Iraqi Digital Libraries: Based on Problems and their Solutions a new Vision and Future towards E-Society

Muntaha Abdul Karim Jasim

Baghdad University, Baghdad

0342

The Asian Conference on Literature & Librarianship 2013

Official Conference Proceedings 2013

Abstract

The Iraq Universities Started to use automated systems in libraries and information centers since the last century, and suffered periodically form using a few old systems, including Baghdad University Libraries, It was difficult to find fit systems suitable to their multiple needs, in addition to the problems of using equipment material and lack of trained staff to accommodate dealing with regulations and new technologies according to its environment.

Planning is the most important elements of any project's success and longevity, for any project without prior planning process it will face problems and obstacles, and the main question is whether there was prior planning regulations for the use of WINISIS or CDSISIS at Baghdad University Libraries?

This research aimed to spot light on the reality of (24) College Libraries at Baghdad University, reviewing the results of reluctance the Iraqi researchers of using Baghdad university libraries resources, and their attitude towards e-libraries and web services and their contents, this calls for reconsider how to rebuild a develop and automated system to restructure Baghdad University libraries e-resources access by using Baghdad University Libraries a typical Sample, an infrastructure for suitable Solutions to build our e.society

Key Words: Digital Libraries, Iraqi Digital Libraries. Virtual Libraries. IVSL. Baghdad University Colleges Libraries, Automated Systems,

INTRODUCTION:

According to the evolution of scientific and technical in the various fields joining with the increase number of researchers made the institutions informational play an important role in collecting information and made it available to users as quickly and easier ways.

To achieve this goal Librarians resorted to the use of automatic systems to facilitate their duties in the organization and provision of information.

In Iraq Universities, Started to use automated systems in libraries and information centers since the last century, and suffered periodically form using a few old systems, Baghdad University libraries, mechanism localized. It was difficult to find fit systems suitable to their multiple needs, in addition to the problems of using equipment material and lack of trained staff to accommodate dealing with regulations and new technologies according to its environment.

DL's Definition: There was always suspicion regarding concept and frameworks of digital libraries concepts such as electronic library, virtual library, without wall library, hybrid library and digital library have applied often together, or each other for conveying library concept. Studies have shown that so far there is no standard and universal accepted definition for digital libraries. A digital library is a collection of documents in organized electronic form, available on the Internet or on CD-ROM (compact-disk read-only memory) disks. Depending on the specific library, a user may be able to access magazine articles, books, papers, images, sound files, and videos.

1: DLs Infrastructure:

The following are some of the human, financial and technological infrastructure issues that should be taken into account when considering implementing a digital library:

1. Availability of appropriate information and communication infrastructure: Basically this will include appropriate hardware, Software, and adequate network connectivity.
2. Availability of human resources with appropriate skills. depend on the nature and sophistication of the digital library being implemented
3. The target community of users should have access to the necessary hardware, software, and network connectivity.
4. Availability of financial--resources to support and sustain the development of the digital library: Hardware. Software, manpower cost money
5. Availability of appropriate legal and technical safeguards to guarantee
6. Authenticity and integrity of information and to protect privacy, and abuse of intellectual property rights and copyright, where appropriate.

7. Availability of standards for the management of digital information resources. For good quality information resources, databases & effectiveness of information searching & retrieval, electronic information management standards should be employed.

2: Problem statement:

The resulting loss of libraries and their contents in Iraq calls for us to consider how to rebuild the collections and how to restructure information access. Although the Iraqi Ministry of Higher Education desires to see all materials available in digital form for the entire country, but still the main problems that have to face it, such as: the policy of selecting and using the software package , Acquisition sources and training issues, such as the lack of trained staff, knowledge of standards and organization of materials, and concerns about the cost of proprietary content management systems, lead to considering several digital object management.

3: An automated Systems:

After 1985 the Arabic libraries witnessed an integrated systems available service for the Arabic Language Requirements.

Systems Such As : MINISIS, CDS / ISIS, DOBIS / LIBIS and CDSISIS. It was natural that the design of these systems Arabized , But still not covering the needs of the Arab libraries and users services. It's not observe the rules of the Arabic language and its problems when storing and retrieving information [1] as well as significant differences in the localization even for per system; thus different ratios to benefit from the system per inside many libraries used them as evidenced by academic study in the field [2].

