

# EVALUATING THE EFFECTIVENESS OF ARABIC E-LIBRARIES ACCORDING TO THE STANDARD CRITERIA, HIERARCHY APPROACH

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*Abstract- This paper focuses the evaluating process for the Arabic e-libraries regarding their effectiveness for students and researchers. Effectiveness in the current research work deals with several factors, each factor includes many standard criteria like: criteria of Websites development , Data base , Standard libraries , etc. To realize such evaluating process the authors presented an evaluating system . This system is planned so as to be systematic , integrated and covers the requirements of users. After presenting the evaluating system, selected Arabic e-library was tested for the evaluating process via the evaluating system. The evaluating system represents a table of 3 fields. The fields represent the categories of criteria , the standard criterion regarding that category and the mechanism of applying that criterion for the evaluating process. The items should cover all the elements of evaluating of such websites. The sources of the evaluating system have been obtained from selected research works and some literatures , such sources represent some selected standard items of website and database besides the standard criteria of the e-libraries.*

*Final conclusions indicated that such system could be an effective and valuable tool for professional who would like to evaluate the website. Also the system could be considered during the developing process of the website.*

**Keywords** - ES-AL : Evaluating System for Arabic e-libraries A-e-Lib : Arabic e-libraries

## I. INTRODUCTION

The e-libraries represent an important feature of instructional institutions. It is one of the modern applications for Information Technology. The student and researcher can access a wide gate of knowledge through e-library. E-libraries are extending more and more. Thus ,the authors planned to build a systematic evaluating system to prove the effectiveness of Arabic e- libraries.

The core of this research is represented by the table of evaluating. The authors selected effectiveness of the e-library as main factor of evaluating. However according to our survey , there is no integrated and systematic system to evaluate the effectiveness of Arabic e-libraries.

## II. PREVIOUS RESEARCH

Little work was done on this area. In our institutions there are many graduation projects to make data base for an Arabic e-Library.

But still Arabic e-Libraries are in their early stages. Some graduation projects developed Dynamic website for an Arabic library. The authors believed that the Arabic e-Libraries need such evaluating systems

## III. OBJECTIVE OF RESEARCH

This research aims at :

1. Evaluating the effectiveness of the Arabic e-libraries according to the standard criteria of the e-libraries , the websites development and database criteria.

2. To realize the desired evaluating process, it is planned to develop an evaluating system which is able to evaluate all categories/kinds of the Arabic e-libraries. Applying the needful evaluating system on a case study of an Arabic e-library.

## IV. MOTIVATION AND NEED TOWARDS DEVELOPING ES-AL

The authors summarized reasons of motivation towards developing ES-WL as followed :

1. According to our survey , we did not find such certain system which could be used by professionals regarding evaluating process of A-e-Lib.
2. Evaluating process of A-e-Lib includes many fields like evaluating the effectiveness of the website itself , evaluating the classifications of the library , number of publications , searching facilities in the e-Lib, some economic factors ,etc. Therefore it is planned to design an integrated systematic model for such evaluation process to satisfy requirements of professionals , customers as well as students who would like to use and evaluate

## V. RESEARCH METHOD

The Hierarchy approach has been used to classify and apply elements of evaluation's criteria. The next diagram of Hierarchy diagram has been considered.

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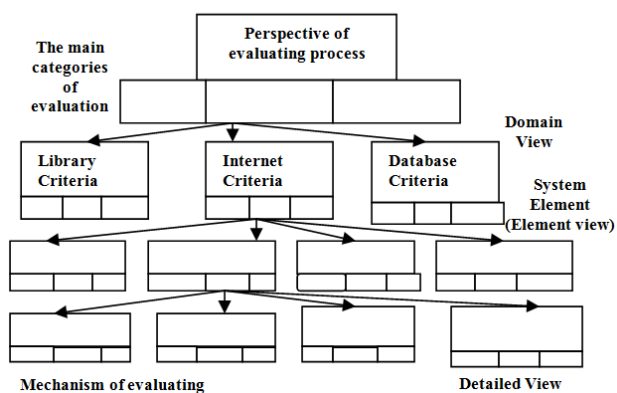


Fig1. Hierarchy approach of System

In the next section the authors would present the complete evaluating system represented by a table of categories , each category includes specific factors of evaluation then show the mechanism of evaluating process regarding that factor.

