ULEARN:

A project for building a European community of pioneer teachers

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Abstract: ULEARN¹ is a project within the framework of the European programme 'e-Learning'. This project aims to create a stable community of 'pioneer teachers' in Europe through a system which supports teachers' life-long learning, sharing knowledge and co-operation. ULEARN deals with the definition and design of an organisational model for a European virtual system of excellence in ICT in education, the definition of a common European syllabus of ICT skills in education, the implementation of a pilot of the system, and the definition of a transferability strategy to extend the pilot to a larger scale and to enable the system to evolve into a stable structure.

Key words: e-learning, teacher training

1. INTRODUCTION

While the 20th century school focused on teaching, possibly the 21st century school will focus on learning. Teachers' roles could change to reflect this fact and consequently teacher training processes will need to change. Teachers could become managers and facilitators of learning. To enhance children's learning, they will need to design, adapt, manage and evaluate learning environments (Cornu, 2001). These functions require competencies pertaining to three domains and to their relationships: pedagogy, subject area and ICT. As far as the relationships among these domains are concerned, teachers should be aware of changes in their subject area with ICT; they should know how the didactics of their specific subject area evolve and what new ways of learning are opened up by ICT (Midoro, 2001).

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ULEARN is a project within the context of the European Community programme 'e-Learning' carried out by a partnership headed by ITD and involving Spain, the UK, The Netherlands and Denmark. It aims at constructing new teacher competencies, new teacher training processes on the use of ICT for learning, new environments and policies. Teachers play a key role in the diffusion of innovation. According to Everett Rogers' theory of diffusion of innovation (Rogers, 1995), members of a social system are classified on the basis of innovativeness into 5 categories: 1) innovators, 2) early adopters, 3) early majority, 4) late majority, and 5) laggards.

In this paper 'pioneer teachers' are defined as those who are keen to use ICT in the classroom and who have already some experience and can be seen as the early adopters of innovation of ICT in education. They play a key role in the diffusion of innovation since the majority of teachers learn most new ideas from peers via interpersonal channels.

ULEARN aims at creating a stable community of 'pioneer teachers' (early adopters) in Europe through a system which supports teachers' life-long learning, sharing of knowledge and co-operation (Wenger, 1998).

This system can be thought of as *a virtual life-long learning system of excellence for European pioneer teachers in ICT in education*. It will be based on the needs of educational systems of European countries and will integrate three main needs: life-long learning on ICT in education, sharing of knowledge, information and materials, and co-operation within this community.

As far as the pedagogical approach is concerned, the project focus on life-long co-operative learning of pioneer teachers is supported by a networked infrastructure. The key pedagogical idea is that learning is the result of social interactions inside a practicing community. In the project, these interactions are moderated by on-line tutors. The learning process is mainly based on asynchronous communication, supported by a computer conferencing environment (Harasim et al., 1995). The same environment supports co-operation among teachers and the sharing of knowledge and materials.

2. OBJECTIVES

As stated above, the project aims to develop teachers' competencies in the use of ICT for learning, newly related teacher life-long learning processes, new learning environments and policies in Europe. To achieve this goal, a stable community of 'pioneer teachers' will be created by means of a European system which supports teachers' life-long learning, sharing of knowledge and co-operation.

More specifically, the main objectives of the project are to:

- define and design a shared organisational model for the system;
- define a common European syllabus of ICT skills in education;
- implement and validate a prototype of the system;
- define a strategy both to extend the prototype to a larger scale (inside the countries involved in the project and in other European countries) and to enable the system to evolve into a stable structure.

3. APPROACH AND METHODS

The *System of European Pioneer Teachers on Educational Technology (SEPTET)* is a complex distributed system composed of several national systems. In U^LEARN, this model will be implemented as a pilot system. Procedures will be defined to move from the pilot to a larger scale system.

The model of the system involves a *European Coordination Unit (ECU)* and several *national systems*. A *national system* is made up of a *National Co-ordination Unit (NCU)* and a network of local systems. A local system (LS) consists of a *Local service centre* and several *local agencies*.

ECU is in place to run the whole system. The initial ECU is composed of the 5 partners of U^LEARN. ECU activities are concerned with:

- Defining a common syllabus of ICT in education.
- Specifying how the system operates and designing the overall system.
- Designing common on-line courses with related learning materials.
- Defining criteria to implement the on-line environments at local level.
- Defining methods to evaluate the quality of the overall system and monitoring its activities.

A national system is composed of a *National Co-ordination Unit* and a number of *Local systems*, spread throughout each country.

During the project, each U^LEARN partner will act as a *National Coordination Unit* in its country. NCU functions are concerned with:

- designing and implementing the national system.
- running and monitoring the national system.

This implies:

- identifying and developing the *local systems* in their own country.
- defining a national certification system for the acquired competences.
- choosing the tools to accomplish the specified functions.
- implementing the specified environments.
- translating and adapting to the national context the learning materials of the courses related to the syllabus.
- training the national on-line tutors.
- supervising and supporting tutor activities.

- evaluating the quality of the overall activities according to the methodologies suggested by the ECU.
- A *Local system* consists of
- a *service centre*, which provides the infrastructure.
 - a series of related *local agencies* which recruit groups of pioneer teachers for on-line courses, deliver these courses through their own on-line tutors, provide assistance for co-operative projects, stimulate discussions inside the community of pioneer teachers, facilitate information sharing and so on.

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BIOGRAPHIES

Vittorio Midoro is presently project manager of ULEARN. His present interest is concerned with on-line education and co-operative learning. **Stefania Bocconi** is involved in research on methodologies for on-line learning processes and is a member of the ULEARN staff. **Francesca Pozzi** is involved in research on design and validation of methodologies for on-line education and is a member of the ULEARN staff.

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