregularly, only when needed" and noted beside it "Very Rarely Used", in addition to answering the questions that asked if the participant was using or had used services and features of library websites in general with "No". This violates the main requirement for participation in this questionnaire. In addition to that, this participant did not answer most of the questionnaire questions. The questionnaire for this particular participant was eliminated. This brings the number of total participants in the questionnaire to 50.

Using the SPSS 17 (PASW Statistics 17.0) statistic computer program, the data were prepared from the questionnaire responses, and inserted them into Statistics Data Document to perform the appropriate statistical tests. Descriptive statistics of the respondents' answers were computed to find the mean of their responses for each of the services and features, and "Compute Variable" was used to compare the differences between the respondents' answers according to their background information, which had been collected as well (the respondents' education levels "academic credentials" and their scientific titles). The respondents' answers were compared according to the different variables shown below, the means of their answers were compared, and then these results were applied to compare the different Iraqi universities' library websites as shown below.

Below are two diagrams that show information about the questionnaire participants, including their background, their academic credentials and scientific titles.

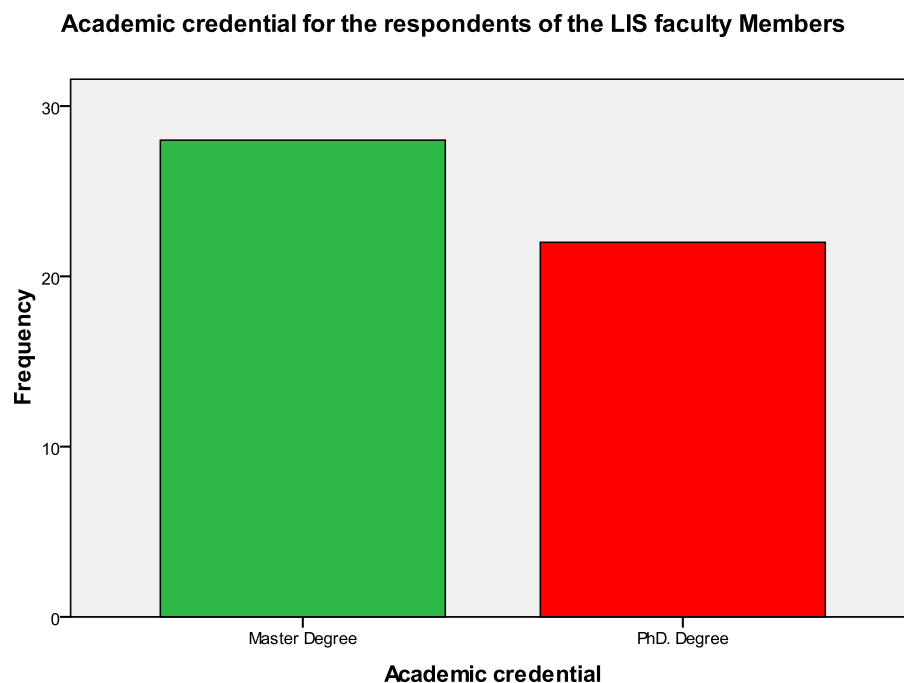


Table 4. SPSS output of the frequencies and percentages for the Academic credentials for the respondents of the LIS faculty members questionnaire			
		Frequency	Percent
Valid:	1 Master s Degree	28	56.0
	2 PhD. Degree	22	44.0
	Total	50	100.0

Scientific Title for the Respondents of the LIS Faculty Members

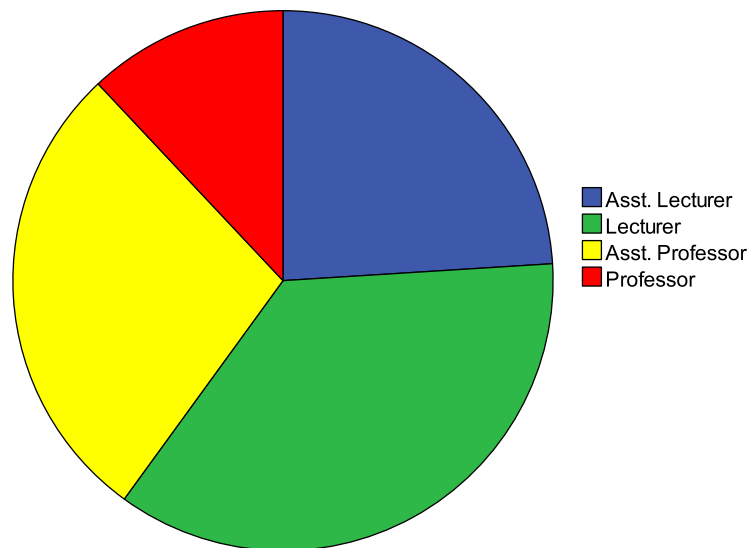
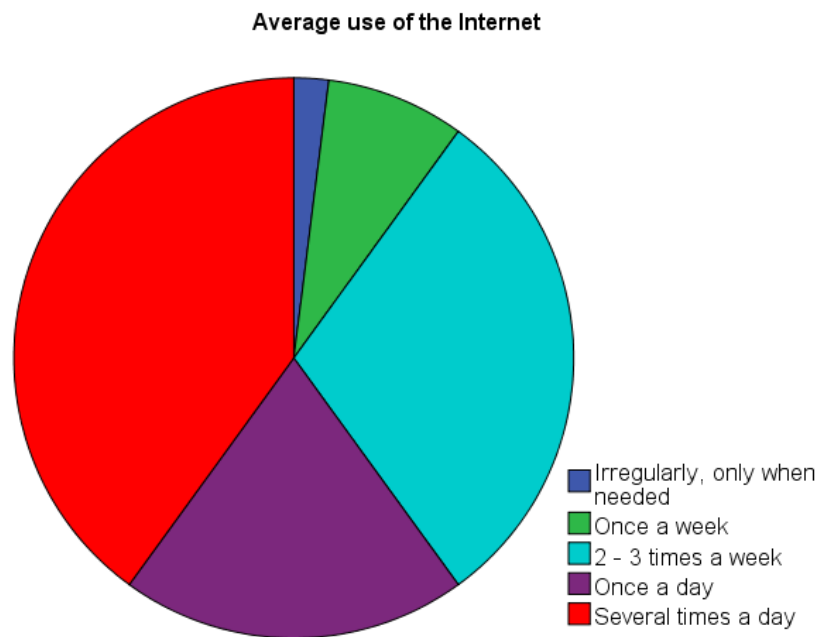


Table 5. SPSS output of the frequencies and percentages for the scientific titles for the respondents of the LIS faculty members questionnaire			
		Frequency	Percent
Valid:	1 Asst. Lecturer	12	24.0
	2 Lecturer	18	36.0
	3 Asst. Professor	14	28.0
	4 Professor	6	12.0
	Total	50	100.0

The participants were asked about their average use of the Internet, and they were given five different response choices, which are “Several times a day,” “Once a day,” “2 - 3 times a week,” “Once a week,” and “Irregularly, only when needed”. 60% of the participants used the Internet at least once a day. Here is a table (table 6) and a diagram that show the distribution of participants according to their use of Internet:

Table 6. The LIS faculty members participants' averages of using the Internet			
No.	Academic credential	Scientific Title	Average using of the Internet
1.	PhD. Degree	Professor	2 - 3 times a week
2.	Master Degree	Asst. Lecturer	Once a day
3.	PhD. Degree	Asst. Professor	Several times a day
4.	PhD. Degree	Professor	Several times a day
5.	Master Degree	Lecturer	2 - 3 times a week
6.	Master Degree	Asst. Professor	2 - 3 times a week
7.	Master Degree	Asst. Lecturer	Several times a day
8.	Master Degree	Asst. Lecturer	Once a day
9.	PhD. Degree	Asst. Professor	2 - 3 times a week
10.	Master Degree	Asst. Lecturer	Several times a day
11.	PhD. Degree	Lecturer	Several times a day
12.	Master Degree	Asst. Lecturer	Several times a day
13.	PhD. Degree	Professor	Once a day
14.	Master Degree	Lecturer	2 - 3 times a week
15.	PhD. Degree	Asst. Professor	2 - 3 times a week
16.	Master Degree	Asst. Lecturer	Several times a day
17.	Master Degree	Lecturer	2 - 3 times a week
18.	PhD. Degree	Professor	Several times a day
19.	PhD. Degree	Lecturer	2 - 3 times a week
20.	Master Degree	Asst. Lecturer	Several times a day
21.	Master Degree	Lecturer	Once a day
22.	PhD. Degree	Asst. Professor	Several times a day
23.	Master Degree	Asst. Professor	Once a week
24.	PhD. Degree	Asst. Professor	Once a week
25.	Master Degree	Lecturer	Several times a day
26.	PhD. Degree	Professor	Once a day
27.	Master Degree	Asst. Lecturer	Several times a day
28.	Master Degree	Lecturer	Once a day
29.	PhD. Degree	Asst. Professor	Several times a day
30.	PhD. Degree	Asst. Professor	Once a week
31.	Master Degree	Asst. Lecturer	Several times a day
32.	Master Degree	Lecturer	2 - 3 times a week

33.	Master Degree	Asst. Lecturer	Several times a day
34.	PhD. Degree	Lecturer	Several times a day
35.	Master Degree	Asst. Professor	Once a week
36.	PhD. Degree	Asst. Professor	Irregularly, only when needed
37.	Master Degree	Lecturer	Once a day
38.	Master Degree	Asst. Lecturer	2 - 3 times a week
39.	Master Degree	Lecturer	Once a day
40.	PhD. Degree	Professor	2 - 3 times a week
41.	PhD. Degree	Asst. Professor	2 - 3 times a week
42.	Master Degree	Asst. Lecturer	Several times a day
43.	PhD. Degree	Lecturer	2 - 3 times a week
44.	Master Degree	Lecturer	Several times a day
45.	Master Degree	Lecturer	Several times a day
46.	PhD. Degree	Asst. Professor	2 - 3 times a week
47.	PhD. Degree	Asst. Professor	Once a day
48.	PhD. Degree	Lecturer	2 - 3 times a week
49.	Master Degree	Lecturer	Once a day
50.	Master Degree	Lecturer	Several times a day



AvUsInt Average use of the Internet

Table 7. SPSS output of frequencies and percentages for the LIS faculty members' averages of using the Internet

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Irregularly, only when needed	1	2.0	2.0	2.0
	2 Once a week	4	8.0	8.0	10.0
	3 2 - 3 times a week	15	30.0	30.0	40.0
	4 Once a day	10	20.0	20.0	60.0
	5 Several times a day	20	40.0	40.0	100.0
	Total	50	100.0	100.0	

For the most important part of the questionnaire, the Iraqi LIS faculty members were asked to indicate their opinion through their scientific experience and personal usage experience about the importance of the availability of services and features listed in the questionnaire in the Iraqi academic libraries' websites, and to rank each of them from "Very important" (5) to "Of little importance" (1). The listed services and features in the questionnaire were originally taken from the list of services and features that have been determined based on the literature review in this study.

Here is a table (table 8) that shows the Iraqi LIS faculty members full ranking data of the library website services and features, in addition to the participants' academic credentials and scientific titles.

Table 8. The Iraqi LIS faculty members full ranking of the library websites' services and features

No.	Participants' Academic credential	Participants' Scientific Title	Library Websites' Services and Features																							
			About Library	Library News and Events	Library OPAC	Searching Library OPAC	External Links	Home Page Search Engine	E-Resources	Online Databases	Interlibrary Loan Services	Place Material on Reserve	New Acquisitions	Ask a librarian	Alumni Services	Purchase Request	Site map, or other users' guides	Links to the main institution	2.0, Social networking, & RSS feeds.	Job Opportunities	Communication (Contact Us)	Page update date	Visitor Counter	FAQs	Library page link on the 1 st . page	
1.	PhD. Degree	Professor	5	4	5	5	4	4	5	5	5	4	4	5	4	4	4	4	3	3	5	4	3	4	5	
2.	Masters Degree	Asst. Lecturer	4	4	5	5	4	5	5	5	4	4	4	5	3	5	5	4	3	4	5	5	3	5	5	
3.	PhD. Degree	Asst. Professor	5	4	5	5	4	5	5	5	5	5	4	5	4	5	5	5	4	3	5	4	3	4	5	
4.	PhD. Degree	Professor	5	5	5	5	4	5	5	5	5	5	5	5	5	5	4	5	4	4	5	5	4	4	5	
5.	Masters Degree	Lecturer	5	4	5	5	3	4	5	5	5	4	5	4	3	4	3	4	5	4	5	4	4	5	5	
6.	Masters Degree	Asst. Professor	5	5	5	5	4	5	5	5	5	5	5	5	4	4	4	5	3	3	5	5	5	5	5	
7.	Masters Degree	Asst. Lecturer	4	4	5	5	4	5	5	4	4	4	4	4	3	4	4	4	5	5	5	4	4	3	5	
8.	Masters Degree	Asst. Lecturer	4	4	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	4	4	4	3	4	5	
9.	PhD. Degree	Asst. Professor	5	4	5	5	5	4	5	5	4	5	5	4	4	4	4	4	3	3	5	4	3	4	5	
10.	Masters Degree	Asst. Lecturer	4	4	5	5	4	5	5	5	5	4	4	5	5	5	5	5	5	5	4	5	4	5	4	
11.	PhD. Degree	Lecturer	4	4	5	5	4	5	5	5	4	4	4	5	3	5	4	5	3	4	5	5	3	5	5	
12.	Masters Degree	Asst. Lecturer	5	5	5	5	3	5	5	5	5	5	5	5	4	5	5	5	4	3	5	5	4	4	5	
13.	PhD. Degree	Professor	5	4	5	5	4	5	5	5	5	5	4	5	5	5	5	5	5	4	5	4	3	4	5	
14.	Masters Degree	Lecturer	5	4	5	5	4	4	5	5	5	4	5	4	3	4	3	4	5	4	5	4	4	5	5	
15.	PhD. Degree	Asst. Professor	5	5	5	5	4	5	5	5	5	5	5	5	4	4	4	4	3	3	5	5	5	5	5	
16.	Masters Degree	Asst. Lecturer	4	4	5	5	4	5	5	5	4	4	4	5	4	4	5	5	5	5	5	5	4	5	5	
17.	Masters Degree	Lecturer	5	5	5	5	4	5	5	5	5	4	5	5	3	5	4	5	5	4	5	5	4	3	5	
18.	PhD. Degree	Professor	4	4	5	5	5	4	5	5	5	4	5	5	5	5	4	4	4	5	5	4	3	4	5	
19.	PhD. Degree	Lecturer	5	4	5	5	4	5	5	5	4	4	5	5	4	4	5	5	3	4	4	5	5	4	5	
20.	Masters Degree	Asst. Lecturer	5	5	5	5	5	5	5	5	4	5	5	4	3	5	5	5	3	4	5	5	4	5	5	
21.	Masters Degree	Lecturer	5	4	5	5	4	5	5	5	5	5	4	5	4	5	5	5	5	3	5	4	3	4	5	
22.	PhD. Degree	Asst. Professor	5	5	5	5	4	5	5	5	5	5	5	5	4	4	5	4	3	4	5	5	4	5	5	
23.	Masters Degree	Asst. Professor	5	5	5	5	4	4	5	5	4	4	5	5	3	4	5	5	4	4	5	4	3	4	5	
24.	PhD. Degree	Asst. Professor	5	5	5	5	5	5	5	5	5	5	5	4	4	5	4	5	4	4	4	5	4	5	5	
25.	Masters Degree	Lecturer	5	4	5	5	5	5	5	5	5	4	5	5	4	4	4	5	5	5	5	5	4	4	5	
26.	PhD. Degree	Professor	4	4	5	5	4	5	5	5	5	4	4	5	3	5	3	5	5	4	5	4	4	5	5	
27.	Masters Degree	Asst. Lecturer	4	5	5	5	4	5	5	5	4	5	5	4	4	4	4	4	3	3	5	5	5	3	5	
28.	Masters Degree	Lecturer	5	5	5	5	5	4	5	5	4	4	5	5	3	5	5	4	5	3	5	5	4	5	5	
29.	PhD. Degree	Asst. Professor	5	5	5	5	4	5	5	5	5	4	5	5	3	4	5	5	3	4	5	4	3	5	5	

30.	PhD. Degree	Asst. Professor	5	4	5	5	4	4	5	5	5	5	5	4	5	5	4	4	5	5	5	4	3	5	5
31.	Masters Degree	Asst. Lecturer	5	5	5	5	5	5	5	5	4	4	5	5	4	5	5	3	3	5	4	5	4	4	5
32.	Masters Degree	Lecturer	4	4	5	5	5	5	5	5	5	4	5	5	4	4	5	5	5	3	5	5	4	5	5
33.	Masters Degree	Asst. Lecturer	5	4	5	5	4	5	5	5	4	5	4	5	5	5	4	5	5	4	5	5	3	4	5
34.	PhD. Degree	Lecturer	5	5	5	5	4	5	5	5	5	4	5	5	4	4	4	5	5	4	5	5	4	3	5
35.	Masters Degree	Asst. Professor	4	4	5	5	4	4	5	5	5	4	5	5	3	5	4	4	5	5	5	4	3	4	5
36.	PhD. Degree	Asst. Professor	5	4	5	5	4	5	5	5	5	4	4	5	4	4	5	5	3	4	4	5	5	4	5
37.	Masters Degree	Lecturer	4	5	5	5	5	4	5	5	4	5	4	5	3	5	5	5	3	4	5	5	4	5	5
38.	Masters Degree	Asst. Lecturer	5	4	5	5	5	5	5	5	5	5	5	5	5	4	5	4	4	3	5	4	3	4	5
39.	Masters Degree	Lecturer	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	3	4	5	5	4	5	5
40.	PhD. Degree	Professor	5	5	5	5	4	5	5	5	5	5	5	4	3	4	5	5	4	4	5	4	3	4	5
41.	PhD. Degree	Asst. Professor	5	5	5	5	5	5	5	5	5	5	5	5	3	5	5	5	5	4	4	5	4	5	5
42.	Masters Degree	Asst. Lecturer	5	5	5	5	4	5	5	5	4	4	5	5	5	4	4	4	3	5	5	5	4	4	5
43.	PhD. Degree	Lecturer	5	4	5	5	4	5	5	5	5	5	4	5	4	3	5	5	5	4	5	4	4	3	5
44.	Masters Degree	Lecturer	4	5	5	5	4	5	5	5	4	5	4	5	3	5	4	5	4	3	5	5	5	3	5
45.	Masters Degree	Lecturer	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	3	4	5	5	3	5	5
46.	PhD. Degree	Asst. Professor	5	5	5	5	4	5	5	5	4	4	5	5	5	4	5	5	5	3	5	4	2	5	5
47.	PhD. Degree	Asst. Professor	5	5	5	5	4	5	5	5	5	4	4	5	4	4	4	5	4	5	5	5	4	4	5
48.	PhD. Degree	Lecturer	4	4	5	5	5	5	5	5	4	5	5	4	4	5	5	5	3	5	5	4	5	5	5
49.	Masters Degree	Lecturer	5	5	5	5	4	5	5	5	4	5	5	5	5	3	5	4	5	3	5	4	5	4	5
50.	Masters Degree	Lecturer	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	5	5	5	5	5	4	5	5
Average			4.7	4.48	5	5	4.28	4.8	5	4.98	4.66	4.5	4.68	4.82	3.92	4.44	4.48	4.62	4.12	3.92	4.86	4.6	3.76	4.34	4.98

The respondents' answers in the table (8) above may shows that there is very little variance in the responses. The predominant numbers are 4-5s, limited number cases of 3s, and there are no noteworthy trends of 1s, and only one trend of 2s.

