



# Open Source Software Research Mini-Summit

GTRI D.C.  
August 24, 2011

# Welcome!

Kick off remarks by

**Deborah Bryant**

Public Sector Communities Manager

Oregon State University Open Source Lab

Live notes: <http://etherpad.osuosl.org/OSSMiniSummitAug2011>

# Agenda

## **I. Introductions and Open Discussion - 45 minutes**

Each participant will be asked to introduce themselves to the group. Please let us know:

- Who you are, and the organization you are affiliated with
- What challenges/problems in open source and/or the public sector you are currently/most recently working on
- One (or more) problem/opportunity/idea you would like to work on and pitch to this group.

## **II. Round Table Discussion - 60 minutes**

All participants are welcome and encouraged to share their thoughts on these topics, or to suggest their own for exploration.

- Open source research and development: what projects are underway? What are the general and specific opportunities to collaborate
- Leveraging academia: sharing needs for data collection, curation and publication with the researcher community
- Humanitarian open source software: open source software's increasing role in governments responding to crisis, addressing concerns of public health, performing urban planning, etc.

## **III. Closing - 15 minutes**

Summarize some projects/opportunities we would like pursue together and next steps for kicking off these partnerships.

# Participant Introductions

# Ms. Deborah Bryant

Conference Director, GOSCON  
OSUOSL Public Sector Communities Manager

Areas of Interest:

Open Source in Government

Cybersecurity & FOSS

Open Health

<http://goscon.org> & <http://osuosl.org>

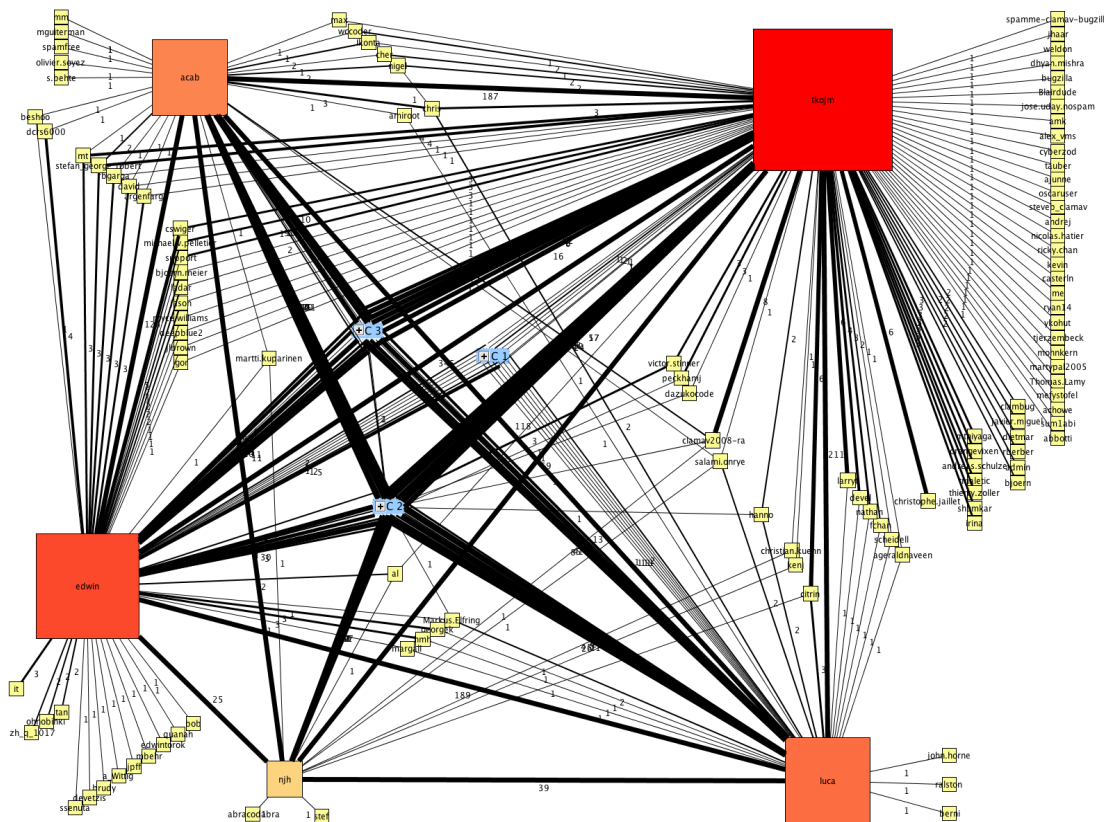
# Social Dynamics in Open Source

## Problem

- Streamline social and technical processes without losing key character of FOSS
  - What are characteristics of a healthy project?

