Virtual Universities' Experiences in Iran

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Abstract: Iranian universities have started to use e-learning methods as an alternative approach to their traditional classroom methods for the last four years. At the beginning, virtual classes were limited to some general courses for in-university students. Right now, several universities have launched virtual branches in different levels of higher education system. Although research activities about virtual learning have begun about a decade ago, still virtual universities in Iran are encountering challenges in their management level as well as softwares and hardwares. This paper addresses challenges that Iranian universities are facing.

1. Introduction

The importance of organizing E-learning in Iran, ever-increasing progress of technology and specially Information Technology, has caused many changes in E-learning field. Issues, such as learning costs declining, easiness of attendance in on-line classes, diversity of lessons and their times, reduction of commuting and also flexibility of E-learning have had a lot of effects in expansion of E-learning in Iran. E-learning in Iran is a newly established industry in learning technology and distance education and many centers and institutes, especially universities are trying to present a suitable plan for learning based on cultural structures of Iran in E-learning field. In addition to essential advantages of E-learning, one of the important reasons for necessity of organization of centers and institute of E-learning in Iran is increasing requests for learning, especially for learning at university levels. This subject has transformed to a difficult problem for government because of lacking of resources and capacity of learning in current education discipline. Hence, efficient E-learning seems to solve some of these problems. Therefore, with attention to defined purposes for E-learning, existence of expanded and potential requests for learning and higher education in Iran, the importance of attention to structure of centers and institutes for E-learning, especially virtual universities in Iran, is clear.

2. Solving Crisis by Virtual Universities

Most Iranian high school graduates are eager to become a university student. Acceptance at universities has brought many difficulties for young people. Due to the limited capacity of Iranian universities, only a portion of high school graduates can get acceptance. The rests, hope to receive an acceptance in the next year. Others, who have financial possibilities, go to other countries to for higher education. Iran has almost 20 million pupils, most of whom are planning to get an acceptance from Iranian universities, when they are graduated from high schools. In addition to that, Iranian people believe that for a better future, they must have higher education. Therefore, numbers of people, who can’t enter universities, are mounting, which calls for a proper solution in the near future [1]. One of the solutions which can help Iran’s society in solving this problem is developing virtual universities. Obviously, in virtual universities by using E-learning many higher education problems such as lack of proper education environments and shortage of experienced professors could be solved. In addition, this kind of education saves time and money of students who have not access to universities in their town or for other reasons can’t attend face to face classes [2].

3. A Brief History of Distance Education in Iran

Distance education in Iran doesn’t have a long record; except for a short period of time under the name of Azad (free) University, before Islamic revolution, and also Payam-e-Noor (message of light) University based on distance communication using hardcopies through postal services,. During early 90’s, some studies were performed at Tehran University about virtual learning and the possibility of offering some courses in this way. In 2001, web site for virtual learning at Tehran University started with presenting 9 courses for regular
students. After that, some universities started some activities to establish E-learning and they started to develop some electronic courses for their regular students [3]. Subsequently, the Ministry of education, which is the largest teaching sector in Iran, started some activities in this area. Right now some private institutes are offering E-learning courses too. At the moment, more than 70 government-running universities request permission from ministry of Science, Research and Technology to offer e-learning majors to the community. Based on these numerous requests, an especial committee has been assigned to consider these requests. Currently, the following universities have started their activities by accepting students for virtual courses:  
- Iran University of Science and Technology [4]  
- Khadjeh Nasir Toosi University of Technology [5]  
- Hadith Science University [6]  
- Virtual University of Shiraz [7]  
All these universities award official diploma to their graduates. Moreover, this diploma is recognized by the Ministry of Science, Research and Technology. Furthermore, graduates can pursue Master degree programs. Conditions for acceptance at these universities are as follow:  
- Having high school diploma  
- Financial capability to pay the tuition fees and provide the required computer system [8].

**4. Learning Purposes of Virtual learning in Iranian Universities**

There are some differences of how virtual learning found its way in Iranian universities as compared to other countries, especially developed countries. Some countries adopted virtual learning system in order to prevent high costs of regular universities and to offer more affordable higher education to lower class of their community. On the other hand, in Iran the problem is high number of applicants, who want to enter universities. If more regular universities could be developed, people would prefer to go to traditional universities. So, virtual branch of many universities are rapidly developing mainly due to the high demand from high school graduates in Iran. 

