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THE INTEGRATION OF INFORMATION AND COMMUNICATION TECHNOLOGY INTO TEACHING- LEARNING PROCESS AT UNIVERSITIES

ABSTRACT

The use of Information and Communication Technology (ICT) such as Internet application, CD-ROMS, Video-Technologies and various computer attachments and software programs have caused many changes in society as well as in the field of education. The use of ICT in teaching and learning process involves a number of concepts and thus, it can be a potential tool for enhancing teaching and learning process. It has many advantages over the traditional teaching and learning approach.

The use of ICT in education leads to more student-centered learning settings. With the world moving rapidly into digital media and information, the role of ICT in education is becoming more and more important, the latter continuing to grow and develop in the 21st century.

Key words: *ICT, learning process, language teaching and learning, technology, application, CD-ROM, mobile learning, video conferencing, CALL (Computer Assisted Language Learning).*

РЕЗЮМЕ ВНЕДРЕНИЕ ИНФОРМАЦИОННО-КОММУНИКАЦИОННЫХ ТЕХНОЛОГИЙ В ОБРАЗОВАТЕЛЬНЫЙ ПРОЦЕСС ВУЗОВ

Использование информационно-коммуникационных технологий (ИКТ), таких, как интернет-приложения, КД-ПЗУ, видеотехнологии и различные компьютерные приложения и программы, привело к многочисленным изменениям в обществе, а также в системе образования. Использование ИКТ в образовательном процессе сопряжено с целым рядом значений инноваций и, таким образом, может стать потенциальным инструментом совершенствования методической системы обучения. В этом плане ИКТ имеет больше преимуществ по сравнению с традиционным подходом преподавания и учения. Применение ИКТ в образовании создает благоприятные условия для реализации личностно-ориентированного обучения, способствует более эффективному усвоению знаний и формированию умений и навыков. Очевидно, что по мере того, как мир стремительно переходит к цифровым медиа и источникам информации, роль ИКТ в образовании становится все более значимой и будет продолжать интенсивно развиваться и в XXI веке.

***Ключевые слова:** информационно-коммуникационные технологии (ИКТ), образовательный процесс, обучение языку, технология, приложение, постоянное запоминающее устройство (КД-ПЗУ), мобильное обучение, видеоконференция, компьютерное обучение языку.*

ԱՄՓՈՓՈՒՄ
ՏԵՂԵԿԱՏՎԱԿԱՆ-ՀԱՂՈՐԴԱԿՑԱԿԱՆ ՏԵԽՆՈԼՈԳԻԱՆԵՐԻ
ՆԵՂԴՐՈՒՄԸ ՀԱՄԱԼՍԱՐԱՆՆԵՐԻ ՈՒՍՈՒՄՆԱԿԱՆ
ԳՈՐԾԸ ՆԹԱՅՈՒՄ

Տեղեկատվական-հաղորդակցական տեխնոլոգիաների (ՏՀՏ) օգտագործումը, ինչպիսիք են ինտերնետ հավելվածը, սեղմասկավառակները, վիդեոտեխնոլոգիաները և համակարգչային տարբեր հավելվածները և ծրագրերը, լուրջ փոփոխությունների են հանգեցրել ինչպես հասարակական կյանքում, այնպես էլ կրթության ոլորտում:

Տեղեկատվական-հաղորդակցական տեխնոլոգիաների օգտագործումը կրթական գործընթացում կարող է պոտենցիալ գործիք լինել ուսուցման-ուսումնառության կատարելագործման համար, քանի որ այն հնարավորություն է տալիս կազմակերպել ավելի անհատամետ ուսուցում և շատ առավելություններ ունի ուսուցման ավանդական մոտեցման համեմատությամբ:

Բանալի բառեր՝ տեղեկատվական տեխնոլոգիաներ, կրթական գործընթաց, լեզվի ուսուցում, տեխնոլոգիա, հավելված, մշտական հիշողության սարք, մոբայլ ուսուցում, տեսակոնֆերանս, լեզուների ուսուցում համակարգչային տեխնոլոգիաների միջոցով:

Currently, the role of ICT in all areas of life such as manufacturing, companies, communities, and education has grown tremendously. Today, all over the world, educational institutions are incorporating ICT with the teaching – learning process to provide learners with knowledge and skills to meet the challenges of educational environment. According to Kent, ICT from educational point of view refers to Information and Communication Technology such as computers, communications facilities and features that variously support teaching learning and a range of activities in education (QCA schemes of work for ICT in Kent country council, 2004). Thanks to its interactive and diverse nature, ICT has the capacity to meet the needs of the individual student by providing opportunities to monitor their learning and to pursue information, thus increasing the quality of education. ICT has become essential tool for educational change and reform.

The use of Information and Communication Technology (ICT) such as Internet application, CD-ROMS, Video-Technologies and various computer attachments and software

programs have caused many changes in society. These changes have not just been of technical nature but more importantly of a structural nature (Reid, 2002). Nonetheless, it may just begin to feel the effect on education as lecturers incorporate this new technology into their teaching.

Access to new Information and Communication Technology will have a major impact on teaching methodologies (Prakash and Reddy, 2013). Teaching using the internet like technology by itself does not contribute to the achievement of curriculum objectives, as part of assisting in the planning of classes, good internet awareness allows us to make teaching successful. ICT should be regarded as an instrument that promotes and enhances learning and not as a mean by itself. Many of the internet projects require students to connect via electronic mail or mailing list or other newsgroups with students from different states or countries. In addition, the Internet should be part of an integrated teaching process. ICT is a tool that, if used successfully, can demonstrate to learners that learning is something they can do for themselves and that the advancement of ICT has provided new opportunities for creative teaching in schools.

The application of Information and Communication Technologies provides challenges to develop new teaching learning environments, new infrastructure and operational systems for learners, academic staffs and administrative supporting staff (Prakash and Reddy, 2013). We want to teach: using the internet because we want to alter, develop, add new dimensions to our teaching, and enhance the quality of student-assigned activities.

The new trends in teaching are coming up with the use of technology. Web sites do a number of things, including giving students notes. Lecturers should use power point and other computer programs to improve their presentation of material to class. Resource-based teaching is becoming

almost seamless, almost normal in all that lecturer does because knowledge is easier to access with the aid of ICT. Through the use of technology lecturers can provide opportunities for students to learn think critically and discuss among their peers supported by ICT (Olsen, 2000).

In ICT age, the lecturer-student relationship is sometimes reversed. Currently, students are highly techno-friendly and techno-expert. Now we are using terms such as 'co-learners' to describe the new lecturer-student relationship. In some ways, the use of new technology can increase socialization.

By improving student achievement and improving access to a variety of educational materials, the use of technology can enhance teaching and learning.

ICT helps to expand access to education, enhance education's relevance to the increasingly digital workplace, and enhance quality of education. It improves the communication between students and lecturers. Appropriate uses of ICTs in education have significant positive effects both on student's attitude and their achievement.

Technology proves effective only when they suit the teaching objectives and unique characteristics of the special group of learners. They should suit the age-level, grade-level and other characteristics of the learners; have specific educational value besides being interesting and realization of desired learning objectives.

ICT promotes learning; it motivates student, thus, allowing him (or her) to do certain things. Besides that, its presence betters the learning environment and enriches the learning experience (Punie, 2007).

ICT provides students with a completely new learning environment. Students receive more knowledge that strengthens the ability to think critically, learn and develop. The use of ICT also improves the skills of the child (McPake, et.,al, 2005).

Some technological tools are used in the process of teaching-learning.

Computer Assisted Language Learning: CALL is a broad and an ever-changing discipline. In many teaching and learning environments, computer-assisted language learning (CALL) technology, CD-ROMS, and office software applications have become commonplace. The computer can act as a stimulus which generates analysis, discussion and writing.