To show more details about the differences between the means (or Average) of the ranking for each of these library website services and features, as well as seeing if there are differences between the participants ranking according to their academic credentials and scientific titles, the SPSS software capabilities and features were used to compare the means of the participants ranking for each single one of these library websites' services and features, distributed on the participants' various background categories that were academic credentials (Masters Degree and

PhD. Degree), and scientific titles (Assistant Lecturer, Lecturer, Assistant Professor, and Professor). Included below are the outputs for the results of those comparisons for each of these services and features:

1. About the library: Library building, hours, physical address, description of departments, services, staff directory, and mission statement:

AbouLib: About the library

Table 9. SPSS output of frequencies and percentages for the LIS faculty members' averages by their academic credentials for the feature of About the library

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.61	28	.497
2 PhD. Degree	4.82	22	.395
Total	4.70	50	.463

AbouLib: About the library

Table 10. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the feature of About the library

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.50	12	.522
2 Lecturer	4.67	18	.485
3 Asst. Professor	4.93	14	.267
4 Professor	4.67	6	.516
Total	4.70	50	.463

2. Library News: Announcements, Events, Activities:

LibNewEv: Library News: Announcements, Events, Activities

Table 11. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the feature of Library News

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.50	28	.509
2 PhD. Degree	4.45	22	.510
Total	4.48	50	.505

LibNewEv: Library News: Announcements, Events, Activities

Table 12. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the feature of Library News

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.42	12	.515
2 Lecturer	4.44	18	.511
3 Asst. Professor	4.64	14	.497
4 Professor	4.33	6	.516
Total	4.48	50	.505

3. Library Online Public Access Catalogue (OPAC):

LibOPAC: Library OPAC

Table 13. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the service of Library OPAC

AcadCredrd: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	5.00	28	.000
2 PhD. Degree	5.00	22	.000
Total	5.00	50	.000

LibOPAC: Library OPAC

Table 14. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the service of Library OPAC			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	5.00	12	.000
2 Lecturer	5.00	18	.000
3 Asst. Professor	5.00	14	.000
4 Professor	5.00	6	.000
Total	5.00	50	.000

4. The ability to search the Library OPAC in several ways: the author, subject, title, keyword.

Etc:

SLOPAC: Searching in the Library OPAC

Table 15. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the service of Searching in the Library OPAC			
AcadCredr: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	5.00	28	.000
2 PhD. Degree	5.00	22	.000
Total	5.00	50	.000

SLOPAC: Searching in the Library OPAC

Table 16. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the service of Searching in the Library OPAC			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	5.00	12	.000
2 Lecturer	5.00	18	.000
3 Asst. Professor	5.00	14	.000
4 Professor	5.00	6	.000
Total	5.00	50	.000

5. External Links to other libraries or other institutions, their OPACs and services, etc.:

ExtLink: External Links

Table 17. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the feature of External Links

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.32	28	.612
2 PhD. Degree	4.23	22	.429
Total	4.28	50	.536

ExtLink: External Links

Table 18. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the feature of External Links

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.25	12	.622
2 Lecturer	4.39	18	.608
3 Asst. Professor	4.21	14	.426
4 Professor	4.17	6	.408
Total	4.28	50	.536

6. Home page search engine feature:

HPSeEng: Home Page Search Engine

Table 19. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the services of Home Page Search Engine

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.79	28	.418
2 PhD. Degree	4.82	22	.395
Total	4.80	50	.404

HPSeEng: Home Page Search Engine

Table 20. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the services of Home Page Search Engine

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	5.00	12	.000
2 Lecturer	4.78	18	.428
3 Asst. Professor	4.71	14	.469
4 Professor	4.67	6	.516
Total	4.80	50	.404

7. E-Resources and other textual contents (eBooks, e- journals/periodicals, etc.):

E.Res: E. Resources

Table 21. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the services of E. Resources

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	5.00	28	.000
2 PhD. Degree	5.00	22	.000
Total	5.00	50	.000

E.Res: E. Resources

Table 22. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the services of E. Resources

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	5.00	12	.000
2 Lecturer	5.00	18	.000
3 Asst. Professor	5.00	14	.000
4 Professor	5.00	6	.000
Total	5.00	50	.000

8. Searching Online Databases:

SOnDB: Searching Online Databases

Table 23. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the services of Searching Online Databases

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.96	28	.189
2 PhD. Degree	5.00	22	.000
Total	4.98	50	.141

SOnDB: Searching Online Databases

Table 24. SPSS output of frequencies and percentages for the LIS faculty members' averages by their scientific title for the services of Searching Online Databases

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.92	12	.289
2 Lecturer	5.00	18	.000
3 Asst. Professor	5.00	14	.000
4 Professor	5.00	6	.000
Total	4.98	50	.141

9. Interlibrary loan services: Request forms, book renewal form, the circulation policy and the interlibrary loan policy:

InLibLon: Interlibrary loan services

Table 25. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Interlibrary loan services

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.54	28	.508
2 PhD. Degree	4.82	22	.395
Total	4.66	50	.479

InLibLon: Interlibrary loan services

Table 26. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Interlibrary loan services

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.33	12	.492
2 Lecturer	4.67	18	.485
3 Asst. Professor	4.79	14	.426
4 Professor	5.00	6	.000
Total	4.66	50	.479

10. Form to place material on reserve, description of holdings materials:

ResHoMa: Reserve, Holdings materials

Table 27. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Reserve, Holdings materials services

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.50	28	.509
2 PhD. Degree	4.50	22	.512
Total	4.50	50	.505

ResHoMa: Reserve, Holdings materials

Table 28. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Reserve, Holdings materials services

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.50	12	.522
2 Lecturer	4.44	18	.511
3 Asst. Professor	4.57	14	.514
4 Professor	4.50	6	.548
Total	4.50	50	.505

11. New acquisitions:

NewAcqu: New Acquisitions

Table 29. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the New Acquisitions services

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.71	28	.460
2 PhD. Degree	4.64	22	.492
Total	4.68	50	.471

NewAcqu: New Acquisitions

Table 30. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the New Acquisitions services

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.58	12	.515
2 Lecturer	4.72	18	.461
3 Asst. Professor	4.79	14	.426
4 Professor	4.50	6	.548
Total	4.68	50	.471

12. Ask a librarian: answer reference questions, request reference assistance through the library's Web site, mail, phone, SMS:

AskLib: Ask a librarian

Table 31. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Ask a librarian service

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.82	28	.390
2 PhD. Degree	4.82	22	.395
Total	4.82	50	.388

AskLib: Ask a librarian

Table 32. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Ask a librarian service

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.75	12	.452
2 Lecturer	4.89	18	.323
3 Asst. Professor	4.79	14	.426
4 Professor	4.83	6	.408
Total	4.82	50	.388

13. Alumni or former students' services:

AlumServ: Alumni or Former students services

Table 33. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Alumni or Former students services

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	3.86	28	.803
2 PhD. Degree	4.00	22	.690
Total	3.92	50	.752

AlumServ: Alumni or Former students services

Table 34. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Alumni or Former students services

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.08	12	.793
2 Lecturer	3.78	18	.732
3 Asst. Professor	3.86	14	.663
4 Professor	4.17	6	.983
Total	3.92	50	.752

14. Purchase request form: Users can submit book purchase requests and suggestions:

PurchReq: Purchase Request

Table 35. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Purchase Request feature			
AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.50	28	.577
2 PhD. Degree	4.36	22	.581
Total	4.44	50	.577

PurchReq: Purchase Request

Table 36. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Purchase Request feature			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.58	12	.515
2 Lecturer	4.33	18	.686
3 Asst. Professor	4.36	14	.497
4 Professor	4.67	6	.516
Total	4.44	50	.577

15. Site map, or other users' guides:

SitMap: Site Map, or other users guide

Table 37. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Site Map feature			
AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.50	28	.638
2 PhD. Degree	4.45	22	.596
Total	4.48	50	.614

SitMap: Site Map, or other users guide

Table 38. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Site Map feature			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.67	12	.492
2 Lecturer	4.44	18	.705
3 Asst. Professor	4.50	14	.519
4 Professor	4.17	6	.753
Total	4.48	50	.614

16. Links to the main institution, and other institutions:

LinMalns: Links to the main institution

Table 39. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Links to the main institution feature			
AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.54	28	.576
2 PhD. Degree	4.73	22	.456
Total	4.62	50	.530

LinMalns: Links to the main institution

Table 40. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Links to the main institution feature			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.42	12	.669
2 Lecturer	4.72	18	.461
3 Asst. Professor	4.64	14	.497
4 Professor	4.67	6	.516
Total	4.62	50	.530

17. The ability to interact with the library: 2.0 applications, Social networking sites, and RSS feeds:

Int2.0RSS: Interact with the library, 2.0, RSS

Table 41. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Interact with the library feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.21	28	.917
2 PhD. Degree	4.00	22	.873
Total	4.12	50	.895

Int2.0RSS: Interact with the library, 2.0, RSS

Table 42. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Interact with the library feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.00	12	.953
2 Lecturer	4.39	18	.916
3 Asst. Professor	3.86	14	.864
4 Professor	4.17	6	.753
Total	4.12	50	.895

18. Employment and Job opportunities:

JobOppt: Job Opportunities

Table 43. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Job Opportunities feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	3.96	28	.793
2 PhD. Degree	3.86	22	.640
Total	3.92	50	.724

JobOppt: Job Opportunities

Table 44. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Job Opportunities feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.17	12	.835
2 Lecturer	3.78	18	.647
3 Asst. Professor	3.86	14	.770
4 Professor	4.00	6	.632
Total	3.92	50	.724

19. Communication: Contact email link, mailing address of library, phone number, and other contact information:

ComCont: Communication: Contact us

Table 45. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Contact us feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.89	28	.315
2 PhD. Degree	4.82	22	.395
Total	4.86	50	.351

ComCont: Communication: Contact us

Table 46. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Contact us feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.75	12	.452
2 Lecturer	4.94	18	.236
3 Asst. Professor	4.79	14	.426
4 Professor	5.00	6	.000
Total	4.86	50	.351

20. Page update date: Showing the date of the last update:

PagUpdat: Page Update Date

Table 47. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Page Update Date feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.68	28	.476
2 PhD. Degree	4.50	22	.512
Total	4.60	50	.495

PagUpdat: Page Update Date

Table 48. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Page Update Date feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.75	12	.452
2 Lecturer	4.72	18	.461
3 Asst. Professor	4.50	14	.519
4 Professor	4.17	6	.408
Total	4.60	50	.495

21. Visitors counter:

VisCount: Visitor Counter

Table 49. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Visitor Counter feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	3.86	28	.651
2 PhD. Degree	3.64	22	.790
Total	3.76	50	.716

VisCount: Visitor Counter

Table 50. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Visitor Counter feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	3.75	12	.622
2 Lecturer	4.00	18	.594
3 Asst. Professor	3.64	14	.929
4 Professor	3.33	6	.516
Total	3.76	50	.716

22. Frequently Asked Questions (FAQs):

FAQs: Frequently Asked Questions

Table 51. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Frequently Asked Questions feature

AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.32	28	.723
2 PhD. Degree	4.36	22	.658
Total	4.34	50	.688

FAQs: Frequently Asked Questions

Table 52. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Frequently Asked Questions feature

SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.17	12	.718
2 Lecturer	4.33	18	.840
3 Asst. Professor	4.57	14	.514
4 Professor	4.17	6	.408
Total	4.34	50	.688

23. Library home page link on the first page of their parent institution's home page, and accessible from the parent institution's home page with a direct link:

LiFirPag: Link on the First Page of their Parent Institution

Table 53. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Academic credentials for the Link on the First Page of their Parent Institution feature			
AcadCred: Academic credentials	Mean	N	Std. Deviation
1 Master Degree	4.96	28	.189
2 PhD. Degree	5.00	22	.000
Total	4.98	50	.141

LiFirPag: Link on the First Page of their Parent Institution

Table 54. SPSS output of frequencies and percentages for the LIS faculty members' averages by their Scientific Title for the Link on the First Page of their Parent Institution feature			
SciTitle: Scientific Title	Mean	N	Std. Deviation
1 Asst. Lecturer	4.92	12	.289
2 Lecturer	5.00	18	.000
3 Asst. Professor	5.00	14	.000
4 Professor	5.00	6	.000
Total	4.98	50	.141

Analyzing Iraqi university libraries websites' services and features

The services and features offered by the Iraqi university central library websites have been analyzed, to view what is currently available from these services and features, and to compare them with the list of services and features that have been collected from the literature and with the results of the importance of providing them in the Iraqi academic library websites according to the evaluation of the importance of having those services by the Iraqi LIS faculty members' responses in the questionnaire.

Below is a table (table 55) that shows the services and features that are provided by the Iraqi university central libraries' websites, compared with the list that had been prepared for the services and features in the academic libraries websites.

Table 55: Services and features that are provided by the Iraqi university central libraries' websites compared with the core service and feature components list

No	Library websites' Services and Features	Iraqi LIS Faculty Member Average Rating	Iraqi State Universities																			
			University of Baghdad	University of Mustansiriya	University of Basrah	University of Mosul	University of Technology	University of Kufa	University of Tikrit	University of Al-Qadisiyah	University of Al-Anbar	Iraqi University	University of Babylon	Al-Nahrain University	University of Diyala	Karbala University	Thi-Qar University	Kirkuk University	Wasit University	University Of Misan	Al-Muthana University	
1.	About the Library	4.70	1	1	1	1	1	1	1	1	1	1	1	1	0	0	1	0	0	0		
2.	Library News, Events	4.48	1	1	1	1	1	0	1	1	1	1	0	0	1	0	0	0	0	0		
3.	Library OPAC	5.00	1	1	0	0	1	1	1	1	1	1	1	0	1	0	1	1	0	0		
4.	Searching Library OPAC	5.00	1	0	0	0	1	1	0	0	1	1	1	0	0	0	0	1	0	0		
5.	External Links	4.28	1	1	1	1	1	0	1	0	1	1	0	0	1	0	0	1	1	0		
6.	Home Page Search Engine	4.80	1	0	0	1	1	0	0	0	0	1	0	0	1	0	0	1	1	0		
7.	E-Resources	5.00	1	0	1	0	1	1	0	0	1	1	0	0	1	0	0	0	1	0		
8.	Online Databases	4.98	1	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	1	0		
9.	Interlibrary Loan	4.66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
10.	Reserve Material	4.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
11.	New Acquisitions	4.68	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0		
12.	Ask a Librarian	4.82	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
13.	Alumni Services	3.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
14.	Purchase Request	4.44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15.	Site Map	4.48	0	0	1	1	1	0	0	0	0	1	0	0	1	0	1	1	0	0		
16.	Links to Main Institution	4.62	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	0	0		
17.	Interact with the Library: 2.0, RSS	4.12	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	0	0		
18.	Job Opportunities	3.92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
19.	Communication: Contact Us	4.86	1	1	1	1	1	1	0	1	1	1	0	0	1	0	1	1	1	0		
20.	Page Update Date	4.60	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0		
21.	Visitor Counter	3.76	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
22.	FAQs	4.34	1	1	0	1	1	1	0	1	1	1	0	0	0	0	0	1	0	0		
23.	Library link on the 1st page of Institution	4.98	1	0	0	0	1	0	0	1	0	0	0	0	1	0	1	1	1	0		
Total number			15	7	7	11	14	7	5	7	11	13	4	2	12	0	5	12	7	0		
* 1 = Available * 0 = Not Available																						

The Iraqi state university libraries directors' surveys and interviews data

The interviews with the directors (or a representative of the administration) were aimed to collect more information and data about the descriptions of the organizations' services in general, and their library websites' services and features specifically. In addition to collect more data about those libraries and their websites, the interviews aimed to find out the most frequent issues that are facing Iraqi university libraries, and prevent these libraries from developing their websites and providing the best possible services and features to their patrons from their point of view and their position in the library administration. Using this information, the researcher could find out more about the issues that face the development of an Iraqi-specific model for electronic educational resources.

