Self-organisation in Commons-Based Peer Production

Drupal: "the drop is always moving"

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Overview

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- Key concepts: Free Software, Commons-Based Peer Production
- Case study
- Methodology
- Key insights:
  - Notion of contribution in peer-production
  - Formalisation and decentralisation in peer production
  - Emergence of *polycentric* governance and organisational forms with different degrees of *organicity*
- Conclusion

What is Free Software?

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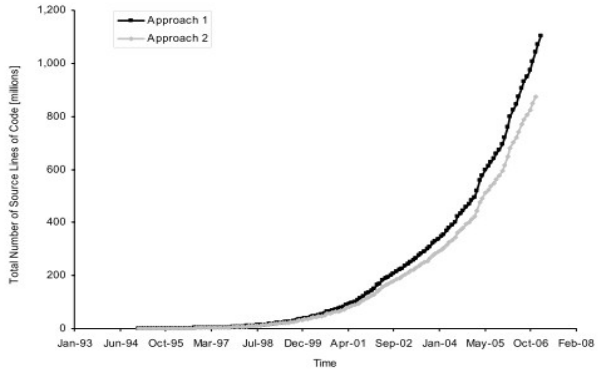
- Software which allows its use, copy, study and modification in any way
- Huge increment in adoption and production
- **Not only about the software**: new ways of producing it (Raymond, 2001)

Deshpande and Riehle (2008)



Commons-Based Peer Production

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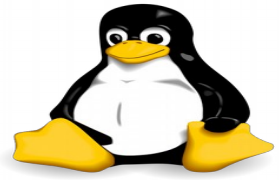
- New mode of production (Benkler, 2006), characterised by (Fuster-Morell, 2014):
  - **Collaborative process**
  - **Peer-based**: different levels of structure depending on the process, but not mainly based on contractual obligations neither forms of coercion
  - **Commons-process**: process driven by the general interest, results in openness of the resources
  - **Favouring reproducibility**: via Free Software or Creative Commons licenses
- In context of collaborative economy, in contrast with corporate models (e.g. Uber)



Case study: the Drupal community

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- Free software content management framework, started personal project of a student (2001). Powering +2% websites worldwide (W3Techs, 2014)
- A community project: “you come for the software, you stay for the community”
- Currently +1M users registered at Drupal.org, +30k code contributors (Drupal.org, 2014a).
- Hundreds of local F2F events, tens of DrupalCamps and DrupalCons in 4 continents (Drupal.org, 2014b)
- Extreme case

Timeline and growth in participation

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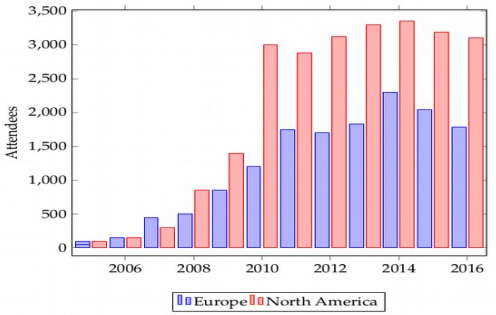
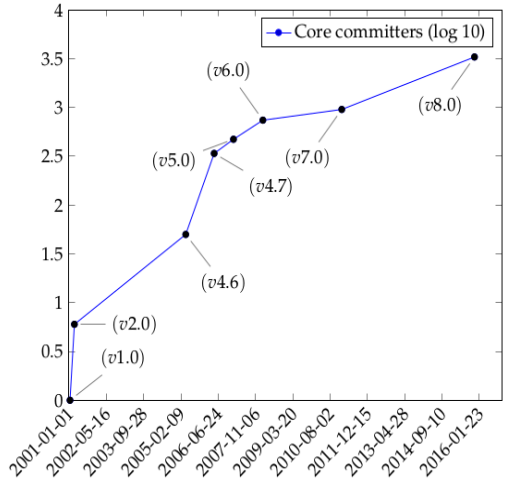




2001 — Drupal 2.0

2005 — Face-to-face meeting (FOSDEM)

2007 — Drupal Association, BDFL — Drupal 5.0, NASA, MTV, ...