class	criterion	Mechanism of evaluating criterion
1. Library Criteria	a) Presentation.	1- Suitable background 2- Suitable colors for fonts and objects . 3- Well recognized icons. 4- Well designed and selected images , flashes and pictures. 5- Main texts and sub-labels should be meaningful and guide the visitor for the desired objective. 6- A-e-Lib should be well organized and consistent scheme. 7- Reliable links and concise homepage.
	b) Integration	1- Convenient e-mail so as to responsible party. 2- Links to the library's parent institution 's home page. 3- Inclusion of Library's/Institution's names and logos. 4- Online forms for request of feedback
	c) Speed	1- Quick connection and delivery 2- Minimal use of large graphics and bright colors. 3-Essy access to link and down load

		the desired material.
d)	Information about links	1- Pertinent instructions or warning statements to file/document types. 2- Online help/guide to process the needful links.
e)	Heading & titles	1- Clear and readable/meaningful. 2- Coherent . 3- Concise heading clearly titled screen.
f)	Institutional information	1-Comprehansive 2- Updating information 3- Accurate information relevant to institution's learners and faculty
g)	Reliability	1- Scured private interaction 2- redible and appropriate sources and documents
h)	Search capability	1- Applicable index/table of contents . 2- Various search engines. 3- Effective protection from undesired access and security.
i)	Compatibly	1- Consistent text and graphics in different browsers. 2- Options available for various features, such as text-only view.
j)	Navigability	1- Clear and simple path to reach the desired information. 2- Hypermedia index 3- Short number of clicks to online catalog 4- reference tools should be well formed.
k)	Inclusion of special requirements	1- Original materials 2- Institutional archives . 3- updating of new events regarding the e-library or the institution of the library.
l)	Facilitation and help/online user guide	1- Available "Help" information

	<p>m) Content</p> <p>n) Graphic design</p> <p>o) Authority</p> <p>p) Services</p> <p>q) Suggestion of new publishing</p> <p>r) Classification of published materials.</p> <p>s) Linking with related insinuations in the region.</p>	<p>2- Suitable URL or hot-link to the new URL</p> <p>1-Up-to-date library catalogs. 2- Library Services 3- Research tools</p> <p>4- Resources and collections 5- Online request forms 6- Faculty partnership 7- “about the library” pages.</p> <p>1- Limited use of blinking ,Italics and other attention-getting devices and extraneous navigation aids (eg. back and forward buttons , history lists)</p> <p>1- Knowledgeable site webmaster/maintainer</p> <p>1- Accessible remote library services (e.g Library instructions ,references assistance and documents delivery )</p> <p>1- Facility of suggesting new publishing should be available. 2- Facility of digital publishing should be available for selected journals and contributions.</p> <p>1- Recommended to provide the user with smart classification for journals , books , conferences proceedings , as well as essential video clips , images , sound sources , power point slides presentation . All contents of such library must considered high rank of classification according to type of media and according to kind of content.</p> <p>1- Recommended to link such library with related institutions in the region</p>	<p>t) supporting special needs persons</p> <p>a) Internet programming Criteria</p> <p>b) Page – Templates</p> <p>2. Internet</p>	<p>as well as related public unions.</p> <p>1- e-library must offer the facility to be used by handicapped persons :</p> <p>i) Deaf persons can use the e-library if , media of communication between computer and Deaf is supported by Sign language , Finger spelling and Lip movements. These modes of communication are universal and they are available digitally.</p> <p>ii) Blind persons can use the e-library if media of communication between computer and blind person is supported by Text-To-Speech component , such component can translate each displayed text on screen into its corresponding Arabic speech.</p> <p>There are many items regarding internet programming as shown</p> <p>1- The speed of the loading an occasion should be suitable. 2- The flexibility of browsing and move an occasion should be suitable 3- If the site needs special programs or special equipment's, they should be available in the site itself or easy to offer and activate them by the help of the site. 4- The site offers diversify so that they cover all visitor needs 5- The possibility of getting on a free electronic mail</p> <p>The website must include some important page schemes and templates, such templates could be summarized as shown :</p> <p>1- Bibliography , Feedback form, Confirmation form, Form pages wizard, Guest book form, Photo gallery</p>
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Criteria	<p>template, Search page, Table of contents page, User registration form, Contact us</p> <p>1- Easy to be used , entered , and moved to another page.</p> <p>2- Map of site is easy to be understood and traced.</p> <p>3- Free of charge &amp; universal.</p> <p>4- Well protected &amp; good security.</p> <p>5-Can process the unexpected data entry by the visitor.</p> <p>6- Simple , flexible and includes friendly learning/searching tool so that does not embarrass the visitor</p> <p>1- Allow some kind of communication between the visitor with administrator and employers of the library</p> <p>2- Including chat room between related category of visitors.</p> <p>3-The user can down load some interested topics according to special library policy.</p> <p>4- The user can upload materials and queries.</p> <p>5-includes diverts and acknowledgments to the members of the library.</p> <p>6-The e-library has the facility to send the members SMS for and important events .</p> <p>7- The e-library may provide members/users to join its own forum to share experiences and events effectively.</p> <p>1- This item must be systematic structured , well performance. The searching engine , access of information , registration policy ( free or by payment ) , size and updating of information , new version of data base software ,security and administrator activities all should be well considered</p>		<p>2- linking the site with universal data base like OPESCO is important .</p> <p>3- Database Criteria</p>

**VI. APPLYING ES-AL ON CASE STUDY.**

In The authors chose Saudi Digital Library (<http://www.sdl.edu.sa>) as case study :

Some summarized information about case study Services : using the unified search system (MuseFirst) as a main database to search for information sources in the publisher databases which the library subscribed with. Content :

1. continue updating for the digital library catalogue.
2. Digital Library portal also provides access to publisher pages directly without need to access through the unified search system (MuseFirst).
3. search is executed through ( key words ) technique which provide a multiple options to make users control the search results.
4. More than (100.000) e-book and periodicals for more than 300 global publishers.

