Preface

INTRODUCTION

Over the last decade the Internet has had an important impact upon higher education with the development of e-learning and virtual campus initiatives providing significant opportunities in terms of enhanced access to courses, knowledge, learning experiences and information for a wide range of different learners from across the world. E-learning is now commonly accepted within many educational establishments as an increasingly popular means of providing flexible learning and delivery through the provision of virtual campus opportunities in addition to their physical based campus courses.

The term e-learning has been used to describe an educational setting in which teaching and learning take place within an Internet-based environment in which digital technologies and media are used to enhance teaching, learning and assessment. Some authors have distinguished between online learning and e-learning, where online learning is used to represent any class that offers its entire curriculum via the Internet thereby allowing learners to participate regardless of geographic location, theoretically 24 hours a day. This is in contrast to the traditional classroom instruction, which is time and place bound, face-to-face, typically conducted in an educational setting and consisting primarily of a lecture/note-taking model, and blended learning, which is a combination of online learning and traditional classroom instruction. The term e-learning can be used as a generic term to encompass both (fully) online learning and blended learning. The term virtual campus has been used to describe a scenario where several higher educational establishments and organisations, through alliances and cooperative agreements, provide joint curricula and deliver programmes that can utilise e-learning and blended approaches to learning aimed at learners from across the world. The most recent developments in e-learning and virtual campus developments are characterised by more collaborative learning environments based much more on the constructivist epistemology, promoting reflective practice through the use of Web 2.0 technologies such as wikis, blogs, e-portfolios, as well as mobile learning, games-based learning and highly interactive online simulations.

Globalisation has led to the blurring of national educational boundaries, leading to the globalisation of education, with many higher education institutions developing new markets that were previously unobtainable. The development of virtual campus initiatives across international boundaries has enabled many higher education institutions to collaborate in providing courses and learning experiences to students from diverse cultural backgrounds from across the world. As a result of globalisation, institutions across the world are under pressure to integrate new technologies into teaching and learning (Connolly & Stansfield, 2007a). With increased student numbers and increased pressure on higher education re-

sources there is a drive to improve efficiency and management of the administrative elements of learning, teaching and assessment associated with e-learning and virtual campus initiatives.

Whilst e-learning and virtual campus developments have led to significant successes, over the last decade, there have been the several costly high profile e-learning and virtual campus failures across the world that has led to the discontinuation of large-scale projects and initiatives. If current and future e-learning and virtual campus initiatives are to succeed then it is vital that the lessons and best practices gained from previous and current initiatives are identified and disseminated among all relevant researchers, practitioners, decision-makers and stakeholders.

If e-learning and virtual campus initiatives are to be sustainable then it is vital that all relevant stakeholders understand how new models of teaching and learning can transform an institution and how they can be used to enhance flexibility and inclusiveness for learners from diverse cultural backgrounds. Whilst technology might be leading change at a rapid pace, it could be argued that too little attention is being paid to exploring the new forms of pedagogy made possible by e-learning and virtual campuses. Perhaps some of the more damaging criticisms are that some e-learning and virtual campus initiatives simply replicated the social organisation of traditional education and that the potential benefits that e-learning provides (i.e., personalised and accessible learning experiences) are missed. For many years, the technology (the 'e' part) of e-learning seemed to dominate thinking and developments in the field, and it is only recently that there has been a wider recognition that the learning is more important (Connolly & Stansfield, 2007b).

Therefore, there are a number of key pedagogical, technological, organisational and financial related issues that need to be explored and addressed in order to achieve strategic goals and provide stability and sustainability within the e-learning and virtual campus environment.

MISSION AND OBJECTIVES OF THE BOOK

The mission of this book is to disseminate knowledge, experiences and best practices relating to e-learning and virtual campus developments from across the world. If e-learning and virtual campus initiatives are to be sustainable, this presents a number of diverse challenges that institutions and relevant stakeholders must address. It is vital that key lessons gained from previous e-learning and virtual campus initiatives are shared and the transfer of know-how and expertise is achieved in order to create a firm basis and positive environment for future developments. The main objectives of this book are to:

- Provide readers with an introduction to the key issues relating to e-learning and virtual campus pedagogy and policies.
- Provide examples of experiences, best practice, benchmark activities and knowledge from some of the world's most experienced practitioners and researchers in the field.
- Contribute to the development of best practice through the evaluation and documentation of e-learning and virtual campus successes, as well as the possible pitfalls.
- Help institutions and key stakeholders understand the diverse issues surrounding e-learning and virtual campus initiatives and the conditions necessary to achieve greater success and sustainability.

Intended Audience

The intended audience of this book is broad and includes both internal and external stakeholders within the areas of e-learning and virtual campuses. This book will be of interest to:

- Teaching and research staff (and learners) within higher educational and training institutions across the world that utilise e-learning and virtual campus concepts and technologies.
- Educational technologists who are responsible for bridging the gap between pedagogy and technology.
- Senior and Middle Management in educational and training institutions who are responsible for coordinating key resources within the context of e-learning and virtual campuses.
- Formal stakeholders – such as Governments (at local and national level), Funding Councils, Educational Support and Quality Agencies involved in e-learning and virtual campuses.
- Key stakeholders in the Developing World who are developing e-learning and virtual campus initiatives at a rapid rate. It is vital that they are able to learn the lessons and best practices from earlier and current attempts and initiatives from other parts of the world.

