

## COMPARISON OF EDUCATION SITES ASSOCIATED WITH OFFICIAL INSTITUTIONS AND FREE E-LEARNING SITES

Hayel H. Khafajeh

Computer Information Systems Department, Faculty of Sciences & IT, Zarqa University, Zarqa, Jordan

### Abstract

The presence of electronic learning sites has become from the basic requirements for the success and excellence of educational universities and educational institutions, these e- learning sites must distinguished from other sites by dimensions, criteria and characteristics and their ability to transfer knowledge and information to the students.

Evaluation of a systematic process, use multiple tools, to achieve a set of goals, to get to the quantitative estimates, and descriptive evidence, knowledge transfer, and making judgments about the level and efficiency, performance, or to carry out certain tasks.

The research has been represented to identify the quality of the educational sites and their standards concepts, so the researcher compared between (4) of the universities websites and a number of (3) e- learning sites, to determine the application of and compliance with the standards and characteristics that have been adopted in the Rating. Researcher has reached a group of conclusions, the most important that the criteria adopted in the assessment are available in the private university sites than in public universities, and that the standards at the sites that are related to educational institutions are available more than that of the sites is not associated with educational institutions, it was presented a set of conclusions and recommendations the one important conclusions was the need to adopt users on certain criteria when searching for educational websites, to see the most quality, effectiveness and viability of the used sites.

**Keywords:** websites, e-learning, framework, properties, points.

### 1. INTRODUCTION

The process of evaluating the websites are a key factor in building a good site achieve the desired interest, In the website there are many different elements available that work in an interactive environment with each other, so you will find that the work of any element affects the other's work. This is from the attributes and characteristics of a good and successful site, so you cannot separate the effects from each other.

The measure site performance is necessary to determine the effectiveness in reaching the target from which

critical operations process. It is one of the most prominent things and the most important in terms of specialist treating of the site and get benefit from it in various fields related to the content and objective area, which related to the arrangement or the organizational aspects of the site, quality, size and characteristics of information in terms of health, accuracy, comprehensiveness, coverage, modernity and objectivity.

With the development and spread of electronic sites and diversity between encyclopedias and books heritage, maps and annual books and statistics, directories and other modern electronic sites, tangibly show that there is a diverse range of fundamental differences between the elements of these sites despite the fact that many of them are working for the same goal and the same target, which emerged with the need urgent to develop a special care of these sites evaluation criteria.

Extreme difficulty in sourcing websites evaluated in general was evident after reading the previous studies and published research of this subject, where it requires activity high degree of accuracy to the lack of introductions and precedents to guide the resident and non-availability of identifiable information of many sites, and incorrectness of many published information, and the taint of that information is no doubt up to the extent that is responsible for some of them anonymous, in addition to that it does not know whether it has taken into account before placing information or published over the timeliness and comprehensiveness, and find out the references and determined prior to release and put them on the site, especially those charts, advertisements, images and elements Flash animation files, graphics, audio files associated with the information they are all things that should be taken into account by the residents of the sites, so it is essential that digital data is constantly updated, and information must be fixed on the site and is constantly changing.

Due to differing types of information provided on the websites of the elements that will be included in the assessment details and presentation inevitably vary between these species, which makes continuous attempts to establish special criteria for assessing the hope of reaching the standard is perfect and inclusive, where there are six basic stages to be traffic at the development of Internet services and e-learning sites, these stages are: establishment phase Conceptualization, development stage, the application stage Implementation and evaluation Download now evaluation phase, the phase of feedback, and finally the amendment stage. Maintenance

It is important to point out the methodology of the evaluation process itself and by which enable those who asked to assess a site, to do the tasks on sound scientific base, thereby creating our assessment scientifically sound credible and we can rely upon this methodology that is the Rating manner Poll.

