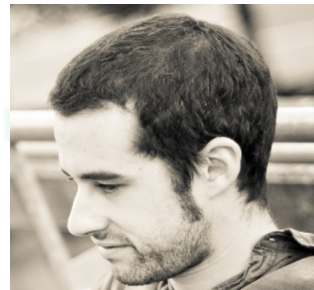





# Talk is silver, code is gold? Contribution beyond source code in Drupal

**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?



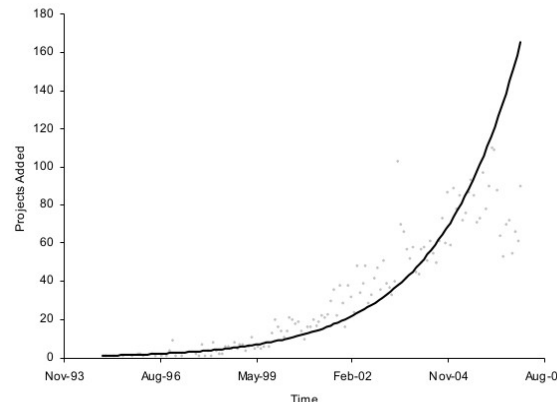
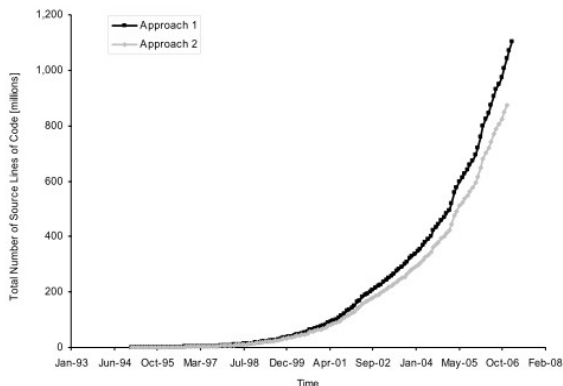
- Areas of interest: Free Software, Commons-Based Peer Production, social computing, Computer Supported Cooperative Work, Science and Technology Studies etc.
- Working as a Drupal developer for the past 5 years. Previously working with Django, Moodle, etc.
- Previous background in Computer Science (@URJC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

# Outline

- Introduction: Drupal as a CBPP community
- Research questions
- Data and methods
- Findings
- Discussion
- Conclusion and future work

# The growth and success of FLOSS

- **Exponential growth in production** of Free/Libre Open Source Software (FLOSS)
- E.g. Deshpande and Riehle (2008): #LoC & #projects, period 1995-2006



Deshpande and Riehle (2008)

# The growth and success of FLOSS

- Increasing **adoption** of FLOSS, abundance of organisations **participating**
- Future of Open Source 2015 survey (Black Duck Software, 2015):
  - **78% running** their businesses with FLOSS, **66% building** software for customers with FLOSS
  - Increment in **participation** in FLOSS communities: 50%→64%
  - **Drupal** in the **top most valued** FLOSS projects (3<sup>rd</sup>)



JM Gonzalez-Barahona @jgbarah · May 10

The annual Future of Open Source survey confirms what we all suspected: Open source has won [infoworld.com/article/291464](http://infoworld.com/article/291464)



9



2



[View summary](#)

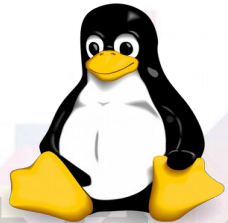


# Not only about the software...

- New possibilities of **collaborative production**, fostered by the invention of the WWW
- **New models of producing** the software, in comparison with traditional software engineering practices; “the cathedral” vs “the bazaar” (Raymond, 2001):
  - Source code publicly available at any time
  - Public testing and experimentation

# What is Commons-Based Peer Production (CBPP)?

- 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)
- **Spreading** to diverse areas: open science, open agriculture, Peer-to-peer urbanism, etc. (Fuster Morell et al., 2014).
- See <http://directory.p2pvalue.eu/> (currently +370 cases)



