
Revitalizing OSS Contributions and Participation across Mozilla

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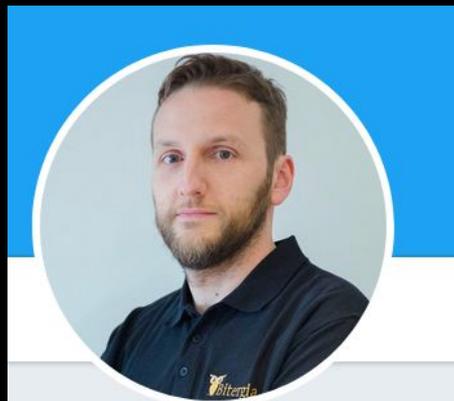




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@ruphy

Open Source Strategy Lead @Mozilla.
Former Open Source Project Leader
@teamdigitaleIT. Founder @WikiToLearn.
Physicist. Entrepreneur. Free knowledge
lover.



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@Bitergia co-founder. Open and Inner
Source advocate. Love data analytics.
Python developer.

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@dizquierdo

Mozilla: Champion of Open Source



Mozilla: Champion of
Open Source



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Mozilla manifesto #3:

"Free and open source software promotes the development of the Internet as a public resource."

1900+ repos in GitHub, flagship product has always been developed in the open



Mozilla: Champion of
Open Source



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- + User support
 - + MDN
 - + Localization
 - + Tech speaking
 - + Crowdsourcing
 - + Data science
 - + ...
-

Mozilla: Champion of Open *



Mozilla: Champion of Open *





“Without data, you are just another person with an opinion”

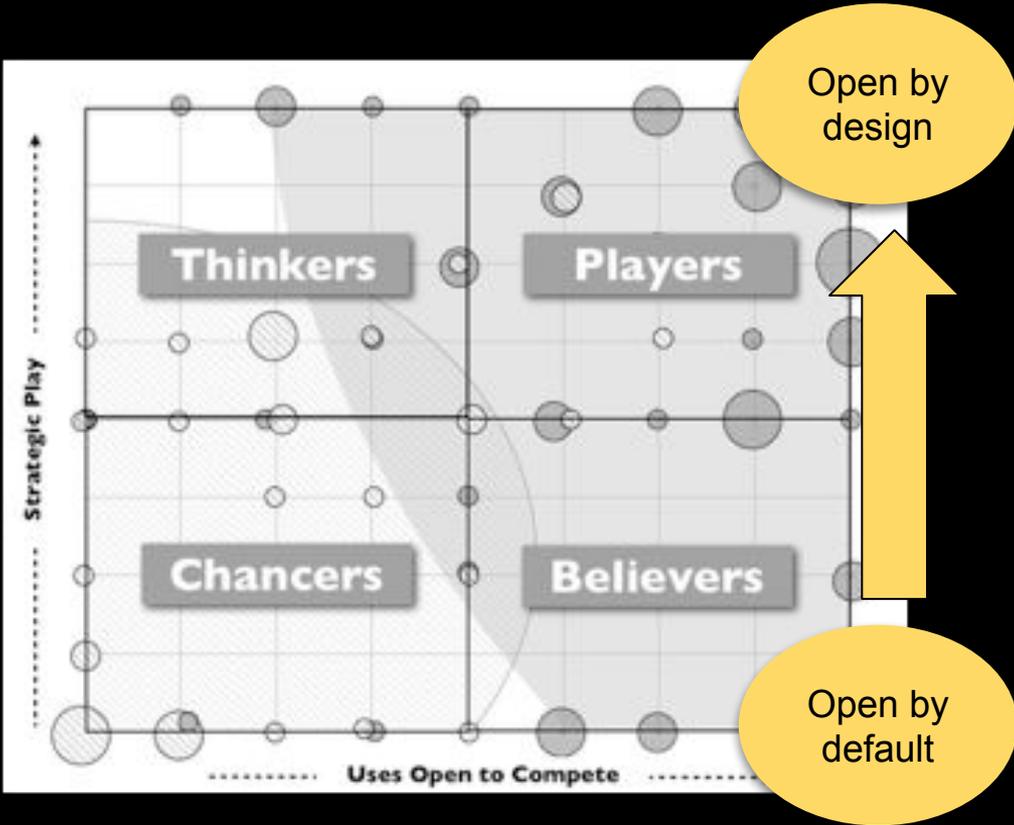
[W. Edwards Deming](#)

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Mozilla: Champion of Open *



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Where to start?

