

# Mozilla's Community Analytics

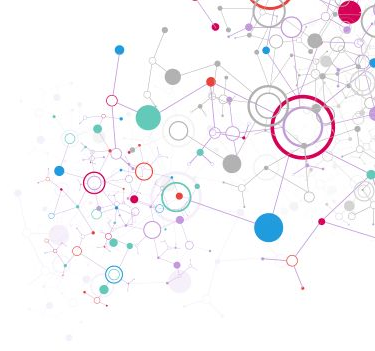
*GrimoireLab and Mozilla's Open Innovation Team*

CHAOSS

[chaoss.community](https://chaoss.community)



# About Us



John “nemo” Giannelos, Software Engineer  
Yousef Alam, Infrastructure Engineer

# About Mozilla Open Innovation



The Open Innovation Team exists to help Mozilla's **product and technology** teams move more intentionally towards **open methods across all phases of the lifecycle** to gain long-term **competitive advantage**.

## Open by Design

1

*Use our ability to be open to strategically shape ecosystems.*

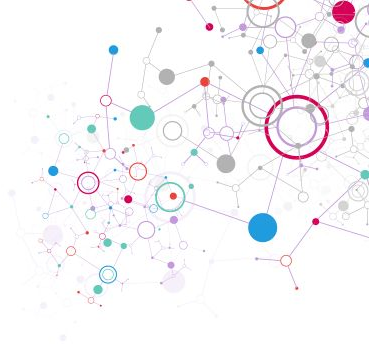
2

*Use our flexibility to operate different models of openness depending on needs.*

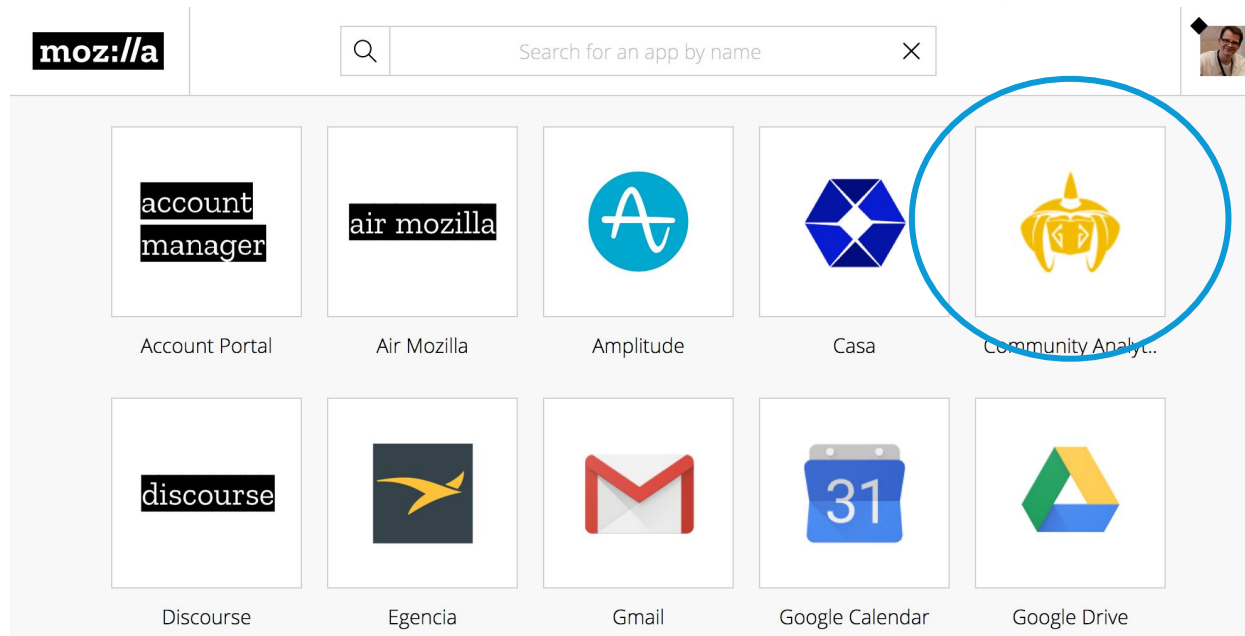
3

*Engage our communities (and curate new ones) through open practices across the product lifecycle.*

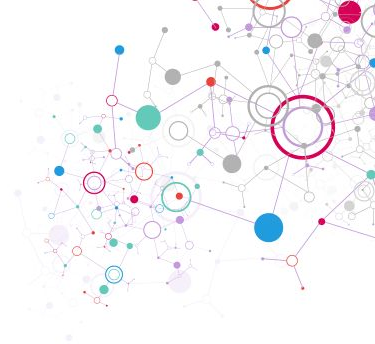
# Accessing data at Mozilla



- Integrated with our organization's single-sign on
- Visible on Mozilla's application dashboard (launchpad)
- Accessible to Staff and NDA'd Volunteers

