COLLABORATION IN LINUX KERNEL MAILING LISTS

Dawn M. Foster
@geekygirldawn
dawn@dawnfoster.com
fastwonderblog.com

PhD Student
University of Greenwich
London, UK

Community and Open Source Consultant
The Scale Factory
WHOAMI

Geek, traveler, reader

Community and open source consultant at The Scale Factory

20+ year tech career. Past 17 years doing community & open source (Intel, Jive, Puppet Labs, etc.)

PhD student at University of Greenwich researching Linux kernel

Photos by Josh Bancroft, Don Park
ABOUT MY RESEARCH

Interviews with 16 Linux kernel developers

Quantitative analysis focused on kernel mailing list collaboration
## 16 KERNEL INTERVIEWS

<table>
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<tr>
<th>Gender</th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Maintainer</td>
<td>Yes</td>
<td>13</td>
<td>No</td>
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<tr>
<td>Company HQ Region</td>
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<td>9</td>
<td>S. America</td>
</tr>
<tr>
<td>Participant Region</td>
<td>N. America</td>
<td>9</td>
<td>S. America</td>
</tr>
<tr>
<td>Company Size (employees)</td>
<td>&lt; 100</td>
<td>2</td>
<td>100 - 1,000</td>
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</table>
LOCATION DOESN'T MATTER

"The Linux community doesn't care where you're located, ever. You can be on the moon as long as you have a good internet connection."

"Email is this kind of store and forward technology where I don't really think about time. I just shoot the message, and hopefully something will come back at some point."

"Similar time zones can be helpful because I can get a reply immediately. But it is not super important."

Photo by NASA
"Kernel development is something I like, and I will keep doing, no matter for which company I work."

“At the core I'm a Linux kernel guy. … At some point, I'm probably going to have the inkling to try something else, and then … I'll be a Linux kernel guy at the next place.”

"In 5 years, I'm not sure if I'll be in [Company] or not, but I'm pretty sure I'll be working on the kernel.”
"They give us a lot of us freedom in choosing what we do. They set a loose framework. ... Go contribute and build credibility. So, there is no specific direction that we get."

"There's no real direction, no one really telling me do this or do that, I just keep stuff running basically."

"I have considerable freedom to decide what to work on and which direction to take."

"They're fine with whatever as long as they have feature support."
RELATIONSHIPS ARE IMPORTANT

"There are many community developers who I feel very comfortable with at a social level, ... who I look forward to spending time with at conferences. In some cases, I'd say they're genuine friendships."

"At conferences, you really can sit down with a beer, hash things out, and come to a consensus. I think the Linux Kernel Summit is massively useful for that kind of thing."

"Having a functional social relationship makes it much easier to feel that asking them for a favor is justifiable and with a strong expectation that you'll be able to return that favor at some point in the future."
WORK WITH COMPETITORS

"We leave our companies behind ... otherwise you cannot maintain credibility in open source."

"When we're dealing with other Linux kernel developers, we are dealing with them as kernel developers, rather than as competitors, per se."

"I've never really felt that working with people who work for competitors as being a problem ... I think there's an effective social contract that you are willing to help people who work for competitors on the assumption that you'll get about the same amount of benefit from them."
"Whether they are fresh out of school in Hungary or whether they've been working for Google for 20 years or somewhere else. Personally, I don't really care."

"If I don't know them personally or if they don't use their work email, I don't necessarily know."

"If you have more contact with somebody than just a few patches, then it's in the general interest to know why they are there."

"I would be a bit more forgiving and give them maybe a little bit more kid glove treatment if I knew they were not being paid to do it."
MAILING LISTS

Subsystem lists vs. LKML

VGER vs. MAINTAINERS
DRI-DEVEL@LISTS.FREEDESKTOP.ORG COMPANIES

2013-10-31 to 2015-10-31
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USB MAILING LIST RESULTS

Significant:

• Replies to maintainers

• Code contributions - committers and contributing to same areas
USB MAILING LIST RESULTS

Significant:

• Working for same organization
• Previous interactions (social network)
USB MAILING LIST RESULTS

Not significant:

• Physical location (time zone)
• Type of organization (company, non-profit, hobby, academic)
NEXT STEPS

More research
Publish dissertation
Get real job again
THANK YOU

Dawn Foster
@geekygirldawn
dawn@fastwonder.com
fastwonderblog.com

PhD Student
Centre for Business Network Analysis
University of Greenwich

Consultant
Open Source / Community Building
The Scale Factory