## 2. STUDY OBJECTIVE

This study aims to verify that the selected websites linked to the Internet, whether it is belongs to educational institutions or not, met the criteria required for a successful Website or not, through the comparison between these sites. The study verification and explore the sites of universities and institutions so as to compare them and identify similarities and differences. The study hopes to enhance the services provided by these sites through the various pages on the Internet. And it chose to study the application of the following universities locations:

Sites are affiliated educational institutions (public and private):

- Yarmouk University site in Jordan - <https://elearning.yu.edu.jo/yulms/>
- Hashemite University site in Jordan - <http://www.icet.hu.edu.jo/>
- Zarqa University site in Jordan - <http://elearning.zu.edu.jo/elc/>
- Amman University site in Jordan - <http://www.ammanu.edu.jo/en/hec/pages/home.aspx>

Sites not affiliated with educational institutions:

- Edraak site - <https://www.edraak.org/>
- Aldarayn site - <http://www.aldayayn.com/>
- My school site - <http://www.madrsti.com/>

## 3. RELATED WORKS

When reviewing the literary production of studies and research that has been used a number of criteria to evaluate Web sites. This candle lights the way for the benefit of the researcher of this effort to put them in a

general framework of criteria to be used in the evaluation of Web sites that have been selected.

Kapoun has pointed out (1998) [3] to the presence of five factors that will establish the Internet pages in general, a precision, responsibility, objectivity, modernity and coverage.

Olsina (1999) and Godoy (1999) and Lafuente (1999) [17] examined the degrees of satisfaction resulting from the presence of certain characteristics of the site, including the ease of use and functional efficiency and the degree of dependence upon its ability to load pages and how to maintain it. And divided each property to other internal properties. The survey reveals that users are considered an indicator of the quality of the site and pointed out playing down the importance of features such as its ability to withstand the pages and the degree of protection. While In Ford study [7] about the effectiveness of university faculties sites on the Internet from the viewpoint of the university college students. The researcher found that students tend to sites that use the means of illustration, and multimedia, as they tend to sites that meet the academic needs.

Study of (Madeja and Schoder, 2003) [18], have addressed eight characteristics of sites trading companies and their impact on e-business success, namely: direct communication, instant access to information, connection speed, the richness of information and diversity, the availability of information, the diversity of the view, easily use, and reliability in the availability of information. The (Abanumy et al., 2005) [1] dealt with the subject of access to information on e-government sites.

When reviewing the studies that have been talk about the quality of universities and educational institutions sites, we find that there are quite a number of these studies used a number of criteria for evaluating such sites from different points of view. In (Lautenbach et al., 2006) [13] study was used a two criteria : the ability to find information, and the comprehensiveness of the information from the user's point of view, to evaluate Utrecht University site in the Netherlands, where the study concluded that: comprehensiveness of the information on the site, and easily found, are the basis for evaluating universities sites.

In (Achour and Bensedrine, 2005) [2] study was evaluated Tunisian banks' websites on the Internet, while (Vijyan and Shanmugan, 2003) [21] study evaluate the Malaysian banking services via the Internet, at the same time (Awamleh and Fernandes, 2005) [22] used a form Deans to evaluate foreign and domestic banks' websites in the United Arab Emirates.

According to King (2003) [12] There are a number of objectives to be taken into account when evaluating Web sites. The most important was that the user must feel with an atmosphere of intimacy to the sites.

Previous studies have clearly pointed to the need to evaluate Web sites, and that there is variation in the value of information, and the service provided by those sites in different subjects, and the method of browsing those sites. Thus these studies have focused on the derivation of criteria for evaluating Web sites for users of those sites service.

#### **4. METHODOLOGY AND STYLE OF THE STUDY**

This study evaluates the collection of electronic sites using a list of criteria derived from previous studies to evaluate the four university sites in the Hashemite Kingdom of Jordan, in similar environments, as well as three sites not managed by an educational institution of learning. The addresses of websites that have been selected are:

1. Yarmouk University e-learning center: <https://elearning.yu.edu.jo/yulms/>
2. Hashemite University e-learning center <http://www.icet.hu.edu.jo/>
3. Amman Private university: <http://www.ammanu.edu.jo/en/hec/pages/home.aspx>
4. Zarqa University: <http://elearning.zu.edu.jo/elc/>
5. Edraak Academy site -<https://www.edraak.org/>

"Edraak" is an electronic trading platform for collective Arab open sources, it name known in English as (MOX), this platform comes at the initiative of the Queen Rania Foundation for Education and Development. And Queen Rania Foundation is keen to make every effort to contribute the development of the Arab world to be in the fore in the field of education because it is the foundation stone for the development and prosperity of peoples.

6. Aldarayn Academy site for distance education -<http://www.aldayayn.com/>

Arab Academy met by volunteers from all over the Arab world to make a flag for all the world, free of

the whole, where the Academy logged lectures and filed on the Internet on a regular basis, offering online courses through virtual classrooms direct interaction with the lecturer and this is what distinguishes it from other sites. And it made a lot of areas, including: information technology, languages and translation, e-learning, human development, construction, project management, special education and other disciplines.

