Analyzing Opportunities and Challenges of Using Information and Communication Technology in Higher Education Curriculum

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Abstract: Today information and communication technology plays the major role in different fields. One of the fields that have had a major transformation is the higher education field. Higher education process in every society has great importance. Universities are one of the most important components of educational institutions that transform along the changes. The purpose of this research is analyzing opportunities and challenges result from utilizing information and communication technology in higher education curricula from the specialists' point of view by considering Tyler pattern (goals, content, teaching and learning ways, evaluation). This research is categorized in qualitative researches due to its theme. The study population includes professors of Tehran public universities that have sufficient knowledge of using FAVA in higher education curricula. The purposive sampling method is snowball and sampling is done till data saturation. The researcher has gathered data by using semi-structured interview. The obtained data of interview has been analyzed by method of content analysis. The results of interview show that using information and communication technology has opportunities and challenges that the most important ones are: **Opportunities:** flexibility of goals in higher education curricula, expanding goals from local level to international level, growing the skills of problem solving and critical thinking, electronic and multidimensional content, more adaptation of contents with educational goals, the possibility of quick access to different contents, using new educational methods, further activating students, variation in evaluation forms, students' self evaluation. **Challenges:** increasing confusion among different contents, decreasing pencil and paper tests, not having sufficient confidence to online exams.
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1. Introduction

Using information technology marks a new era of education. ICT training changed thought patterns and new models and new ways to create richer learning. The entry of new communication technologies to education, the nature of teaching - learning university has changed. These technologies not only to various forms of training in universities has also expanded its borders to the outside of the physical classroom learning environments has created new. The main mission of this kind of training rather than the transmission of information, problem solving skills, critical thinking, information management skills, ability to communicate and negotiate students (Farajollahi et al., 2009). In today's world, the academic curriculum can provide opportunities in the field of ICT in order to improve its processes to be restored and the challenges in the era of information and communication to eliminate. The threats may be different for curriculum process is risky, and identify new approaches to overcome these threats academic curriculum solutions sought (Fathi Vajargah et al., 2006).

Higher Education science curriculum plan, which includes objectives, activities and ways to measure success (Stark, Lowther et al., 1990). With the advancement of information and communication technology, universities have greater interaction with its surrounding environment. So, on this basis, it is necessary to approach the challenges to higher education be seen. How the employment of graduates, the demographic changes of government systems and political insights, the phenomenon of brain drain and the challenges the higher education system in modern times they are in contention. Educational systems in a community, and as a result, the University will not be able to separate from other social institutions, national and international extensive interactions in the global village to know Because the educational community in terms of historical empiricism and in terms of special circumstances that surround this century, certainly the center of these changes, since the process of transformation in the nature of human social institutions is a good educational systems in the future will change and potential challenges (Pourmohammad et al., 2008).

The definition of terms:
Opportunity: Means any kind of conditions, situation

or condition that can progress, development and success of the organization increases, access to easier targets and the effectiveness and efficiency of the organization's cause (Robinson, 1996, p. 177).

Threats (Challenge): The threat is the opposite of opportunities and awareness of the threats, the possibility of survival and reducing the vulnerability of the cause. By detecting threats in the environment can be avoided or reduced negative effects (kafman & herman, 2003, p. 182).

ICT: Information and Communication Technology ICT is abbreviated ICT aims to accelerate and facilitate access to information through new tools and techniques associated (Heidari, 2005). Man-made ICT as one of the newest technologies, the ability to collect, organize, store and reflect sound and text information in the form of text and numeric lining using computer tools and the use of telecommunication systems attained (Zeraei Zavaraki, 2001). ICT has provided a range of features that put human. Education, trade, commerce, transportation, security, government and many other phenomena of the world is challenged because of their capabilities, and easy access to valuable information provides a series of (Jalali et al. 2004).

ICT-based curriculum: Various definitions have been proposed for ICT-based curriculum. Some, it is the integration of information technology such as Web design and planning process of curriculum development and teaching know that by using technology to access information and advice to those Web-based learning and facilitated (Hamzeh Beigi, 2004). In another definition, this program is a program that is capable of and ability to use ICT and the ICT tools to support learning and ICT in education curriculum applies to his work (Miller & Mostert, 2000 quotes Attaran and Ayati, 2009).

Higher Education: Higher Education said that the level of training in universities, colleges, universities and technology institutes that offer a college degree.

