



E-Learning: An Inevitable Approach to Education in the Information Era

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Dear Editor,

With the advent of information technology, all aspects of human life have changed, and processing of the affairs has significantly changed both qualitatively and quantitatively. As a result of these alterations, universities and educational centers are faced with a new phenomenon known as e-learning, leading the educational processes to be introduced in a new way and shifting from the traditional mode.

With the development of the World Wide Web, extensive developments have been observed in various aspects of human social life. Terms such as e-books, e-commerce, e-business, and e-learning are now widely used, causing rapid changes in numerous aspects of human life. Due to the increasing growth of technology and the use of modern methods of teaching-learning, the use of e-learning and virtual learning seems to be inevitable. Nowadays, information technology with all its developments and impacts on all areas of science is considered as one of the most essential tools in the education scene. The advent of technology and its development have led to the increased production of science and ease of spreading information to all people.

E-learning in the present form was created in the early 1990s. With the emergence of the World Wide Web and its features, e-learning has grown rapidly and has become established in the educational structure of many countries. Distance learning is rooted in ancient times, and in the opinion of some experts, it dates back to the time of Plato, but based on evidence, distance learning was first actualized via mail and exchange of educational materials, questions and answers by mail.

The history of e-learning has been investigated by many researchers, indicating that e-learning was first in

a way that data was stored on mainframes, and access to them was possible through primary terminals, but with the invention of the first personal computers, and along with production and development of web browsers, a huge change was made in educational technology.

Khan has defined e-learning as an innovative approach for delivering well-designed, learner-centered, interactive, and facilitated learning environments to anyone at any place and any time by utilizing the attributes and resources of various digital technologies along with other forms of learning materials suited for an open and distributed learning environment (1).

Four different models of e-learning are predicted, and familiarity with a variety of models allows the user to choose them correctly according to their performance. These include education through network, education in future classes, knowledge education and ability to solve problems, and community-based education. The basic concepts in e-learning are computer-based training (CBT), distance learning, and online learning.

Some advantages of e-learning are reported by researchers, including provision of independent education in terms of time, location, distance, language and culture, speed of conveying information, cost-efficiency, promotion of relations and foreign language skills, coordination of the process of education with the learner, preparation of the ground for innovation and creativity, creation of equal opportunities for education, and provision of the possibility for doing work and training simultaneously.

On the other hand, the disadvantages of e-learning include damaging the social relations of learners and eradication of the communication-training dimension of education while the teaching-learning process has not been fully implemented in this regard (2), high initial costs,

high costs imposed on the learner, and lack of information security.

In fact, Iran is now in a state of profound transformation. This development is not limited only to technology and tools, but it includes basic concepts ranging work to training, all of which have undergone major changes. Generally, during the past two decades, advances in communications technology and development of the World Wide Web have created a training method based on a network, that is, e-learning, and this development has impacted various aspects of education around the world by providing new opportunities and challenges. The Internet can penetrate into all corners of the country and is considered as the ideal means for delivering high-quality and affordable education. Coupling these features with the interactive features of computer-aided training systems can play a significant role in delivering training to a large group of population. Moreover, in parallel with these developments, educational structures in the world are shifting away from teacher-oriented methods toward learner-oriented approaches, so that teacher changes into a guide who provides incentives for the researcher and helps him/her to analyze and solve problems through the knowledge acquired under his/her guidance.

The global labor market is constantly changing and there will be some jobs in the future, of which there is no sign at the present time. Therefore, education authorities in Iran should train learners to pursue dynamic goals to compete in the highly competitive environment of the new world's economy and to be able to acquire the required knowledge in a process of lifelong learning.

However, in spite of these major changes, the development of effective methods of distance education still has not kept pace with rapid technological advancements. Therefore, at the global scale, there is still a considerable gap between the ideal and current education system, highlighting the need for more attention to issues of education engineering and the development of optimal processes necessary for the transfer of e-learning. Also, since the cultural and technological characteristics and special requirements of the educational system of each country affect a proper e-learning model for the education system of the country, developing courseware and e-learning management systems should be based on the local characteristics of the educational system of that country.

Most teachers in Iran are not equipped with the skills necessary for the use of e-learning in their classes and are reluctant to move in this direction. Therefore, measures should be taken to change this scenario. As suggested by Guri-Rosenblit, in order to overcome reluctance of professors to use the digital technologies extensively, there is a prompt need to develop appropriate incentives and ongoing

support systems available both to students and professors in the learning/teaching process. To equip our university lecturers with tools to use the wide range of capabilities provided by the new technologies, a conceptual redefinition of teachers' roles, a well-designed training, and ongoing support systems for both students and teachers are required. On the other hand, the implementation of new modes of teaching and learning requires institutional strategies and frameworks (3).

We recommend precise and applied studies on the main infrastructures for the successful implementation of e-learning. Also, e-learning is spreading globally as a new approach and it should be considered more seriously, professionally and profoundly by the authorities. Furthermore, workshops on how to work with tools and learn all the skills required for teachers and professors are suggested to be held.

Footnotes

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