New Teaching Technologies and Possible Hurdles

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Abstract

Paper work, textbooks, written tests, handouts are becoming obsolete nowadays with the spreading of new communication technologies. The pace of it is so fast that scholars cannot catch up with the rapid changes. There is no unanimity in what to do with this technology, how to fully benefit it. Still there is a huge misunderstanding among the teachers, educators and professionals to what extent they can use information and communications technology (ICT).Is it enough to send e-mails or there is something else to be done? What is the reason for using ICT if there are reliable books, or students can obtain the information from the Internet on their own?

One important point for my country (Russia) is the educators' unawareness of how to integrate in the EU educational system to correspond the requirements of the modern society. We exist in a situation when apart from statements of political leaders and organizations to cooperate there are still deep chasms to overcome. We all need unified regulations on what to consider ICT in education and how to provide it.

1. Introduction

We will not re-discover America by stating that ICT nowadays affect society, be it workplace or private life. It is everywhere: school, university, industry, I dare say even kindergarten. Hence, it is important to keep in mind the extent of its implication for education. Now, when almost everybody has an e-device, we have to deliver ICT idea as a method of teaching, not just equipment. The latter understanding is rather wide spread even among the university authorities, who may consider the classrooms being equipped with PCs or OHPs as the top of their business.

However education and technology are different in their function. Technological tools must be constantly renewed (upgraded) which means that they are short-termed, at the same time education is a long-term process. Being a short-term tool inevitably means being expensive. Education almost everywhere in the globe is always expensive and needs to cope with immaturity and instability of expensive technology.

1.2 Problems of Novelty

One important obstacle, but a necessary one, is the requirement to install only distributive discs. This is an indisputable memento but it should be tackled as carefully as possible. At this point it is needless to argue about the must of highly qualified technical staff to be able to do any necessary upgrading without hesitation. As our experience shows, it may take a good two-three weeks before changes have been proved by the institution authority and the staffs start working.

The more infrastructures develop, the cheaper the access to it should be. But we need not only a cheap access but also a reliable one. Now that many universities have their own local web, it is absurd when two dozen students writing a web-test simultaneously sometimes might create huge problems of data saving or crash the test. It is a shame for the teacher when h/she has to apologise for the troubles occurred. It minimizes the effect of teaching process, not to say anything about the image of the teacher himself/herself.

The Internet does not necessarily provide the kind of information needed by the education system. Whereas education requires high-quality, consistent information, the Internet gives access to a virtually unlimited amount of information of various interests, which therefore has to be sorted. [1] It is sometimes not easy to choose between the worthy educational sites and their copycats which most certainly may provide us with junk. We need some facilities to avoid the users being swamped by the mass of information.

Well, ICT is now being used by many people who call themselves ICT professionals. Concerning their ability to turn the PC, microphones and OHP on/off they are real professionals. But modern society and reality is more than videos shown on the wide screen. . Major changes are needed in the role of teachers and their expertise needs to be developed by regular use of computers, teamwork and

comparing notes among colleagues. Primary school can be satisfied with what it gained via ICT. Can universities be as lucky as that?

We will not agree with many colleagues unfairly considering that ICT is going to substitute teachers at schools and universities, who see the school of future as a cyber-school, empty classrooms and students, comfortably seating in front of their monitors, seeping tea or coffee and the teacher's voice from the speakers. We dare say that ICT is not going to replace the traditional teacher but it enhances education, it fosters curiosity, encourages discovery and experimentation.

What teachers use widely are PowerPoint presentations. They give lectures and homework, they ask students to demonstrate their knowledge in ICT via PowerPoint. To develop the use of ICT, training must be provided on several plans: [2] (slide 2)

-instruction in use of the tools, so that potential users are no longer deterred by the technology;

-alignment with teaching practice;

-setting ICT in context in relation to subject areas.

It is well explained why secondary school teachers have no great interest in training which is focused exclusively on the technical tools rather than their subject. But why some university teachers do not display any eagerness towards new teaching tools?

Great caution is needed in dealing with the upheaval which ICT is causing in the educational world, and many pilot schemes will therefore be required. In its recommendations for priority action, the EU report [2] on the 27th of January 2000 first underlines the need to make the best use of a store of knowledge which is constantly being developed. This requires three types of across-the-board action: (slide 3)

-continuous monitoring of practice, which implies developing reliable indicators and robust collection and analysis procedures;

-pooling of experience, which depends e.g. on the specification of quality criteria;

-joint development of prospective scenarios in order to provide decision-makers with pointers and information on the options available and to guide their strategic thinking.

EU countries have passed a long way to cooperate, sharing ideas and vision and establishing of a virtual European education area. Other non EU countries also need assistance to integrate into that very virtual system. The potential benefits of ICT must be made available to all and care must therefore be taken to ensure that access is as equitable as possible.

