

# Website Usability Evaluation and Search Engine Optimization for Eighty Arab University Websites

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## Abstract

Usability and Search Engine Optimization (SEO) are important issues studied by many researchers. In this paper we evaluated automatically eighty Websites for universities in the Arabic region. The major goal for this study and evaluation is to discover whether there is a relevancy between usability and search engine optimization. According to usability evaluation criteria, three internal attributes are selected: HTML errors checking, load time, and browser compatibility problems. Three tools (HTML ToolBox, PageRank Checker, and SEO PageRank) were used to conduct the evaluation. Results showed that those three Website internal attributes do not usually correlate well with each other, since some universities ranked at the top according to one of these attributes, and ranked at the bottom according to the others. Many techniques are used to improve SEO. While usability is very important to Websites in many aspects, however, it does not necessary improve SEO. Finally a set of recommendations are presented to increase the usability for Websites while at the same time taking SEO PageRank into consideration.

**Keywords:** Search Engine Optimization (SEO), Web Usability Evaluation, SEO PageRank, IR.

## Introduction

The WWW has become one of the main sources of communication and information globally. Usability and Search Engine Optimization (SEO) are important factors for the success or failure of any Website. In order to judge if a Website is usable and has a good score of SEO, one may use usability and SEO evaluation tools to identify pros and cons within each Website.

Web usability is an approach to evaluate if Websites are easy to use for end-users without requiring significant amount of training or learning. Usability has a set of goals, such as presenting the information to users clearly and in an understandable way, clearing information ambiguity, and putting the right information in the right time and place. Websites' usability evaluation tools are used to evaluate the internal attributes of a Website such as: loading time, HTML errors, browser compatibility problems and several others. Practically, it is difficult to evaluate these attributes without using

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specialized tools. Designers may apply these tools to detect errors that exist in the Website, try to fix them and help Website designers to create high quality Websites.

SEO is a process that has a set of principles related to site structure, Web page language and user-system interacting strategies to improve sites' search performance in different Web search engines. SEO techniques try to increase the possibility of customers' discovery and access to the subject Website [1]. Applying SEO is very important to any Website, as it increases the PageRank of the Website, where most users focus on the top results that are retrieved from any Web search engine.

There are several automatic evaluation tools that can be used for the different Websites. For example, HTML Toolbox [2] is used to identify sites' problems and automatically repair HTML code errors for the evaluated Website. HTML Toolbox is also used to measure and evaluate the internal attributes of the Website such as download time, HTML errors, and browser compatibility problems. In this study, other tools such as SEO- PageRank [3] are used to measure the PageRank for evaluated Websites.

### **Related Works**

The main scope or focus of this paper is Websites' usability evaluation and in particular for universities' or higher institutes educational Websites. This section presents a number of previous studies related to the evaluation of usability and Search Engine Optimization (SEO) of Different Websites in general and specifically to those related to the academic Websites.

Nine Websites of Jordanian universities are evaluated by Mustafa et al. [4]. They used two automatic evaluation tools: HTML Toolbox, and WebPages analyzer. The results of their study showed that the overall usability level of the studied Websites is acceptable. Another researcher by Akoglu [5] presents a case-study of a usability evaluation method for architectural Websites, and introduces a special tool for assessing the usability of architectural department Websites in the University of Istanbul. The evaluation was based on two environments: traditional laboratory and Internet environments. Oztekin et al. [6] study presents a new methodology for usability assessment and design of University Web-based Information System (UWIS). It integrates information systems' Web-based service quality and usability attributes. Their methodology was applied in the information systems' department at Fatih University, which proves it can be used for designing more usable and higher quality Web-based information systems.

Some previous studies also reveal that cultures not only affect web design, but also impact web usability test. Most previous cross cultural web usability research adopted a western usability method to collect data from users. The traditional usability method is not a properly way to investigate people from different cultures. New usability methods are required to be developed to completely understand users from different cultures. Much more research is required to be developed to reach at guidelines for possible differences which web developers could integrate in methodology when web usability evaluating in a target culture market [7].

