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Preface

With the technical advancement of digital media and the medium of communication in recent years, there is a widespread interest in digital entertainment. An emerging technical research area *edutainment*, or *educational entertainment*, has been accepted as education using digital entertainment. Edutainment has been recognized as an effective way of learning using modern digital media tools, like computers, games, mobile phones, televisions, or other virtual reality applications, which emphasizes the use of entertainment with application to the education domain.

The Edutainment conference series was established in 2006 and subsequently organized as a special event for researchers working in this new interest area of e-learning and digital entertainment. The main purpose of Edutainment conferences is to facilitate the discussion, presentation, and information exchange of the scientific and technological development in the new community. The Edutainment conference series becomes a valuable opportunity for researchers, engineers, and graduate students to communicate at these international annual events. The conference series includes plenary invited talks, workshops, tutorials, paper presentation tracks, and panel discussions. The Edutainment conference series was initiated in Hangzhou, China in 2006. Following the success of the first event, the second (Edutainment 2007 in Hong Kong, China), third (Edutainment 2008 in Nanjing, China), and fourth editions (Edutainment 2009 in Banff, Canada) were organized. Edutainment 2010 was held during August 16–18, 2010 in Changchun, China. Two workshops were jointly organized together with Edutainment 2010. The two workshops focused on topics in Digital Resources for Innovative Teaching and Learning Methods, and in the Theory and Practice of E-learning and Game-Based Learning Environments.

For Edutainment 2010, we received 222 submissions from 27 different countries and regions, including Australia, Austria, Belgium, Brazil, Canada, China, Denmark, France, Germany, Greece, Hong Kong (China), Hungary, India, Italy, Japan, Republic of Korea, Malaysia, Mexico, The Netherlands, Portugal, Singapore, Spain, Sweden, Taiwan (China), Tunisia, UK, and USA. A total of 63 papers were selected after peer reviews for this volume. Each paper submitted was reviewed at least by two reviewers in Edutainment 2010. The topics of these papers fall into six different areas ranging from fundamental theories and techniques, tools and systems development, and applications. These topics include E-Learning Tools and Platforms, E-Learning System for Education, E-Learning Environments and Applications, Game Techniques for Edutainment, Multimedia Techniques for Edutainment, and Computer Animation and Graphics for Edutainment.

This book constitutes the refereed proceedings of the 5th International Conference on E-learning and Games, Edutainment 2010, held in Changchun, China, in August 2010.
We are grateful to the International Program Committee and the reviewers for their great effort and commitment to quality in getting all the papers reviewed in a short period of time. We are grateful to the Organizing Committee for their tireless efforts supporting this event. We would also like to thank the authors and participants for their enthusiasm and contribution to this conference.

May 2010

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We would like to show our appreciation to the above sponsor and co-sponsors for offering the opportunity and support to organize Edutainment 2010 with a diversified scientific and social program.
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