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## HOW TO BE A TEACHER IN THE 21<sup>ST</sup> CENTURY

*The article examines the role of a teacher in the “school of future”. It emphasizes that technological revolution has caused enormous changes in new methodologies and didactic tools implementation. The author examines the stages of e-learning, highlights the main aspects of teacher’s mission in the 21<sup>st</sup> century and offers the core skills that teachers should acquire to be successful in teaching.*

**Key words:** *teaching, new technologies, e-learning, b-learning, soft skills.*

During the last two decades we have built up information, communication, interactive and mobile society we are living in whereby civilizations are connected in real time across the planet. Technological revolution was followed enormous changes in methodologies and didactic tools were adjusted in a view to their implementation.

Being a teacher in the 21<sup>st</sup> century is a great challenge and requires a great thought. The social profile of our students has also changed. There is no doubt that students today are building their own knowledge, demanding more interactivity, more multimedia contents, they are more Web dependent, more surface learners, and wiling for more mobility, better didactic communication in presence and distance learning. This results a new way of teaching and learning, with new technologies and new methodologies that we can call “the school of the future”.

Teachers should update their technological and methodological skills according to the needs of our students’ profile. This requires permanent training in such areas like:

- implementation of new collaborative learning methodologies;

- online tutoring on the use of virtual classrooms, video conference tools and virtual group work;
- the use of tools to produce contents in multimedia format, pedagogic games, the use of interactive synchronous and asynchronous tools;
- the use of interactive synchronous and asynchronous tools;
- ability to use online platforms for managing contents (LMS) and other supporting interactive animations like 3D and MUVES;
- formative evaluation.

Rosenberg (2001) emphasized that teaching today means different forms and formats, like presence teaching, online teaching, virtual teaching, blended teaching and others.

Today the focus of the debate is “e-learning stages”.

During the last decade, the concept of e-learning changed and evolved. It can be typified in three different phases, which can be distinguished by: the presence of interactivity or not; the existence or not of multimedia contents; and the existence of synchronous and asynchronous online support. The evolution of technology, pedagogic methodology and teachers skills allow us today to use all the above mentioned approaches. This systematization is a result of our research and was presented and debated for the first time in Argentina at Cordoba Learning International Conference in 2008.

E-learning was learning and teaching at distance supported by Internet technology and b-learning was a mix of presence and distance teaching and learning. In fact, we have to say that we crossed three generations in e-learning.

### **First e-learning Stage (2004) — e-learning 1.0**

Courses were structured in a self-learning format and only lectured virtually (distance learning). It was just delivering contents in written format, and the students had to learn / study alone. Very early, students and teachers realized the limitations of this approach and a mixed solution of presence and distance learning was recommended as “blended learning — b-learning”.

### **Second e-learning Stage (2004) — e-learning 2.0**

In 2004 Stephan Downs and O’Reilly started presenting their ideas about Web2.0. Stephan and O’Reilly, called for a more dynamic WEB and stressed

the importance of interactivity with important repercussions in education environment. A major important topic was the interactivity and multimedia content in asynchronous format: teacher — student; student — content; student — student. The tools available for synchronous activities like virtual classrooms or video conference were few and very expensive and they required quite a high bandwidth. The content was mainly distributed using the following tools: forums, chats, wikis, blogs. All of them used asynchronous format integrated or not in LMS (Stephen Downs 2005, 2007, 2009; Tim O'Reilly 2005).

### **Third e-learning Stage (2006) — e-learning 3.0**

The technologic evolution, mainly related to communication tools, was a relevant factor for the third stage. Video conference and virtual classroom software are offered at much lower prices and require much less bandwidth. ISP suppliers offer sizeable bandwidth at fair prices. Simultaneously, LMS platforms are being offered at “open source”, like Moodle, Joomla among others. From a technological point of view distance learning requirements are now fulfilled in good conditions in earlier formats. This means that, there are available asynchronous distribution and a need of communications tools for synchronous online tutoring. Now, we are facing a new quality challenge on distance learning. It doesn't matter if it is called CBL, ICT, e-learning, online learning or any other thing, technical tools are available to work with quality at any education level. Everyday better and better tools are being offered to facilitate the teacher's job and the students' learning. But, learning and teaching tools require more skills from teachers and students and new methodologies.

In 2006 Stephan Downes, presents a new view over a Web 3.0. This view includes that web should be more effective over browsing and searching in terms of semantic and obtained results, although, the relation between his “future view” and education science was short. In 2006 we could again say that we were facing a new phase of e-learning. — e-Learning 3.0, which emerged from “connectivism”, is based on the George Siemens approach which includes mobility, multimedia contents and online synchronous interactivity. The main aspects used in this environment are:

- the use of new technologies supported in new methodologies;
- the use of LMS to distribute asynchronously contents and manage courses, in distance and presence learning;

- online synchronous tutoring support, using audio, video, whiteboard and other tools in virtual classrooms;
- continuous formative evaluation supported by online activities;
- the Blend learning concept has changed from a mix of presence and distance learning into asynchronous and synchronous activities, whether if in presence or virtual format using virtual classrooms.

The main used synchronous virtual tools are: virtual classrooms, e-round table, Webcast, video diffusion, e-workshop, conference call.

Interactivity becomes very important today. Synchronous interactivity is now a must. B-learning is now in a different format, it combines asynchronous (with contents on demand and activities to be implemented in an interactive format with remote collaborative work), and synchronous methods in presence or virtual environment.

As teachers, we have a mission of presenting, guiding and assessing. These are the three main aspects of our mission as teachers in the 21<sup>st</sup> century. And if we work at distance we should be experts in:

- teaching with new methodologies and ICT tools;
- teaching how to learn;
- teaching how to manage huge quantities of information.

We should mainly be prepared to be a (blended) b-teacher, able to use asynchronous and synchronous methods and tools in presence or online. These are the conclusions about the main skills to teach in the 21<sup>st</sup> century.

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