Collaborating on Extracting Knowledge from Software Development Data

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How to track sustainable projects...

(How) can we know if an open source project is likely to be around in 10 years?

(How) can we know if this open source project is ready to be used by another project?

Is there a diverse community of active contributors engaged in the project?

Are there licensing risks in using this open source project?

What is the health of the other projects that this project depends on?

… need a common understanding of open source project health.

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CHAOSS Mission

Establish implementation-agnostic metrics for measuring community activity, contributions, and health.

Produce integrated, open source software for analyzing software development in terms of these metrics.

Working in an Open Community...

eclipse

openstack™

SYMPHONY SOFTWARE FOUNDATION

Software Sustainability Institute

Bitergia

moz://a

redhat.

CLOUD NATIVE COMPUTING FOUNDATION

Linaro

SAUCELABS

SECO Health

THE LINUX FOUNDATION

University of Nebraska Omaha

University of Missouri

University of Victoria

JONO BACON CONSULTING

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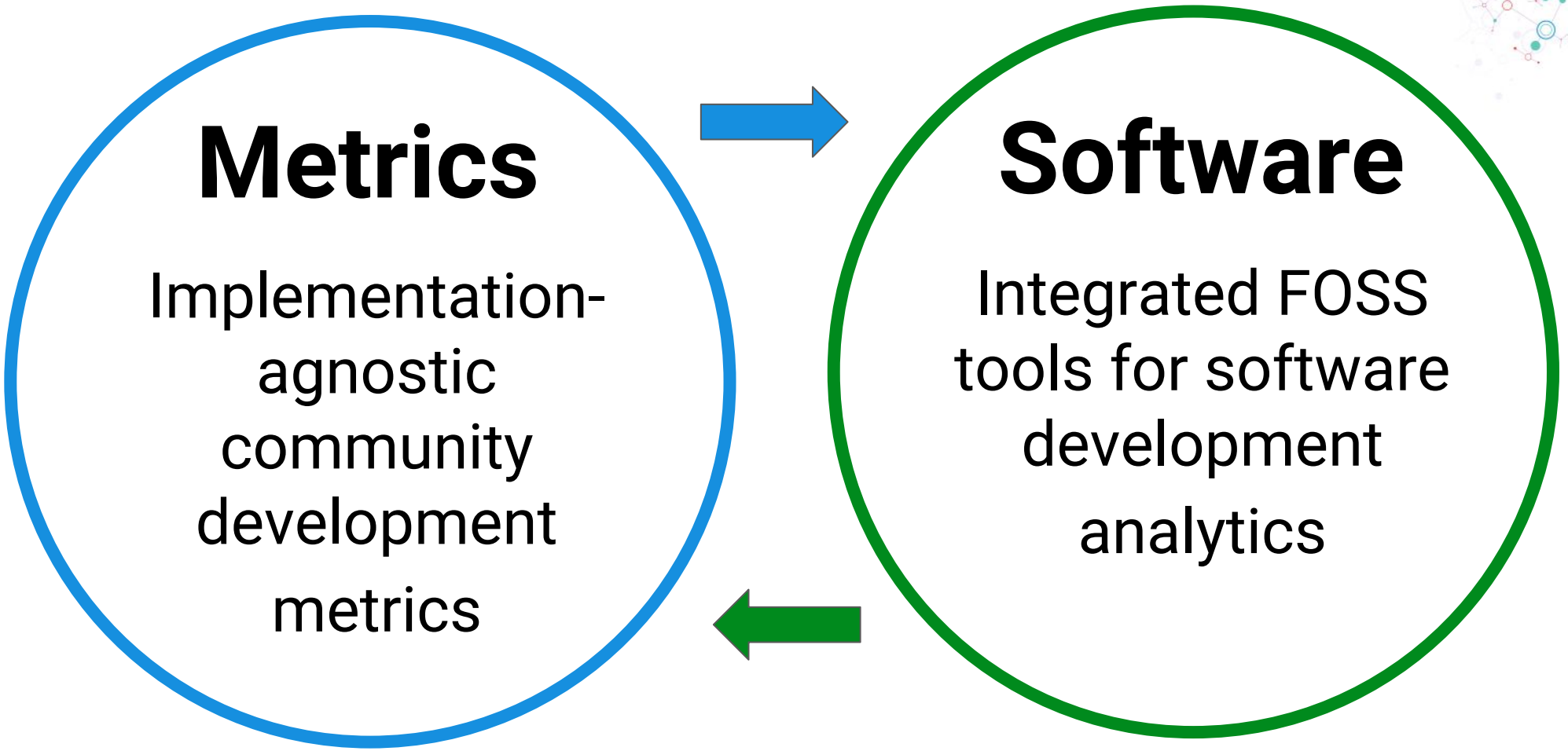
Structure: Focus Around Interests



