

Blended Learning across Disciplines: Models for Implementation

Andrew Kitchenham

University of Northern British Columbia, Canada

Foreword

Blended learning has become so much a part of our everyday understanding about the integration of technology into teaching and learning activities that it is almost surprising to reflect on its relatively recent coinage. Wikipedia credits Paul Myers of the BBC College of Journalism for inventing the term in 2000, and while it may have other roots, there is little evidence of its usage before that date. As Paul recounts:

"I needed a label for the new techniques I devised to help me train BBC staff. I was doing Internet research training, but I got fed up writing Web addresses on flip charts. I came up with a website to use during the course, a 'course companion.' This allowed trainees to click on links rather than have to read my handwriting. From there, I added exercises, then pre-course and post-course work. Then study material, tools that could be useful back in the work place, audio and video exercises, live examples, online treasure hunts. It became a very dynamic, imaginative way of staging a course, and soon other trainers were asking me help to build their own 'course companions.' This sort of training needed a name, so I thought of 'combined learning' as we used so many different sorts of media and techniques. That didn't sound right, so I came up with 'blended learning.'" (Paul Myers, personal communication, 2010).

Whatever the provenance of the term, it is clear that it was quickly popularised, in particular in commercial organisations where (unlike the education system) classroom time is an expensive overhead, and supporting learning outside of the classroom affects the bottom line. Not that its adoption was regarded as simply a cost-saving measure, since the new types of learning opportunity that were being offered were also embraced for their educational benefits: "The future direction of e-learning has been defined as 'blended learning,' according to many company executives [who] ...are blending multiple training practices to provide a fuller, more beneficial training experience for their employees." (Mitchell, 2001). It is also clear that academic interest in blended learning grew substantially around 2002-3, with an increasing number of peer-reviewed publications, establishing a tradition of innovative applied research that has continued to this day, as evinced by this volume.

Of course the term itself is just a label for certain types of learning delivery, and those practices had already been emerging for some time; Marsh stated in 2001 that "Blended learning is one of the leading trends in training today. While it is a fairly new term, the concept has been around for decades" (Marsh, 2001). Whilst one might question the idea that blended learning had been around for quite so long, Moodle's online learning history does trace the development of learning technologies from 1960, and refers to Cisco's Networking Academy in 1998 as "the largest blended learning initiative of its time" (Moodle, 2010). Perhaps the timeline is confused by possible definitions of blended learning. As Graham (2005) points out, depending on which definition you choose, blended learning may mean combining instructional modalities (or delivery media), combining instructional methods or combining online and face-to-face instruction. Thus not all definitions of blended learning would assume the use of technology. Further, there are other terms that have been used to refer to similar approaches to teaching and learning,

“hybrid learning” being perhaps the most popular, but there have been others. However, it is also clear that the generally accepted concept of blended learning is that it blends some aspects of technology with face-to-face learning, and that its growth really dates from the late 1990s with the emergence of online tools that could readily support it such as Blackboard and Moodle. Its value is of course not just based on using technology but applying it in the most appropriate way for a given context: “Blended learning is balanced learning. This balance is achieved by combining the advantages of two learning modalities” (Voci & Young, 2001). Isakson memorably blogged in 2002 that ideally we should be blending learning like a good scotch whisky, not just tossing it like a salad, so it is not just about throwing any technology into the learning mix, but about choosing the best learning delivery options, both technology based and more traditional. How this is done, of course, will depend very much on the context, the nature of the subject (this volume covers topics as diverse as medicine, MIS, mathematics, chemistry, and teacher training), the geographical distribution of the teachers and learners, the technological environment, the type of learner, and a whole raft of other considerations including cultural, personal, and economic factors. Thus, the chapters in this book address blended learning from a host of different perspectives, from the institutional to the technological, from the national to the global.

Given this complex set of factors, what can we say about blended learning after more than a decade of technological advancement, experiment, and experience? Reading the chapters in this volume gives us an excellent overview of the trends and changes that are driving blended learning today. Obviously the technology has moved on apace, giving us far broader options for blending different types of learning delivery. Some authors underline the importance of new aspects of Internet technologies in blended learning innovation. These include various Web 2.0 technologies, such as social networking and mashups, as well as mobile, cloud, and open source computing. Such technologies have given the opportunity to go beyond inflexible one-way content delivery models to more interactive and creative learning environments. Another important innovation is the use of pervasive games in blended learning. Game based learning has become increasingly recognised as a valuable tool in the educators’ kit, as game engines and conceptual designs are increasingly utilised for the “serious” games that can educate as well as entertain.