# What are the commons?

- The commons: as a **resource or good shared by a group of people that may be subject to social dilemmas**, such as over-exploitation or free-riding. (Hess & E. Ostrom, 2007)
- Classification of goods according to:
  - **Excludability**: feasible to prevent its access to it
  - **Rivalry**: its use or consumption prevents or affects the consumption by others

	Rival	Non-Rival
Excludable	Private goods. E.g.: bread	Toll goods. E.g.: cable TV
Non-excludable	Common Pool Resources E.g.: fish taken from the ocean	<b>Public goods</b> E.g.: lighthouse <b>Free Software</b>

V. Ostrom and E. Ostrom (1999)



# What are the commons?

- Furthermore, some of these goods are **anti-rival**: the more people use them, the more utility each person receives (e.g.: Free software). Weber (2004)
- One more dimension, the scope of the ownership: “Those goods that belong to **everyone and no one at the same time**, therefore not following the rules of the market” Lafuente et al. (2007)



# The Drupal goods as a commons

- **Anti-rival**: its use by a person increases the value for other users
- **Non-excludable**: accessibility is protected as part of the licenses applied for the code, the contents created in the community, etc.
- **Global**: the ownership does not belong to any individual or state, as protected by the licenses chosen (exception: the trademark)



# Drupal community 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 et al., 2014) is:
  - **Collaborative process**
  - **Peer-based**: different levels of structure depending on the process, but not mainly based on contractual obligations nor coercion
  - **Commons-process**: process driven by the general interest, results in openness of the resources
  - **Favouring reproducibility**: via Free Software or Creative Commons licenses, exchange of practices, etc.

# Contribution activities as unit of analysis

- Understand **processes** and **dynamics**: **how do these communities organise themselves?**
- 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 (Engeström, 1987) as a framework], using an ethnographic approach
- Implies to understand **deeply** what **contribution** means: **stage 1**

# Contribution

- A blurry notion: **meanings** constantly **evolving** as part of negotiation processes between the participants
- **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”

- **“Code-centrism”:**
  - In FLOSS literature: typically looking at source code as main notion of contribution
  - In FLOSS communities: “Talk is silver, code is gold”
- What about other contributions?
- **Affective labour** as the “**lifeblood**” of the commons (Bollier, 2014): the immaterial 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 sources of 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). See [http://www.davidrozas.com/lab/drupal\\_planet\\_archive.php](http://www.davidrozas.com/lab/drupal_planet_archive.php)
  - Semi-structured qualitative interviews (4): London and Madrid
- Analysis supported by CAQDAS



# Findings: Contribution beyond source code (RQ1)

“[...]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.



- Two main types emerged, according to the focus of action:

- **“Object-oriented”**: source code, documentation, translation, etc.
- **“Community-oriented”**: usage & support, online community management, training & mentoring, organisation & participation in F2F events, etc.
- Suggestive, not exhaustive, list

Organisation and participation in F2F events (SG <sub>2.5</sub> )	Local events (SG <sub>2.5.1</sub> )	Organisation of the event (e.g. logistics)
		Give talks, run workshops, etc.
		Attendance to the event
	DrupalCamps / Drupal Dev Days / Frontend United and other regional or role-specific events (SG <sub>2.5.2</sub> )	Organisation of the event (e.g. logistics, selection of presentations, etc.)
		Creation of the website, social media management, etc.
		Prepare a presentation
		Run a BoF (Birds Of a Feather)
		Attendance to the event

[illegible]

# Findings: Contribution beyond source code (RQ1)

- Analysis of main platform shows that **“community-oriented” ones are less visible**
- From them, this affects **especially local/regional F2F events**

## User support

Even the most gifted Drupal developers were new once, and chances are someone has helped you at some point along the way. No matter your skill level, you can give back by sharing what you know with other users needing support. It's a nice thing to do, and who knows? You might learn something, too!

[Find out how to help with user support.](#)

## Documentation

Whether you're interested in providing fine-grained API documentation, writing step-by-step tutorials for the handbook, or producing multimedia content, showing people how Drupal works, you can help improve Drupal's documentation and provide a valuable resource to the community.

[Find out how to help with documentation.](#)

## Translations

Drupal supports several languages, from Afrikaans to Turkish. If you know another language, you can offer your skills to help maintain Drupal core and contributed module translations.