Power Point Presentation: In many instructional settings, slide presentation software like Power Point has become an ingrained part. Particularly in large classes and in course more geared toward information exchange than skill development. Using MS Power Point, lecturer will build interactive slide containing auditorium lesson-related elements such as text, illustration, animation, and audio and video. This will make the interaction in the auditorium more interactive and effective. To help learning, it can be a highly effective tool.

Benefits of Power Point Presentation are:

- to engage multiple learning styles;
- to increase visual impact;
- to improve audience focus;
- to increase spontaneity and interactivity;
- to enrich curriculum with interdisciplinarity.

Use of Smart Board in Auditorium: Smart boards are also called interactive whiteboards or e-boards allow teachers and students to learn collaboratively, share files, access online resources and use educational software.

E-mail: E-mail is a most popular and excellent web-based media. Lecturer can use E-mail for various purposes mainly for delivering some web-based services. The most easy and convenient method to access the web sources is the E-mail. E-mail and discussion lists are used to cover basic issues so that auditorium time can be devoted to discussion and highly contentious issues.

Discussion Forum/News Group: They are on-line discussion groups on many topics of varied interest. Discussion makes it possible to exchange

messages freely on a topic of common interest. Electronic-based discussion groups can change the structure and dynamics of the auditorium. The lack of face-to-face interaction can make students alienated and hostile. The images can be displayed from external sources via computers. In order to reach the desired section, it can quickly access data. This makes the interaction in the auditorium more exciting and also reduces the monotony of the traditional auditorium situation.

Blogs and Wikis: Blogs and wikis are based on web 2.0 technology. Web 2.0 is a term which is hard to define because of the amorphousness of the concept. Online social networking systems, such as LinkedIn, MySpace and Facebook, allow students to manage their interaction with others. Blogs, microblogs (e.g. Twitter) and instant messaging tools (e.g. Skype) have provided communication tools to interact more effectively with others in opened communities.

These are asynchronous mode of communication. Authoring a blog, maintaining a blog or adding an article to an existing blog is called blogging. Individual articles on a blog are called blog post, post or entries. Wiki is an online collaborative writing tool. Wikis are designed to help groups collaborate, share and build online content and are especially useful for learners who are separated by time and place (O'Reilly, 2005).

Blogs offer many benefits for education:

- promote autonomous learning by providing opportunities for students to take more control of their learning;
- motivate students to become better readers and writers;
- promote discussion among students;
- encourages the use of the Internet and the Web among students (and lecturers).

Wikis can increase educational productivity:

- support collaborative learning because Wikis can enable groups of students to work together to solve a problem, complete a project;

- using Wikis effectively may help students reach Bloom’s higher-order skills, e.g., creating, evaluation;
- promote active learning where students can actively participate in educational activities like writing, discussing;
- help you create interactive learning environments;
- help you promote open dialogue and encourage community building;
- help you prepare your students for the 21st-century marketplace by developing digital literacy skills;
- improve students’ writing skills.

Ebooks: Wikipedia gives the following definition of an ebook (short for electronic book) as “a book publication made available in digital form, consisting of text, images, or both, readable on the flat-panel display of computers or other electronic devices”. An ebook is an electronic version of a traditional print book. Ebooks also used to improve the teaching and learning skills in the auditorium. In ebooks lecturers and students can add images, info graphics, posters, video, and text, audio and so on. Learners can share ebooks with their friends. Ebooks strengthen students’ note making skills, the knowledge of English grammar and application skills.

Audio Books: An audiobook (or a talking book) is a recording of a book or other work being read out loud (Wikipedia). Audio books are not discovery of this century or even of the last one considering authentic books as equivalent to its content and not to its format (Baskin and Harris, 1995). Audio books are applicable for English language learners and young people who are craving for learning English with stories. Audio books develop the four language systems: phonological, semantic, syntactic and pragmatic. Audio books are recordings on CD or digital file of a book which are read aloud. The use of audio books with struggling, reluctant or second language learners is powerful since they act as a scaffold that allows students to read above their actual reading level (Beers, 1998).