Mobility is clearly becoming an important part of blended learning initiatives, as reports from Europe, Africa, and the Americas in this volume assert. In 2010, the Open University claimed a world record for being the first to reach 20 million iTunes downloads, and this was all learning material (Coughlan, 2010). The high penetration of consumer broadband and portable digital media players that enabled this record was almost inconceivable a decade ago. Changes in global technology diffusion are also having an impact on the possibilities for blended learning initiatives in developing nations. In particular, chapters in this volume focus on the South Pacific and Africa as two contrasting but informative contexts for blended learning. Several chapters from African authors address the major challenges and opportunities blended learning in the particular circumstances of that continent. As the ITU indicates, Africa has the highest ratio of mobile to total telephone subscribers of any world region (ITU, 2006), so learners are often located in contexts where mobile connectivity is more guaranteed than Internet access. One African initiative, which also seeks to leverage technologies that are widely available, uses DVDs as part of a blended learning system. Indeed, the use of video-based interaction for asynchronous blended learning is also promoted in a chapter from the United States. The main issue that can impact on technology based initiatives in developing nations is, of course the technology itself, but there are other important factors including cultural considerations. These considerations can also be important in developed nations, as shown by the New Zealand study that considers issues of both indigenous (Maori) culture and conservative professional culture.

In addition to technology, we can also learn about broader perspectives of strategy and institutional transformation, of concerns that are universal and concerns that must take account of local conditions. Several of the chapters in this book address blended learning from an institutional, strategic perspective, which attests to the increasing maturity of blended learning as a means of educational provision. Such perspectives acknowledge that blended learning is not only a technological issue but one that also addresses diversity, and wide ranging support for both students and faculty.

As blended learning continues to both mature and embrace innovative technologies and pedagogies, books such as this can help us to reflect on the multi dimensional experiences of teachers and learners in an increasingly complex technological and social environment. By drawing together such a varied range of perspectives, this book makes a valuable contribution to our current knowledge of blended learning and will help us to move forward with a deeper understanding of the important issues and technologies that go into the contemporary educational mix.

Dr. David Parsons, Massey University, New Zealand

Editor in Chief, International Journal of Mobile and Blended Learning

David Parsons is the founding editor-in-chief of the International Journal of Mobile and Blended Learning and holds an academic post at Massey University, Auckland, New Zealand. His work on mobile learning has been published in a range of journals, including the International Journal of Mobile Learning and Organisation and IEEE Transactions on Learning Technologies, and he has presented at many major conferences including mLearn, IADIS Mobile Learning and the IEEE International Conference on Advanced Learning Technologies. He acted as Chair for the Conference on Mobile Learning Technologies and Applications (MoLTA) in 2007. He was co-editor (with Hokyoung Ryu) of 'Innovative Mobile Learning: Techniques and Technologies' (Information Science Reference, 2009) and is the author of a number of texts on software development covering Java, C++, and Web-based applications. He is a member of the International Association for Mobile Learning and a professional member of the British Computer Society.

REFERENCES

- Coughlan, S. (2010). Open University claims record iTunes downloads. *BBC News*. Retrieved July 3, 2010, from <http://news.bbc.co.uk/2/hi/education/10446141.stm>
- Graham, C. (2005). Blended learning systems: Definition, current trends, and future directions. In C. Bonk & C. Graham (Eds.) *The handbook of blended learning: Global perspectives, local designs* (pp. 3-21). Pfeiffer.
- Isackson, P. (2002). *Learning circuits*. Retrieved July 3, 2010, from http://www.internetttime.com/itime-group/astd/lc_blog.htm
- ITU. (2006). ICT World Telecommunication/ICT Indicators Database *Information and Communication Technology (ICT) statistics*. Retrieved July 3, 2010, from <http://www.itu.int/ITU-D/ict/statistics/ict/index.html>
- Marsh, J. (2001). *How to design effective blended learning*. Brandon-Hall. Retrieved July 3, 2010, from <http://hhsu.learning.hhs.gov/communities/downloads/0208BWM23533.pdf>
- Mitchell, L. (2001). *New training methods offer personalized e-learning*. IDG. Retrieved July 3, 2010, from <http://www.itworld.com/IWD010416tcelearning>

Moodle. (2008). *Online learning history*. Retrieved July 3, 2010, from http://docs.moodle.org/en/Online_Learning_History

Voci, E., & Young, K. (2001). Blended learning working in a leadership development programme. *Industrial and Commercial Training*, 33(5), 157-160.