2008 — Drupal 5.0, White House

2009 — Drupal 6.0

2011 — Drupal 7.0

2013 — 1 million Drupal sites, DrupalCon Sydney — Backdrop

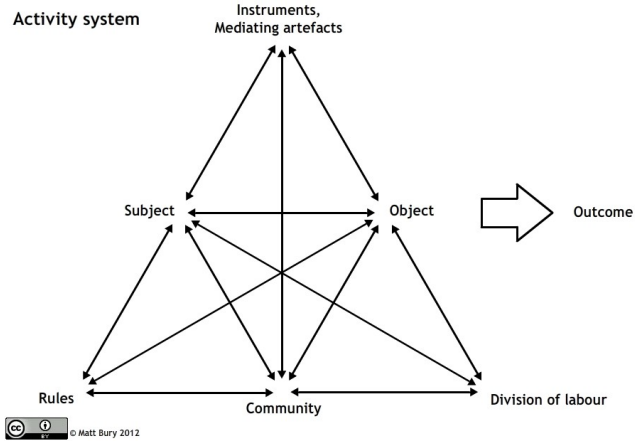
2015 — DrupalCon Latin America — Drupal 8.0

2016 — DrupalCon Latin Asia

Dries Buytaert launched Drupal 1.0 on 2001 after graduating

Methodology and theoretical framework

- [Contribution] activity as main unit of analysis. Activity Theory (Vygotsky, 1978; Engeström, 1987)
- Qualitative study, (virtual) ethnographic perspective (Hine, 2000)
- Data collection methods (multi-modal)
  - Participant observation, 3 years. Online (main platforms) & offline (32 events, 53 days)
  - Documentary analysis. Drupal Planet as starting point. 8,613 documents from archive
  - 15 semi-structured qualitative interviews

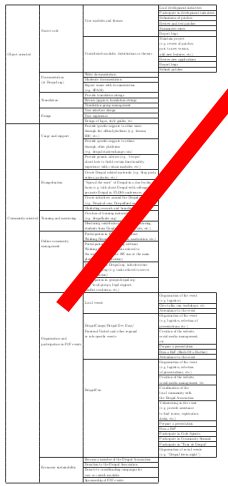


#F1: Contribution

- “Talk is silver, code is gold”
- What does it mean to contribute?: code-centrism in communities & literature
- What about other contributions? Affective labour as the “lifeblood” of the commons (Bollier, 2014): immaterial labour creates or modifies emotional experiences (Hardt, 1999)
- > *“What types of activities are understood as contributions in the Drupal community and in what ways are these recognised?”*

#F1: Contribution beyond source code

- Meanings constantly evolving as part of negotiation processes between the participants
- Two main categories:
  - “Object-oriented”,
  - “Community-oriented”



	etc.)	
Organisation and participation in F2F events ($SG_{2.5}$)	Local events ($SG_{2.5.1}$)	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 ($SG_{2.5.2}$)	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
	DrupalCon ($SG_{2.5.3}$)	Organisation of the event (e.g. logistics, selection of presentations, etc.)
		Creation of the website, social media management, etc.
		Coordination of the local community with the Drupal Association
		Volunteering in the event (e.g. provide assistance to find rooms, registration desks, etc.)
		Prepare a presentation
		Run a BoF
		Participate in Code Sprints

#F1: Reflection in arterfacts

Spain

LinkedIn
Twitter
Drupal Answers
GitHub

Current Role(s):
PhD student
University of Surrey

IRC: drozas

Professional Info

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

http://davidrozas.cc
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 doing some work as Drupal freelancer while doing a PhD on the "social side" of Free Software communities. 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

History

Member for	7 years 4 months
Documentation	Over 100 edits

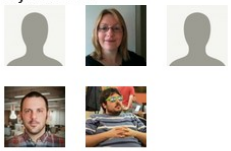
Areas of Expertise:
Site builder
Developer
project manager,
Drupal Events:
DrupalCon Copenhagen 2010
DrupalCon Amsterdam 2014
DrupalCon Barcelona 2015

Projects

Facebook Page Plugin (83 commits)
QScience (51 commits)
Patterns (47 commits)
Patterns Installation Profile (41 commits)
Patterns Client (16 commits)
Patterns Server (15 commits)
Integrity (1 commit)
Total: 254 commits

drozas helps support and grow the Drupal community with the Drupal Association.