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Ivory et al. [8] study presents the experience of Web designer's usage of three tools (WatchFire Bobby, W3C HTML validator and UsableNet life) to evaluate and improve the usability of different Websites. They showed that these tools help Web designers to identify a large number of potential problems in the Website. Other researchers such as Tsai et al. [9] presented an effective model for evaluating national parks' Websites. The model is applied for the decision making trial and evaluation laboratory (DEMATEL). Then they used the Analytical Network Process (ANP) to compute the weight for each usability criterion. Their results showed that each national park Website has an improvement opportunity based on the evaluated criteria. Yan et al. [10] developed an analytical model to improve the information retrieval process for self-directed learners by automatically evaluating Website comprehensibility. They used Webpage characteristics and showed that they are good indicators for Websites rate on comprehensibility evaluated by professional librarians. Jati et al. [11] tested the quality of e-government Websites in five Asian countries. Webmasters, Web applications developers, and Website quality assurance managers needed special tools and methods to be able to evaluate their own vision of quality attributes in evaluated Websites. The researchers conducted some tests to measure the quality of e-government Websites in these countries. The results of their study showed low quality and performance of these governmental Websites. Atterer study [12] presents an approach for improving automated usability tool support during the development of a Website, where the HTML code analyzer is applied to each Web page in the Website in order to detect potential problems. He also used an automatic validator to verify usability guidelines, and as a result the researcher presented a prototype of a model-based automatic usability validator. Obendorf et al. [13] study exhibits a flexible tool; TEA that supports user test by automating repetitive tasks and collecting data of user input and action. The tool is able to interact with Web browsers. Liu [14] study showed how to evaluate a Website based on selected criteria. They used two methods; the first one is a common evaluation procedure, and in the second one some usability evaluation techniques are introduced.

Carta et al. presented a tool that considers client-side data on user interactions and JavaScript events. The tool supports evaluation of any Web site by exploiting a proxy-based architecture and enables the evaluator to perform a comparison between actual user behavior and an optimal sequence of actions [15].

In the field of SEO, there are many researchers who focused on SEQ to improve site search performance. Among those are: Zhao et al. where authors presented a method for Website design optimization [1]. This is a strategy that focuses on how to design a Website for SEO. To achieve this we need to apply a set of methods when we intend to design a Website and a strategy that has a set of rules, such as specifications for: page title, keyword optimization, improving the click popularity, improving link population, and Website internal links.

Fernandez et al., states that most of usability evaluation methods for the Web domain have several limitations such as: the concept of usability is only partially supported; usability evaluations are mainly performed when the Web application has been completed; there is a lack of guidelines on how to properly integrate usability into Web development [17]

Tsai, W, et al. present an approach to optimize Web search by integrating social annotation and click-through data that provide different views of user preferences, which are in different domains. They propose a framework to boost ranking performance by integrating social annotation and click-through data. As a result, the authors proposed a Website design method for SEO and introduce an SEO strategy, both to help to optimize Websites [6]. The study is dedicated to Web 2.0 which is commonly related with Web applications that make interactive information sharing, interoperability, etc an easy task. The study proposes a Website's design methods for SEO alongside the basic SEO optimization strategies. This will facilitate Web2.0 Websites design.

**METHODOLOGY:**

The evaluation methodology is divided into the following several subsections:

**Automatic Website Evaluation Tools**

This study is based on three automatic evaluation tools that are used to measure and evaluate Website usability. SEO tools are also used to retrieve PageRanks for each Website. This is a brief description of those tools:

- HTML Toolbox is used to evaluate the Websites' usability. It contains three tools, each of which has a unique function. The first tool is called HTML check and repair. It is used to evaluate Websites and retrieve the number of HTML errors for each Website. The second tool is called Load time. It is used to calculate the time required to load a page and its graphics. The third tool is called Browser compatibility; it is used to calculate the number of compatibility problems for each Website. All the above tools are used to measure the load time, html check errors and browser compatibility problems for each Website [2].
- PageRank Checker is one of the SEO tools which is used to calculate and display the PageRank for each Website. This is accomplished by submitting the URL in the search box and then running the tool [18].
- SEO PageRank is similar to the above tools, this tool is used when the other two tools fails to output PageRank score [3].

**Retrieve and Store Results**

After evaluating all Websites by the previously mentioned tools, the retrieved results are stored as shown in the following Tables. We present four values for each Website, as shown in table 1.

