

GUEST EDITORIAL PREFACE

Special Issue on Persuasive Technology in Learning and Teaching

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Since BJ Fogg published his seminal book in 2003, *Persuasive Technology*, in which he outlined how such technology changes attitude and behaviour, several researchers have taken up the task to investigate the theoretical foundations (*Persuasive Design*) and to develop concrete applications in which the effectiveness of this approach can be evaluated. In particular the application of Persuasive Design in Teaching and Learning appeared to be very promising, as it was envisioned that this concept would help to understand and to improve the way in which learners engage with computer-mediated learning content. This rationale was behind the project EuroPLOT, which was funded by the Educational Audiovisual Cultural Executive Agency (EACEA) of the European Commission from 2010-2013 and which had the explicit goal to develop and evaluate Persuasive Learning Objects and Technologies (PLOTs) for teaching and learning. Four case studies have been conducted, covering a wide variety of learning contexts: academic learning at university, adult learning in industry, informal learning in a museum context, and online language learning.

The results of this project have been presented at the *International Workshop on EuroPLOT Persuasive Technology in Learning, Education and Teaching (IWEPLET)* in September 2013. At this workshop, there were also presentations of research going beyond EuroPLOT, but addressing fundamental issues of Persuasive Technology and Design in the teaching and learning realm.

Based on their presentations at the IWEPLET workshop, researchers have been invited to submit extended versions of their papers to be published at this Special Issue. The *International Journal of Conceptual Structures and Smart Applications (IJCSSA)* was chosen as a suitable publication because of its scope and relevance of the topic for the target audience. The contributions to this Special Issue have been peer-reviewed and are original in content, not having been published previously. The format of this Special Issue differs slightly from other IGI Special Issues, in that the decision was made to allow a larger number of papers to be included, at the cost of keeping the length of the papers within a limit. The reason for this decision is

that Persuasive Technology is an emerging field, and as such it is important to show the variety of the various conceptual strands in this area. It is, however, clear that even with inclusion of a slightly larger than usual number of papers, this collection can only be a sample of the work that is currently pursued in this area.

This Special Issue includes nine papers which describe research and development related to various aspects of Persuasive Technology and Design. They have been grouped into the following two sections: *Conceptual Background* contains the first five papers of this issue, which present fundamental issues in the realm of Persuasive Design and which address theoretical and conceptual viewpoints.

Applications and Supporting Technologies section contains the last three papers, and provides specific examples and implementations of Persuasive Design and its underlying technology.

This Special Issue can only be a sampling of the work that is currently going on in this emerging technology and provides a representative cross-section of the activities in this area. We hope that this Issue is of value to the International community which is interested in the research in Persuasive Technology.

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Reinhold Behringer is Professor of Creative Technology at Leeds Metropolitan University. After studying and graduating in physics (MA from SUNY Buffalo 1988, Diplom from Universität Würzburg 1990), he developed a computer vision-based system for road recognition, used in autonomous road vehicles (Dr.-Ing. from UniBwM, 1996). He worked for 9 years at Rockwell Scientific (Thousand Oaks, CA) as Research Scientist and Program Manager (1996-2005) in the realms of computer vision and human-computer interaction. In these roles, he developed prototypes of Augmented Reality systems for industrial and government clients and led a team in the 2004 US DARPA Grand Challenge for Autonomous Ground Vehicles. At Leeds Metropolitan University he turned towards learning technology and became the director of the EuroPLOT project (2010-2013). He is also interested in developing technology to support creative processes in computer music generation.