IOSR Journal of Computer Engineering (IOSR-JCE)
e-ISSN: 2278-0661,p-ISSN: 2278-8727, Volume 18, Issue 1, Ver. IV (Jan – Feb. 2016), PP 30-38
www.iosrjournals.org

A Review on E-Learning in Higher Education

Mohammad Bani Younes[1], Samer Al-Zoubi[2]
[1]*Computer Science, Information Technology, Ajloun National University, Jordan*
[2]*Arts and Educational Sciences, English Language and Literature, Ajloun National University, Jordan*

Abstract : *E-learning is basically the computer and network-enabled transfer of skills and knowledge to learners. It is considered one of the most successful educational media, especially after realizing that learning is no longer becomes a stage in human life but it has become a continuous and lasting process and it is essential for the individual as well as for the entire community. However, e-learning offers the possibility of continuous learning and its characteristics that makes it a significant element in the learning process. Still, the main goal of this article is to increase the awareness of the community members towards the importance of e-learning currently, and that the integration of this method with the traditional method in learning usually provides valuable and encouraging results. Therefore, e-learning must be encouraged and spread out; especially as it becomes available and affordable for everyone. Moreover, it can contribute significantly in providing valuable results to develop capabilities and creative thinking skills when individuals and groups have to solve many problems of different issues in their lives, so that it could benefit them positively, and it helps in establishing the concept of individual learning, where the learner continues learning on his capacity, ability and speed according to his previous experiences and skills.*

Keywords: *Blended Learning, E-learning, Synchronous e-Learning, Requirements, Obstacle.*

I. Introduction

The Information technology plays an important role in today's society as well as in education system. For example Singh et al., (2005) argue that the technological developments over the last two decades not only have the potential to change the way society accesses and maintains knowledge, but also to restructure the traditional models of delivery of education. However, After the emergence of the internet and the recent advances in computer and communication technology and multimedia, new patterns of education and training have emerged. Consequently, it is essential to adopt them as means to develop the educational process, and apply these developments in a comprehensive concept known as e-learning, which is considered as a way of creative, global, interactive and flexible learning. Recently, e-learning has become an essential part at all education levels for institutions and companies with partly quite different needs. As of today, over 2,000 learning tools are available in the market; ranging from traditional course and content development tools through e-learning collaboration and sharing tools as well as tools for personal learning. The tools are freeware, open source, and commercial [5,17].

In the last decades, the spread of modern technology which contributed to a high degree in supporting the scientific process in all areas of the use of information technology in all aspects of modern society, but also it has helped to collect and analyze information easily, so it is possible to get information without tiring through modern electronic applications. Thus, e-Learning has become one of the most important services provided by these applications. In fact, the information revolution has made the world like a small electronic screen in the era of integration between mass media technology and information, as well as culture and technology. The communication becomes electronically and the exchange of news and information between computer and networks has grown into a reality, allowing quick access to science, knowledge centers and libraries and to find out the newest types of technology immediately[15].

Basically, e-Learning is considered an important technique to provide learners with the required information using the modern methods of technology like computers, internet, multimedia, sound, image, graphics, search mechanisms and electronic libraries through using internet portals to take advantage of all techniques and provide the learner with information saving time and effort. It should be emphasized that e-learning will never entirely replace the traditional classroom education. Everyone is accustomed to the classroom environment, in addition to direct communication and interaction with other students and the instructor. E-learning helps teachers to prepare educational applications and materials for students to compensate the lack of experience among some of them, such as introducing the electronic educational bag to both the teacher and the student. As well as spreading technology in community, and to give a wider concept of continuous education, or long- distance learning [9,15].

A significant growth in computer-supported learning has been achieved with the creation of e-learning systems based on the technologies of the World Wide Web (WWW). As a result, with the WWW it was possible for the first time to display content across a variety of platforms. On the whole, Web-based training (WBT)

brings together various developments, such as computer aided instruction (CAI), hypertext and hypermedia, and the WWW. The concept of e-learning has begun to spread since the use of electronic data show to give lessons in traditional classrooms and the use of multimedia in classroom learning and self-learning processes. The development has continued until it reached the building of smart schools and virtual classrooms that allow students to attend and interact with lecturers and seminars that held in other countries through using internet technologies and interactive television [9,15].

