

EDUCATION CHALLENGES IN THE XXI CENTURY- USE OF INTERNET IN THE PROCESS OF INSTRUCTION

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Abstract: The present paper describes the place of the Internet in modern education, its role in enhancing the effectiveness of different forms of education. The opportunities, which the Internet can offer in the sphere of education, are really unique. The aim of this article is to outline that Internet has brought a globe in a single room. It has a tremendous potential and a lot to offer in terms of education. However, like very single innovation in science and technology, Internet has its own advantages and disadvantages. Integrate new technologies into training determines the change work methods and techniques in the classroom. Using the internet, online resources, virtual libraries, online communication has implications on the society in which we live require: multiple stimulates and develops cognitive potential of pupils (Multiple Intelligences Theory, H. Gardner), develop skills XXI century necessary, help develop higher-level thinking skills (Bloom's Taxonomy), oriented towards the interests of students training process (learner-centered teaching).

Modern technology is used for the purpose of resource and must be content elements is connected to disciplinary action and to target the objectives pursued by the unit. The role of the teacher in traditional education, a transmitter of information, can be transformed into a facilitator of learning by rethinking its mission: creating an ambience (purpose, information, resources, strategy) to enable the student to build / develop knowledge by using ICT.

Keywords: collaborative learning, information and communication technology; learner; network; virtual classroom; interactive learning.

1. Introduction

Using a computer, and particularly the Internet, is a necessity which cannot be ignored. The existence of very good, personal computers at accessible prices and schools endowment with modern technique asked for a high utilization of these devices in teaching. The best of the webs, the Internet, is a very good example. Modern browsers have a graphic interface and offer a perfect combination sound, image and movement. Hypertext, animation, operative information and interactive help are elements to lead to a efficient use of these Web applications.

2. Content

M. Brut thinks that, computer assisted learning (CAL) is a didactic method or a learning/teaching method which puts into practice the principles of a determinative and a cybernetic analysis in the wide area of computer and communicating, existing in the present society. It refers to the theoretical and practical domain of using computers in learning. The CAL system is an integrated complex hardware-software facilitating interaction between those having an information system and those to whom this system is addressed in order to give them new information, operations and abilities.

Computer assisted learning is not possible without Internet. For M. Brut, Internet is a global web of computers, directly or indirectly connected, enabling communication within learning partners or specialists, offering access to virtual libraries where electronic books or scientific article can be found (Brut M.,2006, p.86).

Internet made possible distance learning and created a high level of getting information at such a large scale and for such a big number of people hard to be imagined some tens of years ago. Internet is at work, at home and in schools, in the society creating a particular social dimension, with no barriers. This reality has to be specially treated, with positive and negative arguments when speaking of proper professional use or inadequate mastering of media elements.

It is obvious that a priority of the modern education system is connecting schools to Internet. It is a good way to communicate, to inform and to search and many schools have already designed their own sites which students and teachers use as efficient methods of distance learning. Two aspects are to be considered in the process of education and its participants:

- a) "Interaction student-computer help didactic strategy to develop, facilitating student's access to more information, better organized, well-structured and presented in many different ways. In fact, it is not the computer in its physical state, with media configurations, that gives immediate pedagogic effects, but the quality of the programs, of the information, their use to get to a degree of proficiency in learning. Schools and universities have to adapt the classical methods and procedures and "to create" new ones for future students with new skills: independence, flexibility, ability to cooperate and to dialogue. Schools have to find ways to stimulate and encourage self education and they have to keep balance between "individualism" and "socialization". The traditional teaching methods cannot face the great amount of information and the many qualifications, professions, abilities in as many domains, more and more specialized and more and more interconnected.
- b) The apparent dilution of the role of the teacher. The didactic experience of the teacher is included in the learning program and the presence of an educator is indispensable. When this method is applied, the teacher has a discreet presence but very important in deciding the moment, the way to use the method instead of the classical one. Therefore, the role of the teacher is not diminished but gets new notes and offers new possibilities for professional manifestation"(Asandului L., 2007, p.13).

Computer assisted learning asks for a reconsideration and a redesigning education, more research in the domain of cognitive psychology. The teacher is obliged to think in a

different way, to treat problems and personal concept in a new perspective, to correlate objectives and create methodological baggage so as to avoid intellectual routine activities.

The possibilities for distance learning are numerous: distribution of courses, lectures, exercises, tests, better contacts among students, teachers and schools, rapid information, research and academic marketing, promotion of different subject image etc. Internet services (www, ftp, e-mail, chat, news, net meeting) are of real help to distance education. Teachers' possibilities to get informed faster, students' rapid connections and contacts with teachers, friends, materials and all the necessary elements in learning are some advantages of Internet use in schools. Modern browsers apply programs distance teaching and evaluation and the "clients" have immediate access to learning platforms. The problem is how to install quality software and how to create the corresponding conditions and materials (textbooks, tests, applications) for teaching/learning on line.