What are the right questions?

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Awareness. Help the community: Characterization of the community, volunteers work.



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/initial_questions

Leading a change. How can we improve our volunteers and community work in certain projects (Servo, Rust, Gecko, Firefox, WebVR)



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/initial_questions

Making decisions. How do we monitor the progress and the success of the actions?



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Awareness

Leading a change

Making decisions

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Do you remember me?

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What do we need?

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Data!

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/data_sources



Source Code

Git, Baazar*, Mercurial*
(*exporting to git)



Tickets / issues

Bugzilla, GitHub Issues,
GitLab Issues, JIRA,
Launchpad, Phabricator
Maniphest, Redmine



Code Review

Gerrit, GitHub Pull
Requests, GitLab Merge
Requests



Continuous Integration

Jenkins



Mailing lists / Forums

Askbot, Discourse, Gmane,
Hyperkitty, mbox files,
NNTP, Pipermail, Stack
Exchange



Chat

IRC (Supybot), Slack,
Telegram



Downloads

Apache http logs



Wiki

Confluence, MediaWiki



Meetings

Meetup, Mozilla Reps
events



Others

crates.io, Docker Hub, RSS,
Twitter

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/data

Bitergia Analytics Dashboard (100% OSS)

Centralized place to store all the development and community activity

Accessible by anyone under and NDA (we are working to make this more public)

First step to produce a proper BI

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/data_numbers

Git

> 5M commits

> 110K contributors

> 3.300 repos grouped

In projects

Bugzilla

> 1.3M issues

~ 200K contributors

Stackoverflow

> 7,7K questions

> 5,3K people involved

> 18,5K answers

Data since 1990!

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/useful_data

Is that useful to have data since 1990?



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/useful_data

Central point of metadata about software development

What's your **role**? executive level, middle managers, developers, research, legal, and others

Even more if you're data oriented: context, data scientist, data-driven decisions

Check **existing** policies vs **previous** ones vs **new** ones

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Version control systems

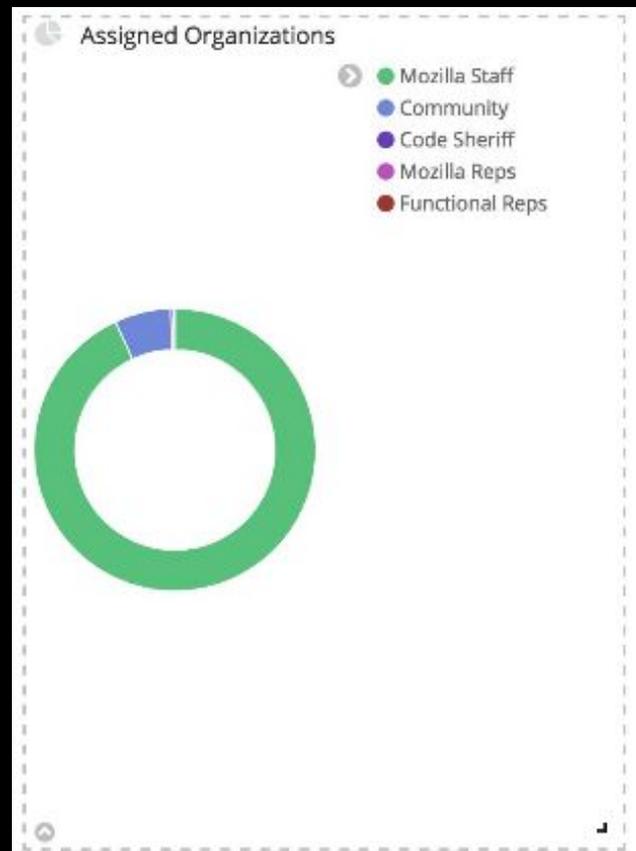
- SVN -> Mercurial -> Git

Identities management

- D. Izquierdo vs dizquierdo
- Several data sources

Affiliation issues

Incremental support



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/first_steps

Low hanging fruits



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Awareness!!

