

# VIRTUALIZATION IN EDUCATION

Mariana- Viorela,  
Grigore-Filip (Șerban)<sup>1</sup>

## **Abstract**

*A new perspective of what is real emerges and competes with our expectations – we are talking about a virtual, possible reality. The virtual reality is a project that is preparing the development of an ideal reality like world peace; virtual means something that leans towards aspiration. In this article we are going to present the main features of the tendencies of virtual education. The ways in which virtual education manifests itself and the elements that make up the process of virtualization are exposed. In the end we observe the areas targeted by the phenomenon of virtualization in education.*

**Key words:** reality, virtualization; education; teaching

**JEL Classification:** I21, O320

## **1. Introduction**

A new perspective more and more asserts itself and competes with the one we know: it is a virtual, possible one. Things, actions, individuals as such have both a real presence and an imaginary, unreal one. Each virtual object announces a real one. Today's virtuality becomes the real of tomorrow. The word "virtual" originates in Latin "virtus", meaning "power", "force". In the philosophy of the Middle Ages, the virtual was about something that was possible, not as an act. Virtual does not oppose real or achievable, but actual, "identifying" now.

Virtualization, as a process, means an inverse movement to the upgrading, moving of a thing or activity in the realm of possible, of subsequent evolutions and whims, of spatial and temporal indeterminacy. It has nothing negative in itself, but it is about the power of man to design himself, to go beyond the constraints of the moment, the date, the present. Its effects have a great impact on reality as such.

## **2. Virtualization of training - meanings and evolutions**

A virtual reality is that reality that has all the essential conditions to become (or to be taken) reality. It is, however, less than reality as such. The essential property of the virtual world is the autonomy, that is, the capacity of this artificial reality to exist by itself, without any concrete rooting, but which fills the reality by discovering it, inventing it, realizing it. The virtual world is detached from the subject that generated it, being self-contained and influencing the realities it refers to.

Several meanings of virtual reality can be generated with underlying hypostases. In a first sense, virtual reality is a simulation of the world obtained by manipulating patterns, structures, and specific links. The newest simulation tool seems to be the ordinator, itself a simulator of the functionality and performance (maximized) of the human brain. Second, virtual reality has as its specificity not the mere reproduction of real patterns, but the opening of an array of potentials by overcoming the properties of real things.

For others, virtual realities consist of producing, by sophisticated instruments, a quasi-reality, as a result of a human-machine merger, by translating into human instruments some tools to reactivate or maximize some natural functions (the appeal to glasses, telescopes, prostheses, cardiac pacemakers, for example), but also the translation of human properties (to speak, to react through anthropoid behavior).

Another sense is given by the quality of this virtual reality of being pliable. Virtual reality is a project that prepares the emergence of a hopeful achievement (united Europe, world peace, etc.). Virtuality, as term, comes from *virtue*, and has the meaning of something that projects to the long-awaited desire.

---

<sup>1</sup> Doctoral student, Valahia University of Târgoviște, e-mail: viorelaserban25@gmail.com

### **3. Aspects of virtualization education**

Education, as a process, has staked and always involved potential. The ultimate goal of the training was not the current individual, but the virtual one, as he was prefigured at one point. Not the present state of interest (although what the individual is at one time must be known - this being a prerequisite for the success of education), but rather what man was supposed to become in the future.

Also, education has been tempted not only to update (behaviors, attitudes, values), but to potentiate future states, to put the person on a road, to direct it towards certain targets. Considering that institutionalized education is limited in time, it usually lasts for two decades, it will only open appetites, trails, behaviors, etc., and they are finalizing in a still indefinite yet, even unlikely perspective.

We conclude by saying that education, by definition, is obviously potentiating and "virtualizing". It pushes the current into the virtual, which (it is hoped!) is only sequential and progressive to be achieved. But today we are witnessing a shift in the virtualization of education, to the emergence of another "face" of it. We have to deal with an express enrollment of the training or its stages on an explicit virtual level.

Multiplying open and distance learning lines, including cyber-culture as a new reference in learning, attracting Internet as a source and teaching tool, real-time multiplication of links between computer-mediated education, cyber-space reporting as a privileged environment, information of education in general are conclusive examples of the evolution.

It does not mean that everything in the field of education moves from the actual to the virtual; without a necessary and accurate update (of knowledge, skills, values), it cannot be considered virtualization. Something cannot come out of nothing. The virtual is naturally added to the behaviors that have been achieved through classical educational programs.

What is fundamentally changing in the new aspects of education is the relationship to knowledge. It is no longer a given entity, definitive, static, fixed, secure, unique, but it becomes a permeable, open, fugitive, puzzling, plural reality. Hence, the change in its perception and understanding emerges. The relationship with cyber-culture becomes interactive, summative, and complete.

The information consumer becomes the generator, the guarantor and the manager of the information. Cyber-space creates a bridge for geographically diverse localized groups. Communication becomes an interaction of a process of mutual recognition of individuals and groups. Web pages form a huge network with multiple bifurcations and intersections that come with self-organizing, self-structuring content, with numerous "gaps" where new elements can be added at any time.

