Research Article

ROLE OF NEW COMMUNICATION TECHNOLOGIES IN FACILITATION AND IMPROVEMENT OF ACADEMIC TEACHING METHODS FROM MEDIA FACULTY STUDENTS' VIEW POINT

Roghei Amiri Esaloo and *Hourieh Dehganshad
Faculty of Communication Sciences and Media Studies, Central Tehran Branch, Islamic Azad University, Tehran, Iran
*Author for Correspondence

ABSTRACT
The current study was performed in order to investigate role of modern communication technologies in facilitation and improvement of academic teaching methods from university students' point of view with help of descriptive-survey method. The population of this research consists of 6147 students of media faculty. The sample size was determined (n=362) using Cochran formula and simple class sampling method; the questionnaire of 'impact of modern communication technologies on academic teaching methods' was used to measure research variables. The content and nominal reliability of questionnaires was confirmed by experts. Also the validity of questionnaire was estimated (p= 0.88) based on Cronbach alpha coefficient. The descriptive-analytical methods and inferential statistics (single t-variable) were used for data analysis. Finally, findings of research showed that modern communication methods is influential on facilitation and improvement of academic teaching methods and all its dimensions-learning, teaching, training tools, virtual libraries, and remote teaching- with an extent higher than average.

Keywords: *Information Technology, Teaching, Remote Teaching, Virtual Library*

INTRODUCTION
From second half of the 20th century, the world witnessed decline of industrial age and emergence of a new period. The current age is called with several names including age of communications, age of information explosion, meta-industrial age, and age of knowledge. In this era, the knowledge and technology is going forward with an unbelievable and surprising pace and the communities must adopt a rapid rhythm if they want accompany this convoy; unless they would disconnect their relation loop with other societies. The most influential thing in this cycle of changes and development is emergence of technology and communications.

Increasing development of information and communication technologies, growth of public knowledge, development of new business processes and methods, and also the necessity of quick response to these changes all had made inventible the development and optimization of teaching process in organizations; in other words, development of communicative technologies has influenced all aspects of life creating a revolution in business, industry and services that leads to fundamental changes of learning and teaching. Thus, the 21st century as an information and communication era demands teachings relative to current situation.

Now, e-learning is one of modern teaching techniques proposed in the recent decades and highly welcomed. It is a type of indirect education in which computer networks (especially internet), electronic curriculum, teaching management software, and electronic content are used for learning process. Having unique features, this type of education is attended by many people and organizations spending huge costs or its growth and development annually (Zare *et al.,* 2010).

Information technology is one of the new phenomena linking all parts of the world with web communications and is influencing all aspects of modern life such as education. Therefore, the education must apply this phenomenon to achieve its goals; since education performs its duty through curriculums, then, curriculums must have the necessary effectiveness and efficiency. Information and communication technology has several definitions. For example, IT as one of the most recent technologies has the ability

Research Article

of gathering, organizing, storing, and reflecting information in audio, text, and digital format. This would be realized using computer tools and telecommunication systems (Zarei, 2001).

Modern communication technologies include tools that assist people in recording, storing, processing, detecting, sending, and receiving information through audio, image, graphic, text, and number formats using computer and telecommunication tools. Family members of information technology include super computers, compact discs, wireless phones, modems, laser printers, cellphones, computer and mobile images, computer simulation, computer training tools, e-publication, fax, TV & radio, and internet (Purmuhamad Bagher *et al.,* 2008).

Modern communication technology is a new research context confronting seriously with traditional techniques of education. It has a major impact on all aspects of learning, teaching, and research particularly at academic level.

Using IT in universities, the learners and instructors are encouraged to use computer and other modern technologies in all education and occupational dimensions. They require new media technologies for interlocution, project description, and information classification. Today, families and instructors are not considered as the only factors influential on people's social education. The recent IT developments, emergence of local, national, regional and international information networks particularly internet, multimedia, and communication technologies has introduced new tools and techniques to designers, planners, and managers of learning programs. The penetration of new communication technologies into education center (schools, universities, and even homes) has changed student-teacher relationships so that traditional teaching methods are no longer responsive to increasing need of new generation (Purmuhamad Bagher *et al.,* 2008).

