

Full Length Research Paper

Academic library consortia in Arab countries: An investigating study of origins, development, and services

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The importance of academic library consortia increased due to the rapid development in the Information and Communication Technology (ICT). In the light of this role the study aims to investigate the establishment of four Academic library consortia in Arab countries at the national level, with analysis of the provided services on their consortia portals. A descriptive study methodology was used to investigate and define the main features of each consortium; goals and objectives, benefits, governance, organizational management, funding and services. The following Data gathering tools are used; a checklist which was sent to the studied consortia's directors, three of them replied (The Egyptian, Lebanese and Jordanian consortia directors); a content analysis method to gather information about the services available on the studied consortia websites (portals); in addition to the published research and news about the studied consortia. The results of the study show that the Ministries of Higher education in Arab countries are aware of the key role of academic library consortia and their impact on higher education. They have a strong commitment towards developing academic libraries to provide access to relevant information resources and services that meet the needs of the communities and support teaching, lifelong learning and research in this changing era. The studied consortia have similarities and differences, which will maximize the opportunity to communicate and cooperate together to form the Arabic unified Academic Libraries Consortium.

Key words: Academic library consortia, Arab countries, Egyptian University Libraries Consortium, Jordanian Public University Libraries Consortium, Lebanese Academic Libraries Consortium, Saudi Digital Library.

INTRODUCTION

Academic Library is one of the important infrastructure components in the higher education system. It supports the educational and research goals; provides tools

needed both for faculties, students, administrative staff and the community. Nowadays, academic libraries have been changed dramatically towards a new era of

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information services due to the advance of open educational resources and increased access to electronic resources (De-la-Fuente et al., 2012)

It is very obvious that, the rapid increasing in the information technology and communication developments will be considered as a challenge to the academic library decision makers; they have to get benefit from these rapid technologies or their libraries will die, and will lose their reliability (Ruan and Qiang, 2013).

The decision makers in academic libraries and sequentially the educational institutions which they belong are facing the problems of shrinking budgets, ever-growing user requirements, high costs of books, subscription of journals, and electronic resources such as databases (Drake, 2010). The best solution to overcome the reduced budget problem is to establish consortia among the academic libraries. This will provide cooperation and sharing, in resources, services and policies. To maximize these benefits the consortia should provide services for their member libraries through one single point known as the consortium portal.

Ministries of Higher Education in Arab countries aware of the vital role of academic libraries in the higher education system, many academic library consortia established at various levels In different Arab countries; at special sectors, e.g., In health, engineering, agriculture; other consortia in the private sector or public sector; and at the national level, under the supervision of ministries of higher education in their countries.

Objectives of the study

The purpose of the study is to explore the current state and efforts of academic library consortia in Arab countries through four Arabic academic library consortia at the national level; Egyptian University Libraries Consortium (EULC), Jordanian University libraries consortium (JoPULs), Saudi Arabian University libraries Consortium (SDL) and Lebanese Academic Libraries Consortium (LALC); to investigate and summarize each model features to help in drawing the outline for establishing the consortium of Arabic Academic Libraries Consortia.

The study achieved this purpose through the following detailed objectives:

- 1) Provide an overview of academic libraries' consortia models worldwide, to abstract the main features and services in such consortia.
- 2) Summarize the origins, features and development of academic library consortia in Arab countries.
- 3) Enrich the literature about Arabic experiences in academic library consortia.
- 4) Analyze available services provided on the Arabic consortia portal.
- 5) Draw a framework for integrated Arabic academic library consortium by cooperating amongst the national consortia.

RESEARCH METHODOLOGY

A descriptive study methodology was used to investigate and specify the main characteristics of each consortium; goals and objectives, benefits, governance, organizational management, funding and services in four Arabic Academic library consortia at the national level; Egyptian University Libraries Consortium (EULC), Jordanian university libraries consortium (JoPULs), Saudi Arabian University libraries Consortium (SDL) and Lebanese Academic Libraries Consortium (LALC). The following Data gathering tools are used: first; a literature survey was conducted to summarize the state- of-the art of academic consortia worldwide to conclude the best patterns from their experiences which will help in analyzing the studied consortia's features and services; Second a content analysis method was used through a checklist to gather information about the services available on the studied consortia websites (portals); in addition to the published research and news about the studied consortia. Third, a brief questionnaire was mailed to the consortia directors via e-mail.

Utilizing these data collection methods the study draws an overview and comparative analyses of the standardized and dissimilar characteristics of the studied consortia

Definitions and terminology

Bostick (2001) defines consortium as "a group of two or more libraries that have agreed to cooperate with each other in order to fulfill certain similar needs, usually resource sharing". Furthermore, on that point there is another definition by Reitz (2014) includes more details; he defines the consortium as "An association of independent libraries and/or library systems established by formal agreement, usually for the purpose of resource sharing. Membership may be restricted to a specific geographic region, type of library, or subject specialization". In general, the term consortium refers to co-operation, Co-ordination and collaboration between, and amongst libraries in order to share information resources and/or services (Bajpai et al., 2009).

From the above, sharing among libraries has more than one term as they appear in the related literature, the study found various terms in the English literature (e.g., Consortium – Collation – alliance – cooperation – federation). The most used term in the literature and the more exclusive is the term consortium, followed by the term alliance which is generally practiced in the European institutions.

In the Arabic literature we will find the same; many terms have been used alternatively. The Romanization

*The researcher received a reply from three consortia, so the researcher depended on the analysis of consortia web portal basically in addition to the previous literature about the fourth one.

forms of these Arabic terms as they are pronounced are (Ittiḥād– Takattul – Tajamw'e– E'etlaf). The most used term is the term Ittiḥād this variety inverses on the effectiveness of search engines retrieval.

REVIEW OF LITERATURE

A review of the literature on library consortia shows a great interest in research on academic library consortia with considerable coverage of case studies. Tammaro (2004) prepared a literature review about academic library consortia in the digital age; this review provides a comprehensive overview for academic consortia history and development. According to Southern European Libraries Link (SELL) (2014), the decision makers look at the academic library consortia as successful models can provide mutual access to a vast collection of electronic resources at lower costs through group negotiation and agreements done with publishers and vendors.

The Consortium can achieve high discount rates of subscription in electronic resources from the most famous databases and electronic resources' publishers (Efada; SDL; Malaysian Online E-Resources Consortium; Al-Obaied-Allah, 2008; Choukimath et al, 2004; University Grants Commission, 2013; Khan, 2006) Most of the electronic resources' publishers responded positively to the call of the Consortium. "The rates offered to the consortium are lower by 60 - 99%, depending upon the category of institutions" (Shah and Marg, 2012), this will bring pressure on providers, especially electronic resources' publishers to reduce the rate of rise in the cost of purchasing information. Therefore, the library consortia are commonly formed to negotiate this joint purchase, and subscriptions (Burke, 2010). By the advent of the 21st Century the developing countries moved towards the associated federated digital libraries, with common objectives to minimize electronic resources subscription costs, get better negotiation with international publishers and preventing duplication (Abdul-Awwal, 2008).

The term "Library consortia", has been emerged to face the exponential increase in the electronic resources' budgets (Choukimath et al., 2004; Bajpai, 2014). The literature mentions that "Academic library consortia emerged in the early 1980s and became prevalent towards the end of the 1990s, when many academic libraries were exploring ways to improve efficiency and to resolve constraints on financial resources" (Dong and Zou, 2009).

