INTRODUCTION

Since the term was coined by Paul Myers of the BBC College of Journalism, blended learning has become a mainstay of university and workplace-based teaching and learning, and more recently, in the school system as the Net Generation (Tapscott, 1998) begins to expect alternate methods of acquiring knowledge (Tapscott, 2009). For the purposes of this book, with varying permutations, blended learning is defined as combining face-to-face (f2f) teaching with computer-mediated instruction (Graham, 2006). The idea of combining face-to-face learning with some form of on-line learning made sense a decade ago as it allowed much more flexibility in delivering instruction to diverse groups of learners. In 2010, blended learning has become a mainstay for universities because of that flexibility, to be sure, but more importantly, because of the thousands of dollars that can be saved by changing the mode of delivery so that there is much more online than face-to-face delivery. As Young (2002) pointed out, the President of Pennsylvania State University argued that blended learning was “the single-greatest unrecognized trend in higher education today (p. A33). As it turns out, he was correct. Bates (2000) predicted lucidly that changing from a face-to-face model to a hybrid, or blended learning, model requires more capital up front, but the change would save thousands in as few as three years. As the blended learning applications in this book demonstrate, blended learning not only addresses the needs of the new generation of learners but also saves money for university administrators in a time of ever-shrinking budgets.

As the Digital Natives (Palfrey & Gasser, 2008; Preusky, 2010) and Net Generation (Montgomery, 2007; Tapscott, 2009), learn in the school system and enter our undergraduate and graduate programs, we need to address their learning needs. We truly need to re-think education in the age of technology (Collins & Halverson, 2009; Tomei, 2009) since this generation of students expect social media networks, podcasts, wikis, and blogs as the mainstays of education. Their brains are wired differently than previous generations, and they do not sit still for solely face-to-face instruction (Tapscott, 2009). They are multimodal learners who thrive in environments where discussion is encouraged and performing multiple tasks to find answers to problems is standing operating procedure. They prefer to uncover ideas rather than have teachers, instructors, and professors to cover the ideas in class. In an age of cloud-based computing (Babcock, 2010), these learners expect to have access to information 24/7 through the Internet and through their mobile devices. As the chapters in this book show, these students are ready for blended learning and ready to take blended learning to the next stage: mobile learning.
Uniqueness of the Book

It has been five years since Bonk and Graham (2006) produced “the first book to cover blended learning situations and scenarios around the globe” (p. xxxii) and, in a sense, this book continues where they left off. This book is unique in that it is one of the few that presents a global perspective on blended learning and augments that perspective with examples and applications from around the world, written by scholars who are leaders in their countries and in the world. It highlights examples from the school system, from undergraduate classes, and from graduate classes.

This book also blends in andrological principles as they apply to blended learning situations, an argument I purported some time ago now (Kitchenham, 2005), as well as heutagological principles as we consider the self-directed nature of the lifelong learner. As Bonk and Graham saw their book as a conversation starter about blended learning, I see this book as a continuation of that conversation. As discussants, we now know more about blended learning, its triumphs and challenges, than we did as few as five years ago. We now see applications in developing countries as they embrace mobile systems in place of the less-reliable Internet connections and witness the explosion of knowledge as avenues for knowledge acquisition open up. In the developed countries, we see that same explosion, but we also see a finetuning of the blended learning framework. Lastly, this book is unique in that it combines the tried-and-tested blended learning models with the potential of mobile learning opportunities. In fact, much of that argument is continued in another edited book of mine, *Models for Interdisciplinary Mobile Learning: Delivering Information to Students*.

Target Audience

The prospective audiences for this volume will be academics and practitioners in the areas of distance learning, e-commerce/e-government, healthcare, business, education, engineering, and science, to name but a few. This volume contains chapters from leading experts in the field which will be immensely helpful for all stakeholders and will aid them in all aspects of teaching and learning.

The potential uses for this publication are vast. The volume could be used as a prescribed text in graduate schools across the world since there is a great deal of information on the latest trends in blended learning. The book can be used as a bookshelf book for academics since much of the current research on blended learning is encapsulated in these pages from myriad respected scholars. The book can be a frequently-used library reference book since it contains trends, recent research, and seminal studies on blended learning in an easy-reading style. The volume is pertinent to higher education administrators as both a source for change and for faculty discussion. Lastly, this book is perfect for anyone who is interested in reading about the next stages of blending face-to-face instruction with online learning. Once again, having chapters from leading experts in the field will be helpful and will aid readers in all aspects of teaching and learning in the age of e-learning.

The potential benefits for the reader of this publication are that he or she will have cutting-edge research on blended learning, written by key academics in the respective areas of expertise (see the next section and the Tables of Contents for chapter headings and abstracts). Additionally, the benefit of this edited volume to enhance the available literature is that it would bring together the writers from other books and journals into one volume. It could also lead to opportunities for new and experienced researchers to meet at a common venue based on what is written in the chapters.
The Structure of the Book

The book begins with an informative foreword by David Parsons who outlines the history of the term and explains its evolution. The book itself is divided into three natural sections. The first, Theorizing About Blended Learning, includes four key chapters dealing with theoretical and philosophical arguments for blended learning. The second section, Practicing Blended Learning, contains four chapters that exemplify blended learning in various contexts. The last, Extending Blended Learning, includes five chapters that demonstrate how blended learning can be applied in innovative ways.

