



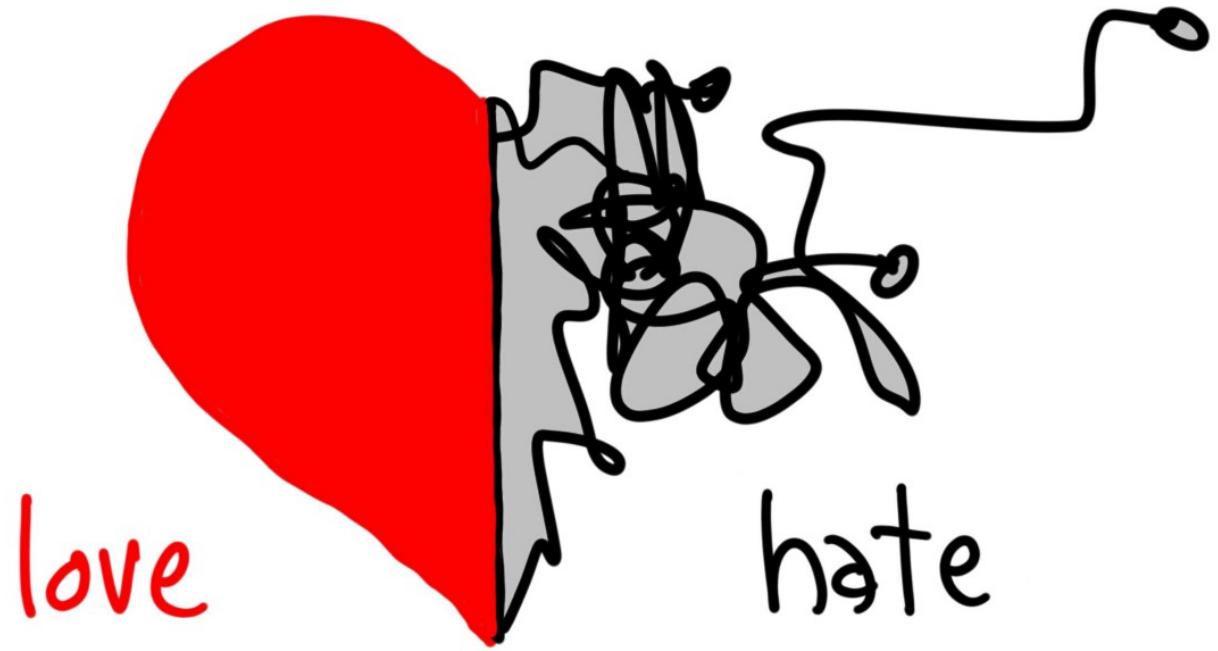
# Finding the Order in the CHAOS(S) of Metrics: Are We There Yet?

And further questions :)

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# Metrics and I



@hugh

# Metrics and I

Good grades  
Computer Science degree  
IT job  
Reasonable salary  
Traveling the world  
well, I mean flying a lot, I mean a LOT



IT profession  
was the right  
choice(?)



I'm an unhealthy  
person(?)