The library directors' surveys were distributed to all the Iraqi state university central library directors in the study sample using the email contact info provided in the universities' websites or personally by the researcher. The plan was to obtain data from the distributed surveys and conduct the interviews with all nineteen library directors (or a representative of the administration). However, it was not possible to interview them all because of several circumstances, such as the security issues in many of the Iraqi provinces or because of the lack of cooperation by administrators in some of these libraries, such as not responding to requests sent to them through e-mail or through direct visits to libraries by the researcher to participate in the survey and interview. In one of the cases, the director was somewhat hostile. Others refused to cooperate for various reasons such as "You are not authorized to obtain our data." [Director 14]³ and "We are busy with more important things!" [Director 16]. As a result, there were eleven

³ According to the instructions of the Institutional Review Board (IRB), and scientific ethics reasons, I cannot share any identifiable data about the participants in the study.

directors who were interviewed, and answers were obtained from twelve participants in the Iraqi university library directors' surveys from the entire population that was targeted in this study which totaled nineteen library directors.

Each director was provided with a survey, which contained a set of questions about his organization (Appendix 4) at least a week before the interview. The interview questions were open ended (Appendix 5), to gather more data about their institution that can be compared with all Iraqi university libraries. These participants were interviewed by the researcher between September 26, 2011 to May 22, 2012.

The interviews ranged in degrees of hostility: some were formal interviews with a little hostility, as suggested above, while others were very friendly, bordering on a conversation not unlike that with a colleague or friend. Because the interview questions were open-ended questions, the length of the interviews was not scheduled precisely, which allowed the directors to control the speed of responses, which consequently, ranged from 30-45 minutes.

The surveys were provided in paper form and handed to the directors personally; others were provided in electronic form via their email because of the geographical distance, as a part of their preparation for the interviews. These surveys are descriptions of the organizations' data such as their university and library establishment dates, library traditional and digital materials, the date of the website's establishment, and directors' background.

Below is a sample of the data provided by the survey and interview for one of the Iraqi Universities' libraries (University of Baghdad), as an example. The rest of the universities' data has been collected from the questionnaire and interviews in the appendixes (8-19).

The library name:	The Central Library of the University of Baghdad	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1957	
The date the Central Library was established	1959	
Library building size (in square meters)	20549	
The number of traditional library materials available in the library	398437	
The number of digital materials available in the library	Not specified	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	2011	
The library website is within the university's official website or an independent website:	within the university's official website	
Library website link (URL):	http://www.clib.uobaghdad.edu.iq/default.aspx	
Academic degree(s) and specialty of the Central Library Director:	M.A. in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	LIS	2
Masters	LIS	3
	History	1
	Geography	1
	Technology operations	1
Higher Diploma	Social Science	1
	LIS	1
	Computer Science	1
Bachelor	LIS	16
	Languages	12
	Computer Engineering	2
	Political Science	1
	Computer Science	3
	Accounting	1
Diploma	Accounting	3
	English language	1
	LIS	12
	Warehousing	5
	Banking	3
	Arabic Language	3
High school		21
Middle school		9

Elementary school		9
Less than that		3
Other, please specify		-
Who designed the Library website:	A commission of members from the Central Library	
Who is responsible for updating the library's website and the information contained therein	A library employee who is responsible for updating the website	

Some of the data that have been collected in the interviews were intended to demystify and clarify some of the data provided by the survey, as well as to identify the problems and issues that most of the Iraqi university libraries' websites experience to know the main issues that prevent these libraries from providing more current and active services and features that fit the needs of the library websites' patrons, and to provide information for the development of an Iraqi-specific model for electronic educational resources.

A summary of the main issues that impede the Iraqi universities library websites from providing the important and basic information services and features in their library websites has been developed using quotes from some managers of Iraqi university libraries (or a representative from management) about these issues. This summary has been included in the next chapter of the study with the results of the current study.

Chapter Five: Discussion the Findings, Conclusions, and Further Research

Introduction

This chapter will present the study's final discussions and findings, and will end the chapter with the study conclusions, and a suggestion for a future study that could be made to complete this study. The summaries and results of the work in all the previous chapters are compiled, and the final findings of the analysis of data collected by various means in this study are presented, which help to answer the research questions, and to reach the final conclusions for the study.

Discussions the Findings

The Iraqi Ministry of Higher Education website and the study sample list

To reach the Iraqi state universities online, the most convenient and obvious way was via the Ministry website. But it was surprising that the Ministry website did not have accurate and direct URL links to these universities. The state universities were listed, but the links that were provided did not lead to many of those universities. Some of these links were not active and others have changed. The Ministry website had made many changes and updates during the study period, but the Ministry website kept having in the same issues, and still does.

Moreover, the data and the information that the Ministry website presented is not completely accurate. For instance, when trying to collect some data about the Iraqi state universities through the use of the Ministry website, but found out later that there were differences between what was provided in the Ministry website, the universities' website, and the data that had been collected

through the preliminary interviews and surveys with the central library directors. These inconsistencies created confusion about the validity of the data, and made it very important to go back to double check all the data that were provided on the Ministry and the universities' websites during the state university library directors' surveys and interviews process. I also tried to make sure the data that had been collected through the surveys and the interviews that followed the process of collecting data from the Ministry and university libraries' websites matched, then verified which data that have been provided was the accurate data before including them in the study. The data were checked during discussions with the library directors (or their representatives) about the data they provided in the questionnaire and what is available in the Ministry and the universities' websites if there were any differences, and they have been asked to verify the validity of any of these data.

In order to achieve some of the goals stated in their website, the Ministry might consider working to unify the information and the data contained in the different places and to correct the inaccurate ones, as well as to generalize the accurate data that are provided by the Ministry website, the universities' websites, and all other institutions that follow the Ministry to unify the official data provided for the public in all official channels.

In light of the study, there are a number of recommendations to be made that affect data and standards that address the more pressing issues. The Ministry might consider paying more attention to the information and data that are provided in its English interface at its website. It is very important to check the official names of the universities in terms of the pronunciation formula and correctness of these names, and to work on using standard official names for those universities in English, and avoid using variations of those names in the Arabic and English interfaces on one hand, and in the Ministry's website and those universities' websites on the other

hand. For example, Library of Congress has Romanization tables and rules about transliterating and translating. Perhaps the Ministry might consider creating such a standardized method for transliterating their information and data from Arabic to English before providing them in their website.

As mentioned in the previous chapter, there are differences in translation or linguistic matters (Such as using “University of XYZ” or “XYZ University”). There are also different names in the Arabic and English interfaces of the Ministry website, such as Kirkuk University (جامعة كركوك) that was listed with this name in the Arabic version of the website, as well as in the university website itself, while it is listed “Al-Ta'ameem” University (جامعة التأميم) in the English version of the Ministry website, although “Al-Ta'ameem” is the name of the Iraqi provinces where the university is located, not the university name. In addition to that, there are misspelling issues in the universities’ English names which have different spelling in the Ministry website and the Iraqi universities’ websites. For example, “Mustanseriya University,” as it is cited in the Ministry website, is in fact “Mustansiriya University,” and “University of Wassit” in the ministry website is “Wasit University” in the institutional website. This might be a situation that exists in other parts of the world, for example, in the United States "Columbia University" in New York City is formally known as "Columbia University in the City of New York", but almost everyone refers to it as Columbia University. To reverse the terms from "University of Columbia" would make little sense to us. But the Iraqi Ministry might consider unifying the official names used or to reverse the terms as mentioned in the USA. It is also notable that there are other differences in other data between some of these universities’ websites compared with what is mentioned in the ministry website, such as the establishment dates of many of these universities, which might give the impression of a lack of an accurate centralized information system, and a lack of follow up

on the accuracy of the data included in the Ministry's website and the various university websites. This might be attributed to including the date of issuance of the Ministerial order of establishment of some of those universities in some places, and the actual establishment and inaugural date of those universities in other places; but they still need to unify official titles of these universities, and use the right unified names in all official publications as mentioned previously. Even before tackling Ministry of Higher Education issues, perhaps the issue of identity, names, etc., need to be addressed at a national level to understand the many resources, whether they are in Arabic, English, or another language, such as Kurdish, that collectively form the state's infrastructure.

The Ministry and the Iraqi universities' websites underwent a number of amendments and updates at different times in the study period, but it is notable that many of the issues facing the websites (mentioned above) are still present, added to which are the broken, inaccurate links for different universities, which do not lead to the mentioned universities, due to modernization and renewal or even change in the university websites without an update to some of these links in the ministry's website.

Summarizing the finding of the above argument, the main point is that there are inconsistencies in language and expressions in English and Arabic that vary within and between both the institution and the Ministry websites. There is a lack of branding, of expressing the institution, making it difficult for Arabic-speakers and others to identify the institutions even before visitors to the sites can begin to use available resources. These inconsistencies affect many aspects of the institutions. One is the stability and identity of the institution. If the technical infrastructure seems too variable, users question the trustworthiness of the institution.

The Study Sample

As mentioned previously, the study sample included the entire population of the library websites of the Iraqi state universities that was identified from the Iraqi Ministry of Higher Education and Scientific Research website (Appendices 1 and 2). This study sample population included the entire list of nineteen Iraqi state universities listed in the Ministry's official website.

Given the table (55) in the previous chapter, it is obvious that the Iraqi state universities vary in their establishment dates. While there are universities with establishment dates that date back to the middle of the last century like University of Baghdad (1957), there are newly established universities that were established in the last few years like University of Misan and Al-Muthana University (2007). This reflects the fact that some universities possess wider experience than others (as we will see later) and naturally, should perform better than others because of their wide expertise and experience. This has been shown more clearly in the table (57) later, which shows that the newest two Iraqi universities are the universities that do not have library websites.

In terms of web presence, the study finds that not all Iraqi state universities' libraries had successful appearances on the Internet. It is necessary here to show that among the nineteen Iraqi state universities, two universities do not have a library website. These two universities are the newest established Iraqi state universities in our study sample. These two universities are University of Misan and Al-Muthana University. It should also be noted here that University of Karbala provides a link on its website that refers to the library, but this link is broken and leads nowhere. After investigating this issue directly, it has been found that the university has designed a website and included a link to the university library, but did not create a website for the library. The University of Karbala website has been investigated several times during the study period to

verify this issue, but throughout the whole study period no library website was found. Furthermore, Al-Nahrain University library website should be count as an article in the university website rather than an actual website.

The core components of services and features list and the LIS faculty member questionnaire results

The study investigated the core components of services and features offered by the Iraqi university libraries' websites and the literature's academic library websites in general, through a summary of what is available in hundreds of academic library websites in many geographical locations around the world. This list was presented to the Iraqi LIS faculty members in the questionnaire so they could rank the importance of providing the services and features in the Iraqi academic library websites and identify the most prominent and important ones that fit the particular case of Iraqi academic library sites. In considering the establishment of a typical Iraqi model from the Iraqi LIS professional point of view, it was notable that most of these services and features were highly ranked in the questionnaire. The overall mean rank of these services and features was about (4.56 of 5), which is very high. This ranking indicates the importance of these library services and features on one hand, and on the other, it indicates that the Iraqi LIS faculty members share the same views as the LIS scholars mentioned in the literature from many places around the world.

An overview of table (8) in the previous chapter indicates that none of the Iraqi LIS faculty members who participated in the questionnaire have ranked any of these services and features with (Of little importance: 1/5). Only one of the participants in that questionnaire ranked one of these services and features with (2/5), and that was the general Internet feature "Visitor Counter"

which is the lowest rated feature among those services and features as shown below. Most of the frequent modes for the ranks were (4 and 5 / 5). Included below is a table (table 56) of the services and features arranged in order of the means (or average) of the ranking of the most important to the less important of these library website services and features according to the assessment of Iraqi faculty members who participated in the questionnaire.

Table 56: The arrangement of Library websites' services and features according to the importance of their presence in the Iraqi academic libraries websites according to the average rating of the Iraqi LIS faculty members in the questionnaire		
No.	Websites Services and Features	Average of their rating
1.	Library OPAC	5
2.	Searching Library OPAC	5
3.	E-Resources	5
4.	Online Databases	4.98
5.	Library link on the 1st page of Institution	4.98
6.	Communication: Contact Us	4.86
7.	Ask a Librarian	4.82
8.	Home Page Search Engine	4.8
9.	About the Library	4.7
10.	New Acquisitions	4.68
11.	Interlibrary Loan	4.66
12.	Links to Main Institution	4.62
13.	Page Update Date	4.6
14.	Reserve Material	4.5
15.	Library News, Events	4.48
16.	Site Map	4.48
17.	Purchase Request	4.44
18.	FAQs	4.34
19.	External Links	4.28
20.	Interact with the Library: 2.0, RSS	4.12
21.	Alumni Services	3.92
22.	Job Opportunities	3.92
23.	Visitor Counter	3.76

Differences between the average assessment of the different services and features may be natural. The services and features that have been collected from the literature may represent the

core components of services and features that are provided by academic library websites, but they also include some of the most commonly used services and features in the different websites. These kinds of services and features represent different views, even among specialists. But it seems clear from the table (56) above that basic library services are the highest rated among the services and features mentioned (such as “Library OPAC,” “Searching Library OPAC,” “Online Databases,” and “E-Resources.”) These library services are a fact that this study takes into consideration, because we cannot evaluate and compare the Iraqi university libraries in terms of services and features provide by each of them without assessing these services and features in terms of the importance of their presence in the academic library websites from the viewpoint of Iraqis, particularly the LIS specialists themselves. This presence of services and features in academic library websites from the viewpoint of Iraqis assists in assessing the level of services provided by libraries' websites according to the importance of the services themselves (as will be addressed in the discussion and findings in the next paragraphs).

Although the participants in the LIS faculty members questionnaire differ in terms of the credentials and scientific titles in their backgrounds, and despite being from three different library schools (Mustansiriya, Mosel and Basra) in three geographic locations in different parts of the country, the participants' rank results indicate that there are no significant differences between the means (or Average) of the ranking for each of these library website services and features corresponding to the participants' academic credentials. (See statistical output tables 9 - 54 in the previous chapter).

Iraqi state universities' central library websites' services and features analysis

The services and features provided by the Iraqi state universities' library websites were analyzed to view what is currently available and to compare them with the core components of services and features that have been collected from the literature. The objective of this analysis is to provide these services and features in the Iraqi academic library websites according to the evaluation of the importance of having those services by the Iraqi LIS faculty members in responses to the questionnaire. This part of the findings helped to provide the answer for one of the research questions: What is the current state of the Iraqi state universities' library websites? Are they providing the core service and feature components that meet and correspond to the expectations of the Iraqi LIS faculty members?

Demonstrated in table (55) in this last chapter were the services and features that are provided by the Iraqi university libraries' websites, compared with the core components of services and features of the academic library websites that have been prepared from the literature. The Iraqi state universities' library websites varied in the services provided in terms of quantity and quality. Shown below is a table (57) of these Iraqi university libraries arranged according to the highest number of services and features that they provide in their websites from the list of the core components of services and features of the academic library websites. In addition, the table (57) shows the percentages of services and features they provide by these university library websites in terms of number.

Table 57: Study population of Iraqi State Universities arranged according to the highest number of services and features provided in their Library website

	<i>University Name</i>	<i>University Establishme nt Date</i>	<i>No. of Available Services and Features (Of 23)</i>	<i>Percentages of Services and Features available no.</i>	<i>Total Ranking points *</i>	<i>Percentages of Total Ranks Points</i>
1.	University of Baghdad	1957	15	65.22	70.67	67.34
2.	University of Technology	1/4/1975	14	60.87	65.82	62.72
3.	Iraqi University	1989	13	56.52	60.75	57.89
4.	University of Diyala	1998	12	52.17	56.39	53.74
5.	Kirkuk University	1 /17/2003	12	52.17	56.64	53.97
6.	University of Mosul	1967	11	47.83	49.21	46.89
7.	University of Al-Anbar	1987	11	47.83	51.94	49.49
8.	University of Kufa	1987	7	30.43	33.52	31.94
9.	University of Al-Qadisiyah	1987	7	30.43	32.98	31.43
10.	Wasit University	Jan /2003	7	30.43	33.52	31.94
11.	University of Mustansiriya	1963	7	30.34	32.28	30.76
12.	University of Basrah	1/4/1964	7	30.34	32.42	30.89
13.	University of Tikrit	23/12/1987	5	21.74	23.08	21.99
14.	Thi-Qar University	1/30/2002	5	21.74	23.94	22.81
15.	University of Babylon	1991	4	17.39	19.32	18.41
16.	Al-Nahrain University	1993	2	8.70	9.32	8.88
17.	Karbala University	2002	0	0.00	0	0.00
18.	University Of Misan	2007	0	0.00	0	0.00
19.	Al-Muthana University	2007	0	0.00	0	0.00

* The Total Ranking Points are the sum of the averages for the assessment of Iraqi LIS faculty members for library services and features. For example, the average rating of the Iraqi LIS faculty members for the OPAC service was five, so the university library website that provides OPAC service will get five points, and so on

Sorting Iraqi state university libraries' websites in the table (57) above based on the number of services and features provided by the sum of services and features is not enough to compare them because some of the services and features listed in the core components list that have been collected from literature also includes main and basic library services and features, and other services and features are commonly used in websites in general. It is very important, therefore, to compare the services and features based on how important they are to the Iraqi LIS faculty

members' assessment. When re-evaluating the list according to that guideline, the order of these university library websites has been changed as shown in the table (58).