ICT may be absolutely justified when used for distance education. The primary purpose of using technology is to share knowledge and facilitate learning. The knowledge may be shared collectively with an entire class through a given technology, or it may be focused individually on one student through a different technology. Each learner has a unique style and a distinct competency.

After the manner of Indiana Commission for Higher Education [3] we can classify educational technologies as two types: delivery mechanisms and learning resources. (slide 4)

Deliverey Mechanisms	Learning Resources
Email	Internet II
Websites	Videotape
Cable television	Audio tape
Closed circuit transmissions	Software
Satellite broadcasting	Interactive Video
Terrestrial broadcasting	Facsimile
Intranets	Digital networks
the Internet	CD-ROMs

Fig.1. Classification of educational technologies.

With growing of the number and variety of all the means and tools there is no doubt that limitations and certain laws are to be imposed in the field where the material is too vulnerable. i.e. where we come across with copyright and at the same time we have to bear in mind another privilege - the needs of the educational community.

1.2 What is to be done

The new technology brought some new problems: the fragmentation of information, knowledge and culture, a new literacy and computer literate individuals, the construction of a new reality and new ways of approaching it, interactive forms of thought, organization and work habits. [4] In the environment of continuous learning professional competence and skills are constantly changing. The key in the information society is "learning to learn", i.e. the key is education and not the amount of knowledge learned, but the ability to use knowledge and to be able to find the essential knowledge from the wealth of information and be able to apply it in another context.

(slide 5) Dr. Carlos I. Garcia [4] brings the main differences between distance education and classroom education:

Distance education	Classroom education
The professor and students cannot be physically present in the same space or time	The professor and students are physically present in the same space (during class)
Eliminates the rigid boundary of space and time imposed by the paradigm of the traditional classroom	It's called face to face because it restricts the communication to a here and a now.
It shows that participants can learn without being gathered in one place and at the same time.	Much of the knowledge-is filed on paper or computer.

Fig.2. Differences between distance and classroom education (after Dr. Carlos I. Garcia)

Many educators feared the development of a more flexible, more dynamic and more attractive course. Technological developments in information management and communication allow the first applications of information systems geared to teaching in the transmission of information.

Multimedia technologies are considered to be the new computer revolution in the teaching-learning process. This includes creating environments that integrate the different media used by man to convey a message, such as texts, graphics, images, sound and video, plus a fundamental issue is the user's interaction with the system.

The advantages of using ICT can be seen from the following perspectives: [4] (slide 6)
-It facilitates learning by making the process more innovative, practical and enjoyable, allowing the use of multimedia presentations. It also reinforces the ability of reading, writing and problem-solving approach.
-Enables the collection of works that can be shared. It also encourages collaborative work among teachers, students and administrators who have common interests and experiences.
-Access for all members of society to more current and accurate information to and from any point on the globe.
-Increased interaction in the educational process with the potential to establish a bridge between home and college, through which teachers, administrators and family members can review and discuss student progress. The interactive network allows the teacher to control and assess and guide student performance and students get feedback whenever needed. (slide 7) e) Ability to work at individual pace and at a convenient time, regardless of ability or disability, or their jobs or profession.
-Allows the training of teachers, students in the computer and communication technologies, with educational benefits and preparation for the workplace.

Peoples' Friendship University of Russia in general and the foreign languages department at Law Faculty in particular try to be in the mainstream of new trends. We widely use different types of multimedia, though, as everywhere, we also have some problems among the staff not able to use new systems or unwilling to use. This approach is quite tardy while those who are ICT-friendly are able to attract not only their students but their parents, administrators and even unexpected groups of students from other institutions.

We welcome chats and forums at the teacher's site but we will as well welcome webinars, which at this stage is not as spread as other means due to its money inconvenience for the university administration firstly, and then computer illiteracy of the teachers. The spin box of a teacher's site is a

fair index of the teacher's popularity. An advanced in ICT teacher not only has a copy of lecture hang in the site but also a lot of other information, links and cross links for their students. We make films with the students, video of our lectures, role plays and presentations to watch them later and discuss the problems; it is an excellent tradition of ours to hold a conference in March each year at PFUR and to take part in other conferences sharing our experience with our colleagues.

1.3 Conclusion

Technological evolution requires active role in shaping human evolution. One should bear in mind that ICT is a progressive tool but also not to forget some vulnerable issues such as copyright or ethic issues while using the Internet. It is the duty of educators to "develop human resources with moral and ethical standards on par with technological developments, able to develop and implement technologies needed to meet our own demands, and thus overcome the situation of being mere importers and consumers of information and technology".[4]

ICT should be used actively and efficiently. This way it is possible to reduce the cost of ICT. While incorporating into the world at the same time cultural identity should be preserved. Whatever the costs ICT has become and will be an inseparable part of our education. Our task as educators is to remain in the vanguard of it.

References

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