The evolution and rapid advances in information and communication technology and computer software in the world have led to the use of computers in all areas, and the most prominent one of these areas is the e-learning, which became an instrument to supports the educational process and converts it from indoctrination stage into creative, interactive and developing skills to the stage that combines all electronic forms of education, where the latest methods are used in the fields of education, publishing and entertainment by using computers and their means of storage and networks. The rapid shift in technology has contributed in the emergence of new patterns of learning and teaching, which increases in the consolidation of the concept of individual or self-learning; where the learner can pursue his learning according to his/her ability according to his/her previous experiences and skills. However, many higher education institutions have adopted a wide range of e-learning tools into their educational delivery and support processes. Lessons so far demonstrate that a wide range of e-learning projects have stimulated an agenda of bottom-up innovation rather than one of institutionally-led changes in educational delivery processes. Furthermore the implementation of e-learning has primarily been evolutionary and not revolutionary. It has mainly been a process of bottom-up, incremental change, through which the use of e-learning is integrated into old and existing practices [9,15].

Problem Statement

The challenges which are imposed by the variables of this era impose certain levels of efficiency and creativity among learners which require accessibility for training, rehabilitation and development skills to suit requirements of work market. Accordingly, the role of e-learning as one of the alternatives which introduces new education pattern that allows to receive surplus demand on education, and to stop using traditional methods, and replace them with new learning methods that provide advanced and distinguished education for those who are interested in it.

Bates (2001) argues that life-long learning and e-learning have become critical for economic development. He estimates that the life-long learning market for formal university and college courses in knowledge-based economies is at least as great as the market for students leaving high school for university or college. Furthermore, companies need to update the skills of their workforce. Consequently universities are using re-education programs to exploit this lucrative market. The vast market for e-learning had led to a shift in emphasis from undergraduate to professional education [8].

Research Significance

The world has been facing a great scientific and technological revolution because of the rapid growth of knowledge and technology has an impact on various aspects of life. Thus, education needs new methods and educational models to face many local and international challenges including the increase demand on the education coincided with a decrease in the number of educational institutions, and the increase of amount of information in all branches of knowledge in addition to the necessity of using technical developments in the field of education. Still, the e-learning modeling appeared to help the learners to learn in the right place and time through interactive content based on multimedia such as images, text, animations, sounds, through computers and the internet, so the e-learning is regarded as a new type of learning patterns imposed by the scientific and technological changes taking place in the world today, where the traditional methods and techniques are not able to keep up with pace, so there is an urgent need to adopt another form of learning which is e-learning.

Over the last three decades, many schools and higher education institutions have adopted a wide range of e-learning tools into their educational delivery and support processes [15].

Research Objectives

The main aim of this review is to put forward the idea of e-learning as a basic solution for the development in the field of education on the individual and group levels, as well as to raise education to the best levels to keep pace with the tremendous technological development. Moreover, e-learning helps in finding an educated generation that is able to assume its responsibilities to the community in a successful and efficient ways, resulting in increasing the awareness of governments and institutions to the importance of this contemporary education as technological challenge. Moreover, e-learning has become increasingly important in the development and introduction of a variety of e-learning tools (from using email to a digital portfolio and a virtual learning environment) has been causing numerous changes in education system, especially with respect to their educational delivery and support processes [3,4].

