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A technological related discussion on the potential of change in education, learning and training

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This is a poster prepared based on the presentation material for a paper with the same name presented at the conference. The goal is to discuss the supporting role of Information & Communication Technology (ICT) in education activities and puts in context the impact that CSCW systems can have both in Open and Distance Learning and in general education, learning and training.

The NetLab concept is presented and used to support the paper positions and serves as the base to propose a roadmap to a virtual university setting.

1. PRESENTATION CONTEXT

At the end of the century education is on change. In particular, the high levels of students that miss presence classes and display a lack of interest to attend most of the subjects in their higher education is already a common problem for the great majority of european and north american institutions [1].

On-line applications in classroom education, a widespread trend in industrialised societies, can be distinguished from on-line education. The on-line education is now an important trend: in U.S., it has been estimated that 55 per cent of all the 2215 four-year colleges and universities have courses available off-site [2]. Many of the top-rated universities in the U.S. offer on-line degrees and act now as dual-mode education (providing on-campus and distance education) [3]. In Europe, the situation is different and although several universities have their programs the vast majority still lives in the "on-campus age".

What are the advantages of off-line campus? The main reasons are the convenience of place and time to learning, may be financially convenient for the student and rewarding for the educational institution [2]. But there is another reason that might contribute to the changing shape of the education needs. In fact, in a recent local inquiry [4] most of students reported that they want to work as soon as possible and they have a strong concern about their future jobs. They also declare that it will be better to pass shorter periods in on-campus activities and longer periods in a working environment. Many more studies reported similar situations where it seems to grow an idea of the uselfulness of longer period degrees: time is playing an important role, as more and more lifelong education is a requirement.

In the traditional school environment, the central mode of learning continues to be face-to-face interaction between teacher and learner, however with a growing influence of asynchronous technological gadgets such as e-mail, web published information, Internet access and the use of CSCW systems and VR techniques.

Based on this context the author proposes a roadmap to a virtual university where content and actual facilities in higher education institutions present a major advantage. The resources (human, location, facilities and knowledge database) can be used to shift from traditional face-to-face sessions to a broader offer of learning facilities integrating both on-campus and off-campus activities. These new offerings act also as an innovation vector to introduce shorter and more learner-oriented education settings.

The poster schema (figure 1) include some screen dumps, shown to serve as a demonstration web site to support teacher activity in classroom, the presentation and the paper version. The three top screen show the first pages (the root path with black background) and the general resource menu page. The third page is the class menu where all the disciplines for which the author is responsible are listed. The bottom three pages represents the information system class homepage (first), the available pedagogical texts and scientific publications where the author have some participation (the images represents partial web pages for that content).

2. REFERENCES

[1] D. Puttnam. "Communication and education". The ninth Colin Cherry lecture. Imperial College, London, June 1996.

[2] L. Gubernick and A. Ebeling, "I got my degree though e-mail", Forbes, 19 June 1979.

[3] M. Bastos, "Globalisation and On-line Degrees: opportunities for students and threat to Universities in Developing Countries?". BITE98 international conference, March, 1998.

[4] L. Gouveia, "Expectativas dos alunos em relação ao seu curso e saídas profissionais", UFP relatório interno, Fevereiro, 1998.

Figure 1 - the NetLab concept


new technologies for higher education
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What is this about?
The content
A roadmap to a virtual university
The environment
The NetLab concept
NetLab contributions
Get the potential users involved
Technologies
Why CSCL and CSCW
Why CSCL and CSCW
Why CSCL and CSCW
Why CSCL and CSCW
Conclusions
Conclusions
UFP
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Sistemas de Informação
Textos