E-learning – THE WAY OF THE FUTURE

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ABSTRACT:

“We are evolving more and more towards a universe where the television describes-prescribes the social world while the cultural world is ruled by information and communication technologies. The internet is turning into the referee of the access to existence for culture. These complex systems of communication set in motion enormous sums, sophisticated technical equipment, tremendous human resources and benefits billions of people offering them a vital position in the political, economic and social realms of any society.”[1]

The socio-economic development has undergone a series of stages representing as many technological revolutions, culminating at the threshold of the third millennium with the informational society, based on knowledge, whose physiognomy tends to become mainly digital. The evolution of the economy is driven by education. One argument is the paradigm according to which the increase in the individual knowledge leads to the development and the coming of age of his/her complementary systems: family, community, region, society. All these are possible in the informational era by means of continuous education, distance learning, on-line learning or e-learning.

The concern for education is the greatest challenge for most governments in their effort to promote democratic ideals of freedom, peace, responsibility and social justice, in their attempt to generate greater prosperity and competition on a free global market.

It is clear that the education system has experienced numerous and profound transformations governed by the idea of renewal, successive rapid changes which have affected all the structural, functional and contextual components defining modern education. The limited room available in institutions and the various drawbacks encountered by some students, corroborated with the necessity of learning throughout one’s entire life, lead to considering open learning and distance learning as a viable alternative. This falls into the newly defined paradigm of role fluidity, centred on the student, distributed resources, virtual facilities and asynchronous lessons.

The traditional axioms of school functioning is thus ground shaken and the metaphor of the all-knowing teacher and the spoon-fed student remains just a memory. Therefore, updating the teaching/learning procedures ah become of the major objectives of the educational reform everywhere. Consequently, it is justifiable this growing demand for acquiring better more efficient working tools meant to substantially contributing to a better quality in the teaching and learning efforts. The new communication formats modify the traditional pattern of the didactic communication (teacher-student) and computer-based learning is a work method integrated in the above mentioned system teacher-student.

E-learning is a new concept which can be understood as an innovative, interactive approach centred on the learner and turns the informational realm into an excellent ally. The new informational and communicational technologies change the outlook on the educational practice, and implementing is considered one of the most important issues at the beginning of this century, raised to the level of national policy.
The first suggestion pursuant to the analysis of the accumulated experience points to the necessity of giving priority to researching all problems related to introducing the computer in education and of the emphasis falling on forming and recycling the teachers. In "Declarația" (Statement) at Stanford [2], the essential element of the relationship between education and new informational technologies is the fact that citizens must be formed to live in an informational society.

The extensions brought by the technological environment, insufficiently explored and used, refer to centring on the student by personalizing the forming stages (differently elaborating the educational objectives depending on the requirements of each beneficiary), by individualizing the formation (the non-linear structure of information, with the possibility of returning to more difficult content when lacks are automatically identified), autonomy (eluding a set rhythm), special independence and asynchronous seminars.

They also refer to the distributed resources, by using/integrating/accessing electronic libraries and multi-media materials, by engaging specialists in student talks and smoothing the roles via a continuous balance of the teacher-student role in the learning group ("symmetric knowledge advancement" – Scardamalia, 1995), by on-going restructuring of the learning teams depending on the interests or efficiency criteria. Starting from the e-learning definition – as the totality of educational situations where informational and communicational technology means are significantly used – we can talk about the characteristics of electronic learning.

E-learning is a generic term which does not have a universally accepted definition but which is broadly accepted as covering an extensive array of applications and processes supported by the information technology and are used in the educational practice. This term identifies both aspects related to the form and content of the didactic process and the methods and organization of transmitting knowledge.

At the concrete level of the transformations produced by the new technologies of information and communication, multiple and interesting transformations take place, as follows.

*Mutations in the social realm* are determined by the complexity of the phenomena in the modern society which demand ever more extensive knowledge, by the speed information travels in bulk and by the capacity of the receptor to interpret it in due time and by the current demand for information which needs to be analyzed and semi-processed. Because of the new communication media, the relevant realm is extended to the “global status” level. In between us and the world, a mediator emerges, an institution which collects information, selects it, breaks it into accessible forms and distributes it facilitating, by its very mediating effort, our access to reality. Each technology of transmitting information has its own way of structuring our perception and understanding of the surrounding world [3].

