

Standards of Design E-Learning Management Systems

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Abstract: *This research considered a real addition to the field of quality standards for eLearning management systems. The researcher aims to conduct a comprehensive analytical study sample, including some of the best e-learning management systems and study the availability of the standards. The study concluded that the existing standards are considered Loose and not fully exact, so the researcher prepared a list of criteria, Consists of ten major items containing 57 standard initial condition, it falls below 371 a condition secondary standard, covering all the primary task of these systems. Its aims to raise performance and improve outputs. It has arbitrated by number of experts and specialists in this field (e-learning). And can be considered as a strong foundation to build successful and effective e-learning management systems. In addition, these standards can be used to measure and evaluate quality of systems that are currently used and compare them in terms of efficiency, quality and extent of meeting and fulfilling the requirements of users and educational institutions.*

Keywords: E-learning Management Systems, Standards, Quality, Design, E-learning, Models

1. Introduction

Functions of e-learning management systems (LMSs) was develop from management of courses, student records and regulate access, to the extent of another much further, since the start of the recent specialists in this area interest of developing these systems to simulate the human teacher's behavior and style, and through the construction of these systems in a professional manner based on sophisticated models and algorithms, enables the teacher to organize the e-learning process.

After that need to determining standards for construction of these systems was appear, it must be taken by developers and specialists in this field. Here lies the importance of this research; the researcher who conducted a comprehensive analytical study sample included a number of e-learning management systems and studies the availability of the standards. Then the researcher prepared a list of criteria consist of ten standard conditions. It was reviewed by many experts and specialists in the field of e-learning.

2. Concept of E-Learning Management Systems

The evolution of the application of e-learning from simple electronic decisions design to advanced interactive design, which features a large number of different educational resources such as (txt- video -sound - Photo- Flash), then the need to create a bowl-mail is not to manage the courses and the organization accessible only appeared but it was required to be managed by educational whole process, and next to that the administration in light of the information and communication technology in the e-community has become appearance and substance are different, the scales were turned upside down and changed the nature of relations between community members and provided fast communication tools with ease a lot of effort and money [8], was launched on this vessel e-learning management system name, which serves as the infrastructure for e-learning.

Known as "packages integrated programs constitute a system for the management of the educational process and electronic check communication between the parties to the educational system at any time and from anywhere via the global information network or local area network in order to improve teaching and learning process [5]. It is Those management of teaching and learning activities software, in terms of courses, interaction and drills and exercises (Clary 2009). So are these systems ideal strategic solution for planning and management of all aspects of education in educational institutions. and enables the educational activities that were separate and isolated from each of coordination and communication to become its work in accordance with the harmonized system which contributes to raising the level of Education.

3. The Importance of E-Learning Management Systems

The importance of e-learning systems in that it provides integrated tools allow users to manage all phases of e-learning, including all operations and educational activities beginning of the acceptance and conclusion extracted graduation certificate through all activities and stages of education, in addition to that they provide communication between all parties to the educational system tools .

Advantages of e-learning management systems:

These systems are considered an effective tool for the management of education in educational institutions is a catalyst component for both the teacher and the learner, it has been designed to help teachers use the Internet in education and communicate with learners in an easy way without the need for a deep knowledge of the methods of programming, also provided for the learner several different forms of scientific materials The sources can be obtained from a single location, next to it provides a self-learning environment that enables the learner to interact positively with the scientific material.

4. Types of E-Learning Management Systems

a) Types of e-learning management systems in terms of the source:

E-learning management systems in terms of the source is divided into two main sections, according to the wars (the war 1428), namely:

- E-learning management systems open source.
- E-learning management systems are closed source or commercial.

b) Types of e-learning management systems in terms of functionality:

In terms of function it could divide the e-learning management systems into three main sections, namely:

- Education Management System Learning Management System (LMS)
- Content Management System or courses (CMS) Content Management System
- Learning content management systems (LCMS) Learning Content Management System

5. Meijer Quality of E-Learning Management Systems

During the past few years there have been great strides in the use of e-learning management systems, and strive to improve the quality of these systems and raise the level of their performance. It has imposed a modern changes in the world today need to take approach beyond the fact limits and forward-looking, including carries of opportunities available, as quality is no longer a luxury aspiration of the common educational software industry; but necessity dictated by contemporary developments Hence directing entity of e-learning management systems comes towards ensuring Quality [11] [15].

And became no need to determine the standards and quality controls that must be taken into account, it is the existing systems produce this kind of quality standards is the e-world key and the basis of possession of technological knowledge keys; so it all specialists in this area should be striving for the development of these standards and adhere to the [1] [12]. This is because generally accepted standards currently in the field of e-learning management systems do not live up to the degree certified by the standard by international quality organizations, which continues to serve as specifications or standards or guidelines recommended, so the novelty of the field of e-learning in general, as it is still in the stage accelerating the growth and development lead to quick changes, while quality standards are based on the degree of stability which is not up to them now to e-learning, and access to such a degree became achieve quality educational software and to ensure that confirmed the focus of technical officials at all levels.