According to above cases, the current study would investigate about modern communication technologies (internet, cell phone, etc.) in facilitation and improvement of academic teaching from media faculty students' point of view. The results of this study will provide necessary information and knowledge for educational managers and experts to improve academic education.

Theoretical Principles

Information Technology

Today, access to correct, on time and linked information plays an important role in competitive and rapidly changing business environment; so that most activities of organizations (e.g. business decision making, prediction, and analysis) depend on these information. Information technology is a tool capable of providing organizations' information needs and helping them to obtain goals; IT, in fact, is a combination of telecommunication achievements, methods and strategies of problem solving, and the ability of leadership with help of software and hardware knowledge including advanced issues of science, computer technologyand design, implementation of information systems and its applications (Manian *et al.,* 2009).

The revolution of information- communication technologies (satellite and internet) has influenced several aspects of human life. IT includes hardware, software, human-ware, and network that make the dynamic process of information possible. Internet is a great revolution in the world of communications that knows no geographical boundary. It is difficult to define internet due to its mobility; from DiMaggio point of view, internet is an electronic network of webs connecting homes and offices to each other and people use them for e-mail exchange, participation in several interactive spaces, and observing information sites on World Wide Web (DiMaggio *et al.,* 2001).

McQuail (2005) defines internet as:' world wide web of linked networks that currently supports many types of computer exchanges and relations using remote infrastructure involving databases, sites and web pages, dialogue interactions, e-mail and several types of electronic business and financial deals.

In an era that is called 'meta-data' age, it is difficult to ignore such a powerful variable in realm of human life. Though based on a definition, knowledge organizing technology is applied for scientific reasons but its negative and abnormal aspects must be covered. Today, social media is one of the most complicated elements considered in social deviations. Internet development provides a suitable financial support to extend network individualism as dominant sociability pattern. Though, internet is not necessary like a cell

Research Article

phone, but it has some features to attract youth and soon it will gain an importance same as phone (McKenna *et al.,* 2002).

Information technology must be defined as a set of computer systems used by an organization; more accurately, it refers to technological aspect of information system including software, hardware, databases, networks, and other electronic equipment. It could be considered as a subsystem of an information system. The words IT and information system are used sometimes instead of each other (Sepahvand *et al.,* 2011).

Information technology includes production, storage, processing, release, access, data transfer through telecommunication capacities and media such as radio, TV and techniques like computer and phone communication that enables public use of information resources and interaction with other groups (Mathur and Ambani, 2005).

IT development is an effective process in education and training programs having qualitative change of goals, programs, methods, and consequently effectiveness of education. In between, education provides an innovative approach that enables learning in all times and places (E'tezadi *et al.,* 2009). In other words, increasing access to suitable educational software and hardware provides a new horizon for educational institutes. It seems that using this equipment helps realization of some goals recognized as criterions of education quality such as learner-oriented, lifelong learning, active learning, engagement in learning and multimedia learning (Zandi, 2004).

Academic Education Technique

With no doubt, the phenomenon of learning and education is one of the most important psychological phenomena in human and evolved creatures, since education is basis of most issues distinguishing humans from other creatures psychologically. Life style of other creatures is the same as 5 or 10 thousand years ago, while humans developed during different historical periods gradually till today that they have obtained surprising developments. The human of 20th century is dominant on his capabilities and environment more than last centuries; all these advancements are indebted to teaching and learning (Parsa, 1995).

Education is one of the issues dealing with destiny of people and societies; modern human cannot satisfy himself with knowledge and information obtained by official education system due to several dimensions of social life. Thus, most institutes had accepted education as an inseparable part to make a balance between performance methods on one hand, and new information in wider scene of society on the other (Molaie, 2005).

