

## eLEARNING - THIS NEW EDUCATIONAL PARADIGM

Șendruțiu Roxana\*, Popovici Diana\*\*

\*University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., 410048 Oradea; Romania, e-mail: roxana.sendrutiu@gmail.com

\*\*University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., 410048 Oradea; Romania, e-mail: pdiana@uoradea.ro

### **Abstract.**

*Every day, the Internet becomes a greater and more useful portal to access education and culture. eLearning, an extension of the Internet, is now one of the primary means to improve learning at all levels. This new paradigm has taken education beyond the printed word into the virtual world: an absolute necessity in a society that grows more and more reliant on mass communication.*

**Key words:** culture, education, e-learning, project.

### **INTRODUCTION**

Recent technological developments in the area of information sharing and processing resulted in a major societal shift. Nowhere was this more apparent than the area of education where both educational theory and the way learning institutions exchange information have expanded dramatically due to the explosion of the Internet (Istrate O, 2002). Even the foundation of our culture is now arguably based more on the virtual world than that of the written word.

### **MATERIAL AND METHODS**

#### **The general social cultural context**

Analyzing the results of increased access to information technologies we can attest to the following:

- Cheap and unlimited access to information: we are witnessing the globalization of digitized information. Similar to a world wide on-line library, information is available free, to anyone, with no restrictions on borders, religion, culture, etc. All you need is a computer with access to the Internet. Access will grow as the telecommunications network continues to reach out and touch every part of the world. This phenomenon is unique in the history of mankind and its ultimate impact on society as a whole is still hard to quantify. What is apparent is that this increased access to near limitless information will help mankind to find information of the most current relevance at speeds unimaginable a short time ago.
- Favoring virtual information over the written word (Sartori G., 2005): there exists a time honored relationship between thinking and writing and between logic and mathematics. These form the foundation of our traditional educational system. With the advent of audio visual devices and the digitization of same, verbal, audio, and recently virtual tools have added significantly to this foundation. Instruction based on the combination of verbal, audio, and virtual quest is powerful and has proven to be (at times) the most effective way to teach a subject. So much so that educators now seem to favor audio/visual presentations over the black board and computer programs over

books. This paradigm shift will have two consequences: a positive one – the increased efficiency of virtual learning; and a negative one – the decrease of the human ability to use creative thinking.

- Expanding intellectual capacity: Increased access to virtual tools (i.e. electronic dictionaries/encyclopedias, language translators, grammatical analyzers, spreadsheets, databases, etc.) will no doubt expand both an individual's capacity to learn and the efficiency by which he/she retains information. Education is no longer the purview of the educator or the educational system. Anyone who can access the Internet can pick a subject and learn using multiple educational strategies. As doors to information continue to be flung open at an amazing pace, the speed of socio-economic progress will speed up exponentially.

### **Educational context**

Contemporary society is described by broad development, dynamism and competitiveness. Given the ever changing environment, the human resources of a society become the most valuable asset. The added value of these human resources is directly proportionate to the quality and quantity of education available. History has proven a direct correlation between the greatest societies of our time and a system of extensive and intensive learning. Many view Information and Communication Technology (ICT) as the next step in streamlining the educational process for a great society. Clearly, eLearning is an example of society intensely grasping for extensive amounts of information. New technologies also enhance education in the following areas:

- ❖ the expansion of intensive education: the free and unlimited access of students to tools offered by ICT, i.e. libraries, databases, encyclopedias, etc.
- ❖ the expansion of extensive education: there currently exist three segments that could benefit from electronic education:
  - distance learning for students
  - increased competency of active population (classes, training)
  - adult learning or continuous education

### **E-learning definition and features**

“An eLearning system (distance learning or virtual education) consists of a planned experience of teaching-learning and is organized by an institution that instantly supplies materials in a sequential and logical order in order to be used by students at their own pace without the constraints of time and synchronization. The media used can be diverse, from material on disks or CDs (correspondence) to communication technologies that send the material using the Internet (Istrate, O., 2000).”

Also, it has been said that “an eLearning system is the knowledge acquisition and/or the knowledge increase through communication technologies, respectively through computer and Internet usage. The achievement of the educational goals is made using the electronic media (CD, DVD) or classes on-line (through the Internet) (Susmanschi-Alexandru).”

