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ITC'S AND ELEARNING IN HIGHER EDUCATION

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Abstract.

It's started off by providing the amazing statistic that through Google alone there are 7.1 billion searches every month and this is more than one per person in the world, such is the quest for knowledge and so education and learning. The eLearning should be fun, but the learner has to adapt to artificial limitations, to simulate learning and to relate learning to everyday practice. Evolution is adaptation to the environment and if something is unfit for purpose, it will die out. To be successful, eLearning needs to be simple to use like Google.

Key words: ICT, education, eLearning, technology, e-learning system, Knowledge Society, LCMS.

INTRODUCTION

We live in a time of change or a change of era? How to recognize the profound changes that come with the rapid introduction into society of the new technologies of information and communication technologies (ICTs)? Is this a new stage of industrial society, or are we entering a new era? "Global Village", "technological age", "post-industrial society", these terms have been coined in an attempt to identify and understand the scope of these changes. All these questions above come to the need for education to adapt to present a new concept of student-users, and changes in the role of teachers and administrative changes in relation to communication systems, the design and distribution of teaching.

With the new understanding of cognitive processes are understood by the teacher and student, the technology will be most appropriate to solve everyday problems of teaching and in turn develop solutions, for example Abdul Waheed Khan (ex-Assistant Director-General of UNESCO for Communication and Information), refers to "the information society as the cornerstone of knowledge societies." The concept of "information society", is related to the idea of "technological innovation", while the concept of "knowledge societies" is encompassed within the dimensions of social, cultural, economic, political and institutional and a more pluralistic and developer. The concept of "knowledge societies" is preferable to the "information society" and better expresses the complexity and dynamism of the changes that are occurring. "We believe that technology has a vital role to play in building up 21st-century skills, broadening access to education and personalizing the learning experience to adapt teaching to the unique

needs of each learner," said Michael Golden, corporate vice president, Education Products Group at Microsoft.

The tool that most experts agree is very important to note is the eLearning or online education is a trend that surrounds us every day more, that is why it is necessary that university professors should have clear that some concepts guide the work of teachers, however, raises many uncertainties when assessing the bids of the market and you have to choose the most suitable for education, this lack of systems and eLearning platforms carry a variety of evaluation criteria, to through this we can highlight the most important aspects to be taken into account and that can help everyone to assess the main variables to consider, according to the needs of education. An eLearning system that fosters the development of the culture of learning, can boost the position of an organization or educational setting where applicable quality standards which competitiveness is the key factor, although the education sector more productive.

The platform of eLearning opens doors to many new users in continuous interaction, thus requiring a full integration into the organization that promotes and maintains, if you are a consumer of the same platform is the tool that enables to achieve the goal of training is so you should set major targets for eLearning without the need to graduate and meet the eLearning to achieve the ultimate goals that we face in the educational system.

'eLearning offers significant benefits and some unique attributes compared with traditional course delivery, such as (i) time and location shifting, (ii) flexible sequencing, (iii) widen access and increasing diversity, (iv) access to extensive resources, and (v) improved communications and acceleration of feedback . The above aims and the overall vision and strategic goals of the University requires excellence and innovation in teaching and learning and eLearning is central to realizing these.' (Oxford Brookes University)

Referring to ICT, and all your tools like eLearning, we see that we introduce a new era where communication and technology will have great importance to the point of being a possible support of all our knowledge in a future not very far, this is where man must learn to take advantage of all resources provided to us by technology to grow as a civilization.

MATERIAL AND METHODS

The Information Society has led to the massive incorporation of information technologies and communication technologies (ICTs) to all sectors of society, from economic, cultural, and not less important the education sector.

Technological changes have affected the way of learning in the knowledge society are:

- General access to broadband internet, especially in more developed economies.

- Weblogs, acquire great importance as a source of information and communication.

- The podcasting can be a great tool for mobile learning (mobile learning).

- Free software and traditional private developers of content, including educational institutions.

- Companies that have emerged on the internet dominating the market and offer innovative new services.

The technology offers a range of possibilities that can be applied in education, from which we can highlight the following:

- Expansion of the door.

- Creating more flexible environment for learning.

- Elimination of time-space barriers between teacher and students.

- Increased communication patterns.

- Empowerment of scenarios and interactive environments.

- Encourage both independent learning and self as the collaboratory and group.

- Breaking the classic scenario training, limited to educational institutions.

- Providing new opportunities for guidance and approval of students.

We can not think that the use of ICT in education are all advantages and opportunities, we also find a number of limitations or drawbacks, among them:

- Access and resources needed by the student.

- The need for specific infrastructure.

- The need for technical support staff and specific training for their use.

- Need to adapt to new ways of teaching and learning (their use requires that the student and the teacher know how to work with other different methods).