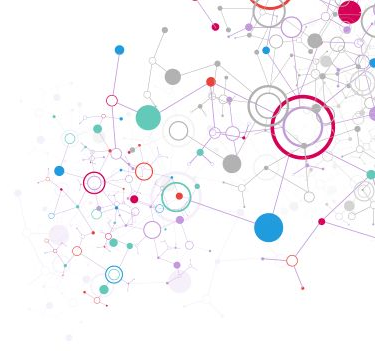


# Analytics Scope at Mozilla



- **1844 Github repos**, grouped into 38 projects
- **1786 Bugzilla categories**
- 319 newsgroups (aka mailing lists)
- 136 Discourse categories
- 116 Meetups (Rust)
- 9 IRC channels
- 2 Stackoverflow tags
- Wiki analytics
- Custom connectors
  - **Rust Crates**
  - Mozilla Reps Portal
  - Mozilla Clubs (G Suite form)

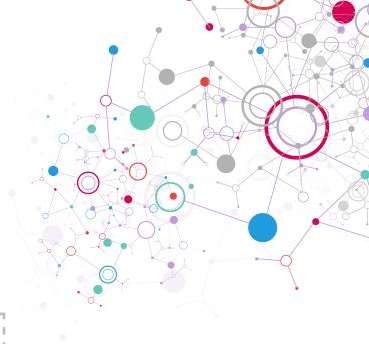
# Some more numbers



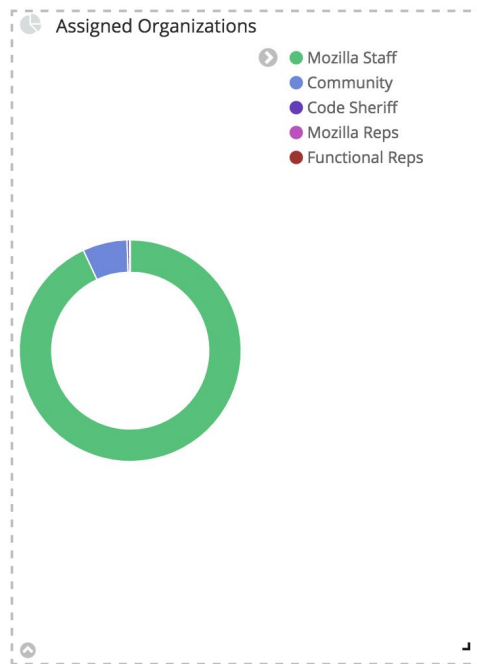
- 1.000.000 newsgroup messages
- 2.500.000 bugzilla issues
- 1.700.000 commits
- 190.000 identities (bugzilla)

Almost 20 years of data points

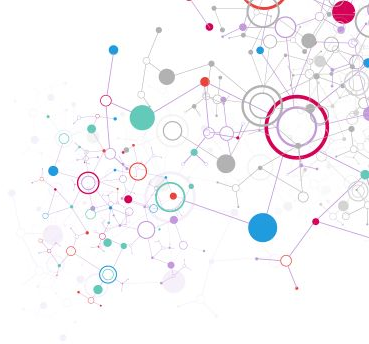
# Implementation Challenges



- Version control systems
  - SVN > Mercurial > Git
- Identity duplication
  - “nemo” vs “John :nemo”
  - Identities across multiple sources
- Assigning organizations
  - Staff vs. non-staff



# Example: Rust Adoption



EmTech Adoption Share Options Previous year

\* Q

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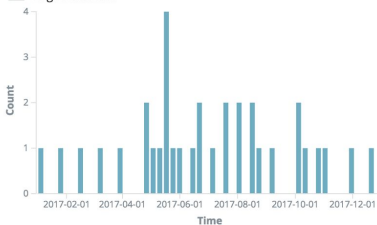
## Friends of Rust

Logos Added

34

Logos added

Logo Additions



Friends' Logos

Friends' Logo	Addition Date
New Website Logo: Snapview	December 21st 2017, 15:41:34.000
New Website Logo: kupibilet.ru	November 28th 2017, 18:19:46.000
New Website Logo: lamBot	October 30th 2017, 13:36:13.000
New Website Logo: CancerIQ	October 27th 2017, 22:10:57.000
New Website Logo:	October 9th 2017, 08:44:20.000
New Website Logo: Metaswitch	October 4th 2017, 17:53:40.000
New Website Logo: Nomalab	October 2nd 2017, 15:47:02.000
New Website Logo: Centricular	September 6th 2017, 13:48:24.000

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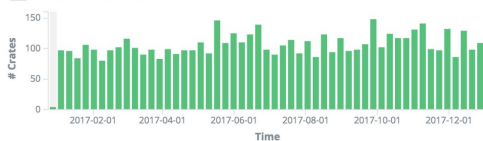
## Crates