Webinar: Webinar is the best example for online learning. Webinar is an interactive seminar conducted via the World Wide Web. Usually a live

presentation, lecture or workshop that, happens in real time as users participate through chatting, video-chatting, file-sharing or asking questions with a microphone. Webinars are more helpful in learning grammar.

Teacher Tube: It is an educational social video sharing site for lecturers. Most of the school blocked YouTube but not Teacher Tube. The structures are same as YouTube. User can watch, subscribe, create and share free instructional videos through Teacher Tube. Teacher tube is an online collection of home –grown video content, housed in a web site. It is also a great place to share video of your own snippets of instruction so that your students can see you demonstrate lessons (Thiyagu, 2013).

Mobile Learning: M-Learning means acquisition of any knowledge and skill through using mobile technology anytime, anywhere that results in alteration of behavior (Tejwani and Silviya Thomas, 2013). Mobile learning is any learning activity that utilizes a mobile device--usually a smartphone. M-Learning seeks to utilize the ubiquity and unique capabilities of mobile devices to make course materials available to students wherever they are, and to create new kinds of learning experiences that help students engage with course content and the world.

Mobile Apps: Techopedia explains mobile applications as “a type of software designed to run on a mobile device, such as a smartphone or tablet computer”. Mobile digital devices like laptops, iPods, tablets, smart phones have facilitated English language learning. At present there are so many apps available in the App store and Play store (Android) markets. These apps furnish students with quizzes, games, dictionaries, Podcasts and tests. Some mobile apps which are amending English language learning and teaching are Dictionary.com, Hangman, Grammar’s, Quizmaster, 60-Second Word Challenge, Mobile Air Mouse, Ankhi Flash Cards, English Idioms Illustrated (techopedia.com).

Audio-Visual Aids: The use of AVA is unavoidable in the 21st century. It has begun a new genre in the area of language teaching and learning. In

addition to traditional teaching, the topical and innovative teaching techniques must be adopted.

- The use of AVA makes students active.
- Students can get rid off their boredom and dullness in the class.
- Provide attentiveness and enthusiasm.
- They give clarification about the content in the text book.

Over Head Projectors/Slides: We need some visual aids in order to make concepts clear. Over head projectors are used in language teaching and learning to supplement the blackboard.

Film Projector: Knowledge acquired through films has a lasting effect. We can project some educational films, dramas. This can develop the listening and speaking skills of students.

Language Laboratory: This is the latest innovation in the language teaching process. In this we have sound equipments and projectors, computers, which can give students the practice of listening and speaking.

Web 2.0 Applications: It has come into light in 2005. It encourages sharing between users. In this we can have variety of applications such as blogs, social networking websites. The learners can be encouraged to write their own blogs. Social networking sites like facebook, bebop, and flicker have become very popular. These can be useful for students during teaching/learning process at univesities.

Smart class and Blended learning also make auditorium transaction highly interactive. Blended learning can be considered as a new pedagogical approach combining auditorium efficiency and socialization with the technologically advanced active learning opportunities of the online environment. Whereas smart auditoriums system enhanced auditoriums that foster opportunities for teaching and learning technology, such as computer specialized software, audience response technology, networking, and audio/visual capabilities. The smart auditoriums demand learning initiative that assist educators to make ICT integral to learning.

Using all these technologies would make the teaching/learning process more interactive and effective. Due to significant technological progress, Information Communication Technologies have opened new facilities for learners and have played a significant role in teaching learning process. Therefore, it is high time for lectures to get an awareness of these resources for future academic growth.

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Նարինե Դուրասանյան– մ.գ.թ., դոցենտ, Արցախի պետական համալսարան, Ռոմանագերմանական լեզուների ամբիոն:

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Ներկայացվել է խմբագրություն՝ 09.06.22, տրվել է գրախոսության՝ 15.06.22 - 22.06.22, երաշխավորվել է ԵՊՀ եվրոպական լեզուների և հաղորդակցության ֆակուլտետի անգլերենի թիվ 1 ամբիոնի և պարբերականի խմբագրակազմի կողմից, ընդունվել է տպագրության՝ 23.06.22