Mohamed and Hassan (2008) stated that the term consortium is considered as a new term for resource sharing and library cooperation concepts. The Information technology and communication revolution affected the term and enhanced the services which can be offered through the cooperation. Consequent with the term "cooperation" the term "Consortia" emerged. In his earlier study about the activities of academic library consortia in

the United States, Kopp (1998) goes further; he noted that the beginning of using the "consortium" concept in the literature was in 1950s and the 1960s as most of collaborative and research sharing projects in the USA have been launched (Kopp, 1998).

The literature monitors a lot of academic library consortia at different levels all over the world, both in developed and developing countries as a strategic solution to shrink budgets, and to maximize the services offered to academic libraries intended users. International Coalition of Library Consortia ICOLC, known as the Consortium of Consortia lists over 200 library consortia from around the world, few of them are as international, e. g., AMICAL (American International Consortium of Academic Libraries) which includes members from 14 countries from American liberal arts colleges and universities throughout Europe, North Africa, Central Asia, and Middle East (AMICAL Consortium, n.d.).

Academic Libraries Consortia: Worldwide Experiences

United States has the highest number of academic consortia according to the International Consortium of Libraries Consortia (ICOLC), besides; it is considered as the leader in this regard. The early history of library collaboration through networks started in 1967 when "a small group of library leaders founded OCLC with an ambitious public purpose, to improve access to the information held in libraries around the globe, and; find ways to reduce costs for libraries through collaboration. This vision launched an effort to share the world's information via library collaboration—first in Ohio, then across North America and today in 113 countries". OCLC is a collaborative network involves different types of libraries (OCLC, visited June 2015).

One of the leading academic library consortia projects is Ohio Link; The consortium of Ohio University libraries which emerged in 1987. The aim of Ohio Link is to facilitate fast and easy access to resources and provide document delivery services for all member libraries (colleges and university libraries of Ohio in addition to the Ohio State Library) through one network available and accessed to all members.

The consortium supervised by a shared council, formed of 13 members, this council holds 6 meetings yearly to set the budgets and strategic plans for providing services (Al-Obaied-Allah, 2008).

The Orbis Cascade Alliance is another leading project in the United States; it was founded in 1993 to serve colleges, universities and community in Washington and Oregon. (Orbis Cascade Alliance, visited 2014).

Academic Libraries of Indiana were established in 2003, now it includes 72 academic libraries in accredited non-profit institutions of higher education in Indiana. The aim is to support teaching, learning and research. The consortium provides Single point access (portal),

accesses a virtual union catalog for all its member libraries, provides collaborative preservation and storage for selected physical collections and provides access to special collections and unique resources (ALI, accessed June 2014).

CARLI, The Consortium of Academic and Research Libraries in Illinois is another leader example, in cooperation & resource sharing among the academic libraries. The main aim of CARLI as mentioned in its website is “to create and sustain a rich, supportive, and a diverse knowledge environment that furthers teaching, learning, and research through the sharing of collections, expertise, and programs” (CARLI, 2014).

Council of Australian University Librarians is an Academic and special libraries Consortium for 70 universities and institutions in Australia and New Zealand. CAUL provides cooperation and sharing programs. The main projects of CAUL are: the national interlibrary loan program among University Libraries in Australia, the Australasian Digital Theses Program, CAUL Australian Institutional Repository Support Service, and its consortia purchasing program, under the authority of the CAUL's Electronic Information Resources Committee program (CAUL, c2009).

In Europe, there is one of the successful multi countries consortia; “The new European Library”, it is a research portal provides access to resources for researchers in the humanities and social sciences; Archives, museums and audio-visual collections already have established domain aggregators (CERL, 2013)

On the other hand, if we shifted to the African region, we will find many projects, e.g., In Egypt, Algeria, South Africa, Zimbabwe, Uganda...Etc. Fourie (2006) analyzed in his comprehensive study five projects in South Africa, including the formation of the consortia as well as their achievements. The author conducted a short survey in 2004 to give an overview of the establishment of the five academic library consortia in South Africa, their status, successes and plans for the future. The results of this study showed that South African academic library consortia need more of work to identify the steps to take them to new levels of service delivery, member participation and strategic planning. The Zimbabwe University Librarians Consortium (ZULC) is another academic library consortium in Africa; it was formed in 2001 from 7 University Libraries in Zimbabwe. The main goal of ZULC is to provide resource sharing among member libraries to face financial problems and to preserve information resources. (ZULC, visited June 2014).

In the Asian region, there are a lot of successful academic library consortia. In India, for instance, there is a UGC-Infonet Digital Library Consortium. The Indian University Grants Commission (UGC) initiated two projects for the academic universities. The first project is “UGC-Infonet Connectivity Program” in order to connect the Indian universities with campus wide networks and Internet bandwidth, the second project is “UGC-Infonet

Digital Library Consortium” which is responsible for providing access to electronic resources in different disciplines through three phases. The INFLIBNET is responsible for execution, performance and monitoring of both the projects. The Consortium established to help the member university libraries keep their journal subscription, which have been discontinued because of the rapid increase in subscription cost much faster than the increase of funds available to the libraries (Thanuskodi, 2012).

In China, there are various types of library consortia at the regional and national level. The two major examples are a Beijing Academic Library Consortium, which includes twenty seven higher education institutions in Beijing, and Tianjin Academic Library Consortium. In addition, there are academic consortia at the regional level include Hebei Academic Digital Library, Guangdong Academic Library Network, and Hubei Academic Library Committee. A comparative study had been carried on between the two Chinese consortia in order to get an overview and comparative analysis of the similarities and different characteristics of the two consortia with reference to their advantages and disadvantages (Xu, 2010).

In Bangladesh, the Digital Libraries Consortium was formed in 2005 to support research and education in Bangladesh through creating a high speed research and education network for both governmental and private universities in addition to research institutions in Bangladesh (Abdul-Awwal, 2008). The University Grants Commission of Bangladesh, planned to support the Information and Communication Technology infrastructure in universities of Bangladesh in order to provide enhanced electronic services and resources to all scholars, staff and researchers.

In the Arab World, the Arabic literature lists a number of research studies which conducted to investigate the Arabic consortia and their origin; e.g., There are two detailed and comprehensive studies analyzed the main projects of Egyptian Universities, Libraries Consortium (EULC). The first study was conducted by Mohamed and Hassan (2008), while the second one was conducted by Farahat (2009) and mentioned by Mohamed and Hassan (2008); the Egyptian Universities' Libraries Consortium (EULC) is considered as one of the largest consortia in the Middle East, including all the Egyptian governmental universities and some other institutions such as foreign and private universities. Megahed (2007) highlighted the importance of the Egyptian Agricultural Libraries consortium as it is the oldest one in Egypt, established in 2002, the consortium formed from three main agricultural libraries in Egypt at this time; Egyptian National Agricultural Library (ENAL), and Faculty of Agriculture library at Cairo University, and Faculty of Agriculture library at Ain Shams University.

In their paper titled “Library Consortia in United Arab Emirates: An Opinion Survey”, Sheshadri, Shivalingaiah and Manjunatha (2011) referred to the existence of five

library consortia in UAE.

Another experience in Algeria through the Regional University Libraries Network as one of Meda Tempus projects had been stated by Zuhair and Amna (2014). This project aims to cooperate in the libraries resources and services with union catalog for the member libraries.

