O'REILLY

8TH ANNUAL OSCON™ OPEN SOURCE CONVENTION

Business Partnering with Open Source Communities:

Opportunities, Perils and Pitfalls

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Introductions

- Doctoral student researching FLOSS
- Online but also ApacheCon, O'Reilly OSCon, ODSC
- Developer on BibDesk, (small OS X reference manager—scratching graduate student itch!)
- Hear from you in a second

Schedule

- FLOSS Lifecycle, Structure, Motivations, Decision Making
  - Break (9.30–9.45)
- Models of business interaction
  - Break (10.35–10.45)
- HOWTO assess community health
- Workshop your issues (11.25–11.55)
- Wrapup and resources

Exercise: What do you want?

- On paper, jot down one question or a topic you'd like covered
- Pass the sheet to your left
- Jot down another on the sheet you receive, pass again ... and once more ...
- From the sheet you finally receive, read the one that's most important to you

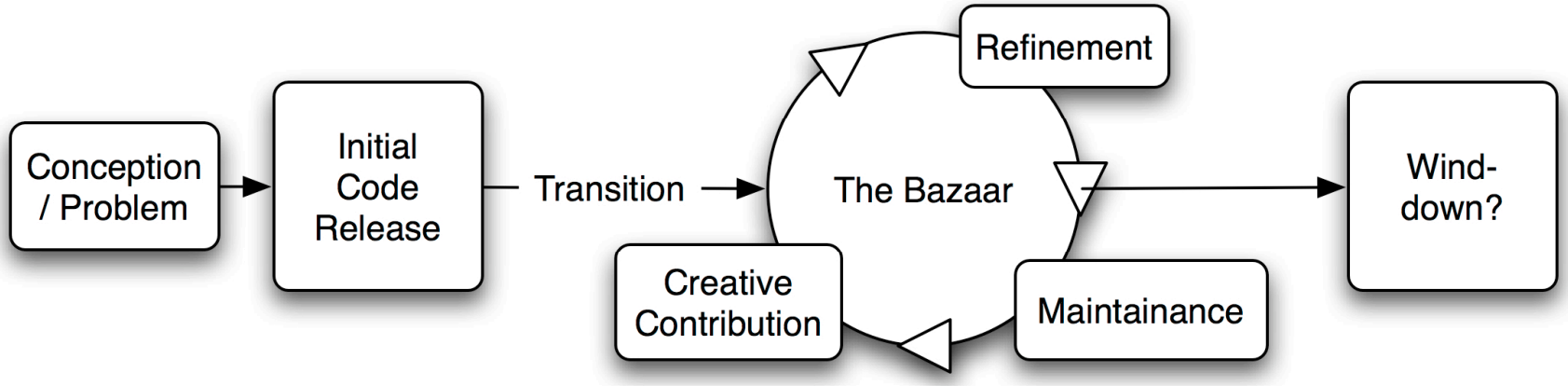
Open Source vs Vendors

- FLOSS communities can be tricky but are worthwhile:
  - **Developers**: Motivated people bring skills and experience hard to generate in house
    - Diverse focus ensures use and testing of whole stack, not just the 'money' parts
  - **Support**: A fellow user actively learning from your problem is more valuable than a phone support staffer
- Community not always enough. That's where commercial support and assurance companies can help.

FLOSS Community Dynamics

- FLOSS projects are not regular organizations—think of coding teams within a company, not a company itself.
  - Project Lifecycle
  - Community Structure
  - Motivations
  - Institutionalization (Foundations etc)
  - Decision Making