Each entity derives from somewhere and leads to something; it is an informative element but also an information tool, a part of the stock but also a storage artifact. On a webpage everything seems to be on the same plane but differentiated at the same time. There is no absolute hierarchy, but each site is a selection, fixation, and hierarchical partial and temporary hierarchy.

Far from being an amorphous mass, the Web articulates a multitude of open points of view, but this organization can satisfy appetites but also private, personalized interventions. As a field specialist Pierre Lévy observes, cyber-culture maintains the universality of dissolving the totality by building an interaction-based unit by achieving an effective connectivity between the information values coming from different directions. This new type of "universal" does not result as a total on the line of meaning but on contact, collaboration, and general interaction. Interpretations remain distinct, distinct, and disjunctive.

In a Commonwealth of Learning report, coordinated by Glen M. Farrel, the main trends of virtual education are summarized, succinctly expressed through the following features:

1. Extend of the opportunities for virtual education. More and more educational instances, referring to initial, basic or continuous training, form complementary, adjuvant or stand-alone structures that are part of the virtual sphere.

2. Conversion of information and communication networks and technologies into educational courts. From the outset, these devices have explicitly designed, designed and managed functionalities to maximize formative dimensions. A specialized industry of devices, programs, and digital structures has emerged.

3. Inventing and promoting new pedagogical objects that support or are delivered through virtual education networks. These objects have a high degree of transferability, becoming functional in different cultural circumstances and converting multiple curricular contents.

4. Forming a new pedagogical culture of support and counseling is formed in virtual or on-line networks. The procedural and methodological fan of psycho-pedagogical nature is resized in accordance with the new realities.

5. Develop, test and implement new organizational and learning management models under the impact of new technologies. Organizational structures are refurbished or replaced by new instances or institutions in the knowledge management virtually delivered.

6. Ensure quality control by issuing clear formulas for accreditation, tracking and validating virtual training paths. Quality is a dimension that cannot be neglected. Normative, deontological, didactic norms come to axiologically orientate the new formulas of education.

Through the computer and virtual networks, everyone can basically connect with other people, with other ways of thinking and targeting things. The established network and the principle of the permanent opening of the information flow constitute the pledge of universalizing of the system, without the danger of totalitarianism of meaning.

Every newcomer, with his / her contribution of ideas, increases the heterogeneity, saving the system from the risk of idealized closure. The information system is additive, cumulative, multidirectional, auto corrective, and dilatant. Each additional connection adds the new, opens up other interpretive keys, regenerates the collective intelligence.

The universe brought by the Internet does not generate uniqueness, ideally dictated. And, under no circumstances, it leads to ideological manipulation or social totalitarianism (unless the "surfers" have a predisposition to such a thing).

The call to new information technologies has a history and is manifested in several forms:

- Education and learning assisted by the coordinator, which has been practiced for several decades;
  - Electronic courses and teaching programs that can be stored on the web or compact discs;
  - Self-training and self-learning routes quite supple, tailored to individual, personal interests;
  - Distance training and education;
  - Open and flexible training that gives access to the diversity of access routes for knowledge or skills of individuals or learning groups;
  - Multimedia-assisted training;
  - Training and / or asynchronous learning, by relativizing the training structures to the temporality of the actors involved;
  - Interactive training that emphasizes the collective learning and training process;
  - Cooperative formation, based on interactions between different groups of educated, educators, tutors;
- Educational databases, designed as capitalization tools, educational resources, mostly digital;
  - Educational or educational platforms and international broadcasting systems (for example, the EUROPACE European system);
  - Virtual universities, supported by traditional or autonomous universities.

One aspect of virtualization education is given by the status of the educator in the formative ensemble. If classical devices reserve a weak autonomy, almost everything being anticipated and directed by educators (what to learn, how to learn, where to learn, what to do after the learned, etc.) otherwise things are in the new situation.

Training prerogatives and training initiatives are at the disposal of educators. They enter the system when they want, where they want, they ask who they want and stay connected as they please. Elections are countless, uncharacteristic, unwise. You go there from a deep motivation and where you feel the satisfaction of the information. You're looking for the information and it's not you! You choose magistrates after your concerns and good pleasure. The transmission of information is done not only from a specific center (from the teacher), but vice versa, but also between "teammates". You come into the system with your share of your best contribution. You become an active factor in informing others. Due to a particular skill, you are transformed into a trainer.

The virtual nature of education leads to a decentralization of the multiple bases of information and knowledge. This is how education will be done through unlimited access to various educational resources quite dispersed, left to the discretion of the people. Beyond the internal sources of the school, the educator can connect to alternative sources, widespread in his cultural area, which he will capture and reassemble according to the logic of personal interest or dictated by the formal space he attends with priority.

### **3. Levels and hypotheses of school virtualization**

Since computers have become common in schools, more than twenty years ago, new educational experiences have become accessible to learners. These include, but are not limited to, simulations, WebPages and educational packages placed on web pages. In some countries like the USA and Canada, but also in Europe, there are already virtual schools where students (students) do not physically enter a real school with walls and banks. As school web users become more demanding, more and more usage tools (tools) and new opportunities are being invented and added.