The future of academic libraries in the library consortia age was pointed out by Burke (2010) he discussed the challenges and opportunities face academic libraries in this regard, also the e-resources publishers and how open access will affect in which the publisher will deal with libraries. In his opinion, academic libraries will continue to play a key role in negotiating and licensing e-resources. Bedi and Sharma (2008) agree that library consortium in the information society is very important now comparing to the past, the trend now is towards an Access to resources, and the consortia are the best channels to get these aims with affordable cost and at the best terms of licenses.

ARABIC ACADEMIC LIBRARY CONSORTIA: FINDINGS

We can conclude from the literature review about Arabic Academic library consortia that the Arab countries are aware of the importance of academic library consortia and their role in enhancing and developing the scientific research and educational process in the changing Information and Communication Technology environment. There are many examples of the academic libraries sharing projects; the leading projects are four projects according to their establishment date: Lebanese academic Libraries Consortium (LALC), Jordanian Public University Libraries Consortium (JoPULs), Egyptian University Libraries Consortium (EULC) and Saudi Digital Library (SDL), as they are examples for the academic library consortia at national level. They have similar and different consortium characteristics. This section will investigate their similarities and differences with regard to their goals and objectives, portal access, sources of funds, organizational model, main projects, resource and services, to draw out main guidelines for further studies about ways of integration between them to form the Arabic academic library consortium.

Establishment

The idea of cooperating academic libraries in the country under the authority of one consortium in Arab countries emerged with the advent of 21th century among studies consortia. The Lebanese Academic Libraries Consortium (LALC) is the first library consortium in Lebanon, the idea emerged in 2001 by the University of Balamand, it was formed in 2002 from four private academic institutions; American University of Beirut, the Lebanese American University, Notre-Dame University and the University of

Balamand. In May 2004 the member libraries signed a Letter of Agreement (LOA) (Kammourie-Charara, 2012). By 2011, LALC has grown into nine members; University Saint-Esprit de Kaslik, University Saint-Joseph, Beirut Arab University and Haigazian University has been added (LALC, visited 2013).

In 2004 JoPULs; the Jordanian Public University Libraries Consortium was formed from ten governmental university libraries in Jordan, linked together through The Jordanian Universities Network (JUNet). The idea of Jordanian consortium emerged by the Jordanian Ministry of higher education, as a result of the Increasing costs in the information resources in the governmental university libraries in Jordan, in order to enrich the digital governmental university libraries network with information and to coordinate database subscriptions and to act as a negotiating committee with publishers in subscribing to electronic resources (COE, visited 2014).

Another project was launched in Egypt in 2006 to form the Egyptian University Libraries Consortium (EULC). The Egyptian University Libraries Consortium consists of more than 25 participating institutions from governmental, foreign, private universities, Research institutions and services in Egypt. It also includes the Egyptian National Agricultural Library and other research institutions. It was established under the umbrella of the Information and Communication Technology Project (ICTP) in the higher education, the consortium supervised by the Digital Library Unit (DLU) at the Electronic and Knowledge Service Center (EKSC) at the Supreme Council of Universities in Egypt (Electronic and Knowledge Service Center, visited 2013). The most important feature of (EULC) is that it is the gateway to the Egyptian university libraries to control and unify all the educational and research resources, efforts and procedures, the EULC provides access to the scientific and academic resources such as bibliographic and full text database of e-journals, books, dissertations, standards...etc, which could improve the educational and research process in Egypt. The consortium controlled centrally by the digital library unit at University Supreme Council (Farahat, 2009).

The fourth consortium, according to the date of constitution is the Saudi Digital Library. It is considered as one of the largest consortia in Arab world according to the number of electronic resources accessed through it. SDL was launched in November 2010. It unifies all Saudi university libraries under one umbrella, to negotiate with publishers on various legal and financial issues, to save money, efforts and to take benefit from the cooperation in general. The main challenges faced SDL in its launching were to push Saudi higher education institutions to contribute and make use of this project, to get better negotiation agreements with publishers for the e-book collections' subscription and establishing the SDL technical platform and designing an attractive and interactive portal (Almegren, 2011). The consortium gains more benefits and rights from publishers. It also

Table 1. Establishment and basic information.

Consortium formal name	Lebanese Academic Libraries Consortium	Center of Excellence for Jordanian Public University Libraries Services	Egyptian university Libraries Consortium	Saudi digital Library
Initials/ common name	LALC	JoPULs	EULC	SDL
Establishment date	2002	2004	2006	2010
URL	http://lalc.lau.edu.lb/	http://www.jopuls.org.jo/	www.eulc.edu.eg	http://sdl.edu.sa/SDLPortal/AR/Publishers.aspx
Governance	Private	The Ministry of Higher Education	The Ministry of Higher Education	The Ministry of Higher Education
Coordinating unit	American University in Beirut	Center of excellence (University of Yourmoke)	Digital Library at Higher Supreme of Universities	King Saud University
Member Libraries	9	10	32	40

Table 2. Goals and objectives of Arabic Academic Consortia.

Objectives	LALC	JoPULs	EULC	SDL
Enhancing access methods by creating one- portal includes access to a verity of services.	√	√	√	√
Minimizing the cost through the shared subscription in electronic resources and negotiating in electronic databases pricing.	√	√	√	√
Creating a Union Catalog among the shared member libraries.	X	√	√	X
Preserving, storing and accessing the university scientific research full text.	X	√	√	√
Enhancing & developing the human resources in the member libraries through the training programs.	√	√	√	√
Centralized management of the member library's content.	X	√	√	√

provides a digital environment for various Saudi member universities, and research organizations (Alasem, 2013).

A brief summary of the constitution and basic data is provided in Table 1.

Goals and objectives of the Arabic consortia

By analyzing goals and objectives of the studied Arabic consortia as stated on their websites, we will find a similarity between them in the main goal which is to cooperate & share resources and human experiences through the member universities in order to strengthen the library services provided to the students, staff and other users of the institutions. The common objectives to achieve this goal are mentioned in Table 2.

As shown in the table, it is clear that there is a special interest in establishing one single point or portal for the member libraries, this is followed by the electronic resources shared subscription, as such sharing will save the library budgets, this objective is followed by the union catalog. On the other hand Particular attention is given by the EULC, SDL and JoPULs in Preserving, storing and accessing the full text for universities scientific research

especially the dissertations and thesis. There is a similar interest from The JoPULs and EULC to create a Union Catalog by installing a unified integrated library System for all member libraries through a central server. The Future Library system is utilized by the Egyptian libraries consortium and Horizon software is utilized by the Jordanian library consortium, there are however no serious steps in interlibrary loan or document delivery although they are already supplied.

Benefits of the consortia

According to the goals and objectives of the studied consortia and the past research, we can summarize the benefits as follows.

Benefits for the end users

1. Support the teaching, learning and research process by needed educational and research resources through shared resources.
2. One single point for all consortium services and resources (portals).

Table 3. Consortium Structure.

Consortium	Main authority	Subunit	Coordinating unit	Sub coordinated unit
LALC	Private Union	American University in Beirut	Lebanese American University in Beirut	Each University
JoPULs	Ministry of Higher education	Jordanian Public Universities Information Network	Center of Excellence at Yarmouk University	Center of Excellence at each university
EULC	The Ministry of Higher Education	The higher supreme of universities-	Digital Library	Digital Library unit at each university
SDL	Ministry of Higher education	King Saud University	Librarianship deanship at King Saud University	Librarianship deanship at each university

3. Increasing the range of resources available to consortium users as a result of the shared digital repositories, union catalogs and electronic resources.