Then we know where we are, who we are, what we do



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Awareness!!

Then we know where we are, who we are, what we do



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/first_steps

What about the other metrics?



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/strategy

Is not worth capturing all of the existing ideas, metrics.

What are the worth palm trees?

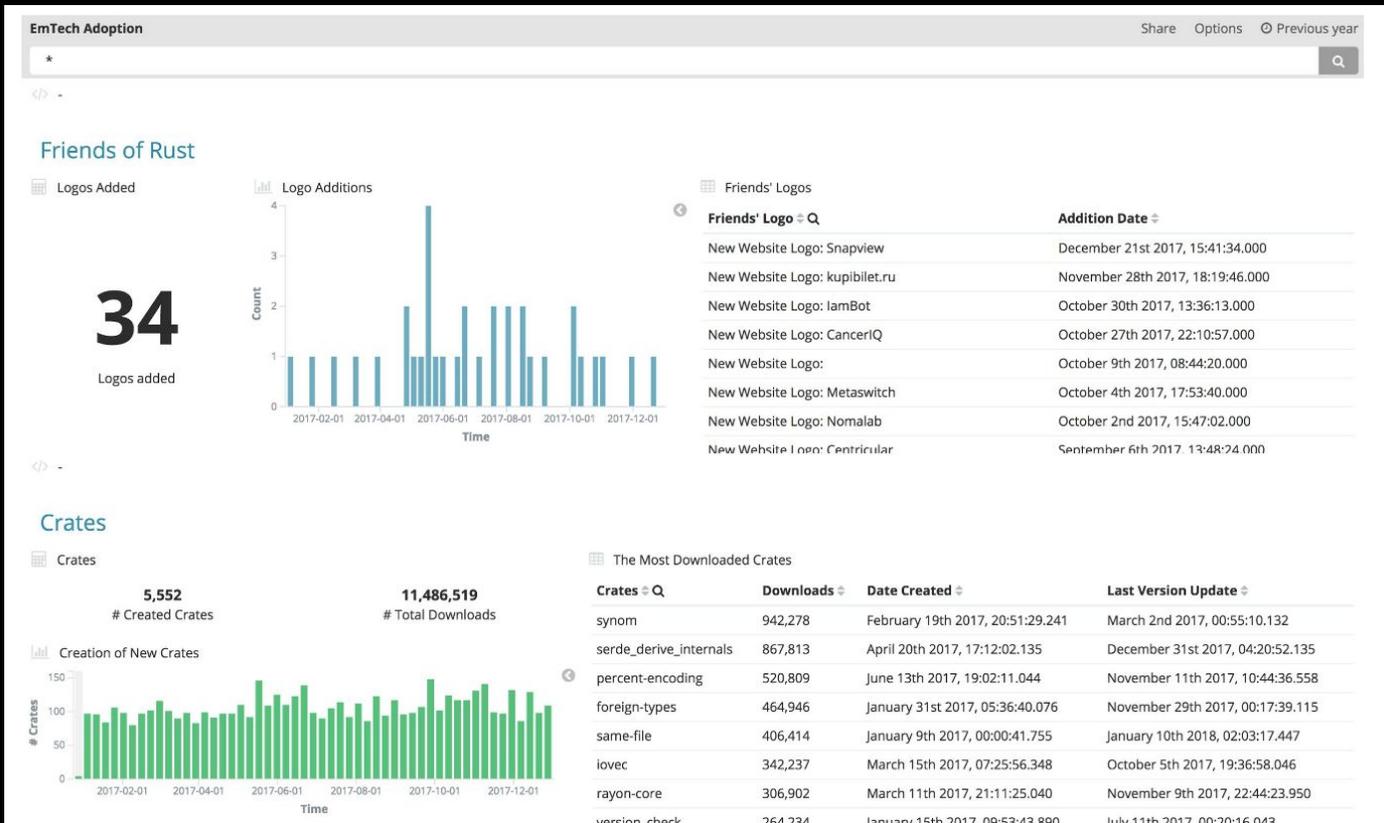
Method: Goal - Question - Metric approach

