Foreword

I am pleased to write some words for this very timely collection. E-learning has come long way since its infusion in mainstream education. While advances are being made in a number of technological and pedagogical dimensions, ranging from innovations in semantic technologies to social networking through Web 2.0, significant growth in mobile device technologies in recent years has made it a real possibility to learn anytime and anywhere. This edited volume has not only recognized this aspect but has gone one step further in the realization of ubiquitous learning where mobile technology is not of one specific form. This has serious implications in terms of identifying ways for effective use of this technological advancement in education, particularly when the access to education is not limited to one type of devices. Even the same student is bound to use desktop computers and mobile phone to access and interact with educational content and activities at different times. In such as multiplatform learning environment, if we do not start looking critically at the pedagogical changes required to accommodate this, pedagogy will again be decades behind the technology.

This book is therefore a significant step towards making sure that pedagogy stays at par with technological advances. The chapters are divided into four sections, which logically flow from the theories and frameworks for supporting effective learning in mobile and ubiquitous learning environments, to the design and integration methodologies for various components in such environments. Next section focuses on various innovative tools that have been developed. Finally, the book concludes with a section on real examples of use cases.

One highlighting aspect is the abundance of focus on contextual, adaptive and personalized learning in this collection. With mobile and ubiquitous learning, the education is not any more a bulk process as it used to be in traditional classrooms, where individual student did not matter. Mobile and ubiquitous learning has really put the student at the center of learning, contributing significantly to constructivist learning paradigm.

Another breakthrough of mobile and ubiquitous learning is the awareness of situation that guides the learning process. Learning process does not follow a rigid path any more. Instead, it is now possible to customize and configure the content, activities and interaction to the real-time situation of the student. Mobile devices allow location awareness through technologies such as GPS and cellular base station reference, and environmental awareness through technologies such as RFID and QR Code. Chapters in this collection include these aspects at both research and implementation levels, making this collection useful for both researchers and practitioners.

There is a right balance between theory and practice in this book, covering pioneering innovations and well-proven applications of emerging technologies. Chapters focus on both pedagogy and technology, and therefore this collection should be useful for a wider community of researchers, early adopters and those who want to make sure that their teaching is informed by proven research. By having a stab at futuristic technological solutions, this collection will also serve as an archival reference for future generation of researchers by giving them insight of systematic technological advancements in education.

I am especially thrilled to comment on this collection, since the editor of this collection, Dr. Tiong Goh, is known to me for past many years, and I have witnessed his research capabilities and achievements, particularly those related to the multiplatform mobile adaptation framework he designed as part of his doctoral research to consider the factor of urgency in learning process. He has once again shown his prudence by putting together an excellent combination of high-quality research and implementation articles that would serve as stepping stone for others for years to come.

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