The process of virtualization comprises several components, from subjective and objective aspects to relational or procedural aspects. Virtualization targets multiple instances:

- a) The actors involved:
  - The educated taken as individuals who can benefit from remote virtual resources by regular, temporary or exceptional enrollment in various training paths;
  - Different learning groups, depending on different motivations: thematic groups, joint projects, closed or open groups;
  - Instructors, especially teachers or resource providers, not only formally recognized teachers;
  - Different resource groups or pedagogic groups located beyond the school perimeter (study engineers, experts, etc.);
  - Tutors, learning colleagues or other contributors who tutor traineeships, projects, specific activities;
  - Mixed groups or communities (consisting of educated, teachers, tutors ...), permanent or temporary, open or closed, formed around specific projects.
- b) Contents, programs, disciplines:
  - Traditional virtualized elements at different levels: Lessons, Learning Units, Lesson Chains;
  - Pedagogical supports: case studies, support bibliographies, reference texts, projects;
  - Training courses individualized or designed for a target audience;
  - Peripheral, adjacent, complementary or optional contents to which education can relate.
- c) Evaluation procedures and tools:
  - Formative assessment tools that provide and stimulate learning progression (exercises, tests, questionnaires, reflection activities or punctual questions);

- Summative assessment tools (virtual examinations, essays, portfolios);
- Student knowledge in student line or group, forum, etc.
- d) Logistic and pedagogical support resources:
  - Computer and office resources (computer programs, logic);
  - Various computer media (CDs, DVDs, flash drives, hard drives);
  - Documentaries or virtual libraries;
  - Logistics tools for projects or practical internships.
- e) Management procedures for training:
  - Selection procedures for candidates: tests, portfolios;
  - Proper enrollment methods;
  - Managing tax payments and access to redundant sources;
  - Managing valuations, ratings, certifications.
- f) Extra-curricular environment:
  - Dynamics of the virtual campus;
  - Useful information: scholarships, accommodation, meals, transportation; possibilities of relaxation, fun, etc.

Let us not forget that this process of virtualization is in continuous transformation, and new hypostases can appear and condition the contemporary educational processes, both the formal and the optional or incidental ones.

### **Conclusion**

Virtual education leads to a new management of personal and institutional time, to prioritizing individual and collective rhythm. The new technologies facilitate interactions between different individuals and different groups of people. Forums, messaging, virtual cache, etc. are opportunities for training through interaction between different groups of people: education exchanges with the resource persons (educators).

The new formulas of communication have modified the traditional (teacher-student) teaching communication scheme, making the individual or learning group a ferment and a generator of knowledge. They make exchanges and validations of their own products of knowledge, amplifying the desire to learn and the motivation of doing well. The new resources induce a new representation of what the world is at one point. It becomes more open, more diverse, with different, contrasting cultural registers. It addresses the question of citizenship related to a given territory, an ethno cultural de-centering, a new deontology of shift targeting.

The virtual nature of education leads to a spatial and temporal indifference of the training framework. The physical encounter of actors, classrooms, schools in their traditional sense is abandoned. Learning groups are also virtual, sometimes random, with a predetermined duration. You can follow the courses of a virtual school and get a real diploma without physically knowing your teachers or colleagues. They can be located on the other side of the world. The experiences of the protagonists themselves become a wealth and an important asset of learning.

In conclusion, virtualization of education has opened the door of the future that leads to infinite ways of developing the rationalizing, the improvement and progress of the human being.

### **Bibliography:**

- Lovink, G. (2004) *Cultura digitală*, Editura Idea Design & Print, Cluj, p. 90;
- Manolescu, I. (2003) *Videologia. O teorie tehnoculturală a imaginii globale*, Editura Polirom, Iași, p. 21 ;
- Mingasson, M. (2002) *Le guide du e-learning. L'organisation apprenante*, Editions d'Organisation, Paris, p. 13 ;

Neculau, A. (2005) *La société de communication, un défi pour l'éducation et la cohésion sociale*, în Pierre Chauve, Gilles Ferréol, Adrian Neculau, Emil Paun, Thamasias Hadzilacos, Sonner Yildirim, Chronis Kynigos, Dan Potolea, Bernard Dumont, Stefan Aufenanger, *Apprendre et enseigner dans la société de communication*, Les Editions du Conseil de l'Europe, Strasbourg, p. 62 ;

Viens, J., Wyrsh, A. (2004) *Regards et perspectives : l'évaluation au service de la qualité pédagogique des formations eLearning*, in Revue suisse de sciences de l'éducation, 26/e année, Academic Press, Fribourg, p.70 ;

Vlada, M. (2003) *E-Learning și Software educațional*, CNIV-2003, Noi tehnologii de e-learning, Conferința Națională de Învățământ Virtual, Software educațional, Editura Universității din București, 2003 (ISBN 973-575-822-9), p. 63;