Thus, the specific benefit of the eLearning system is defined as one that requires a new dynamic of the teaching and studying process; in doing so, the system is able to supply the contents of the studied material and is able to facilitate the access to studying using a multimedia environment specially designed and characterized by:

- the increase of the capacity to adapt to the demands/requirements and possibilities of those who study, taking in consideration their fast pace lifestyle;

- the increase of the system flexibility, where the person involved brings his/her own motivation and contributions; it is a system that supports the desire of learning and improving knowledge;
- the use of different ways of expression, like virtual and/or audio, in addition to direct communication;
- the lack of mandatory simultaneous presence and synchronization.

That is why when designing application that target learning and educational performance, it is essential that software developing companies consider all aspects presented in the following table:

**Table 1**

Elements considered in the design of an e-learning program

Elementes	Observations/ Exemples
<b>Target group</b>	students, educators, people who seek employment, employees
<b>Learning content</b>	information, skills, capacity, attitudes; knowledge in a variety of areas
<b>Teaching strategies</b>	cooperational learning, inductive strategies, discovery learning, project – based learning
<b>ICT tooles used</b>	e-mail, website, videoconferencing, chat, educational software
<b>Resources</b>	budget, time, staff assigned
<b>Program objectives</b>	advanced studies, specialized studies, communication of new information, better understanding of new information, development of skills and competence specific to certain areas, etc.

*Source: Susmanschi-Alexandru*

## RESULTS AND DISCUSSION

Considering the realities of our current society, the RE2U Project is an initiative that takes full advantage of ICT and utilizes it to enhance all levels of education.

**RE2U Project – The Romanian-European eUniversity** targets the graduate education level. The project was launched in 2002 and was financed through the SOCRATES program, Minerva, DG Education and Culture initiation (contract no. 100693-CP-1-2002-1-RO-MINERVA-M), for a period of two years (Borcos A., 2007)

The consortium project was composed of the following institutions:

- Polytechnic University of Bucharest (Romania), coordinator
- Friedrich-Alexander University, Erlangen-Nürnberg, FIM-NewLearning (German)
- Universitat Oberta de Catalunya (Spain)
- Lambrakis Research Foundation (Greece)
- Abo Akademi (Finland)
- Center for Health Policies and Services (Romania)
- IBM Romania (Romania)
- RARTEL SA (Romania)
- ROLNET - Romanian Learning Network (Romania)
- West University of Timisoara, IREA (Romania)
- University of Oradea (Romania)
- Transilvania University of Braşov (Romania)

The suggested aim of the project: universities are content providers, academic expertise and infrastructure for RE2U, while RE2U are the provider expertise, training and know-how specialized in the eLearning area for universities. The interface between education providers and beneficiaries is intended as a network of training centers nationally distributed, that may be established in universities, schools, libraries, institutions of local communities etc. The educational supply catalog is meant to be the result of a public selection process, evaluation and validation, to ensure integration of better resources for each area.

The most important results of the project were:

- definition and development of functional model RE2U;
- design and implementation of hardware and software infrastructure;
- design and implementation of the training of human resources involved in operation of RE2U;
- development and implementation of a quality assurance system for services provided;
- development of pilot activities.

## CONCLUSIONS

### **The socio-cultural impact and importance of eLearning**

Technological breakthroughs, new educational theories and the sharing of learning strategies with other institutions are developments that characterize this new educational paradigm. Others include:

- the fluidity of roles
- the curriculum customization to meet the particular need of a student
- the distribution of resources
- virtual facilities
- asynchronous classes

Therefore, it is a matter of responsibility and vision to take education in the right direction in order to benefit from the new technological opportunities that present themselves.

## REFERENCES

1. Borcoş, A., 2007, RE2U - Romanian-European eUniversity, Elearning.Romania, Bucureşti, TEHNE-Centrul pentru Dezvoltare şi Inovare în Educaţie, <http://www.elearning.ro>.
2. Brut, M, Instrumente pentru E-learning. Ghidul informatic al profesorului modern, Editura Polirom, Iaşi, 2005
3. Făt, S., Fundamentări teoretice în E-learning, Elearning.România, Bucureşti, 2007;
4. Istrate O., 2000, Educatia la distanta. Proiectarea materialelor, Editura Agata, Botosani, p. 25.
5. Istrate O., 2002, e-Learning – cadrul conceptual, TEHNE - Centrul pentru Inovare în Educație, [www.tehne.ro](http://www.tehne.ro).
6. Sartori G., 2005, Homo Videns, Editura Humanitas, Bucuresti
7. Stroe, A. D., Standarde şi sisteme de elearning, Editura Edusoft, Bacău, 2005
8. Susmanschi-Alexandru G, E-learning în societatea cunoaşterii, [www.elearning.ro](http://www.elearning.ro).
9. <http://www.elearning.ro/>
10. <http://www.leducat.ro/elearning/index.html>