4. The Consortium provides archival access and preservation of subscribed electronic resources.

5. The research productivity of member institutions is expected to improve due to increased access to diverse electronic resources.

Benefits for member libraries

1. Member academic libraries minimize the costs and save their budgets through the collaborative negotiation and shared subscription on the electronic resources. The Consortium can get highly discounted rates of subscription in electronic resources from the most famous databases and electronic resources' publishers, as many consortia mentioned in their reports.

2. Facilitate cooperative acquisition plans among members in the consortium.

3. Enhancing the quality of the services provided and the librarians' qualifications due to the central management and training programs.

4. Avoid duplicates core collection.

It is important to measure the Impact and outcome of the consortium of the member libraries, faculty and students and the teaching and research process. It's easy to measure the benefits to the member libraries, but the real challenge is how to measure the impact on the intended communities.

Governance

Ministries of higher education tend to develop the quality of education and research process in the universities, to get this goal the ministries have to use the Information and Communication Technologies, through establishing academic library consortia among the universities for sharing resources, services and the electronic resources subscriptions, as academic libraries now have the

minimum ICT infrastructure, e.g., The broadband connection to the Internet, websites connected to various electronic services (Thanuskodi, 2012). The ministries of higher education in three of the studied consortia form the base for the consortium in different levels and names, while LALC is a consortium of private university libraries. Table 3 summarizes this role.

As shown in the table, three out of the four studied consortia follow the Higher Ministry of education in the country; under the supervision of the ministries, there are a sub unit like The higher supreme of universities in Egypt, for example, followed by the direct coordinator or moderator unit, followed by subunits at the member libraries while the Lebanese Academic Libraries Consortium is a private project under the supervision of the American University in Beirut, which is one of the member libraries.

From the previous hierarchy, we can define two main types of parties according to their role; units responsible for funding operations, and units responsible administrative and technical works (Figure 1).

Memorandum of understanding

It is important for all the participating libraries to sign a Memorandum of Understanding (MOU) (Obeidat, 2010). The studied consortia as mentioned in their website and from the data they provided by e-mail set their (MOU) to state all the rules and regulations, tasks and duties of all parties, mission, and constitution of the consortium.

Coordinating unit

The coordinating unit plays a vital role in the consortium, it is considered as the backbone for all its processes and services. It supposes to be responsible for all the administrative and technical works in addition to its role as a coordinator amongst the consortium member academic institutions. From the previous samples of academic library consortia we can define four models of the coordinating unit hierarchy. In the studied Arabic

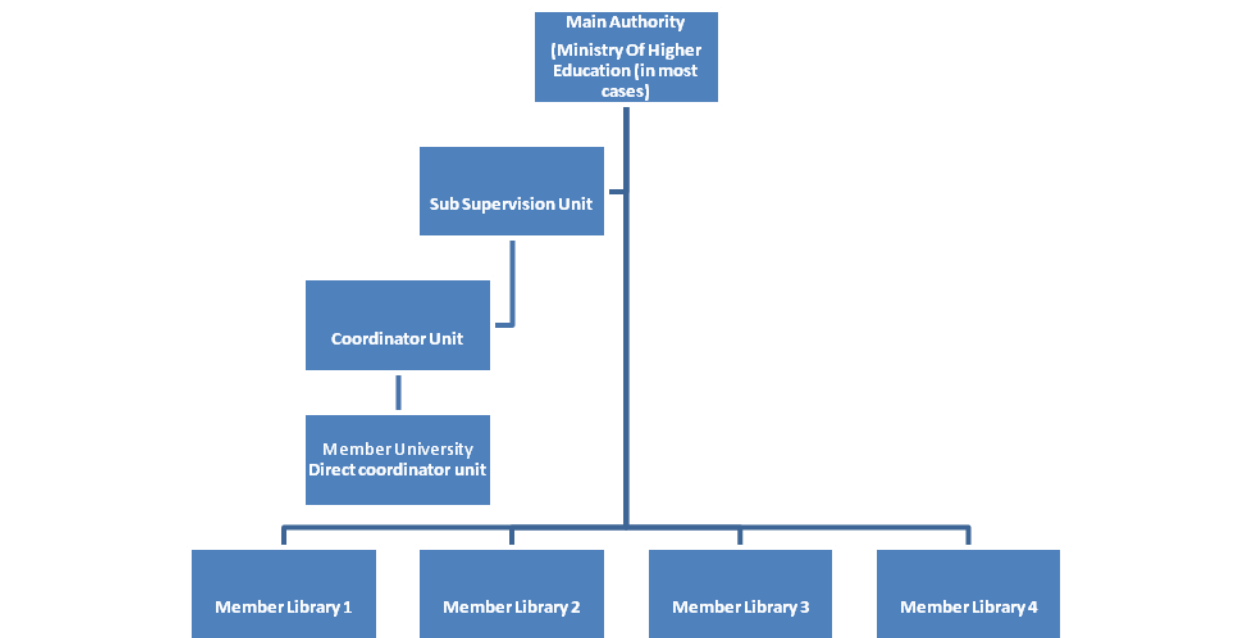


Figure 1. Common Consortium organizational structure as abstracted from the studied consortia.

consortia we can find different types of the coordinating units' models according to their structure and organizational authority. The unit's structures can be characterized in one of the following models:

- 1- One member library acts as the coordinating unit without any higher authority.
- 2- The Coordinating unit can be hosted at one of the member libraries under the supervision of ministry of higher education or one of its institutions.
- 3- Separate unit under the supervision of ministry of higher education or one of its institutions.

LALC follows the first model; where the American University in Beirut Acts as the coordinating unit. In their Letter of Agreement they agreed to select the coordinating unit from them every three years with possibility of renewal (Kammourié-Charara, 2008). LALC is composed of one representative from each institution, and they meet every definite time through the year to discuss all the related issues and proposed developments in the consortium.

The second model which dedicates independent unit for this purpose to be hosted in one of the member institutions applied in the SDL. Librarianship deanship at King Saud University is the coordinating unit which administrates the project and all procedures regarding the databases' subscriptions, this includes receiving orders, negotiating with databases' suppliers, paying subscription fees. The National Center for E-Learning & Distance Education was responsible for initiating the project (National Center for E-Learning and Distance Education, n.d.).

The second model applied also in the JoPULs through the "Center Of Excellence". The coordinating unit (COE) is located at the University of Yarmouk (Al-Qasem and Yamin, 2010; Al-Khaledey, 2009).

The third model which dedicates a separate unit under the supervision of the ministry of higher education or one of its institutions is applied in the EULC where a separate unit was established under the name "Digital Library at the Higher Supreme of Education" to act as the central point and the cornerstone amongst all the member libraries.

Coordinating unit tasks

According to the data collected about the studied consortia, we can summarize the following tasks and duties of the coordinating unit:

- 1- Coordinates between all the member libraries from one side, and between the consortium and other institutions and consortia from another side. This unit should hold a qualified staff and experts to assist in planning and coordinating and monitoring projects.
- 2- Acts as a communication point between academic libraries and international databases publishers or suppliers.
- 3- Acts as the cornerstone with its committees to set the strategic plans for developing the work.
- 4- Hosts the consortium web portal.
- 5- Trains both the member libraries staff and users, in addition to preparing the required guides and tutorials.
- 6- Follows up the H/W & S/W requirements in the shared institutions.