Crates

5,552  
# Created Crates

11,486,519  
# Total Downloads

Creation of New Crates

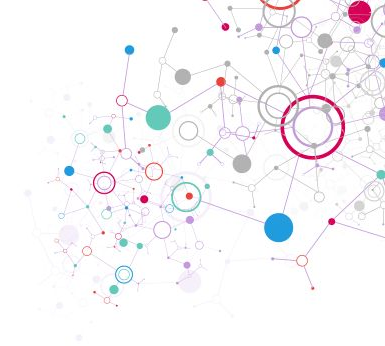


The Most Downloaded Crates

Crates	Downloads	Date Created	Last Version Update
synom	942,278	February 19th 2017, 20:51:29.241	March 2nd 2017, 00:55:10.132
serde_derive_internals	867,813	April 20th 2017, 17:12:02.135	December 31st 2017, 04:20:52.135
percent-encoding	520,809	June 13th 2017, 19:02:11.044	November 11th 2017, 10:44:36.558
foreign-types	464,946	January 31st 2017, 05:36:40.076	November 29th 2017, 00:17:39.115
same-file	406,414	January 9th 2017, 00:00:41.755	January 10th 2018, 02:03:17.447
iovec	342,237	March 15th 2017, 07:25:56.348	October 5th 2017, 19:36:58.046
rayon-core	306,902	March 11th 2017, 21:11:25.040	November 9th 2017, 22:44:23.950
version-check	264,234	January 15th 2017, 09:53:43.890	July 11th 2017, 00:20:16.043



# Example: 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

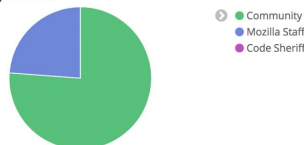
### GitHub PRs Summary

**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

### Organizations

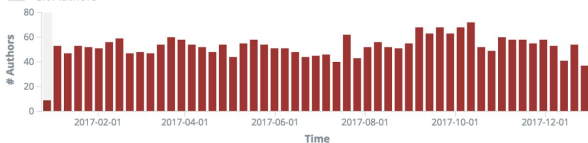


### Git Domains

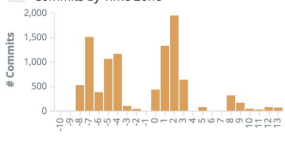
Domain	# Commits
	2,955
gmail.com	2,387
alum.mit.edu	655
alexcrichon.com	619
mozilla.com	548
rwel.org	323
users.noreply.github.com	290
kuber.com.ar	166
steveklabnik.com	139
ncameron.org	133

## Git

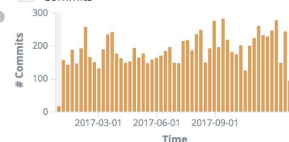
### Git Authors



### Commits by Time Zone



### Commits



### 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	# Comm
KagamiHime	Community	December 29th 2017, 23:04:21.000	2
Felix Schütt	Community	December	3

### Git Repositories

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

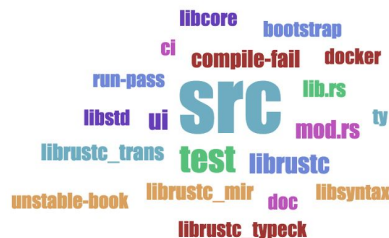
# Example: Rust Engineering Analytics



The Most Active Developers

Author	# Modified Files	# Added Lines	# Removed Lines
Alex Crichton	6,198	100,267	59,303
Oliver Schneider	5,940	124,618	82,393
Eduard-Mihai Burtescu	3,532	51,413	81,108
Niko Matsakis	2,793	52,943	31,973
Esteban Kuber	2,625	39,072	26,214
Djzin	2,407	84,575	73,271
Vadim Petrochenkov	2,296	18,771	11,815
Corey Farwell	2,236	24,123	19,781
Ariel Ben-Yehuda	1,873	31,066	29,116
Zoxc	1,707	25,265	15,274

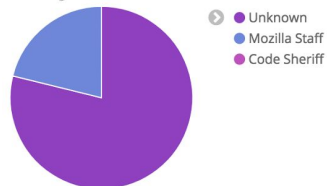
Filepath Path Elements



Export: [Raw](#) [Formatted](#)

1 2 3 4 5 »

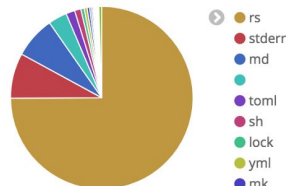
Organizations



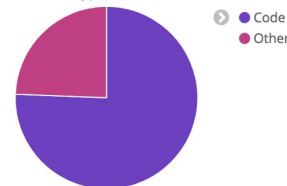
Projects



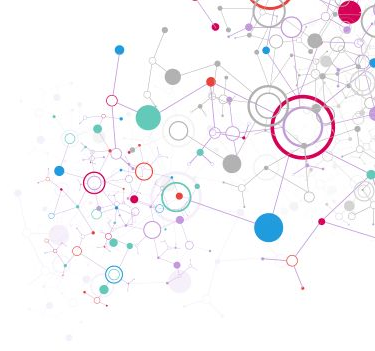
File Extensions



File Types



# What Next?



- Continue to extend and refine our Dashboards
- Organizational adoption of this metrics capability
  - Emerging Technologies
  - TestPilot
  - Open Innovation Communities and Contributors research
- Research into predictive metrics (Don Marti, CHAOSS)
  - “How do you predict impact metrics and contributor reward metrics from activity metrics?” - [Don's Blog](#)

# Questions?



- On the web:  
<https://discourse.mozilla.org/c/participationsystems>
- Twitter:
  - @hmitsch
  - @yalamg6
  - @johngiann