

Talk is silver, code is gold? Contribution beyond source code in Free/Libre Open Source Software communities

David Rozas University of Surrey

This work was partially supported by the Framework programme FP7-ICT-2013-10 of the European Commission through project P2Pvalue (grant no.: 610961).





Who am I?

- Areas of interest: Free Software, Commons-Based Peer Production, social computing, etc.
- Working as a Drupal developer for the past 5 years. Previously working with Django, Moodle, etc.
- Previous background in Computer Science (@URJC [Spain], @NTNU [Norway])
- Started PhD in Sociology @UniS [UK] in October 2013
- Collaborating with the FP7 EU project P2Pvalue (www.p2pvalue.eu)
- +info|contact:
- @drozas 👌 🄰 🌔
- www.davidrozas.com || drozas@surrey.ac.uk





Outline

- Introduction
- Research questions
- Data and methods
- Findings
- Conclusion and questions





What is Free Software?

- Software which allows its use, copy, study and modification in any way
- "Free as in free speech, not as in free beer" (FSF, 2015)
- Source code released under a license which protects these rights (eg. GPL)
- Examples:

GNU/Linux, Firefox, Apache, Libre Office, etc.

Huge increment in adoption and production



Deshpande and Riehle (2008)





What is Free Software?

- New possibilities of collaborative production, fostered by the invention of the WWW
- New models of development: "The Cathedral and the Bazaar" (Raymond, 2001)
 - Source code publicly available at any time
 - Public testing and experimentation: "given enough eyeballs, all bugs are swallow"
- Unfinished product





What is Commons-Based Peer Production?

• A new model of socio-economic production in which groups of loosely connected individuals cooperate with each other to produce meaningful products without a traditional hierarchical organisation (Benkler, 2006)







What is Drupal?

- Free software content management framework
- Very modular: think of it as a "Lego". Dozens of "core modules", +27k contributed modules
- Powering 2% websites worldwide (W3Techs, 2014)
- Employed in complex and high traffic websites: whitehouse.gov, mtv.co.uk, economist.com, etc.







What is Drupal?: the Drupal community

- Started as a personal project of a student
- Code released in 2001 under a GPL



- Currently +1M users registered at Drupal.org, +30k code contributors (Drupal.org, 2014a)
- Hundreds of local F2F events, dozens of camps and cons in 4 continents (Drupal.org, 2014b)





Drupal as a CBPP community

- Ongoing discussion on the differences between CBPP, Peer Production, the delimitation criteria, etc.
- Drupal as a community whose mode of production (Fuster Morell, 2014) is :
 - Collaborative process
 - Peer-based: different levels of structure depending on the process, but not mainly based on contractual obligations neither forms of coercion
 - Commons-process: process driven by the general interest, results in openness of the resources
 - Favouring reproducibility: via Free Software/CC licenses, exchange of practices, etc.





Contribution activities as unit of analysis

- Previous studies looked either at the individuals or at the whole community (e.g.: motivations to contribute, structure of the community, etc.). Huang, Le & Panchal (2011), Sims, J. P. (2013), Nordin (2014)
- My approach is to look at **contribution** activities as unit of analysis (using Activity Theory as a framework), using an ethnographic approach.
- Understand processes and dynamics: how do these communities work?
- Implies to understand deeply what contribution means: stage 1





Contribution

- A blurry notion: meanings constantly evolving as part of negotiation processes
- Critical in CBPP communities focussed on digital commons: economy of contribution [not based on direct reciprocity]
 rather than economy of gift [based on direct reciprocity] (Wittel, 2013)





Contribution: "code-centrism"

- "Talking is silver, coding is gold". What about other contributions?
- "Code-centrism" also in FLOSS literature: typically looking at source code as main notion of contribution
- Affective labour as the "lifeblood" of the commons (Bollier, 2014): the inmaterial labour present in social interaction which creates or modifies emotional experiences (Hardt, 1999)





Research questions

- RQ1: What type of activities are perceived as contributions in the Drupal community? Do the "official" meanings match the ones of the members of the community?
- RQ2: How are the identified activities represented in the main platform of collaboration in an individual level?
- RQ3: Can some of these activities be understood as affective labour and what relevance do they have? Are there any differences on how they are perceived between members with different degrees of experience?