Theorizing about Blended Learning

The book opens with a chapter that contextualizes the book and subsequent chapters. In “Towards a Technology-Enhanced University Education,” Valia Spiliotopoulos argues that learning technologies, such as blended learning methods, can clearly meet the outcomes, objectives, and goals of universities across the world. She outlines several actual examples from universities that have taken the concept of blended learning and created courses and methods that exploit the incredible potential of blended learning. The Canadian context outlined is similar to many post-secondary settings whether the setting is in Florida or Fiji, South Africa or France. Spiliotopoulos makes the argument that blended learning meets the needs at the course or program level, to be sure, but she states that institutional needs can also be met by providing support from the top-down for the individuals and faculties that are building robust blended learning models from the bottom-up. In fact, if universities are meant to be competitive in the 21st century market where walls and mortar are inconsequential, university administrations need to support centres for teaching and learning at the mid-range level, but they also need to support grassroots initiatives that often are unseen beyond a conference presentation or published paper.

The second chapter, “Blended Courses as Drivers of Institutional Transformation,” augments the argument presented in the first chapter. Charles Dziuban, Joel Hartman, Thomas B. Cavanagh, and Patsy D. Moskal describe innovative projects at the University of Central Florida, a hotbed for both research and practice on blended learning. Many times, the bottom line for organization administrations is whether initiatives such as blended learning have any effect for university or organizational change. The authors provide a convincing argument for the transformational potential of blended learning and the importance of aligning with the outcomes and strategic initiatives of the university. They report that the student enrollment in blended courses at UCF have increased over 450% in ten years. Additionally, using research findings from large student samples of over 86,000, they demonstrate that blended learning has positive impacts on student achievement, can predict success variables, and show correlations between blended learning and student ambivalence. They conclude the chapter of a case study from their institution that shows how strategic alignments and student results inform each other in a gradual process of transformation.

In the third chapter, “The Use of Asynchronous Video Communication to Improve Instructor Immediacy and Social Presence in a Blended Learning Environment,” Jered Borup, Charles R. Graham, and Andrea Velasquez present three cases in which the instructors used asynchronous video communication to provide high fidelity and high flexibility instruction to the students. In the first case, the instructor used the video feature in Facebook to communicate with the students and created weekly orientation videos that were linked on the course group page; in the second case, the instructor used VideoThread to augment the course content and created weekly orientation videos that were linked on the course
wiki; in the last case, the students could access to a group video blog for discussions with all or some students and to an individual video blog to communicate with the instructor alone. In all three cases, the instructors reported that the perceived asynchronous video communication was an effective means with which to communicate to the students and the students themselves reacted positively to the approach.

In the last chapter of this section, “Blended Learning Revisited: How It Brought Engagement and Interaction into and Beyond the Classroom,” Pablo Ortega Gil and Francisco Arcos García review several projects that used Learning Management Systems (LMSs) for specific groups of learners. They demonstrate that LMSs have had positive impacts on students through e-homework, on struggling students through innovative approaches, and on truant students by providing incentive to come to and stay in school. They conclude their chapter with a project that extends their work on blended learning into the realm of mobile learning and the use of PDAs by their students.

Practising Blended Learning

In Chapter 5, “Blended Learning Examples in Education and Chemistry,” Robert Hogan describes blended learning from the point of view of a developing nation, Fiji. That is, the chapter describes how blended learning, which has changed the teaching and learning process in developed countries, has just begun to spread in developing countries, arguing that the improved Internet access has enabled students to be part of the blended revolution and has created a new market for universities to offer blended programs in Asia, Africa, and the Pacific. In particular, the chapter outlines instructional design, cultural considerations, technical issues, and initial findings from offering two blended learning courses: an undergraduate course in Chemistry and a graduate course for teachers.

Sue Tappenden, in “Blended and Mobile Learning: Experiences from a New Zealand Faculty of Law,” focuses on her own blended learning experiences as an instructor in the Law Faculty at the University of Waikato. She provides a solid argument for designing a blended law course with the two key considerations of a conservative profession and the cultural needs of Maori students. Since Law is a conservative profession and is bound by external requirements, mandatory courses need to be face to face; however, elective courses can be delivered online. Additionally, Maori students find it very difficult to take part in a competitive approach to gaining course content but Tappenden points out that the use of blended learning technologies such as podcasts and DVDs, within a constructivist framework, allows these students to take part at their own pace and be a part of a collaborative, rather than competitive, community.

In Chapter 7, “Towards Alleviating the Post-Apartheid Education Crisis in South Africa,” Pragashni Padayachee and Ansie Harding describe a blended learning model devised at the Nelson Mandela Metropolitan University (NMMU) that incorporates DVD technology into the course content as an affordable and easily-accessible technology for specific secondary school learners in the Eastern Cape of South Africa. Providing evidence from student questionnaires, teacher interviews, pre- and post-test results, a single-school case study, and a radar measure, the authors demonstrate, qualitatively and quantitatively, that the use of DVD technology resulted in students improving in the mathematics learning and performance.