## Approach to improve governance

- Analysis of mailing lists, code & bug repositories, wiki's and blogs (artifacts)
- Interviews and surveys of key contributors
- Tool development and evaluation under controlled conditions



# Research Highlights

- Gender and diversity in FOSS
  - IT lacks diversity
  - Problem is an order of magnitude worse in FOSS
  - Workforce shortage & broadening scope of FOSS
- Design & Diagramming in FOSS
  - Diagramming a core IT practice
  - Diagramming essential to design
  - How do FOSS communities deal with a lack of tools and physical proximity?
  - How do we design better
- Governance in FOSS
  - What happens when a major corporation or government becomes a sponsor of FOSS?
  - How well-connected are projects, and who are the core people in a project?
  - How does governance affect success & longevity?
- International participation in FOSS
  - Why is there a lack of participation in FOSS in parts of the world?
  - How do we overcome the fragmentation of FOSS communities over language

# Opportunities

- Partnerships for International Research and Education (NSF-PIRE)
    - The goal of PIRE is to support projects in which advances in research and education could not occur without international collaboration. PIRE seeks to catalyze a higher level of international engagement in the U.S. science and engineering community.
  - I/UCRC
    - The Industry/University Cooperative Research Centers program develops long-term partnerships among industry, academe, and government. The centers are catalyzed by a small investment from the NSF and are primarily supported by industry members. Each center is established to conduct
  - East Asia and Pacific Summer Institutes for U.S. Graduate Students (EAPSI)
    - The goals of EAPSI are to introduce students to East Asia and Pacific science and engineering in a research context, and to help students initiate relationships that will enable future collaboration with foreign counterparts.
  - NSF research coordination networks (RCN)
    - The goal of the program is to advance a field or new directions in research or education. Groups will be supported to communicate and coordinate their research, training and educational activities across
- Open Science Software Research, Mini-Summit  
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geographic and international



# Mr. Curt Pederson

Director

OSU Open Source Lab (OSUOSL)

Areas of Interest:

Open Source & K-12 Education

[orvsd.org](http://orvsd.org)

# Mr. Jeff Sheltren

Operations Manager, OSUOSL

Areas of Interest:

- Teaching Open Source / Open Source integration in curriculum
- Infrastructure hosting

<http://osuosl.org>

# Ms. Leslie Hawthorn

Outreach Manager, OSUOSL

Areas of Interest:

Humanitarian Open Source Software

Teaching Open Source

Open Source in Education

<http://osuosl.org>

<http://teachingopensource.org>

# Mr. Joshua Davis

Georgia Tech Research Institute

Research Scientist

Research Areas:

Open Technologies & Security

<http://gtri.gatech.edu>

**Mr. John Weathersby**

**Open Source Software Institute**

**Founder & Board Member**

**<http://www.oss-institute.org>**

# Dr. Jeannette Sutton

- Trauma, Health and Hazards Center
- University of Colorado, Colorado Springs
- Sociologist – disaster, warnings and risk communication, crisis informatics, resiliency
- [www.uccs.edu/~thhc/](http://www.uccs.edu/~thhc/)

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University of Colorado  
Colorado Springs

# Projects

- HEROIC Project

- Online Informal Communication (Twitter) across hazards, communities, over time
- <http://www.uccs.edu/~thhc/HEROIC.html>

- Disaster Resilient Rural Communities

- How does access to online information affect perceptions of collective efficacy in disaster?
- <http://www.uccs.edu/~thhc/drrc.html>

- Additional Interest: How Volunteer Technical

Communities organize and respond during disaster

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University of Colorado  
Colorado Springs

**Mr. Trishan de Lanerolle**

Director, Humanitarian FOSS Project

# The Humanitarian FOSS Project

[www.hfoss.org](http://www.hfoss.org)



THE  
HUMANITARIAN  
FOSS PROJECT

Building Free Open Source Software for Society

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# HFOSS: Origins and Motivation

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- David Patterson (ACM Prsident) message to CS faculty:
  - Nov. 2005, (post Katrina): *Let's help our neighbors!*
  - Mar. 2006: *Join the open-source movement!*

- Our Question:

*Will students building software for the community help revitalize computing education?*

- **The HFOSS Project began in 2006 to:**
  - Promote collaboration among Computing Faculty.
  - Broaden student interest in computing (especially among women and other underrepresented groups)
  - Revitalize computing curriculum (especially software engineering)
  - Help the community (service learning)
- **“HFOSS” = humanitarian free and open source software**





