Open Source Software Research at ISR

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Overview

- ISR Research in OSS—a socio-technical perspective
- Research results—sample
- OSS research collaborators
- How ISR adds value to this research
ISR Research in OSS: 2000-2006

- NSF ITR: *Understanding Open Software Communities, Processes and Practices: A Socio-Technical Approach*
- NSF ITR: *Collaborative Research: Organizational Dynamics of Software Problems, Bugs, Failures, and Repairs*
  - ITR/MKIDS Supplemental: *Dynamic Process Enactment, Discovery, and Recovery*
- NSF ITR: *Collaborative Research: Research Directions for Continuous (Re)Design in Free/Open Source Software Systems*
- NSF ITR: *An Integrated Social and Technical Approach to Development of Distributed Inter-Organizational Applications*
- SUN and Butterfly.Net (pending): OSS for network game development
Research results—sample

- First identification of “software informalisms” used as artifacts and communication media to facilitate and coordinate F/OSS development projects
- First identification of socio-cultural dynamics that mobilize socio-technical resources, mitigate conflict, and facilitate cooperation in F/OSS development projects
- New model of “continuous design” in F/OSS
ISR Research in OSS

- [http://www.isr.uci.edu/research-open-source.html](http://www.isr.uci.edu/research-open-source.html)
  - 20+ research papers
- Largest OSS research group in U.S.
- Emerging research collaborations
  - University of California Systemwide/UCOP
  - National Laboratories (LANL, Sandia, LLNL)
  - ISERC (Ireland)
  - SRA, Kyoto University (Japan)
ISR OSS Research—news coverage


- International: New Scientist (to appear), Pakistan Tribune, Innovations Reports (Germany), and SciGate (India), Scientific Electronic Library Online (in Spanish) and Weblog Context (in Spanish, German, and Catalan).
Open source under the microscope

Open-source developers have long done their work in the public eye. Now, they're doing it under an academic microscope.

Walt Scacchi, a senior research scientist at the University of California at Irvine's Institute for Software Research, has been looking at open-source projects from an analytical perspective, studying the open-source model in an ongoing, 10-year project that draws some comforting conclusions for open-source sponsors and developers.
OSS research collaborators

- Mark Ackerman, U Michigan Ann Arbor
- Les Gasser, UIllinois, Urbana-Champaign
- John Noll, Santa Clara University
- Richard Taylor, ISR
- Julia Watson, The Ohio State University
- Margaret Elliott, ISR
- Jason Robbins, ISR
- Chris Jensen and Justin Erenkrantz, ISR
How ISR adds value to this research

- Academic collaborations via ISR Faculty Associates
- Financial management
- Hosting multiple research workshops
- Proposal development support
- Research and Web support infrastructure
- Strong, predictable leadership