

GUEST EDITORIAL PREFACE

Special Issue on Technology Enhanced Learning

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1. INTRODUCTION

The Technology-Enhanced Learning (TEL) adopts crucial resources to integrate educational and information technologies into academic environment. The purpose is to promote learner-center education in campuses; to enhance the faculties' and the students' knowledge in technologies; and to uplift the mobility and flexibility in teaching and learning. In this special issue on TEL, researchers, policy makers, and practitioners address the current challenges in this field as well as demonstrate their contributions to the field. Through this issue, researchers, practitioners, technology developers, and entrepreneurs can be inspired to explore new collaborations and enhance their experiences in this field. In addition, educational institutions and companies will have the chance to consider and incorporate these technologies into their strategies for teaching and learning. In short, this issue may serve as a role that can make educational innovation more useful, lasting, and innovative for the present and the future.

2. ARTICLE OVERVIEW

In the first journal article, Ali Fardinpour (Mehr Alborz University, Iran), Mir Mohsen Pedram (Kharazmi University, Iran), and Martha Butkle (Athabasca University, Canada) proposed thirteen most significant features and tools as criteria to be used in fuzzy analytic hierarchy process (AHP) as a fuzzy model to measure the intelligence of Learning Management System (ILMS). Using a fuzzy model to measure the intelligence of Learning Management Systems can help clients to evaluate and choose the best ILMS.

In the following article, Amina Debbah and Yamina Mohamed Ben Ali (Badji Mokhtar University, Algeria) focused on the Curriculum Sequencing problem (CS) consisting of the generation of a personalized learning path for each learner according to his learner profile. Debbah and Ali introduced a DNA computing approach to solve this well-known Curriculum Sequencing problem that plays a central role in the adaptive and intelligent e-learning systems

since the success of such systems depends on whether the systems can suit the needs of the learners.

The third article contributed by Paul Salvador Inventado, Roberto Legaspi, Koichi Moriyama, Ken-ichi Fukui, Masayuki Numao (Osaka University, Japan) is related to a learning support tool (named Sidekick) that helps students analyze and evaluate their learning behavior, so as to help them make better judgments when students select actions in future learning sessions.

In the fourth paper, Ching-Hsu Huang (National Pingtung University of Science and Technology, Taiwan) discussed whether using computer simulation teaching strategy enhanced students' understanding of statistics concepts for students enrolled in an introductory course. Huang's study showed that computer simulation teaching strategy helps students to receive favorable reactions of statistics learning for students in Hospitality Program.

Subsequently, Yung-Lung Kuo (Far East University, Taiwan), Jiann-Shu Lee (National University of Taiwan, Taiwan), and Min-Chai Hsieh (Chia Nan University of Pharmacy & Science, Taiwan) proposed in their study an attention awareness system that captures the conditions regarding the interaction of eye gaze and head pose under various attentional switching in computer classroom. The video-

based tracking system rendered the student's eye position and judged his/her attention without equipping any special glasses or sensors. The system recorded the condition and duration of the student's distraction in real time to alert the class teacher to of his/her behavior. Experimental results showed the high accuracy in eye tracking even if the student is wearing glasses or has a fringe.

In the last piece of the article, Yulung Wu (National TaiChung University of Education, Taiwan) adopted Multi-Phase Guided Remedial Learning Strategy in a learning evaluation. The evaluation showed that students at the mutual learning stage can enhance learning effectiveness through group discussion and complementary abilities.

3. CONCLUSION AND ACKNOWLEDGMENT

As the guest editors, we would like to express our appreciation to all contributing authors and reviewers for their time and effort in preparing this special issue. We would like to thank the IJEDT Executive Editor Maiga Chang, for his assistance and guidance. We hope that the research findings in this special issue will help and encourage further research in e-learning and in education using new techniques.

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