**Table 1:** HTML Tool Box and SEO- PageRank measurements for 10 Jordanian Universities' Websites

University	Html Check Errors	Load Time "56kbps"	Browser Compatibility Problem	SEO PageRank
Sumaya	13	16.31	32	6
Zarqa	4	57.34	24	6

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University	Html Check Errors	Load Time "56kbps"	Browser Compatibility Problem	SEO PageRank
Al-albayt	1	5.65	16	6
Al-Hussein	13	18.48	14	6
Tafila	0	2.54	6	6
Applied Science	2	2.76	1	6
Isra	15	91.92	20	5
Amman Arab	36	46	52	5
Yarmouk	21	5.61	13	7
JUST	2	4.34	6	7
Average	10.7	25.1	18.4	6

### Organizing the Results

Table 1 presents the measures related to Universities in Jordan, while there several other Tables in the appendix presenting different measures related to University in seven other Arab countries: United Arab Emirates, Egypt, Lebanon, Bahrain, Yemen, Saudi Arabia and Syria. After calculating the average for each attribute that is related to each country in a separate Table as shown in the appendix, the results are sorted in ascending order. For example, Table 2 presents average load time.

**Table 2:** University Website Loading Time and Usability Level ( from Load Time Tool)

Country of the selected university Website	Average Load Time 56 kbps	Usability Level
Jordan	25.1	Three star
Yemen	30.9	Three star
Emirates	34.2	Three star
Lebanon	34.2	Three star
Syria	39.6	Two star
Saudi Arabia	44.4	Two star
Bahrain	45.7	One star
Egypt	61.4	One star

For each one of the eight selected Arab countries, this study identifies the usability level for HTML check errors, load time, and browser compatibility.

### Results and Discussions:

This section consists of a number of subsections showing how the data are collected and showing related results to each subsection. This section also discusses the results of each evaluation attribute related to all evaluated Universities. After analyzing the results, recommendations are presented to improve the usability and increase the PageRank for each country.

### Sample Data

This study is based on inspecting Websites of eighty academic universities from eight Arab countries. The universities covered in this study include both private and public universities.

### Load Time

This is the time required to load a Web page and all its components. Page load time depends on more than one factor, such as HTML files size, number of Web servers that are to the subject Website, number of HTML errors, size and number of images, and end-user Internet connection speed.

The results that are presented in table 2, are average load times and usability levels obtained after evaluating several Arab University Websites in several countries. Inspecting the results shows that Universities in Jordan, Yemen, Emirates, and Lebanon were the highest for this metric, with three stars usability-level for each. Universities from Syria and Saudi Arabia were in the second level, and those of Bahrain and Egypt were in the last level, with one star usability-level. The load time classification was based on that shown in table 3.

**Table 3:** Load time levels classification

Rating	Usability Level
≤13 second	Five Stars
≤24 second	Four stars
≤35 second	Three stars
≤45 second	Two stars
> 46 second	One star

There are many techniques and recommendations on how to improve load time. Following are examples of those recommendations on how to improve Website load time.

- Keep the size of your Webpage and its entire graphics below 40 Kbytes.
- Connect, if possible, to only one Web server.
- Keep your pages free of HTML errors.
- Reduce the number of HTTP requests on each page.
- Reduce the number of objects in Web pages.
- Aggregate and compress CSS and JavaScript files.
- Reduce the number of cookies used by the Website that are transmitted with every HTTP.

### Browser Compatibility

Browser compatibility metric is used to measure the compatibility of a Website with large numbers of Internet browsers. Internet Explorer browser is used by 90% of all Web users in the Arab world, while there are more than 700 other browsers in use [19].

**Table 4:** Browser compatibility results with their corresponding usability level.

Arab Website University	Browser Compatibility Problem	Usability Level
Syria	2.6	Four stars
Emirates	9.2	Three stars
Bahrain	12.2	Two stars
Egypt	14.2	Two stars
Lebanon	17.8	Two stars
Jordan	18.4	One star
Saudi Arabia	21.8	One star
Yemen	26.6	One star

Table 5 shows the scale that is used to classify Browser compatibility.

**Table 5:** Browser Compatibility Rating.

Rating	Usability Level
= 0 error	Five Stars
≤6 error	Four stars
≤12 error	Three stars
≤18 error	Two stars
> 18 error	One star

Analyzing the results of table 4 reveals that the Syrian Universities Websites are the best in terms of this metric, since they have only 2.6 browser compatibility problems, with four stars usability-level. Emirates Universities are at the second level, with 9.8 browser compatibility problems, with three stars usability-level. Bahrain, Egypt and Lebanon universities get the third level and Jordan, Saudi Arabia, and Yemen universities get the last level.