Definition Of E-Learning

The OECD (2005) claims that "E-learning refers to the use of information and communications technology (ICT) to enhance and/or support learning in tertiary education. While keeping a presiding interest in more advanced applications, e-learning refers to both wholly online provision and campus-based or other distance-education provision supplemented with ICT in some way" (p.11). E-learning, in general, is the process of using computer as a means to transfer and deliver information to the learner. There is a range for this use, it could be simple as using electronic means in the process of presenting information or to give lessons in traditional classrooms in addition to the optimum use of electronic means and computers in building virtual classrooms through applying internet technologies and interactive television. E-learning can be defined as the expanding of the concept of learning and teaching process to exceed the borders of the traditional classrooms and to reach a rich environment with a variety of sources, where the key role is the interactive technologies of distance education, which needs reformulation of the role of teachers and learners, that could be clear by using computer to support the learning process. In the same time, the e-learning is not a replacement to the teacher role but it strengthens his/her role as a supervisor and facilitator to the learning process in accordance with developments in this era [12]. Basically, Oblinger and Hawkins (2005) state, "e-learning may mean a fully online course. For others, it may mean the use of a course management system". The latter definitions include the focus on both educational delivery and support processes of higher education [3].

The online presence in these processes can be categorized as follows [12]:

1. None of trivial online presence.
2. Web supplemented: participation online is optional for the student.
3. Enrolled students can access information on course outlines, assessment overviews, readings lists and other online learning resources.
4. Web dependent: students are required to use the Web for key "active" elements of their study programme.
5. Online discussions, communication with students or staff, assessments, online project/collaborative work but without significant reduction in classroom time.
6. Mixed mode: students are required to participate in online activities such as online discussions, communication with students or staff, assessments, online project/collaborative work, which replace part of face-to-face teaching and learning activities. Significant campus attendance remains.
7. Fully online: there is no direct contact with a campus. All interactions with staff and students, education content, learning activities, assessment and support services are integrated and delivered online.

From the above one can conclude that a common e-learning definition is difficult to identify. Some authors describe e-learning as offering only complete on-line courses whereas include web-supplemented and web-dependent services for the delivery of educational and support processes. In this study the focus is on strategic approaches of higher education institutions with respect to integrating e-learning in their educational delivery and support processes.

The Objectives Of The E-Learning

The access to the gate of modern technologies must be based on specific goals to be achieved, so the most important objectives to be achieved of e-learning are as the following:

1. Providing a rich and multi-source learning environment to serve the educational process in all areas.
2. Reformulating of roles in a way that makes teaching and learning process in line with the developments of educational process.
3. Creating incentives and encourage communication between the educational administration like the communication between home and school and the school and the local community.
4. Modeling of the learning process and presenting it in a standard manner, such as the lessons are presented in a typical method, and outstanding educational practices can be replicated. Moreover, preparing questions banks, typical lesson plans, and a wise use of image and sound technologies related to multimedia.
5. Exchanging the educational experiences through the creation of communication channels and forums that enable teachers, trainers, supervisors and all those interested in the learning process to discuss and exchange views and experiences via a specific location gathering them all in a virtual room despite the long distances.
6. Preparing a generation of teachers and students who are able to cope up with the modern technical skills and the tremendous developments taking place in the world.
7. Spreading out technical assistance in the community and make it electronically educated corresponding to what is going on in the global communities.

Thus, the focus on a more strategic use of e-learning has become important as the environment in which education institutions operate changes. Over the last decades education institutions have experienced profound changes in their external environment affecting both their primary and secondary processes of education, research and organization. It is generally acknowledged that technology, demography, governmental policy and economic factors are the main external drivers for change [1,2].

E-Learning Requirements

E-Learning is essentially the computer and network-enabled transfer of skills and knowledge. Its applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. It can be self-paced or instructor-led and includes media in the form of text, image, animation, streaming video and audio. Generally speaking, e-Learning is supposed to maintain an educational process available "anytime anywhere" by means of World Wide Web (WWW) technology. To fulfill the pedagogical, technical, and functional requirements of the entire educational process it is not enough for an e-Learning system to offer just a typical Web page.

A modern e-Learning system rather supports at least [16,17]:

1. developing of high quality multimedia courseware.
2. repository of learning resources available worldwide, including not only courseware, but also personal info on peer helpers, on-the-fly contributions of previous users, etc
3. easy access to the learning resources "anytime and anywhere"
4. support for personal definition of learning goals and variety of novel learning methods.
5. synchronous and asynchronous communication and collaboration among learners, and between learners and experts.
6. database of previously answered questions to automatically answer similar ones.
7. testing of knowledge level.
8. customization of courseware to the knowledge level and the cognitive style of the learner.
9. IPR (Intellectual Property Rights) protection and brokerage of relevant learning services.

