

3rd International Workshop on Supporting Knowledge Collaboration in Software Development (KCSD2009)

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1 Introduction

The creation of modern software systems requires knowledge from a wide range of domains: application domains, computer hardware and operating systems, algorithms, programming languages, vast amount of component libraries, development environments, the history of the software system, and users. Because few software developers have all the required knowledge, the development of software has to rely on distributed cognition by reaching into a complex networked world of information and computer mediated collaboration. The success of software development, therefore, hinges on how various stakeholders are able to share and combine their knowledge through cooperation, collaboration and co-construction.

The overall goal of the series of the workshop seeks to gain an improved understanding on the theoretical, social, technological and practical issues related to all dimensions of knowledge collaboration in software development, and to explore opportunities for automated support, such as the timely acquisition of external knowledge and the facilitation of collaboration among developers.

KCSD2009 is the 3rd installment of the workshop. The first KCSD workshop (KCSD2005) took place on December 15, 2005, Taipei, as a part of the IEEE 12th Asia-Pacific Software Engineering Conference (APSEC 2005). The second KCSD workshop (KCSD2006) was collocated with the 21st IEEE/ACM International Conference on Automated Software Engineering (ASE2006), and took place on Sept 19, 2006, Tokyo.

2 Workshop Topics

KCSD2009 was a two-day workshop and took place on Nov.19-20, 2009 at Tokyo. It focuses on the transfer of knowledge among software developers and the collaborative creation of new knowledge that is needed for the development of software systems. The particular interests of KCSD2009 include:

- formation of shared understanding between users and developers during conceptualization, design, deployment and use of software systems;
- technical issues in accessing external knowledge resources and acquiring expertise from peer developers;
- social issues in facilitating knowledge transfer;

- socio-technical approaches to motivating participation in knowledge collaboration;
- utilization of social networks to connect developers for knowledge collaboration;
- understanding how knowledge is accumulated, transferred and shared among software developers;
- analyzing and understanding the unique features of knowledge collaboration specific to software development such as pair programming, inspection, maintenance and end-user development.

3 Workshop Organization

Workshop Co-Chaires:

Masao Ohira, Nara Institute of Science and Technology, Nara, Japan
Yunwen Ye, SRA Key Technology Lab, Tokyo, Japan

Program Committee:

Daniela Fogli (University of Brescia, Italy)
Mark Grechanik, (Accenture Technology Labs / University of Illinois, USA)
André van der Hoek (University of California, Irvine, USA)
Reid Holmes (University of Washington, USA)
Katsuro Inoue (Osaka University, Japan)
Yasutaka Kamei (NAIST, Japan)
Ken-ichi Matsumoto (NAIST, Japan)
Kumiyo Nakakoji (SRA Key Technology Lab / University of Tokyo, Japan)
Cleudson de Souza (Federal University of Para, Brazil)
Thomas Zimmermann (Microsoft Research, USA)

4 Workshop Outputs

The workshop featured two keynote talks. Professor André van der Hoek of University of California, Irvine presented on “Knowledge Collaboration in Distributed Software Development”, and Dr. Shuichiro Yamamoto of NTT Data Corporation addressed on “Understanding Networked Collaboration”.

KCSD2009 accepted 8 full papers and 3 position papers. All accepted papers were carefully reviewed by the program committee. After a second round of review, we selected 6 papers to be included in this post-workshop book.