Global Software Engineering: Industry and Research

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Outline and Goals

• Reflections on a Decade of Work on Awareness and Trust in Global Software Engineering

• Introducing the 11th IEEE International Conference on Global Software Engineering (ICGSE 2016), August 2-5, 2016 – in this room!
Reflections
Challenge: Working in a Globally Distributed World

- Isolation prevents knowing what others are doing
- Lack of awareness also prevents knowing why they are doing or not doing something
- Distance prevents familiarity – both professional and personal
Approach: Enhancing Awareness – Second Nature or Work or both?

• How do people know to whom they should display actions and whose actions should they monitor?

• The *awareness network* is the set of actors whose actions need to be monitored and those to whom one needs to make one’s own actions visible.

One Solution: Software Tool Support


The Power of Affect or ...

... The Personal Dimension

- Working together is like a hunt. Cooperation yields a larger prize.
- But what encourages cooperation?
- In previous studies of distributed teams in 5 industry settings, trust was greater when informal sharing or activities occurred.
- We were able to model the spread of cooperation and the parallel between “cheap talk” and cooperation in the Lucene and CHROMIUM OS projects.

Going a Step Further: Drawing at Work

• What if you could express yourself anonymously and abstractly to the group? Would you feel more positive and be more cohesive and trusting in the team?

• Teams of 3 drew together using Groupboard; Half performed directed drawing (Bren Hall); half were allowed open-ended.

• Drawing improved team cohesion and positive emotions with freeform drawing having the strongest effects.

Reflections

• Enhancing the technical by
• Maintaining and enhancing the personal
Introducing the 2016 IEEE ICGSE Conference (icgse.org)

Connecting Industry and Academia
• The 11th IEEE International Conference on Global Software Engineering (ICGSE 2016), August 2-5 – happens right here!
• Professional Society Sponsor – IEEE Computer Society
• Additional Sponsors
  – Siemens, India; Microsoft, USA; the Institute for Software Research, USA; and the Donald Bren School of Information and Computer Sciences, USA
• Description
  – *ICGSE brings together software engineering researchers and practitioners who are engaged with the challenges of globally distributed teams, customers, and organizations.*
• Earlybird registration by June 30!
• Registration includes tutorials and workshops!
• Web – icgse.org
ICSE’s recent history!
KEYNOTES

Customer Led Innovation, Priya Vijayarajendran, Head of Innovation Center Silicon Valley, SAP, USA

To Bot or Not: How Bots can Support Collaboration in Software Development, Margaret-Anne Storey, Professor of Computer Science, University of Victoria, Canada

The ABCs of Software Engineering: Affect, Biometrics, and Cognition, Andrew Begel, Senior Researcher, Microsoft Research, USA
• Tutorials

1. Scaling Agile to Large Globally Distributed Organizations, Casper Lassenius and Maria Paasivaara, Aalto University School of Science, Department of Computer Science and Engineering, Helsinki, Finland

2. What did you say? Mindful (intercultural) communication for successful projects, Frederick Zarndt, Global Connexions, Coronado, CA USA

3. Issues, Challenges, and Opportunities in Open Source Software Development for Global Software Development, Walt Scacchi, Institute for Software Research, University of California, Irvine, CA USA


No additional registration fee!
• Workshops
  – PARIS: Methods and Tools for Project/Architecture/Risk Management in Globally Distributed Software Development Projects
  – GSE-Ed'16: Inaugural Workshop on Global Software Engineering Education

*No additional registration fee!*
• Themes
  – People, Teams, and Organizations
  – Collaboration and Crowdsourcing
  – Process Improvement and Agility
  – Architecture and System Development
  – Models, Definitions, Frameworks, and Taxonomies
• Accepted Authors’ Institutions – Industry
  – SINTEF, Norway
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  – University of Bari, Bari, Italy
  – The Irish Software Engineering Research Centre, University of Limerick, Ireland
  – Oregon State University, USA
  – University of Tulsa, USA
  – Carnegie Mellon University, USA
Early bird registration by June 30

icgse.org

Still opportunities for sponsorship!
Thank you and see you in August!