Project Lifecycle



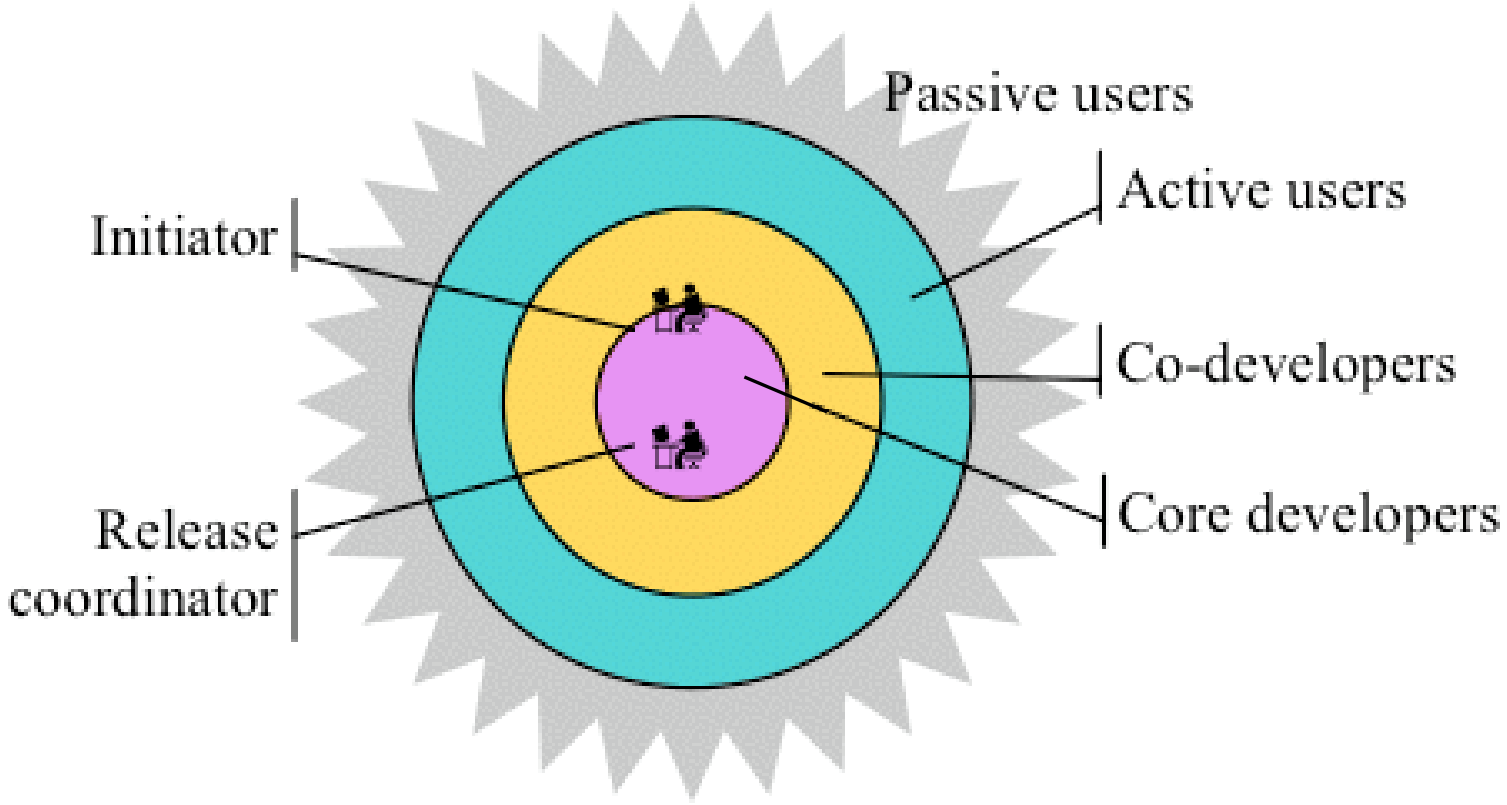
Adapted from Senyard and Michlmeyer (2004)
"How to have a Successful Free Software Project"

