Introduction to the HICSS-49 Mobile App Development Minitrack

Tim A. Majchrzak  
University of Agder  
Kristiansand, Norway  
Email: tima@ercis.de

Henning Heitkötter  
SAP Innovation Center  
Potsdam, Germany  
Email: henning.heitkoetter@sap.com

Applications for mobile devices (apps) have facilitated the success of smartphones and tablet PCs. By using apps, the multi-purpose hardware of modern devices can be utilized to the full extent. Due to the proliferation of mobile devices as a tool for consumers, businesses increasingly embrace the topic. However, actually improving business processes or even finding a mobile strategy is not straightforward. Neither is the usage of so called business apps. In many cases, development of business apps is prone to problems and companies face technology choices they have little information for.

Developing business apps poses specific requirements due to their business-critical nature. High quality should be achieved, apps need to be secure and robust, and requirements need to be carefully engineered (and then met), according to industry standards. Testing of apps has been found to be very cumbersome. Whether (and to what extent) methods of classical software engineering can be applied still is matter of discussion. Moreover, new challenges such as development for multiple platforms, device fragmentation, context-sensitivity, performance issues, mobility-depended security issues, and energy conservation arise. Therefore, new threads of research are needed to tackle these issues and pave the way for better business producibility.

The Mobile App Development minitrack is devoted to (business) app development and the technological background of mobile computing for corporate or other domain-specific non-consumer usage. It amends the program of the Software Technology track and complements other HICSS minitracks that look at mobility without focussing on technology.

HICSS-49 is the first time the minitrack is offered. We received a number of fine submissions that allowed us to accept six papers for presentation. Starting with two sessions is encouraging and we hope to be able to establish the minitrack for the future years of HICSS.

The first sessions will cover papers that address particularities of app development and domain-specific implications. It includes the following papers (in order of presentation):

1) Developing Apps for Visually Impaired People: Lessons Learned from Practice by Eduardo Ghidini, Wagner D. L. Almeida, Isabel H. Manssour, and Milene S. Silveira

2) MAsCOT: Self-adaptive Opportunistic Offloading for Cloud-Enabled Smart Mobile Applications with Probabilistic Graphical Models at Runtime by Nayyab Zia Naqvi, Jonas Devlieghere, Davy Preuveneers, and Yolande Berbers

3) An Investigation of Usability of Push Notifications on Mobile Devices for Novice and Expert Users by Wen Yong Chua and Klarissa T.T. Chang

The second session takes a more general point of view. It includes the following papers:

1) Mobile Application Developers’ Platform Choice Model by Abhinay Puvvala, Amitava Dutta, Rahul Roy, and Priya Seetharaman

2) Meeting Quality Standards for Mobile Application Development in Businesses: A Framework for Cross-Platform Testing by Tor-Morten Groenli and Gheorghita Ghinea

3) Towards a Reference Architecture for Model-Driven Business Apps by Sören Evers, Jan Ernsting, and Tim A. Majchrzak

We are glad that we had many helping hands. We are proud that all authors that submitted papers to our track got at least three constructive reviews as well as a meta review, most of them even one more. Therefore, we would like to thank (and explicate!) our program committee for their arduous work:

- Philippe Dugerdil, Geneva School of Business Administration
- Jan Ernsting, University of Münster
- Tor-Morten Grytøli, Westerdals – Oslo School of Arts, Communication and Technology
- Adrian Holzer, Ecole Polytechnique Fédérale de Lausanne
- Shah Ruuk Humayoun, University of Kaiserslautern
- Grace A. Lewis, Carnegie Mellon Software Engineering Institute
- Jan Ondrus, ESSEC Business School
- Laura Po, University of Modena and Reggio Emilia
- Mohammad Tatifur Rahman, Kungliga Tekniska högskolan Stockholm
- Sergio Rios-Aguilar, International University of La Rioja (UNIR)
- Davide Rossi, University of Bologna
- Johannes Schobel, Ulm University
- Gabriele Taentzer, Philipps-Universität Marburg
- Tony Wasserman, Carnegie Mellon University Silicon Valley
- Burkhard Claus Wuensche, University of Auckland