# Metrics and corporations

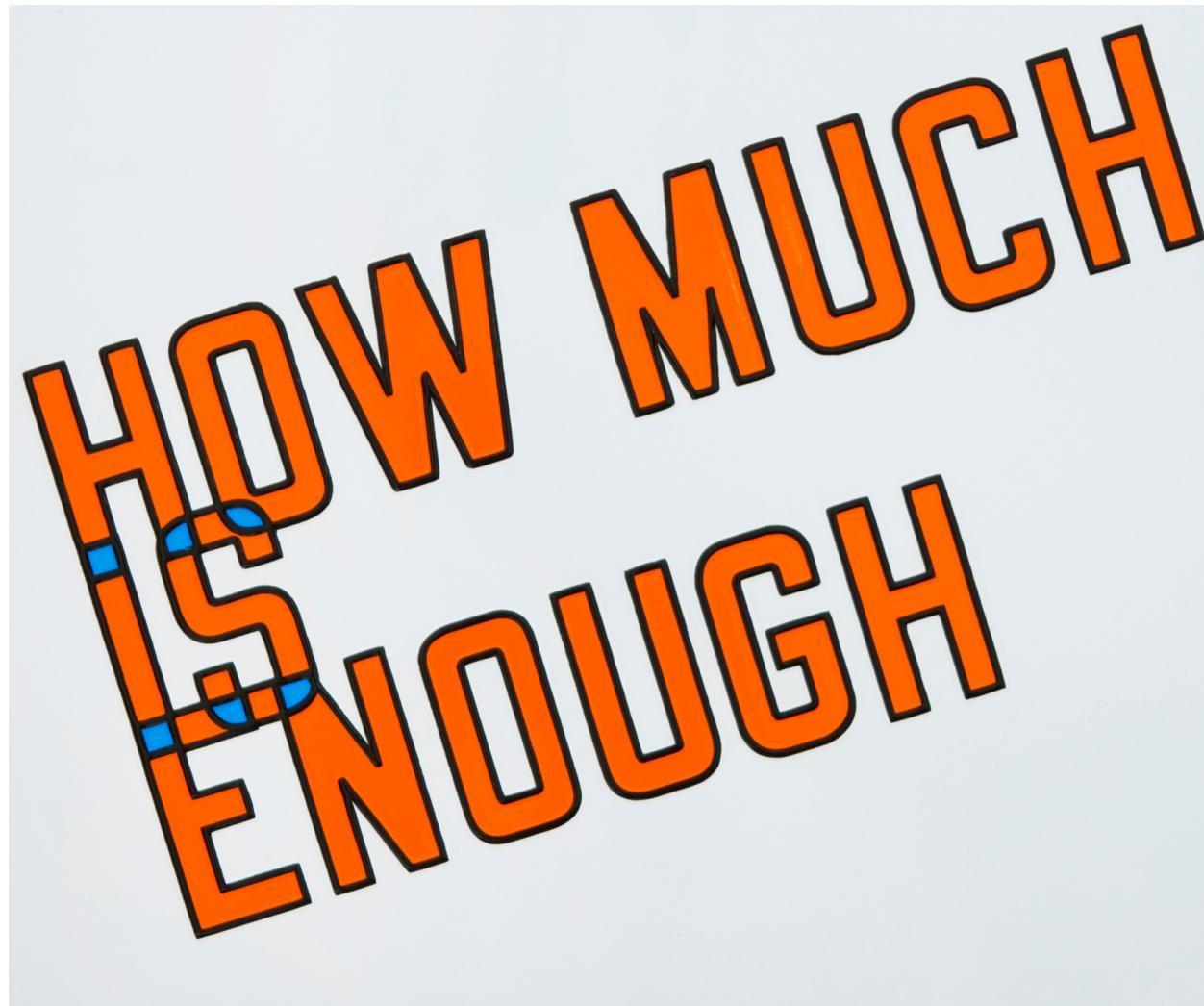


# And then in a team-chat yesterday

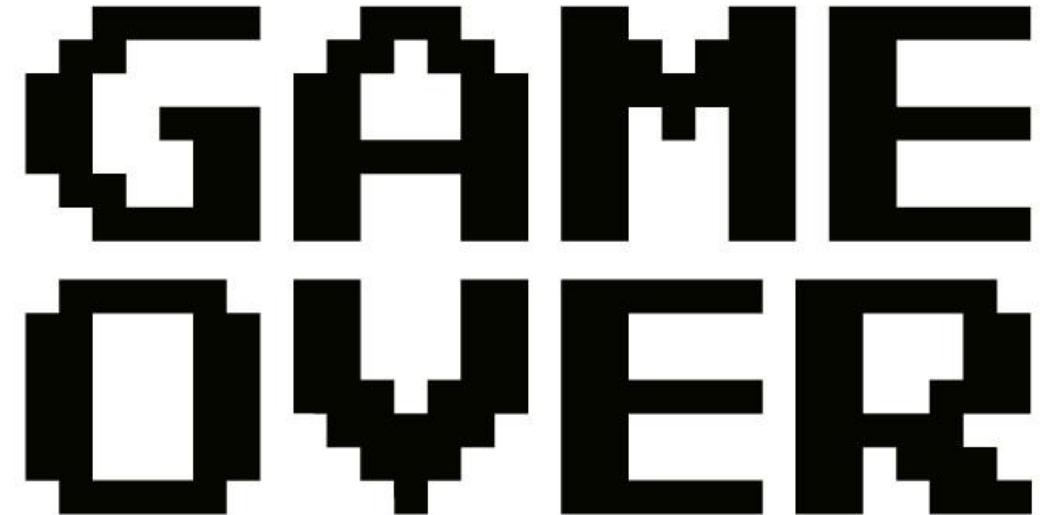


I ❤️ Data

# Metrics and corporations



# Is the game(ing) over?



# Metrics and open source ecosystem



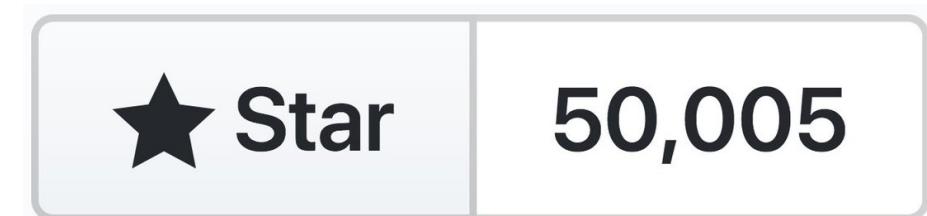
# So what's up with GitHub (stars)? - in other words, tools vs