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Metrics Committee

Diversity-Inclusion	Growth-Maturity-Decline
Risk	Dependency
Value	

wiki.linuxfoundation.org/chaoss/metrics

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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.

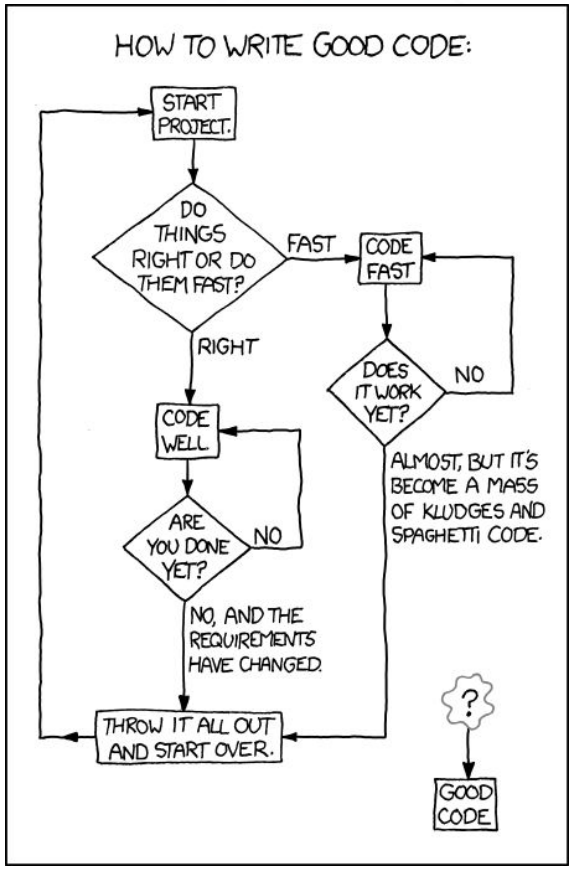
The ***Risk*** metric informs how much risk an OSS community might pose. The evaluation of risk depends on situation and purpose.

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.

Why?

- No single health determination can be made across all open source projects, however:
  - We can start to understand what composite metrics signal and how they can be related to actions
- We aim to provide insight as local interpretations are done on the metrics
  - Provide guideposts for what others have done in similar contexts and how peer communities compare
- Develop an understanding of development processes based on facts



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Software Committee

Implement Reference in Open Source

- Develop a FLOSS reference implementation of defined metrics.
- Integrate GrimoireLab, GHData, Prospector, and cregit into an Open Source Collaborative Framework
- Develop a better understanding of how contributions happen to large projects over time.

