Foreword

Social Networks, Social Software and Web 2.0, a phrase coined by O'Reilly Media in 2004, refers to a perceived or proposed second generation of Internet-based services—such as social networking sites, professional communities of practice, wikis, communication tools, and folksonomies—that emphasize the creation of knowledge and intellectual capital, online collaboration and sharing among users. This new emerging era poses critical challenges for the development of Interactive Learning Environment. Let's briefly explore the topics of knowledge management, intellectual capital and technology enhanced learning.

Managing knowledge-based resources is not a new problem and there have been other theories that have tried to tackle it. Intellectual capital is the latest development in this line of research. In particular, the theoretical roots of intellectual capital come from two different streams of research: strategy and measurement. While the first stream studies knowledge management –knowledge creation, acquisition, diffusion, capitalization, conversion, transfer and storage-, the second stream of research focuses on the measuring of intellectual capital. This stream has advanced towards the building of intellectual capital statements and the development of international standards on intellectual capital measuring and reporting.

Knowledge Management is the set of processes that allow using knowledge as a key point to add and generate value. Moreover, it includes not only processes of creation, acquisition and transference of knowledge but also the reflection of that new knowledge in the organization's behaviour. Whilst organizations recognize the importance of creating, managing and transferring knowledge, so far they have been unable to translate this competitive need into organizational strategies. In broad terms, two major types of knowledge management could be identified: operational knowledge management and strategic knowledge management. First, the main concern of operational knowledge management is to connect people to the system being used for the distribution and transfer of knowledge. Second, strategic knowledge management is a process that links organizational knowledge with 1) the design of organizational structures that foster knowledge, 2) business strategy and 3) the development of knowledge workers.

On the other hand, a broad definition of intellectual capital states it is the difference between the company's market value and its book value. Knowledge-based resources that contribute to the sustained competitive advantage of the firm form intellectual capital. However these resources are not registered in the financial accounts. In contrast with tangible resources, the payoff and value of investments in firm's current stock of knowledge (intellectual capital) will not appear in the financial accounting until later on. By all these reasons, knowledge-based resources must now being identified, dissected and analyzed.

Intellectual capital is formed by three components or subconstructs: human capital , structural capital and relational capital. Human capital reflects the set of knowledge, capabilities, skills and experience of the employees of the company. It represents the accumulated value of investments in employee training, competence and future.Structural capital represents organizational knowledge that has moved from

individuals or from the relationships between individuals to be embedded in organizational structures, such as organizational routines, policies, culture or procedures. Generally structural capital is divided into technological capital and organizational capital. Technological capital represents industrial and technical knowledge, such as results from R&D and process engineering. Organizational capital includes all aspects that are related with the organization of the company and its decision making process, for example organizational culture, organizational structure design, coordination mechanisms, organizational routines, planning and control systems, among others. Finally relational capital reflects the value of organizational relationships. In general, it has been accepted that these relationships were mainly focused on customers, suppliers, shareholders, and the Administrations, among others, without including the employees, and therefore adopting an external perspective.

Technology enhanced learning is the best term to describe the domain of knowledge society technologies as applied in the learning context: "Learning for anyone, at any time, at any place". With the shift towards the knowledge society, the change of working conditions and the high-speed evolution of information and communication technologies, peoples' knowledge and skills need continuous updating.

Learning, based on collaborative working, creativity, multidisciplinary, adaptiveness, intercultural communication and problem solving, has taken on an important role in everyday life. The learning process is becoming pervasive, both for individuals and organisations, in formal education, in the professional context and as part of leisure activities. Learning should be accessible to every citizen, independent of age, education, social status and tailored to his/her individual needs. To meet these social challenges is a leading issue of research on the use of technology to support learning (e.g. The Technology Enhanced Learning Action within the 7th Framework Program for Research and Technological Development).

In the context of the knowledge society, the focus of research in this area has been set on applications of technologies for user-centered learning, building on the concept of human learning and on sound pedagogical principles, with the key objectives to be:

- To increase the efficiency of learning for individuals, groups
- To facilitate transfer and sharing of knowledge in organisations
- To contribute to a deeper understanding of the learning process by exploring links between human learning, cognition and technologies
- To promote humanistic visions for a better world based on open learning for all

According to the ideas mentioned above, the book ***Knowledge Networks: The Social Software Perspective*** has three main goals: 1) To promote the state of the art on Social software exploitation for Interactive Learning Environments as a milestone enabled by the evolution of Web 2.0 technologies and approaches; 2) To provide a reference edition for the area with main emphasis to be paid on social network analysis for Learning; and 3) To become a reference edition for people (policy makers, government officers, academics and practitioners) thirsty for knowledge on Social Software for Learning.

The book is formed by 14 chapters which include hot topics such as Collaborative tools for learning groupware as Interactive Learning Environments, Design variables and conditions for knowledge sharing and creation systems, Knowledge Management Strategies at Artifact/ Individual/ Team / Organizational/ Inter-organizational Levels, New forms of interaction in knowledge sharing and creation systems, Blogging and enterprise blogs as a new strategic tool, Collaborative filtering, Analysing social interaction for finding knowledge among Web users, Semantic Desktops, Social Network Analysis to support implicit learning and sharing within educational environments, Learning and Knowledge Communities within higher education, Analysis of Large Online Communities for Building Intellectual Capital, Web Communities of Practice for Sharing, Creating, and Learning, Network Analysis for Building Social

Networks within Learning Communities, Implicit, Formal, and Powerful Semantics in Communities of Practice,Metadata and Annotation Techniques for Automated Support of Collaborative Learning, Folksonomies, tagging and other collaboration-based categorisation systems and Wikis, semantic Wikis and other collaborative knowledge creation systems, among other topics.

Additionally we also include further readings of a complimentary nature to the contents of the rest of our publication. As an added value to our readers, the further readings are to provide additional related data in support of the book's comprehensive concepts, principles and results, as well as studies that build upon the appeal of this publication as a one-stop reference source

Finally, before closing this foreword of the book **Knowledge Networks: The Social Software Perspective**, we would like to invite all our colleagues interested in Application for the Human and The Society, Information Systems &Information Technology, Knowledge Management and E-Learning, Libraries, Digital Culture and Electronic Tourism, E-Business, E-Government and E-Banking, Politics and Policies for the Knowledge Society, Sustainable Development for the Knowledge Society and New Competitive Resources (Culture, Tourism and Services) to pay attention to an important event organised by **OPEN RESEARCH SOCIETY** in 2009: **"The 2nd Athens World Summit on The Knowledge Society"** (Athens, Greece, September 2009). Website: http://www.open-knowledge-society.org/summit.htm Additionally if you are interested in 1st International Conference for the Web Science, please have a look at http://icws2009.org

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Figure 1. Pillars for the 2nd Athens World Summit on the Knowledge Society (Source: Open Research Society)