Review Based Study On Healthcare Systems In Higher Education

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Abstract: **E-Learning in Higher Education is one of the major concern area which is recognized as an important factor, significantly contributing to the progress of an individual, social change and economic growth which leads to the holistic development of the nation. LMS has a wide range of products and services which can cater to the need of 21st century's learners and instructors. The popularity of LMS among the universities is very high, so the changing needs of stakeholder in education made a pathway to move towards more virtual learning which emphasizing to save time and money and effective delivery of instruction. As stated earlier Learning Management System is a software based application which help us to administrate, document, track, report and evaluate the teaching learning process, training programs, virtual classes, and e-Learning programs. Functions of Learning Management System can be broadly divided into 4 major parts and then sub parts will be discussed under the main category: Stakeholder Functionality-In this part the participant or stakeholder has their own space by which they are able to access the following services: View the status of course and completion of courses ; Facility to print or view the certificate- Content or Course Management; Manage, add or delete the content of the course or modules. Learning Management System has different categories depending upon their usage and accessibility.**

Key words : **E-Learning; LMS; Course Management; Accessibility; Teaching Learning Process**

INTRODUCTION

Popularity of major LMS in education has been described .Different LMS according to their categories: Open Source Learning Management System-The open source LMSs are learning management platforms which are available under a public free license, providing users the rights to use, to change, to study, to create and to distribute the results, free of charge, to anyone and for any purpose. MOODLE, SAKAY etc. are most popular name in this category :: SAAS/Cloud Based Learning Management System.Cloud based learning management comes with cloud computing features and deliver the education online to any student, at anytime and anywhere around the world, the only must requirements to be fulfilled being the existence of an Internet connection and of a tool (i.e., computer, tablet, smartphone). Digital Chalk, Docebo SaaS LMS, TalentLMS, Firmwater LMS, Litmos LMS, etc. are some famous names in this category :: Proprietary Learning Management System-These systems have been licensed by their developers under the legal rights belonging to the copyright owner/s. Design2Leran, ANGEL (property of Blackboard Inc.) are the popular one in this category. By observing the user pattern of LMS we can say that here are the three stakeholders: The Learner- are the main users of LMS and they are the first consumer of the services. The Instructor- instructor usages LMS to guide, supervise, assist and evaluate learners. The Administrator- keep the proper flow of operation of services and its users. The most attractive feature of e-learning is that it is student-centered. It accommodates individual preferences and needs. At the same time, it empowers students of various backgrounds to have equal access to the best resources and referral material, lecture sessions, tutoring, and experienced teachers.

USE OF TECHNOLOGY

Most professionals interested in the use of technology in education understand the importance of an e-learning course site, whether the course is taught completely online, or in a hybrid environment where the instructor also has some face-to-face interaction with students. Today, e-learning companies offer a variety of e-learning services such as building and designing training courses, offering web-based programs for learning, online learning, and content management. The services and format of e-learning allow for the following listed benefits, to name only a few. First, e-learning allows any user to host live classes on any topic. A high school chemistry teacher in California can schedule his/her own class with live video and audio feeds and have a global student audience. Second, the format allows students to learn easily for the standardized tests by downloading the study material they want, rather than paying hefty bills to tuitions. Third, it also allows the students to improve their scores in the

standardized tests, by taking as many tests as they want. Fourth, the e-learning format allows students to speed up and slow down as they deem necessary. The traditional educational delivery system in universities and colleges has for a relatively long period of time been a classroom with a professor giving lecture to students and the students listening and sometimes taking notes. Communication between the professor and students has been thought of to be a vital learning component in this delivery method. Innovations in educational delivery mechanisms such as interactive and reflective schools of thought have, however, challenged the traditional approaches to education .