Table 58: Study population of Iraqi state universities arranged according to the highest number of services and features provided in their library website multiplied by the Iraqi LIS faculty members' ranking points

	University Name	University Establishment Date	No. of Available Services and Features	Percentages of Services and Features available no.	Total Ranks Points*	Percentages of Total Ranks Points
1.	University of Baghdad	1957	15	65.22	70.67	67.34
2.	University of Technology	1/4/1975	14	60.87	65.82	62.72
3.	Iraqi University	1989	13	56.52	60.75	57.89
4.	Kirkuk University	1 /17/2003	12	52.17	56.64	53.97
5.	University of Diyala	1998	12	52.17	56.39	53.74
6.	University of Al-Anbar	1987	11	47.83	51.94	49.49
7.	University of Mosul	1967	11	47.83	49.21	46.89
8.	Wasit University	Jan. 2003	7	30.43	33.52	31.94
9.	University of Kufa	1987	7	30.43	33.52	31.94
10.	University of Al-Qadisiyah	1987	7	30.43	32.98	31.43
11.	University of Basrah	1/4/1964	7	30.34	32.42	30.89
12.	University of Mustansiriyah	1963	7	30.34	32.28	30.76
13.	Thi-Qar University	1/30/2002	5	21.74	23.94	22.81
14.	University of Tikrit	23/12/1987	5	21.74	23.08	21.99
15.	University of Babylon	1991	4	17.39	19.32	18.41
16.	Al-Nahrain University	1993	2	8.70	9.32	8.88
17.	Karbala University	2002	0	0.00	0	0.00
18.	University Of Misan	2007	0	0.00	0	0.00
19.	Al-Muthana University	2007	0	0.00	0	0.00

* The Total Ranks are the sum of the averages for the assessment of Iraqi LIS faculty members for each of these services and features. For example, the average rating of the Iraqi LIS faculty members for the OPAC service was is, so the university library website that provides OPAC service will receive five points, and so on.

The table (58) above shows that there are no changes in the top three universities' library ranks (Baghdad, Technology, and Iraqi Universities), which indicates that these university libraries' websites do better than the other Iraqi universities in terms of quality rather than quantity of the services and features that they provide, and that they try to provide better services

not in terms of numbers of services and features. We can also note that the ratio of their overall percentages of provided services and features according to the Iraqi LIS faculty member assessment rose more than the ratio of the number of services provided. This further indicates that these libraries were successful in providing more important services in terms of the Iraqi point of view. Additionally, some other libraries' ranks have been changed, such as Wasit University, Kirkuk, Al-Anbar, and Basrah rose one level in the ranking. However, other universities decreased one level in the order, including the universities of Diyala, Al-Qadisiyah, Mustansiriya, and Tikrit. Other universities have not changed their positions based on this assessment, including the Universities of Kufa, Babylon, and Al-Nahrain. Finally, the three universities that were at the end of this list did not change their positions because there were no assessments that might cause an ascent or descent in the order. These were the two universities of Misan and Al-Muthana (the universities that did not have library websites) as well as Karbala University, which provided a link for the library at the university website, but the link do not lead to anything or to a website that could be reached.

Looking at the two tables above (57 and 58) from another perspective, we notice that the establishment dates of the Iraqi universities have had a disparate impact on the level of services provided by libraries' sites. While the University of Baghdad (the oldest Iraqi university) stood in the first position in the list, the three newest established universities took the last three positions in the list. The establishment dates did not affect the standing of other universities' website services and features such as the university library websites of Mustansiriya, Basrah, and Mosul. This indicates that the history and the establishment dates of these universities and their years of experience have had no impact the development of these university libraries' websites.

There was some impact the library directors' credentials and the number of staff with LIS and computer credentials on the number of services and features provided in their library websites as it shown in table (59) below. It might be reasonable, but library websites of the university libraries whose directors have LIS credentials, and whose have LIS and computer credentials do somewhat better than other libraries. This might be very clear looking at Baghdad University, which tops the list. On the other hand, we find that some other libraries do not work well despite the fact that their directors have LIS credentials, and they have larger staff with LIS and computer credentials, such as the University of Mustansiriya's library website. This indicates that the quantity of specialists in LIS might not affect the level of the library services and the development of these libraries and their websites unless they also take into account the quality and level of experience in the field for their employees.

This matter may not apply to University of Diyala, but the fact that the assistant library director has a M.A. degree in LIS might have an impact on this issue.

Table 59: Study population of Iraqi State Universities showing the library directors' credentials and the number of staff with LIS and computers credentials, and arranged according to the highest number of services and features provided in their Library website

	University Name	Credential and the background of the Library Director	Employees with LIS and Computers credentials		No. of Available Services and Features (Of 23)	Percentages of Services and Features available no.	Total Ranking Points (of 104.94)	Percentages of Total Ranking Points
			Employees with LIS	Employees with Computers				
1.	University of Baghdad	M.A in LIS	34	7	15	65.22	70.67	67.34
2.	University of Technology	PhD. in LIS	12	4	14	60.87	65.82	62.72
3.	Iraqi University	PhD. in LIS	7	3	13	56.52	60.75	57.89
4.	University of Diyala	PhD. in Agriculture	2	0	12	52.17	56.39	53.74
5.	Kirkuk University	-	-	-	12	52.17	56.64	53.97
6.	University of Mosul	M.A in LIS	10	6	11	47.83	49.21	46.89
7.	University of Al-Anbar	PhD. in Arabic language	8	1	11	47.83	51.94	49.49
8.	University of Kufa	-	-	-	7	30.43	33.52	31.94
9.	University of Al-Qadisiyah	PhD. in Urban Planning	3	0	7	30.43	32.98	31.43
10.	Wasit University	High Diploma in LIS	5	1	7	30.43	33.52	47.43
11.	University of Mustansiriya	PhD. in LIS	21	3	7	30.34	32.28	30.76
12.	University of Basrah	PhD. in Arabic language	-	-	7	30.34	32.42	30.89
13.	University of Tikrit	M.A. in History	1	1	5	21.74	23.08	21.99
14.	Thi-Qar University	-	-	-	5	21.74	23.94	22.81
15.	University of Babylon	-	-	-	4	17.39	19.32	18.41
16.	Al-Nahrain University	High Diploma in LIS	1	2	2	8.70	9.32	8.88
17.	Karbala University	-	-	-	0	0.00	0	0.00
18.	University Of Misan	-	-	-	0	0.00	0	0.00
19.	Al-Muthana University	-	-	-	0	0.00	0	0.00
* The sign “-” is for the data that the study was unable to obtain and to include in this field of the table								

The library directors' surveys and interviews

As shown in the previous chapter, it was possible to interview eleven Iraqi state university library directors (or a representative of the administration) from the pool of the nineteen Iraqi state universities, and it was possible to obtain answers from twelve participants in the Iraqi university library directors' questionnaire from the entire population that was targeted in this study, which was nineteen library directors. This part of the discussion of the findings helped to provide the answer for the second research question: What issues face the development of an Iraqi-specific model for electronic academic resources?

Some of the data that have been collected in the survey were discussed in previous chapters in the study. Other data were intended to demystify and clarify some of the data provided by the survey, as well as to identify the problems and issues that most of the Iraqi university library websites experience in order to identify the main issues that prevent these libraries from providing more current and active services and features that fit the needs of the library websites' patrons, and to provide information for the development of an Iraqi-specific model for electronic educational resources.

For confidentiality reasons, and following the previously noted instructions of the IRB, identifiable data about library directors have been disguised. There will be no direct reference to any library director who has been interviewed, but I will discuss the main issues that impede the Iraqi universities from providing the important and basic information services and features in their library websites, as well as the issues that impact the development of an Iraqi-specific model for electronic academic resources. I will present anonymous quotes from some of the Iraqi

university library directors (or a representative from management) about these issues, referring to them as “Director #.”

The open-ended questions gave the directors a better way to explain the issues that face the Iraqi academic library websites, given with their current resources, and from their point of view and according to their positions as library directors. The library directors' surveys and interviews were intended to find out more about the issues and challenges that face the libraries in the study sample and impede them from offering more modern and more effective services on the library website, as well as to learn what kinds of issues they encounter in developing their library website. The library directors vary in their perspectives, but their assessments can be summed up with the following main points.

The issues facing the development of an Iraqi-specific model for electronic academic resources:

General circumstances in Iraq: The results of multiple wars, which have lasted for the past three decades in the history of Iraq, cast their shadows over all aspects of life, including universities and their libraries. According to one of the Iraqi libraries directors (Director #1) "These libraries have suffered from neglect and lack of attention throughout the years of war and the accompanying conditions". The general conditions of the country still place it in the circle of tension and conflict. Consequently, Iraqi universities and their libraries (among other education institutions) suffer from many brutal conditions. One of these conditions is the huge gap between Iraqi libraries and the rest of the libraries in the world, for example, the huge gap in the technology field and the use of information technologies in these libraries. As mentioned earlier in the literature, the emergence of the internet and websites is relatively new; the first Iraqi web

site on the Internet was established in April 1997. Iraqi websites expanded after the war in 2003 because of the increase of governmental and public information activities on one hand, and the lifting of restrictions on freedom of speech and use of the Internet on the other. Nevertheless, the Iraqi university libraries (among other Iraqi institutions) are still affected by these conditions. As noted by one of the Iraqi central library directors (Director #2), "The general circumstances in Iraq have a huge impact on many of the projects that we work on. For example, there are several activities we had planned to work on but we surprisingly noted that a large number of employees or participants in these activities were not attended to in the library in those days, because of the unstable security situation, which made the security forces close many of the main streets or entire residential areas without warning, or because of a bombing in certain geographic areas or other security breaches in the vicinity of the library location or some main streets that led to it, or the residential areas of staff or participants in those projects and activities. These situations make us reschedule a lot of them, and postpone the work in others for unknown periods." In the same context, Director #3 stated, "Because of the country's general conditions, we cannot control a lot of our programs and activities that we seek to accomplish, we cannot be confident of attendance of all staff to the library in all days, we cannot plan accurately for the activities or give a specific timetable for completion of most of our activities." Another library director (Director #4) noted that, "We suffered several times from losing Internet service, or [in implementing] the developments and updates that we were working on [for] the library website, due to the passage of security and military convoys carrying jamming devices that led to the interruption of Internet access... because the library is located on a main road for the passage of these convoys."

Strategic and fundamental issues: While many Iraqi libraries have suitable buildings in terms of size, location and design, which helps them to expand and increase services and

specialized activities they offer to their patrons, other university libraries still suffer from issues that relate to the building and its design, or to the availability of appropriate furniture.

The most important and fundamental issue, is that there are long hours of unscheduled service interruption and loss of electrical power. There are power losses for many hours a day and for long hours of interruption without warning, and there is a lack of available alternatives. Many library directors stressed the importance of this basic problem, and its direct impact on all activities of the library, especially the electronic services offered by the library online and offline. In the words of one of the library directors (Director #5), "One of the most prominent obstacles to providing many of our electronic services is a matter of power outages, [which prevent] our patrons from using our mechanical catalog (OPAC) in the library, the Internet [access] that we offer through our library website [or from using] other electronic materials and online and offline services."

Design and management of the library website issue: Given the appendices of the outputs for data that came from the questionnaires and the interviews with the Iraqi library directors (appendices 8 to 19), we can note that many of these directors pointed to the fact that it was the university (or a specialized committee at the university) and not the library, who designed the library website. They also mentioned that the university (or a specialized committee at the university) supervises and updates the library website when needed, which does not give the library permission to add more services and features to the library website, or to try to make changes in it. The library has to make additions and changes through a committee at the university rather than directly when needed. Some library directors mentioned in their interview that they have to go through long, routine procedures to make any changes or updates. According to one of the Iraqi library directors (Director #6), "The members of the committee supervising

the university website do not understand the nature of the library website and the services expected by the patrons. One day I asked one of the members of this committee to give us the power to update the library website, or its management. The committee member said that this is the committee's duty only, and that he does not understand the link between the library and the internet and the university website, except that the university website may mention the library as one of the university institutions, and that this is all that they expect from the library website." A few others mentioned that they have full authority for the library website, which gives them no excuse for not providing the services and feature that their patrons need and expect.

Technical equipments issues: A number of libraries suffer because they do not possess appropriate and modern equipment that is suitable to provide better services in their library website. One of the libraries directors (Director #7) stated, "Many computers and other technical equipment that we have in the library are old and slow. They do not allow us a lot of time to use them to provide some basic technical services that we hope to provide and make available to the library patrons. Furthermore, most of the new technical equipment that was supplied to us is of poorly made quality and has had many problems since it arrived."

General ignorance of the LIS field, and the library and the services they provide: Some library directors complained from general ignorance of the LIS field the library and services it provides through senior administration and the decision makers of some universities. One of the Library directors (Director #7) noted that "Some higher administration and decision makers at the university do not have enough knowledge about the library and the services it provides to its patrons. Whenever we asked for more funding for the library and an increase in the budget to provide more new services, the university allocates a budget for the library to purchase new

books and resources only. The only thing that they think the library will possibly need (except the furniture) is books and resources.”

There is some ignorance of the LIS field by the patrons as well. A few library directors mentioned that patrons are not aware of the library and what it can provide traditionally or electronically. A number of them noted that despite all their efforts to educate students about the library and its importance, and about what they can offer to the patrons, a lot of students do not know much about it. Furthermore, some of them did not know that they can take advantage of the library and use some of the services that the library provides through its website. A libraries director (Director #8) noted that "Despite all our efforts to educate the students and the other library patrons about the importance of the library, [including all the] ways that we used to encourage students to visit the library website through announcements, flyers, and other publications, we noticed that the number of visitors is still very low." This issue might be due to poor advertising about these libraries and their services, and the lack of success of libraries to reach their patrons and communicate with them in convenient and appropriate ways. But it might also indicate and reflect the weak education about libraries and their importance within the community of the study sample. There are also some issues related to the library directors. They have a lack of experience in dealing with library websites and website services and features that they are supposed to provide to their patrons. Instead of providing their patrons with access to their collections, E-resources and innovative services and features, some Iraqi library websites offer general theoretical information from literature on the concept of the library, its definition, goals, and administrative units.

Policies and trends issues: Many library directors noted the issue of changing the policies and trends whenever the administrations in universities (and even libraries themselves) were

changed, and the issue of the lack of a consistent or a fixed policy for library work, which often makes it very hard to continue new projects, especially when new administrations begin in the middle of a library project. Therefore, we may notice the confusion and the lack of unified policies for the services and features that are provided by those universities' library websites, because they came as irregular, individual attempts, and they vary according to the different Iraqi universities, their size, and potential, as well as the background of the libraries' directors (whether they were LIS specialists or not), their staff backgrounds, the library potential in general, and their physical, human and technical capabilities.

Weak technical experience by library directors and staff: Returning to the output of the library directors' surveys and interviews data in table (59) we note that a number of universities lack staff with LIS backgrounds, as well as the fact that many of these libraries' directors are not LIS specialists. We also can notice that there are few specialists with computer and other information technology backgrounds – those who can help in creating, maintaining, and developing the library website and its services. We might also note that some of the libraries, like those at the University of Baghdad, University of Technology, and Iraqi University, have library directors who are LIS specialist, and a large number of their staff has LIS backgrounds. They are doing better than other libraries. However, others like University of Mustansiriya, whose library director is a LIS specialist and where a large number of their staff has LIS backgrounds as well, are not doing as well as expected. This might indicate that these libraries might consider focusing on the quality, not just the quantity of their specialized staff when recruiting their staff.

Using available electronic collections: These libraries are not taking advantage of the large amount of digital resources that they have, or include these resources in their library websites. Most of the university libraries in the study sample have huge collections of diverse digital

material as noted by many of these libraries' directors. They have noted in the questionnaire and interview that they have large digital material collections (see appendices 8 to 19). But regrettably they are not using them correctly by providing them for their patrons through the library websites.

One of the central libraries' directors (Director 9) mentioned "We have a wide range of digital resources, but it is very difficult to deal with this collection because we do not have the library staff with fair experience to deal with it. In addition to that, we do not possess the appropriate technologies such as the hardware or the software to deal with them." Another library director (Director 10) noted "We are worried about the lack of laws that protect the intellectual property rights in Iraq, as well as not activating the laws that deals with the authors and publishers copy rights and apply them correctly, which puts us at confusion on the ability of providing these materials in the library website."

Another issue has been noted in this matter. Most of the Iraqi state universities' libraries are taking advantages from the Iraq Virtual Science Library (IVSL) project to improve their library websites resources. They should exploit the great capabilities offered by the IVSL project, and investment the potentials of its huge e-resources and databases that offered free of charge for the Iraqi academics. It is very surprising that the link for this project is available on the home pages of all Iraqi state university websites in the study sample. But very limited numbers of these libraries were including it within the library websites. The libraries should take into consideration including the direct links to the IVSL within the library websites themselves not within the main university websites only.