Data and methods

- Ethnographic methodological approach: online and offline
- Triangulation of data collection methods:
 - Participant observation (6 months): online participation, 13 events, etc.
 - Documentary analysis: Drupal Planet as "native" starting point. +2 years archive (3,266 documents)
 - Semi-structured qualitative interviews (4): London and Madrid
- Analysis supported by CAQDAS





RQ1: Contribution beyond source code

"[...]organise talks, meetups or just hang out with Drupalistas to drink some beers and have a talk, are also very important activities, and very positive for the community."

Drupal developer, 7 years. Original reply in Spanish.



etc.



RQ1: Contribution beyond source code

- Two main types emerged, according to the focus of action:
- "Object-oriented": source code, documentation, translation, etc.
- "Community-oriented": usage & support, evangelisation, training & mentoring, organisation & participation in F2F events,

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RQ1: Contribution beyond source code

- Suggestive, rather than exhaustive, list of of contribution activities
- Analysis of main platform shows that "community-oriented" ones are less visible (specially local/regional F2F events)
- Offer empirical evidence of the need of widening our understanding of contribution activities





- Profiles are key elements in the generation of perceptions by other users in FLOSS (Marlow, Dabbish & Herbsleb, 2013)
- Source of public references, significant role in the process of status attainment in FLOSS communities (Stewart, 2005)





- Inequality in the representation of "community-oriented" activities
- Affecting specially to "organisation and participation of local/regional F2F events"
- Some Drupalistas try to overcome these limitations





Examples of "object-oriented" contributions reflected in the profiles

History

Member for

9 years 5 months

Documentation

Over 1000 edits

Projects

Drupal core (6486 commits) Poll (from core) (2557 commits) Spark (160 commits) Quiz (102 commits) Drupal Module Upgrader (92 commits) Pants (76 commits) Revision Moderation (74 commits) Organic groups (72 commits) Documentation (60 commits) Webchick's test profile (52 commits) Drupal 7 to 8 Module Upgrader [dead] (51 commits)

Localization contributions Spanish 1124 approved translations History Member for 4 years 4 weeks Primary profile Profile on https://www.drupal.org/





JohnAlbin, Bojhan, webchick, nod , berdir

RQ2: contributions in user profiles

Examples of "community-oriented" contributions reflected in the profiles

Drupal

My mentors

PGR Seminar, School of Social Sciences at UniS - 25.03.2015

Put each item on a separate line or separate them by commas. No HTML allowed.

- 🛛 I contributed Drupal patches
- 😼 I contributed Drupal modules
- I contributed Drupal themes
- 📴 I contributed Drupal installation profiles
- S I contributed to Drupal issue queues
- I contributed to Drupal.org
- 📴 I contributed Drupal documentation
- 📴 I contributed Drupal translations
- I helped organize DrupalCon
- I contributed Drupal automated tests
- I reviewed Project applications
- I help in the Drupal support forums
- S I provide Drupal-related services
- I help mentor new contributors
- I attended the Drupal conference at FOSDEM 2005 (Antwerp, Belgium)
- I attended OSCON 2005 or the off-site Drupal conference at OSCON 2005 (Portland, Oregon)
- I attended LinuxWorldExpo London
- I attended DrupalCon Amsterdam 2005
- 🗆 I attended the Drupal conference colocated with the Open Source CMS and Blogging Tools Summit (Vancouver, Canada)
- I attended the Drupal conference 2006 (Brussels, Belgium)
- I attended OSCMS 2007, Sunnyvale
- I attended DrupalCon Barcelona 2007
- I attended DrupalCon Boston 2008
- I attended DrupalCon Szeged, Hungary 2008
- I attended DrupalCon DC 2009
- I attended DrupalCon Paris 2009
- I attended DrupalCon San Francisco 2010
- I attended DrupalCon Copenhagen 2010
- I attended DrupalCon Chicago 2011
- I attended DrupalCon London 2011
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- I attended DrupalCon Munich 2012
- I attended DrupalCon Portland 2013
- I attended DrupalCon Sydney 2013
- I attended DrupalCon Prague 2013
- I attended DrupalCon Austin 2014
- S | attended DrupalCon Amsterdam 2014
- I will attend DrupalCon Latin America 2015
- I will attend DrupalCon Los Angeles 2015
- I will attend DrupalCon Barcelona 2015