Through a combination of chapters that explore theoretical issues associated with e-learning and virtual campuses, as well as practical case studies that highlighted best practices, this book will benefit both the novice reader, wishing to learn about the area, as well as experts who wish to keep pace with the latest developments in the field.

STRUCTURE OF THE BOOK

In this section, we provide an outline of each of the chapters in the book.

Section I: Advancing E-Learning and Virtual Campus Policies

This section provides an introduction to some of the key pedagogical issues associated with advancing e-learning and virtual campus policies.

In **Chapter I**, Lalita Rajasingham contributes to the ongoing discussion on current best practice and trends in e-learning and virtual classes in higher education. Based on international research, this chapter examines some signposts using pilot projects as a key pedagogical method in the journey from idea to execution and the factors leading to success or failure of e-learning initiatives. Rajasingham raises the question whether the e-learning phenomenon will represent a new and sustainable university paradigm for the emerging knowledge society.

In **Chapter II**, Yukiko Inoue argues that individuals need to develop the necessary competencies that include self-directed lifelong learning, in particular, through e-learning, to be able to participate in a working life that is mainly based on knowledge productivity. Inoue examines the importance of linking e-learning to current knowledge in general, and to self-directed lifelong learning specifically. Inoue argues that higher education today must commit to new roles: providing educational communities such as virtual campuses; and increasing capacities to produce knowledge available to all.

In **Chapter III**, Lars-Erik Jonsson and Roger Säljö report on attempts to develop critical features of seminar culture in the online context and point out that students must be involved in the activities of establishing a community with rapport between members and with an understanding of how to conduct the interaction. By giving the students responsibility for solving a range of practical problems and letting them help each other, Jonsson and Säljö argue they are induced into the status of legitimate online participants.

In **Chapter IV**, Stefan Hrastinski, Christina Keller, and Jörgen Lindh explore the key challenges relating to organisational culture which they consider may enhance or hinder e-learning implementation, and describe how the organisational culture shapes e-learning use at universities through comparing a School of Business and a School of Health Sciences. They introduce the concepts of administration-centered and learning-centered e-learning culture and the challenge of developing an e-learning culture that values both how e-learning can be used to enhance administration and learning.

In **Chapter V**, Dawn Birch and Bruce Burnett report on a study that examined factors that influence educators' decision to adopt and integrate educational technology and convert traditional print-based distance education materials into interactive multimodal e-learning formats. They argue that findings from the study have significance at the institutional level, particularly in terms of developing an underlying pedagogical rationale that can permeate the e-learning culture throughout the university, while at the same time, providing a roadmap for educators who are yet to fully engage with the e-learning format.

In **Chapter VI**, Gill Kirkup argues that e-learning innovation is best done in an environment that allows for small scale experimentation and development and that this can be made more difficult in an environment that prioritises large scale e-learning systems. The chapter discusses e-learning activities within the context of the Open University in the UK, in particular those of the MA in Online and Distance education programme in the Institute of Educational Technology.

In **Chapter VII**, Albert Sangrà, Lourdes Guàrdia, and Pedro Fernández-Michels present the findings of an in-depth analysis through several qualitative research studies, pointing out the key issues in relation to succeeding in developing effective and sustainable institutional virtual campuses and e-learning provision initiatives. They argue that an appropriate balance between the issues concerning technology, organisation and pedagogy in the form of the TOP triangle model is needed and the design and implementation of a strategic plan for such initiatives is highly recommended.

In **Chapter VIII**, Irene le Roux, Karen Lazenby, and Dolf Jordaan discuss four key variables that influence growth and sustainability in an e-learning environment, namely management, training and support, measurement, and technology strategies, and provide an example of a virtual campus that was implemented by the University of Pretoria. They highlight a situation in which as a result of upgrading the learning management system in order to provide more stability and better integration with the student information system, the more complex integrated environment resulted in more points of failure and a less stable environment.

Section II: Virtual Campus Best Practice Experiences

This section explores some of the key lessons, recommendations and best practices learnt from actual examples of virtual campus projects and initiatives.

In **Chapter IX**, Morten Flate Paulsen presents an analysis of 26 European megaproviders of e-learning which had more than 100 courses or 5000 course enrolments in 2005. Among the megaproviders, which represent eleven countries, there are eight distance education institutions, 13 universities and university

consortia, and five corporate training providers. In the chapter Paulsen provides 27 recommendations extracted from the analyses to help institutions obtain robustness and sustainability in online education.