My mentors:

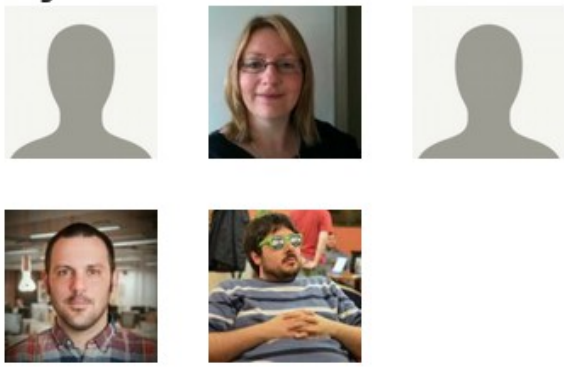


2 people list drozas as a mentor

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

Retrieved 17th July 2017 from https://www.drupal.org/u/drozas Drupal.org (CC BY-SA 2.0).

My mentors:



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#F1: Relevance of “community-oriented” contributions

“[…] attending these meetups was really good. Because you realise there are people behind the source code, right? […] And you meet people that can tell you a kind of personal story. […] And then, it [the community] stops being something anonymous, it becomes something yours.”

I_1, Drupal developer and devop, M, 1 year

- 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**

Life in a do-ocracy: a model of governance?

"The Drupal community uses a do-ocracy model, meaning people work on what they want to work on, instead of being told what to work on. Decisions are usually made through consensus building and based on technical merit, trust and respect."

Buytaert (Bacon, 2012, p. 514),

"[…] Doocracy refers to the idea that there is no external body or hierarchy that decides how actions should be carried out. […] authority over an action is held directly by those developing it."

Fuster-Morell (2010, p. 282)

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Self-organisation in Commons-Based Peer Production

> *[…] the salient characteristic of commons, as opposed to property, is that* ***no single person has exclusive control*** *over the use and disposition of any particular resource in the commons. Instead, resources governed by commons may be used or disposed of by anyone among some (more or less well-defined) number of persons,* ***under rules that may range from 'anything goes' to quite crisply articulated formal rules*** *that are effectively enforced.*
>
> Benkler (2006, p. 61),

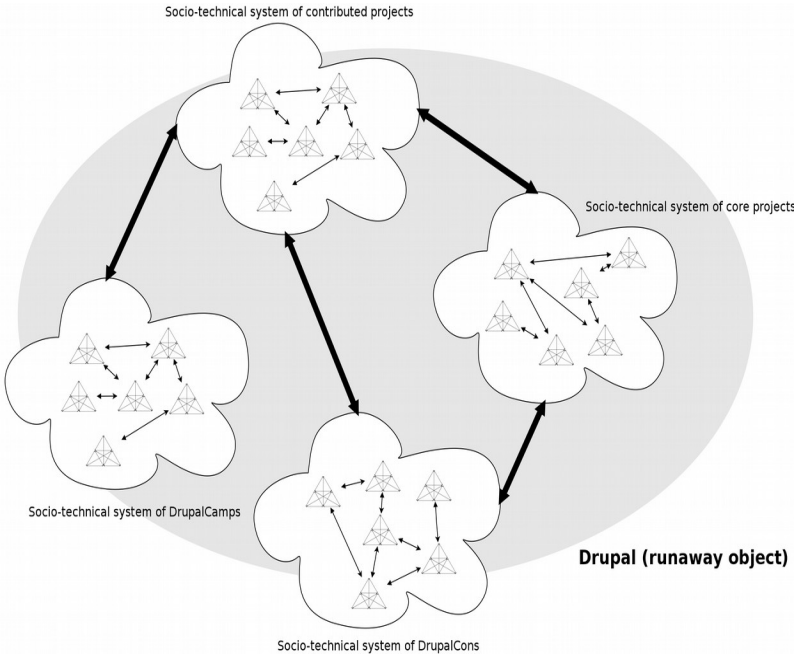
"How does a large and global Commons-Based Peer Production community self-organise?"

