

NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

C S S E M I N A R

Title: Developer socio-technical coordination and the power of crowds in open, agile software development environments

Speaker: Professor Daniela Damian
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University of Victoria

Date/Time: 13 April 2016, Wednesday, 09:00 AM to 10:30 AM

Venue: Executive Classroom, COM2-04-02

Chaired by: Dr Rosenblum, David S., Provost's Chair Professor, School of Computing
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Abstract:

Coordination and collaboration are among the most significant challenges faced by large, distributed software teams, given their lack of informal communication, and their geographical, cultural and organizational boundaries. This talk describes our more recent empirical studies into diverse aspects of socio-technical coordination in large, commercial organizations such as IBM and Dell. We studied the communication, awareness, knowledge management and organizational structures of large software teams and untangled some of these factors' relationships to software quality. Our research methodology involves mixed-method approaches using interviews, surveys, repository data analysis and statistical methods, in an attempt to uncover hidden patterns of collaboration and tap into difficult but invaluable resources such as project-related online communication. Our results demonstrate the true power of crowds in large, agile projects, as well as the research potential brought about by the newer modes of collaboration in such open development environments.

Biodata:

Daniela Damian is a Professor of Software Engineering in University of Victoria's Department of Computer Science, where she leads research in the Software Engineering Global interAction Laboratory (SEGAL, thesegalgroup.org). Her research interests include Empirical Software Engineering, Requirements Engineering, Computer-Supported Cooperative Work. Her recent work has studied the developers' socio-technical coordination in large, geographically distributed software projects, as well as stakeholder management in large software ecosystems. Daniela's research methodologies involve extensive field-work and in-situ studies of software teams through collaborations with industrial partners such as

IBM, General Motors, Siemens and Dell. Daniela has served on the program committee boards of several software engineering conferences, was the Co-Chair for the Software Engineering in Society Track at ICSE 2015, the program co-chair for the First International Conference on Global Software Engineering (ICGSE06), and a guest editor of the IEEE Software Special Issue on Global Software Engineering (2006). She is currently serving on the editorial boards of Transactions on Software Engineering, the Journal of Requirements Engineering, and is the Requirements Engineering Area Editor for the Journal of Empirical Software Engineering, and the Human Aspects Area Editor for the Journal of Software and Systems