

# VIRTUAL EDUCATION

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## ABSTRACT

The internet economy is strongly connected with its developing modalities. A society desiring to be developed must be initially educated, in order to understand the benefits of the new modality of social integration. The practical finality of the “e” phenomenon in the educational field is the application of an eLearning system.

In order to have a society being able to adapt itself to the forms that have been developed by introducing the new technologies, and especially the Internet, you must educate it. The costs are quite high at the beginning, but the effort worth it. It is well known that any learning process must have a practical finality. Virtual education is a concept which requires being debated for a long time, before being taken over or transformed according to your own principles or possibilities. Distance education is not a new phenomenon in the educational field, representing a modality of teaching and learning known and practiced for at least one hundred years. Distance education comprises several types of education: by correspondence, radio, television, and internet. The internet economy is strongly connected with its developing modalities. A society desiring to be developed must be initially educated, in order to understand the benefits of the new modality of social integration. The practical finality of the “e-” phenomenon in the educational field is the application of an eLearning system.

That is particularly why the Internet also developed its own form of organized education: e-Learning. E-learning as an educational model requires students to engage with information presented via a computer at a location convenient to them. In comparison with traditional ways of learning, little social interaction is possible and learning becomes a solitary experience. This is at odds with the type of working life met with in the construction industry. The new economy

concentrates wealth creation on finance, knowledge and social capital. The type of working environment experienced is changing into one where interaction with others, in the form of collaborative projects, is one of the most important aspects. Production is invariably pooled, often across continents, using a varied team of people and there is less emphasis on the individual. The social intelligence needed for this type of activity arises as a natural consequence of an interactive contact teaching model, used together with modern technology, but it is more difficult to enable students to gain these skills when e-learning is used as the major delivery method. The specific particularities of e-learning technologies bring new dimensions in education, which can be complementary or alternative compared to the traditional methods in the field of education. These particularities offer the possibility to organize online education according to subjects or themes, while the traditional education is organized according to age groups/classes. E-learning is included within a new paradigm at the educational level, characterized by: fluidity of roles, curriculum orientated towards the needs of the person learning the distributed resources, virtual facilities and asynchronous lessons.

In this context, the applications of IT in the educational system represent a dynamic, fully extended field, a main point of interest both for schools and the commercial societies that are active on the education market. Although, up to a certain acceptable extend, the hardware and communication infrastructure exists, as far as high-schools are concerned, the usage of the new IT is under expectancy, people’s implication to a more superior level being necessary.

The process of teaching – learning – examination acquires new dimensions and characteristics by using the e-learning technologies. The educational system in our country is directly and

decisively involved in the substantiation and construction of the informational society. In limited sense, e-learning represents a type of distance education, as a planned teaching – learning experience organized by an institution which provides by mediation materials in a sequential and logical order to be assimilated by students in their own way. The mediation is performed by means of new information and communication technologies – especially via Internet. The Internet represents both the medium of distribution of the materials, and also the communication channel between the involved actors. Functionally, for the time being, only at the level of higher education and in adults' education, the training system via Internet adapts the components of the traditional didactic method / face – to – face: planning, specific content and methods, interaction, support and evaluation. E-Learning type portals are real data storages that allow the interconnection of various types of activities in order to obtain automation and render efficiency to the decisional process. Distributed learning allows the performance of an educational process of the highest quality, substantiated by a modern education and having a great perspective, personalized depending on the individual needs that are becoming more and more exigent and complex.