GHData

Prospector

cregit

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Live Examples to Explore

GrimoireLab:

opnfv.biterg.io

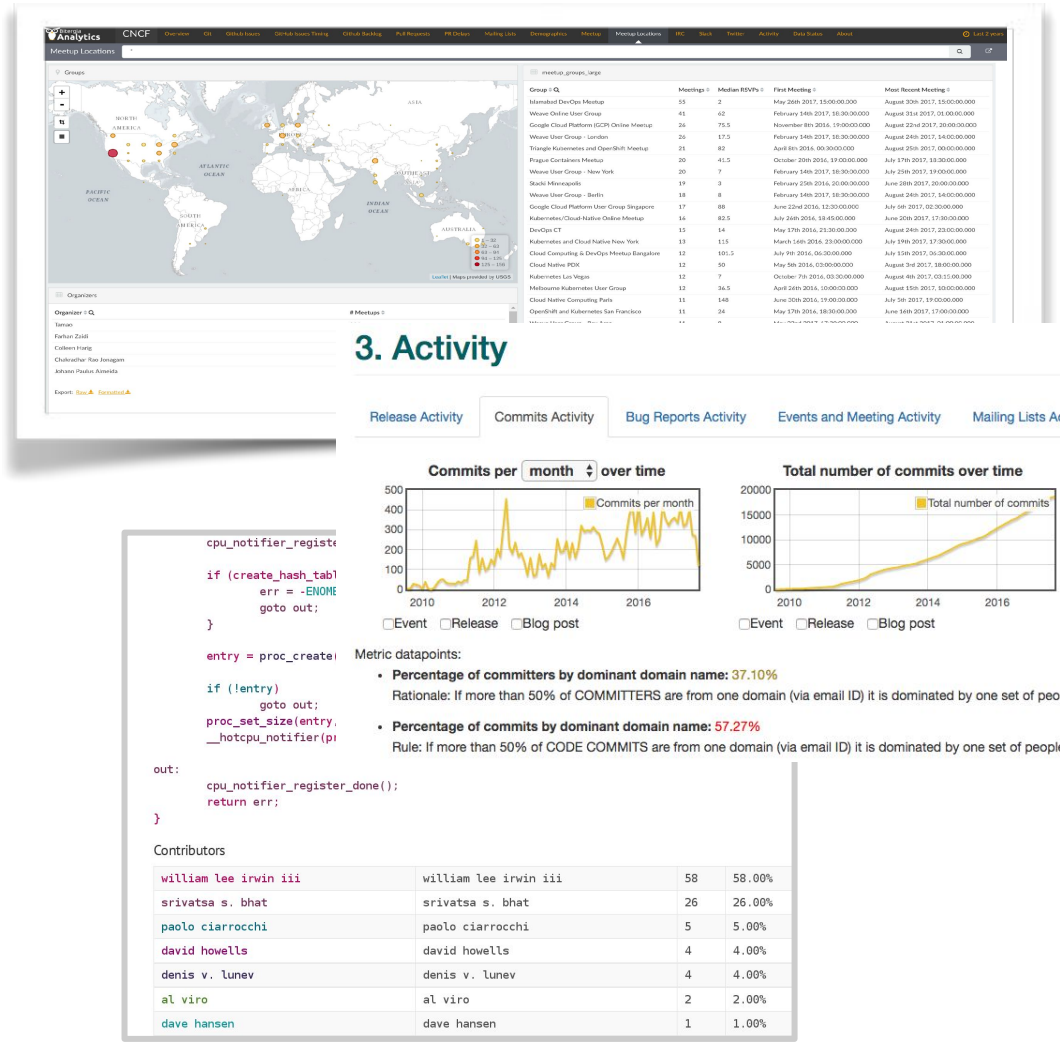
cauldron.io

Prospector:

prospector.bitergia.net

Cregit:

cregit.linuxsources.org



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How to Get Started with CHAOSS

How to get started

- Join our mail list and introduce yourself.
- Look through the mail list archive for past discussions and self-introductions of people involved.
- Join our monthly phone call on your calendar.
- Join our weekly hangout on your calendar.

How to contribute

- Join our weekly hangouts and monthly calls.
- Share your experience with metrics.
- Let us know what you would like CHAOSS to do for you.
- Just participate in the conversation.

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Join us to extract knowledge from

chaoss.community