# Book Review

# Educational Technology and the New World of Persistent Learning

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With the advancement in technology, learning has gone beyond the boundary of schools and has progressed into lifelong persistent learning (Kirbas, 2018; Liu, & Chen, 2018). Whether in classroom or office settings, various applications are being created for the purpose of increasing learners' motivation and performance; therefore, it is important to acquire more information on this type of learning. This book, "Educational Technology and the New World of Persistent Learning," could help give readers a more general understanding toward the subject.

The first two chapters of the twelve in this book correlate to each other. The author begins by introducing a series of useful learning tools illustrating how new technologies can benefit learners nowadays, such as the use of mobile devices and existing learning management systems. The author also talks about the potential development of artificial intelligence and robotics in the education domain, then briefly inserts concepts regarding technologically enhanced immersive environments, virtual and augmented reality (VR/AR), and taps into the advantages and downsides of current applications in classroom settings. However, the tone of these chapters seems a little over-optimistic; it would be more profound if the author includes discussions from other perspectives, for instance the challenges that faculty faces in current educational institutions regarding the use of such technologies.

The authors in chapter three present an experiment through carefully planned stages and implementations, demonstrate how new techniques transform old ways of storytelling into something

that elevates the students' interests in learning. They incorporate digital storytelling (DST) into a social study course at targeted middle schools and results show that the use of DST could positively affect students' engagement and motivation more than a regular course. Obstacles encountered when carrying out DST are listed by authors, including the teachers' concern of DST as a time-consuming activity and the difficulties in providing appropriate hardware/software to assist teachers.

The fourth chapter focuses on the concepts regarding self-directed learning and how educational technology could intertwine with individuals' persistent learning. By emphasizing "one size fits all" is not suitable for the digital age, the author presents the need for diversified approaches. This enables each learner to nurture their own experiential learning approaches according to their prior experiences, attitude, and skill sets for utilizing devices or resources at hand.

Providing evidence of how educational technology could influence education, the fifth chapter elaborates on the importance of e-collaboration in e-learning. E-collaboration is considered promoting learner motivation and accountability if carefully applied; the author also provides theories to back up this claim. The benefits e-collaboration tools could bring to e-learning are introduced, along with several practical methods for educators to incorporate. Chapter six further escalates the discussion to a global scale and provides a more thorough understanding regarding the integration, usage, and concepts of educational technology. Besides mentioning the benefits, the author also investigates global studies of mobile phone, social media and other educational technology programs, with the training for educators especially noted.

Chapter seven gives readers a glimpse of how technology could help learners identify new concepts, share and interact with a group and at the same time improve their problem-solving and mapping ability. Prototype software called Conceptual Map Project (CMP) was introduced to a group of charted engineers with different backgrounds and professional skills. Through surveys and learner feedbacks, authors collect data that not only can improve the interface and design of CMP, but also provide possible information about learning attitudes. The authors state that CMP was originally designed to help learners deal with difficulties encountered in a blended course and provide data regarding personal and collective learning. The learners' positive responses prove CMP to be a useful tool.

The authors in the next chapter present a brilliant case of using automated essay scoring (AES) software system paired with automated writing evaluation (AWE) and automated feedback to support teachers in enhancing children's writing abilities. After the initial introduction of what the software is capable of, comprehensive survey data from both students and teachers are collected and presented. According to the interviews, students consider this kind of technology helps them concentrate on their weakness in a more detailed and timely manner. Feedback from teachers notes that although automated comments are specific, yet sometimes overwhelming to students. Both parties express that they learned more while deciphering the comments. The authors conclude that the downsides of applying such software are not only the technical limitations, but also how to redirect students' attention from focusing only on essay scores and reduce teacher's burden of interpreting automated feedback. Continuing with the classroom setting in chapter nine, the author introduces a strategic model called 3CE Model for educators to deploy. Its four stages comprise: communicate learning goals, provide contextual knowledge, create learning environment, and evaluate learning progress. This model provides educators general guidance and could serve as an adjustable framework for technological applications in the classroom.

In chapter ten, the authors illustrate the development of a mobile app that integrates with an intelligent system and allows students to input information regarding their study strategies. The system is designed to classify students' learning styles according to the models developed by Feder-Silverman and Kolb, so that teachers can have a better picture of students' learning methods and make appropriate adjustments in pedagogies at the early stage of class. The authors describe the concept of intelligent tutoring system and explain different study strategies and models in detail. The authors' intention to highlight the use of new technology is worth praising; however, this article kind of ends in haste

after revealing the results which students would receive after completing the survey questions. It would be much more complete if authors could indicate further use of this app after the initial survey.

The authors in chapter eleven redirect readers' focus to an area that has not yet received much attention: the use of humanoid robots for students with intellectual disabilities. The studies listed by the authors reveal that students show interest and experience positive results when interacting with humanoid robots. Therefore, the authors suggest education authorities should support programs related to developing humanoid robots in schools, so that educators can utilize the latest technology and work side by side with humanoid robots. The merits of humanoid robots and interesting examples are found in the chapter as well as practical challenges that educators face in the front line.

The final chapter proposes using web technologies in a virtual learning environment to create e-assessment tools for educators. In this way, educators can continuously monitor students' academic process and interact with them through various tasks, assignments and manage assessments electronically. According to the investigation done by authors, e-assessment is not only favored by teachers because it reduces their workload, but is also welcomed by students for its conveniences and the sense of autonomy in the learning process. After presenting the actual development of what they call the EVEE platform, the authors conclude with teachers' feedback about the system, shedding light for other educational institutions which want to develop a similar learning environment.

This book serves as an adequate summary for readers who already have initial knowledge about educational technology and persons with an interest in the topic. From exciting applications such as artificial intelligence, tutoring systems, humanoid robotics, AR and VR, to the development of digital storytelling, automated writing evaluation system, mobile application and virtual learning environment as an e-assessment tool, along with related learning theories, all these are tied to the subject of persistent learning. A final suggestion for the editor is that the book would be more readable if the order of the chapters could be rearranged according to selected attributes, such as the field of various applications or theory first, then applications.

## REFERENCES

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