PROGRESS IN IT

Progress in information technology has enabled new educational delivery methods such as distance learning and e-Learning. As a result of this, many universities and colleges have joined this innovative e-Learning world. This has led to the need for pedagogical and technical knowledge to teach using the Internet, and this knowledge is gradually becoming a core competence for many teachers as well as students. Given the propagation of electronic supported teaching, the crucial question here is that how and to what extent e-Learning is changing the quality of teaching and learning. E-Learning has entered the education as well as the corporate world in a major way and it also complements the traditional delivery methods. It has definitely facilitated the conventionally complex paradigms of education like adult learning and distance learning. E-learning can be viewed as an alternative to the face-to-face teaching method or as a complement to it. Elearning usually allows the student a greater choice as well as responsibility for their own learning . E-learning can change the methods of learning and has the promise to overcome the barriers of time, distance, and economics. E-learning is an invaluable gift to the education sector. It has completely removed the distance barrier and made learning a convenient and pleasant affair. Studies indicate that e-Learning can help increase student engagement, motivation and attendance, which are the significant . There are number of research studies to suggest that e-Learning can definitely improve the marks scored by students. It is found that classes that incorporate use of software and computers while teaching has significant effect on marks even without taking online examination. Secondly, the marks obtained by those students who use multimedia in the classroom even if no other software is being used and the students correspond with the trainer through mail and appear for on line examination, is higher than the students for whom multimedia was not used. Thirdly, the marks scored by the students was the best who were neither taught through books in the classroom nor with the help of physical models but instead were taught with the help of a software and the students communicated with the instructor on mail. Largely, the findings demonstrate that teaching without the use of books gives better results and also improves the performance of the students. It is found that students who have used dictation web based e-learning programs had made better progress in dictation as compared to students who have used the traditional method. So, the conclusion which can be drawn is that the application of eLearning as a knowledge device causes students learning quality improvement in dictation.

USE OF ONLINE LEARNING PROGRAMS

The use of on-line learning programs enhances the cognitive and psychomotor skills of students. The use of electronic learning improved the students understanding of concepts, their problem solving and calculating skills, and computer operational skills as well. Web-based network has provided effortless and straightforward access to educational resources for learners everywhere and at every time, even in far-flung areas by creating home schools, and thus has caused educational justice . This multimedia environment and the opportunity of converting data in the form of sound, images, text, video has generated interest and enthusiasm in learners. The other benefits of eLearning are peer involvement, autonomous learning, interactive, fast response. To sum it up by using this method, teachers are now not only source of knowledge

Healthcare as a big-data repository

The health professionals belong to various health sectors like dentistry, medicine, midwifery, nursing, psychology, physiotherapy, and many others. Healthcare is required at several levels depending on the urgency of situation. Professionals serve it as the first point of consultation (for primary care), acute care requiring skilled professionals (secondary care), advanced

medical investigation and treatment (tertiary care) and highly uncommon diagnostic or surgical procedures (quaternary care). At all these levels, the health professionals are responsible for different kinds of information such as patient's medical history (diagnosis and prescriptions related data), medical and clinical data (like data from imaging and laboratory examinations), and other private or personal medical data.

Wireless Communications and Mobile Computing

Simple analysis includes personal retail consumption records reflecting lifestyle habits that can be used to assess personal health risks and develop personalized health plans. Based on the physiological data collected by wearable devices, the user's health can be easily monitored and tracked. Personal emotion data can be collected through information posted on social networks and can be used for mental health measures and emotion calculations. Particularly for the rehabilitation of patients, doctors can adjust the treatment plan based on the patient's emotions.

The emotional perception of medical services

Adapter is a data node that provides access to system middleware, not simply the physical data link or the original data pre-processor and encryptor. In addition to cleaning up the data, removing redundancy, and compression, the pre-processing module also supports data format conversion. Depending on the type of data collected, the adapter uses a system-defined data standard for format con-version. The encryption module encrypts the pre-processed data to ensure security via hierarchical privacy protection. Unauthorized devices cannot decrypt packets even if they have access to the system.