Furthermore, there is also **Poor cooperation** between the libraries at the different universities, and between them and other public or special libraries, as well as **Weak technical support** by the professional associations and other professional unions for these libraries, such as Iraqi Association of Library and Information, Iraqi Information Technology, Iraqi Computer Associations, and other professional associations and unions. In addition, there are **Budget issues**, including restricted budgets and limited budgets for buying books and other resources, as noted previously.

Suggested model for the Iraqi academic library website services and features:

After reviewing the core service and feature components that were provided by academic library websites in the literature from around the world, analyzing the current state of the Iraqi state universities' library websites and showing which of the core service and feature components they provide, presenting these service and feature components that meet and correspond to the expectations of the Iraqi LIS faculty members, and finally showing the issues that face the development of an Iraqi-specific model for electronic academic resources, the study has devised a suggested model for the Iraqi academic library websites' services and features. This model follows the core service and feature components that were collected from the literature and corresponding with the views and expectations of the Iraqi LIS faculty members. Iraqi University libraries may consider providing the core service and feature components in their websites (if they are not already provided) that are presented in the model below. This model can be divided into three categories, which are:

Library services and features: These services and features are the most prominent and most pronounced services in the academic libraries' websites. They are specialized professional library services that are related directly to the libraries and their traditional services. They are arranged below according to the importance of their presence in the Iraqi academic libraries' websites from the point of view of Iraqi LIS faculty members. These services and features are shown in the table (10) below:

<i>Table 60: The Library services and features in the suggested model for the Iraqi academic library website</i>		
<i>No.</i>	<i>Websites Services and Features</i>	<i>Average rating by the Iraqi LIS faculty members (Of 5.00)</i>
1.	Library OPAC: Online public access catalog	5.00
2.	The ability to search the Library OPAC in several ways: the author, subject, title, keyword ... Etc.	5.00
3.	E-Resources and other textual contents (eBooks, e-journals/periodicals, etc.)	5.00
4.	Searching Online Databases	4.98
5.	Ask a librarian: answer reference questions, request reference assistance through the library's Web site, mail, phone, SMS.	4.82
6.	New acquisitions	4.68
7.	Interlibrary loan services: Request forms, Book renewal form, the circulation policy and the interlibrary loan policy.	4.66
8.	Form to place material on reserve, Description of holdings materials	4.50
9.	Purchase request form: Users can submit book purchase requests and suggestions.	4.44
10.	External Links to other libraries or other institutions, their OPACs and services, etc.	4.28

Ordinary internet website services and features: These services and features may not be specialized professional library services, but they are very important aspects related to electronic services. They are important Internet services that need to be provided by websites in general.

They are mentioned in the literature as key services and features that were offered by academic libraries from different geographical locations around the world. Therefore, Iraqi academic libraries may consider providing these services and features in their websites. These services and features are:

<i>Table 61: The Ordinary internet website services and features in the suggested model for the Iraqi academic library website</i>		
<i>No.</i>	<i>Websites Services and Features</i>	<i>Average rating by the Iraqi LIS faculty members (Of 5.00)</i>
1.	Library home page link on the first page of their parent institution's home page, and accessible from the parent institution's home page with a direct link	4.98
2.	Communication: Contact email link, Mailing address of library, Phone number, and other Contact Information	4.86
3.	Home page search engine feature.	4.80
4.	Links to the main institution, and other institutions	4.62
5.	Page update date: Showing the date of the last update	4.60
6.	Site map, or other users' guides	4.48
7.	Frequently Asked Questions (FAQs)	4.34
8.	Visitor counter	3.76

Other general websites services and features: These services and features are additional services in the academic libraries' websites. They are essential services as well, because some of them provide very important information about the library and its activities that many patrons may need. Others may matter to certain groups of the library patrons, but not all. These services and features are:

Table 62: Other general websites services and features in the suggested model for the Iraqi academic library website

No.	<i>Websites Services and Features</i>	<i>Average rating by the Iraqi LIS faculty members (Of 5.00)</i>
1.	About the library: Library building, hours, Physical address, Description of departments, Services, Staff directory, Mission statement.	4.70
2.	Library News: Announcements, Events, Activities.	4.48
3.	The ability to interact with the library: 2.0 applications, Social networking sites, and RSS feeds.	4.12
4.	Alumni or former students' services	3.92
5.	Employment and Job opportunities	3.92

Conclusions

After reviewing all aspects of the study subjects of Iraqi state university library websites, and discussing the findings and results reached by the study through the various search methods, a summary of the most significant conclusions of the study have been developed. These conclusions are summarized below.

The Iraqi Ministry of Higher Education website:

The Iraqi Ministry of Higher Education website has many issues that will be enumerated over the next few paragraphs. If the goal is to create sites and services that come closer to realizing the purpose of the sites, there are a number of suggestions based on this project. The Ministry may consider check the information offered through the website, correct the language errors that contain different formulas for Arabic and English website interfaces, and standardized the information and the formula for the names of the state universities listed. In addition correct some of the data about these state universities and unify the official data provided for the public in all official channels. There are inconsistencies in language and expressions in English and Arabic within and between both the institutional and the Ministry websites. There is a lack of branding, of expressing the institution, making it difficult for Arabic-speakers and others to identify the institutions even before the visitors to the sites can begin to use available resources. These inconsistencies affect many aspects of the institutions. One is the stability and identity of the institution. If the technical infrastructure seems too variable, users question the trustworthiness of the institution. The Ministry should update their website more often, including the notation for the accurate date for all updates, and follow the changes and the updates made by the universities for their URL links and other data.

Core components of services and features in Academic library websites

The study prepared a list of the core components of services and features offered by general academic library websites in the professional literature and by Iraqi university library websites. This list was presented to the Iraqi LIS faculty members in the questionnaire so that they could rank the services and features provided in the Iraqi academic library websites and determine the most prominent and important services and features for Iraqi academic websites. It was notable that most of these services and features were highly ranked in the Iraqi LIS faculty members' questionnaire. The overall mean of these service and feature ranks was 4.56 of 5, which is very high, and most of the frequent modes for the ranks were 4 and 5 out of 5, which attests to the importance of these library services and features collected from the literature on one hand and, on the other hand, it indicates that the Iraqi LIS faculty members share the same views that the LIS scholars mentioned in the international literature.

There were differences between the average assessment of the different services and features. The services and features collected from literature represent the core components that are provided by international academic library websites, and it also includes some of the most commonly used services and features in the Iraqi websites. It seems clear that the basic library services are the highest rated among the services and features mentioned (such as Library OPAC, Searching Library OPAC, Online Databases, and E-Resources). The similarity between the Iraqi point of view and that of international academic websites was one of the fundamentals that this study took into consideration.

Although the participants in the LIS faculty members questionnaire differ in terms of their credentials and degrees and despite these faculty members representing three different library

schools (Mustansiriya, Mosel and Basra) in three geographic locations in different parts of the country, the participants' rank results indicate that there are no significant differences between the means (or Average) of the ranking for each of these library website services and features.

Iraqi state university libraries' websites, their services and features

Establishing Iraqi state university library websites is not enough, unless these libraries will develop their websites and their services and features, update them constantly, and add more modern and developed services and features in their development plans, especially those services and features that suit the needs of their patrons and the objectives of the specific institutions where the libraries are located.

For the web presence, the study finds that not all Iraqi state university libraries have a web presence. Among the nineteen Iraqi state universities, two universities do not have a library website. These two universities (University of Misan and Al-Muthana University) are the newest established Iraqi state universities in our study sample. It should also be noted here that University of Karbala provides a link on its website that refers to the library, but this link is broken and leads nowhere. After investigating this issue directly, it was determined that the university had designed the site and included a link to the university library, but did not create a website for the library. The university of Karbala website was investigated several times during the study period to verify this issue, but the link was not active throughout the whole study period. Furthermore, Al-Nahrain University library website should be counted as an article in the university's website rather than an actual website.

In general, the Iraqi state university library websites were surprisingly deficient in the services and features they provide. They vary in terms of providing services and features on their libraries' websites. Some of these libraries offer a fair number of services, according to the list of services and features that have been collected from the literature, and that fact represented the views of Iraqi LIS faculty members, such as University of Baghdad library website which has fifteen of the twenty-three services and features on our list and University of Technology, which has fourteen of the twenty-three services and features. However, other libraries' websites provide a very limited number of these services and features, such as Al-Nahrain University which has only two of the twenty-three services and features on our list, University of Babylon that has four, and Thi-Qar University and University of Tikrit which have five of these services and features. These disparities are affected by several factors. One of the factors is a correlation between providing more services and features in the library websites when the library directors have LIS credentials and degrees and when the number of staff with LIS and computer credentials on the library staff is high. Baghdad, Iraqi, and Technology Universities have the best library websites among the study sample. Their library directors have graduate credentials in LIS and a good number of their staffs have LIS credentials. There were some exceptions (as we have seen in the Mustansiriyah University library website) which may indicate that these libraries consider their employees' knowledge and they consider quality as well as quantity in choosing their staff members. The library has a staff that is sufficient in size and quality to provide the required library website services and features that meet the needs and ambitions of their patrons. The library staff should have the capacity to establish, provide, maintain, and develop these library websites' services and features. Other Iraqi state university library websites need

improvement in terms of the quality of these services and features as well as the quantity of the numbers of these services and features from the perspective of their patrons.

The establishment dates of the Iraqi universities are another factor that has had a disparate impact on the level of services provided by libraries sites. Some universities, such as the University of Baghdad (the oldest Iraqi universities), stood in the first position on the list and the three newest established universities took the last three positions on the list. The establishment dates did not affect the level of other universities' website services and features, such as the university library websites of Mustansiriya, Basrah, and Mosul. This indicates that the history and the establishment dates of these universities and their years of experience did not necessarily impact the development of all of these university library websites in the same manner.

The issues facing the Iraqi university libraries' websites that prevent them from developing an Iraqi-specific model for electronic academic resources

Given the surveys and interviews with the library directors in our sample, and with the rest of the data that have been collected and analyzed in the study, the most prominent issues facing the development of an Iraqi-specific model for electronic academic resources were determined. These issues can be summarized by the following issues.

General circumstances in Iraq: Multiple wars that have lasted for the past three decades of Iraqi history cast their shadows over all aspects of life, including universities and their libraries. These circumstances left a huge gap between Iraqi libraries and the rest of the libraries in the world. The Iraqi library websites generally expanded after the war in 2003, but they are still trying to catch up with potential peer institutions in other countries.

Strategic and fundamental issues: Some university libraries suffer from issues related to the building and its design. The most important issue is that there are long hours of electrical service interruption and unscheduled power losses.

Design and management of the library website issue: Many of the Iraqi university libraries' websites were designed by a specialized committee of the university and not by the libraries themselves. Furthermore, the university (or a specialized committee at the university) supervises and updates the library website when needed, which does not give some of these libraries permission to add more services and features to the library website, or to make changes in it. The library has to do this through the committee at the university when needed, and they have to go through long, routine procedures to make changes or updates. Other libraries have full authority over the library website, which gives them no excuse for not providing the services and features that their patrons need and expect.

Technical equipments issues: A number of libraries suffer because they do not have appropriate and modern equipment that is suitable for providing better services in their library website. Furthermore, most of the new technical equipment that is supplied to the libraries is poorly made and prone to problems.

General ignorance of the LIS field, and the library and services they provide: Some library directors complain out of general ignorance of the LIS field and the library and the services provided by the senior administration and the decision makers of some universities. There is also ignorance of the LIS field by some of the patrons. This may reflect the weak education provided about libraries and their importance within the community of the study sample. There are also issues related to the library directors' LIS knowledge, which is indicated

by a lack of experience in dealing with library websites and with library website services and features that libraries are supposed to provide for their patrons. So instead of providing their patrons with access to their collections, E-resources and more innovative services and features, some Iraqi library websites offer general theoretical information from literature on the concept of the library, its definition, goals, and administrative units.

Policies and trends issues: Iraqi university libraries experience the issue of changing policies and trends whenever the Ministry, university administration, and even library administrations change. There is a lack of consistent policies for library work, which often makes it very hard to continue new projects, especially when new administrations begin in the middle of a project. Therefore, there is confusion and lack of unified policies for the services and features that are provided by those university libraries' websites, because they began as irregular, individual attempts and they vary according to the different Iraqi universities, their size and potential, as well as the background of the library directors (whether they were LIS specialists or not), the backgrounds of their staff, the library potential in general, and the physical, human and technical capabilities.

Weak technical experience by library directors and staff: A number of Iraqi university libraries have staff without LIS backgrounds, as well as the fact that many of these libraries' directors are not LIS specialists. There are few specialists in computer and other information technology backgrounds who can help in creating, maintaining, and developing the library website and its services. Therefore, the libraries with library directors who are LIS specialist and that have a large number of their staff with LIS backgrounds, such as University of Baghdad, University of Technology, and Iraqi University, are doing better than other libraries. However, other institutions like University of Mustansiriyah whose library director is an LIS specialist and

has a fine number of staff with LIS backgrounds as well, the University of Mustansiriya library seems not to be doing as well as expected. This might indicate that these libraries should consider focusing on the quality as well as the quantity of their specialists when recruiting their staff.

Poor cooperation: There is poor cooperation between the libraries in the different universities, and between them and other public or special libraries.

Weak technical support by the professional associations: There is weak technical support by the professional associations and other professional unions for these libraries, such as Iraqi Association of Library and Information, Iraqi Information Technology, Iraqi Computer Associations, and other professional associations and unions.

Budget issues: Some libraries experience budget issues, such as restricted budgets and limited budgets in specific fields for buying books and other resources.

Suggested model for the Iraqi academic library website services and features:

The study was able to develop an Iraqi-specific model for electronic educational resources that follows the list of the core components of services and features in the academic library websites that have been prepared from the literature. This list met and corresponded to the expectations of the Iraqi LIS faculty members. The Iraqi state university libraries' websites might consider using this model and providing the core service and feature components (if they were not already provided), or at least the most important services according to the Iraqi LIS faculty members rating.

The study has devised this suggested model for the Iraqi academic library website services and features after reviewing the core service and feature components that were provided by academic library websites from the international literature, analyzing the current condition of the Iraqi state university library websites, showing which of the core service and feature components they provide in their websites, and presenting the service and feature components that meet the specialized views and personal opinions of the Iraqi LIS faculty members and correspond to their expectations.

Finally, it is important to mention here that the Ministry of Higher Education and Scientific Research may consider establishing and developing a top-down policy, which may affect developing the universities and their websites. The Ministry may also consider developing a model that the universities can follow to provide official data and information for their users, and encourage the universities to develop their libraries and invest in their libraries' websites to provide more current services and features for their patrons.

Further Research: A suggested study for the other issues and solutions for Iraqi Academic libraries' websites

After studying Iraqi university libraries' websites in this study, and follow-up of previous studies in the literature on the subject, I found that there are other additional problems afflicting those libraries' websites which are the problems of the websites usability. But thought to postpone this study to be conducted after the completion of this study, hoping that the Iraqi academic libraries will use the recommendations that come out of this study, and they will do the required adjustment to their websites, adding the basic services and features that the providing which were presented in this study, which took the opinions, expectations, and the visions of Iraqi LIS specialists about the importance of providing these services and features in the Iraqi academic libraries' websites.

Usability of Academic library websites

Generally, academic libraries have a huge number of information resources in digital formats such as online public access catalogs (OPACs), books, periodicals, photos, manuscripts and databases. What is overlooked by a lot of libraries, because they think they already know the required services, is how to determine if the services and features offered by those libraries' websites are adequate to meet the needs of the regular and potential patrons of those libraries and how easily their patrons can retrieve the information that they are looking for in their websites.

Norlin and Winters (2002, p. viii) raised one of this common problem that appears in the libraries' website design when they mentioned that "The problem with library web site is that libraries often have adopted a [We know best] philosophy when designing them. Libraries commonly organize their web site like they organize the library, in a very detailed manner and

with an endless amount of information." We know that library websites that have been created by the librarians are not that common, but in most cases, the librarians are the ones who give the outlines of their library websites to the third party vendors. This issue again reminds us of one of Ranganathan's five laws of library science (Ranganathan, 1931), which is "Save the time of the reader," and of one of Noruzi's (2004) five laws of the web, which says "Save the time of the user."

Nielsen (1999) indicates that people do not come to the web for experience only; they come for information. Later on Poock and Lefond (2003) pointed out that prospective students probably will leave the website if they cannot find the information they desire within three mouse clicks. Clayton (2003, p .1, pg. 3) also discussed this issue; he noted "Eight seconds on a college website is more typical for prospective applicants, experts say. If they don't make a snap connection, they jump."

In addition to the issues facing university libraries' websites, that have already been mentioned, there are some more common issues that affect the academic library websites and the services they provide to their patrons. One of these common and important issues is usability and design issues.

The current study took into consideration examine the question of usability for the study population as a prospective study that can be conducted after this study later as a subsequent study. Include here, a few studies that deal with academic library websites, to give an idea for a subsequent, complementary study in the future. I will try to shed light on some of the interesting studies that are in the focus of this study, and from which Iraqi academic libraries may benefit.

Nielsen (1994, p. 165) defines usability testing as “a technique used to evaluate a product by testing it on users. This can be seen as an irreplaceable usability practice, since it gives direct input on how real users use the system.” Many scholars have conducted studies and usability tests in the field of academic library websites and their electronic resources. McGillis and Toms (2001) tried to use the usability study implications of the Memorial University of Newfoundland library’s website to design a library website; they were trying to assess the usability of an academic library website and to better understand how users complete typical tasks using one. Battleson, Booth, and Weintrop (2001) reviewed major usability principles and explored the application of formal usability testing for the University at Buffalo, the State University of New York, libraries’ website, describing the activities of setting the goals, designing the test, and evaluating the results.