metrics



“If your project is not on GitHub it’s not open source”

“Your project is not in the top based on GitHub stars; why should I care?”

“Is contribution equal to PRs (pull requests) and issues?”



(P.s. Octocat is awesome!!)

# CHAOSS Mission



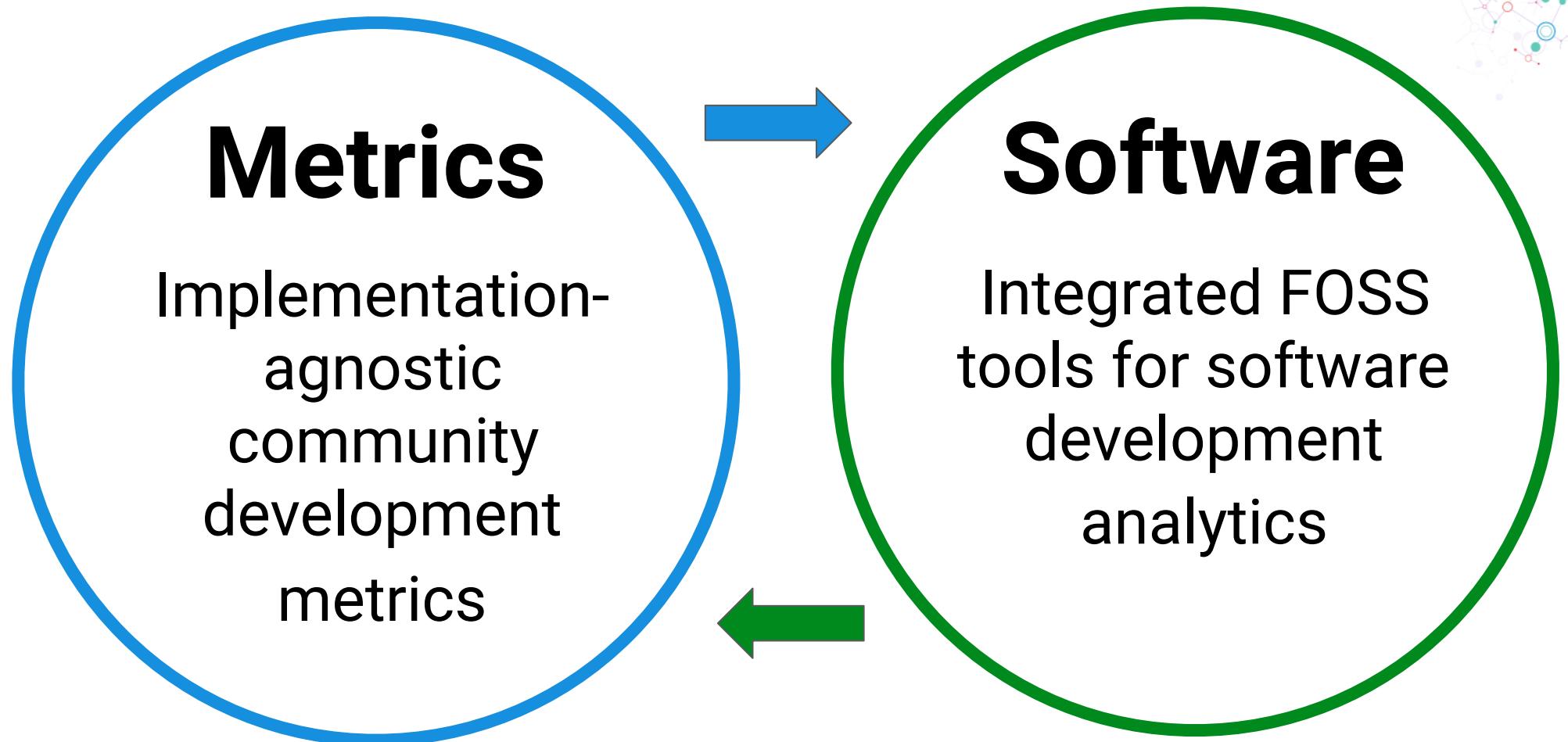
1. *Produce integrated, open source software for analyzing software development, and definition of standards and models used in that software in specific use cases;*
2. *establish implementation-agnostic metrics for measuring community activity, contributions, and health; and*
3. *optionally produce standardized metric exchange formats, detailed use cases, models, or recommendations to analyze specific issues in the industry/OSS world.*