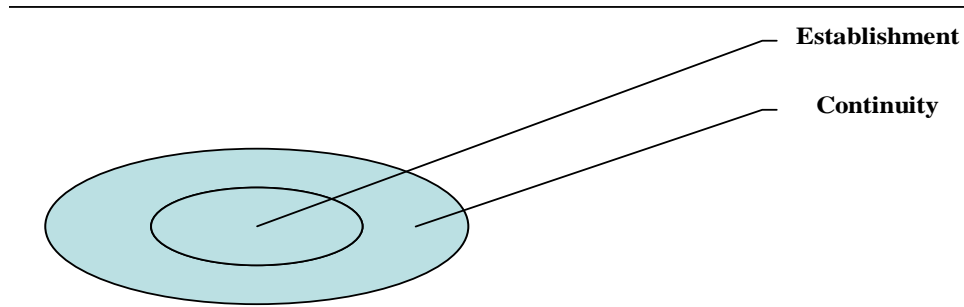


Figure 2. Funding types.

- 7- Monitors and administrates the consortium and evaluates the performance.
- 8- Provides the needed reports and indicators for decision makers.

Academic institutions member libraries’ tasks

As stated on their websites, the member institutions are assigned with some tasks and duties:

- 1- Each university or academic institution chooses a project coordinator to pass a long with the main unit and his university or academic institution, and supervise the project in his institution.
- 2- Provide the needed computers connected to the Internet.
- 3- Funding & executing the data entry for the local digital repository, and the union catalog.
- 4- Funding the training for librarians.

Membership

Despite the differences in the structure and coordination, there are concurrences between the studied consortia in their member libraries, which include the following:

- 1- Governmental (public) university libraries.
- 2- Private universities & university college libraries.
- 3- Research institutions.

LALC’s member libraries are only the private university libraries in Lebanon, while JoPULs is formed from only the governmental (public) university libraries. SDL and EULC include member libraries from the three categories.

It is Important to form a Common Committee from the member libraries to manage The Academic Libraries Consortium works, the major tasks of this committee are:

- 1. Analyze users’ needs and the libraries facilities and features.
- 2. Set the consortium strategic plans and policies.

- 3. Set the consortium acts and rules in the light of legal issues.
- 4. Conduct a business model for all member libraries, for governmental and private universities as well as other related institutions.
- 5. Hold meetings and workshops, to launch the project.
- 6. Plan for training programs for both librarians and library users.

Funding

The most significant challenge facing any consortium is the fund resources for setting up and continuity. Differences refer not merely to the buying power but also, to different educational organizations that require special rules in the agreements with publishers and vendors. From the studied consortia, the funding process takes place through two main phases as follows:

Establishment funds

The establishment phase occurs in the beginning of the consortium, which will be for a short time ranging from one year up to three years. The studied consortia have received grants under the umbrella of some projects to sustain the research and educational goals (Figure 2).

Continuity funds

The continuity phase will be for a long time all over the consortium life. It is seen as the most complicated issue after the formation of the consortium, so the business model to be followed through its continuity should be set carefully. The difficulties emerge from:

- 1- The differences between sharing libraries’ authorities; some of the members may be are under the umbrella of the Ministry of Higher education, and some of them are under private authorities.
- 2- The differences between shared university libraries

Table 4. Main projects of the studied consortia.

Projects	LALC	JoPULs	EULC	SDL
Union Catalog	X	√	√	X
Electronic Resources subscriptions	√	√	√	√
Digital repository	X	√	√	√
Electronic Publishing	X	X	√	√

in their size, number of students and staff and number of colleges or departments.

3- The ICT infrastructure available in the shared university libraries, which will cost some of them additional budget.

4- The differences between university libraries in their budgets, policies, and support from the university.

All these challenges face the decision makers in assigning the business model for the consortium, especially in the electronic resources subscription. The problem will arise with the small size member institutions. To define a business model to the consortium is the most complicated issue as it will be amongst different higher educational institutions, and their budgets authorities will be varied, especially if they are private and public. Many studies provided some consortia experiences; for example, According to ACL Institute, the business model of the consortium should divide to: Key partners – Key activities – key resources (ACL, 2012).

In LALC each member library is responsible for paying its own invoices, while JoPULs depends on a separate budget from the following resources: member libraries' subscriptions and partially from Ministry of Higher Education.

The main source of funds for SDL is the higher education box (Information center for Saudi Universities, 2004). The Egyptian Academic Libraries consortium sets a business model which divided the Egyptian universities depending on the number of users into: Large size universities (number of their actual users 25.000) - Medium size universities (number of their users 10.000-25.000) - Small size universities (number of their users less than 10.000).

Main projects

There are common projects in most of the studied consortia, in addition to some unique projects for each one of them as shown in Table 4.

The main projects of the studied consortia

1- Shared subscription, in electronic databases for academic libraries primarily.

2- Establishing virtual union catalog among academic

libraries.

3- Building the Academic libraries' local databases & repositories.

4- Provide electronic publishing tools and mechanism for the scientific research.

Services

The study monitored the main projects and the services emerged from them, which are represented at their web portals. The consortium web portal is a very important part now if we compared the studied Arabic consortia we will find different services and information available through the consortium as shown in the Figure 3.

All the studied Arabic consortia have web portals which act as the single point or the gateway to provide hyperlinks for member libraries, databases shared subscription (Figure 4). However, there are unique characteristics of each one of them. Table 5 summarizes the main services which are offered:

1. SDL provides an interactive gateway with different types of guided information e.g., Video tutorials, updated announcements, workshop news, news from publishers, it holds a very big electronic collection. Some other significant characteristic is the availability to the Saudi students all over the globe to register data about their masters and PhD theses in the digital repository from the SDL web site as easily as uploading them.

2. The main feature of EULC is the accessibility for the registered research proposals for master and PhD degrees in the Egyptian Universities which help the postgraduate students and the faculties and the researchers in general to be aware by these proposals and their topics. Another feature is the union catalog for the Egyptian University libraries which follows the international bibliographic standards, the digital repository for the theses, faculties' research papers and the universities journals articles. Besides the electronic publishing module which fully supports the electronic publishing online process for the Egyptian universities' journals.

3. JoPULs provides links to the union catalog prepared according to the international bibliographic standards; Authority control lists of the Arabic names to unify the bibliographic work in this regard, provides library management software for its member libraries. Provides full information about the consortium rules and laws.

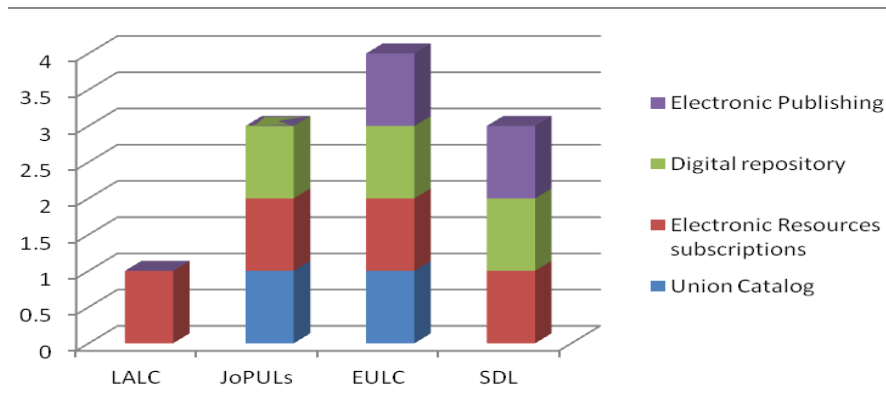


Figure 3. Main projects of the studied Arabic consortia.