Strategy: Plan - do - check - act

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Rust Adoption



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Rust General Analytics

Summary

Git Summary

10,098 **648** **2** **1**
 # Commits # Authors # Repositories # Projects

GitHub Issues Summary

4,115 **1,278** **2** **7.59**
 # Issues # Submitters # Repositories 50th percentile of Median Time to Close in Days

GitHub PRs Summary

4,634 **713** **2** **2.46**
 # Pull Requests # Submitters # Repositories 50th percentile of Median Time to Close in Days

Projects

Project	# Authors	# Commits
Rust	648	9,990

Git Domains

Domain	# Commits
	2,955
gmail.com	2,387
alum.mit.edu	655
alexcrichon.com	619
mozilla.com	548
rwell.org	323
users.noreply.github.com	290
kuber.com.ar	166
steveklabnik.com	139
ncameron.org	133

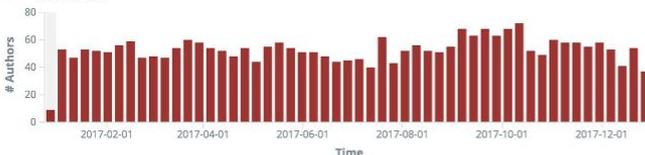
Organizations



<> -

Git

Git Authors



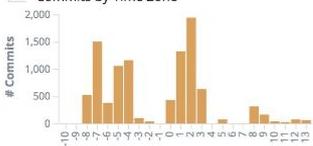
Git Authors

Author	# Commits	Added Lines	Removed Lines
Niko Matsakis	655	52,942	31,972
Alex Crichton	619	57,167	44,986
Oliver Schneider	433	112,191	78,985
Guillaume Gomez	369	17,521	9,200
Ariel Ben-Yehuda	334	30,713	21,776
Corey Farwell	323	8,836	4,700
Ralf Jung	312	12,009	6,345

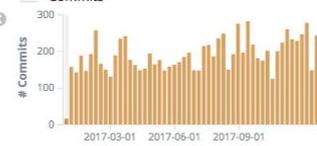
Git New Contributors

Developer	Organization	First Commit Date	# Commits
Kagamihime	Community	December 29th 2017, 23:04:21.000	2
Felix Schütt	Community	December	3

Commits by Time Zone



Commits



Git Repositories

Repository	# Commits	# Authors
https://github.com/rust-lang/rust.git	9,545	619
https://github.com/rust-	541	84

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Insights were good for a generic open source project, but what about **specific cases**?

A characterization of open source projects help to adequate metrics (and thus resources) to each project

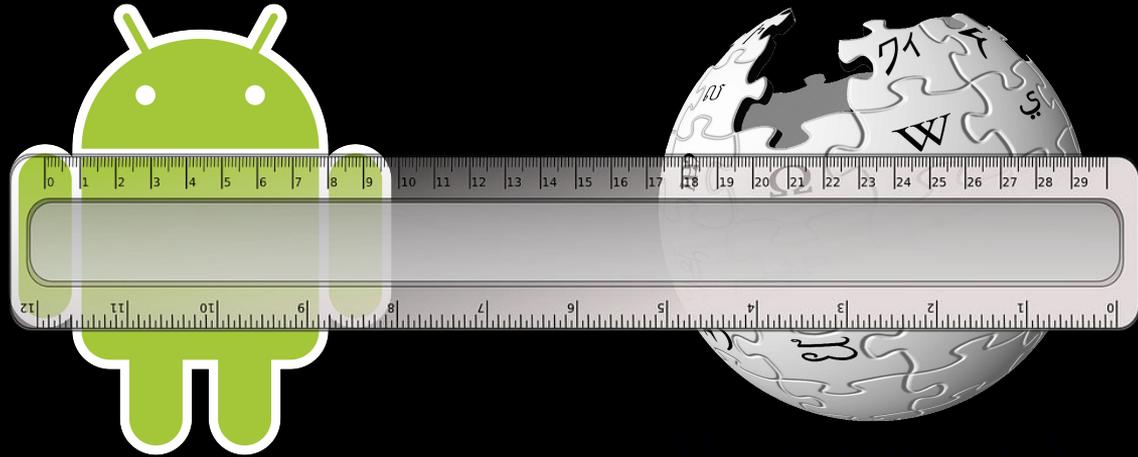
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How can we have this?