Literature review:

Twig and Milouf quoting by Farajollahi et al (2009) Changing the status of education in the United States studied. In the face of global education trends and technology development in view of the infrastructure on which they will change the role of schools and universities effectively. In other words, there will be a fundamental change in the education system to the theorist, student-centered learning environments and dynamic future and enable students to determine their own teaching methods and support lifelong learning. Therefore, higher education has changed paradigms and models of higher education has changed and new models with different features emerging concepts based training features IT shares. (Fathi Vajargah et al., 2006) the importance of the use

of ICT in the curriculum of higher education point. And believe that in numerous cases due to the possibility of removing barriers and facilitating factors and opportunity to use these technologies can be possible in the process of curriculum a positive view of faculty members and experts question the respondents in this study, the necessity of the use of ICT in the curriculum planning process also reflects the lack of resources "need" and "applicability" of higher education pointed to two factors that It is necessary to use a positive attitude and operationalize the use of information technology in the design, implementation and evaluation of university curricula should be done. Bagherian (2002) due to the lack of acceptance of new technologies in education and psychosocial reasons cited cases such as lack of enough time, motivation and enthusiasm has pointed out. In fact, the effective use of computer communications in higher education in the field of psychosocial and organizational users to the possibilities that technology offers depends. The results of previous studies of these assume that the issue of higher education in recent years, more attention Curriculum and community leaders want to think about this and to changes in society and new technologies are appropriate to the new capacities. In this regard, the issue of academic or scientific projects redefined and capacity to develop and expand the curriculum of higher education has provided. A review of studies around the world, including Iran showed that the emergence of new information and communication technologies has managed to track changes in the curriculum of higher education to give more speed and acceleration. A different area of application of new technologies in various stages of planning a course of higher education has been of interest to researchers. In addition, the risk of modern information and communication technology has brought with it various studies considered in the study. Issues such as the possibility of web-based education, training more flexible, more equitable access to education and facilitate lifelong learning as examples of new technology issues such as reduced social skills, undermining the values, lack of interpersonal skills, lack of interaction face-to-face teacher and student, regardless of the value of this technology, including the development of relativism and risks.

The Main goal:

What are opportunities and challenges in the use of ICT in the curriculum of higher education?

Research questions:

1. What are opportunities and challenges in the use of ICT in the curriculum of higher education the goals?

2. What are opportunities and challenges in the use of ICT in higher education determined by the content of the curriculum?

3. What are opportunities and challenges in the use of ICT in the curriculum of higher education learning teaching methods are determined?

4. What are opportunities and challenges in the use of ICT in higher education are determined by evaluating the curriculum?

Methods:

This is a qualitative research method. Data for the study through a literature review and semi-structured interviews were conducted. This means that after studying books and articles related to the topic, with professors of public universities in Tehran were interviewed after the end of the interview opportunities and challenges raised were collected. In this study, responses from the interviews were recorded and transcribed on paper and on the implementation of the interviewees (professionals) returned. The purpose of this was that the researcher decides whether his perception of the interview is true or not? This was done to assess the credibility findings.

The study population:

Including professionals (teachers of public universities in Tehran) that the use of ICT in the curriculum of higher education had enough knowledge.

Sample size and sampling:

This research is targeted sampling. In this study, the researchers purposefully chose teachers on the use of ICT in the curriculum of higher education had knowledge and experience. Purposive sampling of various types. In this study, the purpose of the chain sampling method (snowball) was used. Sampling has been saturated.

Data analysis:

The qualitative data analysis process is continuous from the first phase of data collection started, and it is frequently referenced data. So that the summary data and provide them with regard to previous work, they come to the conclusion. To analyze this research theme has been used method of analysis is a method for identifying and analyzing qualitative data is content analysis. Analysis of the research questions are as follows:

First Question: What are opportunities and challenges in the use of ICT in the curriculum of higher education the goals?

opportunities	- Flexible curriculum objectives of Higher Education - Expansion of the objectives from the local to the international level - Foster problem solving and critical thinking skills
challenges	- Note mere utilitarian and useful knowledge. - Ignoring part of the curriculum goals - Away from the utopian goals of the curriculum

Second Question: What are opportunities and challenges in the use of ICT in higher education determined by the content of the curriculum?

opportunities	- The electronic content - Multidimensional in content - Adapt more content with educational goals - Allows quick access to various content - Use different senses to the multi-dimensional content
challenges	- Increasing the confusion of different content - The costs of providing digital content - Led to the sidelines and neglect of the study of textbooks - Lack of acceptance of digital content - Rote and superficial learning