Figure 4. Web Portal main services.

4. LALC provides information about the consortium and its members, LALC representatives, membership forms, annual report and the memorandum of establishing.

Figure 5 summarizes the different services available through the studied Arabic consortia:

Social communication tools on the portals

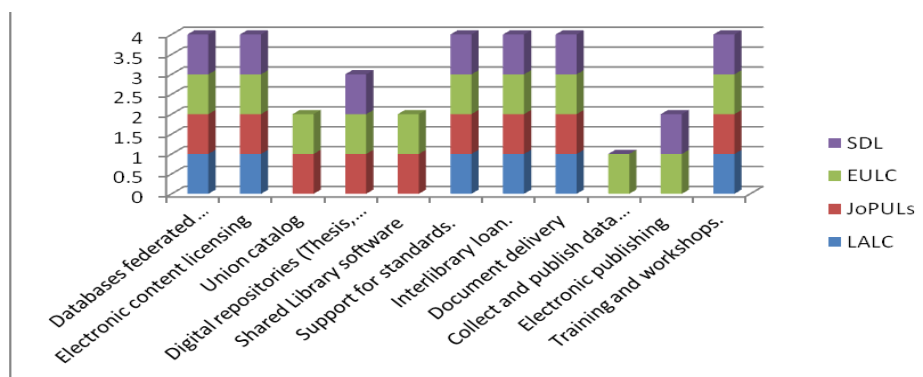
It is important to meet the users' preferences in the

rapidly changing information technology era, so the consortium coordinators should take benefit of the ICT to communicate with their users and the community as well. In these tools the consortium can publish the news and interacts with users.

As indicated in Table 6, SDL provides various social communication tools with their participants, in order of the frequency of usage; the consortium has a Facebook, Twitter, YouTube and LinkedIn accounts which they are good channels to convey with the consortium community, so SDL benefits fully from the advantages of the social

Table 5. The services provided in the studied consortia.

Projects	LALC	JoPULs	EULC	SDL
1. Databases federated subscriptions,	√	√	√	√
2. Electronic content licensing	√	√	√	√
3. Union catalog	X	√	√	X
4. Digital repositories (Thesis, researchers' literature... etc.)	X	√	√	√
5. Support member libraries with the Library software	X	√	√	X
6. Support for standards.	√	√	√	√
7. Interlibrary loan.	√	√	√	√
8. Document delivery	√	√	√	√
9. Collect and publish data about the approved Master and PhD's proposals in the shared universities.	X	X	√	X
10. Electronic publishing for the shared universities' journals and proceedings).	X	X	√	√
11. Training and workshops.	√	√	√	√

**Figure 5.** Services provided on the studied Arabic consortia.**Table 6.** Links to the communication tools on the consortia portals.

Communication tool	LALC	JoPULs	EULC	SDL
1- Facebook	X	X	√	√
2- Twitter	X	X	X	√
3- LinkedIn	X	X	X	√
4- YouTube channel	X	X	X	√

media in contacting and assisting their users. EULC provides a Facebook link to their page, while there are no links or official account by the name of JoPULs or LALC.

Arabic Academic Libraries consortia integration:

1. SDL includes a large number of electronic resources; attractive and interactive web portal; good policy and procedures to collect the Saudi theses and dissertations, all over the world through its website; also the interactive social communication tools (Figure 6).

2. EULC is unique in providing electronic publishing module for the universities' journals; data registration of the approved research proposals for Master and PhD. Degrees centrally from the universities; the digital repository of Egyptian universities Master and PhD theses and dissertations, the union catalog and the electronic resources (Figures 7 and 8).

3. JoPULs provides union catalog; authority control lists for the bibliographic data; and the electronic resources. It supports one library management system for all its member libraries (Figures 9 and 10).

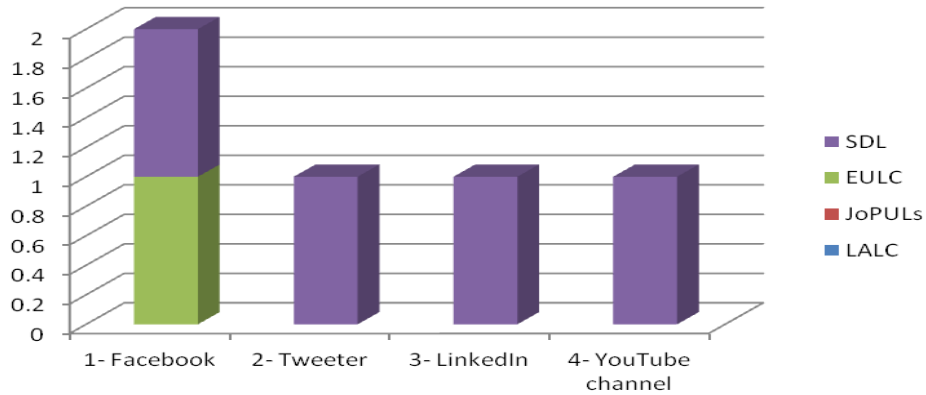


Figure 6. Links to the communication tools on the consortia portals.

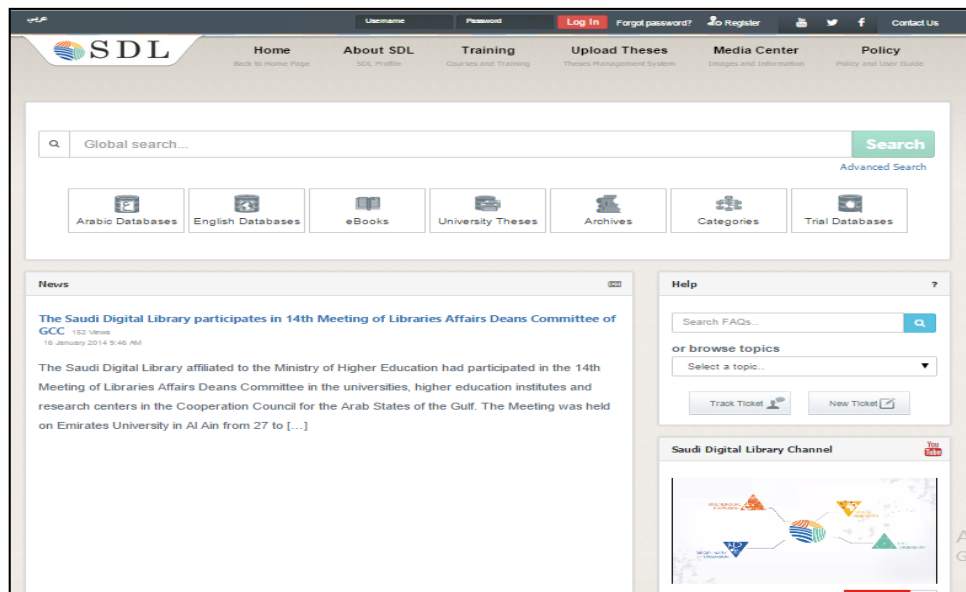


Figure 7. Saudi Digital Library portal homepage.