/dashboard_usefulness

Would you measure Android and Wikipedia the same way?



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/but

We don't have any structure nor framework to talk about this

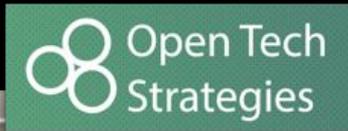
One *open* size does not fit all!

**Let's be real open champions
and do the work ourselves!**

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/archetypes



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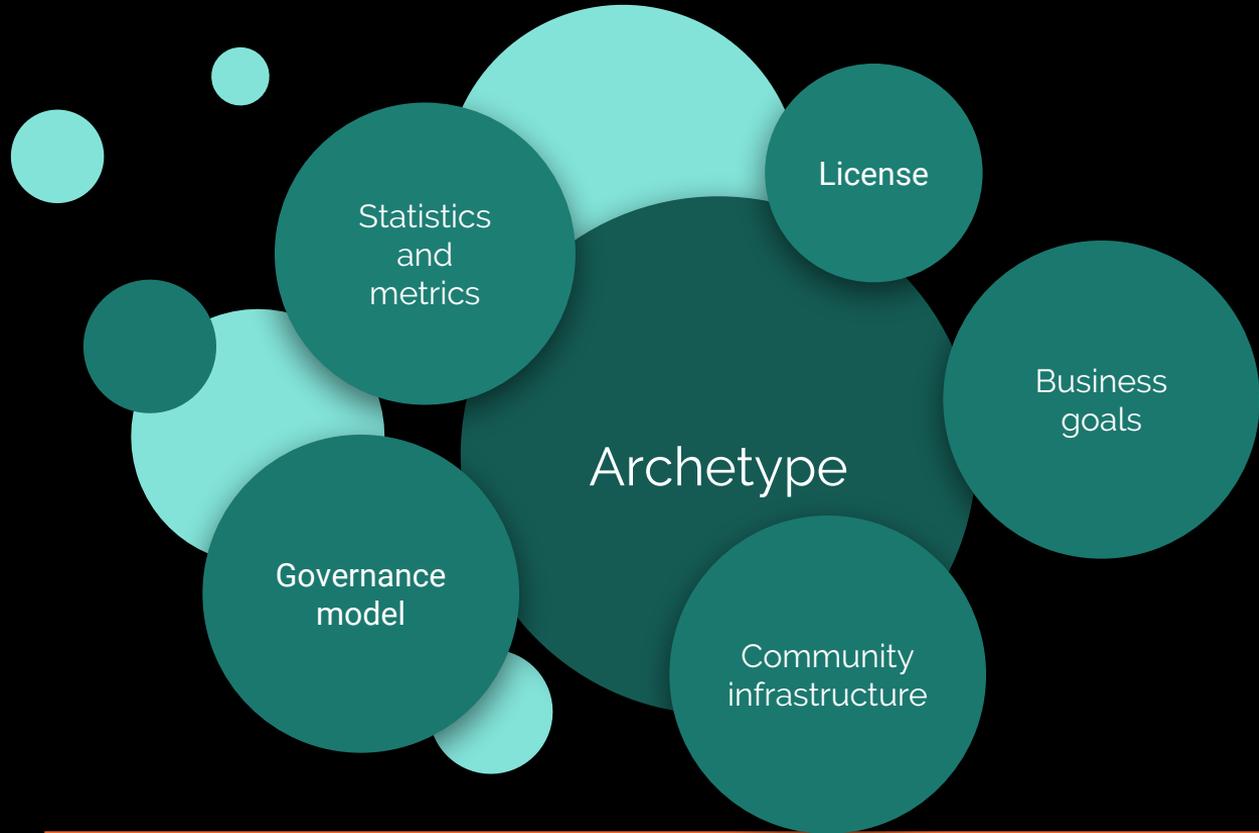