The informational flow is rapid, builds up considerably in volume and diversifies its sources. Individuals comprehend easier messages, transform them into cultural concepts about the world, and create new interdependencies and solidarities. The step to the real “global communities” is done by the digital media integrated in the world web. The information becomes ubiquitous and gains new characteristics. The knowledge sent is structured on efficiency criteria (Lyotard); the truth is no longer taken as explicit criterion and reason for producing and storing information, as in the case of the Gutenberg product. Presenting and covering content is done linearly and the causality simple, which makes way for a multi-structural organization of knowledge with profound implications on the psyche.

*The implications for education* relate to the fact that its issues are changing deeply, the alternative to the strategies of an insufficient and costly knowledge being the identification of approaches that enable learners to have unlimited access to culture. From another point of view, one can say that countless ways of representing information, of simulating interactions, and expressing ideas are being developed, thereby extending the implications of intelligence, and
altering the requirements of the participation to culture. Therefore, educators will find it more and more difficult to favor the use of the verbal language at the expense of other ways of expression.

Nowadays, people are converting various current abilities, e.g. computing, writing correctly, memorizing, visualizing, comparing, selecting, etc. into digital tools with which they operate, thus acquiring excellent command of skills that used to be the result of education. In conclusion, one can say that the digital technologies foster one’s own potentialities. Education, as an essential activity in the development of a society, cannot remain outside the reach of the technological phenomena: it will undergo essential changes, resulting in the new methods, patterns, and paradigms of modern education.

Access to the internet removes geographical and time barriers, enabling collaboration of users far away from each other, speeding up the pace of getting and sharing ideas and results. The new educational technologies yield different results and propagate through the internet in order to be used in teaching. Most of the well-known universities have made it compulsory to introduce courses on the web, i.e. the topics, contents, and bibliography, providing on-line all of the course materials within their own intranet. Specialized program products have been drawn up and are being developed to help achieve electronic interactive courses.

In this context, the Romanian market exhibits a remarkable openness. Apart from the large number of universities and organizations adopting such a solution, the internet infrastructure is promising a spectacular development, and beyond the technological support, the key factor is the psychological aspect involved, i.e. by applying a clear and professional approach, the implemented projects will be widely welcomed by users.

The new requirements of becoming a professional consist in the fact that the information and communication technology, in particular the computer, will become tools of universal use, leading to the development of a new way of thinking and behaving, which will enable us to cope with these new challenges. Each educator will have to acquire basic training in the field, which involves a series of objectives, such as:

• Acquiring the common principles governing the implementation of information, knowledge of its nature, information structure and properties;
• Developing a general view of the scope and impact of implementing computer science and its social and economic effects on the individual and the community;
• Developing the skill of identifying the situations in which the use of computer science is advisable and designing adequate solutions, with particularization in drawing up curricular strategies;
• Developing the skill of implementing the new technologies in such activities as storing and searching for information, processing it for communication, supervising and controlling it;
• Knowing the current means of communication with a computer;
• Establishing co-operation relations with teams working in the field but in other countries;
• Retrieving the latest information from world wide information networks.

The implementation of the latest information technology in the educational systems entails a change of focus as regards setting target priorities and allocating resources. We can say that new priorities are being considered, such as the one of learning how to learn and using this competence one’s entire life, the one of learning to experiment, correct and solve problems, the one of learning to cope with an enormous and diversified amount of information and to display discernment in selecting it, the one of learning to live in an environment of change and to cooperate with others in carrying out research tasks.

Distance learning has as its main characteristics the available resources and means of contact between tutor and student or among students. These characteristics require that both educators, i.e. tutors and course authors, and students have specific communication competences in writing and in using the means for transmitting the information used in the program. The requirements for efficient communication, which enable users to understand a written message
without difficulty, focus on the following aspects that will be taken into account in acquiring
and/or using the communicative competence [4]:

- Noticing the different levels of abstract use of the various types of language varieties;
- Understanding the relationships between the lexical and syntagmatic values of words;
- Knowing and acknowledging the value of punctuation marks, and of the other graphic means;
- Knowing and acknowledging the contextual meaning correctly;
- Distinguishing the essential information from the non-essential one, in a written text;
- Acquiring the work methods used in written information, i.e. dictionaries, books, graphs, cards, etc.;
- Having a good command of the proper way of asking questions, starting from a piece of information;
- Being able to summarize and draw a conclusion;
- Integrating in one’s own experience the knowledge acquired from written information.

The efficiency of the instructor is closely connected with his/her ability to use all the
possible forms of interaction in the context of distance learning, together with a good command of
the technological means involved.

He/she should change the way of approaching courses, adopting a deeper approach. With
this type of educational process, students and teachers should cope with numerous challenges,
such as: acknowledging each other’s strengths and weaknesses; gaining, keeping, and even
increasing one’s self-confidence; learning to communicate with colleagues that cannot be met face
to face; making clear what has and what has not been learnt.