Third Question: What are opportunities and challenges in the use of ICT in the curriculum of higher education learning teaching methods are determined?

opportunities	- The use of new educational methods - Create attractive despite using different methods - Access to modern methods - Improving the delivery of content using different methods - Deep and lasting learning different teaching methods
challenges	- Lack of sufficient awareness of the different ways of training teachers - Resistance of some teachers to use a variety of teaching methods - Lack of attention to individual differences of students in the use of different teaching methods

Fourth Question: What are opportunities and challenges in the use of ICT in higher education are determined by evaluating the curriculum?

opportunities	- Diversification of forms of evaluation - Self-evaluation of students - Independent learning and immediate feedback to students - The development of creativity in conducting online tests. - Conducting tests online at any place and any time.
challenges	- Pale paper pencil tests - Holding Online test - Lack of confidence sufficient to hold online tests. - Cost of virtual tests. - Not all students have mastered a way to hold online tests.

Conclusion:

As the results of the use of ICT in higher education curricula (goals, content, methods, evaluation) with opportunities and challenges recognizing the opportunities and challenges will help the authorities to take a deeper look into the issue of information and communication technology and in order to improve the challenges raised in the context of the use of information and communication technologies to come. Eliminate the challenges of the educational system requires a series of changes will be made correctly if planning to make changes to it must be hoped that in the near future to reduce and eliminate the challenges. All factors must be involved to change the academic community should try its knowledge to enhance the application of information and communication technology should teachers and students to the goals, the meshes, priorities and programs, the application of ICT in education introduced. Data shows that using ICT wide range of purposes, from the local to the international spread of ICT could all levels of goals, different objectives, the targets and in embrace. However, the use of these tools will also be given more general goals and objectives of most part unnoticed. It also targets more attention to the economic aspects and the usefulness of knowledge attention. The ambitious goals of the curriculum of higher education have been neglected. However, information and communication technology tools, students can spend less time and cost of electronic content and multimedia use. However, students may experience confusion when selecting content that may not be enough if the identification of appropriate content choices. Results show the different methods of teaching academics, based on information and communication technology is the most used. Some of the teachers in the face of this change, because they are resistant enough knowledge of the methods are based on information and communication technology. In the evaluation of the curriculum with ICT tools from traditional pencil and paper assessment and the evaluation period has gone offline. It is still not fully operational at the universities of the need for fundamental changes.

References:

1. Bagherian F. (2002), the consequences of using the Internet for higher education: Social Psychology studies this phenomenon. Journal of Research and Planning in Higher Education, 23 and 24.
2. Pour Mohammad Bagher, L. and Pour Mohammad Bagher, E (2008), the role of ICT in education, universities, technology and education Journal, Vol. III, No. 1.
3. Jalali, Ali Akbar Abbasi, M. (2004). ICT in education elsewhere in the world. Proceedings of the conference in the age of information technology and communication program, Tehran
4. Hamzeh Beigi, T. (2004). Review of curriculum

and learning management based on information technology, Tehran: AYIzh.

5. Heidari, T. (2005). Determine the training needs of middle school teachers in the city of Sanandaj in information technology and the provision of appropriate training programs. Master thesis. Allameh Tabatabai University.

6. Zarei Zavaraki, I. (2001). Paper technology in India, Journal of India, No. 6, Autumn 2001.

7. Attaran, M. and Ayati, M. (2009). ICT-based planning principles. Journal of Curriculum Studies. Year III, No. 12.

8. Fathi Vajargah, k. and Azadmanesh, N. (2006), the feasibility of the use of modern information technology and communications in the Curriculum of Higher Education, Research and Planning in Higher Education Quarterly, No. 42.

9. Farajollahi, M. and Zarif, N. (2009), ICT-based learning in higher education, training strategies Magazine, Vol. 2, No. 4, pp. 167 to 171.

10. Kaufman, R. and Herman, J. (2003). Strategic planning in education, re-structures, re-create, translate Farida elders and Abbas Bazargan, Tehran: Ravan.

11. Robbinson, S.P (1997). Essentials of Organizational Behavior. Upper Saddle River, NJ: Prentice Hall.

12. Stark, Lowther, Bentley et.al. (1990); Planning Introductory College.

13. Courses: Influences on Faculty; University of Michigan.

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