In the next chapter, “The Role of Blended Learning in 21st Medical Education: Current Trends and Future Directions,” Geoffrey W. Payne describes the role of blended learning in medicine and how blended learning is perceived as a clear leader in the training of well-educated and competent physicians. The Northern Medical Program is unique in that the students study from one of three campuses, the University of British Columbia, the University of Victoria, and the University of Northern British Columbia, and receive their courses via online delivery. They also rotate through the three communities
when they take part in the residency requirements. Payne provides a thorough overview of the history of e-learning in medicine, a lucid argument for the inclusion of blended learning in the discipline, and a brief discussion of the future of blended and mobile learning in Medicine.

**Extending Blended Learning**

In Chapter 9, “*Fundamental Design Elements of Pervasive Games for Blended Learning*,” David Metcalf, Clarissa Graffeo, and Luke Read describe pervasive games within the framework of blended learning. The authors present the argument for pervasive game frameworks within alternate and augmented reality game genres as highly relevant to education. They identify key principles for reality games, provide specific game examples and how they are applicable to situated learning, guided experiential learning, and integrated thematic instruction. In particular, they share their findings and experiences conducted by the Mixed Emerging Technology Integration Lab and outline the Moving Knowledge Engine delivery system and game engine for pervasive blended learning solutions.

Michele Jacobsen, in “*A Case Study of a Blended Doctoral Program in Educational Technology*,” describes an online and blended doctoral program at the University of Calgary, a leading Canadian university in educational technology delivery. She outlines the genesis of the program, the development of courses, her own experiences in teaching courses, and the revisions to the program. She also explains the potential of such programs and hardware as Delicious, Google, Blogger, Moodle, Wikipedia, YouTube, Ning, iMovie, Facebook, Twitter, iPod, iPhone, and iPad in the teaching and learning process within a blended learning framework.

In the next chapter, “*Blended Learning in Nigeria: Determining Students’ Readiness and Faculty Role in Advancing Technology in a Globalized Educational Context*,” Nwachukwu Prince Ololube outlines a study that examined available promising practices, processes, and performance within a blended learning framework in a Nigerian university. In particular, he discusses the experiences of the students and instructors in Management Information System (MIS) or Business 224, a core course for those in the Department of Business Administration and Accounting. Using a six-point Likert-type questionnaire and 21 research hypotheses, he performed multiple statistical procedures, percentage, mean point values, chi-square, and ANOVA, he demonstrated that blended learning is effective and has a positive impact on student performance.

In Chapter 12, “*Blending In: Moving Beyond Categories in Digitally-Mediated Learning*,” Marvin D. LeNoue and Ronald Stammen outline their prototype blended learning concept, Second-Wave Enabled Technology Enhanced (SWETE) instruction. They present the operational attributes of the SWETE model, highlight the benefits of social media-driven instructional designs, and introduce the use of Blackboard LMS/social network site mashups as core tools for online teaching and learning. In particular, they argue that the SWETE has two key components of Second-wave e-learning which requires maximizing learner independence and freedom, and the realization that technology is an enhancement to, rather than a replacement for, teaching and learning. They conclude the chapter with a examination of the future for blended and mobile learning and with a call for more research into the use of social network technology within blended learning frameworks.

In the concluding chapter, “*Blending Anonymous Short Message Services with Learning Management Systems*,” Dick Ng’ambi discusses his research on blended anonymous short message systems (SMS) with a learning management system (LMS) to address the needs of non-traditional post-graduate students at the University of Cape Town. Among the SMS learning management system and within
a blended learning framework, the students use a Virtual Noticeboard, collaborative mobile memos, collaborative-network learning, and podcast-mediated reflection. Ng’ambi argues that the SMS system allows for a safe and equally-social teaching and learning environment for these adult learners in which mobile phone connections are much more reliable than Internet access.

CONCLUSION

This book represents months of hard work from a group of dedicated scholars who are passionate about blended learning. It is truly collaborative and international effort on the part of 25 academics from seven countries and four continents. When I was asked by IGI Global to edit a book dealing with international perspectives on e-learning, I was deeply honoured and rose to the challenge of soliciting chapters from colleagues across the world. In total, there were over 50 submissions from which 28 were chosen. The book chapters were submitted to a double-blind review and the successful authors wrote their final chapters. As it turned out, the quality and quantity of the book chapters were so outstanding that we decided to make the original book into two excellent books. This one, *Blended Learning across Disciplines: Models for Implementation*, represents the blended learning scholars, but much of their content deals with the arguments outlined in the second book, *Models for Interdisciplinary Mobile Learning: Delivering Information to Students*. Although the decision to include a chapter was certainly not arbitrary, many times the decision was difficult. I believe that the end product will provide an extremely valuable resource to those students, researchers, and scholars interested in the topic of blended learning.

In the end, this book has become an excellent resource for any person interested in blended learning: the definitions, the concept, examples from around the world, and applications from secondary school to graduate school. It will be a valuable addition to any person’s library.

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REFERENCES