# CHAOSS Goals



1. Establish standard implementation-agnostic metrics for measuring community activity, contributions, and health
2. Produce integrated open source software for analyzing software community development
3. Build reproducible project health reports/containers

# Structure: Focus Around Interests



# Metrics



**Diversity and Inclusion** are known to challenge unchecked assumptions and lead to more open and fair collaboration practices.

An OSS community has states: **Growth, Maturity, and Decline**. The state that a community is in may prove important when evaluating both across and within community concerns.

The **Risk** metric informs how much risk an OSS community might pose. The evaluation of risk depends on situation and purpose.

Many OSS communities rely on and are used in other open source software, creating **Dependencies** throughout an OSS ecosystem.

Developers and organizations capture **Value** from engaging in OSS communities. This set of metrics can inform what this value is.



# Working Groups



# Growth, Maturity and Decline (GMD)



Process (under test)

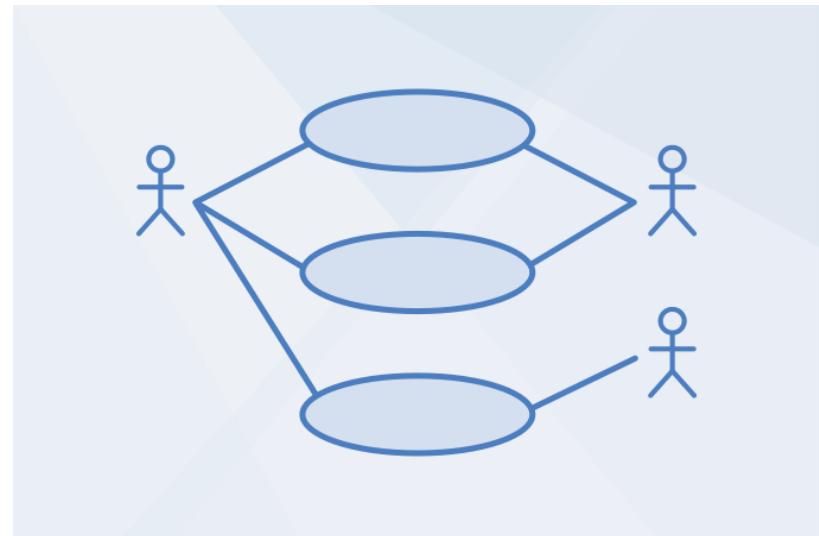
Focus area

Goal

Question

Metric

Use cases



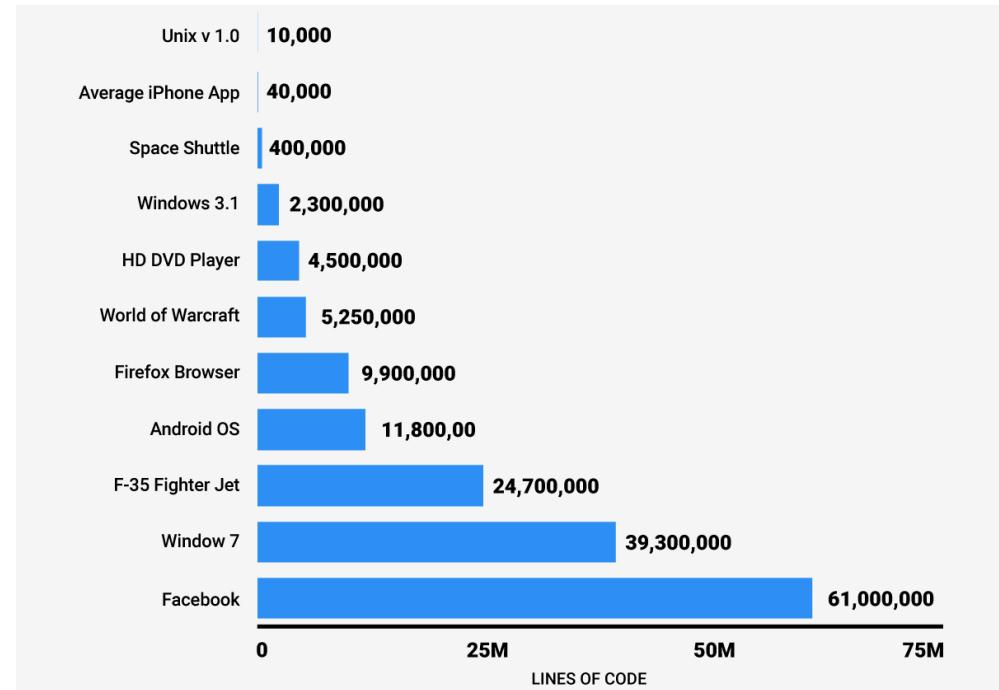
# Growth, Maturity and Decline (GMD)