01. Business-to-Business
02. Multi-Vendor Infrastructure
03. Speciality Library
04. Upstream Dependency
05. Trusted Vendor
06. Controlled Ecosystem
07. Rocket Ship To Mars
08. Wide Open
09. Mass Market
10. Bathwater

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/archetypes



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Birth of the project

Version 1.0

World domination

Rocket ship to Mars

You just build a small team to have something out, fast

Trusted vendor

The software is stable - the core opens up to community participation

Mass market

The users community gets huge and takes on most of the work. Contributors are counted in several thousands

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/example/2

The WebKit Open Source Project

...creates a browser...

...which can only display emoji sets

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Core library: Upstream dependency

1 You base your product on WebKit and attract developers to work on it

Emoji sets: Wide open

3 Any source in the community can provide an emoji set and additional modules

Core product: Controlled ecosystem

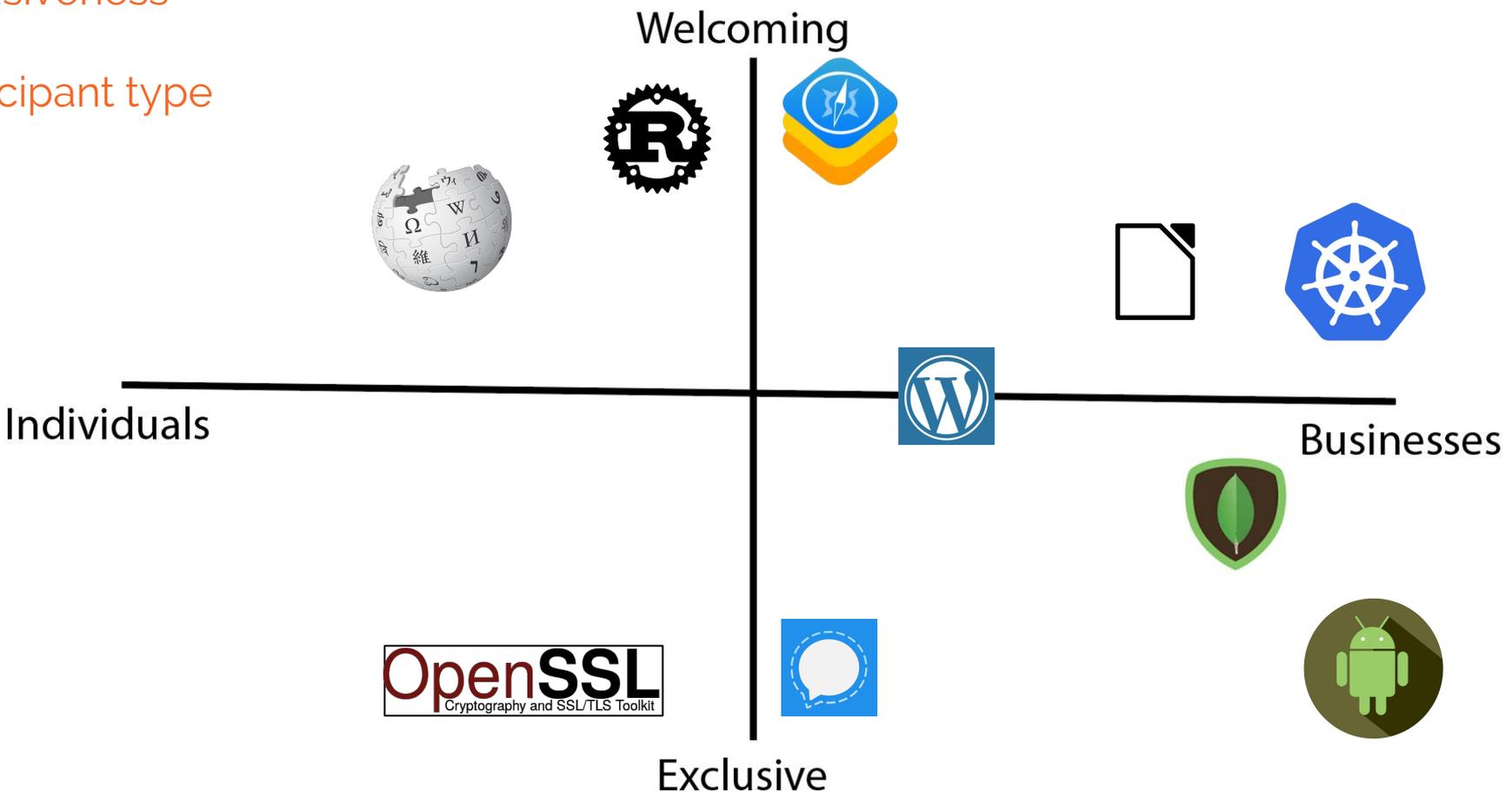
2 Real community involvement, benevolent dictatorship on the direction