Typically e-Learning system consists of several parts. The core of such a system stores instructional materials on a server which can be accessed via clients over the Internet or Intranets. Additional parts, such as administration, communication, collaboration, and searching, are implemented as "add on" software. E-Learning system should provide tools and functionality needed by all participants of the entire educational process. The most common users of e-Learning systems are learners, tutors, authors, and administrators. Learners are basically interested in obtaining new skills and knowledge. They have a particular learning objective which they try to achieve mainly by going through the training material and collaboration with other learners and tutors. Tutors control the learning process and assist learners on particular subjects by means of communication and collaboration. Among other things they provide explanations, answer questions, or offer additional materials. Thus, tutors have to know their trainees as well as the learning matter. Authors provide the course material. They need tools to combine different documents into structured modules. Administrators are not involved in the educational process. They are responsible for all the technical aspects of e-Learning system, for example the creation and management of users in the system.

Dietinger (2003] emphasizes that e-Learning must consist of [15]:

1. At least one or more e-learning students who try to achieve a special learning goal.
2. E-Learning content which represents or at least describes the learning subject, the learning objectives, and guidelines on how to achieve them.
3. E-learning content can be multimedia and interactive.
4. An e-learning environment which works as an interface between the students and their learning objectives and provides different means to achieve the learning goal. Usually the e-Learning environment can be accessed over the Internet or Intranet using a Web browser, and supports several learning strategies and different ways of interaction, communication, and collaboration.
5. Preferably, one or more e-learning coaches (or teachers/trainers) that assist and guide students when trying to achieve their learning goal.

E-Learning Types

E-learning is divided into three types:

First: Direct e-learning (Synchronous e-learning): This environment eliminates the concept of school completely and offered the learning material directly by the network, so that the student could depend entirely on the internet and technological means to gain access to modern information. Moreover, it cancels the direct interaction between teacher and student that can negatively affect the learning process. Thus, it is a kind of learning that needs the learners to be in front of computers to conduct the debate and conversation among themselves and between them and the teachers via the chat rooms (chatting) or receive lessons through virtual classrooms, or by using other electronic tools. A number of specialists believe that the synchronous e-learning may also occur in the classroom and using means of computer technology and the internet under the supervision and guidance of the teacher. There are many advantages for this kind of learning such as the learner can get immediate feedback and reduce the cost because of not attending the school .On the other hand, there are many disadvantages such as the need for modern devices and the need for good communications network. However, direct e-learning (Synchronous e-learning) is considered the most developed and complicated e-learning type,

because the learner and the teacher meet on the internet at the same time (concurrently). Direct e-learning (Synchronous e-learning) needs the following tools: white board, video conferencing, audio conferencing, and chatting rooms.

Second: Indirect e-learning (asynchronous e-Learning): It is an indirect learning, which does not require the presence of the teacher and the learners at the same time, like getting the experiences by accessing available sites on the network or through secondary storage tools or via e-learning tools such as e-mail or mailing lists. The positives of this type of learning, the learners can study on the time that suit them, as well as the students can revise the courses and refer to them electronically whenever they need them. In contrast, there are many disadvantages for this method such as the inability of the learners to get immediate feedback from the teachers, furthermore, it may lead to frustration because the learners work in isolation. Asynchronous e-learning needs the following tools: e-mail, forums, interactive video, and internet network.