In the e-learning system there ought to be created a well-suited educational framework,
which should involve both instructors and students. Three subsystems have been identified: the
individual who studies (student), teacher (instructor) and the communication method.

The relationship student-instructor is accomplished through new information and
communication technologies – especially through the Internet. Internet fulfils two roles: it
represents both the appropriate environment for supply of information as well as the channel of
communication among the involved actors. Nevertheless it seems to be an unexpected opportunity
for poor and small nations and for the research and discovery situated outside the main academic
centres. The internship permits the rapid building and breaking of some research teams,
irrespective of the place where partners act.

Let us analyse the involved actors in this type of instruction. The first, and the most
important ones, are the educated people – taken as individuals – who can benefit from the virtual
educational resources kept at distance, by signing up to diverse means of instruction.

Learning groups, made up by taking into account the various motivations, represent the
second actor involved in the e-learning process (I refer to thematic groups, projects that are
achieved by the group, open or closed groups). E-learning allows the students to access on-line the
information without being present in a study room and, on the other hand, it permits students
accessing the information by using existing modern instruments in a study room. Of course, by
working at distance students should be more selective and more focused on the learning process in
order to master the new information.

Instructors – the teachers or the resources suppliers as well as other different groups of
individuals situated beyond the school’s perimeter (study engineers, experts, tutors, study mates),
represent other categories that evolve in this framework of virtual education. From the point of
view of the contents, their essential elements will be introduced in the virtual system at different
levels: lessons, study units or chains of linked lessons and adjacent, complementary and optional
contents are used so that the educated people will be able to access them. Pedagogical materials
will be guided mostly towards single cases, individual study biographies, referential texts or
projects, and regarding the instruction courses one could say that they will be individualised or
created by having in mind a target audience.
New instruments of formative evaluation have been imposed, they ensure and stimulate learning. Here we can mention exercises, tests, questionnaires, reflective activities or even topic-based questions. Of course, virtual examinations, essays and portfolios have been imposed too, as well as the online information evaluation.

Functional only at the high education level and in adult education, the teaching system through the Internet replies and adapts the traditional educational components/face to face: planning, specific content and methodology, interaction, support and evaluation. By comparing the two systems, some advantages of the distance education through the Internet can be underlined, considering it applicable to, at least for now, high education and in permanent education, following the open universities and at distance pattern with complete technological development.

The learning at one’s own rhythm is facilitated in this system, in one’s own style, thus the covering or the courses’ audition can be made step by step and repeatedly. At the same time, the course resources can be effortlessly accessed to. Computers have in their composition various software programs that can be run easily; thus the student is in charge of the information’s contents. The technologies are interactive, allowing the student to get complete feedback in real time, and also formative or concise evaluations, quantitative or qualitative ones given smoothly by the most suitable evaluators. The displayed information is modular and permits the students to learn progressively, one the one hand, and the large stocking capacity permits users to access to more products, on the other; thus being able to see introduction slides for a series of courses from which they can choose at least one.

The curriculum’s aim will be more comprising than the present one; it will offer manifold possibilities of acquiring the highest level in all cultural fields. The access to local, regional and national networks link the students coming from different social, cultural and economic background each of them having accumulated diverse experiences; these are students that cannot take part in courses in the traditional system. What is to be underlined here is the possibility of building a pedagogical group (team teaching) in order to transmit the knowledge in one specific field and to get instructors involved, instructors that normally are not available because of various reasons.

The high costs of the system’s development, the difficulty in supporting its implementation by paying consistent and unceasing effort on the students’, instructors’, the administrative personnel’s and agents’ part, the last ones are the those who offer technical support, and the necessity of having computing skills are only some of the limits of this educational system.

The e-learning education has become the common vision of more and more analysts and professionals of the educational domain, a relevant way of increasing one’s knowledge. We witness a phenomenon of dissemination of the education worldwide (especially the high education) by putting into practice as many values as we can from the point of view of structure, process and action. Universities have become "pioneers" of globalization by adjusting some convergences concerning knowledge, by enlarging an organizational structure inspired by the business setting, by absorbing in the educational system the information and communication technologies and by increasing the degree of changeableness and the connections among the actors involved in training and teaching. The main problem of the system remains change. The control over this change process, its guidance, the assurance that the new concept embracing is a clean process is the factor that provides the success of this change process. On-line education does not represent only technology; this is merely the instrument that facilitates the objectives’ attainability, a simpler means of communication, more efficient having in mind the durable development of the organization.
BIBLIOGRAPHY