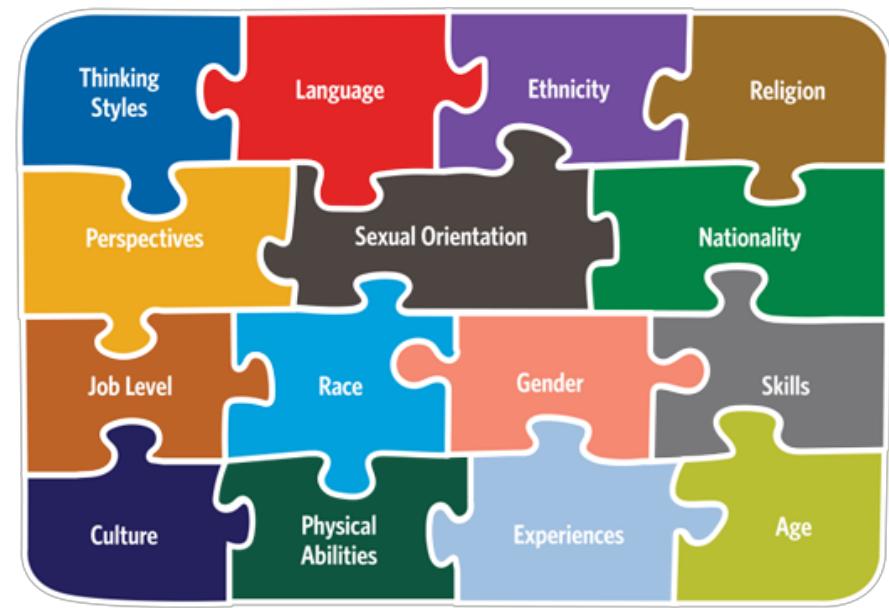
## Focus areas

- Code development
- Community growth
- Issue resolution
- Risk
- Value

<https://github.com/chaoss/wg-gmd>



# Diversity and Inclusion (D&I)

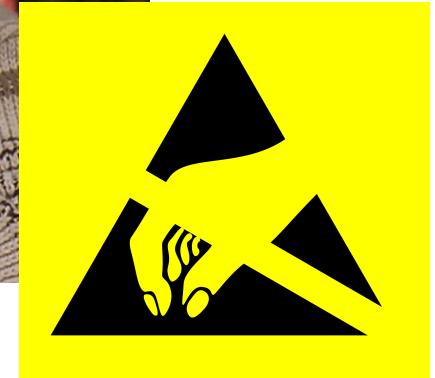
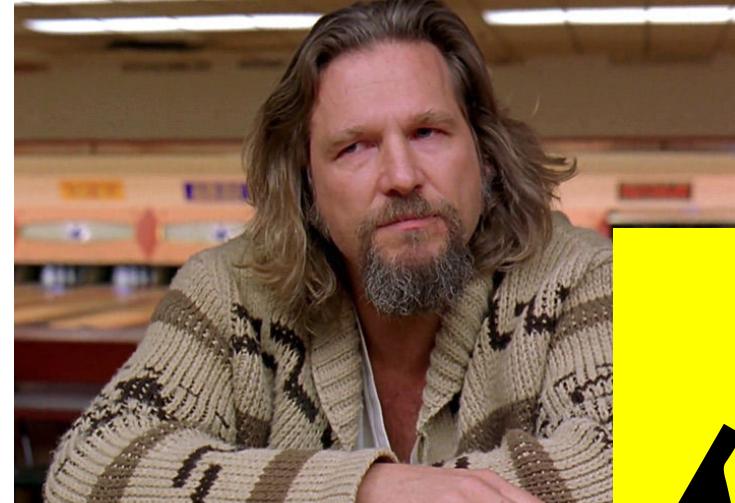


# Diversity and Inclusion (D&I)



## Focus areas

- Event diversity
- Contributor community diversity
- Communication inclusivity
- Recognition of good work
- Leadership
- Governance
- Project places



<https://github.com/chaoss/wg-diversity-inclusion>

# Software



# Software Committee

## Implement Reference in Open Source

- Develop a FLOSS reference implementation of defined metrics.
- Integrate GrimoireLab, GHData, Prospector, and credit into an Open Source Collaborative Framework
- Develop a better understanding of how contributions happen to large projects over time.
- <https://chaoss.community/software/>



**GHData**

**Prospector**

**credit**

# Live Examples to Explore



GrimoireLab:

[opnfv.biterg.io](http://opnfv.biterg.io)  
[cauldron.io](http://cauldron.io)

Prospector:

[prospector.bitergia.net](http://prospector.bitergia.net)

Credit:

[credit.linuxsources.org](http://credit.linuxsources.org)

CHAOS

The screenshot displays the GrimoireLab interface with several sections:

- Meetup Locations:** A world map showing the locations of various user groups and meetups.
- Meetups:** A table listing meetups across different groups, including their count, median RSVPs, first meeting date, and most recent meeting date.
- Activity:** A section titled "3. Activity" containing four time-series charts:
  - Commits per month over time:** Shows the number of commits per month from 2010 to 2016.
  - Total number of commits over time:** Shows the total number of commits per month from 2010 to 2016.
  - Committers per month over time:** Shows the number of committers per month from 2010 to 2016.
- Metric datapoints:** Two bullet points with rationale and suggested targets:
  - Percentage of committers by dominant domain name:** 37.10%  
Rationale: If more than 50% of COMMITTERS are from one domain (via email ID) it is dominated by one set of people. Suggested target is to have it less than 35%.
  - Percentage of commits by dominant domain name:** 57.27%  
Rule: If more than 50% of CODE COMMITS are from one domain (via email ID) it is dominated by one set of people. Suggested target is to have it less than 35%.
- Code Metrics:** A code editor showing a snippet of C code for a CPU notifier registration function.
- Contributors:** A table listing contributors with their names, counts, and percentages.

Join us to extract knowledge from



CHAOS

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