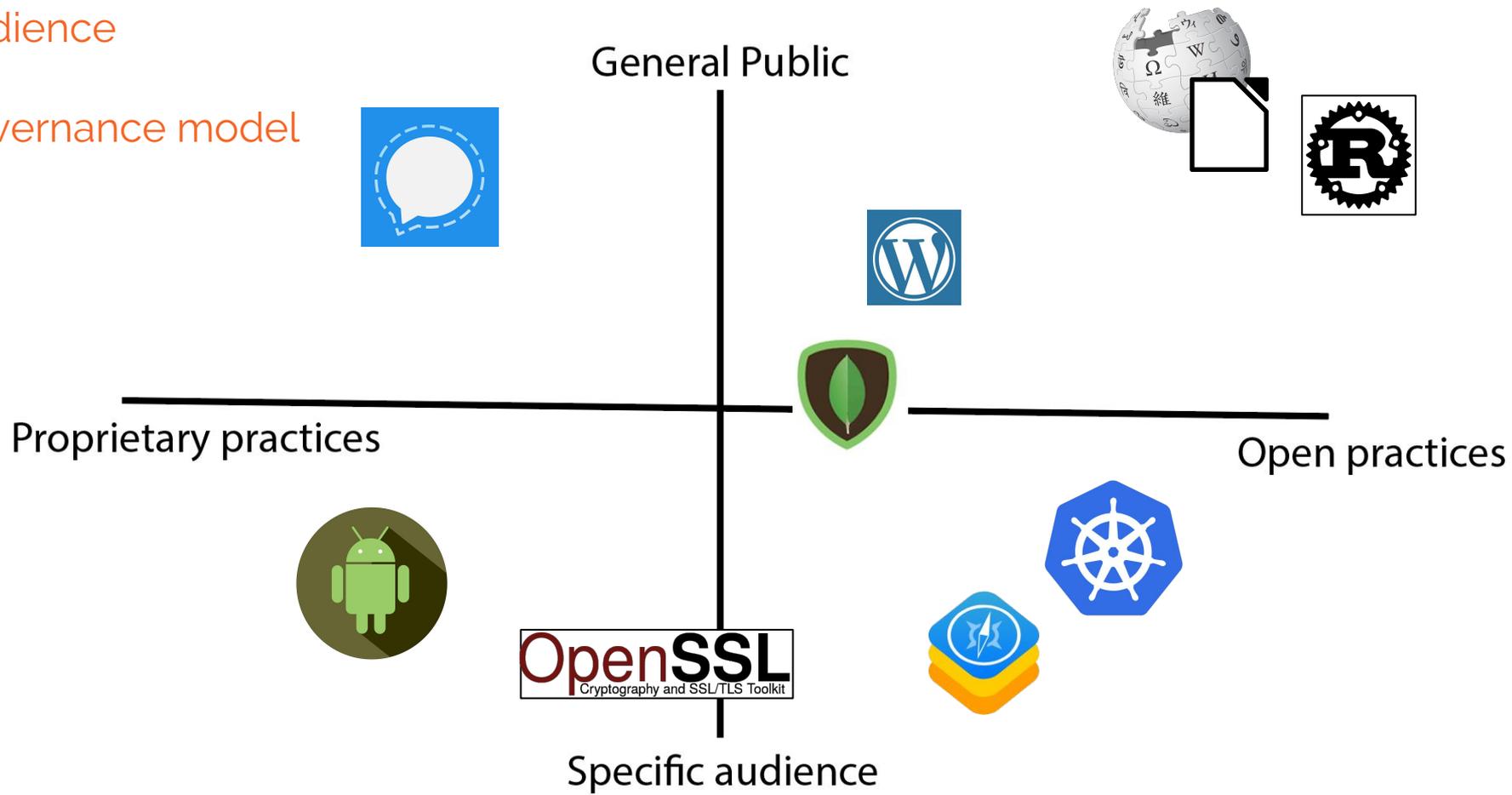
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Inclusiveness
vs.
Participant type