7. My school site -<http://www.madrsti.com/>

Entertaining educational forum tutorial contains all subjects for all stages, and the site includes a panorama of the most important local and international news and sports, in addition to teaching, lessons, explain, notes, reviews.

The researcher try from his experience of theoretical and practical and based on different standards in previous studies compared the analysis and reasoning integrate them to develop a general framework for a general recipe, The most important studies that have been derived these criteria is referred to Alberto et al. [4] (2008) in their study, where they put the criteria that must be considered technique is fairly websites, some have touched on the availability of search engines and the mechanism of action, such as (Hasan, L., Abuelrub, E. 2006) [9], and (Caisse, K .and Boklaschuk, K) [6] and (Harris, Robert, (2007)) [8]

While some user interface pointers situation such as easy navigation and consistency appropriate colors for the site and the extent of (Nielsen J .and Molich, R, (1990) [19] and Papadopoulos et al. (2006) [20] and Sevilla, Roger & Sharp, Project (2008) [23], Van der Merwe et al. (2003)) [25].

The researchers have been subjected to content analysis and diversity of the style of presentation of the information by a large number of researchers in the evaluation of websites and services as a key element in the evaluation (H. Hussin e.t. Al. (2005) [11], and Lin, O. Joyce, D. (2004) [15], and Lim, K. (2002) [14], and Toit, M .and Bothma, C (2010) [24]).

Accordingly, the general framework has been composed of the evaluation of the following indicators, so that the existing property evaluates one point (1), and non-existent property is evaluates zero (0) which means that this point is unrealized, and then we collect the points that have been made to be the final score from 30 Point of that site:

1. Technical characteristics of the site, with 6 points this indicator can be measured using the following checklist:
  - The presence of a logo or website address
  - The presence of the logo on every page of the site
  - Language of the website and provide other languages
  - Date of publication
  - Last Updated
  - e-mail address to those in charge of the site to contact them.
2. Analysis of content of the site, with 7 points this indicator can be measured using the following checklist:
  - The purpose or goal of the site
  - The clarity of the target group in the site
  - Coverage: cover all of the expected topics.
  - Modernity: information occur on an ongoing basis
  - Accuracy: accuracy of the information on the site, there is no grammatical or linguistic errors.
  - Objectivity: Showing objective information without any bias.
  - Responsibility: the extent of user trust and confidence of the information contained in the site.
3. Diversity of style and presentation of the site, with 4 points this indicator can be measure using the following checklist:
  - Provides text files
  - The availability of graphics

- The availability of acoustics
  - The availability of videos
4. Graphical user interface of the site, with 5 points this indicator can be measured using the following checklist:
- Clarity of the colors and texts used
  - The extent appropriate background information
  - Consistency: The consensus of all the pages in the presentation.
  - Links and easy navigation and reference.
  - Links and connections are working properly.
5. Search engine of the site, with 8 points this indicator can be measured using the following checklist:
- With efficient retrieval results
  - Contains words stored function
  - Records the keywords added to it.
  - Provides simple search word or Keyword
  - Find different languages provides.
  - Recovery time
  - The accuracy of recovered material for query
  - Shows the references of material recovered, so the sources of information on the site documented

## 5. EVALUATION

We applied the criteria which we described on a group of web sites. These sites and number of points are shown in Table 1 below.

Table 1: Framework element versus sites names

FW element number Websites	1	2	3	4	5	total out of 30	Total/ 30 %
<a href="https://elearning.yu.edu.jo/yulms">https://elearning.yu.edu.jo/yulms</a>	5	5	3	3	6	22	0.733
<a href="http://www.icet.hu.edu.jo/">http://www.icet.hu.edu.jo/</a>	5	6	4	3	7	25	0.833
<a href="http://www.ammanu.edu.jo/en/hec/pages/home.aspx">http://www.ammanu.edu.jo/en/hec/pages/home.aspx</a>	6	6	4	5	6	27	0.900
<a href="http://elearning.zu.edu.jo/elc/">http://elearning.zu.edu.jo/elc/</a>	5	6	4	5	6	26	0.867
<a href="https://www.edraak.org/">https://www.edraak.org/</a>	4	3	2	3	4	16	0.533
<a href="http://www.aldarayn.com/">http://www.aldarayn.com/</a>	5	3	3	4	5	20	0.667
<a href="http://www.madrsti.com/">http://www.madrsti.com/</a>	4	5	1	2	6	18	0.600

And figure (1-1) shows the results of comparisons between the different websites.