Many Websites designers focus their intentions at optimizing their browser on one or two specific browsers and ignore the rest which may impact their spread or popularity. Following are two guidelines to improve browser compatibility problems:

- Test Websites in multiple browsers such as Internet Explorer 7 and 8, Google Chrome, Mozilla and Opera.
- Design the Website to be able to operate with different platforms other than PCs or desktops, for example mobile and smart phones and WebTV.

### HTML Check Errors

The HTML Check tool is used to evaluate and calculate the number of HTML errors that exist on the Web page, such as coding errors, missing tags and others [2]. When these errors occur, the Web page may be displayed incorrectly. Eventually it will generate a report that summarizes its finding and shows where the errors occurred in the HTML code.

The results obtained from HTML Check tool are presented in Table 6. By analyzing these results, we found that Jordanian universities are the best in this aspect, where they have only 10.7 HTML errors, with three stars usability-level. Saudi Arabia's, Lebanon's, Emirate's, Syria's and Bahrain's are at the second level, with two stars. Yemen's and Egypt's shared the last level, with one star usability level.

All errors contained within HTML files should be repaired, where error reports are retrieved by HTML Check tool. When all Web pages at the Website are free from any HTML error, they give an indicator that there is no problem when any Web page is displayed by a browser.

**Table 6:** HTML check results and their corresponding usability level

Country of the University	HTML Check Errors	Usability Level
Jordan	10.7	Three stars
Saudi Arabia	12.9	Two stars
Lebanon	13.3	Two stars
Emirates	13.5	Two stars
Syria	15.5	Two stars
Bahrain	15.6	Two stars
Yemen	30.8	One star
Egypt	41.6	One star

Table 7 shows the classification scheme that is adopted for HTML check error classification or rating.

**Table 7:** HTML check error rating

Rating	Usability Level
= 0 error	Five Stars
≤6 error	Four stars
≤12 error	Three stars
≤18 error	Two stars
> 18 error	One star

### SEO – Pagerank

SEO is the process that is used to improve site search performance in search engines and to increase the possibility of customer discovery and access to the Website. When applying SEO to a Website, the PageRank is increased. Once a PageRank is high, the Web page may be displayed on the first results-page that is displayed by a search engine [19]. Table 8 presents the summarized results obtained from evaluating eighty Arab universities Websites, by using SEO-PageRank tool, to retrieve each Website PageRank

**Table 8:** Results obtained from SEO- PageRank tool

<b>University Nationality</b>	<b>PageRank</b>
Egyptian	8.1
Lebanese	6.4
Saudi Arabian	6.2
Jordanian	6
Bahraini	5.8
Syrian	5.2
Emirates	5.1
Yemeni	5.1

Results shown in table 8 are obtained from SEO- PageRank tool. Analyzing the results, reveals that Websites of Egyptian universities are the best with the highest PageRank. Those of Lebanon, Saudi Arabia and Jordan are in the second level. Those of Syria, Emirates and Yemen were the last with the lowest PageRank.

For those Websites of low PageRank, we recommend the following strategies to improve PageRank [16, 1]:

- Page title: The page title is the highest priority in SEO, which is often taken as the first line of search results. The page title must be brief and fast in loading.
- Keyword optimization: Appropriate keywords are the first step to build a high-rank Website; a closer relevance between the Web page and the keyword must exist.
- Improve link popularity: Provide users with useful real and relevant services so that they can frequently visit your website. Search engines evaluate PageRank through external Website links and the quality of links to Website. This objective can be achieved by exchanging links with other Websites.
- Internal links of a Website: Reasonable links can make the Web page more visual to visitors and to search engines.
- Join forums and directories. Forums can improve visibility and popularity of your Website.
- For Universities, published articles and professors with popular names and papers may affect positively the popularity of their University Website.

### **Conclusion and Future Work:**

In this paper, we evaluate Websites of eighty Universities in the Arab world for particular usability issues such as: HTML check errors, load time, browser compatibility problems and PageRanks for each one of them. Results showed that based on the evaluated metrics evaluated Universities vary and fluctuate from one level to another. Jordanian Universities got the first level in the two measures: load time and HTML check errors. Websites of Syrian universities are high in terms of handling browser compatibility problems (i.e. browser or platform independent). Given their relatively good world ranks and popularity, it was strange to find that Websites of Egyptian

universities are in the last level in both load time and HTML check errors. On the other hand, they are the best in PageRank measures. Such findings may indicate that Google PageRank does not take load time and HTML check errors into consideration or they are not major factors in the PageRanking or popularity metric.