Simple analysis

Distributed network storage systems adopt a scalable system architecture that utilizes multiple storage servers to share the storage load and uses the location server to locate and store information. This not only improves system reliability, availability, and access efficiency but also is easily expandable. The distributed storage architecture consists of three parts: the client, the metadata server, and the data server. The client is responsible for sending read and write requests, cache file metadata, and file data. The metadata server is responsible for managing the metadata and processing client requests and is the core component of the entire system. The data server is responsible for storing the file data to ensure the availability and integrity and the data. The benefits of this architecture are that both performance and capacity can be expanded simultaneously, and the system is highly scalable.

Distributed storage

Distributed storage is facing more complicated data needs, which can be divided into three categories. Unstructured data: unstructured data include all formats of office documents, text, images, audio, and video information. Structured data: structured data are stored in data relational libraries; one can use two-dimensional relational table structure representations. The structured data schema(schema, including attributes, data types, and the links among data) and the content is separate, and the data model needs tobe predefined. Semi-structured data: between unstructured data and structured data, HTML documents belong to the semi-structured data category. Such data are generally self-describing, and the biggest difference from structured datais that the schema structure and content of semi-structured data are mixed, with no obvious distinction and no schema structure that predefines the data.

Big Data in healthcare

Various public and private sector industries generate, store, and analyze big data with an aim to improve the services they provide. In the healthcare industry, various sources for big data include hospital records, medical records of patients, results of medical examinations, and devices that are a part of internet of things. Biomedical research also generates a significant portion of big data relevant to public healthcare. This data requires proper management and analysis in order to derive meaningful information. Otherwise, seeking solution by analyzing big data quickly becomes comparable to finding a needle in the haystack. There are various challenges associated with each step of handling big data which can only be surpassed by using high-end computing solutions for big data analysis. That is why, to provide relevant solutions for improving public health, healthcare providers are required to be fully equipped with appropriate infrastructure to systematically generate and analyze big data. An efficient management, analysis, and interpretation of big data can change the game by opening new avenues for modern healthcare. That is exactly why various industries, including the healthcare industry, are taking vigorous steps to convert this potential into better services and financial advantages. With a strong integration of biomedical and healthcare data, modern healthcare organizations can possibly revolutionize the medical therapies and personalized medicine.

CONCLUSIONS

The interesting and enlightening finding that has come up is that female students are equally effectively using e-Learning when compared to their male counterparts. There are several reasons that could be attributed to this trend such as more dedication towards learning and achieving a higher grade in females. It can also be due to the fact that nowadays in developing countries like India females are getting almost equal opportunities for education and technology usage.The concept Learning Management System provides a very authentic and structured experience of virtual learning. Without Learning Management System it would be most difficult to plan, implement and deliver the instruction and training in an effective way. Though LMS is a web-based system, the use of the LMS is not limited to online classes only. LMS has been widely used and will continue to grow in future in higher education institutions and Industries. It does not limit to the online environment, but also improve and integrate into the hybrid and web-enhanced teaching and learning environment. The uses of LMS to facilitate interaction enhance learning abilities and support higher-order learning, including problem solving, critical thinking, and collaboration skills .E-learning is a large and growing market with great potential in higher education. Content and technology providers should provide high quality, interoperable solutions that consider learning principles. Accreditation bodies should provide and enforce clear guidelines for this new form of learning delivery. The development of new information technologies in the 21st century is expanding the range of information resources; it is also creating conditions for the formation of a global informational, educational and cultural space; and therefore changes occur in the education system. The high results cannot be achieved in the learning and the educational process without integrating new information and communication technologies in the education system. The use of enormous integrated set of computer and internet tools and resources allows us to achieve more efficient and eff ective training. The students are no longer passive consumers of the educational programs and services, but active participants in the educational process. Their skills and competencies to work eff ectively with digital technologies are prerequisite for successful and responsible solving and presentation of scientific problems and cases.

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