4: PREVIOUS STUDIES:

A: The digital library of Al- Mansour College University. Khoja . Abeer. A.R. Building a digital library of Al- Mansour College University Library. (PhD Thesis). Supervision by Dr. Odette Badran. Al-Mustansyriah University .2009.

- Its designing and building a digital library by building a database system according to the database management system SQL server 2000. Also it has been designed windows system and linking them to write programs according to the programming language Visual Basic 6.

- - Provided the English translation of the fields and instructions for use, and work to increase accuracy in data retrieval and therefore rely on the drop-down menus to enter data, and research in the digital library, in addition to the possibility of entering data automatically, and the study found a number of results including: -

B:Iraq's Digital Library Dilemma: Open Source Digital Objects Repository architecture, tools, and interface project.(Project) ; G Benoit & Falah Rashid. (study;2011)

A multi-lingual suite of digital object repository software tools to facilitate standards-oriented record creation, multi-lingual searching, and greater integration of digital objects for education that are platform-independent; for the different groups in Iraq, it demonstrates a new approach to ingesting and organizing digital objects. The products that were developed, called "aurora DL", are part of an open source, easy-to-tailor integrated suite, written in Java, to help librarians, and especially non-technical staff, create records according to Visual Resources Association Core descriptors, integrate standard and locally-generated agent and subject descriptors, to tailor the system behavior to regional and domain-needs as a first step in removing known technical, political, and other roadblocks. Consequently, use of this project's tools will enable us to study the redevelopment of Iraq's information infrastructure. A test collection has been created to demonstrate this DAM solution's functions as well as Arabic-language training tools to be used in Iraqi libraries, with the goals of expanding access to digital resources, maintaining standards in descriptors, and supporting user-annotation to add value to the surrogate .

1. Digital Library is an information system built by a relational database server operates in an environment _ the client and can thus be integrated in his work.

2. System can supplement the Digital Library of the educational process to the possibility of linking curriculum and teaching materials, lectures, teachers can be responsible in the ministry or the university or college ... etc. adopted in the process of supervising the conduct of the educational process.

3. Analysis and design of digital library system by the librarian alone requires effort and knowledge of each of the procedures of office work, analysis, design and building regulations, building computer networks, building databases that work environment networks, and knowledge over the medium-language programming that will build the digital library system and that the magnitude of the work digital library.

C: Iraqi Virtual Science Library (IVSL): WWW.IVSL.Org.

- Iraqi virtual scientific library Lunched (IVSL;2006) Project is The first of its kind in the Arab world and the most important open sources and the gates to international publishing houses approved by the Iraqi available to the

researcher, was provided and adopted by the Ministry of Higher Education and Scientific Research in Iraq to serve the scientific research.

▪ Objective of the project is the re-educational and educational infrastructure in Iraq and another step for the reconstruction of Iraq and improve Iraqi society for generations to come, it is a vital tool for the Iraqi scientists and researchers of various disciplines (scientific, humanitarian) to access a large body of scientific research in different. Scientific disciplines.

5: THE CASE STUDY BAGHDAD UNIVERSITY Libraries:

This Paper will focus on the Iraqi Digital Libraries Experiences ,Projects and Studies including the reality of (26) Colleges of Baghdad University, according to their establishments, and the applications of the automated system (data bases) which is used in, the employers.

Table [1] of Baghdad University Colleges Libraries

Seq	The Colleges	the establishment	Library established	Books	Thesis	Periodicals	Automated system
1	College of medicine	1927	1927	6679	720	330	WINISIS *
2	Al-Kindy medicine College	1998	1999	6207	292	5709	(*)
3	College of Dentistry	1953	1953	8434	1160	794	WINISIS*
4	College of Pharmacy	1936	1963	11667	722	650	WINISIS*
5	College of Nursing	1962	1962	9620	200	1220	WINISIS*
6	College of Engineering	1921	1941	75000	5045	1755	WINISIS*
7	Al-Khwarizmi Engineering College	2002	2002	2052	89	384	(*)
8	College of Science	1949	1949	252940	124	203	(*)
9	Ibn Al_Haitham College for Education	1923	1988	9691	1572	165	(*)
10	College of Science for women	2002	2002	13803	433	5011	(*)
11	Ibn_Rushid College of Education	1923	1988	36175	5044	435	(*)