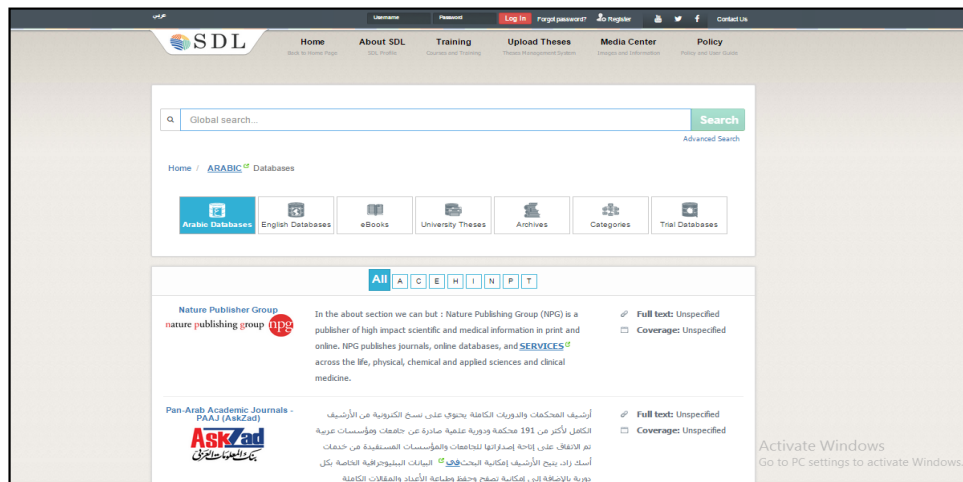


Figure 8. Saudi Digital Library portal Search.

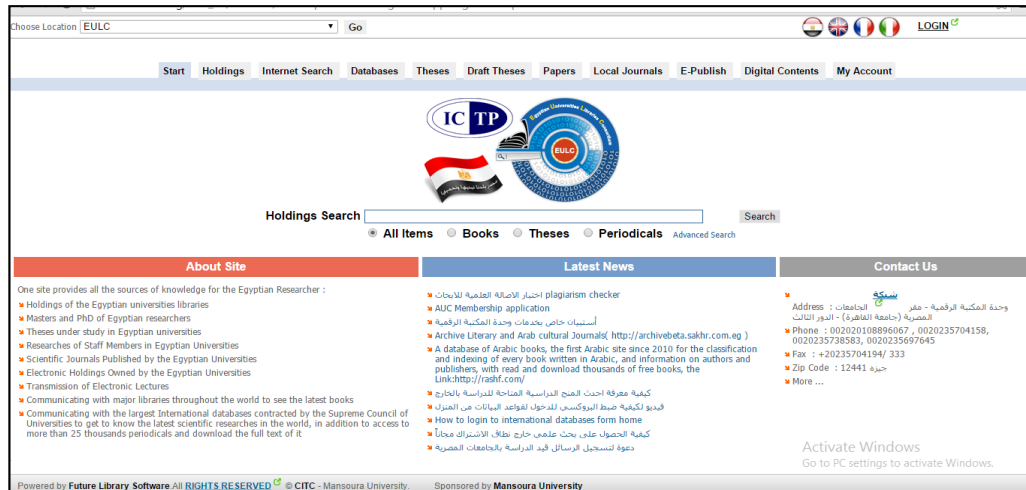


Figure 9. Egyptian Universities Consortium portal homepage.



Figure 10. Egyptian universities consortium digital library.



Figure 11. Center of Excellence for JoPULS portal services.

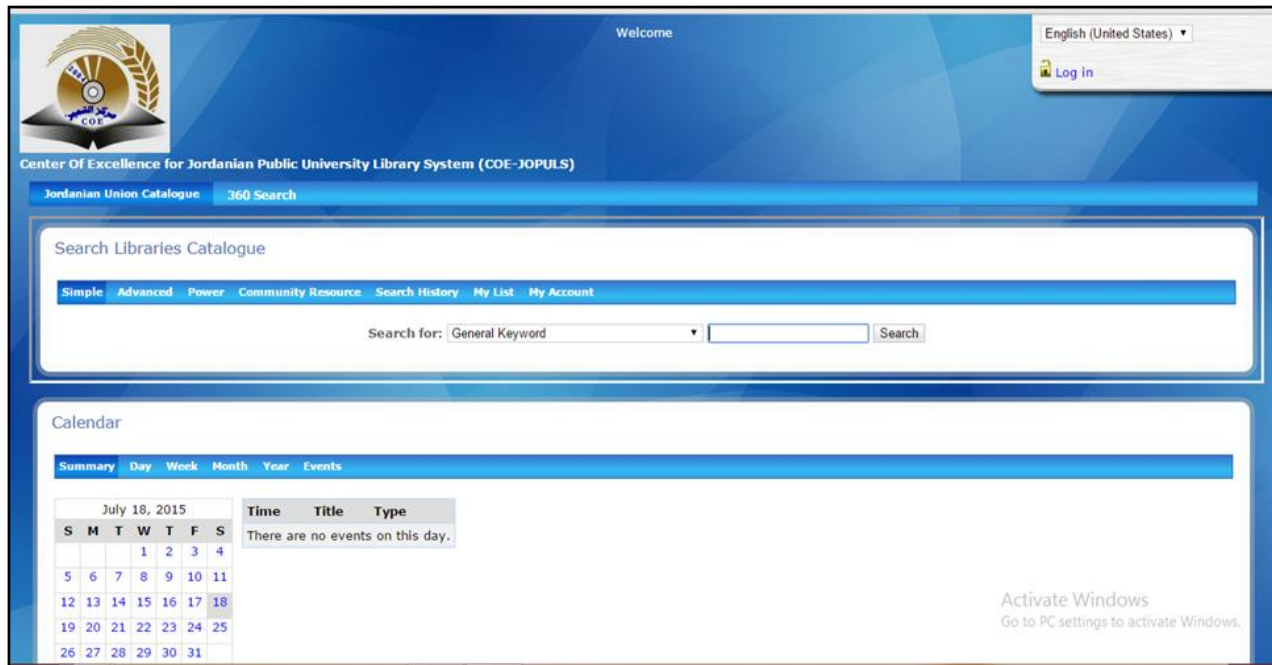


Figure 12. Center of Excellence for JoPULs search screen.

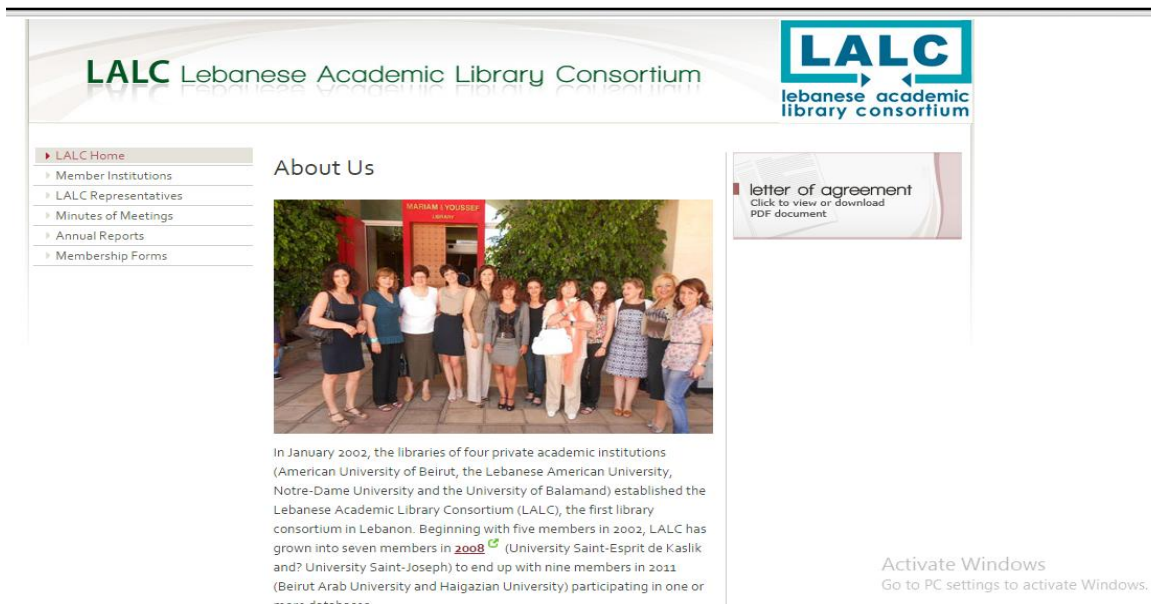


Figure 13. Lebanese Academic Libraries Consortium portal homepage.