> *"What are the main organisational aspects and dynamics that have characterised the growth of a global CBPP community of such a scale?"*

> *"What type of governance emerged in the Drupal community?"*

#F2: Emergence of socio-technical systems of contribution

*STSoC: A set of **interacting parts**, including people, software, hardware, procedures or rules among others, which form a complex whole that revolves around **networks of human activity systems which are perceived as contribution** within the community and share a similar main focus of action.*



#F2: Formalisation and decentralisation

Formalisation and decentralisation in peer production: intertwined, and despite main medium / type of activity; and counter-intuitiveness with hacker ethic and do-ocratic values

*[…] procedures **have to be more formalised** in order for it to be welcoming for new contributors. Because people need to know how we do things, who to talk to, and why. Otherwise, it looks like… like you have to be **part of the in-crowd**, or you have to know certain people, or you have to be in a backchannel, and that stuff is really bad. It will **drive away new contributors**. So the formalisation has definitely increased […] we talk about how to do them [decisions], and we come to some kind of agreement and plan. […]*

I_9, Drupal core developer and mentoring organiser, F, 8 years

Formalisation and decentralisation: development of projects

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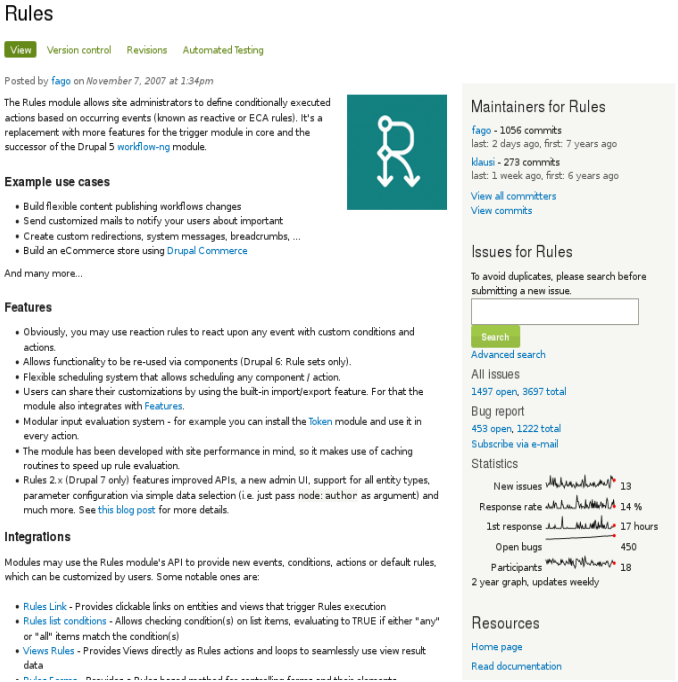
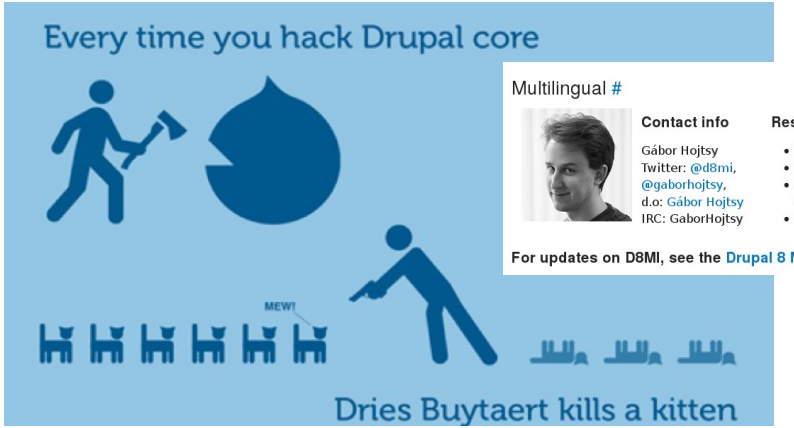
Custom

E.g. Quality assurance to "commit" code



Contributed



Core

Formalisation and decentralisation: organisation and participation in events

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Drupal.cat +Beers

DRUPALCAMP 2017 MADRID MAY 5-6

ASOCIACIÓN ESPAÑOLA DE DRUPAL

DRUPALCON AMSTERDAM 2014

Drupal ASSOCIATION

E.g. Quality assurance to select presentations

How can we explain this?