- Lack of quality education.

- Many environments are too static and simply consist of text or pdf format.

However we must not forget that the vast majority of constraints are the lack of teacher training for incorporating these new technologies to their classes of students.

1. The University Learning Integrated to the New Technologies

Introduction of information technology, documentation and communication in the dynamic university teaching began to be the cause of many innovative projects, and has become a constant that marks the current development of university teaching. So much so that in recent years, Internet use has become widespread is such that most of the printed communications are gone, creating an obligation for the use of the computer teachers.

Institutions of higher education must lead by example regarding use of the advantages and potential of new information technologies and communication, ensuring quality and maintaining high standards of practice and educational outcomes, with a openness, equity and international cooperation, through:

- Network, technology transfers, human resources, develop teaching materials and exchange experiences in the use of ICT to education, training and research.

- Creating new learning environments, ranging from distance education services and systems to virtual higher education, capable of bridging distances and systems of high quality education, thereby fostering the social and economic progress.

- Fully exploit information technology and communication for educational purposes, while striving to redress the gross inequalities between countries and within these in regard to access to new information technologies and communication and production of relevant resources.

- Adapting ICT to national and local needs, ensuring that the technical, educational, institutional and managerial support them.

- Facilitating, through international cooperation, identification of objectives and interests of all countries, especially developing countries, equitable access to infrastructure in this area and strengthening and dissemination of such technology throughout society.

- Monitor the development of the knowledge society to ensure the maintenance of a high quality and equitable regulations for access.

- Taking into account the new possibilities created by the use of information technology and communication, it is important to make clear that we are higher education establishments that use these technologies to modernize their work, and not that ICT replacing these centers to provide education.

1.1. The Learning Based on the Technologies: eLearning

The concept of eLearning is providing educational programs and learning systems through electronic means, characterized by a physical separation between teacher and pupil. It uses a computer or other electronic device such as a mobile phone, to provide the educational material.

Between teacher and student, a predominant two-way asynchronous communication, where Internet is used preferentially, but also includes the

delivery of educational material via any electronic means such as Internet, Intranet, Extranet, audio, video, satellite network, interactive television, CD and DVD, as a means of communication and distribution of knowledge, so that the student is the centre of an independent and flexible training, having to manage their own learning, usually with the help of outside mentors.

Some of the advantages of this system are improved productivity, timely delivery, training, flexible, and cost savings per participant. Once introduced the concept of eLearning, is required which means that it is within this context, the technology-based learning.

"An eLearning system (distance learning or virtual education) consists of a planned experience of teaching-learning and is organized by an institution that instantly supplies materials in a sequential and logical order in order to be used by students at their own pace without the constraints of time and synchronization. The media used can be diverse, from material on disks or CDs (correspondence) to communication technologies that send the material using the Internet (Istrate, O., 2000)."

Also, it has been said that "an eLeaning system is the knowledge acquisition and/or the knowledge increase through communication technologies, respectively through computer and Internet usage. The achievement of the educational goals is made using the electronic media (CD, DVD) or classes on-line (through the Internet) (Susmanschi-Alexandru)."

Thus, the specific benefit of the eLearning system is defined as one that requires a new dynamic of the teaching and studying process; in doing so, the system is able to supply the contents of the studied material and is able to facilitate the access to studying using a multimedia environment specially designed and characterized by:

- The increase of the capacity to adapt to the demands/requirements and possibilities of those who study, taking in consideration their fast pace lifestyle;

- The increase of the system flexibility, where the person involved brings his/her own motivation and contributions; it is a system that supports the desire of learning and improving knowledge;

- The use of different ways of expression, like virtual and/or audio, in addition to direct communication;

- The lack of mandatory simultaneous presence and synchronization.

The American Society of Training and Development (ASTD) is the largest association for the worldwide corporate training and performance of its members. This association is silent on defining e-learning as:

"A term that covers a wide range of applications and processes, such as web-based learning, computer-based learning, virtual classrooms and digital collaboration. Includes delivery of content via Internet, intranet / extranet, audio and video recordings, satellite broadcasts, interactive TV, CD-ROM and more".

In all definitions that refer to the concept of eLearning, reference is made either implicitly or explicitly to what is known as the triangle of e-learning, consisting of technology (platforms, virtual campus ...), content (quality and structure, used as reference elements for a successful initiative of etraining) and services (management elements, elements of communication ...). By varying the weight of these three components are obtained by different models of e-training, the same way as changing the variables and resources available to get a different teacher teaching policies.

1.2. Teaching-learning and Technology Platform

The environment of hardware and software designed to automate and manage the development of training is known as LMS (Learning Management System).