4. LALC is the most previous one; although it consists of private university libraries, but it has the motivation and power to continue since its establishment in 2001 till now (Figures 11 to 14).

Conclusion

The main aim of this research is to study the state of the

art of the Arabic academic library consortia in the light of the services provided on their web portals; The “Lebanese Academic Libraries Consortium”, the “consortium of Jordanian Public University Libraries”, the “Egyptian University Libraries Consortium” and “Saudi Digital Library”. There are other projects in Arab countries in their first stages, e.g., The Digital Library in UAE, The Omani Digital Library, the Regional University Libraries

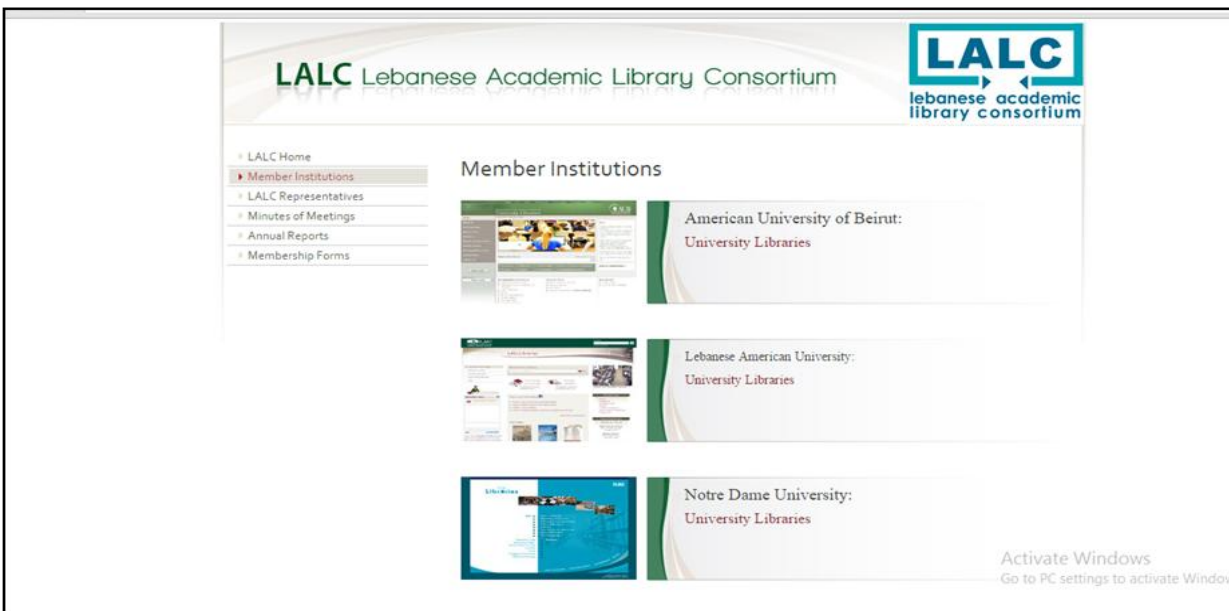


Figure 14. Lebanese Academic Libraries Consortium member libraries.

Table 7. SWOT analysis for the proposed Consortium of Arabic Academic Libraries consortia.

Strengths	Weakness
1. ICT infrastructure	
2. Common library standard	- Differences in the used library software
3. Higher Ministries of education support	- Lack of cooperation plans among the Arabic Academic libraries
4. Qualified and experienced managers and staff	- Communication workflow
5. Similar goals and objectives	- Fund resources
6. Effective Consortia portals	
7. Good projects provided in each consortium	
Opportunities	Threats
8. Integration of the services.	- Trade laws such as each country's currency, payment preferences, taxes, and tariffs
9. More power in negotiation	- Different levels of authorities
10. Local Digital repositories in each consortium	Budget shrinks
11. Marketing programs for the consortium	

Network in Algeria. All these projects are under the umbrella of their ministries of higher education as a responsible and initiative institution (except the Lebanese Consortium).

The studied consortia have similarities and differences, which enable them to communicate and cooperate together to form the Arabic Academic Libraries Consortium. As they have the ICT infrastructure; the similar goals and objectives; consortia web portals; the qualified staff; standards to create the bibliographic records (in case of the union catalogs). In the other hand each consortium has its features and advantages which distinguish it from the others as mentioned above.

The resulting union between the Arabic consortia in the Arab countries will maximize the benefits. A SWOT

analysis can determine in detail the Strengths, Weakness, Opportunities and Threats of Arabic consortia in order to set a strategic plan for a unified Arabic consortium in a way that the resulting mixture or combination has complementary strengths and non overlapping weaknesses.

In the following section a brief SWOT analysis based on the results of the study. This analysis may be used as a basis for further studies about the strategic planning for The Arabic Academic Consortium (Table 7).

RECOMMENDATIONS

1. In-depth studies should be conducted to assess the

impact and outcome of the consortium of the member libraries, faculties and students; the teaching and research process through developing service evaluation and performance indicators. It's easy to measure the benefits to the member libraries, but the real challenge is how to measure these benefits to the intended communities.

2. SWOT analysis studies should be done in detail in order to define the Strengths, Weakness, Opportunities and Threats of Arabic consortia in order to set a strategic plan for a unified Arabic consortium in a way that the resulting mixture or combination has complementary strengths and non overlapping weaknesses.

3. It is better for academic library consortia to include the governmental and private universities. It also can include other research institutions, in order to provide access to the scientific and academic resources such as bibliographic and full text databases of e-journals, books, dissertations, standards...etc, which could improve the educational and research process at all levels.

4. Ministries of higher education in Arab countries aware of the vital role of academic libraries in the hole higher education system, many academic library consortia established at various levels as a strategic solution to shrinking budgets, and to maximize the services provided to academic libraries intended users, this is the trend all over the world both in developed and developing countries.

5. The consortium coordinators should support the decision makers in different sectors of higher education, in setting the plan for scientific research strategies.

6. The consortium should set the desirable business model to meet its members' needs and abilities taking into account the deviation between the member libraries in size, the type of the institution and its users' preferences.

7. To raise funds for the development and sustaining the activities of the Consortium the common committees should plan better strategies such as income generating activities from workshops, developing projects, publications, and to develop good marketing strategies.

8. It is beneficial for the consortium to develop a model for the societal interaction with users and communities through creating forums, group discussions, seminars, workshops, Facebook, Tweeter, YouTube accounts.

9. The coordinating authority should offer the required metadata to describe the consortium portal to make it accessible for a wide range of users through the Internet Search engines.

Conflict of Interests

The author have not declared any conflict of interests

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