Third: Blended Learning: There are many definitions of blended learning, but the most common is that recognizes some combination of virtual and physical environments for example, Graham [2006], who describes the convergence of face-to-face settings, which are characterized by synchronous and human interaction, and Information and communication technology (ICT) based settings, which are asynchronous, and text-based and where humans operate independently. In fact, it is a type of learning that the e-Learning merges with traditional learning in classroom under one frame, by employing e-Learning tools, whether they are computer-based or networks-based in the lessons, lectures and training sessions, which are often occur in classroom that are equipped with networking. This environment is the most efficient e-Learning environments as it blends the e-Learning with traditional learning in an integrated and developed manner, so that the teacher and the student interact actively in which the student is not only listener but he / she is a key part in the lecture .One example of this, the student prepares the lesson before coming to lecture using Secondary Storage devices that the teacher has prepared before containing material in various forms such as the use of sound and images. Thus, the student has a previous idea about the lesson and when the teacher explains the lesson, the student discusses and participate actively because the lesson does not present for the first time on his / her mind .So, the student can think and interact positively. Consequently, this environment can create a spirit of creativity, stimulate thinking, provide self confidence and responsibility for learners. Furthermore, the diversity of technological means and how it is used and how to use them and put forward by the teacher allows students to have a free to choice of his / her favorite educational method. However, the receiving of the information by learners through watching images and video scenes help them to understand more quickly compared to listening and reading. This type of e- learning includes a range of media that are designed to complete each other, and this e- learning program could include many learning tools, such as the default cooperative learning messaging software, the courses adopted on the internet, the courses of self-learning, the electronic performance support, learning management systems, as well as built-learning blends multiple events based on activity includes learning in the traditional classroom where the teacher with the students meet face-to-face and self learning the blending between synchronous and asynchronous learning. Therefore, blended learning should be introduced as a scholarly and transformative redesign process within the institution, that rebuilds the course rather than simply adding on technology [11,14].

Blended Learning Features

Blended learning needs a special teacher who has the abilities to deal with modern technology and software, internet connection, the design of electronic tests then practical application on the computer, solving electronic tests, and recognize the links related to the lesson that he / she explains, the search for the new and modern subjects, and make the student share in the research process so that the student's role is important in participating with the teacher and not the recipient only. As well as he/she can use simple programs and using ready templates. As a result, ongoing pedagogical and technical support through membership of a blended community of practice is a proven model that sustains such teacher innovation [10].

There are some common features of the teacher in blended learning:

1. The ability to teach in the traditional way and then using the computer to teach the students.
2. The ability to search for what is new on the internet and is willing to develop the courses and renew his / her information on an ongoing basis.
3. The ability to deal with curriculum design programs, including ready or special programs.
4. The ability to design tests and to transform traditional tests into electronic tests through special programs prepared for that.
5. The ability to deal with e-mail exchange emails with students.
6. The desire to move from traditional learning to the e-Learning.
7. Using multimedia and hypermedia to raise the attention of students in lessons.

On the other hand, the role of the learner in the blended learning, the learner is participant actively in the learning process so as to interact with the teacher inside the classroom. Moreover, the learner must train on chatting through the internet and to have the ability to use the email effectively.

Blended Learning Success Factors

There are many factors that contribute to the success of blended learning, including the following [10]:

1. Communication and guidance: The most important factor in the success of blended learning is the communication between the learner and the teacher. Thus, the teacher's role is provide guidance and help learners in choosing the suitable programs to improve their academic achievement.
2. Team work: In the blended learning, the teacher and the students should be convinced that this kind of learning needs interaction between the participants to work as one team and everyone accomplishes his / her task.
3. Encourage Creative Work: encourage students to practice self learning and group work because the available technological means in the blended learning support group work .Yet, the learner may learn individually and at the same time the learner can share the information with colleagues in other countries via internet or video conferences .Therefore. using multimedia and class interaction encourage creativity.
4. Tests Flexibility: Blended learning enables learners to get the information and the answers regardless of the time, place and the previous learning .Consequently, the blended learning includes many flexible tests to help all learners to find their needs.

Characteristics Of E-Learning

A There are many characteristics for e-learning, among them the followings:

1. Provide educational content in electronic form to the learner through multimedia (which include written and spoken texts, as well as sound effects, graphics and video clips). Actually, the educational content is designed in the form of small learning units in a time usually ranges between two to fifteen minutes, and each unit represents the idea of a stand-alone, and these units together constitute the e-Leaning lesson content.
2. The provision of learning content to the learner through:

2.1 Multimedia using the PC and Education here is dependent on the computer.

2.2 Multimedia based on networks and education is here relying on networks or the so-called immediate education.

3. E-learning depends on the interaction, as it allows the learner to:

3.1 Interact actively with the content through performing a number of learning exercises, activities and projects during learning the content and have immediate feedback on the performance of those activities electronically.