An LMS is software based on a web server that provides modules for tracking and administrative processes that are required for a school system, simplifying the control of these tasks. The administrative module allows, for example, set courses, enroll students, teachers register, assign courses to a student, bring progress reports and grades. They also facilitate distributed learning and collaborative activities and contents of pre produced by synchronously or asynchronously, using the Internet communication services such as mail, forums, videoconferencing or chat.

The student interacts with the platform through a web interface that lets you follow the lessons of the course, do the activities, communicating with the teacher and other students as well as to monitor their own progress with statistics and ratings. The complexity and capabilities of the platforms vary from one system to another, but in general all have basic functions such as those mentioned above.

Systems Learning Content Management or LCMS have their origin in the CMS (Content Management System) which aims to simplify the creation and administration of online content, and have been used mainly in

newspapers (articles, reports, photographs ...). In most cases they do the CMS is to separate the contents of your submission and also provide a working mechanism for the management of a web publication. The LCMS follows the basic concept of the CMS, which is content management, but focused on educational, management and educational resources and to concentrate not only all kinds of information.

The main users are the designers who use instructional content to structure the courses, teachers who use content to supplement their classroom materials and students at any time can access the tool to develop their skills or complete their tasks.

In conclusion, it can be said that both the LMS and LCMS can be generalized as learning management systems as the former managing the administrative part of the courses and activities and monitor student progress, while the second run content development, access and storage. In the market, the most common ones are the LMS as the complexity of the LCMS has led to slower development.

Improvements in easy and intuitive navigation Accessibility (possible access by people with disabilities) allow bridging the digital divide and extend training opportunities to more people, overcoming one of the biggest barriers of eLearning: the technological barrier.

There are now vast majority of platforms, both commercial and open source. At the university level is the most widely used platform WebCT, followed quite a distance from the platform Edustance. Is beginning to deploy the force platform license free Moodle. It is also used in several universities open source platform.

1.3. Contents

Quality of content is a necessary condition but not sufficient for a successful training program. It is commonly found on-line courses in which their contents do not go from being mere virtualization in the previous courses that students now read on the screen before you could read it on paper. This is more e-reading that eLearning.

The design of the contents must be performed by experts in teaching methodology in order to respond to:

- Relevance to the needs and possibilities of student
- Quality and quantity of information presented.
- Interactivity.

- Appropriate structure for proper assimilation.

With the emergence of standards, starting in 2001, guaranteed the independence of content and the LMS, so as to meet certain specifications on which to base the development of tools and content:

- Accessibility, independent of the platform you are content.

- Interoperability: the content can be used on different platforms.

- Reusability: the contents can be used over and over again in different educational programs.

- Durability: The content may be used regardless of changes in technology which was developed.

The advantages of standardization may be possible to freely choose suppliers of content and tools, and reuse of courses in different platforms, making it less costly in investment to be done in training.

1.4. Tools

We have a platform and content, with this we can start a course online? The answer is no. Communication tools in this training environment are another key element, enabling the interaction between different actors in the process of teaching and learning. This interaction results in the possibility of group work, exchange experiences, provide support through mentoring, resolving doubts, and so on.

According to the communication is in real time or not, we have:

- Synchronous communication tools: telephone, chat, webcam, video conferencing, electronic whiteboard, shared documents online.

- Asynchronous communication tools: they are giving eLearning much of his character ("anytime, anywhere"). Discussion forums, newsgroups, email and blogs can adds here.

Besides the purely economic barriers or practical knowledge, there are a number of mental barriers to achieving that certain groups have access to the information society.

CONCLUSIONS

In conclusion we can summarize that the systems that promote the teaching and learning processes through eLearning systems are of great importance to strengthen the so-called Knowledge Society. This means introducing a large number of people in the basic or advanced training in addition to improving their qualifications and their professional staff. These systems have a huge field of application since the training can be geared to complement the level of primary and secondary, complementary or exclusive at the university level, graduate or continuing education and special training in business.

However, the field of eLearning is in its early stages and still lacks a long journey to achieve optimal development. In this way are different lines of research in teaching and in the technological field, where there is a richer mix of interests of both groups to achieve better products and impoverished when the players from one end bent on ignoring the other.

Although we refer throughout this article to the importance and use of new technologies in education, we can not forget the human factor, which becomes the most important piece when you wish to undertake a strategy based on the e-training.

In a teaching-learning and technology platforms, or the pedagogical models but so are the means to achieve the ultimate goal of the process, i.e. increasing the knowledge and training of those involved. So that one must bear in mind that the ends of these are people who are the recipients of these new forms of teaching with the aim of enhancing, and it is they who must believe in the benefits they can bring these solutions. Without their acceptance, commitment and delivery will be impossible for the eLearning to succeed in an organization.

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