DIGITEL 2010 Preface

The Third IEEE International Conference on Digital Game and Intelligent Toy Enhanced Learning (DIGITEL 2010) will take place in Kaohsiung, Taiwan, from 12–16 April 2010. The conference continues the tradition established by the two former conferences of the same name held since the year 2007. The first conference, DIGITEL 2007, was held in Jungli, Taiwan, and the second conference was held in Banff, Edmonton, Canada, in 2008.

DIGITEL 2010 is a major game-based conference. It provides an outstanding forum for facilitating international exchange of the state-of-the-art in game-related technology-enhanced learning research and practice. The conference covers all aspects of pedagogical principles and design and technological issues for digital games and intelligent toys to enhance learning. From a pedagogical aspect, video games and digital toys may offer a new approach to designing for learning. Technologically, digital games employ advanced computing, multimedia, and Internet technology, while intelligent toys utilize embedded chips and sensors together with wireless, mobile, and ubiquitous technologies.

What new theories are needed to explain the phenomena of learning through digital games and toy-based play? How can we characterize the pedagogies of digital games and toy-based learning? How can these technologies be adopted for formal and informal learning settings? Can one learn meaningfully and deeply from games? More specifically, DIGITEL takes “Why learn?” (motivation and engagement) as the fundamental design issue, bringing about the reinvestigation of “how well to learn” (learning performance), “what to learn” (domain knowledge), “what to learn with” (computer programs or digital toys, virtual characters or robots), “where to learn” (physical settings or online), and “who to learn with” (individuals or teams), hence extending the horizon of technology enhanced learning research in general.

We would like to thank the hundreds of experts coming from all over the world to attend the conference because without their enthusiastic participation and significant contributions, the success of DIGITEL 2010 would not be ensured. Also, without the financial support from many government agencies and research organizations in Taiwan, DIGITEL 2010 could not have been organized successfully. We thank all contributors for the time and effort they have devoted to making DIGITEL 2010 a technically and pedagogically worthwhile event from which all participants can benefit.

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