[Find out how to help with translations.](#)

## Testing

If you have a keen eye for detail, or even just a knack for breaking things, you can help Drupal with testing. Good testing directly contributes to the stability of the platform, and is an excellent way for people of all backgrounds to make a valuable contribution to the project.

[Find out how to help with testing.](#)

## Design and Usability

Have you ever been someone who's never used Drupal before or are new to Drupal yourself? Have specialized knowledge in web accessibility and other standards? Contribute feedback to Drupal's usability!

[Find out how to help with Drupal core UX](#) or visit the [Drupal Usability group](#).

## Donations

Want to help but don't have the time? Want to say "thank you" to the folks who have put work into making Drupal what it is? Want to ensure that Drupal's infrastructure stays healthy and strong? Why not consider a monetary donation?

[Donate now](#) or [find out how to help with donations](#).

## Development

Drupal thrives on developer contributions, in the form of both contributed modules and patches to core. Helping out in development helps the project improve, stay competitive, and is the best way to ensure that Drupal can do what you need it to do on your next project!

[Find out how to help with development.](#)

## Themes

Want to show your design? Live and breathe XHTML and CSS? Contribute your knowledge to Drupal in the form of themes!

[Find out how to help with themes.](#)

## Marketing

Help get the word out about Drupal! Put your graphic design skills or marketing savvy to work in promoting Drupal and spreading the word!

[Learn more in the Drupal marketing group](#)

# Findings: Contribution beyond source code (RQ1)

- Offer empirical evidence of the need of **widening our understanding of contribution** activities
- This lack of visibility is also reflected in the main platform of collaboration

# Findings: Contributions in user profiles (RQ2)

- 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)



Spain

[LinkedIn](#)  
[Twitter](#)  
[Drupal Answers](#)  
[GitHub](#)

**Current Role(s):**  
PhD Student  
University of Surrey

**IRC:** drozas

#### Professional Info

**Companies Worked For**  
University of Surrey, Educatic,  
Infosys, Norwegian University of  
Science and Technology, Solusoft

<http://www.davidrozas.com>  
[http://www.surrey.ac.uk/sociology/people/phd/david\\_rozas/index.htm](http://www.surrey.ac.uk/sociology/people/phd/david_rozas/index.htm)

#### Personal Info

**Gender:** male

**Languages spoken:** English  
Spanish

#### Bio:

I am a free software enthusiast and I have been learning and having fun with Drupal and its community since 2010.

I am currently studying a PhD under the supervision of Professor Nigel Gilbert and Dr Paul Hodgkinson. My research concerns individual involvement and group dynamics of Commons-Based Peer Production communities, focussing on the Drupal community as a case study. More info: [http://www.surrey.ac.uk/sociology/people/phd/david\\_rozas/index.htm](http://www.surrey.ac.uk/sociology/people/phd/david_rozas/index.htm)

#### History

**Member for** 5 years 2 weeks

**Documentation** Over 100 edits

#### Areas of Expertise:

Site builder  
Developer  
project manager,

**Drupal Events:**  
DrupalCon Copenhagen 2010  
DrupalCon Amsterdam 2014

#### Projects

**FB Likebox** (79 commits)

**QScience** (51 commits)

**Patterns** (47 commits)

**Patterns Installation Profile** (41 commits)

**Patterns Client** (16 commits)

**Patterns Server** (15 commits)

Total: 249 commits

**You Rock!** Thank you for purchasing a [Drupal Association](#) membership. Your support has helped us to support the Drupal community. Your membership will expire on Nov 08, 2016.



drozas helps support and grow the Drupal community with the [Drupal Association](#).

