Preface

The concept of authentic learning is not new. However, its practice in higher education is arbitrary and undefined. The purpose of this book is to define the approach through examples of good practice. We hope that the rich variety of examples of authentic learning environments found in this book will provide the reader with the inspiration to teach their own subjects and courses in ways that reflect authenticity. This book is made up of a collection of peer-reviewed chapters that reflect the construct of authentic learning — learning that is centred on rich, real-world, immersive and engaging tasks.

The book is divided into three sections. Section I provides guidelines for designing authentic learning environments and encompasses the theoretical notions on which these environments are based. Section II contains chapters that describe how authentic activities are instantiated in a range of discipline areas commonly found in university settings. These authors relate the practical designs of their learning environments to both discipline-based theories and situated learning theories, as exemplified in Section I. Section III chapters discuss generally how authentic learning environments can be implemented and sustained more widely across an institution.

The Foreword has been written by Thomas C. Reeves, Professor in Instructional Technology at The University of Georgia. His influence on raising the awareness of teachers in higher education worldwide, to employ more innovative and authentic approaches, is enormous. Throughout his career, he has sought not only to champion the effective use of technology in education, but also to set an exhaustive and socially responsible research agenda for the field. His substantial contribution to education was recognised in 2003 when he was awarded the inaugural AACE Fellowship Award from the Association for the Advancement of Computing in Education.

In Section I, the editors, Anthony Herrington and Jan Herrington, describe guidelines for designing authentic learning environments for higher education that can be applied across a range of disciplines and in a variety of modes. Charac-
teristics of the approach are explored in depth, providing a practical framework for teachers wishing to break away from traditional, teacher-centred approaches in higher education, and who are willing to create learning environments where students are motivated to learn in rich, relevant and real-world contexts.

In Section II, Marilyn Laiken examines the creation of authentic learning environments in the light of adult education and transformative learning theory, using a graduate course as a case example. Through an analysis of the design and implementation of the course, the chapter provides specific ideas for how graduate education can contribute to significant personal change in the values, attitudes and behavior of adult learners.

Di Challis explores the synergies of an integration of the conceptual and practice worlds for students of architecture and construction. A case study is used as an illustration of curriculum design, including assessment aimed at creating learning experiences that were purposeful, rich in their complexity, and mirrored the demands of a profession fostering development in a supportive environment.

In her chapter, Annette Koenders describes the implementation of an authentic online collaborative assessment task implemented in an introductory biology course. The task required application of knowledge rather than simple summarising and had to be presented in a specific style. The study demonstrates that introductory students in a science course can achieve authentic learning.

Richard Ladyshewsky and John Ryan describe the use of peer coaching in the development of business managerial expertise. Peer coaching is one experiential learning method that can be used to enhance the depth of learning in managerial education. The experiences of students who participated in a peer coaching program as part of their post-graduate management education are revealed. Powerful learning effects are reported as well as characteristics of successful peer coaching relationships.

Greg Parry and Clive Reynoldson discuss a post-graduate economics program that forms a core part of a Masters of Business Administration (MBA) degree course. The program has been structured so as to create a learning environment in which students construct an understanding of economics through a semester-long, authentic learning task — specifically the development of a competitive strategy for a business in which they have a personal interest. The authors have observed that this approach has resulted in greater student engagement and a deeper conceptualisation of the role of economics in business as compared to the traditional approaches to teaching economics in MBA programs.

Shirley Agostinho describes a masters-level subject in the area of technology-based learning that uses an authentic scenario built around a fictitious consultancy company. This chapter describes a learning environment designed
to create an authentic context for learning evaluation skills and strategies appropriate to technology-based learning settings. Students are given realistic jobs with realistic parameters, and in this way the subject is dealt with in a much more authentic manner than if presented in a decontextualized way. The rationale for adopting the approach is described together with a description of how it was implemented and evaluated.

Jennifer R. Jamison’s chapter demonstrates how contemporary chiropractic education can use authentic learning opportunities to prepare students for the clinical practice. Safe professional practice requires a combination of factual knowledge and mastery of those thinking processes required to update and selectively utilize fresh information. This chapter demonstrates how three problem-solving formats can be used to help students achieve both these learning objectives.

Cate Jerram presents an adult educator’s experience in teaching computer-mediated communication to undergraduate students. An “adult learner” profile is presented and compared to classroom experiences of undergraduate learners. The chapter discusses the application of adult education principles to the reshaping and new delivery and assessment of the subject. It outlines the fundamental changes wrought in the subject to meet adult education standards and approaches, including course program goals, learning outcomes, delivery format, method, and assessment activities.

Sue Bennett describes the design of a technology-supported learning environment in which small teams of students worked on authentic project tasks to develop a multimedia product for a real client. A key feature of the approach was the use of related cases to support authentic project activities. A rich set of data was collected, including student assignment work, discussion records and interviews. Analysis of the data provided insights into the role of the cases in supporting the collaborative project work.