Numerous quality concepts according to different uses, all of Albulaoi and Solomon and To'eima and known as "standards and procedures aimed adopted and implemented to achieve the maximum degree of the objectives of the institution, continuous improvement in performance and product according to the purposes of the required specifications

sought the best ways and with less effort and cost empowered group [3].

a) Omaha follow the standards of quality in e-learning management systems:

Considered standards a central theme and important for systems management for e-learning, because it is considered the key to the integration of content and matching of different sources, it can be interchangeable contents development as long as they are subject to the same standards, which helps in the re-use and easily assembled and disassembled, quickly and at a lower cost, and therefore systems can LMS LMS , and other systems as systems and create a content authoring LCMS to work in harmony with each other [6].

b) void use of standards in e-learning management systems:

Derived from the use of standards in the process of e-learning are many benefits [7], and most notably the (interoperability, re-use, ease of access, continuity).

c) Aliabad strategy to evaluate e-learning management systems:

The production of e-learning management systems cannot be a unique service that they can be submitted only through the efficiency and effectiveness of continuous; a calendar and e-learning management systems in accordance with the overall quality standards and effective strategy through the following dimensions [4]:

- To achieve satisfaction.
- Increase efficiency and flexibility.
- Increase productive capacity.

The advantages of e-learning management systems:

This study aims to identify the most important features of e-learning management systems, so that the researcher to develop e-learning management system is characterized by high quality and meets the requirements of the educational institutions of the theoretical and practical side. To achieve this goal, the researcher has studied a number of e-learning management systems and experience and take the views of its users and experts in the field. In addition, it included the study found on theoretical and applied research and scientific papers that have been published in this area.

The study concluded that the current e-learning management systems do not take into account many of the quality of existing standards, which in turn are standards that fake and is controlled completely, so the researcher to develop a set of standards can be considered as a strong foundation to build e-learning successful and effective management system. In addition, These criteria can be used to measure the quality of systems that are currently used and compare in terms of efficiency, quality and extent of meeting the requirements of users and educational institutions.

The researcher proposed e-learning management system components, based on the quality standards set by the researcher were judged by a number of experts and researchers in this area. And adopted a researcher on the research publication entitled (the quality of e-learning

management systems from the perspective of the social requirements for engineering software).as the basis to build a list of criteria includes the following features and functions:

1. Configuration
2. Content Management
3. Grades and scale
4. Security and Privacy
5. User Interfaces
6. Accounts
7. Service
8. Learning tools
9. Blocks and Plugins
10. Activities

Here the explanation of each one of these characteristics briefly.

- **Configuration:** the first items the list of criteria developed by the researcher as described in Supplement No. 1 and includes: (settings, installation and configuration, network, server, web services, badges, version control, operating specifications). It covers the basic settings in general.
- **Configuration:** One of the basic objectives for which the use of these systems in the educational process is its ability to electronic content management (decisions - pages - links, etc.) professionally, so it was necessary for the researcher attention the requirements of this aspect appropriately. It features (automatic properties, classification, authoring, courses, courses, files and warehouses, packet processing procedures).
- **Grades and scale:** officials of e-learning concenter this aspect systems of great importance because it results in academic and administrative important decisions such as the leave the results of the classroom and declared and then determine who moves on to the next chapter of those who remain, and it is separated academically and other important decisions.
- **Security and privacy:** is of paramount importance, especially while facing these systems from attempts to penetrate may be exposed to this axis. or attempts to override the powers and operations of unregulated access, so it focused researcher strongly been divided into the following items: the powers, documentation, policies, tracking, security, notices, access security, Date.
- **User interfaces:** you win and user interfaces an important dimension in dealing with the system, the more the system is simple and easy to use and are available in which many browsers and move tools that make it easier for the user to get used to, everything that has increased the vulnerability of the system to the users, and includes this aspect (appearing, topics, browser, text editor, customization).
- **Accounts:** all successful systems that reliably paid by the users and personal pages attention and extreme care because of their impact in controlling the work of users and coordinate their pages and personal divided into public collections or private, as well as the activation of default on the system in various specialties communities.
- **Services:** This segment range of services that can be provided by system users such as (instructions and guidance, filtering, language, location, simultaneous connections, asynchronous communication, procedures and statistics, supply, documentation, help,

questionnaires, monitoring and reporting, advertising, rules Tools data, records, compatibility, Research).

- **Learning Tools:** The term learning tools in particular drags on collective learning, such as wikis and forums, workshops and whiteboard tool and virtual classrooms and others.
- **Blocks and Plugins:** respect this aspect software additions that users can delete it and installed on the system as needed, such as feeder remote news and chat tools and Embedded Systems.
- **Activities:** Straighten the researcher this part of the list of standards activities, whether standard or non-standard, such as the work of the year, forums, glossary and other activities that can be performed learner individually or collectively.

6. Conclusion

Focused researcher in this study on the development of standard criteria under which building design and development of e-learning management systems, the study concluded that the number of ten benchmarks are used to measure the quality of these systems and compare, namely: (installation, electronic content management, grades and standards, security and privacy , user interfaces, accounts, services, learning tools, blocks and additions, activities). These include a requirement normative standards 57 initial and secondary condition 371 .

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