Gilpsey (1997) believes that new technologies can influence on learning quality of students through activating and encouraging them to create and facilitate cooperation. In this regard, some researchers portrait education in the new millennium; the university still exists, but control of classes is very different from the past. First of all, the paper will not be used in current form; rather, a limited tool is used for data transmission such as rewritable electronic information (Ebadi, 2005).

Conceptual and Operational Definitions of Research Variables

Modern communication technologies: information and communication technology refers to 'search, design, development, implementation, support, or management of information systems based on computer particularly software and hardware' (Zare *et al.,* 2010). In this research, the modern communication technologies refer to internet, cell phone, e-mail, etc.

Education: it is any type of pre-designed activity or plan that is designed and implemented with the aim of pervasive learning and creating necessary changes in their behavior (Merghati *et al.,* 2013). In this research, the aim of education is official teachings presented by university in various courses.

Modern education methods: in this research, the education refers to teachings with help of IT in dimensions of training, learning, remote education, digital library, and educational assistance tools.

Research Background

Fathi and Azad Manesh (2006) performed a research titled 'feasibility of applying modern IT in curriculum of higher education'; they concluded that triple groups under study have no meaningful difference about IT application in curriculum processes. They believe that it is possible to implement

Research Article

these technologies in curriculum process due to possibility of removing barriers and using facilitation factors.

A research conducted by Shahbaz *et al.,* (2007) showed that access rate of teachers to hardware equipment at home and school is in a desirable condition, while software access rate is not desirable. Also, application of ICT in three domains of education, research, and communication is lower than desirable level.

Farajollahi and Zarif (2009) conducted a research titled 'higher education based on information and communication technology'. They concluded that use of ICT is a new educational period changing education paradigm, enriching available educational models, and creating new methods. This model shares educational features based on technology and suggests new learning and teaching methods in which the learner has an active role with emphasis on self-oriented, independent, flexible, and interactive learning.

Khosravi (2013) performed a study titled 'evaluating the implementation of ICT in English classes of Isfahan elementary schools'. He concluded that in order to implement ICT in EFL classes, it is better to provide suitable infrastructure such as teaching ICT to teachers, desirable equipment, supporting school management, and interest of teachers and students to modern technology.

In a research titled 'ICT and role of educational innovations in chemistry teaching', Amari (2013) concluded that one of the most obvious impacts of computer utilization is interaction of learners with each other and with teacher. With ICT utilization, the learners will be able to gain more information in a shorter time.

A research conducted by New rouse in Australia showed that ICT utilization increases learning and this would be realized through investigation about realities and perceived knowledge, learning improvement and correct evaluation, challenging students through motivation, making frameworks to strengthen higher level thinking, and increasing learner's independence and participation.

Mc Kenny (2007) showed that content combines balance, support, and program denominator in format of a tool that is acceptable by experts and users in terms of reliability and availability. The other results also showed that this program has the capacity and potential to create knowledge-related design and good quality materials simultaneously. Of course, this potential mainly depends on how this program is implemented.

Fred *et al.,* (2010) conducted a research about the relation between academic performance and average hours that university students spend on internet per week (n=128). They concluded that hours of using internet has a negative and meaningful impact on performance of students and in fact the higher is internet use, the lower their performance is.

Coyne *et al.,* (2013) performed a study about impact of using virtual media on adulthood; they concluded that users mostly spend their time on internet and listen to music. They also concluded that using specific types of internet media has negative (e.g. aggression and other anti-social behaviors like sexual behaviors) and positive impacts (friendship quality and educational success) both.

Research Questions

1) To what extent do new communication technologies facilitate and improve academic educational techniques according to media faculty students' view point?

2) To what extent do new communication technologies facilitate and improve academic teaching according to media faculty students' view point?

3) To what extent do new communication technologies facilitate and improve academic learning according to media faculty students' view point?

4) To what extent do new communication technologies facilitate and improve training tools according to media faculty students' view point?

5) To what extent do new communication technologies facilitate and improve virtual libraries according to media faculty students' view point?

6) To what extent do new communication technologies facilitate and improve remote learning according to media faculty students' view point?