In their chapter, Brian Ferry, Lisa Kervin, Sarah Puglisi, Brian Cambourne, Jan Turbill, David Jonassen and John Hedberg describe the development of an online classroom simulation that allows the user to take on the role of the teacher of a virtual kindergarten classroom (ages five to six years). During the simulation the user makes decisions about the organization of teaching and learning experiences, classroom management, and responses to individual students. The user is able to monitor and track the progress of three targeted students throughout the course of the simulation. An embedded tool has been developed to enable the user to plan and justify new decisions and reflect upon the consequences of previous decisions.

In his chapter, John Fitzsimmons uses the *Harry Potter* series to explore the basic proposition that those who read and teach literature have been speaking authentic learning all their lives, perhaps a little crudely — more Dr. Dolittle than Harry Potter — but speaking it nonetheless. The chapter concludes that
some of the nervousness experienced by humanities academics when contemplating a more focused relation between their disciplines and the principles of authentic learning is misplaced.

Sandra Jones’ chapter discusses how information technology can be used to augment the authenticity of the learning experience in student-centred learning environments. She argues that technology provides the opportunity to embed students in learning activity by bridging the gap between the “real world” and the classroom. The particular learning environment used to illustrate this is a restaurant complex with a number of outlets that was designed by the author to provide a common work environment.

Anthony Herrington, Jan Herrington and Evan Glazer describe design research conducted over four years, where pre-service teachers were immersed in an authentic learning environment using multimedia to learn mathematics assessment strategies. The first study was conducted with pre-service teachers in the second year of their degree, and then the second study followed up with the same people in their second year as practising teachers. The first study revealed several constraints for the participants on professional practice, including limited time and the influence of the supervising teacher. Later, as practising teachers, they faced cultural and practical constraints within the school environment that prevented them from fully operationalizing the pedagogical principles they learned as pre-service teachers.

Catherine McLoughlin and Joe Luca argue that while there are many frameworks that emphasise the cognitive aspects of learning, it is clear that the socio-affective aspects are of equal importance in creating a positive learning experience for students. By synthesizing findings from this area of research, this chapter provides a framework and a set of strategies that can be used to create an authentic learning climate, and illustrates a range of tasks that create positive social, learning experiences.

Karen Anderson provides an example of a performative assessment strategy for students in archives and records management studies. Students were required to find examples of policy documents and standards on the Internet, analyse and evaluate them, just as they would in the workplace. The use of online discussions helped to overcome the isolation felt by remote students.

Mike Keppell suggests that problem-based learning (PBL) may offer a means of providing authentic scenarios for assisting pre-service teachers before encountering teaching practice. The use of media-based educational triggers and authentic scenarios may form a bridge between their studies and real-world teaching practice. Five media-rich educational triggers are described in early childhood education, physical education, educational technology, project management and inclusive education. Reusable media-based educational triggers may also provide potential resources for other educators within teacher education.
In Section III, Ron Oliver outlines the high degree of energy and enthusiasm in the e-learning world being given to developing strategies and systems that support the reuse of digital learning resources. This chapter explores the potential impact this area will have for teachers developing authentic learning environments, and argues the advantages that teachers employing such learning settings will derive from the developments. The chapter suggests design and development strategies that are needed to ensure that potential advantages are realized.

Lynne Hunt describes models of work-based learning and outlines key features of the authentic learning pedagogy that informs its application. It contextualizes work-based learning in the political and economic imperatives driving curriculum change in universities in the Western world. In so doing, it refers to curriculum development based on generic skills and notes analyses of the role of universities in contemporary society, with particular reference to the relative importance of practical and theoretical training. Lynne describes innovative case studies showing practical examples of the implementation of authentic learning pedagogies through work-based university programs.

Jan Herrington and Ron Oliver examine the impact of the Internet on the teacher’s role and explore the types of skills and strategies that teachers in higher education will need to be effective and efficient in online learning environments. The professional development needs for the new role of online teacher is discussed within the context of a Graduate Certificate in Online Teaching and Learning designed to encapsulate authentic approaches to learning.

Ron Oliver, Anthony Herrington, Sue Stoney and Jim Millar argue that teaching and learning in higher education requires institutional agreement on the benchmarks and standards by which its quality will be determined. This chapter provides a framework for conceptualising the elements of teaching and learning that need to be accounted for in any quality assurance process, with particular focus on teaching activities that reflect an authentic approach to learning.

**Conclusion**

The elements of authenticity presented in the introductory chapter comprise one framework for the design of effective and immersive learning environments that are appropriate for both face-to-face and technology-mediated courses, such as online subjects. However, not all the authors of the chapters presented here uniformly adopt these ideas. Different viewpoints and interpretations of authenticity are presented throughout, adding to a rich and diverse collection of perspectives and consequent learning designs. All the learning environments described in this book do, however, have one characteristic in
common: they universally depict the work of dedicated and innovative teachers with a passion for excellence, and a desire to create inspirational learning experiences for their students.

Anthony Herrington
Jan Herrington