12	College of Physical Education	1955	1976	3256	354	215	
13	College of Physical Education for women	1994	1994	1200	267	320	
14	College of Law	1908	1934	41032	3389	15843	WINISIS*
15	College of Arts	1949	1949	28802	4863	3000	
16	College of Mass Media	2002	2002		385	800	WINISIS*
17	College of Linguistics	1987	1987	10800	820	29	
18	College of Islamic Sciences	1927	1967	15246	1767	217	WINISIS*
19	College of Political sciences	1959	1987	26856	373	550	
20	College of Economic and Administration	1936	1936	23000	832	322	
21	College of Fine Arts	1961	1967	5840	1000	235	(*)
22	College of Agriculture	1950	1952	53565	282	380	
23	College of Veterinary	1955	1955	77000	2500	2910	WINISIS*
24	College of Science	1949	1949	252940	1250	1328	WINISIS*

Table [2] of Baghdad University Central Libraries

Seq	The Library	Library established	Books	Thesis	Periodicals	Automated system
1	General Secretariat of Central library (1)	1959	15781	354	152	WINISIS *
2	General Secretariat of Central library (Al-Wazeriya) (2)	1959	63518	630	328	WINISIS/ CDSISIS*

Note: (1) specialized in Scientific Science (site: Baghdad University Campus.
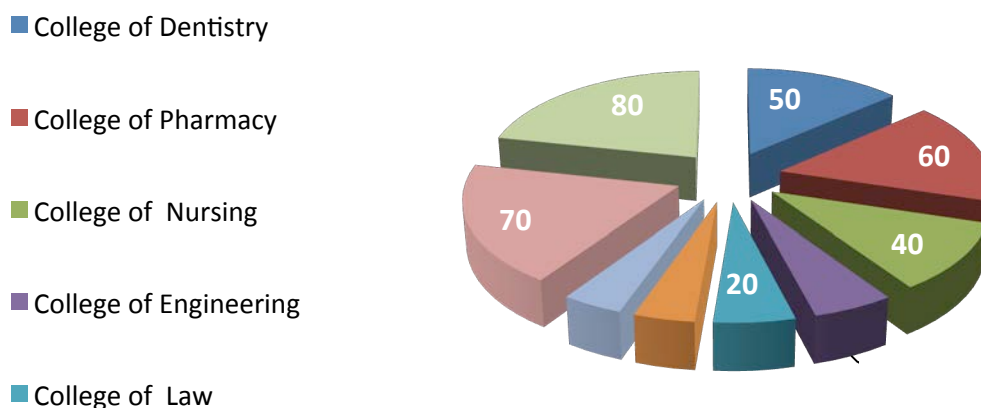See the Link : http://www.clib.uobaghdad.edu.iq/default.aspx

(2) specialized in Human Science (site: Baghdad – al-wazeriya)

Figure [1].Study The Automated System activities (Baghdad University Colleges Libraries)

The automated system activities in the Library Colleges at Baghdad University

■ College of Dentistry

■ College of Pharmacy

■ College of Nursing

■ College of Engineering

■ College of Law

1. This will leads us to Think about the other (12) College library which still deals with the traditional library ,
2. Think about how to provide the support and backing, choosing the correct automated system .
3. Provide the complete support to train it's librarian staff to use it.

6: CDS/ISIS Iraqi DLs automated System

CDS/ISIS is a software package for generalized Information Storage and Retrieval systems developed, maintained and disseminated by UNESCO. It was first released in 1985 and since then over 20,000 licenses have been issued by UNESCO and a worldwide network of distributors. It is particularly suited to bibliographical applications and is used for the catalogues of many small and medium-sized libraries. Versions have been produced in Arabic, Chinese, English, French, German, Portuguese, Russian and Spanish amongst other languages. UNESCO makes the software available free for non-commercial purposes, though distributors are allowed to charge for their expenses.[1]