Audience
vs.
Governance model



/further_work

Archetypes and data: should we measure all archetypes the same way?

How to keep revitalizing the community

Understand current hot projects for Mozilla (eg RUST)

Further research: what are the next hot projects for Mozilla?

Who can become core developer? How can we facilitate this on boarding process?

Can we improve the retention and attraction of the community?

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/further_work

Next milestone: Version 2!

<https://github.com/OpenTechStrategies/open-source-archetypes>

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/vision

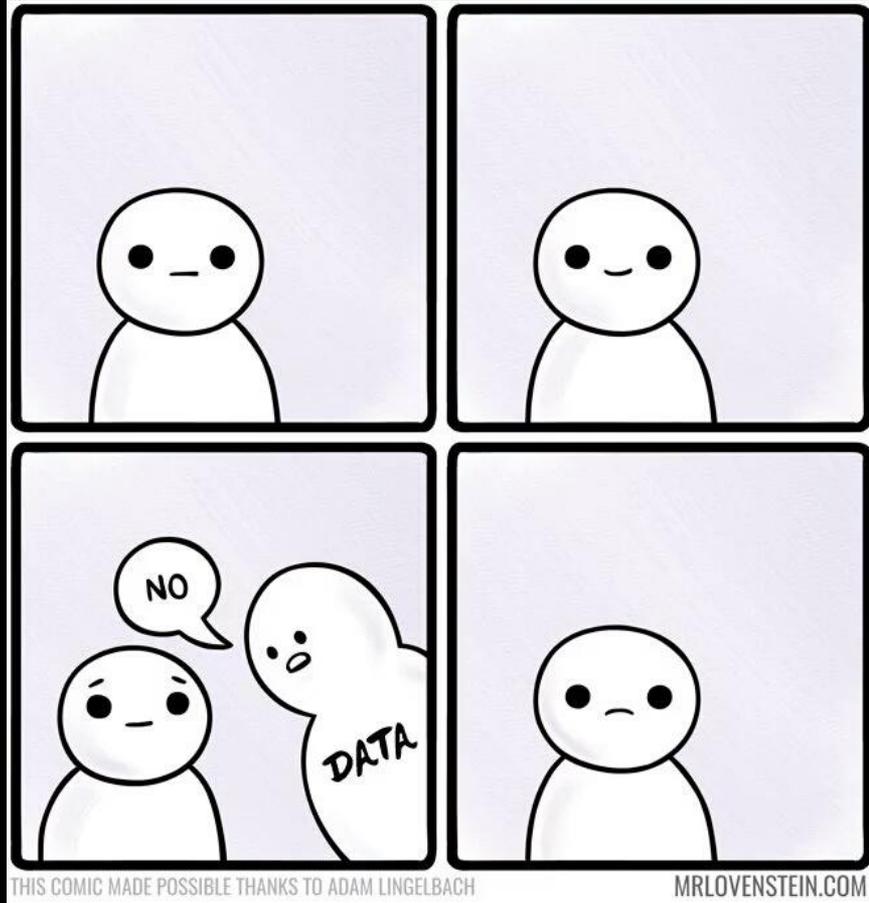


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Archetypes v2 and metrics INTEGRATED

/summary



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THIS COMIC MADE POSSIBLE THANKS TO ADAM LINGELBACH

MRLOVENSTEIN.COM

/thank_you

Thanks!

<https://mzl.la/archetypes>

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