The researcher S. Corlat admits some of the advantages of computer learning:

- logical thinking is stimulated (with analogical, algorithmic and heuristic notes);
- psychomotor functions are activated;
- students develop technical creativity and inventiveness;
- efficient cognitive style is introduced as a method of independent work;
- development of useful, practical abilities;
- presence of a climate of competitiveness and self perfection;
- objectiveness in evaluation and interactivity in information and collecting data;
- permanent feed back (Corlat S., 2011, p.54)

Using computers has a positive influence in modern education depending on some factors such as:

Age: Experiments demonstrated that working on the computer has better results with younger students than the older ones;

Level of education: Students with poor results progress faster than those with good marks;

Economic status: The students economically disadvantaged are more efficient though they are not very familiar with computers and computer work;

Intellect and development: Disabled students, either mental or physical, learn better with a computer than with traditional methods and some statistics say that their evolution in learning is better compared to normal students;

Sex category: After a number of surveys, the conclusion is that there is no significant difference between boys and girls learning on the computer.

To better understand the relation student-computer, the researchers interested in attitudes, emotions, feed back students manifest named other benefits of computer usage in learning: *high attention, resilience to tiredness, independent learning, increase capacity to self correction, fun, learning through games, individual learning, different rhythm of learning, acceptance of errors, immediate feed back, self control of learning, impartiality, no racial or ethnic problems, tolerance to frustration, fear.*

The common conditions of learning in a virtual space are characterized by:

- (1) Common virtual space (the room). Every normal school has a number of space units, classrooms, where the students use the same educational materials. A student can be

present in only one room at a certain moment but he can move freely from one room to another.

- (2) Perspective and tri-dimensional watch of the materials. The students in a room see the same objects and all of them notice a change of the object at the same time. They can move in the room to observe the materials from different angles.
- (3) Windows for identification. To permit mutual identification of the students working in the same room, “windows” appear on the screens to show everyone’s place in the room and the direction to react.
- (4) Conversation in real time. To communicate, students can use text dialogue or audio/video conferences and efficiently cooperate with the others (Cucos C.,2006, p.62)

For educative purposes some of the systems can be used in foreign languages study. But, when a strong interaction with the objects is necessary – physical experiments and creative work- what a student gets is not enough. A better management of the system is to be realized, the dynamics of objects is to be presented and understood by all the students. To do these, a to-do list could be:

- memorizing the actual state of the common space and managing the dynamic changes;
- choosing the most suitable model of objects as educational material;
- choosing the best interface to create/destroy objects and alter their properties;
- facilitating communication among the given objects.

In educational systems, it is important for the students to create new objects and change their characteristics. That’s why the system has to memorize the static nature of materials and to control the dynamic development. To accelerate the process of graphic drawing every student must have a copy of the graphic object. There are two possibilities for a student to get the current state of the common space: from the server or from another student. In the second case, if all the students are leaving the room, the current state is gone. To avoid this, another learner is added to the system – a pseudo-learner. The educational material is stocked and memorized in a data basis which the pseudo-learner uses to create a local copy. The moment the learners A and B enter the room they get a copy of what the pseudo learner produced and all copies are updated.

Computer learning hasn’t only advantages. Some studies noticed certain limits in implementing this model of education:

- human relations between students and teachers cannot be replaced by a computer, no matter how intelligent the learning systems are;
- to create materials implies great effort, the teacher who plans the lesson. In many countries specialist are taking care of the electronic material. In our country, there are companies to do this, but a financial problem appears;
- there is no official regulation to financially evaluate teacher’s work in creating electronic lessons or administrating a site. He is paid only for the time working with the students;
- a teacher is recognized as the author of a printed textbook but not for the creation of electronic educational materials.

According to the studies in the domain, there are educational software that implies the influence and the control of the teacher on students’ proficiency, guiding and instructing them to increase performance in various areas. Testing students on the computer, foreign languages study, developing technical abilities can be good examples of what to do. Many times,

there is a necessity for the teacher to create, adapt and control, with no help, the plans for the lessons assisted on the computer or particular software for the students in the school. Learning assisted on the computer, in A. Adăscăliței's opinion, could be *online* (working with Internet) and *offline* (working without an online connection to the Internet). Either online or offline this type of learning is useful in:

∨ individual acquisitions with the computer of educational elements, specific for a domain of activity (reading tutorials on foreign languages learning, explaining physical problems etc.)

∨ direct use of the computer in teaching and laboratory experiments;

∨ assisted practice on the computer of different programs or knowledge in a studied domain;

∨ assisted evaluation using programs that can measure and appreciate the performance of the students;

∨ practicing the methods of self evaluation, of acting and adapting the students to different situations that can be solved using simulation programs or decisional games (Adascalitei A.,2007, p.12-15) .

3. Conclusion

To conclude, it is a fact that a growing number of teachers use Internet as a method to apply the teaching plans to get to the aims of learning and to give their students the new curriculum asks. Nowadays, in the XXI-st century the learners are motivated more and more to share the new technologies largely used in the process of teaching-learning. The lessons look modern, they offer something new and they stimulate and motivate students to search for information, to understand it and to apply it in a modern educational system.

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