Individual or small co-located group → A team and community

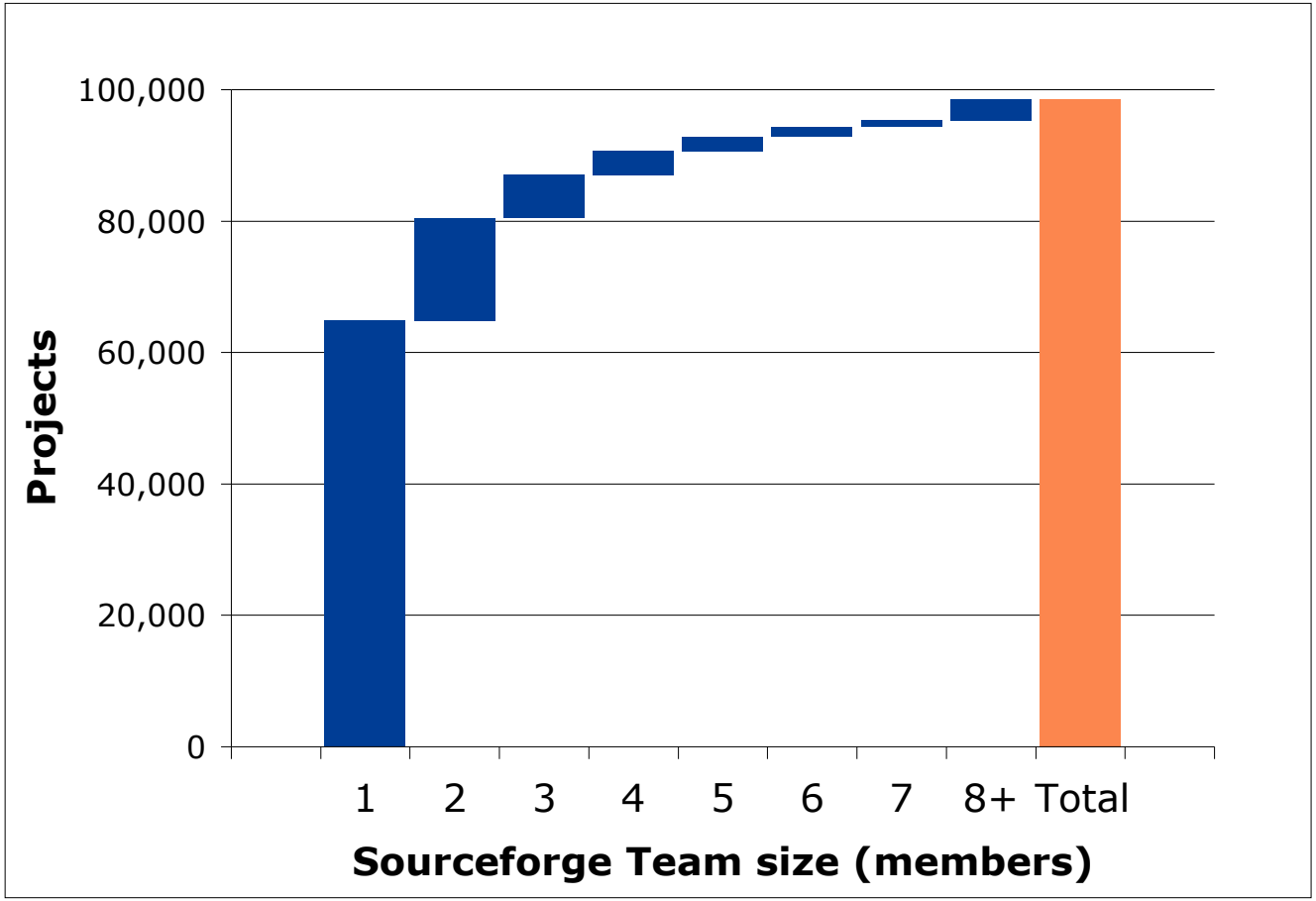
A project's early days

- The ideal:
  - App with simple well understood aim
  - Release that works, but not too well
    - ESR's "Plausible Promise": leave 'low hanging' bugs
- Grow team slowly, resist early contributions
  - Failed projects often all team, little code

Community Structure



How big?