Also, it should be mentioned that some universities in Iran are using virtual learning as a very helpful educational tool, which is rapidly growing in the world. Some of the advantages of virtual learning in Iran can be briefly explained as follows:

- Providing high education opportunity to everyone in every university, especially people in remote areas, as well as universities in small cities.
- Providing conditions for less stress among families by accepting candidates who were not able to get acceptance to a university [3].
- Overcoming several social problems and families’ concerns about sending their children to large cities.
- Providing a suitable environment for cultural interchange, inside and outside the country.
- Providing a very good opportunity for natural cultural growth among different ethnic group of people.
- Providing a suitable atmosphere for cultural creativity and to secure the country’s cultural heritages.
- Helping individuals to do independent learning, self studying and self researching.
- Exploring and developing hidden talents.
- Providing a proper environment for flow of knowledge in community which nowadays is more important than generating knowledge.
- Paving the way for moving from teacher-based learning system to student-based learning system.
- Constructing proper environment to create a learner society.
- Providing proper background for stable development.

**5. Analysis of Current Educational Conditions in Iranian Virtual Universities**

By reviewing educational programs at existing virtual universities in Iran, these points could be concluded:

- Most of these universities offer majors which don’t need workshops, laboratories or physical educations. However, some universities such as Iran’s University of Science and Technology and Shiraz University are offering majors, such as computer and electrical engineering, for which some courses need in class and face-to-face attendance. This seems to be a bottleneck in providing virtual education, but at the same time provides blended learning, which is more suitable than pure virtual learning. Also, there are programs to develop virtual laboratories.
- Face-to-face meetings for consulting with professors are not considered and instructors or teaching assistants don't have office hours. Instead, students can ask their questions by using live chat through their LMS system. Based on the level of difficulty, students are divided into groups and for each group one teaching assistant is assigned to answer students’ questions through weekly and regular chat or through e-mails and internal messaging system. Some students are not comfortable to use chat. Moreover, due to lack of skills in typing, some students cannot use e-mail and internal messaging system efficiently. Overall, there is a widespread belief that virtual education might isolate students, since there is no live and face-to-face meetings.
- Some of these universities give in-class sessions for some courses, such as mathematics and physics, close to the end of each semester to answer questions. Others have not considered any program for reviewing lessons and this is one of the serious
problems of these universities. Nevertheless, students, who live in remote areas, may not benefit from these sessions, mainly due to traveling problems. Some of these universities are planning to video tape these sessions and put them into their LMS system. But then again, lack of sufficient internet bandwidth hinders students to use them. Team researches and group projects are not offered to the students. This reality could affect the quality of student’s learning [8].

6. Course Program

Sharable Course Objects (SCOs), which are created by using sound, text, graphic and animation are accessible to students, registered for that course, in the LMS system, through the internet or intranet. Most universities use SCORM standard for their courses and SCOs are mostly made in flash environment. Some universities offer CDs as part of their educational system, related to the online courses or as general information [9].

Students can ask their course-related questions through live chat, telephone, e-mail, and internal messaging system.

It should be noted that live classes with audio and video is out of the question at the moment in Iran. This is mainly due to insufficient bandwidth, available to end users. High speed internet connections such as ADSL (Asynchronous Digital Subscriber Line) in coming to the Iranian market, but right now it is available only to limited areas in large cities. Moreover, not everyone can afford ADSL. Nevertheless, according to the Iranian Government plan, not-very-expensive ADSL should be available to all Iranians by the end of the decade. So, in virtual branch of these universities, all courses (except practical courses and laboratories) are digitized and are saved with the best quality and then students can attend on-line classes whenever and wherever they have access to the Internet.

One important fact in Iranian virtual universities is that they use blended learning method, which has been recognized as the most effective way for virtual learning in the world.

Students’ attendance to on-line classes is also a major concern for virtual universities in Iran. Due to the ability of most LMS systems, all on-line activities of students can be recorded, such that the details of their connectivity are available to professors, administrators and supervisors. According to the educational rules of universities in Iran, students are not allowed to be absent from classes more than a predefined level. Although courses are available on-line to all students at all time, which is considered as the most important benefit of virtual learning, students must follow a weekly schedule to attend classes; else they will receive a warning note, and finally a failing grade.

Due to especial conditions of practical courses (e.g. workshops and laboratories) these courses are offered as in-class courses. This is a common plan of the universities which is under consideration for approval and sending to all universities for implementation [8]. This is a very important factor, which creates a bottle neck in the process of accepting more students, since laboratories’ capacities are already fully occupied by regular students. Developing e-laboratories is being considered by some universities, but it seems they are not within reach, at least for some of the laboratories, in the near future.

7. Infrastructures of Virtual Learning in Iran

Three main components of the infrastructure for virtual learning are 1) software, 2) hardware, and 3) telecommunication services.