SEO should not be the sole concern to be taken when designing Websites. Usability and the Website quality and its lack of errors should be given a similar focus.

## التقييم لسهولة إستخدام ثمانين موقعاً للجامعات العربية ورفع رتبتهما ضمن نتائج محركات البحث بإستخدام أمثلية محرك البحث (SEO).

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### ملخص

يعتبر قياس سهولة الإستخدام (Usability) والاستخدام الأمثل لمحركات البحث (Search Engine Optimization) من القضايا الهامة الواجب تحريها ودراستها من قبل الباحثين، لمعرفة مواقع الإنترنت التي روعي فيها عند تصميمها سهولة الإستخدام والقابلية على جعل الموقع ظاهرا ضمن النتائج الأولى التي تظهرها محركات البحث. قامت هذه الدراسة على التقييم الذاتي لثمانين موقعا رئيسيا لجامعات عربية مختلفة، لتحري العلاقة ما بين سهولة الإستخدام (Usability) والاستخدام الأمثل لمحركات البحث (Search Engine Optimization). يقوم تقييم سهولة الإستخدام (Usability evaluation) أساسا على السمات الثلاث التالية: تدقيق أخطاء HTML، ووقت التحميل ومشاكل توافق المتصفحات (Browser compatibility problems). اعتمدت عملية تقييم المواقع الثمانين التي خضعت للدراسة على الأدوات الثلاث التالية: (HTML ToolBox) و (PageRank Checker) و (SEO PageRank). وأظهرت النتائج أن تلك السمات الثلاثة لا ترتبط عادة مع بعضها البعض، لذا فإن البعض من مواقع الجامعات قد تصنف ضمن المراتب الأولى وفقا لإحدى هذه السمات الثلاث، وتحتل مراتب متأخرة وفقا لسمة أخرى. هناك العديد من التقنيات لتحسين الإستخدام الأمثل لمحركات البحث. وتعتبر سهولة الإستخدام من الجوانب المهمة الواجب الاهتمام بها عند تصميم المواقع، والتي لا تؤدي بالضرورة إلى تحسين الإستخدام الأمثل لمحركات البحث. وأخيرا وليس آخرا تم عرض مجموعة من التوصيات لتحسين سهولة إستخدام المواقع، مع الإهتمام في ذات الوقت برتبة الصفحة (PageRank) من خلال اعتماد تقنيات الإستخدام الأمثل لمحركات البحث.

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## APPENDIX

**Table 9:** Information obtained by using HTML Toolbox and SEO-PageRank from Emirates university Websites

United Arab Emirates				
University Website Home Page	Html Check Errors	Load time "56 kbps"	Browser Compatibility Problem	SEO-PageRank
Ajman University	44	29.25	15	6
Arab Emirates University	3	26.36	14	7
Naval College University	4	36.37	13	0
Sharjah American University	1	21.81	8	7
Dubai American University	26	26.69	5	6
University General Requirements Unit	0	3.42	4	5
Ajman Science & Technology University	44	29.15	15	4
Dubai Wollongong University	3	31.20	7	6
Al-Ain Women College	1	110.02	1	5
College of Education	9	27.24	9	5
Average	13.5	34.2	9.2	5.1

**Table 10:** Information obtained by using HTML Toolbox and SEO-PageRank from Egyptian university Websites

Egypt				
University Website Home page	Html Check Errors	Load time "56 kbps"	Browser Compatibility Problem	SEO-PageRank
Helwan University	333	99.26	17	8
Alexandria University	1	24.29	6	9
Al Mansoura University	1	5.79	7	8
Assiut University	3	71.00	16	8
Zagazig	16	154.25	18	8
Tanta University	2	22.19	7	8
Minia University	13	179.71	27	9
October University	13	8.35	22	8
Suez University	34	4.04	16	8
Senghor University	0	45.37	6	7
Average	41.6	61.4	14.2	8.1

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**Table 11:** Information obtained by using HTML Toolbox and SEO-PageRank from Lebanese university Websites

