# Chapter 12 The Use of 'Web 2.0' and Social Software in Support of Professional Learning Communities

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### ABSTRACT

This chapter examines the 'happy convergence' of two emerging social and technological trends. The first is the evolution of educational processes and methods from a traditional didactic approach towards a paradigm that seeks to empower the learner and enable a more involving learning experience to take place. This paradigm includes such approaches as student-centred learning, collaborative learning and problem-based learning. The second is the development of IT-based systems that enable the democratic involvement of end-users in their development and use and that encourage computer-mediated collaboration between individuals and groups having a common interest in a domain. Initially, at least, the main purpose of such software was for social networking and leisure purposes, but the chapter identifies a number of instances of its use in practice for professional education purposes. The chapter then highlights some examples of professional learning communities in practice in UK educational institutions. It concludes by speculating on and discussing some possible future trends in the use of social software for professional learning and by summarising the phenomenon and identifying the factors that distinguish it from other approaches to learning.

#### INTRODUCTION

Social software is normally defined as a range of web-based software programs that allow users

to interact and share data with other users (i.e. computer-mediated communication of CMC). Social software supports a 'lifestyle' in which users employ CMC to maintain virtual contact and maintain social relationships. 'Social' sites

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(e.g. Facebook and MySpace) 'personal media' sites (e.g. Flickr and YouTube) and a variety of on-line forums and discussion groups are enjoying a rapid growth in use, firstly for social networking and then as professional and learning support tools. Social (or conversational) technologies are now used in many organisations to enable the process of knowledge creation and storage (i.e. the 'knowledge cycle') that is enacted through collaborative writing. Constructivist learning theorists (e.g. Leidner & Jarvenpaa, 1995) explain that the process of expressing knowledge in an explicit form aids its creation and that conversation based on knowledge (i.e. discussion critical review) aid the refinement of knowledge. Social software fulfills this purpose because conversations on predetermined topics (e.g. a discussion forum) become a valuable source of knowledge in a community and contributions to the knowledge base by members of the community become a useful form of reference (Hasan & Pfaff, 2006a). Social software that supports conversation and encourages democratic contribution in this way (e.g. 'wikis', blogs and forums) provides support to the individual 'knowledge worker' and to the 'online community' which results from its use. (Hasan & Pfaff, 2006b).

The word 'professional' originally had connotations of payment for work produced (this still applies in some field such as sport), but over time has gained a definition based on a body of knowledge and a system of regulation. A 'professional' is often required to possess a large body of knowledge in common with others in the same profession. This knowledge will be derived from training based on both experience and academic study (usually at the tertiary level), with a formal level of attainment almost always specified. Professionals are to a degree subject to self-regulation in that their professional body usually controls the evaluation processes that admit new professionals, administers the training and assessment processes and judges whether the work done by its members is up to 'professional standard'.

Thus, professionals are subject to internal control, whereas in other kinds of work regulation (if it exists at all) is imposed externally. Professionals usually have autonomy in the workplace - they are expected to use their independent judgment and exercise ethical standards in carrying out their work. This implies a tension between the self-regulated group, the common body of knowledge and the democratic rights and independence of the individual. This tension is the basis of the Professional Learning Community.

In terms of the learning process, the last decade has included some fundamental changes in the way the nature and purpose of education is perceived (Estes, 2004), with a growing emphasis on supporting learners, not by a teacher (or teaching surrogate) providing knowledge and information to the learner but by developing in the learner the necessary resources and skills to engage constructively with continuous change (Ivoshi et al., 2005) and to promote 'life-long learning'. This view tends to place the learning experience in a social context - and makes a 'constructive conjunction' of collaborative learning and social software not only possible but almost inevitable. The phenomenon of student-centred learning is based on the epistemology of constructivism theory (which is generally attributed to Jean Piaget) which attempts to describe how knowledge is 'internalised' by learners through processes called assimilation and accommodation. Piaget contended that individuals continually construct new knowledge from their personal experiences, and when individuals assimilate they 'add' the new experience to an existing framework of learning and construct a perception of the world (or of a body of knowledge) based on the accumulation of those experiences without necessarily changing that framework. This process may be enhanced or augmented by cognitive processes such as reflection, discussion and critical review. It is significant that at least two of these processes are collaborative - discussion by definition and critical review by implication.

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