▪ CDS/ISIS Information Storage and Retrieval System; It is particularly suited to bibliographical applications and is used for the catalogues of many small and medium-sized libraries. Versions have been produced in Arabic, Chinese, English, French, German, Portuguese, Russian and Spanish amongst other

languages. United Nations Educational Scientific and Cultural Organization(UNSCO)

The products available in the software **family**:

1. CDS/ISIS for **DOS**
2. CDS/ISIS for **Windows** (all versions)
3. CDS/ISIS for **UNIX** (character mode)
4. **JavaISIS**, Client - Server Internet suite
5. UNESCO/BIREME **ISIS_DLL**, programming tool
6. BIREME **WWWISIS**
7. **WinIDIS**, the interface to **IDAMS**

as Open-Source (all coming with documentation):
8. **XML2ISIS** a tool for importing XML files to CDS/ISIS Available in English, French, Spanish, Italian, German
9. **IsisAscii** a tool for importing ASCII delimited files to CDS/ISIS
10. **Genisis 2** a wizard for database Web publishing Available in French, Spanish and soon English
11. **WinIDAMS** data mining and statistical analysis

- **The CDS/WINISIS characteristics and Usage Problems:**

1. Appropriate package for the management of textual information and variable lengths.
2. It's Easy Use & Enable users to define and create their own databases.
3. CDS win/ISIS Has a powerful search engine and through the use of Boolean logic, It's available in a variety of indexing technique could meet the requirements of different software and specific needs.
4. The possibility of editing databases to allow the beneficiaries of the introduction of new data and edit existing data.
5. CDS/ISIS is Available in multiple languages including Arabic.
6. The possibility of transfer of bibliographic data at the global level.
7. CDS/ISIS is compatible with a high degree of economic standards, general standards and criteria for localization.
8. CDS/ISIS is Medium in accordance with international standards and protocols, standards of bibliographic control and the interaction of the beneficiary.
9. The advantage of these systems highly flexible and easy-to-use that have been used in building databases for theses, books in the Baghdad University Colleges Libraries.

- The WIN/ISIS **Usage Problems**:

1. Same time the way of use these programs led to problems because of the structural databases and specialty and uniqueness of each library of the university libraries are structurally different to the lack of a unified model for the construction of special databases,
2. It's Compatible with low environmental standards, operating systems and system security standards.

3. CDS/ISIS doesn't consistent with the standards of integration.
4. CDS/ISIS does not provide a better use because of the failure to provide the possibility of automatically correcting Arabic grammatical errors,(أ: ا : إ : آ) أحمد: احمد: إحمد: آحمد
5. It's cannot allowed to connect with two bases together.

7: Planning and studies before using an automated system:

Planning is the most important elements of any project's success and longevity, for any project without prior planning process it will face problems and obstacles.
- The main question is whether there was prior planning regulations for the use of WINISIS or CDSISIS or any Automated System at Baghdad University Libraries?

Questions were asked about ?

1. Was there a planning or studies been made before using WINISIS System?
2. Were there any Options or choices for Selecting other systems ?
3. Was there previous experiences of libraries that use WINISIS System?
4. How many workshops has been held to train staff to implement the CDSISIS System?

The Answers were about these Questions :

1. WINISIS Program was implemented without prior planning (100%)
2. To find out whether there is an option in the application of another program?

The answer: there is no any option to choose the program, perhaps due to that the Ministry of Higher Education and Scientific Research in Iraq pointed to disseminate the program and its application in Iraqi universities.

3. The 3rd Question : Some of the colleges Libraries were based on the application of the CDS/ISIS program depending on the previous experience of (Al-Nahrain University, University of Technology) in Iraq.
4. The 4th :How many workshops has been held to train staff to implement the CDSISIS System.

8: Iraqi Digital Libraries Symposiums and Workshop.

1. **Digital Libraries workshop** :
A Joint workshop for digital library.2011. Arab Federation for Libraries and Information (AFLI), Iraqi Society for libraries and information and Al-Mansour University. Of Baghdad. 30/4- 4/6/2011. (35) Librarians Staffs were trained .(PhD.MsC. Bsc) Certifications . The Greenstone an Automated System, Fox Pro. Still not used in any Library at Baghdad University

2. **Digital Libraries workshop** :
for the development of Iraqi universities digital libraries. Beirut for the period of 9/11/2011. DLs workshops (2 Levels) . (50) (PhD.MsC. Bsc)Librarians Staff.