# HFOSS: Project Elements

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- NSF CPATH Grants:
  - 496K (07-09), 798K (09-11) to Trinity College, Wesleyan University and Connecticut College.
- These grants help support:
  - Academic courses in the computer science curriculum
  - Partnerships: academia ↔ industry ↔ clients
  - Summer student internship program 2008/09/10/11
  - Public presentations, workshops, national symposia
  - FOSS Certificate program
  - Community growth beyond the founding colleges
  - Incubation of new software projects for specific clients
- Grown to over 200+ students, 15+ colleges, 8 new courses.

# HFOSS: Typical Software Projects

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- *Sahana – disaster management System (sahanafoundation.org)*
  - *Developed Volunteer management System*
  - *Collaborated with IBM during Chengdu Earthquake Response*
  - *Assisted in Haiti Earthquake Response*
- *POSIT – portable open search identification tool (code.google.com/p/posit-mobile/)*
  - *Deployed in Haiti to manage Food distribution Program.*
- *Collabbit – disaster coordination tool (www.collabbit.org)*
  - *Deployed by Red Cross in NYC to manage disaster exercises*
  - *Deployed by Salvation army to manage Food distribution to 10'000 people on thanksgiving day 2009 and manage shelters during heat waves in NYC.*
- *Ronald McDonald House Homebase – volunteer scheduling application (myopensoftware.org), in Portland ME and other RMH houses.*
- *Other contributions include:*
  - *OpenMRS – on-line medical records system (openmrs.org)*
  - *GNOME Accessibility – helps disabled users (live.gnome.org)*
  - *Developed award winning app inventor based mobile apps for environmental science and nutritional awareness.*
- *For more details, see [hfoss.org/index.php/projects2](http://hfoss.org/index.php/projects2).*



# Dr. Maha Shaik

Research Associate, Information  
Systems and Innovation Group

Department of Management

London School of Economics and Political  
Science

<http://lse.ac.uk>

Research Areas:

Open Source Software Development  
Processes, Total Cost of Ownership of OSS

# Mr. Sander van der Waal

Manager OSS Watch

<http://www.oss-watch.ac.uk>

- UK based advisory service
- Publicly funded to serve UK Higher Education (HE) sector
- In existence since 2003
- Helped develop and drive open source policy in HE
- In process of broadening horizon to wider public sector

Mr. Sander van der  
Waal

# OSS Watch <http://www.oss-watch.ac.uk>

- Generic advice on all things open source
- Briefing notes on [www.oss-watch.ac.uk](http://www.oss-watch.ac.uk)
- Hands-on support for specific open source software projects in HE
- Connecting related people and projects
- Connecting academia with businesses via events
  - \* Open Source Junction
  - \* TransferSummit - <http://www.transfersummit.com>

# Mr. Remy DeCausemaker

Research Associate

Rochester Institute of Technology  
Lab for Technological Literacy

<http://foss.rit.edu>

<http://civx.us>

# Dr. Tetsuo Noda

Professor of Economics  
Shimane University, Japan

First Open Source Software Research Workshop:

<http://albatross.soc.shimane-u.ac.jp/oss/seminar2010E.html>

Second workshop planned for next month in Seoul:

<http://www.eco.shimane-u.ac.jp/nodat/OSWSeoul.pdf>



# Discussion

## Topics

- Maturity models? / Economic models/TCO?
  - Important for government adoption (gauging risk?)
  - No widespread adoption, but could be important for promoting FOSS
  - FOSS project "health" vs. the provider/contractor
    - Interested: Sander, Carlos, John, Remy, Trishan
- Project maturity/Social networks/Participation?
  - Metrics for project health/evolution/competition?
  - What are useful metrics?
  - Effect of large players on eco-systems
  - recruiting vs. attrition?
    - Interested: Carlos, Josh, Jeff, John, Leslie, Sander, Jeanette
- From publishing to sharing - Open Data (Data.gov etc)
  - Going from putting stuff out there to driving adoption and use
  - Tools & community building around data visualization/analysis
    - Interested: Remy, Josh, Carlos
- FOSS & Security?
  - Evaluating existing software? - Certification?
  - Security tools licensed under FOSS - Inventories, maturity, capabilities
    - Interested: Josh, Carlos, Jeff, Remy
- Growing this group?
  - Bios/presentations/directory?
  - FOSS for the public good as a constraint/focus
  - Applied research (doing things, getting things out there)