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Persuasive Technology

Development of Persuasive and Behavior Change Support Systems

14th International Conference, PERSUASIVE 2019 Limassol, Cyprus, April 9–11, 2019 Proceedings



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Preface

Persuasive technology is a vibrant interdisciplinary research field, focusing on the study, design, development, and evaluation of information technologies aimed at influencing people's attitudes or behaviors through open and transparent means. The International Conference on Persuasive Technology series brings together researchers, designers, practitioners, and business people from various disciplines and a wide variety of application domains. The research community seeks to facilitate healthier lifestyles, make people feel or behave more safely, reduce consumption of renewable resources, among other notable goals, by, for instance, designing software applications, monitoring through sensor technologies, analyzing obtained data, and providing various types of coaching for users.

The 14th International Conference on Persuasive Technology was hosted by the Department of Communication and Internet Studies at the Cyprus University of Technology in Limassol, Cyprus, in April 2019, and organized in collaboration with the University of Oulu, Finland, and the University of Wollongong, Australia. In previous years, similar highly successful conferences were organized in Waterloo (Canada), Amsterdam (The Netherlands), Salzburg (Austria), Chicago (USA), Padua (Italy), Sydney (Australia), Linköping (Sweden), Columbus (USA), Copenhagen (Denmark), Claremont (USA), Oulu (Finland), Palo Alto (USA), and Eindhoven (The Netherlands). The conference addressed a wide variety of topics regarding the development of persuasive and behavior change support systems. This year papers were also solicited for two specific topics, namely, personal informatics and gamification and gamified persuasive technologies.

This volume contains the scientific papers that were presented at the Limassol meeting. A total of 80 completed research papers were submitted for evaluation; one submission was withdrawn before starting the review process, resulting in 79 papers going through the double-blind peer-review process. Papers were submitted by 185 authors from 29 countries, with the UK, The Netherlands, and Canada having the most active submitters. Methodologically, the largest single group of submitted papers was quantitative empirical papers, but a good number of empirical qualitative and mixed-method papers as well as conceptual-theoretical and design science papers were submitted, too.

In the end, 29 papers were, accepted for publication in this volume (36.7% acceptance rate), which required the dedication of 67 skillful reviewers from 17 different countries (on average three reviews were written per submitted manuscript) and some tough decisions.

The accepted papers were subsequently grouped based on their content into ten sessions in the conference and in these proceedings: Motivation and Goal-Setting; Self-Monitoring and Reflection; User Types and Tailoring; Personality, Age, and Gender; Social Support; Systems Development Process; Ethical and Legal Aspects; Drones and Automotives; Special Application Domains; and Terminologies and

Methodologies. These categories, and the papers therein, show the diversity of research works and multi-paradigmatic approaches utilized in the field; furthermore, the published papers, on par with knowing how challenging it is to get a paper accepted in this conference, demonstrate that the field of persuasive technology is gaining maturity. Posters, demos, symposia, doctoral consortium papers, workshop papers, and tutorial descriptions were printed in separate adjunct proceedings.

The main program for the two full days of the conference, Wednesday and Thursday, was a single track with the aforementioned ten paper sessions, two panels, one on methods and tools and one on bridging theory and design, and keynotes. A doctoral consortium that gathered together doctoral students and seasoned professors from the field took place on Monday, and tutorials and conjunct workshops were organized on Tuesday.

We would like to thank all authors, both of accepted papers and also of papers that did not make it this time, for their contributions, and the reviewers for their very valuable feedback. Furthermore, we wish to thank all of our colleagues and students who were involved in organizing the many facets of this conference.

April 2019

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Cyprus University of Technology (CUT) is one of three state universities in the Republic of Cyprus. Founded in 2003, Cyprus University of Technology aspires to develop itself into a modern, pioneering university able to offer education and high-level research in leading branches of science and technology which have a high impact on the economic, technical, and scientific sectors. In less than 10 years of operation, CUT has occupied high positions in international rankings. Specifically, in the 2017–2018 Times Higher Education World University Rankings (THE), CUT was ranked 351–400 worldwide, and the highest ranked University in Cyprus and Greece.



University of Oulu

The University of Oulu is an international university famous for its arctic attitude toward science and research. The University of Oulu is committed to creating innovative ideas and products for the future. At the heart of University of Oulu research are well-being, sustainability, and knowledge creation through high-quality research and education. Founded in 1958, the University of Oulu is the most multidisciplinary university in Finland.



UNIVERSITY OF WOLLONGONG AUSTRALIA

University of Wollongong

The University of Wollongong (UOW), founded in 1957, is an Australian public research university ranked among the top modern universities in the world. Located in the coastal city of Wollongong, New South Wales, approximately 80 kilometres south of Sydney, the University of Wollongong (UOW) has a strong reputation for its multidisciplinary approach toward research and a personalized approach to teaching and learning. UOW's Innovation Campus gives innovative companies and organizations the opportunity to collaborate with leading research institutes within the university.

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