3.2 Interact personally and socially with the teacher and peers where they are asking questions and discussing a particular topic and cooperation in solving a particular issue.

3.3 E-learning is flexible providing the learner with opportunity to learn at any time, including the official working hours or outside the times and in any place, whether at home or at school or even at work institutions.

3.4 The learners represent a key element in e-learning as they are the main participants in the learning and their needs, abilities and learning styles have been taken into account in the design and implementation of this learning.

4. This learning is managed electronically, which provides multimedia based on computer networks and a number of tasks related to the management of the teaching and learning process that benefits the teacher, the learner and educational institution. The most prominent of these services include:

4.1 Students' admissions and registration.

4.2 Students' follow-up during learning and providing the data on their learning progress.

4.3 Indicating of assignments and sent them to the learner and set a date to deliver and correct them.

4.4 Provide information about teachers such as email addresses, CV and others.

4.5 Tests management, where these media are used in the construction of electronic tests, preparation, application, correction and then monitor the results and declare them.

4.6 Organize the office hours where the teacher is available on the network.

The Benefits of E-Learning

E-Learning has benefits over traditional classroom learning. While the most obvious are the flexibility and the cost savings since it does not need to travel or spend excess time away from work, there are also others that might not be so obvious. To sum up, the most important and prominent benefits of e-learning are as follows [16]:

1. It can make the communication between teacher and students more easily at any time and any place, even outside official working hours, and to give them adequate opportunity to ask questions in respect of school courses.
2. It can construct privacy between the students and teachers; as the students who suffer from a low academic level should not feel embarrassed from their low level in front of their colleagues. They can express their ideas to the teacher with privacy, and they are given an opportunity to try and correct the errors without being subjected to embarrassment, as well as for shy students. So, this method gives freedom for students to ask questions to the teacher.
3. It's less expensive to produce: Using E-Learning to produce your own asynchronous learning programs, E-Learning is virtually free once you reach the break-even point. Synchronous programs will have continued costs associated with the teacher managing the class, but it will still be lower than traditional courses.
4. It's self-Paced: Most e-Learning programs can be taken when needed. The "books" that you set up using learner soft create a module-based design allowing the learner to go through smaller chunks of learning that can be used and absorbed for a while before moving on.
5. It moves faster: E-Learning courses progress up to 50 percent faster than traditional courses. This is partly because the individualized approach allows learners to skip material they already know and understand and move onto the issues they need training on.
6. It provides a consistent message: E-Learning eliminates the problems associated with different instructors teaching slightly different material on the same subject. For school learning this is often critical.
7. It can work from any location and any time - -E-learners can go through training sessions from anywhere, usually at anytime. This Just-In-Time (JIT) benefit can make learning possible for learners who never would have been able to study it into their schedules prior to the development of e-Learning. (If you manage a corporate learning program, however, be careful about requesting that learner learn on their own time from home).
8. It can be updated easily and quickly - Online e-Learning sessions are especially easy to keep up-to-date because the updated materials are simply uploaded to a server. CD-ROM-based programs may be slightly more expensive to update and distribute, but still come out cheaper than reprinting manuals and retraining instructors.
9. It can lead to increased retention and a stronger grasp on the subject - This is because of the many elements that are combined in e-Learning to reinforce the message, such as video, audio, quizzes, interaction, etc. There is also the ability to revisit or replay sections of the learning that might not have been clear the first time around. Try that in a crowded auditorium!
10. It can be easily managed for large groups of students - Trainer soft Manager allows corporate training directors, HR managers and others to keep track of the course offerings, schedule or assign training for employees and track their progress and results. Managers can review a student's scores and identify any areas that need additional training.
11. E-Learning is flexible that the learner can work to with a large group of teachers and students around the world online. And thus, it can be taught at home or in the workplace or anywhere using of the Internet and using a variety of different and accurate methods in evaluating the performance of the learners.
12. The future of e-learning is in progress even if the institutions dealing with e-learning is still a few, but there are indications that this learning will flourish and spreads as it provides greater comfort and flexibility for the student and teacher at the same time.