Use of "open fields" to try to overcome these limitations

Bio:

Read more at www.chandeepkhosa.com, email hello@chandeepkhosa.com, or call 07962 382 442.

I am a freelance Drupal Site Builder & Front End Developer looking for new freelance projects in London and have been developing websites with Drupal since 2007.

I have been very involved in training and mentoring web developers, particularly young people, getting them into careers specialising in Drupal. I have helped to support the Drupal community by speaking at camps and conferences on topics including e-Commerce & responsive web design.

- -- Drupal community --
- 🕆 Founding & organising Drupal West London

 \Leftrightarrow Mentoring apprentices & creating open source curriculum for learning Drupal - Open Drupal

 ☆ Speaking at Drupal camps on Drupal Commerce, Responsive web design & Open Drupal http://chandeepkhosa.com/?q=speaker
 ☆ Organising & facilitating a BoF (birds of a feather) session at DrupalCon Amsterdam 2014 https://amsterdam2014.drupal.org /bof/open-drupal-drupal-apprenticeships-...

 \doteqdot Contributing & reviewing front end patches during sprints at Drupal Dev Days Szeged, Drupalaton & DrupalCon Amsterdam





- Descriptive account of how identified activities are represented
- Empirical evidence of the uneven representation of some contribution activities, affecting specially the "community-oriented" category





- Analysis focussed on organisation and participation in F2F
- events most clear example of affective labour
- These contribution activities play a relevant role in the sustainability of the community: "come for the software, stay for

the community"





"[...]indeed, the fact of attending these meetups, it was really good. Because you realise there are people behind the source code, right? There are people behind the modules. And you meet people that can tell you this kind of personal stories.[...] And then, it stops being something anonymous, it becomes something yours."

Drupal developer and devop, 1.5 years. Original reply in Spanish.

 Drupal becomes a community, avoid barriers, increases the will for reciprocity, etc.





"[...]friendships are developed, and seeing people in-person helps a lot. I believe so, the idea of... having F2F meetups and get to know each other in-person is essential.[...] In the IRC you will talk about certain things, but after a day cycling 50 or 60 kilometres [referring to the "Tour de Drupal"], [...]there will be more interaction for sure, and a bigger friendship [...]"

Drupal developer, 7 years. Original reply in Spanish.

 As the engagement with the commons increases, affection relationships develop (friendship). Commitment, sense of community, avoid to burnout, etc.





- "Because the community is growing, then you have less of a sense of community. But I think the solution to that is to have smaller local communities.
- So, you know, as the worldwide community grows, then you start finding, like whereas before it might have been 50 people worldwide, now you have like 50 people in your part of London, or wherever."

Drupal themer and developer, 11 years.

Local activities help to scale up the sense of community, as it grows





- Existence and relevance of affective labour
- Different types of emotional experiences (which vary according to degree of experience), which foster collaboration
- Not only that understood as a type of contribution unequally represented; they are key for sustainability
- Connecting to major literature on commons, through AL. The participation "transforms the local subjectivities" of Drupalistas, as in non-digital domain (Singh, 2013)





Conclusion

- Need of broaden our understanding of contribution activities in FLOSS communities, beyond "object-centric"
- Lack of visibility and relevance of "community-oriented" ones.
- Need of keeping on exploring conceptualisation and incorporation of value in CBPP communities





