Autonomy as a basic reference for the new role of teachers in education – The software “Author”

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1. Introduction

In what direction a technological change can influence the teaching/learning process depends on the nature of the change. The hypothesis advanced here is that, unlike the industrial revolution, the information and communication technology (ICT) revolution is having a direct impact on schools, teachers and students. Although resistance is still strong, changes are coming and different softwares are being developed, simply because the nature of this technology affects the basis of what teachers and students do: human communication and access to information transformed into knowledge.

If the image of a traditional classroom rests on a teacher in front of his, or her, students lecturing and writing on a blackboard, while they stay passively sitting on uncomfortable chairs, most of the time, listening more than being proactive, and attached to a specific physical space and a fixed schedule, teachers and students in the “knowledge society” are free from this space/time chain, simply because they can act in the cyberspace (Lévy, 1999), in a “timeless” network society (Castells, 1999).

The goal, in this paper, is not to get deep into this characterization, but simply emphasize one fundamental aspect of this new reality for education, mainly for schools. If conditions to teach and learn change, what would be the “new” methodology and the “new” technological intelligence requirements that provide the basis to achieve success in the learning process? Something, at least different, is needed especially for this new generation of individuals who are “native digital borned persons”.

One aspect, among others but a very crucial one, is the degree of autonomy teachers and students will have in the teaching/learning process. For the “new methodology” this concept, and attitude, seems crucial. It changes the basis and role teachers have, acting no more as a content and information transmitter, but as a knowledge mediator with the competence in producing, organizing and
delivering knowledge in a very friendly and interactive communication environment where students learn.

In the same way, students are also autonomous, and capable, for seeking the relevant information which he, or she, is interested in and needs the teacher intermediation when he feels necessary to aggregate value to his studies. In other words, teachers don’t have any more the monopoly of knowledge, where the student has to seek and depends on, but became one alternative, among others, that must show concrete results in adding value to the student purposes. In other words, teachers face a student centered model applied to an autonomous environment.

Teacher autonomy may also be interpreted as his/her capability of teaching/learning process self-management. In the “traditional” format, where teacher and students are physically present in a classroom, the teacher controls and manages the whole process, once the “door is closed”. Content delivery and communication occurs in a specific time, under teacher coordination. Content production is not the case, since the delivery pedagogical strategy is the main focus. In the virtual world, on the contrary, multimedia content creation is an important part to take into account. In this case, the tendency is to mobilize a team of specialists, such as the instructional designer, the web designer, the programmer and others, who have the role to prepare and adequate the content teacher creates. But what occurs if the teacher has autonomy to create, to publish and deliver his content, by himself?

That is the idea, which sustains the software “Author”, described in the next section. Thinking a teacher who proposes the content of a discipline in any course and also is responsible for his communication with students, in his mediation in the learning process, it is important to imagine a way by which this teacher organizes all his content, including also his original creation and others already published, in a way he can publish and give access to his students. That is the idea of the software.

The next sections present the software description and the conclusion remarks at the end.

2. The software “Author”

The software ”Author” was selected as a research and developmental project by the Research Support Foundation - DF (FAP/DF), a governmental Federal District agency, in Brazil, in a subvention program especially designed for companies interested in technological innovation in a partnership with the university. It is being developed in an open source interface to be distributed together with a plug-in integrated to the LMS Moodle, also a well known

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1This argument can be criticized, but it is fundamental for the development of softwares and interfaces as the one it is described in the next section.
platform and spread out internationally. The program consists of a very friendly web interface that will allow any teacher, or other user, to create and organize, autonomously, multimedia contents and publish them in Moodle LMS, only with basic knowledge of computer programs and some practice in software utilization.

The user will be oriented through interfaces, like "wizards", that will integrate public media content libraries, including images, audios, videos, references, dictionaries, citations, links, articles and books, directly accessed through the software, establishing a pattern of creation and search for different medias. The language used is PHP with MYSQL, including de utilization of Actionscript. It was chosen Red5 as the open source media server using Extreme Programming as the development methodology with UML specification requirements.

3. Final remarks

The ideas put forward in this paper bring to discussion, first of all, the relationship between Technology and Education. This understanding provides arguments for changes in teacher/student mentality and put into consideration the present role teachers must have in his/her profession. The proposition here is that technology, especially the computer and its peripherals, is a mean that should be based on educational concepts that provide ground for the best achievement in the learning process. The teacher must understand, and not be afraid of using, the proper technology to attain his pedagogical objectives. The difference in the knowledge society is that technology is not the physical blackboard any more which he is used to, but the virtual world of images, sounds, texts and human communication in another concept of space and time.

A new pedagogy, or didactics, must reflect this new reality. As Lévy (op.cit.) argues, the virtual world is the reality, and influences the everyday life, including the educational dimension. Thus, it is not strange hearing terms such as on line education, the cyber writing, collaborative learning, learning management system, and so on (Silva, 2003). For it is needed new concepts that reflect the virtual space/time communication and learning in a network society.

In this same direction, the paper brings the concept of autonomy up to the front as part of the process of educational reconceptualization. It is very difficult to think a teacher in his new role, unless as an autonomous teacher interacting with an autonomous student. But what is an autonomous teacher and which requirements are needed are initial questions to be made.

The proposition of a software which gives the teacher the autonomy to create and organize contents, associated to a LMS for publication and communication, is one possible solution which the software “Author” tries to achieve. As already said, different from the traditional physical reality, the virtual teacher must also create contents, and not only reproduce them, but in a way that he is not directly dependent on other professionals. The “new” teacher has to be also an
instructional designer and a web designer, even without some necessary skills. In this case, the technology must provide a competent solution for the educational realm.

References