Research Article

The Population, Sample, and Sampling

The population of the current study includes all students of media faculty consisting of 3500 female and 2647 male students (n= 6147). A sample was selected from the research population equal to 362 students (206 female and 156 male) using Cochran formula. The sampling is a class proportional with population size.

Research Tools

Data gathering tools of this study was library method, and the questionnaire was provided due to conceptual framework of modern communication technologies, academic teaching methods, and literature review.

The literature was investigated due to previous studies and initial study of references using books, articles, and other related researches. The questionnaires include two main parts:

1)   Questionnaire's guideline: it expresses goal of data gathering and the necessity of co-respondent.

2)   The questions: it is divided into two parts itself; a) public questions, including demographic variables, and b) expert questions, including 29 questions about role of modern communication technologies in facilitation of academic teaching methods.

The questionnaire would self-researcher including dimensions of teaching, learning, remote learning, virtual libraries, and training tools. In this research, the reliability of questionnaire was investigated; so that an initial sample included 30 pre-test questionnaires and then the reliability was calculated for research variable and its components using data obtained through questionnaires and SPSS statistical software.

The reliability of questionnaire was totally 0.88 with its dimensions each calculated separately: learning (0.79), teaching (0.82), training tools (0.87), virtual libraries (0.75), and remote learning (0.82) all indicating a desirable reliability level of questionnaire.

Data Analysis Method

Analysis of data obtained by this research was performed through SPSS statistical software in two descriptive and inferential levels. The statistical features (e.g. frequency, mean and SD) were used in descriptive statistic, while inferential statistic used single t-variable.

Research Findings

Here, research questions are analyzed due to data gathered, and also single t-variable.

Q1: To what extent do new communication technologies facilitate and improve academic educational techniques according to media faculty students' view point?

Table 1: Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Academic Teaching Methods (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Facilitation of Academic Teaching Methods	3.18	0.613	5.62	361	0.000

According to findings of table (1), the mean score of new communication technologies to facilitate and improve academic teaching methods is 3.18. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic teaching methods is more than average that is statistically meaningful.

Q2: To what extent do new communication technologies facilitate and improve academic teaching according to media faculty students' view point?

Research Article

Table 2: Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Academic Teaching (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Facilitation of Academic Teaching	3.49	0.805	11.64	361	0.000

According to findings of table (2), the mean score of new communication technologies to facilitate and improve academic teaching is 3.49. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic teaching is more than average that is statistically meaningful.

Q3: To what extent do new communication technologies facilitate and improve academic learning according to media faculty students' view point?

Table 3: Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Academic Learning (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Facilitation of Academic Learning	3.11	0.859	2.58	361	0.010

According to findings of table (3), the mean score of new communication technologies to facilitate and improve academic teaching is 3.11. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic learning is more than average that is statistically meaningful.

Q4: To what extent do new communication technologies facilitate and improve training tools according to media faculty students' view point?

Table 4: Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Training Tools (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Utilization of Training Tools	3.09	0.847	2.15	361	0.032

According to findings of table (4), the mean score of new communication technologies to facilitate and improve academic teaching is 3.09. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic learning is more than average that is statistically meaningful.

Research Article

Q5: To what extent do new communication technologies facilitate and improve virtual libraries according to media faculty students' view point?

Table 5: Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Virtual Libraries (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Facilitation of Virtual Libraries	3.16	0.940	3.42	361	0.001

According to findings of table (5), the mean score of new communication technologies to facilitate and improve academic teaching is 3.16. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic learning is more than average that is statistically meaningful.

Q6: To what extent do new communication technologies facilitate and improve remote learning according to media faculty students' view point?

Table 6 Mean Comparison of Role of New Communication Technologies to Facilitate and Improve Remote Learning (with Hypothetical Average 3)

Component	Mean	SD	t	Degree of Freedom	P
Role of New Communication Technologies in Facilitation of Remote Learning	3.10	0.608	3.23	361	0.001

According to findings of table (6), the mean score of new communication technologies to facilitate and improve academic teaching is 3.10. The calculated T is bigger than t (of table). Thus, role of new communication technologies in facilitation and improvement of academic learning is more than average that is statistically meaningful.