3. **Workshop library management systems** :

- (Integrated Library System)
- (Symphony library system)/ SirsiDynix
- Trained : 25 Librarians Staffs.(PhD.MsC. Bsc).

The (3) workshops included a discussion of the following matters:

1. Detailed view of the reality of the virtual library and set of projects to develop sources and technologies.
1. Discuss the presentations of the international publishing houses, including (EBSCO, Kasha, database Al-Manhal, My Library, and other databases).
2. View the University supplements, office furniture company specialized memory of the publication and distribution.
3. View the electronic items used in libraries and classrooms of the paintings and interactive viewer Interactive Board Interactive Projector Company Smart Vision.
4. Showing a modern electronic system from a company to manage the academic university libraries and university libraries in the link between them.
5. Areas of cooperation in the marketing of scientific output of the Iraqi academic institutions the world.

This leads us to more Questions:

1. The Librarian Role: Are librarians were consulted when designing the library database
2. the Responsibility : Is there someone Powered by developing and updating the Library databases
3. The Following : Is there any review or check spelling for data entry
4. achieve success study :The benefits of using An Automated system to provide the Users access.
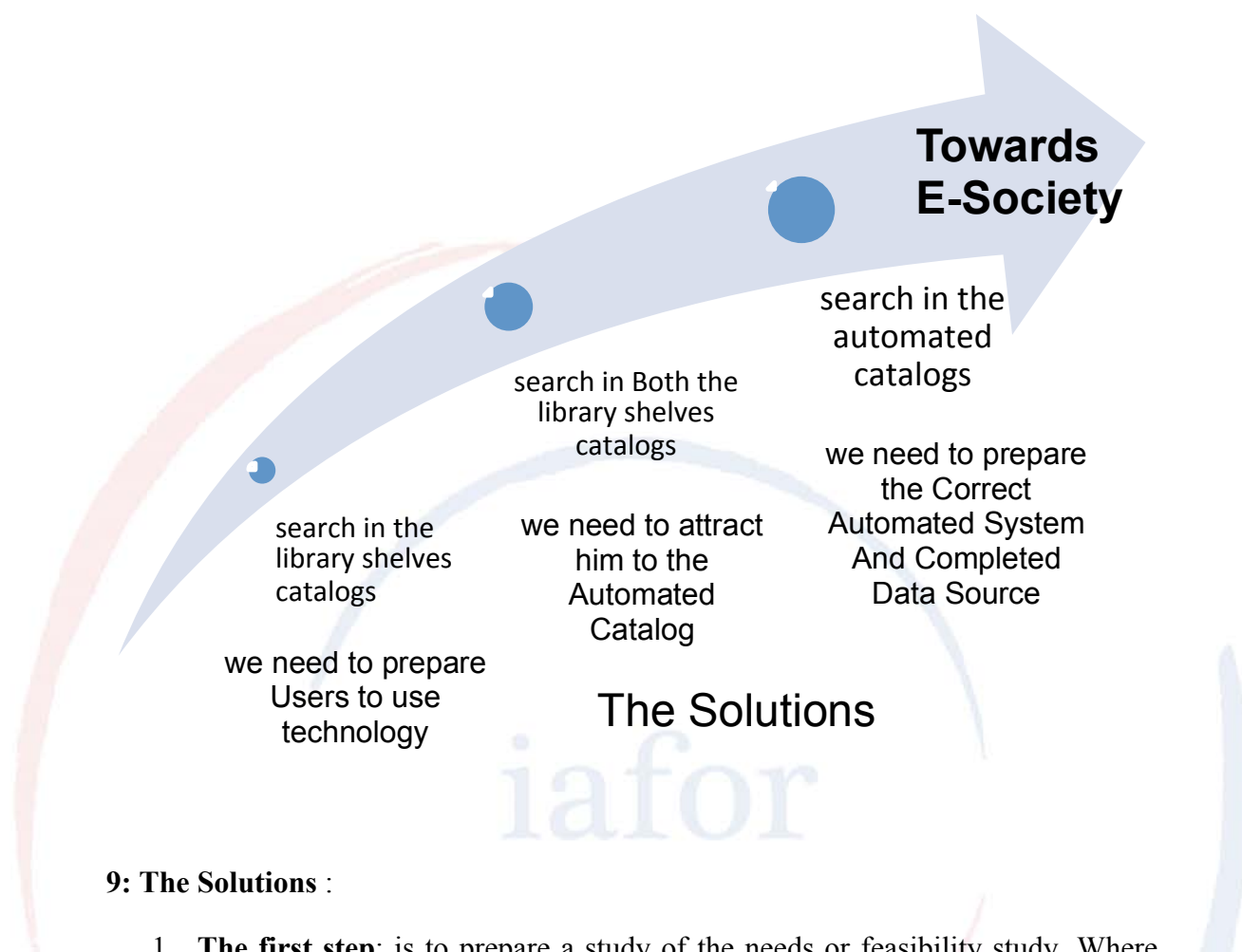
The Answers was:

Q:1 All Library Databases were designed by programmers and the competence of computers without librarians consultation.
Q:2 The Responsibility of Updating Libraries Databases depends on the Manager of the Library,
Q:3 Its will depends on the person who is responsible for Data entry.
Q:2 This will depend on the User Himself.

Figure [1].Study The Nature of the Users (Baghdad University)

Towards E-Society

search in the automated catalogs

search in Both the library shelves catalogs

we need to prepare the Correct Automated System And Completed Data Source

search in the library shelves catalogs

we need to attract him to the Automated Catalog

we need to prepare Users to use technology

The Solutions

iafor

9: The Solutions :

1. **The first step**: is to prepare a study of the needs or feasibility study. Where should prepare a comprehensive study showing the feasibility of the proposed system to display the administration followed by the library where include the study to identify the needs and motivations that justify the adoption of this system and the resources needed to implement the project should also identify the capabilities available through the information system followed by the library and learn about the integrated systems applied in the debate of the Iraqi libraries.

2. **Second step:** determine requirements for operation. It is a study of information, including system requirements covered by the equipment and the potential of human and groups, organization and procedures for development. As this step is in the specification of the design and mechanization in order to prepare for requests for proposals and determine the functional and technical specifications of the system.

3. **The third step**: the selection, installation and testing of the system , includes a request and evaluate the proposals and choose one according to the desired specifications of the system and its potential, costing and not to make presentations run from supplier companies.

4. **The fourth step**: the transition to the new system environment by converting libraries records to machine-readable image according to the criteria used in this field.

5. **Step five**: Operating and development, training and move is aimed at operation and maintenance of the system ensures that work effectively, to ensure optimal use of it by the beneficiaries and include this stage operation and calendar system for train staff on the use of integrated systems and ensure the availability of technical support for the system.

10: An Automated Systems for An Arabic Libraries :

1. MINISIS
2. CDS/ISIS
3. WIN/ISIS 1995: The development of the Windows version was the result of strategic development policy decision aiming at maintaining the leading role CDS/ISIS has played and is still playing on the international scene.

Open source Software:
1. Koha Open Sources : Koha is the first open-source Integrated Library System (ILS). In use worldwide, its development is steered by a growing community of libraries collaborating to achieve their technology goals. Koha's impressive feature set continues to evolve and expand to meet the needs of its user base. It includes modules for circulation, cataloging, acquisitions, serials, reserves, patron management, branch relationships, and more.[2]
The Arabic Libraries Users :
1. Kurdistan Koya Academic, Koya University Central Library .
http://library.koyauniversity.org

