INTRODUCTION

E-learning and the impact of new technologies across contemporary life is a very significant field to education. The challenge of the technology to conventional learning patterns cannot be ignored and in itself raises a host of questions: can online learning facilitate deep learning? How well does video conferencing alleviate the challenge of distance? In what ways can collaborative learning communities be developed and sustained using current and new technologies? At the same time, new communications technologies are impacting on the ways in which we understand ourselves and the worlds in which we live. Relating to this, the aim of today’s education is not to learn certain contents, but rather learn to learn in the course of a whole lifetime.

The study of the learning process can help us to find the relevant points to set up some interesting characteristics of a really functional e-learning system.

THE LEARNING PROCESS

The learning process consists of a modification of our conduct that, by extracting knowledge from acquired experience, enables us to tackle problems (Pedreira, 2004a). This definition highlights the two basic aspects of all learning processes: knowledge acquisition, and the experience that leads to it.

Most studies on the nature of knowledge agree on the fact that knowledge is at the top of the hierarchical structure called information. According to this vision, data represent facts or concepts in a formalised way that allows their communication, interpretation or elaboration by human beings or by automatic means (syntactic level of the information). The so-called “news” is the meaning that an intelligent being attaches to data based on the conventional rules used for their representation (semantic level). Knowledge implies the judgement of facts and situations, and consists of inferred data and news, tacit relations between objects, concepts, events and situations, and of the necessary control actions to manage all these elements in an effective way. As such, knowledge concerns the pragmatic aspect of information because it combines the received news with the knowledge that the observer already possesses.

EDUCATION IN KNOWLEDGE SOCIETY

In recent years, so many changes have affected education that education itself needs to be updated. The amount of knowledge that we deal with is much bigger than before, the interrelations between different forms of information are much more complex, and the sources are dispersed. Such being the case, the linear model, in which each question has a place and a moment, is no longer adequate for today’s information. Logical hierarchies are replaced by multiple and simultaneous media that respond to the needs of the knowledge process. The inevitable increase in complexity and quantity of the information that is available and necessary has led to a need for continuous learning.

Furthermore, in modern society, knowledge is not exclusively related to education. We live in what is called the “information or knowledge society”, where the possession of knowledge is a determining factor.

Knowledge handling requires a profound transformation of learning and teaching methods: from a model in which the teacher is the monopolising agent and the authorised representative of knowledge, we must move towards a model that offers the student room for
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