Norlin and Winters (2002, p. viii) raised an important question for the libraries when they asked "Do you know if your library customers are finding the information on your library web site, or are they giving up in frustration?" VandeCreek (2005) raised similar questions when she addressed some issues such as how much of the patrons' struggling or unsuccessful attempts at using the library website are due to poor or weak website design, and how much struggling could more fairly be attributed to lack of information literacy skills. Cobus, Dent, and Ondrusek (2005) demonstrated some issues about usability testing methodologies when they showed how twenty-eight users involved in a usability study designed to test the Hunter College Libraries' website helped to redesign it.

Letnikova (2004) dealt with the usability testing of academic library websites from another angle. She demonstrated a selective annotated bibliography of books, journal articles, and

electronic resources relating to the usability assessment or testing of the academic library website.

There are also studies that have dealt with the issue of online public access catalogs (OPACs) in the academic libraries. Chisman, Diller, and Walbridge (1999) studied the OPAC issue by conducting a usability test study for the Washington State University library's online catalog. Chisman, Diller, and Walbridge showed how a task force had used the test findings to recommend solutions that led to the development of the library's (OPAC) system. Sadler (2009) conducted an initial usability test on an open source OPAC system called "Blacklight." She provided an overview of the software, and discussed the reasons why University of Virginia decided to create the Blacklight project, rationale behind design decisions, and the technologies used.

Others conducted usability studies on the navigation and search systems on the academic websites, such as Alkindi and Bouazza (2010) who conducted a study to evaluate the navigation and search systems on two academic websites (Dhofar in Oman and Monash in Australia) and to compare of these websites with Google.

Some researchers conducted usability tests on the digital libraries and their services, such as Jeng (2005) who reviews how usability has been defined in the context of the digital library, what methods have been applied, and how those methods are applicable in other libraries. Covey (2002), offers a survey of the methods that are being deployed at leading digital libraries to assess the use and usability of their online collections and services.

Other scholars conduct comparative usability studies on the libraries' websites (which to some extent is similar to what this paper is trying to do). According to Brinck, Gergle, and Wood

(2001) comparative usability evaluation of websites that addresses similar user needs can provide valuable feedback in order to choose the best designed web system. Ongus, Kemparaju, and Nyamboga (2006) have conducted an evaluation for the university websites that target English speaking users and they demonstrated a comparative analysis for the data that was collected from selected universities' websites in developed and developing countries.

Some others conducted competitive usability testing, such as Sapa (2005) who conducted a study of the contents and usability of twenty-five Polish and twenty-five American academic library websites. Thomsett-Scott (2005) conducted a usability study on the library's website of University of North Texas, in which he chose three other academic library websites to compare the usefulness and challenges of performing competitive usability as part of a home-page review process. Later on, Thomsett-Scott (2007) published another study on employing competitive usability in a study of online public access catalogs and Vasantha & Harinarayana (2008) analyzed the usability features of thirty of the top science universities libraries' websites from around the world for their design features.

To date, there are only two papers about usability laboratories and usability tests in the Iraqi literature (one of them is in press). In the first paper, Khairi (2011) discussed usability laboratories in general, studying the Graduate School of Library and Information Science (GSLIS) usability laboratory at Simmons College in Boston, MA, USA as an example. This study is a discussion of the possibility of establishing such laboratories in Iraq and how that initiative will bring benefits to Iraqi libraries and LIS schools. In the second paper, Azzuhairi & Khairi (2012) tested and evaluated a sample of four Iraqi Ministries' websites. The paper conducted usability tests on the websites, and the collected data revealed that there are many

issues according to usability guidelines that have been mentioned in several studies addressed in the literature review part of the study.

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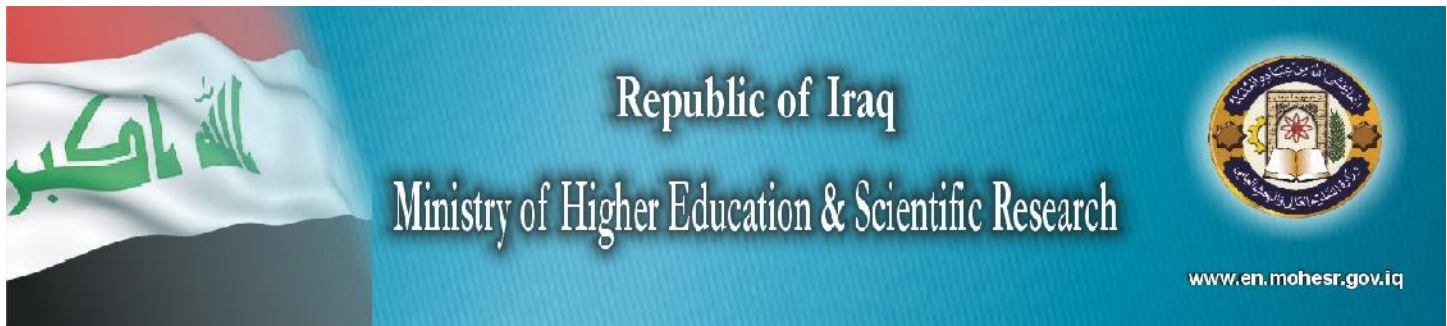
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Appendix 1: Iraqi State Universities List in the Ministry Website in English



- Iraq to Participate in Renewable Energy Conference
- Iraqi Universities Discusses The Development of Curricula
- Kirkuk University Cooperat



Ministry in Brief

Deputies

Ministry Departments

State Universities

Commissions & Research Centers

Iraqi Cultural Departments

Innovation & Creativity Award

Site Search






Other Website Directory

- General Secretariat for the Council Ministers
- Prime Ministers
- Iraqi Presidency
- Ministry of Foreign affairs

All Links

Weather

Baghdad Low 19°C Hi 37°C	 Clear
Mosul Low 16°C Hi 33°C	 Clear
Al Basrah Low 20°C Hi 39°C	 Clear

All Cities

State Universities

The following Universities are the state universities connected directly and run by the Ministry of Higher Education and Scientific Research.

1. University of Baghdad.
2. University of Mousel.
3. University of Basrah.
4. University of Mustanseriya.
5. University of Technology.
6. University of Al-Nahrain.
7. University of Al-Anbar.
8. University of Karbala.
9. University of Wassit.
10. University of Deyala
11. University of Al-Qadisiya.
12. University of Al-Ta'ameem.
13. University of Kufa.
14. University of Thi-Qar.
15. University of Tikrit.
16. University of Babylon.
17. Islamic University.
18. University of Al-Muthanna.
19. University of Maysan.

عربي

His Excellency's Curriculum Vitae



Minister's Statement

Private Colleges



Last Update & Selected Times


Last Updated: 15/10/2012

Hijri: 1433/12/01
Gregorian: 16/10/2012
GMT: 05:00
Baghdad: 08:00

Site Visitor

Currently On line: 35
No of Visitor: 46373

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Y^à•ã^Á ÁOEæææ



www.mohesr.gov.iq

جمهورية العراق

وزارة التعليم العالي والبحث العلمي

Ministry of Higher Education & Scientific Research



الحكومة



القبول المركزي لطلبة العام الدراسي ٢٠١٢-٢٠١٣ والذين لم يتقدموا بملفهم وقياسهم المركزي بعد إضافة درجة اللغة الصائفة

اسماء المقبولين ضمن قناتة التميزين للعام الدراسي ٢٠١٣-٢٠١٢

اسماء التميزين ضمن قناتة ذوي الشذوذ ٢٠١٢-٢٠١٣

نتائج القبول المركزي للعام الدراسي ٢٠١٢-٢٠١٣

الجامعات الحكومية

الموقع الالكتروني	سنة التأسيس	اسم الجامعة المعترف بها ومدرجة في دليل الطلاب للعام 2012 / 2011	ن
www.uobaghdad.edu.iq	1958	جامعة بغداد	1
www.uomustansiriyah.edu.iq	1963	الجامعة المستنصرية	2
www.uobasrah.edu.iq	1967	جامعة البصرة	3
www.uomosul.edu.iq	1967	جامعة الموصل	4
www.uotechnology.edu.iq	1975	الجامعة التكنولوجية	5
www.uokufa.edu.iq	1987	جامعة الكوفة	6
www.tikrituniversity.edu.iq	1987	جامعة تكريت	7
www.qadissun.edu.iq	1987	جامعة القادسية	8
www.uoanbar.edu.iq	1987	جامعة الانبار	9
www.iubaghdad.edu.iq	1989	الجامعة العراقية	10
www.uobabylon.edu.iq	1991	جامعة بابل	11
www.nahrainuniv.edu.iq	1993	جامعة النهرين	12
www.uodiyala.edu.iq	1998	جامعة ديالى	13
www.uokerbala.edu.iq	2002	جامعة كربلاء	14
www.thiqruni.org/thi_qar	2002	جامعة ذي قار	15
www.uokirkuk.edu.iq	2003	جامعة كركوك	16
www.uowasit.edu.iq	2003	جامعة واسط	17
http://www.uomisan.edu.iq	2007	جامعة ميسان	18
www.almuthannainiv.org	2007	جامعة المنذر	19

جامعات اقليم كردستان العراق

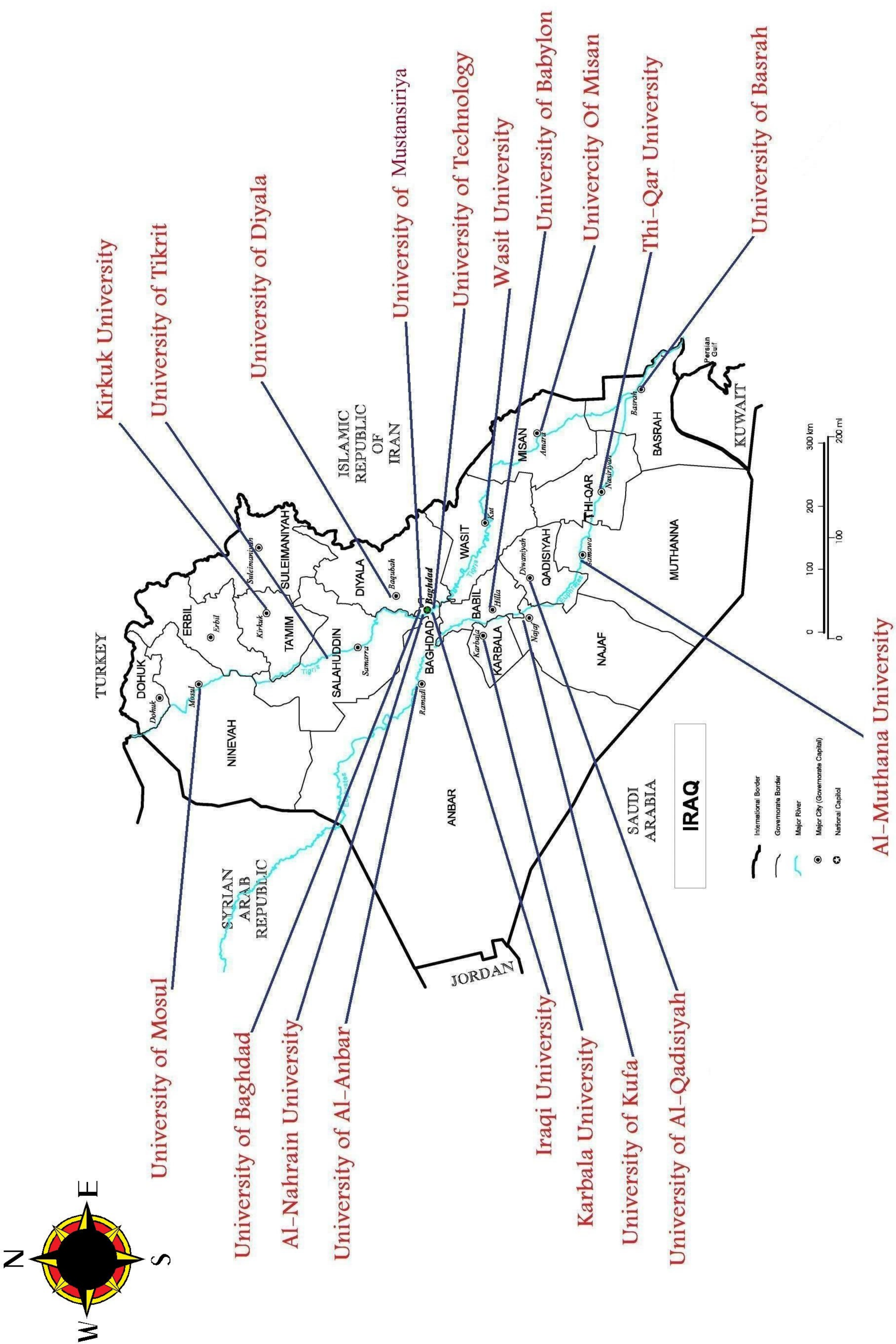
English



كلية السيد الهزيب



Appendix 3 : Iraqi Universities Map : Showing their distribution in the Iraqi provinces



Appendix 4: Iraqi State University Central Library Directors Survey

Greeting "Peace be upon you and God's mercy and blessings"

Sir / Madam; the honorable director of the Central Library (or his representative):

I am asking for your kind and generous help please, to give me some general information and data (or as much data as possible) about your university's central library, for the purpose of using these data (or any part of it) in my PhD study on the Iraqi state universities libraries' websites.

Please accept my sincere thanks and appreciation for your kind assistance and support for my study.

Yours sincerely;

Abdulateef Hashim Khairi

Department of Library and Information / Mustansiriya University

Baghdad, Iraq

PhD. student in

GSLIS at Simmons College

Boston, MA, USA

.....

- 1) The library name (the Central Library of the University of ...):
- 2) The library building site at the university (Please select the appropriate answer):
 - a. Within a stand-alone building on campus
 - b. Within another building (provide the name of the building please)
- 3) The date the University was established (provide a year only if you do not have the full date):

Appendix 4: Iraqi State University Central Library Directors Survey

- 4) The date the Central Library was established (if it was not the same date as the date for the establishment of the university):
- 5) Library building size (approximate size, if you do not have the exact size):
- 6) The number of traditional library materials available in your library according to the latest statistics (or an approximate number if you do not have the exact number):
- 7) The number of digital materials available in your library, if any, according to the latest statistics (or an approximate number if you do not have the exact number):
- 8) Does the library have a website?
- 9) Date the library created a university website on the Internet for the first time (if any)?
- 10) If the library has a website on the Internet, is it (please select the appropriate answer):
 - a. Within the university's official website on the Internet
 - b. An independent, special library website on the Internet (please provide the URL):
- 11) Academic degree(s) and specialty of the Central Library Director:
- 12) Academic degree(s) and specialty of the members of the Central Library staff (please include the data in the table below):

No.	Academic Degree	Specialty	Number for each specialty
1.	Ph.D.		
2.	Masters		

Appendix 4: Iraqi State University Central Library Directors Survey

3.	Higher Diploma		
4.	Bachelor		
5.	Diploma		
6.	High school		
7.	Middle school		
8.	Elementary school		
9.	Less than that		
10.	Other, please specify		

13) Who designed the Library website (please select the appropriate answer):

Appendix 4: Iraqi State University Central Library Directors Survey

- a. A technical committee from the university itself
 - b. A commission of members from the Central Library
 - c. A mixed committee of the university and the library
 - d. An office or external, specialized company
 - e. Other, please explain:
- 14) Who is responsible for updating the library's website and the information contained therein:
- 15) Do you want to add any other information or note:

*Please accept my sincere thanks and appreciation for your time and your generous
cooperation*

Appendix 5: Iraqi State University Central Library Directors Interview questions

The Interview questions for Library Directors (or for a representative of the administration)

- [1] What is the current state of your library websites? Do you think that it has the basic and the important services, information, and features that satisfy the actual needs of your patrons?
- [2] According to your answer to question number 13 in the “Library Directors Survey” which asks, “Who designed the Library website?” Can you please provide any additional information and explain how you chose and prepared the information and services provided in the website. Was the website designed in accordance with deliberate and reasonable plans of prior studies?
- [3] Do you possess the hardware and other technical equipment which allow you to update and manage the website? Do you have qualified employees to update and manage the website?
- [4] Can you add more information, services and features to update and expand the library website easily? Do you think that the university and the university website administrator will allow you to update and expand the library website if you want to do so? Is there a specific limitation?
- [5] In your answers of the “Library Directors Survey” you mentioned that you have (#XY) number of library materials. Are all the library materials that are available in the library listed in your OPAC at your library website? Do you constantly update the library OPAC?
- [6] Are the digital materials that you have in your library are available for your patrons on your library website? Is there an issue that prevents you from using those digital materials and making them available for your patrons in your library website?

Appendix 5: Iraqi State University Central Library Directors Interview questions

- [7] With your current resources, and from your point of view and according to your position in the library, what are the issues and challenges facing your library to offer more modern and more effective services on the library website? What kinds of issues do you encounter in developing your library website?
- [8] Do you think that it is important for the Library Director to have a LIS academic background
Do you think that having such a background might help to improve the library website and to add more services and features?
- [9] Do you want to add any other notes about the library website?