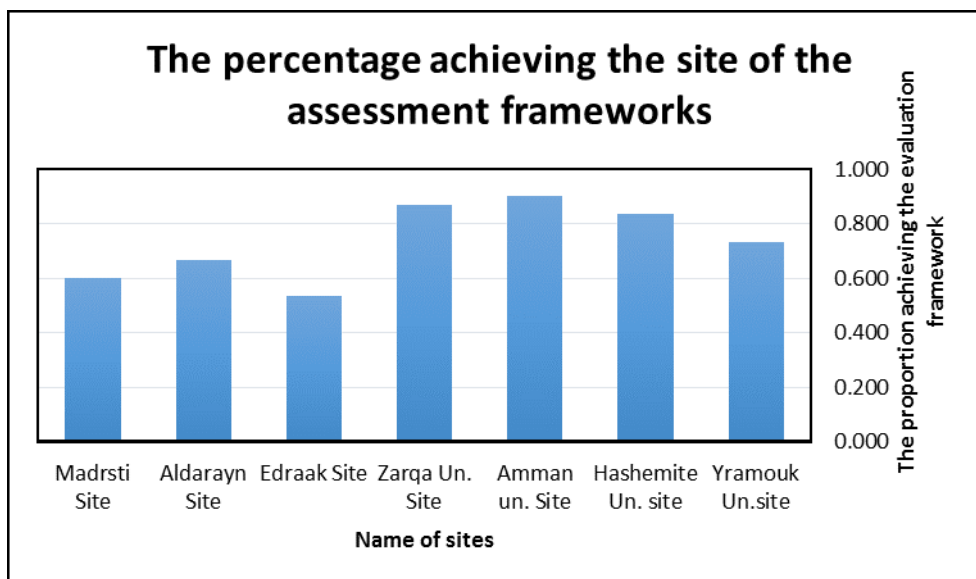


Fig. 1.: Site Vs Rank

## 6. CONCLUSION AND FUTURE WORK

The research has been represented to identify the quality of websites and standards concepts, the researcher compare among (4) of a universities websites and (3) websites that does not follow official institutions sponsored, so as to determine the application of and compliance with the standards and characteristics that have been adopted written, the researcher reached a set of conclusions, the most important one was that most of the criteria adopted in the assessment are available in the private university sites than in public universities, this may come because of absence of a consistent routine in building systems in private institutions than in the government, in addition to incentives received by workers in the private and motives institutions provided by the owners of the workers in these institutions, depending on their activity, their abilities and feature of their products. The properties of the sites that are related to educational institutions are available more than that of the sites that are not associated with educational institutions,

Researcher presented a set of conclusions and recommendations where the most important was the need for users to adopt some of the criteria when searching for websites, so as to see the quality and the most efficient and usable sites, the study also recommends the launch of the hands of designers and developers without restriction to show their abilities and competence in the production of their sites.

## 7. REFERENCES

- [1] A. Abanumy, A. Al-Badi, P. Mayhew E-Government website accessibility: in-depth evaluation of Saudi Arabia and Oman Electronic Journal of e-Government, 3 (3) (2005), pp. 99–106
- [2] Achour, H., Bensedrine, N. 2005. An evaluation of internet banking and online brokerage in Tunisia. In: Proceedings of the First International Conference on E-Business and E-learning (EBEL), Amman, Jordan, pp. 147–158.
- [3] Adapted from Kapoun, Jim. "Teaching undergrads WEB evaluation: A guide for library instruction." C&RL News (July/ August 1998): 522-523.
- [4] Alberto, J. Chaves, and Henrique, J .A, Usability Evaluation of Educational Websites ,EADTU, Conference. 2008,
- [5] Alexander, D., How Usable are University Websites ?A Report on a Study of the Prospective Student Experience, Technical Report , Monash University.2005
- [6] Caisse, K .and Boklaschuk, K, Evaluation of Educational Web Sites, EDCMM, 802.6

