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## Editorial

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**Biographical notes:** Lorna Uden is Emeritus Professor of IT Systems in the Faculty of Computing, Engineering and Technology at Staffordshire University. Her research interests include technology learning, HCI, activity theory, knowledge management, web engineering, multimedia, e-business, service science and innovation, mobile computing, cloud computing and problem-based learning.

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Welcome to V7N2 issue of IJLT. There are six papers in this issue. The first paper is, 'In search of an open-source LMS solution for higher education using a criterion-based approach', by Ema Kusen and Natasa Hoic-Bozic. Learning management systems (LMS) manage online courses by supporting crucial course roles (such as student, instructor, and administrator), providing test databases, communication tools and student's progress tracking tools. It is possible to include various collaborative activities, participate in online discussions, online group works, share resources or create common knowledge in a form of a wiki in a LMS. This paper investigates the evaluation of the open source LMSs by listing and evaluating the systems according to criteria such as integration of Web 2.0 tools and system's adaptability to specific user needs at the University of Rijeka, Croatia. The results of this study show that the evaluated systems can be organised into categories according to their similarities.

According to these authors, the selection of an LMS should be based on the course requirements. In order to objectively evaluate the six selected open source LMSs in their most current versions, the authors listed a number of criteria which were logically organised in seven categories. According to the given results, they organised the systems in three groups, based on the characteristics of each and proposed the recommendations for their selection. They recommend ATutor when the majority of online students are students with special needs, due to its ability to customise the interface for each course participant. Chamilo and its predecessor Dokeos showed aesthetics value in an online learning environment. Moodle proved to have a large number of integrated customisable tools and good community support and is also the only system with local support and a Croatian user manual. It would be useful to investigate the impacts outside of the Croatian environments.

The second paper is, 'Integrating a case library with blogs for lesson planning activities' by Wu He, Shaoan Zhang, Neal Strudler and Tawnya Means. This study explored how combining a case library with blogs can help pre-service teachers plan a lesson with technological pedagogical content knowledge (TPACK). The study was conducted in a secondary level general methods course in the fall of 2008. The

participants included 34 secondary teacher candidates in an urban teacher education programme at a south-western state university. Findings of the study indicated that

- a teacher candidates developed TPACK
- b teacher candidates valued the KITE library as a source for TPACK application
- c blogging created a positive social collaboration community but not so evidently effective in the integration of technology in lesson planning.

The results also showed there was a gap between teacher understandings of the importance of technology integration and their use of technology in lesson planning.

According to these authors, the findings generated discussions about factors such as classroom management that affect teacher candidates' decision making about technology integration.

First, the findings imply that technology should be woven throughout teacher education programmes rather than being offered in a single, isolated course. Second, methods faculty in teacher education programmes should model technology integration by demonstrating and promoting the use of technology in enhancing different student learning outcomes. Finally, field placement experiences should include teaching assessment for teacher candidates' technology uses in practicum and student teaching in order to push both mentors and teacher candidates to work with technology integration. Further empirical studies are needed to validate the results.

The third paper is, 'A case study of using eye tracking techniques to evaluate the usability of e-learning courses' by Mingzhuo Liu and Zhiting Zhu. In this study, the authors used eye tracking method with traditional interviewing and observing methods to evaluate and examine the functionality and usability of the homepage of an e-learning course. Through the use of eye tracking in the usability experiment, they were able to glean insights about how the web user worked his or her way through usable and unusable designs. The integration usage of eye tracking with interviewing method produced strong corroborative results. In this study, participants were asked to perform three tasks on the homepages of the two versions. The tasks are:

- 1 *Task 1:* Find 'the entrance of Chapter one' and click. The usability goal of Task 1 is to determine if the entrance to chapter one is clear and easy to find.
- 2 *Task 2:* Find the 'Q&A' label and click. The usability goal of Task 2 is to determine if the layout of the 'learning support' area on the right side of the interface is reasonable or not and if the items are easily found, recognised, and understood.
- 3 *Task 3:* Find the 'course learning' label and click. The usability goal of Task 3 is to let the facilitator know if 'course learning' label makes sense to the participants and if the position of its icon is clear.

According to these authors, the conclusions drawn from the case were that combining eye tracking with interviewing produces a strong corroborative result. The result was a set of strong, detailed recommendations for homepage improvements that have both statistical and qualitative bases. The other finding was that eye tracking was a beneficial complement to traditional usability testing methods. However, using eye tracking

technology adds costs and requires trained personnel. Further research is needed to improve understanding of when eye tracking should be used in a process of usability testing and how these findings could be nicely integrated so as to make optimal design decisions.

The fourth paper is, 'Multimedia analysis techniques for e-learning' by Dimitris N. Kanellopoulos. Kanellopoulos argues that multimedia analysis techniques can enable e-learning systems and applications to understand multimedia content automatically. These techniques can provide various novel services to both e-learning video providers and learners. This paper provides an overview of multimedia analysis techniques used in internet video for e-learning purposes. According to the author, there are many benefits to using video in education. Video supports playback that allows repeated watching for memory reinforcement or concept clarification. Video-based materials can appear in the curricula of various sciences. When video is introduced into a curriculum, learning activities generate a profound level of engagement, better understanding of the content, or even an improvement in students' cognitive capacities for learning from video. This is a survey paper that would be useful for readers who are new to the technique. However, it is disappointing that there is nothing new in the research.

Paper five is 'The effectiveness of vocabulary learning website games on English language learners' communication skills' by Safa' Ali Al-Sharafat and Ali Farhan AbuSeileek. The authors in this paper try to evaluate the effectiveness of using website games for learning vocabulary on fifth grade English as a foreign language (EFL) learners' communication skills (listening, speaking, reading, and writing) development. The study also investigates the effect of website game type (*context, word search, compound word, recognition, and synonyms and antonyms*) on students' communication skills, and the effectiveness of using website games on students' ability for vocabulary retention. To find the differences that may arise because of the treatment conditions in the study, means, standard deviations, ANOVA analysis, *t*-test, and Scheffe test were used to test hypotheses about differences between two or more means.

The findings of the study reveal that website-based instruction showed more improvement on the achievement test in communication skills than traditional instruction. It was also found that the experimental group significantly outperformed the control group in written skills (reading and writing) while there were no significant differences between them in oral skills (listening and speaking). The findings of the study also indicated that the mean scores on the word search game provide the best indicator to students' later performance on the communication skills test. Another finding indicated higher retention level in favour of the experimental group. However, the study is very limited because of the size of the sample used. More empirical data are needed to validate the results.

The last paper is, 'The prod of on-site course inflexibility' by Fabien Fenouillet and Jonathan Kaplan. This research studies the effect of flexibility on e-learning use within the framework of the technology acceptance model (TAM). Concern with flexibility arises from university programmes increasingly blending distance education and on-site learning, made possible by internet-age computer technologies. According to these authors, their primary hypothesis, that students' choices for taking online courses depends on the perceived convenience of on-site courses, is confirmed.

The results confirm that student choices to use these technologies for their learning are strongly influenced directly and indirectly by the perceived lack of flexibility of

on-site course design. The results also indicate that the absence of flexibility of on-site courses has not only more impact on the use of these technologies but also on all other variables in the TAM. Although the results are interesting, more work is required to validate the findings.