UBICOMM 2010

Foreword

The Fourth International Conference on Mobile Ubiquitous Computing, Systems, Services and Technologies (UBICOMM 2010), held from October 25 to October 30, 2010 in Florence, Italy, was a multi-track event covering a large spectrum of topics related to developments that operate in the intersection of mobile and ubiquitous technologies on the one hand, and educational settings in open, distance and corporate learning on the other, including learning theories, applications, and systems.

The rapid advances in ubiquitous technologies make fruition of more than 35 years of research in distributed computing systems, and more than two decades of mobile computing. The ubiquity vision is becoming a reality. Hardware and software components evolved to deliver functionality under failure-prone environments with limited resources. The advent of web services and the progress on wearable devices, ambient components, user-generated content, mobile communications, and new business models generated new applications and services. The conference made a bridge between issues with software and hardware challenges through mobile communications.

The goal of UBICOMM 2010 was to bring together researchers from the academia and practitioners from the industry in order to address fundamentals of ubiquitous systems and the new applications related to them. The conference provided a forum where researchers were able to present recent research results and new research problems and directions related to them.

Advances in web services technologies along with their integration into mobility, online and new business models provide a technical infrastructure that enables the progress of mobile services and applications. These include dynamic and on-demand service, context-aware services, and mobile web services. While driving new business models and new online services, particular techniques must be developed for web service composition, web service-driven system design methodology, creation of web services, and on-demand web services.

As mobile and ubiquitous computing becomes a reality, more formal and informal learning will take pace out of the confines of the traditional classroom. Two trends converge to make this possible; increasingly powerful cell phones and PDAs, and improved access to wireless broadband. At the same time, due to the increasing complexity, modern learners will need tools that operate in an intuitive manner and are flexibly integrated in the surrounding learning environment.

Educational services will become more customized and personalized, and more frequently subjected to changes. Learning and teaching are now becoming less tied to physical locations, co-located members of a group, and co-presence in time. Learning and teaching increasingly take place in fluid combinations of virtual and "real" contexts, and fluid combinations of presence in time, space and participation in community. To the learner full access and abundance in communicative opportunities and information retrieval represents new challenges and affordances. Consequently, the educational challenges are

numerous in the intersection of technology development, curriculum development, content development and educational infrastructure.

We take here the opportunity to warmly thank all the members of the UBICOMM 2010 technical program committee as well as the numerous reviewers. The creation of such a broad and high quality conference program would not have been possible without their involvement. We also kindly thank all the authors that dedicated much of their time and efforts to contribute to UBICOMM 2010. We truly believe that, thanks to all these efforts, the final conference program consisted of top quality contributions.

This event could also not have been a reality without the support of many individuals, organizations and sponsors. We also gratefully thank the members of the UBICOMM 2010 organizing committee for their help in handling the logistics and for their work that is making this professional meeting a success. We gratefully appreciate to the technical program committee co-chairs that contributed to identify the appropriate groups to submit contributions.

We hope Florence provided a pleasant environment during the conference and everyone saved some time for exploring this historic city.

UBICOMM 2010 Chairs:

Jaime Lloret Mauri, Polytechnic University of Valencia, Spain
Petre Dini, IARIA / Concordia University, Canada
Sathiamoorthy Manoharan, University of Auckland, New Zealand
Zary Segal, UMBC, USA
Sergey Balandin, Nokia, Finland
Cao Le Thanh Man, Hitachi Ltd., Japan
Tetsuji Takada, Advanced Industrial Science and Technology, Japan
Carlo Mastroianni, CNR, Italy
Junya Nakata, Hokuriku Research Center/ Japan Advanced Institute of Science and Technology, Japan
Shaya Potter, IBM Watson Research Lab, USA