

Chapter 18

Towards an Effective ICT– Based University Learning: The Tacit and the Interaction Dimensions

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ABSTRACT

The principles and practices of university learning are being subject to critical reconsideration from new approaches to adult teaching and a growing use of information and communication technologies (ICTs). ICTs in adult learning have an ambivalent effect. On the one hand, they offer potential improvement in on-line communicative activities and the transmission of codified or explicit knowledge. On the other hand, they can reduce socially- and interactive-mediated tacit teaching and learning. Thus, the crucial criterion for effective and complementary use of ICTs in adult andragogy is whether they enable time and interactive social space for the tacit dimension of teaching and learning. This chapter analyzes these issues by comparing how two young universities in Spain have dealt with these effects of ICTs in relation to the tacit and interaction challenging dimensions of learning and teaching.

INTRODUCTION

Until recently adult learning has been rather marginalized in most countries. For many decades, higher education systems were entrusted with providing industrial societies with the qualified professionals they needed. During the second half of the 20th century, increasing numbers of adults attended an expanding offer of tertiary education programs. In this context, then, it became neces-

sary to discuss and analyze the teaching techniques for both young and mature adult learners. With this purpose, in 1980 Knowles proposed the concept and principles of andragogy, targeted at discovering the specificities of the pedagogy of adult learning. Since then Knowles's principles have been revised and developed within a substantial process of social and educational change. Particularly since the 1990s, in many Western societies continuing adult education began to get both public and academic attention, and emphasis was increasingly placed on skills, training, and

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competences. In the same period, other structural changes have occurred: for example, increasing use is made of the information and communication technologies (ICTs), and there are new forms of social relations and networks (Webster, 1995; Castells, 1997).

In these last two decades or so, learning, lifelong learning and the learning society have served as umbrella concepts in most discussions on adults and learning in the emerging knowledge or learning society and economy (Stehr, 1994). These concepts have become a new analytical framework for educational studies (Young, 1998). The notions of lifelong learning and learning society, however, have also been subject to critical analysis and discussions (Barry, 1999; Coffield, 2000). For Fischer (2001) lifelong learning is broader than adult education or training, as it includes such new dimensions as self-directed learning, learning on demand, informal learning, and organizational learning. Jarvis (2000) advocates that the concept of learning society allows for a more comprehensive comparative educational approach, because in the context of globalization, expanding use of ICTs, and new forms of industrialism and post-industrialism, learning takes place in more than educational institutions. As technology and innovation have gained momentum, knowledge and learning have also received more attention from the social and human sciences. International organizations such as the World Bank (2003) and the OECD (2005) have also highlighted the challenges posed to tertiary and university education in the current era of social and technological change. The European Union has undergone a process of harmonization of national higher education during which, the tacit dimension of teaching and learning clearly emerged in the discussions on competences and skills as will be shown below.

Traditional teaching pedagogy was designed to transmit codified or written knowledge to young generations within the paradigm of general standardized industrial production and mass

consumption known as Fordism. This codified or formalized knowledge consisted of lists of technical information and facts, the purpose of which was to ensure stable use over time. The aim of teaching and learning was to acquire it. When the Fordism model entered into crisis in the 1980s, alternative proposals for teaching different age groups began to be made. Constructivist and pragmatist pedagogy, inspired by Dewey (1933) and others, became more widespread as qualitative and micro social sciences became more prominent, as can be seen by the evolution of the theory of practices (Bourdieu, 1977; Schatzki, Knor-Cetina, & Von-Savigny, 2001; Schön, 1983; Searle, 1995). The educational and pedagogical literature began to go beyond the formal teaching of codified knowledge and started considering the more tacit, reflective and informal dimensions of learning (Burbules, 2008). Learning to learn became one of the key competencies by which students can go beyond the individual and collective skill-bases (Jarvis & Parker, 2005; Schön, 1987; Sternberg & Horvath, 1999). In Spain, as in many other European countries, the discussion on educational methodologies and pedagogies took place as a side-debate on the issues of competencies and skills.

The ICTs have been a driving force behind the change in national adult learning systems. Generally, technology, science and knowledge and the corresponding technological determinism have been strongly criticized, and it is now widely argued that society shapes technology (MacKenzie & Wacjman, 1985). Concerned about the use of technology in education, educational organizations began to use ICTs as both the content to be taught and the means by which this content was taught. At first, the focus was on ICTs as content so that the new generations could acquire technological skills and those already active in the labor market could upgrade their existing skills. Subsequently, ICTs were gradually used in education as instruments for teaching and learning. This second phase has been subject to considerable critical discussion and research. The main problem is that

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