<http://members.fortuncity.com/vqf99.2001>

- [7] Ford, Wendy G. (2011). Evaluating the Effectiveness of College Web Sites for Prospective Students. *Journal of College Admission*, Summer 2011, Issue 212, p26-31.
- [8] Gonzalez ,M .,Granollers T, and Pascual, A, Testing Website Usability in Spanish-Speaking Academia Through Heuristic Evaluation and Cognitive Walkthrough ,*Journal of Universal . Computer Sciences* ,vol ,14 .no.2008 ,9
- [8] Harris, Robert, (2007), Evaluating Internet Research Sources. available on the website: [www.virtualsalt.com](http://www.virtualsalt.com).
- [9] Hasan, L., Abuelrub, E. 2006. Criteria for evaluating quality of websites. In: Proceedings of the sixth IBMA International Conference on Managing Information in Digital Economy, Germany.
- [10] Hasan, L and Abuelrub, E, Assessing the Quality of Web Sites ,*INFOCOMP Journal of .Computer Science*, vol,7 .no ,4 .pp,11-20 December.2008
- [11] H. Hussin, M. Suhaimi, M. Mustafa, E-Commerce and ethical web design: applying the BBBOnline guidelines on Malaysian web sites,*The International Arab Journal of Information Technology*, 2 (3) (2005), pp. 218–226
- [12] Krauss, K. 2003. Testing an e-government website quality questionnaire: a pilot study. In: Proceedings of the fifth Annual Conference on World Wide Web Applications (WWW2003).
- [13] Lautenbach, M.A.E., Schegget, I.S., Schoute, A.M., Witteman, C.L.M. 2006. Evaluating the Usability of Web Pages: A Case Study. Available at: <http://www.phil.uu.nl/preprints/ckipreprints/PREPRINTS/preprint011.pdf>.
- [14] Lim, K. 2002. Security and motivational factors of e-shopping web site usage. In: Proceedings of Decision Sciences Institute 2002 Annual Meeting, pp. 611–616.
- [15] Lin, O., Joyce, D. 2004. Critical success factors for online auction web sites. In: Proceedings of the 17th NACCCQ.
- [16] Lin, F., Huarng, K., Chen, Y., Lin, S. 2004. Quality evaluation of web services. In: Proceedings of the IEEE International Conference on e-Commerce Technology for Dynamic e-Business.
- [17] L Olsina, D Godoy, G. Lafuente, GJ and Rossi, 1999, Specifying quality characteristics and attributes for web sites, Conference, First ICSE Workshop on Web Engineering, Los Angeles: USA
- [18] Madeja, N., & Schoder, D. (2003). Designed for Success – Empirical Evidence on Features of Corporate Web Pages. In Proceedings of the Thirty-Sixth Annual Hawaii International Conference on System Sciences (HICCS 36). Computer Society Press.<http://doi.org/10.1109/HICSS.2003.1174429>
- [19] Nielsen J .and Molich R, Heuristic Evaluation of User Interfaces ,*CHI 90'Proceedings* ,ACM . pp.1990 ,249-256
- [20] Papadopoulos ,T .and Xenox ,M .,Quality Evaluation of Educational Websites Using Heuristic and Laboratory Methods ,*Proceedings 2 nd Panhellenic Scientific Student Conference on Informatics ,Related*
- [21] P. Vijayan, B. Shanmugam, Service quality evaluation of internet banking in Malaysia. *Journal of Internet Banking and Commerce*, 8 (1) (2003), pp. 1–10
- [22] R. Awamleh, C. Fernandes Internet banking: an empirical investigation into the extent of adoption by banks and the determinants of customer satisfaction in the United Arab Emirates, *Journal of Internet Banking and Commerce*, 10 (1) (2005), pp. 1–10
- [23] Sevilla, Roger & Sharp, Project (2008), Critical of Examining the Credibility of Information on The Internet, available on the website: [www.ithaca.edu/looksharp/criteria.pdf](http://www.ithaca.edu/looksharp/criteria.pdf).
- [24] Toit ,M .and Bothma ,C .,Evaluating the Usability of ,an Academic Marketing Department's Website from a Marketing Student's Perspective ,*International Retail and Marketing Review* 2010.
- [25] Van der Merwe, R .and Bekker, J. A., Framework and Methodology for Evaluating E-commerce. Websites, *Internet Research: Electronic Networking Applications and Policy*, vol, 13 .no 2003, 330-341, 5