

## Chapter 5

# A Paradigm in Transition: From a Teaching Focused Education to a Learning One—The ICT Contribution to the Acquisition of Social and Individual Skills in High Education<sup>1</sup>

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### ABSTRACT

*The traditional teaching process at higher education levels has changed in the European Union since the arrival of the “Bologna Process”. Under this new paradigm, professors are no longer the knowledge transmitters but also guides that must encourage students to generate knowledge. Hence, it is crucial to generate certain skills that will let them learn throughout all their lives, especially in the ability to search information that solves a certain problem. At this point is where it comes in hand the acquisition of ICT skills; since the learning process can surpass the physical barriers of the classroom and is an effective tool for solving problems. In this chapter, the authors address this new change in the educational paradigm focused on the European Union and taking into account the leading role of ICT in this learning process.*

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## **1. INTRODUCTION. DYNAMISM ON EDUCATION: A MODEL THAT CHANGES**

The *evolution of new technologies*, centered in connecting people, has the power to potentially broadcast knowledge at a worldwide scale though it has not been fully applied in the education process at all levels. According to Gadotti (2000), education is still based on a writing language in spite of being our culture predominantly digital. Hence, education systems have not yet appropriately weighted the impact of Information and Communications Technologies (ICT).

The usage of ICT in education requires some significant changes in the learning process. It needs to strength those skills that are specifics of human beings; that is, their capacity to think, reason and not only to develop its memory and storage capacity (even though this last one plays the main role in the thinking process). The necessity of a school that teaches how to think requires knowing new methods and languages as well as a real believe in this education technique. That is the point where ICT comes in hand just to create new spaces and ways of knowledge and learning; this adds and complements to the ones already present in school, at home or social institutions, the tow latter ones also are agents of education. The commitment of all European ministers of Education to improve the competitiveness of university education which was formalized as the European High Education Area (EHEA, and more commonly known as the “Bologna Process” back in 1999). The Bologna Process is especially aimed to cross develop in all syllabuses the nest set of skills: cognitive, affective and social. These skills must let students face the challenges of a globalized and competitive job market.

The EHEA plan tries to unify the plethora of different educational programs into a single University degree in the whole European Union. In this sense, each degree is divided into several

courses distributed through all the years of the degree are measured in terms

*European Credit Transfer System* (ECTS) units. The main difference is that the student will switch from a model relying on the reception of knowledge from the professor to a new one based on the development of skills (Pablos et al., 2005). This change carries out an innovation in the teaching process, in terms of: contents and didactic methodology; learning and its associated processes; and, skills and the strategies that comes into play. Professor will no longer be the exclusive knowledge holder and the students will not act as merely receivers of that knowledge. This new education paradigm implies that students must take the leading role in the learning process; they are the ones who must state questions, generate new information and contribute to a general consensus in the activities to be accomplished so that they are oriented to their learning process itself.

Students’ mobility (and, to some extent, professionals in general) inside and outside the European Union calls for new learning and communication tools between the professor and the students in order to continue activities outside the context of the classroom.

Faced with the challenge proposed by the Bologna Process, the use of ICT has obtained a significant role too as tools involved also in the learning process (Caeiro, 2004). They satisfy all educational necessities of users as they provide an effective, accessible and attractive learning. The challenge is not focused on the access to information; rather, it is in the way a student learns how to take advantage of it.

In this chapter, our aim is to contribute with some discussion and to think about the changes already done and those to come in the teaching and learning processes, bearing in mind the social current context, the Bologna Process and the use of ICT in these processes.

The rest of the chapter is organized as follows: Section 2 is devoted to explain the change in the traditional teaching process; from acquiring

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