Managing Volunteers & Communication

Communication & Collaboration

• You are what you write...
• Dealing with a lack of non-verbal communication
• Tone/Rudeness
• Awareness
Communication & Collaboration

- You are what you write...
- Dealing with a lack of non-verbal communication
- Tone/Rudeness
- Awareness

- Effect of these things on newbies?

Some FOSS demographics
FOSS Demographics

• Demographics: homogenous
  
  – ~98% N.A. or W. European Males
  – Bulk of contributors 18-25 years old *
  – ~2% Female
  – ~80% have more than high school education
  – Mostly volunteers (~20%-30% are paid)


Who Are FOSS Devs?

Non-programmer participation is important because it expands contributor base and adds different types of expertise and diversity to projects

230 responses

• ~15-20% Prof. OSS devs.
• ~20% of OSS devs. have no CS background
• Same long-term drop out rate for CS and non-CS
• CS/Non-CS involvement not as expected (See graph)
What about newbies?

<table>
<thead>
<tr>
<th>Project Newbies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing List</td>
</tr>
<tr>
<td>Mediawiki</td>
</tr>
<tr>
<td>Wikitech</td>
</tr>
<tr>
<td>Gimp-user</td>
</tr>
<tr>
<td>Gimp-developer</td>
</tr>
<tr>
<td>Psgql-general</td>
</tr>
<tr>
<td>Psgql-hackers</td>
</tr>
<tr>
<td>SVN-users</td>
</tr>
<tr>
<td>SVN-dev</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

- Newbies typically make up a small percentage of posters (~10%)
- Most newbies start by posting a new question/patch rather than joining an existing discussion

- Data gathered over 20 months
- Carlos Jensen, Scott King, and Victor Kuechler, “Joining Free/Open Source Software Communities: An Analysis of Newbies’ First Interactions on Project Mailing Lists” in Proceedings of HICSS’11
Reply Timeliness

• Newbies posting on user lists were significantly less likely to receive a reply than those posting on developer lists ($\chi^2 = 3.958, p = .047$)

• Receiving a reply within 48 hours was related to retention ($p = .012$)

Retention

• The GIMP developer list had only 2 newbies posting

• No statistically significant differences between user lists and dev lists
Effect of Flaming

- 1.5% of newbie replies were rated as rude/profane
- While this may seem low, it is important to keep in mind two things:
  - These were only the public flames, private flaming may be more common.
  - Because flames are public, they have a chilling effect.
- On our lists, newbie flaming occurred on average once every 50 days
  - As Krogh et al (2003) showed, newbies often lurk for weeks or months before posting their first message.
  - A normal part of joining a project is also to read up on mailing list archives
  - Chances are high novices will see flaming of other newbies prior to their first post
- The most likely person to flame was on the leadership team
- Flaming led to the user dropping out
Social Dilemma Experiments

• Tension between common good and individual greed
  – Group benefits by collaborating
  – Individual benefits by tricking others
• Examine how different environments affect collaboration and trust

Social Dilemmas – Effect of Communication Modality

Gender in FOSS

Posters & Lurkers

Males Subscribers
- 732, 41%
- 1037, 59%

Females Subscribers
- 52, 32%
- 110, 68%

- Subscribed, but never posted
- Posted
Lurking before Posting

Average Lurking Time

<table>
<thead>
<tr>
<th>Mailing List</th>
<th>Females</th>
<th>Males</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 sets of lists</td>
<td>233.12</td>
<td>299.44</td>
</tr>
<tr>
<td>yum-devel</td>
<td>4.67</td>
<td>4.67</td>
</tr>
<tr>
<td>yum</td>
<td>0.00</td>
<td>293.00</td>
</tr>
<tr>
<td>uclibc</td>
<td>0.09</td>
<td>0.09</td>
</tr>
<tr>
<td>Busybox</td>
<td>149.38</td>
<td>282.75</td>
</tr>
<tr>
<td>Buildroot</td>
<td>130.05</td>
<td>130.05</td>
</tr>
</tbody>
</table>

Subscription Length

Time Subscribed to Mailing List

<table>
<thead>
<tr>
<th>Mailing List</th>
<th>Males</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>All lists combined</td>
<td>6,282.96</td>
<td>6,282.96</td>
</tr>
<tr>
<td>Yum-devel</td>
<td>1,763.00</td>
<td>1,763.00</td>
</tr>
<tr>
<td>Yum</td>
<td>5,164.00</td>
<td>5,164.00</td>
</tr>
<tr>
<td>Uclibc</td>
<td>5,494.70</td>
<td>5,494.70</td>
</tr>
<tr>
<td>Parrot-dev</td>
<td>6,282.96</td>
<td>9,160.49</td>
</tr>
<tr>
<td>Jaws combined</td>
<td>6,282.96</td>
<td>9,160.49</td>
</tr>
<tr>
<td>Busybox</td>
<td>4,320.00</td>
<td>4,320.00</td>
</tr>
<tr>
<td>Buildroot</td>
<td>5,864.97</td>
<td>5,864.97</td>
</tr>
</tbody>
</table>
Posting Persistence - Women

Percentage of Posts by Females:
In relationship to the number of posts per user

Women in FOSS

Women in IT and FOSS

Percent of total population

Population

US population (2009)
Women as part of IT workforce (NCWIT)
FOSS mailing list subscribers
FOSS posters (once)
FOSS posters (10+ times)