7.1. Softwares

The most important software in a virtual learning system is the LMS (Learning Management System). There are several famous and reliable LMS like Webcity, Blackboard, and E-college, but due to many reasons, some of which have been mentioned in the previous sections, there is a strong need for a customized LMS for Iranian universities. The Ministry of Telecommunications and Information Technology has allocated a fund to develop a unified LMS for all governmental running universities.

7.2. Hardwares and Telecommunication Services

Hardwares, such as computers, servers, routers, telephone lines, and fiber optic lines are relatively in good conditions in Iran. By end of the decade, all cities and villages will be equipped with fiber optic and broadband switches. Private companies have started to provide broadband services such as ADSL. In some remote areas there are VSAT (Very Small Aperture Terminal) connections. At the moment, broad band internet services are relatively expensive and not available in all areas in Iran. But, with the rapid growth of internet and communication technologies, it is estimated that affordable broad band internet connections should be available to almost all Iranians by the end of the decade.

8. Electronic Learning Content

Electronic learning content plays a very vital role in virtual learning. The electronic content is the most important contact media between students and professors. Sometimes, electronic content is referred to as the heart of the virtual universities. The most effective
and valuable electronic content is the one that as close to class sessions as possible. In other words, electronic contents should resemble the atmosphere of a classroom and try to make contacts with each and every student. Creating interactions with students is one way to make the electronic contents more enjoyable. Consultation with experts in teaching technologies seems to be necessary for providing a solid and attractive electronic content. Some virtual universities in Iran are considering these facts and apply them. Nevertheless, working in this environment is a new challenge for professors, especially those with long experiences, who are not comfortable with new technologies and resist making their electronic content fully interactive. Almost all virtual universities employ SCORM standard to develop their electronic contents. All electronic contents are created off-line as 3 to 5 minutes SCOs, using sound, text, graphics and animations. Some SCOs ask a multiple choice question, or a question, which should be solved numerically, at the end of them. Students are obligated to answer these questions. The grades are logged into the LMS system to be reviewed by professors, instructors or teaching assistants and give feedback to students. Providing part of electronic contents on CDs is an option that some virtual universities in Iran have adopted. But, the main problem with this method is that there is no observation as how students are doing. Moreover, students do not get important messages in the LMS system, since they don't find it necessary to login regularly to the learning system.

9. Evaluation and Assessment of Students

One of the major problems of virtual learning method is the evaluation and the assessment of students in every semester. Performing exams through Internet has a major problem, and that is the identity of the test taker, who supposes to be the student. In almost all virtual universities in Iran, the final exams are in-person exam, taken at that university or in certain centers, supervised by professors, instructors, or teaching assistants. Although, this method ensures the security and the reliability of exams, but it creates major drawbacks, such as the need for traveling, room and board expenses, etc. Nevertheless, since Iranian virtual universities offer the same diploma to their graduates as the regular students, in-person exams must be performed. This is rule imposed by the Ministry of Science, Research, and Technology. Beside final exams, midterm exams and quizzes, and homeworks are taken through LMS system. Also, the first semester for all students, graduate or undergraduate, is a conditional semester, in which students must collect a minimum GPA of 2.60 out of 4.00, or else their education will be terminated.

In whole, Iranian virtual universities are adopting blended learning, which restricts the numbers of accepted students.

10. Social Communications and Cooperating Skills

One of the important issues, which virtual universities emphasize on that, is the cooperating skills. These skills in regular universities are earned through cooperation between students in research activities and communications with professors in face-to-face classes. Obviously, virtual learning systems lack this great benefit. As an example, if someone is graduated with a Ph.D. degree from a virtual university, he/she might have difficulties communicating with his/her colleagues and/or employees because he/she did not have enough social relationships. This is one of the problems of virtual learning as compared with traditional learning. Surveys on necessity factors lead society to the serious usage of new learning approaches especially virtual learning. Regarding this point that virtual learning does not have limitations of traditional learning such as needed venues, need to have experienced professors and also requiring spending more costs, everyone could obtain information about all scientific majors in minimum time. However, obviously basis of E-learning in Iran are confronted with many disagreements because it is a newly established technology. Although cultural worries about affects of E-learning are logical, access to technology communications and using it in strategic subjects such as education is very important and should be considered [2], [11], and [12].

11. Conclusion

During the last 4 or 5 years, many universities have opened their virtual branches. These universities are mostly government running universities. However development of virtual universities has confronted with many difficulties such as hardware and proper communication facilities because of limitation in bandwidth. In this paper, authors tried to analyze some of the experiences and challenges these universities are dealing with.

12. References


