

## Chapter 8.15

# Metacognition on the Educational Social Software: New Challenges and Opportunities

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### ABSTRACT

In recent years, we have witnessed an information revolution. This revolution has been characterised by widespread access to the Internet and by the emergence of information which has been generated by end-users—the so-called user-generated content. The information thus generated has been supported by Web 2.0 applications or social software. These changes in the information society have had an important impact in education, with more and more adults enrolling on life-long learning programs; moreover, the availability of distance learning courses has grown in line with this increase in demand. In this emergent educational paradigm, the new 2.0 technology context implies new competencies for learners. These competencies include literacy in information and communication technology (ICT), learning autonomy, self-regulation and metacognition, while at the same time expanding the opportunities for metacognitive development. We will consider in this chapter these two perspectives of the 2.0 context; on the one hand, the new requirements provided by the environment

and, on the other hand, the new learning opportunities which this environment brings.

### 1. INTRODUCTION

The development of information and communications technology (ICT), and the Internet in particular, are producing a paradigm shift for the diffusion of information and the creation of knowledge. This revolution is even more pronounced in the context of the user-generated approach of Web 2.0. It is interesting to note that the “2006 Time Person of the Year” was none other than *You*. The reason for this surprising choice was the growth and influence of user-generated content on the Internet during the early years of the 21st century.

In education, this technological revolution is occurring in a context of globalisation, which challenges higher education organisations to structure and harmonise the length of their programs in order to improve quality standards and facilitate student mobility. In the context of the European Community, these changes are outlined in the Bologna Agenda, which sets targets for convergence within the Euro-

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pean Higher Education Area (EHEA). This agenda imposes a greater responsibility on the learner – the learner's autonomy is to be developed by a shift from a system of teacher-driven provisions towards a student-centred approach.

From a teaching and learning perspective, we are experiencing two important changes. Firstly, the focus on knowledge construction by the learner, mostly through collaborative contexts; secondly, the willingness to globalise and standardise the information exchanges, the learning processes and the tools. In this new context, it is essential to become the manager of one's own learning. The challenge for the learner is about learning to learn; about developing individual skills for self-regulated learning and for enhancing metacognitive abilities. For this purpose, it is useful to take advantage of the new opportunities offered by Educational Social Software (ESS).

Metacognition, the knowledge about knowledge and how we learn, can be promoted by the social construction of knowledge and by its diffusion. This social construction and diffusion is facilitated by ESS, which provides new opportunities to develop inter-subjective awareness. However, the new facilities offered by Web 2.0 require learners to develop new competencies (ICT literacy, autonomy, metacognition, ...). At the same time, social software is expanding the opportunities for the development of the competencies of learners in the 21st century. Thus, we will consider in this chapter these two perspectives of the new 2.0 context – on the one hand, the new requirements provided by social software and, on the other hand, the new learning opportunities which this new context brings. Thus, in the first part we explore the changes in both learning and in social software. In the second part, we focus on the implications of Educational Social Software in regard to the needs created by ESS for the new competencies the learner must develop in order to succeed. Lastly, we will focus on the opportunities that ESS provides for the development of metacognitive learners.

## **2. TOWARDS A NEW LEARNER IDEAL: SELF REGULATION, METACOGNITION AND ENGAGEMENT IN LIFE-LONG LEARNING**

The profound changes in the information society have also transformed the learner ideal. In a context of growing obsolescence of knowledge (Brandsma, 1998), subjects and organisations must learn throughout life (life-long learning), developing a willingness to learn continuously, encouraged by educational bodies at the highest national and international level (UNESCO, OECD, European Commission). In this context, autonomous learning is now regarded as a social issue (Moisan and Carré, 2002) fostered by ICT possibilities.

The rapid growth of the Internet in recent decades and the emergence of Web 2.0 have together developed a set of new learning opportunities. This has been achieved through a revolution in the social relations of learning, which can now take place at different times and in different places. These profound changes reshape the competencies of the 21st century learner; these competencies must now include a greater degree of autonomy. Learning skills need to be self-regulated; there is a requirement for a better metacognitive development and an increasing need for those following life-long learning courses to be able to use ICT. The latter implies a certain computer literacy. Learners in the 21st century should develop a complex set of skills before starting to take advantage of the learning potential offered by ICT solutions, and more specifically by social software. Next, we will continue the discussion by analysing four main ESS prerequisites, with special attention to the prerequisite for metacognitive competence.

### **2.1. Prerequisite I: The Use of ICT**

Technology enhanced learning involves the use of technologies to aid learning, and a growing

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