Thank you for your time and cooperation

Appendix 6: Iraqi LIS faculty members Questionnaire (the paper form)

Translated to English

Dear LIS Professor,

As a part of my PhD. studies, I am evaluating the Iraqi university libraries' websites and their services and features. I am asking for your generous assistance by completing this survey. Through this survey I will show the importance of each single service and feature that library websites provide for their patrons and how important it is to have each one of these services and features in the Iraqi university libraries' websites from your own point of view, given your LIS professional academic knowledge and your personal experience with the use of library websites, their services and features.

I would like to insure you that the data you generously provide here will be used just for the purpose of this scientific research, and will be considered, processed and analyzed by the researcher only, without sharing or presenting any of your personal data in the results of the study or in any other ways.

Please accept my respect, thanks and appreciation in advance for your time and effort.

Abdulateef H. Khairi

Lecturer / Mustansiriya LIS Department

Baghdad, Iraq

PhD. Student in GSLIS at Simmons College

Boston, MA, USA

.....

[1]. Name (optional):

[2]. Academic certificate:

a. Masters Degree

☐

b. PhD. Degree

☐

[3]. Scientific Title:

a. Professor:

☐

b. Asst. Professor:

☐

c. Lecturer:

☐

d. Asst. Lecturer:

☐

[4]. Average use of the Internet?

a. Several times a day

☐

b. Once a day

☐

c. 2 - 3 times a week

☐

d. Once a week

☐

e. Irregularly, only when needed

☐

Appendix 6: Iraqi LIS faculty members Questionnaire (the paper form)

Translated to English

[5]. Do you use (or have you used) library websites (in general) and their services and features?

- a. Yes. ☐
- b. No. ☐

[6]. If yes, What are the services and features that you have used (or are using) in library websites (select from the following list):

No.	Websites Services and Features	Check services and features used
A.	About the library: Library building, hours, Physical address, Description of departments, Services, Staff directory, Mission statement.	
B.	Library News: Announcements, Events, Activities.	
C.	Library OPAC	
D.	The ability to search the Library OPAC in several ways: the author, subject, title, keyword ... Etc.	
E.	External Links to other libraries or other institutions, their OPACs and services, etc.	
F.	Home page search engine features.	
G.	E. Resources and other textual contents (eBooks, e- journals/periodicals, etc.)	
H.	Searching Online Databases	
I.	Interlibrary loan services: Request forms, Book renewal form, the circulation policy and the interlibrary loan policy.	
J.	Form to place material on reserve, Description of holdings materials	
K.	New acquisitions	
L.	Ask a librarian: answer reference questions, request reference assistance through the library's Web site, mail, phone, SMS.	
M.	Alumni or former students services	
N.	Purchase request form: Users can submit book purchase requests and suggestions.	
O.	Site maps, or other users' guide	
P.	Links to the main institution, and other institutions	
Q.	The ability to interact with the library: 2.0 applications, Social networking sites, and RSS feeds.	
R.	Employment and Job opportunities	
S.	Communication: Contact email link, Mailing address of library, Phone number, and other Contact Information	
T.	Page update date: Showing the date of the last update	
U.	Visitor counter	

Appendix 6: Iraqi LIS faculty members Questionnaire (the paper form)

Translated to English

V.	Frequently Asked Questions (FAQs)	
W.	Others, Please specify (list them below): <div style="margin-left: 20px;"> • • • • • • • • </div>	

[7]. In this part of the questionnaire, please indicate your opinion through your scientific experience and personal usage experience about the importance of the availability of services and features listed in the attached table in the Iraqi academic libraries websites, and rank each of them from Very important (5) to Of little importance (1):

No.	Website Services and Features	Very important		Average		Of little importance
		5	4	3	2	1
1.	About the library: Library building, hours, Physical address, Description of departments, Services, Staff directory, Mission statement.					
2.	Library News: Announcements, Events, Activities.					
3.	Library OPAC					
4.	The ability to search the Library OPAC in several ways: the author, subject, title, keyword ... Etc.					
5.	External Links to other libraries or other institutions, their OPACs and services, etc.					
6.	Home page search engine feature.					
7.	E-Resources and other textual contents (eBooks, e-journals/periodicals, etc.)					
8.	Searching Online Databases					
9.	Interlibrary loan services: Request forms, Book renewal form, the circulation policy and the interlibrary loan policy.					
10.	Form to place material on reserve, Description of holdings materials					

Appendix 6: Iraqi LIS faculty members Questionnaire (the paper form)

Translated to English

11.	New acquisitions					
12.	Ask a librarian: answer reference questions, request reference assistance through the library's Web site, mail, phone, SMS.					
13.	Alumni or former students' services					
14.	Purchase request form: Users can submit book purchase requests and suggestions.					
15.	Site map, or other users' guides					
16.	Links to the main institution, and other institutions					
17.	The ability to interact with the library: 2.0 applications, Social networking sites, and RSS feeds.					
18.	Employment and Job opportunities					
19.	Communication: Contact email link, Mailing address of library, Phone number, and other Contact Information					
20.	Page update date: Showing the date of the last update					
21.	Visitor counter					
22.	Frequently Asked Questions (FAQs)					
23.	Library home page link on the first page of their parent institution's home page, and accessible from the parent institution's home page with a direct link					

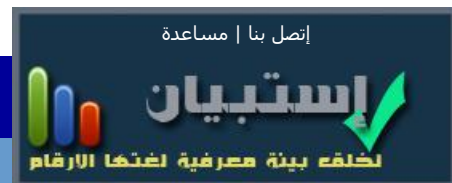
[8]. Do you think that there are services and features (with the exception of those previously mentioned) that are provided as necessities by Iraqi academic libraries through their websites? Please note services and features you feel are appropriate (optional):

[9]. Do you have any comments or additional notes that you want to share with the researcher regarding the questionnaire or the study in general? Please include any additional comments or notes in the field below (optional):

Thanks for your time and effort

Appendix 7_LIS faculty members Online questionnaire. Part 1-4

... موقع استبيان الالكتروني ...



نود أن نحيط أعضائنا وزوارنا الكرام أنه سوف يتم إغلاق القسم الانجليزي من الموقع قريباً كما يسعدنا أن نخبر الجميع أن تصدير الاستبيانات و نتائجها المختلفة بصيغة PDF أصبحا متاحاً على الموقع مجانياً



هذا الاستبيان بواسطة: Lateef_Baghdad

أرسل رسالة خاصة لهذا المشترك

العنوان: الخدمات والمميزات والإمكانات التي توفرها مواقع المكتبات الأكاديمية على الإنترنت 4 / 1

الاستاذة الأفاضل الكرام المتخصصين بعلم المعلومات والمكتبات في العراق... السلام عليكم ورحمة الله وبركاته... في ضوء دراسة الباحث لمواقع المكتبات الأكاديمية على الإنترنت ضمن إطاره للدكتوراه، يرجى مساعدتكم والإستفادة من خبراتكم وأرائكم وذلك بتفضلكم مشكورين بالإجابة على الاستبيان المقسم الى أربعة أجزاء (نظراً لمحدودية إمكانات الموقع) للتعرف من وجهة نظركم العلمية المتخصصة وخبراتكم حول أبرز الخدمات والمميزات التي توفرها مواقع المكتبات الأكاديمية على الإنترنت. مجمل الخدمات والإمكانات مهمة ولكن يرغب الباحث بمعرفة مدى أهميتها وأهمية توفيرها في المكتبات الجامعية العراقية من وجهة نظركم المهنية والشخصية، ولمقارنتها لاحقاً بما هو متاح منها في مكتباتنا الجامعية العراقية. علماً إن هذه البيانات ستستخدم لأغراض البحث العلمي فقط ودون مشاركة أي من بيانات المشاركين الشخصية في الدراسة المنشورة... الاستبيان إختياري وتطوعي، وفي حال تشريفي بالمشاركة بإمكانكم الإمتناع عن الأجابة على أي من الأسئلة الواردة، أو ترك الاستبيان وعدم إكماله متى شئتم... تقبلوا وافر تحياتي وتقديري لمشاركة وقتكم وجهدكم

السؤال الأول: الاسم الكريم لحضرتك

السؤال الثاني: الشهادة الأكاديمية

☐ الدكتوراه:

☐ الماجستير:

السؤال الثالث: الدرجة العلمية الحالية (اللقب العلمي):

☐ أستاذ

☐ أستاذ مساعد

☐ مدرس

☐ مدرس مساعد

السؤال الرابع: محل العمل الحالي:

السؤال الخامس: ما هو المعدل التقريبي لأستخدامك لشبكة الإنترنت:

☐ أكثر من مرة في اليوم الواحد:

☐ مرة واحدة في اليوم:

☐ مرتين إلى ثلاث أسبوعياً:

☐ مرة واحدة أسبوعياً:

☐ غير منتظمة وعند الحاجة فقط:

السؤال السادس: هل تقوم باستخدام مواقع المكتبات (بأنواعها) وخدماتها على الإنترنت:

☐ نعم

☐ لا

السؤال السابع: إذا كان جواب السؤال السابق نعم، فهل كانت غايته استخدام تلك المواقع هي (بالإمكان الأجابة على أكثر من خيار واحد في هذا السؤال و الخيارات الأخرى المكملة في السؤال الذي يليه):

☐ حول المكتبة: الإطلاع على موقع المكتبة ومعرفة معلومات عنها وعن خدماتها، موقعها ومحتوياتها:

☐ الإطلاع على أخبار المكتبة: مثل الأنشطة، الأمسيات، الندوات، العروض، التغييرات:

☐ الإطلاع على فهرس المكتبة، بما يتوفر من مصادر متنوعة في المكتبة

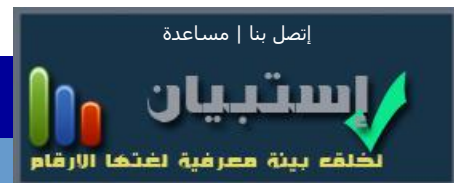
- ☐ استخدام إمكانيات البحث في الفهرس عن المصادر المتاحة بعدة خيارات كالعنوان، المؤلف، الكلمات المفتاحية. . إلخ، وأمكانية توسيع أو تضيق نطاق البحث وفق خيارات متعددة:
- ☐ استخدام الروابط الخاصة بخدمات خارجية أخرى تتيحها كقهارس مكتبات أخرى وغيرها:
- السؤال الثامن:** خيارات مكملة أخرى للخدمات والمميزات والإمكانات الأخرى الواردة في السؤال السابع السابق (اختياري، وبالإمكان الأجابة على أكثر من خيار واحد):
- ☐ استخدام خيار البحث في الصفحة بمحرك البحث محلي، للوصول على معلومة معينة داخل الموقع:
- ☐ تصفح الكتب والدوريات والمصادر الرقمية الأخرى المتاحة في المكتبة:
- ☐ البحث في قواعد البيانات والمصادر الخارجية التي تشترك بها المكتبة وتتيحها للمستخدمين منها:
- ☐ خدمات الإعارة: مثل إمكانية معرفة تاريخ الاستحقاق وتجديد مدة الإعارة للمواد المكتبية المستعارة، وإمكانية حجز كتاب أو مصدر لغرض إستعارته في وقت لاحق:
- ☐ حجز المصادر والمواد المكتبية الأخرى لصالح المواد الدراسية، ومعرفة ما هو محجوز ومتوفر في المكتبة:
- السؤال التاسع:** خيارات مكملة أخرى للخدمات والمميزات والإمكانات الأخرى الواردة في السؤال السابع (اختياري، وبالإمكان الأجابة على أكثر من خيار واحد):
- ☐ المصادر والمواد المكتبية الجديدة (وصلنا حديثاً من المصادر):
- ☐ السعي لسؤال مكتبي سؤالاً مرجعياً أو عاماً من خلال خدمة إسأل مكتبي : **Ask a librarian** (أو أي مسمى آخر للخدمة) يوفره الموقع:
- ☐ خدمات خاصة بالخريجين، والطلاب السابقين: كإمكانية البحث والتصفح في القهارس وقواعد البيانات والمصادر الرقمية، والإعارة للمواد المكتبية، وغيرها من خدمات الدعم للخريجين
- ☐ إقتراح طلب شراء المصادر والمواد المكتبية من المستخدمين لأقتنائها من قبل المكتبة:
- ☐ استخدام دليل المساعدة: كيفية عمل بحث في الموقع، أو إيجاد معلومة معينة أو خريطة وتنظيم الموقع...إلخ:
- السؤال العاشر:** خيارات مكملة أخرى للخدمات والمميزات والإمكانات الأخرى الواردة في السؤال السابع (اختياري، وبالإمكان الأجابة على أكثر من خيار واحد):
- ☐ روابط ووصلات خاصة بالمؤسسة الأم (الجامعة، الكلية، المركز... إلخ) وأقسامها ومنشأتها الأخرى:
- ☐ استخدام روابط ووصلات التواصل والتفاعل المباشر مثل RSS ، أو عن طريق برامج ومواقع والتواصل الإجتماعي وتطبيقات مايسمى بـ {Web 2.0} مثل (Facebook, Twitter, ...etc):
- ☐ متابعة فرص العمل والوظائف المتاحة في المكتبة للتعيين، والمشاريع والتعاقدات الأخرى المتاحة:
- ☐ استخدام معلومات الإتصال في (للإتصال بنا) كالعنوان البريدي تقليدي وإلكتروني او الهاتف للتواصل والإستفسارات والمعلومات أوالمقترحات (التغذية الراجعة) حول المكتبة أوالموقع
- ☐ أخرى: الرجاء ادراج ما أمكن منها:

 أدخل الاسم الظاهر في الصورة:



Appendix 7_LIS faculty members Online questionnaire. Part 2-4

... موقع استبيان الالكتروني ...



نود أن نحيط أعضاءنا وزوارنا الكرام أنه سوف يتم إغلاق القسم الانجليزي من الموقع قريباً كما يسعدنا أن نخبر الجميع أن تصدير الاستبيانات و نتائجها المختلفة بصيغة PDF أصبحا متاحاً على الموقع مجاناً



هذا الاستبيان بواسطة: **Lateef_Baghdad**

أرسل رسالة خاصة لهذا المشترك

العنوان: الخدمات والمميزات والإمكانات التي توفرها مواقع المكتبات الأكاديمية على الإنترنت 4 / 2

في هذا الجزء من الاستبيان، الرجاء بيان رأيكم من خلال خبرتكم العلمية والشخصية حول مدى أهمية توفر كل من الخدمات والمزايا والإمكانات الأخرى المتاحة في مواقع المكتبات الأكاديمية والمدرجة في الجدول المرفق، وذلك بالإشارة على رقم الحقل المقابل لها وتقييم أهمية توفيرها في المواقع الخاصة بالمكتبات الجامعية العراقية بين مهمة جداً (5) الى قليلة الأهمية (1):

السؤال الأول: حول المكتبة: بنيتها ومرافقها وأقسامها، ساعات العمل، عنوانها الجغرافي، ملاكها، خدماتها، تاريخها، ... إلخ.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثاني: أخبار المكتبة: مثل الأنشطة، الأمسيات، الندوات، العروض، التغييرات.. إلخ.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثالث: فهرس المكتبة، بما يتوفر من مصادر متنوعة في المكتبة:

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الرابع: إمكانية البحث في الفهرس عن المصادر المتاحة بعدة خيارات كالعنوان، المؤلف، الكلمات المفتاحية... إلخ، وإمكانية توسيع أو تضيق نطاق البحث وفق خيارات متعددة.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الخامس: روابط لخدمات خارجية كفهارس مكتبات أخرى وروابط خارجية أخرى

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال السادس: خيار البحث في الصفحة بمحرك بحث محلي

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال السابع: إمكانية التصفح والبحث في الكتب والدوريات والمصادر الرقمية الأخرى المتاحة في المكتبة

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثامن: إمكانية التصفح والبحث في قواعد البيانات والمصادر الخارجية التي تشترك بها المكتبة وتتيحها للمستخدمين منها

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال التاسع: خدمات الإعارة: مثل إمكانية معرفة تاريخ الاستحقاق وتجديد مدة الإعارة للمواد المكتبية المستعارة، وإمكانية حجز كتاب أو مصدر لغرض إستعارته في وقت لاحق

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال العاشر: إمكانية حجز المصادر والمواد المكتبية الأخرى لصالح المواد الدراسية، ومعرفة ما هو محجوز ومتوفر في المكتبة من قبل المستخدمين

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

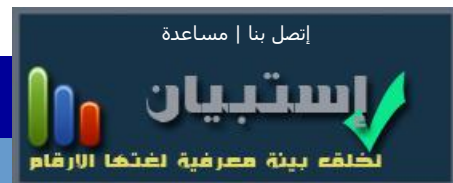
أدخل الاسم الظاهر في الصورة:

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أضف مشاركتك

Appendix 7_LIS faculty members Online questionnaire. Part 3-4

... موقع استبيان الالكتروني ::



نود أن نحيط أعضاءنا وزوارنا الكرام أنه سوف يتم إغلاق القسم الانجليزي من الموقع قريباً كما يسعدنا أن نخبر الجميع أن تصدير الاستبيانات و نتائجها المختلفة بصيغة PDF أصبحا متاحاً على الموقع مجاناً



هذا الاستبيان بواسطة: **Lateef_Baghdad**

أرسل رسالة خاصة لهذا المشترك

العنوان: الخدمات والمميزات والإمكانات التي توفرها مواقع المكتبات الأكاديمية على الإنترنت 4 / 3

في هذا الجزء من الاستبيان (وهو الجزء الثالث المكمل للاستبيان السابق)، الرجاء بيان رأيكم من خلال خبرتكم العلمية والشخصية حول مدى أهمية توفر كل من الخدمات والمزايا والإمكانات الأخرى المتاحة مواقع المكتبات الأكاديمية العراقية والمدرجة في الجدول المرفق، وذلك بالإشارة على رقم الحقل المقابل لها وتقييم أهمية توفيرها في الموقع بين مهمة جداً (5) الى قليلة الأهمية (1):

السؤال الأول: المصادر والمواد المكتبية الجديدة (وصلنا حديثاً من المصادر)

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثاني: خدمة إسل مكتبي: للاستفسار والإجابة عن الأسئلة وغيرها وبعدة طرق متاحة (الحوار المباشر، البريد الإلكتروني، الرسائل النصية... إلخ)

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثالث: خدمات خاصة بالخريجين، والطلاب السابقين: كإمكانية البحث والتصفح في الفهارس وقواعد البيانات والمصادر الرقمية، والإعارة للمواد المكتبية، وغيرها من خدمات الدعم للخريجين.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الرابع: إمكانية اقتراح طلب شراء المصادر والمواد المكتبية من المستخدمين لأقتنائها من قبل المكتبة.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الخامس: دليل المساعدة: كيفية عمل بحث في الموقع، أو أيجاد معلومة معينة أو خريطة وتنظيم الموقع... إلخ.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال السادس: روابط ووصلات خاصة بالمؤسسة الأم (الجامعة، الكلية، المركز... إلخ) وأقسامها ومنشأتها الأخرى

(5) مهمة جداً:

(4):

● (3) متوسطة الأهمية:

● (2):

● (1) قليلة الأهمية:

السؤال السابع: روابط ووصلات خاصة بإمكانية التواصل والتفاعل المباشر، أو عن طريق برامج ومواقع والتواصل الإجتماعي وتطبيقات مايسمى بـ {Web 2.0} مثل (Facebook, Twitter, ...etc)

● (5) مهمة جداً:

● (4):

● (3) متوسطة الأهمية:

● (2):

● (1) قليلة الأهمية:

السؤال الثامن: عرض فرص العمل والوظائف المتاحة في المكتبة للتعين فيها بصفة مؤقتة أو دائمية، والمشاريع والتعاقدات الأخرى المتاحة

● (5) مهمة جداً:

● (4):

● (3) متوسطة الأهمية:

● (2):

● (1) قليلة الأهمية:

السؤال التاسع: للاتصال بنا: توفير عنوان بريدي تقليدي وإلكتروني للتواصل والاستفسارات والمعلومات والمقترحات (التغذية الراجعة) حول المكتبة والموقع وغيرها.

