Editorial: Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2012)

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The 8th IEEE International Conference on Collaborative Computing: Networking, Applications and Worksharing (CollaborateCom 2012) was held during October 14–17 2012 in Pittsburgh, PA USA. CollaborateCom 2012 received 110 submissions. Every submission received at least two reviews with most receiving three reviews. The review process was followed by extensive online discussions for selecting the final set of papers for the conference. The final program had 26 full research papers, 19 application papers and 9 invited papers. Based on the paper topics, review feedback from the program committee members, follow up discussions among PC members, and discussions with sessions chairs at the conference, a further selection, a further selection of these papers have been made for this special issue of the Mobile Networks and Applications journal. These papers were substantially extended and have gone through one more round of review, and three of them have been included in this special issue.

The paper “Mobile Real-time Collaboration for Semantic Multimedia: A Case Study with Mobile Augmented Reality Systems” by Kovachev, Nicolaescu and Klamma considers the important problem of integrating multimedia semantics into mobile real-time collaboration applications. This is challenging because of resource limitations of mobile devices and

robust communication mechanisms. This paper discusses the design of a mobile real-time collaboration system for semantic multimedia annotations. The system is built upon the XMPP protocol for processing semantic meta-data associated with multimedia content.

“Look Performance Deficiencies in the KAD Network” by Li, Liu, Guenbacher and Scoglio presents an empirical study on the KAD network focusing on analyzing its inefficiencies. The KAD network is a very large distributed hash table with over 1 million users. This paper makes an interesting finding that lookup deficiency is caused by KAD’s lookup table refreshment scheme as well as its lack of efficacious incentive mechanisms.

In the paper titled “Adaptation of Single-user Multi-touch Components to Support Synchronous Mobile Collaboration”, Pichiliani and Hirata explore the problem of building collaborative applications using existing single-user mobile applications. This paper presents an automatic process for developing multi-user collaborative applications by converting multi-touch interfaces of single-user applications. The paper also illustrates the proposed process using two distinct examples.

We believe the readers will find these papers interesting and useful, and we hope that they will enjoy these papers.

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