<b>Lebanon</b>				
<b>University Website Home page</b>	<b>Html Check Errors</b>	<b>Load time “56 kbps”</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
Libanaise University	11	17.06	10	7
American University of Beirut	8	23.54	16	6
Balamand University	5	8.41	8	6
Saint-Joseph University	3	35.53	19	8
Beirut University	76	103.46	15	7
Lebanese International University	6	4.28	18	6
Jinan University	4	48.76	35	6
Arab Open University	1	62.77	22	5
Lebanese American University	7	22.73	19	9
Hariri Canadian University	12	15.54	16	4
Average	13.3	34.2	17.8	6.4

**Table 12:** Information obtained by using HTML Toolbox and SEO-PageRank from Bahraini university Websites

<b>Bahrain</b>				
<b>University Website Home page</b>	<b>Html Check Errors</b>	<b>Load time “56 kbps”</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
Bahrain University	9	53.15	18	6
Arab Gulf University	7	25.32	9	7
Arab Open University	4	27.89	16	7
Ahlia University	5	4.74	8	5
Royal University	78	124.86	12	5
The Kingdom University	17	89.4	24	5

<b>Bahrain</b>				
<b>University Website Home page</b>	<b>Html Check Errors</b>	<b>Load time "56 kbps"</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
New York University	0	37.92	4	6
Gulf University	2	41.69	11	6
Royal College Irland	0	32.49	12	5
University College	34	19.55	8	6
Average	15.6	45.7	12.2	5.8

**Table 13:** Information obtained by using HTML Toolbox and SEO-PageRank from Yemeni university Websites

<b>Yemen</b>				
<b>University Website Home page</b>	<b>Html Check Errors</b>	<b>Load time "56 kbps"</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
Science & Technology University	68	52.90	38	6
Hethramout University	132	25.31	42	5
Ibb University	7	2.07	2	4
National University	34	19.93	15	5
Taiz University	1	52.71	27	3
Ahgaf University	1	36.33	10	6
Sana'a University	6	5.18	24	5
Yemen College	1	45.20	9	6
YALI University	28	38.39	72	6
Average	30.8	30.9	26.6	5.1

**Table 14:** Information obtained by using HTML Toolbox and SEO-PageRank from Saudi Arabian university Websites

<b>Saudi Arabia</b>				
<b>University Website Home Page</b>	<b>Html Check Errors</b>	<b>Load time “56 kbps”</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
Islamic University	23	52.84	4	6
Mohammed bin Said University	9	57.78	26	7
King Faisal University	34	50.13	33	7
Aljouf University	0	27.02	7	7
Ha’il University	5	28.20	11	7
Qasseam University	5	87.25	18	5
Tabuk University	13	37	60.05	6
Umm Al Qura University	15	29.62	10	3
Taibah University	6	27.41	12	7
Najran University	19	46.71	37	7
Average	12.9	44.4	21.8	6.2

**Table 15:** Information obtained by using HTML Toolbox and SEO-PageRank from Syrian university Websites

<b>Syria</b>				
<b>University Website Home Page</b>	<b>Html Check Errors</b>	<b>Load time “56 kbps”</b>	<b>Browser Compatibility Problem</b>	<b>SEO-PageRank</b>
Damascus University	15	66.92	31	7
Aleppo University	49	95.15	18	6
Albaath University	57	12.87	33	6
Furate University	8	84.46	19	5
Ittihad University	1	29.37	15	5
Mamoun University	0	35.90	15	5
Yarmouk University	6	33.39	31	3
Ebla University	9	25.42	18	3
Arab International University.	4	8.63	19	5
Arab Academy	6	3.72	7	7
Average	15.5	39.6	2.6	5.2

**Table 16:** Information obtained by using HTML Toolbox and SEO-PageRank that contains the average number about the Arab's universities

<b>Arab University Websites</b>	<b>Html Check Errors</b>	<b>Load Time 56 kbps</b>	<b>Browser Compatibility Problem</b>	<b>PageRank</b>
Jordan	10.7	25.1	18.4	6
Saudi	12.9	44.4	21.8	6.2
Lebanon	13.3	34.2	17.8	6.4
Emirates	13.5	34.2	9.2	5.1
Syria	15.5	39.6	2.6	5.2
Bahrain	15.6	45.7	12.2	5.8
Yemen	30.8	30.9	26.6	5.1
Egypt	41.6	61.4	14.2	8.1