● (5) مهمة جداً:

● (4):

● (3) متوسطة الأهمية:

● (2):

● (1) قليلة الأهمية:

السؤال العاشر: تثبيت تاريخ آخر تحديث للموقع: لمعرفة إن كان هنالك أية متغيرات وتحديثات أجريت عليه منذ آخر زيارة، ومدى حداثة المعلومات الواردة... الخ.

● (5) مهمة جداً:

● (4):

● (3) متوسطة الأهمية:

● (2):

● (1) قليلة الأهمية:

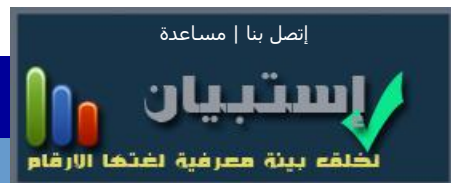
📁 أدخل الاسم الظاهر في الصورة:

catigi

اضف مشاركتك

Appendix 7_LIS faculty members Online questionnaire. Part 4-4

... موقع استبيان الالكتروني ...



نود أن نحيط أعضاءنا و زوارنا الكرام أنه سوف يتم إغلاق القسم الانجليزي من الموقع قريباً كما يسعدنا أن نخبر الجميع أن تصدير الاستبيانات و نتائجها المختلفة بصيغة PDF أصبحا متاحاً على الموقع مجاناً



هذا الاستبيان بواسطة: **Lateef_Baghdad**

أرسل رسالة خاصة لهذا المشترك

العنوان: الخدمات والمميزات والإمكانات التي توفرها مواقع المكتبات الأكاديمية على الإنترنت 4 / 4

في هذا الجزء من الاستبيان (وهو الجزء الرابع والأخير المكمل للاستبيان السابق)، الرجاء بيان رأيكم من خلال خبرتكم العلمية والشخصية حول مدى أهمية توفر كل من الخدمات والمزايا والإمكانات الأخرى المتاحة مواقع المكتبات الأكاديمية العراقية والمدرجة في الجدول المرفق، وذلك بالإشارة على رقم الحقل المقابل لها وتقييم أهمية توفيرها في الموقع بين مهمة جداً (5) الى قليلة الأهمية (1):

السؤال الاول: عدادات الزوار: لمعرفة عدد زوار والمتابعين للصفحة أوالموقع عامة.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثاني: الأسئلة المتكررة أو الشائعة FAQ

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الثالث: عداد الزوار: لمعرفة عدد زوار والمتابعين للصفحة أوالموقع عامة.

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

(2):

(1) قليلة الأهمية:

السؤال الرابع: وجود رابط المكتبة ضمن الواجهة الرئيسية للجامعة أو المؤسسة التي تضمها ويمكن إيجادها بسهولة

(5) مهمة جداً:

(4):

(3) متوسطة الأهمية:

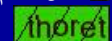
(2):

(1) قليلة الأهمية:

السؤال الخامس: هل تعتقد إن هنالك خدمات ومزايا وإمكانات أخرى مهمة (باستثناء التي سبق ذكرها) ومن الضروري أن توفرها المكتبات الأكاديمية من خلال مواقعها على الإنترنت؟ الرجاء أدرج ما تقترحه أو تراه مناسباً منها إن أمكن:

السؤال السادس: هل لدى حضرتك أية تعليقات أو إضافات ترغب بتبنيها للباحث فيما يخص الاستبيان أو الدراسة عامة، يرجى تفضلك بإدراجها في الحقل أدناه (اختياري):

أدخل الاسم الظاهر في الصورة:



اضف مشاركتك

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Appendix 8: The University of Baghdad central library data

The library name:	The Central Library of the University of Baghdad	
The library building site at the university within a stand-alone building on campus, or within another building	Within a stand-alone building on campus	
The date the University was established	1957	
The date the Central Library was established	1959	
Library building size (in square meters)	20549	
The number of traditional library materials available in the library	398437	
The number of digital materials available in the library	Not specified	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	2011	
The library website is within the university's official website or an independent website:	within the university's official website	
Library website link (URL)	http://www.clib.uobaghdad.edu.iq/default.aspx	
Academic degree(s) and specialty of the Central Library Director:	M.A. in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	LIS	2
Masters	LIS	3
	History	1
	Geography	1
	Technology operations	1
Higher Diploma	Social Science	1
	LIS	1
	Computer Science	1
Bachelor	LIS	16
	Languages	12
	Computer Engineering	2
	Political Science	1
	Computer Science	3
	Accounting	1
Diploma	Accounting	3
	English language	1
	LIS	12
	Warehousing	5
	Banking	3

	Arabic Language	3
High school		21
Middle school		9
Elementary school		9
Less than that		3
Other, please specify		-
Who designed the Library website:	A commission of members from the Central Library	
Who is responsible for updating the library's website and the information contained therein	A library employee who is responsible for updating the website	

Appendix 9: University of Mustansiriya central library data

The library name:	The Central Library of University of Mustansiriya	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1963	
The date the Central Library was established	1964	
Library building size (in square meters)	1762.06	
The number of traditional library materials available in the library	-	
The number of digital materials available in the library	-	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	-	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.uomustansiriyah.edu.iq/m001.htm	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	LIS	2
Masters	LIS	2
	Computer Science	1
Higher Diploma	Mass Media	1
Bachelor	LIS	12
	Others	21
Diploma	LIS	5
	Others	6
High school		4
Middle school		3
Elementary school		10
Less than that		1
Other, please specify		
Who designed the Library website:	A technical committee from the university itself	
Who is responsible for updating the library's website and the information contained therein	An employee in the library	

Appendix 10: University of Basrah central library data

The library name:	The Central Library of University of Basrah	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1964	
The date the Central Library was established	1964	
Library building size (in square meters)	10000	
The number of traditional library materials available in the library	150000	
The number of digital materials available in the library	130000	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)		
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.uobasrah.edu.iq	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in Arabic Language	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	Arabic Language	1
Masters	Arabic Language	1
Higher Diploma	-	-
Bachelor		47
Diploma		14
High school		21
Middle school		20
Elementary school		15
Less than that		8
Other, please specify		
Who designed the Library website:	A technical committee from the university itself	
Who is responsible for updating the library's website and the information contained therein	An employee in the library	

Appendix 11: The University of Mosul central library data

The library name:	The Central Library of University of Mosul	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1967	
The date the Central Library was established	1967	
Library building size (in square meters)	3.000	
The number of traditional library materials available in the library	About 400000	
The number of digital materials available in the library	19500	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	-	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://libcentral.uomosul.edu.iq/	
Academic degree(s) and specialty of the Central Library Director:	Masters in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	History	1
Masters	Computer Science	1
	Translation	1
	Psychology	1
	Arabic Language	1
	Law	1
	History	1
Higher Diploma	-	-
Bachelor	Different specializations include LIS, History, Arabic Language, English language, Engineering, Etc.	70
Diploma	Computer Science, LIS, Electricity, Warehousing,	35
High school		29
Middle school		27

Elementary school			
Less than that			
Other, please specify			
Who designed the Library website:	A technical committee from the university itself		
Who is responsible for updating the library's website and the information contained therein	An employee in the library		

Appendix 12: The University of Technology central library data

The library name:	The Central Library of University of Technology	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1/4/1975	
The date the Central Library was established	1975	
Library building size (in square meters)	1200	
The number of traditional library materials available in the library	112435	
The number of digital materials available in the library	73200	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	-	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.uotechnology.edu.iq/	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	Ph.D. in LIS	1
Masters	-	-
Higher Diploma	-	-
Bachelor	LIS	8
	Computer Science & Computer Engineering	4
	English Language	1
	French Language	1
	Management and Economics	4
	Fine arts	1
Diploma	LIS	4
	Management	2
	Education	1
	Electricity	1
High school		2
Middle school		2
Elementary school		2

Less than that		1	
Other, please specify			
Who designed the Library website:	A technical committee from the university itself		
Who is responsible for updating the library's website and the information contained therein	A committee from the university		

Appendix 13: The University of Tikrit central library data

The library name:	The Central Library of University of Tikrit	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	12/23/1987	
The date the Central Library was established	1990	
Library building size (in square meters)	3000	
The number of traditional library materials available in the library	32000	
The number of digital materials available in the library	10000	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	-	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.tu.edu.iq/index.php?q=node/402	
Academic degree(s) and specialty of the Central Library Director:	Masters in History	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	-	-
Masters	LIS	1
	History	1
	Arabic Language	1
Higher Diploma	-	-
Bachelor	Quran Studies	3
	Military studies	2
	Law	1
	Mass Media	1
	Accounting	1
	History	1
Diploma	Education	3
High school		10
Middle school		2
Elementary school		5
Less than that		-

Other, please specify		
Who designed the Library website:	A technical committee from the university itself	
Who is responsible for updating the library's website and the information contained therein	A committee from the university	

Appendix 14: The University of Al-Qadisiyah central library data

The library name:	The Central Library of University of Al-Qadisiyah	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1987	
The date the Central Library was established	7/8/1993	
Library building size (in square meters)	3000	
The number of traditional library materials available in the library	About 80.000	
The number of digital materials available in the library	10000	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	2004	
The library website is within the university's official website or an independent website:	Have Two websites with the same information in them an independent website, but has a like within the university's official website	
Library website link (URL):	http://www.qadis-libr.org/ And http://www.qadissuni.edu.iq/nn6.htm	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in Urban Planning	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	Urban Planning	1
Masters	-	-
Higher Diploma	-	-
Bachelor	LIS	3
	Arabic Language	4
	English language	3
	History	2
	Management and Economics	2
	Social Science	1
Diploma	Management	2
	Technology	2
	Education	1
High school	Trading	3

Middle school	-	-
Elementary school		1
Less than that		3
Other, please specify		
Who designed the Library website:	A committee from the library	
Who is responsible for updating the library's website and the information contained therein	An employee in the library	

Appendix 15: The University of Al-Anbar central library data

The library name:	The Central Library of University of Al-Anbar	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1987	
The date the Central Library was established	1988	
Library building size (in square meters)	1000	
The number of traditional library materials available in the library	120000	
The number of digital materials available in the library	1022000	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	2007	
The library website is within the university's official website or an independent website:	An independent website with a link within the university's official website	
Library website link (URL):	http://www.anbarlibrary.com/	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in Arabic Language	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	LIS	2
	Arabic Language	4
	Hebrew Language	1
	Islamic Studies	1
Masters	LIS	2
	Arabic Language	1
	English language	1
Higher Diploma	Spanish Language	1
	Hebrew Language	1
	Russian Language	1
Bachelor	LIS	4
	Arabic Language	2
	English language	3
	Islamic Studies	3
	Law	2
	Geography	2

	Spanish Language	1
	Computers	1
Diploma	-	-
High school	Agriculture	1
Middle school		1
Elementary school		3
Less than that		
Other, please specify		
Who designed the Library website:	An office or external, specialized company	
Who is responsible for updating the library's website and the information contained therein	An employee in the library	

Appendix 16: The Iraqi University central library data

The library name:	The Central Library of Iraqi University	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus (Only Lately in 2012)	
The date the University was established	1989	
The date the Central Library was established	1989	
Library building size (in square meters)	620	
The number of traditional library materials available in the library	About 50000 volumes	
The number of digital materials available in the library	Big collection, stored on 866 CD-ROM	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)	2010	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://aliraqia.edu.iq/central-library	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	LIS	1
Masters	Islamic Studies	1
Higher Diploma	-	-
Bachelor	LIS	6
	Computers	4
	Management and Economics	2
	Islamic Studies	2
	Mass Media	1
	Languages	1
Diploma	Documentation	2
	LIS	1
	Fine arts	1
	Education	1
High school		2
Middle school		2
Elementary school		2

Less than that			
Other, please specify			
Who designed the Library website:	An office or external, specialized company		
Who is responsible for updating the library's website and the information contained therein	A committee from the university itself		

Appendix 17: Al-Nahrain University central library data

The library name:	The Central Library of Al-Nahrain University	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1993	
The date the Central Library was established	1993	
Library building size (in square meters)	1000	
The number of traditional library materials available in the library	33500	
The number of digital materials available in the library	About 2000	
Does the library have a website?	Not effectively a website	
Date the library created a university website for the first time (if any)	2011	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.nahrainuniv.edu.iq/au/component/content/article/25-the-project/81	
Academic degree(s) and specialty of the Central Library Director:	Higher Diploma in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	-	-
Masters	-	-
Higher Diploma	LIS	1
Bachelor	Different specializations	10
Diploma		1
High school		1
Middle school		1
Elementary school		
Less than that		1
Other, please specify		
Who designed the Library website:	A technical committee from the university itself	
Who is responsible for updating the library's website and the information contained therein	A technical committee from the university	

Appendix 18: The University of Diyala central library data

The library name:	The Central Library of University of Diyala	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	1998	
The date the Central Library was established	1999	
Library building size (in square meters)	100 , But will be moving very soon to the new building with an area of 4000	
The number of traditional library materials available in the library	About 17000	
The number of digital materials available in the library	3000	
Does the library have a website?	Yes (very small webpage)	
Date the library created a university website for the first time (if any)	2010	
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://www.uodiyala.edu.iq/PageViewer.aspx?id=205	
Academic degree(s) and specialty of the Central Library Director:	Ph.D. in Agriculture	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	Agriculture	1
Masters	LIS	1
Higher Diploma	-	-
Bachelor	Translation	2
	Islamic Studies	1
	LIS	1
	Arabic Language	2
Diploma	Islamic Studies	1
High school	-	-
Middle school	-	-
Elementary school	-	-

Less than that		1
Other, please specify		
Who designed the Library website:	Was: A technical committee from the university itself, Then switch now to an external specialized company	
Who is responsible for updating the library's website and the information contained therein	A technical committee from the university itself	

Appendix 19: Wasit University central library data

The library name:	The Central Library of Wasit University	
The library building site at the university within a stand-alone building on campus, or within another building:	Within a stand-alone building on campus	
The date the University was established	January 2003	
The date the Central Library was established	April 4, 2004	
Library building size (in square meters)	400	
The number of traditional library materials available in the library	About 26000	
The number of digital materials available in the library	1004000	
Does the library have a website?	Yes	
Date the library created a university website for the first time (if any)		
The library website is within the university's official website or an independent website:	Within the university's official website	
Library website link (URL):	http://uowasit.edu.iq/component/content/category/63-library.html	
Academic degree(s) and specialty of the Central Library Director:	Higher Diploma in LIS	
Academic degree(s) and specialty of the members of the Central Library staff:		
Academic Degree	Specialty	Number for each specialty
Ph.D.	-	-
Masters	-	-
Higher Diploma	LIS	1
Bachelor	LIS	4
	English language	5
	Geography	1
	Computers	1
	Persian Language	1
Diploma	Islamic Studies	1
High school	Industrial prep school	1
Middle school		1
Elementary school		
Less than that		2
Other, please specify		
Who designed the Library website:	A technical committee from the university itself	
Who is responsible for updating the library's website and the information contained therein	An employee in the library	