Editorial Preface: (p. 1-5)

Knowledge Management and E-Learning
Minhong Wang*, The University of Hong Kong, Hong Kong
Stephen J.H. Yang, National Central University, Taiwan

Welcome to the inaugural issue of Knowledge Management & E-Learning: An International Journal (KM&EL). In this inaugural editorial we would like to introduce the goals of the journal and provide the basis for why this journal is needed, and outline the scope and structure of the journal.

Paper one: (p. 6-17)

The Knowledge Circulated-Organisational Management for Accomplishing E-Learning
Toshio Okamoto*, The University of Electro-Communications, Japan
Naomi Nagata, The University of Electro-Communications, Japan
Fumihoko Anma, The University of Electro-Communications, Japan

Abstract: Nowadays, e-Learning has been used in many kinds of educational institutes as a regular learning/teaching system. In the real practices, Educational knowledge management among the relevant organizations is quite important. This means “knowledge in universities circulated-systematic process” of finding, selecting, organising, distilling and presenting information in a way that improves a learner’s competency and/or ability to fulfil his or her necessary learning objectives. In order to construct such educational management systems, the fundamental processing modules are required, such as a distributed file system, synchronous data communications, etc. If any applications and tools related to e-Learning can be plugged into the core framework, we can build an integrated e-Learning environment where learners/teachers can share/operate this software/data in real time. Universities also have many organisations to perform educational activities and researches. In order to operate and manage an e-Learning system, the information/knowledge
occuring in each of organisations must be connected seamlessly and integrated under the standardised data format and the procedure of job-processing. In this paper, we mention the conceptual framework of Knowledge Circulated-Organizational Management according to our experiences of UEC-GP project. Moreover, we introduce how to construct & analyze the content-frames of e-Learning as technological knowledge on Instructional Design.

Paper two: (p. 18-35)

**Automatic, Global and Dynamic Student Modeling in a Ubiquitous Learning Environment**

Sabine Graf*, National Central University, Taiwan
Guangbing Yang, Athabasca University, Canada
Tzu-Chien Liu, National Central University, Taiwan
Kinshuk, Athabasca University, Canada

**Abstract:** Ubiquitous learning allows students to learn at any time and any place. Adaptivity plays an important role in ubiquitous learning, aiming at providing students with adaptive and personalized learning material, activities, and information at the right place and the right time. However, for providing rich adaptivity, the student model needs to be able to gather a variety of information about the students. In this paper, an automatic, global, and dynamic student modeling approach is introduced, which aims at identifying and frequently updating information about students’ progress, learning styles, interests and knowledge level, problem solving abilities, preferences for using the system, social connectivity, and current location. This information is gathered in an automatic way, using students’ behavior and actions in different learning situations provided by different components/services of the ubiquitous learning environment. By providing a comprehensive student model, students can be supported by rich adaptivity in every component/service of the learning environment. Furthermore, the information in the student model can help in giving teachers a better understanding about the students’ learning process.

Paper three: (p. 36-50)

**Social Capital, IT Capability, and the Success of Knowledge Management Systems**

Irene Y.L. Chen*, Ching Yun University, Taiwan
Abstract: Many organizations have implemented knowledge management systems to support knowledge management. However, many of such systems have failed due to the lack of relationship networks and IT capability within organizations. Motivated by such concerns, this paper examines the factors that may facilitate the success of knowledge management systems. The ten constructs derived from social capital theory, resource-based view and IS success model are integrated into the current research model. Twenty-one hypotheses derived from the research model are empirically validated using a field survey of KMS users. The results suggest that social capital and organizational IT capability are important preconditions of the success of knowledge management systems. Among the posited relationships, trust, social interaction ties, IT capability do not significantly impact service quality, system quality and IT capability, respectively. Against prior expectation, service quality and knowledge quality do not significantly influence perceived KMS benefits and user satisfaction, respectively. Discussion of the results and conclusion are provided. This study then provides insights for future research avenue.

Paper four: (p. 51-66)

Scaffolding Online Collaborative Critiquing for Educational Video Production
Yiong Hwee Teo, Ministry of Education, Singapore
Ching Sing, Chai*, Nanyang Technological University, Singapore

Abstract: In art, design and media education, learning from examples has been an established way to coach students. To derive greater benefits, teachers should get students to go beyond mere studying of examples. This paper focuses on engaging novice learners in collaborative critiquing of real examples of professional work and past student work in the context of producing an educational video project. While critiquing of such works is not new in art education, there is however scant literature on how to involve students in collaborative critiquing in an online environment involving video projects. A four-step critique model was therefore designed as procedural scaffolding and implemented in an online system, Knowledge Community. A group of Singapore pre-service teachers were engaged in online collaborative critiquing of videos before they embarked on their video projects to illustrate what constitutes good and bad video production. This research points to the value of online collaborative critiquing as a way to facilitate novice designers’ progress towards
expertise. In this environment learners are able to look at problems through multiple perspectives, generate their own solutions and build knowledge that uses the overlapping expertise of the online community.

Paper five: (p. 67-80)
A user-centered design approach to develop a web-based instructional resources system for homeland education
Chaoyun Liang*, Yuan Ze University, Taiwan
Wen-Shou Chou, Yuan Ze University, Taiwan
Yu-Ling Hsu, Yuan Ze University, Taiwan
Wen-Shou Chou, Yuan Ze University, Taiwan

Abstract: Under the national educational policy of Nine-Year Integrated Curriculum, elementary and junior high school teachers are expected to design their own instructional materials, and to teach their courses which could be linked to students’ daily lives. The policy also allocates funding to create a variety of web-based instructional resource systems in order to assist these teachers in preparing their classes. Upon the basis of a user-centered design approach, this study is aimed at constructing a set of suggestions of planning, designing, and developing a web-based instructional resource system for the homeland education. This research team takes Nei-Li area in Taiwan as an example to develop such a system, and constructs a user-centered design model. The study results indicate that, unlike the traditional instructional design approach, the proposed model takes into account the user’s needs, the capability of the project team, the resource availability for implementation, the national educational reform policy, the development of information technology industry, and the socio-cultural context of a community at the initial phase. In addition, the development process is divided into two courses, one for contents design while the other for system construction, both of which are implemented at the same time.

* Corresponding author