100,000
80,000
60,000
40,000
20,000
0
Projects
1
2
3
4
5
6
7
8+
Total
Sourceforge Team size (members)

Co-developers

- Offer incremental improvements
- Usually without direct CVS access (patches)
- Provide solutions to unexpected uses

Active Users

- The ‘many-eyes’ making bugs shallower
- Report and characterize bugs for others to fix
- Highly transitory, most only participate once or twice

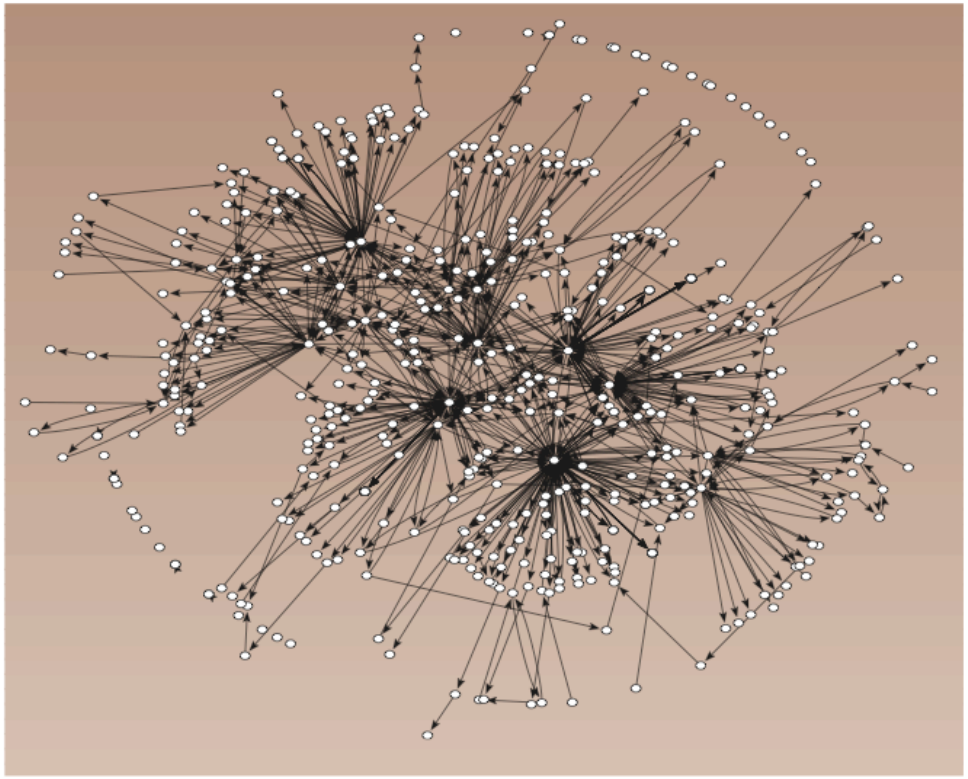


Figure 2. Sociogram for fixing bugs in the SquirrelMail project. Active members—those with multiple interactions—form a buffer between developers and peripheral users.

Motivations

- Understanding why people are involved helps to understand:
  - their actions
  - what will interest and excite them
  - what is likely to annoy or antagonize them

Brainstorming motivations

- What do you think attracts people and what keeps them involved in FLOSS
- Both volunteers and paid participants
- As before, write down a reason, pass to your left ... you know the drill :-)

Survey says ...

- Large-scale surveys on FLOSS participant motivations
- Lakhani and Wolf (2003) “Why Hackers do what they do”
  - 678 participants in over 287 projects
- Ghosh et al (2002) Infonomics survey
  - Over 3,000 developers

Ghosh et al (2002)

- Learning skills
- Sharing knowledge
- For the products themselves
- Ideology
- New form of working
- Jobs and other personal extrinsic rewards

Lakhani and Wolf (2003)

- Enjoyment
  - Intellectual stimulation
  - Enjoy working with the team
- "User need" for the product
- Obligation to the community

Results emphasize **creativity**.