In **Chapter X**, Mark Stansfield and Thomas Connolly outline a set of guiding principles underpinning key issues in the promotion of best practice in virtual campuses as part of the work conducted during the 'Promoting Best Practice in Virtual Campuses' (PBP-VC) European Commission co-financed project. Stansfield and Connolly highlight key enablers and inhibitors to success, provide a description of the different elements comprising the guiding principles in the promotion of best practice, as well as describing a tentative four level model aimed at illustrating different levels of virtual campus maturity in the achievement of sustainability and organisational transformation.

In **Chapter XI**, Helena Bijnens, Ilse Op de Beeck, Johannes De Gruyter, Wim Van Petegem, Sally Reynolds, Paul Bacsich, Theo Bastiaens, Anna-Kaarina Kairamo, and Grégory Lucas, describe the concepts of virtual campus and virtual mobility and refer to several past and present projects and initiatives in the field. Through these previous experiences, they identify a shift of concepts from the fully online virtual campus to virtual mobility, whereby the more traditional universities open their borders and "blended models" gain more and more interest. They use three cases to demonstrate this evolution: the Katholieke Universiteit Leuven (Belgium) which is progressively organising its educational support from a multicampus perspective; the Open University of The Netherlands which is broadening its tasks towards lifelong learning; and in the GIS case, in which the virtual campus is used as a strategic means to ensure a valuable and transdisciplinary approach. Bijnens et al., highlight the need to redefine the concept of virtual campus in order for it to be applicable to the changed educational needs of today and describe the Re.ViCa project that has been set-up to make an inventory and systematically review cross-institutional virtual campuses from the past decade.

In **Chapter XII**, Ron Cörvers and Joop de Kraker highlight the importance of subsidiarity in the development of a virtual campus. Subsidiarity is the principle that matters ought to be handled by the lowest competent authority and support this view by two case descriptions: the development and implementation of a very successful virtual course—European Virtual Seminar on Sustainable Development (EVS) and the project to expand from this single course to a virtual campus—Virtual Campus for a Sustainable Europe (VCSE).

In **Chapter XIII**, George Ubachs and Christina Brey explore the e-move project in which the European Association of Distance Teaching Universities (EADTU) initiated an operational analysis of virtual mobility through the development, analysis and implementation of different models of virtual mobility. This chapter explores how a particular virtual mobility scheme can be put into practice and what is required from an organisation to implement this model and incorporate it into its own curriculum.

In **Chapter XIV**, Yuri Kazepov and Giovanni Torris present an innovative blended model with Web 2.0 collaborative learning strategies built in that balances pedagogical, technical and content related issues into an *ad hoc* institutionally designed 60 ECTS (European Credit Transfer System) curriculum of the European Masters in Comparative Urban Studies (E-Urbs). They argue that a sound virtual campus arrangement should address the pedagogical, technical and content related dimensions in a balanced way considering the institutional setting within which they are embedded.

In **Chapter XV**, François Fulconis and Thierry Garrot describe a virtual campus—the CANEGE project (*CAmpus Numérique en Economie-GEstion*) that focuses on the areas of Economics and Management that they identify as a form of network organisation in which based on their investigations, they make a recommendations and establish best practices regarding the management of virtual campuses based on the CANEGE experience.

In **Chapter XVI**, Luca Botturi, Lorenzo Cantoni, Benedetto Lepori, and Stefano Tardini present a successful Swiss experience in developing and effectively managing virtual campus projects: eLab, the eLearning Laboratory of the University of Lugano and the University of Applied Sciences of Italian Switzerland. eLab's activities are presented at two distinct moments in time. Firstly focusing on the Swiss Virtual Campus programme during which time eLab emerged as one of the best performing e-learning support centres in Switzerland. This was due to three main elements: the establishment of a clear prototype-based design and development model, the definition of quality control procedures, and the implementation of a consistent and institution-wide online learning environment. After the end of the programme, eLab had to switch from a project-oriented laboratory towards a service unit. The general strategy that drove this change and the concrete tools and practices that made it possible are presented in this chapter.

In **Chapter XVII**, Christopher Brox highlights three projects funded by the European Commission where European and Latin-American project partners have developed, improved, and successfully tested an e-learning business model for the exchange of e-learning courses within the context of Geoinformatics. Brox argues that the business model is also applicable to many other scientific fields.

We hope that this book will be relevant to a wide range of stakeholders involved in the design, development, implementation and evaluation of e-learning and virtual campus initiatives across the world. The goal of this book is to appeal to researchers, educators, technologists and decision-makers, as well as postgraduate and undergraduate students interested in or engaged in e-learning and virtual campus related activities.

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REFERENCES

Connolly, T.M., & Stansfield, M.H. (2007a). From e-learning to games-based e-learning: using interactive technologies in teaching an IS course. *International Journal of Information Technology and Management*, 26(*2/3/4*), 188-208.

Connolly, T.M., and Stansfield, M.H. (2007b). Developing constructivist learning environments to enhance learning. In N. Buzzetto-More (Ed.), *Principles of Effective Online Teaching: A Handbook for Experienced Teachers Developing eLearning,* (pp. 19-38). Santa Rosa: Informing Science Press.