#### My mentors:



2 people list drozas as a mentor

I contributed Drupal patches  
I contributed Drupal modules  
I contributed Drupal installation profiles  
I contributed to Drupal issue queues  
I contributed Drupal documentation  
I contributed Drupal translations  
I provide Drupal-related services

## Findings: Contributions in user profiles (RQ2)

- **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**

# Findings: Contributions in user profiles (RQ2)

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/](https://www.drupal.org/)



# Findings: Contributions in user profiles (RQ2)

Examples (the few) of “community-oriented” contributions reflected in the profiles

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
- ☒ 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
- ☒ 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
- ☐ I attended DrupalCon Denver 2012
- ☐ 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
- ☒ I attended DrupalCon Amsterdam 2014
- ☐ I will attend DrupalCon Latin America 2015
- ☐ I will attend DrupalCon Los Angeles 2015
- ☐ I will attend DrupalCon Barcelona 2015

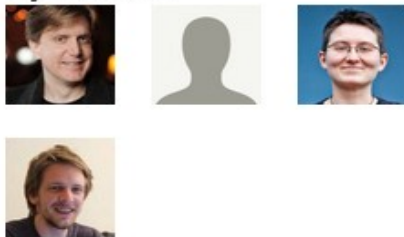
Drupal

My mentors

JohnAlbin, Bojhan, webchick, nod\_, berdir



My mentors:



13 people list LewisNyman as a mentor



# Findings: Contributions in user profiles (RQ2)

## Use of “open fields” to try to overcome these limitations

### Bio:

Read more at [www.chandeepkhosa.com](http://www.chandeepkhosa.com), email [hello@chandeepkhosa.com](mailto: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
- ☆ 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-...>
- ☆ Contributing & reviewing front end patches during sprints at Drupal Dev Days Szeged, Drupalaton & DrupalCon Amsterdam

## Findings: Contributions in user profiles (RQ2)

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

## Findings: Role of affective labour (RQ3)

- Analysis focussed on organisation and participation in F2F events – most clear example of affective labour (creation and modification of emotional experiences)
- These contribution activities play a relevant role in the **sustainability** of the community: “come for the software, **stay for the community**”

## Findings: Role of affective labour (RQ3)

“[...]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.

## Findings: Role of affective labour (RQ3)

“[...]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, **affectio relationships develop** (friendship). Commitment, sense of community, avoid to burnout, etc.

## Findings: Role of affective labour (RQ3)

“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

## Findings: Role of affective labour (RQ3)

- Existence and relevance of affective labour
- Different types of emotional experiences which foster collaboration. Vary according to degree of experience
- Not only understood as a **type of contribution**; not only **unequally represented**; they are **key for sustainability**

## Discussion

- Role of F2F in FLOSS and hacker culture (Coleman, 2013, p. 73), having “affective, moral, economic and political dimensions”
- “[...] people embark on decisions and actions they probably would not have considered otherwise. Some hackers decide to formally apply to become a Debian developer, while longtime developers decide not to quit the project.” (Coleman, 2013, p. 71)



## Discussion

- Additional evidence, but furthermore: **framing** them as **contributions**
- Empirical evidence of **lack of visibility** in main platform of collaboration:
  - Main sections related to encourage contribution
  - In an individual level: user profiles

# Discussion

“metrics such as code commits used to gauge contribution by Open Source literature and by Drupal.org itself paint an incomplete picture of the types of contributions that actually happen in the Drupal project” (Nordin, 2014, p. 43)

- Filling Nordin's (2014) gap:
  - The role of **local events**
  - **Scaling up** the sense of community
- Additional evidence of the lack of visibility

## Discussion

- **Connecting to** major literature on **commons**, through affective labour.
- The participation “transforms the local subjectivities” of Drupalistas, **as in non-digital domain**: community-based forest in Odisha (Singh, 2013)
- Shaping subjectivity: **becoming a “commoner” through “commoning”**

## Discussion

- Not only socio-cultural reasons:
  - Need of exploring **new dimensions of value** in CBPP communities (e.g. P2Pvalue, Open Value Network)
  - **Incorporate them** in socio-technical systems in concise, useful and distributed ways [e.g. Sabir, (De Filippi, P. & Hassan, S. (2014))]