Another important modification that the Internet produced is the making of a new ecosystem, in which the learning process is more and more accomplished in real time, the working spaces becoming less and less important. Thus the learning process must align to the advanced technologies, to the purposes of the organizations and institutions and to the concept of sustained development. The advantages of education via Internet are multiple: the necessity of storage spaces, the numerous personnel is eliminated, the dispatches costs are considerably reduced, there is a flexible system for each student in the sense that the student has the possibility to choose the parts to be printed and those to remain in electronic format, the dispatch in time of the material to the student – the student can access as many times as he wants, whenever and wherever the material is required, integration of some variety of learning media: text, graphics, static and animated image, sound, short films, access to materials from other hundred thousands sources, some of them by means of direct links from the

origin site, integration of the connections with the tutors and with other students, by means of the web site. Thus, defined more as e-education, the semantic area of the e-learning concept interferes with and is superposed variably indefinitely upon a multitude of terms rendering the variety of the didactic experiences that can benefitate of technological support: computer – assisted / mediated training or digital / mobile / online learning / education (digital / mobile / online education / assignment), multimedia training etc. Under the name of didactic / educational software, a large scale of electronic materials (on digital / multimedia support) are developed in order to simplify the process of education: maps, dictionaries, encyclopedias, didactic films, presentations in various formats, books (e-books), tests, tutorials, simulations, software that forms abilities, software of practicing, didactic games, etc. The computer and the electronic / multimedia materials are used as teaching, learning, evaluation support or as communication mean (in order to accomplish certain individual tasks etc.). By comparison with the traditional education, few advantages of distance education via Internet may be pointed out: first, all the resources representing the object of the course may be accessible all the time and much more easier, the purpose of the curriculum will be more comprehensive than the current one, the curriculum offering multiple modalities for acquisitions of the highest level in all the fields of the culture, the audience is significantly increased, the distance education being able to include also students which can not attend the courses of the traditional system, the access to the local, regional and national networks connects the students from different social, cultural, economic environments and with various experiences, the learning in a personal rhythm, in a personal style is facilitated, it is possible to read or attend the courses gradually and repeatedly, the computers incorporate various soft packages that are extremely flexible, the student having maximum control of the content information, the synchronous and asynchronous interactions between the teacher and the students can be complementary. An important corollary here would be the possibility of forming a team teaching in order to transmit the knowledge to a certain domain and to involve in activities some trainers who are not currently available from different reasons. Among the difficulties faced

upon implementation, which can be considered also limits of the virtual education system, please note:

- High costs of system development, including expenses with: technology (hard and soft), sending the information in the network, equipment maintenance, production of the necessary materials.
- Difficulty to sustain a consistent and permanent effort of the students, teachers, mediators providing technical support and of the administrative personnel to the system implementation.
- The need of the experience of the students in the field of computers. Maintenance of the student's own computer will be probably one of the current responsibilities.
- The students must be extremely motivated for participation. School abandonment phenomenon is much more frequent in distance education than within the traditional education, the established inter-relations being relatively impersonal, making the option much easier for the student.
- The relative "dehumanization" of the courses up to the development of some optimum strategies of interaction and the focus especially on the student and not on the system.

But the experience of the systems that are already functional assures us of the fact that the participants to the education by means of the new technologies will familiarize themselves shortly with the virtual environment and enter relatively soon the natural rhythm of transmission and, respectively, of knowledge acquisition. During the previous presentation we noticed that the distance instruction medium has as main particularities the available resources and contact modalities between tutor and student or between students. These particularities require that both the trainers (tutors and course authors) and the students develop specific competences, namely: of communication in writing and of possessing the transmission means of the information used in the program. Graphic, textual expression is a complex phenomenon, less approached. As emission and interception process, the textual communication is subject to the same succession of preparing, elaboration, adaptation – and then interpretation - techniques of the "materials" forming the message body. But, each separate