Accessing : through

1. The secured university web page( Referral URL )
2. Library portal
3. University /library IP

Targeted users:

Saudi university students and teaching staff

### Objective of e-library :

There are eight major objectives for Saudi Digital Library. Mainly to provide Saudi researchers , students , professors and post graduated students with all desired e-references of Ph.D. Thesis, M.Sc. Thesis , e-journals , e-books ,e-conferences proceeding and e-international contributions.

### VII. RESULTS OF TESTING ES-AL

The authors summarized outcomes of testing ES-AL regarding each criterion briefly.

- 1- Library Criteria – Presentation : seven behaviors for presentation are all covered probably , needs more links.
- 2- Library Criteria – Integration : four active behaviors for integration are covered partially. Email , online interaction with Saudi Institutions are not considered.
- 3- Library Criteria -Speed of delivery of needful information is well.
- 4- Library Criteria-Information about links : it is considered probably.
- 5- Library Criteria - Heading & titles : They have been found satisfactory.
- 6- Library Criteria - Institutional information: information are updated and comprehensive
- 7- Library Criteria – Reliability : they were good.
- 8- Library Criteria – Search capability: it is an important factor. It is considered well.
- 9- Library Criteria- Compatibly : Text , graphics and other features are all well designed.
- 10- Library Criteria-Navigability :all four items have been well focused.
- 11- Library Criteria- Inclusion of special requirements : Original material , archives and updating events were all considered.
- 12- Library Criteria - Facilitation and help/online user guide : they found good.
- 13- Library Criteria – Content : Mostly they are satisfactory .
- 14- Library Criteria : Graphic design : they are good designed .
- 15- Library Criteria : Authority : All digital sources included in this project are authorized from publishers.
- 16- Library Criteria- Services: providing full text of deferent types of digital sources (books, articles, dissertations)
- 17- Library Criteria - Suggestion of new publishing : it is one of the major vision of Saudi Digital Library, therefore it is considered.
- 18- Library Criteria –Classification: published materials are classified through subjects and publishers..
- 19- Library Criteria - Linking with related insinuations in the region .

- 20- Library Criteria - supporting special needs persons : Saudi Digital Library does not support handicapped persons.
- 21- Internet Criteria - Internet programming Criteria: speed ,browsing diversify and supported software are considered. Free email is not available.
- 22- Internet Criteria-paged templates : Bibliography , Feedback form, Confirmation form, Form pages wizard, Guest book form and Photo gallery are not considered. Search page, Table of contents page, User registration form, Contact us are all present.Internet Criteria- Simplicity & Flexibility : Easy to be used , entered , and moved to another page are good. Map of site is easy to be understood and traced . It is good map. Free of charge and universal , the user is requested to register his account. Well protected and good security . they depend on data base and programming quality. They found to be good. The site can process the unexpected data entry by the visitor successfully . the site was found Simple , flexible and includes friendly learning/searching tool so that does not embarrass the visitor
- 23- Internet Criteria -General Criteria: no communication between users , no char rooms , no forum to share experiences and events between members. No diverts, no acknowledgments no SMS between library administrator and members Member can contact the administrator. The member can download required digital material. The user can upload some suggestions and queries.
- 24- Database Criteria-Database Criterion : This criterion includes major factors. Outcomes of those factors are discussed in previous item. Mostly the are good structured. The Saudi Digital Library is linked with many selected universal database.

### VIII CONCLUSION

We The authors summarized their conclusion as listed below :

- 1- ES-AL is focusing on new area of study, the authors believe that outcomes of such kind of research area represent collaborative work between many fields. The major outcome , results of internet criteria support demand /requirements of library criteria. Developers of e-libraries are require to consider systematic evaluating system beside model developing system design.
- 2- A-libraries are in progress process. The authors believe that A-e-lib can provide a useful and effective digital library if developers consider ES-AL.
- 3- It is important to consider disabled persons while they are designing their digital libraries. A-e-Lib must not forget disabled persons like blind and deaf.
- 4- A-e-Lib may consider effective communications between members as well as online chatting.
- 5- A-e-lib must provide facility of providing SMS to their members.

- 6- ES-AI considers all factors of evaluation the effectiveness and it is systematically designed. It will realize its target of evaluation if it would be considered.

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