References

- Free Software Foundation (2015). https://www.gnu.org/philosophy/free-sw.html
- Deshpande, A. & Riehle, D. (2008). The total growth of open source. In Open Source Development, Communities and Quality (pp. 197–209).
 Springer.
- Raymond, E. S. (2001). The Cathedral and the Bazaar: Musings on Linux and Open Source by an Accidental Revolutionary. Sebastopol, CA, USA: O'Reilly.
- Benkler, Y. (2006). The wealth of networks: how social production transforms markets and freedom. Yale University Press.
- W3Techs (2014). Usage of content management systems for websites. http://w3techs.com/technologies/overview/content_management/all
- Drupal.org (2014a). https://www.drupal.org/
- Drupal.org (2014b). Drupal upcoming events. https://groups.drupal.org/events
- Fuster Morell, M. et al. (2014). Theoretical synthesis: Final theoretical synthesis of WP1, including research reports on data collection. http://www.p2pvalue.eu/sites/default/files/u28/D12_31July_TheoreticalFindingsA%20%281%29.pdf
- Huang, Le & Panchal. (2011). Analysis of the structure and evolution of an open-source community.
- Sims, J. P. (2013). Interactive engagement with an open source community : a study of the relationships between organizations and an open source.
- Nordin, D. (2014). Motivation and Collaboration in an Open Source Project: A Qualitative Study of the Drupal Community. (Master's thesis, Bentley University).
- Wittel, A. (2013). Counter-commodification: The economy of contribution in the digital commons. Culture and Organization, 19 (4), 325, 327–328.
- Bollier, D. (2014). Affective Labor as the Lifeblood of a Commons. Retrieved from http://www.bollier.org/blog/affective-labor-lifeblood-commons
- Hardt, M. (1999). Affective labor. Boundary 2, 26 (2), 89–100.





References

- Marlow, J., Dabbish, L. & Herbsleb, J. (2013). Impression Formation in Online Peer Production: Activity Traces and Personal Profiles in Github. In Proceedings of the 2013 Conference on Computer Supported Cooperative Work (pp. 117–128). CSCW '13. San Antonio, Texas, USA: ACM. doi:10.1145/2441776.2441792
- Stewart, D. (2005, October). Social Status in an Open-Source Community. American Sociological Review, 70 (5), 823–842. Retrieved from http://search.proquest.com/docview/218806561?accountid=17256
- Singh, N. M. (2013, June). The affective labor of growing forests and the becoming of environmental subjects: Rethinking environmentality in Odisha, India. Geoforum, 47, 189–198. doi:10.1016/j.geoforum.2013.01.010
- Images:
 - http://upload.wikimedia.org/wikipedia/commons/a/af/Tux.png
 - http://upload.wikimedia.org/wikipedia/commons/5/53/Wikipedia-logo-en-big.png
 - http://upload.wikimedia.org/wikipedia/commons/d/d7/Amsterdam_Fab_Lab_at_The_Waag_Society.JPG
 - http://farmhack.net/sites/default/files/The%20Garlic%20Master%20001_0.JPG
 - http://www.garfieldtech.com/presentations/sfsf2012-drupal8/images/lego-druplicon.jpg
 - http://www.siftdigital.co.uk/sites/default/files/drupal-community.png
 - https://www.drupal.org/files/druplicon.large_.png
 - http://blog.101financial.com/wp-content/uploads/2014/03/Making-A-Contribution-To-Society.png
 - Screenshot from https://www.drupal.org/u/webchick, retrieved 5th November 2014
 - Screenshot from https://groups.drupal.org/user/8713, retrieved 5th November 2014.
 - Screenshot from https://www.drupal.org/user/740628/edit/Drupal, retrieved 22nd October 2014 (not available unless logged in)
 - Screenshot from https://www.drupal.org/u/lewisnyman, retrieved 5th November 2014
 - Screenshot from https://www.drupal.org/u/chandeepkhosa, retrieved 5th November 2014





<u>Any</u> <u>questions/feedback?</u>

Thanks! ¡Gracias! Obrigado! Danke! Grazie!

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