Reason for Increased Use of the E-Learning Technology

The most important factors that contribute to the increased use of e-learning technology[8]:

1. The need for education and training because of the development in the various fields of technological knowledge.
2. Urgent need for education and training at the right time and the right place all over the time.
3. Economic feasibility of the use of e-learning technology that contribute to the reduction of the costs of education and training for staff or students scattered in different geographical locations.
4. Provide time for the learners where they can choose the right time to learn without a fixed link to a specific time.
5. Take advantage of the many important and influential factors such as [sound - text - Color - video - Line - view type and other] Therefore, the learner may use many senses in this educational process.
6. Do not care about the age of the learner so is appropriate to children, adult and staff whose conditions do not allow them to be present in schools and universities at specific times.

Justifications for the E-Learning

Factors and justifications that lead to the emergence of e-learning [8]:

1. Find unique ways to view the curriculum over the Internet.
2. Find solution to the problem of large numbers of students in the classroom.
3. Authentic communication and access to the curriculum at any time.
4. The increased demand on knowledge so that the investment in learners' knowledge can develop their skills, which can lead to the best results.
5. Multiplicity of sources of knowledge as a result of contacting with different sites on the Internet.
6. Take into account individual differences of each learner as a result of self-realization.
7. Direct and rapid evaluation of the learners' results and correct their errors.
8. Achieve interactive communication between learners, achieving compatibility between the categories of learners of equal or compatible levels.
9. Flexibility in speed and ease of updating and modifying the educational content without expensive additional costs.
10. Continuity in learning, because it is a means of communication that is always available without interruption and has a high level of quality.
11. Change in the teacher's role from a transferor of knowledge and the only source of information to facilitator and supervisor of the learning process.

E-Learning Techniques

This era witnesses ongoing developments in the technological means that could be used in the educational process and which can be classified into three main techniques [13]: First: Sound -Based Technology: which is divided into two types, the first interactive audio conferences such as short-wave radio, the second is an audio static tools such as audio and video tapes. Second: Visuals Technology (Video): the use of video vary in education, it is one of the most important means for direct and indirect interaction, and includes a fixed formats such as slides, shapes animation such as films and videos, in addition to combine audio conferences with video as a one-way or two-way with accompanying sound. Third: Computer and networks: it is the most basic elements of the e-learning process, it is used in the learning process in three forms:

1. Computer-based learning, which is based on the interaction between the computer and the learner only.
2. Computer- assisted learning, in which the computer is a source of knowledge and a means of learning such as information retrieval or review questions and answers.
3. Computer management learning, where the computer is working on guidance and counseling for the learner.

E-Learning Obstacle

There are many obstacles that hinders the progress of e-Learning such as [6,7]:

1. The rapid development of global standards, which requires many changes and updates in e-courses.
2. Privacy and confidentiality like hackers and piracy attack on major sites in the Internet can affect the electronic courses and exams.
3. Students' resistance to this new style of learning and lack of interaction with him.
4. Negative tendency of some faculty members against e-learning.
5. Lack of sufficient awareness of some community members towards this type of learning.
6. The need for ongoing training and support for learners and teachers to learn how to use the Internet and education.
7. The need to publish electronic courses at a high level of quality and competition.

Recommendations

1. Provision of infrastructure, and is in the preparation of trained human resources.
2. Provide rapid communication lines and hardware equipment with high speed and storage.
3. Create specialized educational channels for all levels of education.
4. Continuous training for improvement and development.
5. Expansion of academic programs by holding educational workshops to develop the skills needed by workers in professional and vocational sectors.
6. Organizing training courses on how to use modern technology to keep in pace with the constant evolution.
7. Illustrate the differences between traditional learning, e-learning and distance learning for students.
8. Call for the recognition of global universities that apply this type of learning (E-Learning) in their educational system.
9. Apply the principles of comprehensive quality assurance in universities that apply this type of learning (E-Learning) in their educational system.