Mythconceptions

- "Beating proprietary software" is never a major motivation
- Motivations and surprisingly varied and multi-faceted
  - May have egotistical, evangelical, reputation focused participants!
- Ideology plays a secondary role

Institutionalization

- Projects becoming large and successful often create legal foundations or companies
  - Hold intellectual property
  - Approve rules and procedures
  - Conduct evangelism
  - Collect revenue
  - Employ central developers

Decision Making

- Action is the currency in volunteer kingdom
- Imagining is good, but doing is better
- Negative votes particularly require alternatives
- #IFDEF and preferences allow co-existence
  - ‘post-hoc’ coordination
- Project founders as dictators or honored alumni

Break until 9.45

Can we answer?

- Why are leaders sometimes ‘rude’ to newcomers, why can that be effective?
- Should I expect a ‘roadmap’? Should I believe one?
- Why doesn’t the community listen to our engineers?
- Why won’t they integrate our code gifts?
- Why can’t I just pay them? When can I?

Types of Business Interaction

1. Using FLOSS internally
2. Maintaining in-house forks/parallel source trees
3. Joining and extending an existing project
4. Taking an in-house project open
5. Reacting to a FLOSS competitor

Using FLOSS internally

- Two assessments:
  - Are the product and community right for us?
  - Flip-side: Are we ready for open source?
    - Top-down vs bottom-up
    - Can ‘management’ force ‘coders’ open?

In-house forks

- Private changes to FLOSS projects
  - Not revealed for strategic, cultural, legal reasons
- Hard to maintain, but not impossible
  - Tracking against a moving code base
  - Porting security fixes
  - What if coder X leaves?
- Difficult to ‘back out’ and re-join project mainstream

Joining an existing project

- Now we're talking :-)
- A successful approach realizes:
  - Code talks, bullshit walks
  - Being around a lot
- Danger of 'code dumps'
  - Lots of integration work, need unclear

Taking an in-house project open

- "Plausible promise"
  - Refers to product, but also business strategy. If you can't share it, you aren't ready to go open.
- Build intellectual adventure
  - Why is your product the place to learn?
- Avoid the outside/inside separation
  - Tricky if your developers aren't already open source saavy.

Open source competitors

- Ignore?
- Learn from
  - Why do they have a healthy community?
- Move up the value chain (IBM Websphere)
  - Free yourself of lower level tasks
- Buy? (Oracle and SleeplyCat)

Break until 10.45

Are we covering what you need?

- To come:
  - Assessing FLOSS community health
  - Workshopping your issues

Where to look

- Project websites
  - release dates, organization
- Mailing lists and IRC
  - The art of lurking (threaded email reader!)
  - IRC is more informal, fly on the wall
- Quantitative: FLOSSmole and CVSanalY

Things to love

- Discussions that revolve around action, not vision or procedures
- Consistent discussions
- A clearly respected core group
  - Don’t worry if core is ‘rude’ to outsiders

Things to fear

- Slow release cycles
- Complaints about infrastructure
- A central, but tired, project leader
  - Change at the centre is hard
- Slow reactions to security flaws

Consulting on FLOSS

- Worked for an east coast VC company
- group seeking funding argued that one project had hit a ‘tipping point’ in downloads & developers
- Empirical data was able to show otherwise
  - both were growing similarly
  - market leader was likely to retain position

Open Business Readiness Rating

- A formal, and collaborative, assessment exercise
  - Largely focused on code, but includes community
- Good white paper online
  - http://www.openbrr.org
- Brochure in tutorial materials

Open BRR Case Studies

- Tutorial materials include two case studies
- Take some time to read those
- What do they measure about communities?
- Do you think they are covering it all?

Workshopping your issues

- Groups of five, turn to face each other
- What model of business interaction are they a) already doing b) considering?
- Do they have success stories? Disaster stories?
- Can we help plan an approach?

Tutorial Resources

- Copy of these slides
- “Assessing community Health” IEEE Computer
- “How to have a successful open source project” Senyard and Michlmeyer
- ESR’s “How to ask questions the smart way”
- “-Ofun” Optimizing a project for fun
- OpenBRR Flyer
- All, and more, available at
  - http://floss.syr.edu/presentations/oscon2006/


Go forth,
Go Open,
and
Prosper