Web Technologies and the Integration of Different E-Learning Strategies in Education

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ABSTRACT

The article aims at presenting some experiences concerning new ways of introducing ICT in teaching and especially the use of Web technologies in education. It starts with the analysis of the results that the author obtained with little groups of students, while using special Web sites (i.e., online information systems) for the collection of bibliographies and for the management of data on ancient manuscripts. The observation of the features of the communities (both of learners and of practice) for those classes, led him to hypothesize that information systems could induce the creation of communities where never seen before and new ways of teaching could be introduced in education. Subsequently, the structure of the information system TETIS and its use in a master course for teachers are reported. It is evidenced, among other things, how that system (born for making transparent teaching processes and implementing teachers’ practices) was used together with a traditional e-learning platform for the management of the master course. At last, some introductory results obtained from the use of the TETIS platform are discussed.

Keywords: communities of practice; communities of learning; constructivist learning environment; ICT; implementation of practices by ICT; Web technologies

INTRODUCTION

It is well known the importance of the ICT in lifelong learning and continuous education and how relevant it is in supporting communities of practice and professional communities. As a consequence, ICT plays a great role in teachers’ educational projects both when they are at their first employ and during all their professional life.

The master course “Teacher and tutor in the renewed school” (Docente e tutor nella scuola riformata), carried out during the school year 2005-2006 at the University of Cassino, Italy, falls in the category of the activities for professional updating and qualification, and is devoted to teachers of different school levels and is supported by ICT use.

Before describing the structure of the course and the instruments adopted for it, some notices
are needed. The introduction of ICT, and especially of Web technologies, played in this course a new role, much more different with respect to the well known e-learning platforms.

To better understand the instruments adopted in the master course, two elements will be deeply discussed in this introduction: First, the changes in the features of today’s teaching and the skills teachers need or are required to have in the knowledge society; and second, the results from the experiences the author carried out on little groups of students, which led to the detection of the features of the communities of learners and of practice for those classes, and induced to the rethinking of ICT use in the construction of teaching and training activities.

**Teachers’ Skills and Teaching Features in Knowledge Society**

The great interest of the European governments and public institutions for education and teaching can be easily recognized in the words of Viviane Reding (she said them when responsible for Culture and Education in the European Commission):

> A teaching profession whose members are motivated and highly qualified is of vital importance in ensuring that young people are offered a sound education. The new expectations and challenges currently confronting teachers throughout Europe mean that they now are at the very heart of the educational policy debate. Enhancement of teachers’ training is thus an integral part of the work program on the future objectives of education and training systems up to 2010, which was approved by the Barcelona European Council on 15-16 March 2002.

The team of Eurydice, the European network for education collecting scholars and researchers all over Europe, analyzed teaching professional features in the various countries and wrote many reports on them (Eurydice 2002a, 2002b, 2003, 2004, 2005). The results of Eurydice’s study dwelled upon many aspects of the teaching profession but, for the consequences they will have in this article, only teachers’ initial training and lifelong learning will be discussed here.

Among other things, the reader can find in the Eurydice’s reports the description of the changes in the skills needed from teachers because of the influence on everyday life and consequently on the school of the following aspects:

- technology development, with the great role it plays on learning environments and on the way people build new knowledge (i.e., formal, nonformal and informal contexts are continuously changing and are influenced from technology and its evolution),
- lifelong learning (a need in knowledge society) and the possible development of new ways of interacting between school and adults’ education,
- everyday school living, often influenced from multicultural phenomena and depending on the behavior of school staff and local regulations (i.e., local autonomy), and
- the right for all citizens to the highest levels of education, with the well known problems of the integration of diversely able people and of the management of heterogeneous groups of students.

As regards teachers’ education and training, the Eurydice’s reports make a separation between the pre-service and in-service phases. In the first case, the comparative analysis of the university courses all over Europe shows that only ICT basic courses (mostly basic computer science courses) are explicitly reported in teaching curricula. Other topics like school management, the integration of students with special needs, working with multicultural students’ groups and the management of students’ behaviors are not equally considered in the different countries and very often are not explicitly included among what has to be taught to future teachers. Secondly, the Eurydice’s reports state that there is a very little sensitivity for the teachers’ in-service training, notwithstanding the frequent changes in regulations affecting national educational systems.
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