RESULTS AND DISCUSSION
Results of the research showed that the mean score of new communication technologies to facilitate and improve academic teaching methods is 3.18; thus, role of new communication technologies in facilitation and improvement of academic teaching methods is more than average according to media faculty students' view point that is statistically meaningful. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

Results of this project are in line with previous ones. In this regard, results of this research are in line with that of the research conducted by Farajollahi and Zarif (2009); they concluded that ICT changes teaching intellectual pattern, enriches available teaching models, and creates new methods. The results of this research also are in line with that of research performed by Khosravi (2013) showing that ICT application in EFL classes would influence on teachers' ICT training.

ICT development makes storing, reuse, and sharing valuable data easier and cheaper till to be forced recreating them when necessary (Headline and Elwood, 2002).

Research Article

Information technology first was used in classes as automation of receiving information, but now it is accessible all the time. This extracts education from fixed teaching environments and helps greatly to students' achievement.

Results of the research showed that the mean score of new communication technologies to facilitate and improve academic teaching is 3.49; thus, role of new communication technologies in facilitation and improvement of academic teaching is more than average according to media faculty students' view point that is statistically meaningful. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

Using ICT in educational system provides great communication and information resources for teachers and learners. It changes role of a teacher as just source material to instructor and process manager. It also causes an immediate feedback for learner, prevents teacher's intellectual and bias judgment, and increases students' learning motive. In fact, emergence of ICT would change teacher's type of teaching. The teachers who use technological tools in classes are not only more capable of subject expression but also have deeply found that ICT integration in teaching program can increase learning impacts, and improve thinking ability to high levels; also it is possible to use compact disks instead of textbooks. As a result, it can be said that ICT has the most positive influence on educational system and causes new changes. The educational system must provide in-service training for instructors and makes them familiar with new technologies both.

The technologies that support teaching would cause meaningful and targeted learning; they also change traditional and teacher-oriented methods to learner-oriented learning. Results of the studies show that teachers skillful at IT can guide students better. Problem-solving and high level intellectual skills, data analysis and interpretation, time management and the capability of skill prioritization in information space and global community all would develop based on information, and this is subject to teacher to be able to use technology effectively and systematic (Mer'ati *et al.,* 2012).

Results of the research showed that the mean score of new communication technologies to facilitate and improve academic learning is 3.11; thus, role of new communication technologies in facilitation and improvement of academic learning is more than average according to media faculty students' view point that is statistically meaningful. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

Results of this project are in line with previous ones. In this regard, results of this research are in line with that of the research conducted by Farajollahi and Zarif (2009); they concluded that ICT changes teaching intellectual pattern, enriches available teaching models, and creates new methods. Results of this research also are in line with findings of Khazaie *et al.,* (2011). According to their study, the results obtained by students' performance in tests imply meaningful impact of mobile communications and text attachments on their ability of learning English words.

Our perception of learning has changed. Learning would take place, if learners are active; it must be meaningful and real, and the learning environment must be challengeable, and not stressful. Knowledge is increasingly developing and a great part of it is accessible for teachers and students simultaneously. This fact confronts teachers with inescapable task, and that they must update their knowledge and subject themselves to modern communication channels. IT provides new equipment for education, rather it adds to people's expectations. Now, the instructors must learn how to use computers in classes, how to compete students in achieving large amounts of information (particularly through internet), and how to use software and hardware to facilitate learning process (Mer'ati *et al.,* 2012).

There are several tools used to train learners, making them capable of using very extensive data, transforming data to information, analyzing them, and finally operation based on results. Computer utilization is just a part of this process, i.e. if the learner is not able to perform the levels mentioned above, then he would not be able to work practically based on IT. But these skills are themselves very complicated and not easy to be transferred to learner, meaning that teaching-learning process must be arranged in such a way to create these capacities in learner. The learner also must be able to link new information to his previous knowledge; he, thus, must gain a set of cognitive and meta-cognitive skills.