- Partial explanation according to Ostrom's principles (Ostrom, 1990):
  - Clearly defined community boundaries: institutions, Project Application Process
  - Congruence between rules and local conditions
  - Conflict resolution mechanisms: Drupal Community Working Group [...]

- Also in other large and global CBPP communities:
  - Viégas et al. (2007): The *hidden* order of Wikipedia
  - Forte et al. (2009): Decentralization in Wikipedia Governance

#F3: Different degrees of *organicity*

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- **Analysis of STSoC. Drawing on classic concepts from organisational theory of organic and mechanistic organisational structures (Burns & Stalker, 1961)**
- **Rules**: from social norms -> core gates and codes of conduct
- **Division of labour**: from blurred -> high degrees of explicit specialisation
- **Legitimacy**: from lower levels to participate/organise -> formal institutions
- **Centralisation and autonomy**: fully decentralised spaces loosely interconnected -> the most centralised and rigid structure [...]

Characteristics of organisational processes	Degree of *organicity*		
	d_1: High	d_2: *Mezzo*	d_3: Low
Rules	Some implicit rules. For example, 'writing good code' or 'avoiding promotional talks'.	Intermediate amount of rules partially affecting areas (e.g. quality assurance). For example, coding standards or selection criteria for presentations.	Large amount of explicit rules affecting most decision-making: governance, quality assurance, division of labour. For example, Core Gates or conflict of interest regulation.
Specialisation	Implicit and blurred division of labour. For example, contributor, or presenter.	Intermediate levels of division of labour. Partially explicit in some cases. For example, maintainers of contributed projects, or organisers in DrupalCamps	Explicit and large division of labour. High degree of specialisation. For example, product owners of core or track chairs.
Degree of formality	Low degree of formality. For example, social life organised around implicit social rules.	Intermediate degree of formality. Emergence of some formal organisational structures and institutions in some cases. For example, the Spanish Drupal Association.	High degree of formality. Organised around formal organisational structures, with bureaucratic processes for most of the decision-making. For example, the Drupal Association.
Centralisation and autonomy	Fully decentralised spaces and loosely interconnected: vast amount of small centres of decision-making almost completely independent of each other.	Considerable amount of medium-sized autonomous distributed spaces with low degrees of dependence on others. For example, contributed projects working groups, or the Spanish Drupal Association.	The most centralised and rigid structures, several centres of decision-making with stronger interdependence. For example, the Core Governance or committees in the Drupal Association.
Complexity and amount of required coordination	Low degree of required coordination. Low levels of complexity.	Intermediate degree of required coordination. Medium complexity.	Largest amounts of required coordination. Main focus of action highly complex.

■ ■ ■

#F3: *organic* and *mechanistic* organisation, polycentric governance

- Organisational changes experienced illustrate emergence of STSoC:
  - Core, contributed modules, organisation of DrupalCons, DrupalCamps, local events, etc.
- Counterbalancing and simultaneous co-existence of socio-technical systems of contribution varying in their degree of *organicity* (Burns & Stalker, 1961), in which Drupalistas have developed multiple governing authorities
- Emergence of **polycentric governance** (Ostrom, Tiebout & Warren, 1961): variant numbers of centres of decision-making to distribute authority “to make at least some of the rules related to the use of that particular resource” (Ostrom, 1999, p. 528)

Conclusion

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Story of how hundreds of thousands of participants in a large and global Commons-Based Peer Production community have organised themselves, in what started as a small and amateur project in 2001

#F1: Contribution as meanings under constant negotiation between participants in peer production communities according to their internal logics of value

#F2: Organisational dynamics: formalisation and decentralisation, despite main medium / type of activity / OO vs CO / hacker values

#F3: Resulted in emergence of polycentric governance and organisational forms with different degrees of *organicity* (interacting)

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Any questions/feedback?

Thanks!

¡Gracias!

Ευχαριστώ!

Danke!

¡Obrigado!

Slides: http://bit.ly/2AW0jn5

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