## Discussion

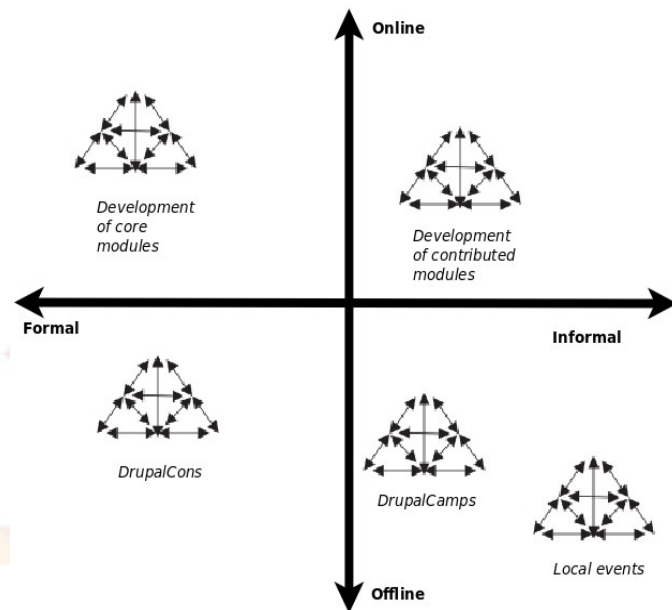
- Drupal community working on that direction:  
improve how these activities are represented in the user profiles at Drupal.org, to “[...] go beyond code creation activity and into more community-oriented stuff, since that’s also a huge part of what makes Drupal healthy.” (Drupal.org, 2014a)

## Conclusion

- Need to **broaden our understanding of contribution activities** in FLOSS communities, beyond “object-centric” ones
- **Lack of visibility** of “community-oriented” ones and its relevance
- Need to **keep on exploring** conceptualisation and incorporation of **value** in CBPP communities

# Future work

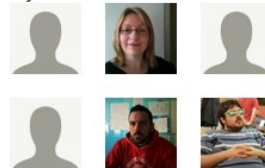
- Understanding **organisational dynamics**
- Exploring some of these contribution activities in depth, drawing on **Activity Theory** (Engeström, 1987)
- **Tensions** between entities and activity systems



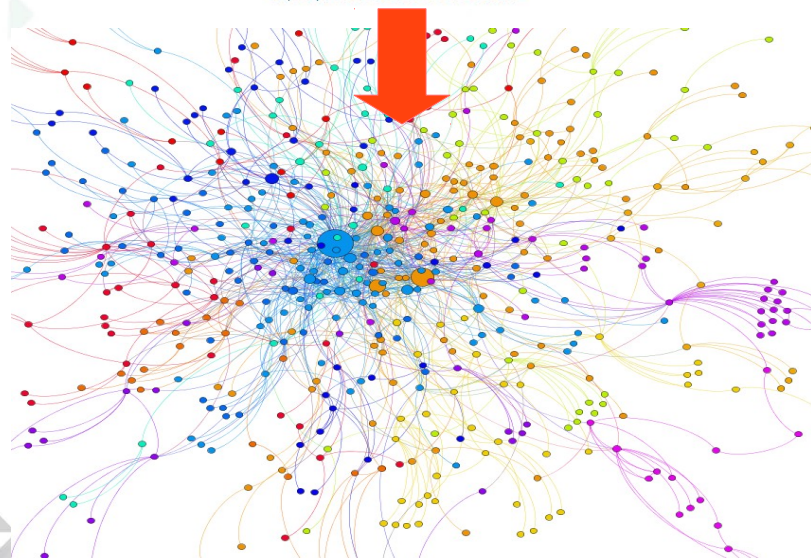
# [Not so] future / parallel work

- Understanding better the implications of these “community-oriented” contributions using digital methods
- SNA of mentorship relationships, using D.org API: <https://www.drupal.org/api>
- <https://github.com/drozas/drupal-org-api>

My mentors:



2 people list drozas as a mentor





# Future work... researching in a “Drupal way”

- Giving back to the community:
  - **Network** of “Drupal researchers”  
(<https://groups.drupal.org/research-about-drupal-community>)
  - List of **publications**
  - **Dissemination**, discussions, etc.
- Looking for Drupalistas to **interview** (around 1 hour) after summer
- Feedback, thoughts, please **ping me!**
  - **@drozas**
  - [drozas@surrey.ac.uk](mailto:drozas@surrey.ac.uk)



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# Any questions/feedback?

Thanks!




Ευχαριστώ!

¡Gracias!

Danke!

Grazie!

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