Research Article

Results of the research showed that the mean score of new communication technologies to facilitate and improve training tools is 3.09; thus, role of new communication technologies in facilitation and improvement of training tools is more than average according to media faculty students' view point that is statistically meaningful. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

Results of this project are in line with previous ones. In this regard, results of this research are in line with that of the research conducted by Farajollahi and Zarif (2009); they concluded that ICT changes teaching intellectual pattern, enriches available teaching models, and creates new methods.

Currently, educational methods used in most countries have not high efficiency and cannot satisfy most current needs of the society. With suitable IT utilization, it is possible to increase education quality, to create new methods, and to improve the process of transferring information to students: curriculum justification due to interests and talents of students, providing helpful information resources for students, and using IT tools for training.

Shahrakipur *et al.,* (2006) state about e-learning:' in this environment, the learners can learn several available resources and worksheets. Further, they can connect to their teachers through e-mail. As a learning tool, internet takes the most advantage of e-mail and classroom learning environments. It allows the learner to select his time and place of education and simultaneously interact with other learners participating in class discussions.

Results of the research showed that the mean score of new communication technologies to facilitate and improve virtual libraries is 3.16; thus, role of new communication technologies in facilitation and improvement of virtual libraries is more than average that is statistically meaningful according to media faculty students' view point. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

With emergence of ICT, a new type of library (i.e. virtual) was established beside physical ones. Virtual library has a set of information digitally; this digital information includes e-=books and e-papers, electronic databases, and other electronic formats.

IT makes possible the access to a wide spectrum of references that are not physically available; it provides access to its references in anytime and anyplace through an internet connection. IT provides suitable opportunities of learning, since it contains updated information. Virtual libraries had a worthy contribution to network learning and e-learning due to storing educational resources and retrieving them through computer networks. These libraries provide the possibility of critical and creative thinking, problem solving, and decision making for users (Purmuhamad Bagher, 2008).

Results of the research showed that the mean score of new communication technologies to facilitate and remote learning is 3.10; thus, role of new communication technologies in facilitation and improvement of remote learning is more than average that is statistically meaningful according to media faculty students' view point. The authorities should seek to improve IT, to modify weaknesses with necessary and on-time actions, and to think about helpful strategies in their plans and decisions.

With emergence of new technologies during last decade, we witness increasing growth of remote learning programs.

Remote learning program has increasingly involved learners, instructors, entrepreneurs and different groups associated with higher education institutes. Having unique features, this type of learning is considered by many universities so that they spend large amounts of money for its development annually. Today, the nature of teaching and learning is in fact changing inside universities and higher education institutes moving from its traditional form toward extensive use of communication and information technologies.

In these educational environments and also its new teaching form- remote learning, the education is not necessarily limited to academic center; rather it can be accessible for everyone in an extensive level with required flexibility, regardless of specific time and place (Ghare Baghi *et al.,* 2010). The result of dominating such changes in universities and higher education institutes (i.e. shifting to remote learning) is facing with different educational situations and also changing the behavior of teachers and students; this

Research Article

itself requires main changes in educational structure and providing contents proportional with this new condition.

Therefore, it is first necessary to utilize e-learning systems (particularly remote learning) and using its benefits such as online classes, high flexibility of teaching and learning, various contents, and availability of fun and engaging activities on the web; besides, it must be noted though this type of education- remote learning- leads to vast developments in universities and higher education institutes, but there are also some problems and challenges available for universities toward using this types of education, e.g. incomplete cognition, perception, and understanding of efficiency of this trainings and directing them incorrectly.

Practical Suggestions

Here, we present some suggestions facilitating new educational methods due to importance of issue and also considering results of the current study:

1)   It is suggested that managers and authorities to provide proper background for university teachers helping them to use IT more and also design the teaching structure for them based on IT principles.

2)   It is suggested that managers and authorities to design their tasks for their personnel based on information technology. In this regard, they must encourage the masters to get familiar with new technologies. The masters must update themselves with ICT and become familiar with scientific studies in the context of their career.