II. Research Conclusion

To sum up, e-learning is the best way and a means to provide an interactive learning environment to attract the attention of students as well as urging them to exchange views and experiences. However, this helps in creating a technological society which has the ability to keep up with the most up-to-date developments in this era. Also, it contributes to meet the needs of the work market along with the provision of trained, talent and skillful learners to rebuild the educational process in the light of developments. Moreover, e-learning provides opportunities for individuals who did not have a chance to change the course of education to get the appropriate education and training as a result of social, economic or geographic conditions. On the other hand, the application of this type of learning is the perfect solution to deal with the weaknesses in the education output. Moreover, it improves the level of education and culture in order to determine the role of the teacher, the learner and the educational institution to become the most valued and important area in development and upgrading the communities. Finally, technology has the potential to increase flexibility for the traditional students and improve the teaching quality by achieving higher levels of learning. Technology can also be used to focus on "how, when and why people learn".

References

Journal Papers:

[1] Dr. V. Sarpi, The use of ict in higher education, Shramjivi College of Education, Omerga Dist.Osmanabad, An International Peer-Reviewed Open Access Journal, 1(3), 2015, 778-781.

[2] A. S. Safi, E.T. Liga and C. Sanga, New technologies for teaching and learning: challenges for higher learning institutions in developing countries, Sokoine University of Agriculture, Tanzania, International Journal of Education and Development using Information and Communication Technology, 3(2), 2007, 253-275.

[3] D. G. Oblinger and B. L. Hawkins, The myth about e-learning. educause review, 2005.

[4] J. K. Njenga, L. H. Fourie, The myths about e-learning in higher education, British Journal of Educational Technology, 41(2), 2010, 199-212.

[5] G. Singh, J. O'Donoghue and H. Worton, A study into the effects of elearning on higher education, Journal of University Teaching and Learning Practice, 2(1), 2005, 13-24.

[6] V. Medarova, V. Bures and T. Otcenaskova, A review of obstacles to successful e-learning deployment in SMEs, IBIMA Publishing, Journal of Innovation Management in Small & Medium Enterprises, vol. 2012, Article ID 715039, DOI: 10.5171/2012.715039, 2012, 1-9.

[7] A. H. Khoury, L. M. Nasir Eddeen, D. S. Saadeh, and O. K. Harfoushi, E-learning: justifications and obstacles, International Journal of Engineering and Technology (IJET), 6(3), September 2011, 53-56.

Books:

[8] T. Bates, National strategies for e-learning in post-secondary education and training, Published by UNESCO, 2001.

[9] B. Collis, J. Moonen, Flexible learning in a digital world: experiences and expectations Kogan Page, London, 2001, 23-48

[10] D. Randy Garrison, D. Norman and Vaughan, Blended learning in higher education: Framework, principles and Guidelines San Francisco: Jossey-Bass, 2008.

[11] A. Littlejohn, C. Pegler, Preparing for blended e-learning London: Routledge, 2007.

[12] OECD/OCDE, E-learning in tertiary education, where do we stand? published by Organization for Economic Cooperation & Devel, 2005.

[13] M. Afaneh, et al., E-learning concepts and techniques Institute for Interactive Technologies, Bloomsburg University of Pennsylvania, USA, 2006.

Chapter in Books:

[14] R. Charles, Graham, Blended learning systems. definitions, current trends and future directions, (San Francisco, CA: Pfeiffer Publishing, Brigham Young University, USA, 2002).

Theses:

[15] T. Dietinger, Aspects of e-learning environments, Dissertation, Graz University of Technology, 2003.

Proceedings Papers:

[16] J. Dargham, D. Saeed and H. Mcheik, E-learning at school level: challenges and benefits, the 13th International Arab Conference on Information Technology ACIT2012 Dec. 10-13, ISSN: 1812-0857, 2012.

Web Sites:

[17] Wikipedia, www.wikipedia.org, 2011.