2. Egypt/Cairo : -Special NTI Medical Library/ NTI
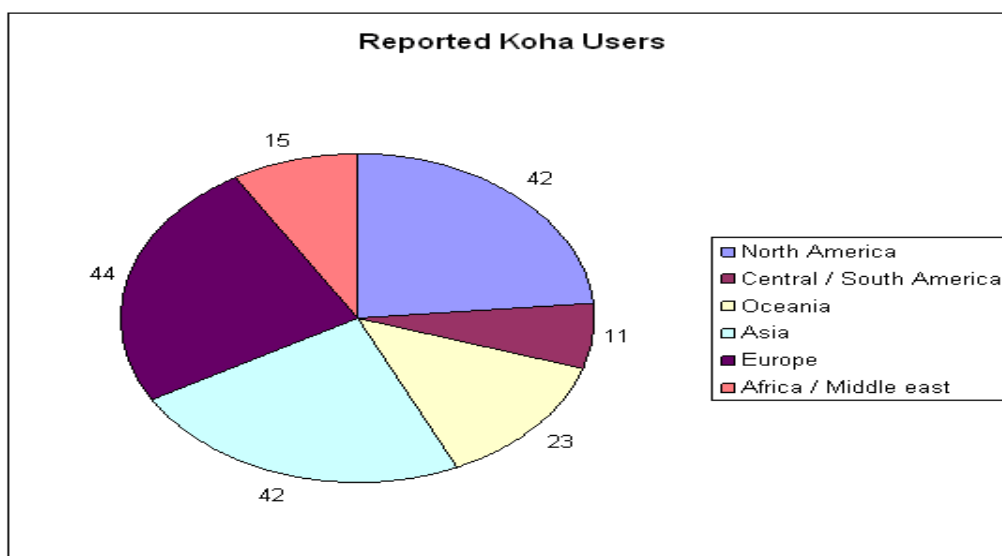 (**www.nti.org.eg/library**), -K-12 school, New Generation International School.

Figure 2: Koha Users as of 16 April 2009

2. Symphony Open Sources :SirsiDynix (previously Sirsi Corporation), is a United States company that produces software solutions and associated services for libraries of all types (academic, public, corporate, government, public/private K–12 schools and special. The company is based in Lehi, Utah, and employs approximately 400 in offices worldwide. SirsiDynix claims to be a global leader in providing "technology solutions" to libraries.] SirsiDynix systems are installed in more than 23,000 libraries around the world, and can be used to link numerous libraries and provide unified access through one portal. The company was bought out by Vista Equity Partners in 2007, a private equity firm based in San Francisco, CA. [3]

   - The Arabic Library Users: The University of Bahrain is pleased to announce the installation of the new electronic "Symphony" Library Management System across the University of Bahrain's libraries. The Symphony system replaces and upgrades the previous Horizon library management system, which was in use by the university's libraries for more than ten years. Symphony, installed by Arabian Advanced Systems, provides many new benefits for University of Bahrain students, researchers as well as university library staff.

11:Conclusion:

▪ The result of this study :

1.(12) College libraries at Baghdad University of (26) used WINISIS System.

2.The most of databases used in university libraries are designed by programmers and the competence of computers without consultation with librarians, when the role of the librarians was just input and feed data books, periodicals, theses (PhD, MSc), storage, and retrieval reports.

3.Unqualified staff to use WINISIS.

4. System applications were limited to indexing processes convert card index to Catalog.

The users as the most important result of this study :

we need to build an infrastructure of the users and prepare them to use technology

12: Recommendations :

1. The formation of a working group of specialists in each of the library and information science and information systems to test the system to determine the validity of the adoption and use in order to distribute it.

2. Launch an automated system for use and adoption by the hand adopts responsible for a distribution and development and updating the system.

3. The establishment of digital libraries in universities and colleges affiliated, whether civil or governmental, and linked to the educational process in which, and then connecting them with each other in a distributor so that the beneficiaries of those libraries to use all the libraries, according to the conventions or associations that can be conducted peacefully and in accordance with the powers granted to them.

4. Creating a search Engine for Iraqi Researches and thesis (Iraqi intellectual production) and connecting it with IVSL website

References :

[1] . Aieda Mustafa., (2010).), **The Evaluation the application of CDS/WinISIS at Baghdad University Libraries**,(MSc.thesis). Al-Mustansiriya University (2010). pp. 89-90)

[2] . Joann Ransom with Chris Cormack and Rosalie Blake (2009)**. How hard Can It Be? : Developing in Open Source**; Koha Library Ststem. Code{4}Journal. ISSN 1940-5758. Issue 7, 2009-06-26. IVSL

[3]. Michelle Suranofsky.(2009) **Joining an Open Source Community: Creating a Symphony Connector for the XC NCIP Toolkit.** Code{4}Journal. ISSN 1940-5758. Issue 7, 2009-06-26. IVSL