3)   Developing ICT human resources through educational programs and improving efficiency of workforce in university.

4)   ICT utilization to improve university efficiency, better education, and also using ICT with creativity.

5)   ICT support, e.g. providing the costs related to research and development in universities.

6)   Establishing cooperation and harmony between different parts to use mentioned tools.

7)   Developing ICT culture through its presentation and use in university.

8)   The problems related to internet use could be removed with holding workshops, in-service courses and increasing knowledge of masters; since some masters are still disagree with internet use, and this might be related to their lack of knowledge of execution method, their inability of practical use and/or their unawareness about effectiveness of this method.

REFERENCES

Coyne SM, Padilla-Walker LM and Howard E (2013). Emerging in a digital world: a decade review of media use, effects, and gratifications in emerging adulthood, *Emerging Adulthood* **1**(2) 125-137.

Di Maggio P, Hargittai E, Newman WR and Robinson JP (2001). Social implications of internet. *Annual Review Sociology* **27** 1-13.

Ebadi R (2005). *IT and Education*, second edition, (Tehran: Institute for Development of Educational Technology in Smart Schools).

Etezadi M et al. (2008). *The Problems of Remote Learning Centers according to Viewpoint of High School Teachers and Students of Isfahan*, (Islamic Azad University of Isfahan, Khorasgan branch), 149-177.

Farajollahi M et al (2009). The ICT-based higher education, *Journal of Education Strategies* 167-171.

Fathi K et al (2006). Feasibility of applying g new ICT in higher education curriculum, *Journal of Higher Education Research and Planning* 49-72.

Fred E, Ralph T and Zhaobo W (2010). Internet use among college students: tool or toy? *Educational Review* **62**(1) 85-96.

Khosravi H (2013). Evaluation of ICT application in EFL classes of Isfahan elementary schools, MA thesis, faculty of foreign languages, Sheikh Bahaie University.

Manian A et al (2009). Studying the relation between alignment of IT and business and organizational performance in IT firms using structural equations, *Journal of IT Management* **1**(3)89-106.

Research Article

McKenna KYA and Bargh JA (2002). Can you see the real me? Activation and expression of the true self on the internet. *Journal of Social Issues* **58**(1) 33-48.

McKenny S (2005). Technology for Curriculum and Teacher 2Development: Software to Help Educators Learn While Designing Teacher Guides. *Journal of Research on Technology in Education* **38**(2) 167-190.

McQuail D (2005). *McQueen's Mass Communication Theory*, 5th edition, (Sage Publications, London).

Mer'ati A et al (2012). The necessity of attention to new educational technologies', *1st National Conference of Cyberspace and Emerging Social Harms*, Ministry of cooperatives, labor and social welfare, Tehran.

Molaie P (2005). Evaluation the effectiveness of SAIPA training courses in second half of 2004, MA thesis, faculty of psychology and educative sciences, Allameh Tabatabaie University.

Newrouse P (2002). Specialist Educational Services Parth, Western Australia.

Parsa M (1995). *Learning Psychology Based on Theories*, (Sokhan Publications, Tehran).

Purmuhamad Bagher L et al (2008). Role of ICT on academic centers, *Journal of Education Technology* **1** 67-76.

Sepahvand R et al (2011). Studying the role of ICT on decreasing administrative corruption according to personnel'sview point of organization for registration of deeds and properties in Lorestan, *Journal of Evaluation Knowledge* **10** 57-84.

Shahbaz S et al (2007). Studying the access and utilization rate of Isfahan highs school teachers to ICT, *Journal of Information Technology and Sciences* **1 and 2**.

Zandi S et al (2004). E-learning as a new educational technology and its integration in medical education programs, *Iranian Journal of Medical Education* **4** 61-70.

Zare M et al (2010). E-learning: a new approach to education', *1st National Conference of Education in Iran*, Milad tower convention center, Tehran.

Zarei E (2001). IT in India, *Indian Scientific Journal* **6** 30-37.