technique is more or less different, to the extent in which the graphic (respectively visual) appearance of the oral (respectively acoustic) phenomena message in communicating the same message are different. In support of the idea that the emission process is more complex than a simple articulation and the interception is more than the simple perception of certain stimuli, researchers in the psycho-linguistic field emphasize that the message is materially constructed, so that it also carries the signification, therefore the receiver also receives the productive germs of the sense. The expression initially supposes, in the pre-locutor phase, of its organization, the analysis of an ensemble – psychical content that will be found an adequate form of expression. This global, syncretic fact will have to be decomposed, analyzed and then ordered organized in its sequential expression, by resorting to the language tools (that help to operate cuttings rather standardized, intelligible from the social point of view). Then the synthesis must be performed by choosing the necessary components and their organized grouping within a whole that will form the message. The expression, the exterior, sequential enunciation requires the choosing of the most adequate signs material in order to translate fully and intelligibly the transmitted content. The visual communication can combine the verbal stimuli with non-verbal expression modalities – iconic signs or representation index means, and at this level of analysis intervene the issues connected to the adequate decoding of the communicated content, especially when the iconicity degree, the quantity of "realism" of the representation decreases. This is why the interception represents an attempt to recreate the signification intended by the emitter, process that, in the didactic activity of transmission-acquisition of knowledge, must be provided and attentively conducted by the authors of courses and textbooks. The trainer's efficiency is strongly connected with the capacity of using all the possible interaction forms in the context of distance learning and, correlatively, with the possession of the particular technological means involved.

According to the standards generally accepted by the international scientific community from the virtual education field, **virtual education** is represented by the interaction between the

teaching/learning process and the informational technologies. At the world level substantial investments are made in the training programs of the teachers in the field. The internet has already become a subject of study in many educational institutions (because of very complex technologies which involves it), but also the bibliographic and imagistic source for the presentation of the lessons or making the homework. In the commercial field an entire strategy of public education is developed in order to attract the clients by a promotion as attractive as possible of the offered services and products. Thus, there are available on the Internet guides and other types of electronic publications, promotional materials, sections of answers to the questions frequently asked by the clients, lists of discussions of subjects. There are mass-media commercial corporations providing on the Internet free training courses in various fields. Also, culture institutions are placing free courses on different sites specialized in popularizing the modern methods of education. It is obvious that the traditional education will never lose the prerogative of direct dialogue between teacher and students, creating therefore an optimum environment for modeling the personality, maintaining the competition spirit at higher levels, but also the mutual psychological support. The internet provides, however, new opportunities of training, to which there is no need to grant exclusivity. The traditional academic institutions acquired or designed their own e-learning system, accessible not only to the students enrolled within the sections of distance learning but also to the students enrolled within full-time courses. The internet becomes, in this way, more and more striking, an auxiliary of the educative process of any field. Both managers and employees must understand that the use of hypermedia technologies is a striking characteristic of all e-learning systems. The intuitive impression and the plus of attractiveness conferred by web sites are irreplaceable. Lately, there is an accent placed more and more on the selection of open-source multimedia technologies (free source) because of the very wide public to whom the educational materials are destined. The accessibility is a major request of everything that is published on the Web, and the use of any proprietary technology limits from the start the number of beneficiaries. This is one of the major reasons for which the multimedia specialists

developed languages of opened multimedia technologies. XHTML and SMIL languages are two of these technologies useful in developing the e-learning sites. XHTML and SMIL languages are adopted by many educational sites first of all for its accessibility. XHTML needs the popular navigator Internet Explorer, and SMIL – as standard recommended by the Web Consortium – enjoys the attention of many implementers offering free players as for example RealPlayer. The collectives of some research centers adopted SMIL language in order to carry out the research reports under the form of multimedia presentations available on the Web. Among the facilities provided by the two languages in order to create some attractive materials in the educative field – and not only – please note: making of slide-shows; conceiving computer- assisted courses integrating voice, images, animation or other multimedia content; the presentation on an electronic trade Web site, together with the name of the products offered for sale, of their photos or video-clips, dynamically appearing on the screen simultaneously with an appropriate voice presentation; temporization of the presentations so that the slides be sequentially presented at specific periods of time, changing different properties when they become focused; the placement on the screen of some control elements by means of which musical or video pieces are able to be launched or stopped; development of the TV on demand or TV Web; creation of conceptual art or info-entertainment.

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