Power Dynamics, Rug Pulls, and Other Corporate Impacts on OSS Sustainability

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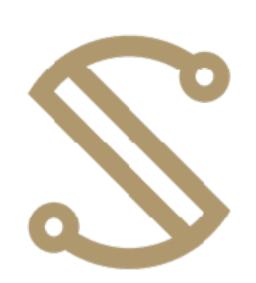
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Thank You!



ALFRED P. SLOAN FOUNDATION



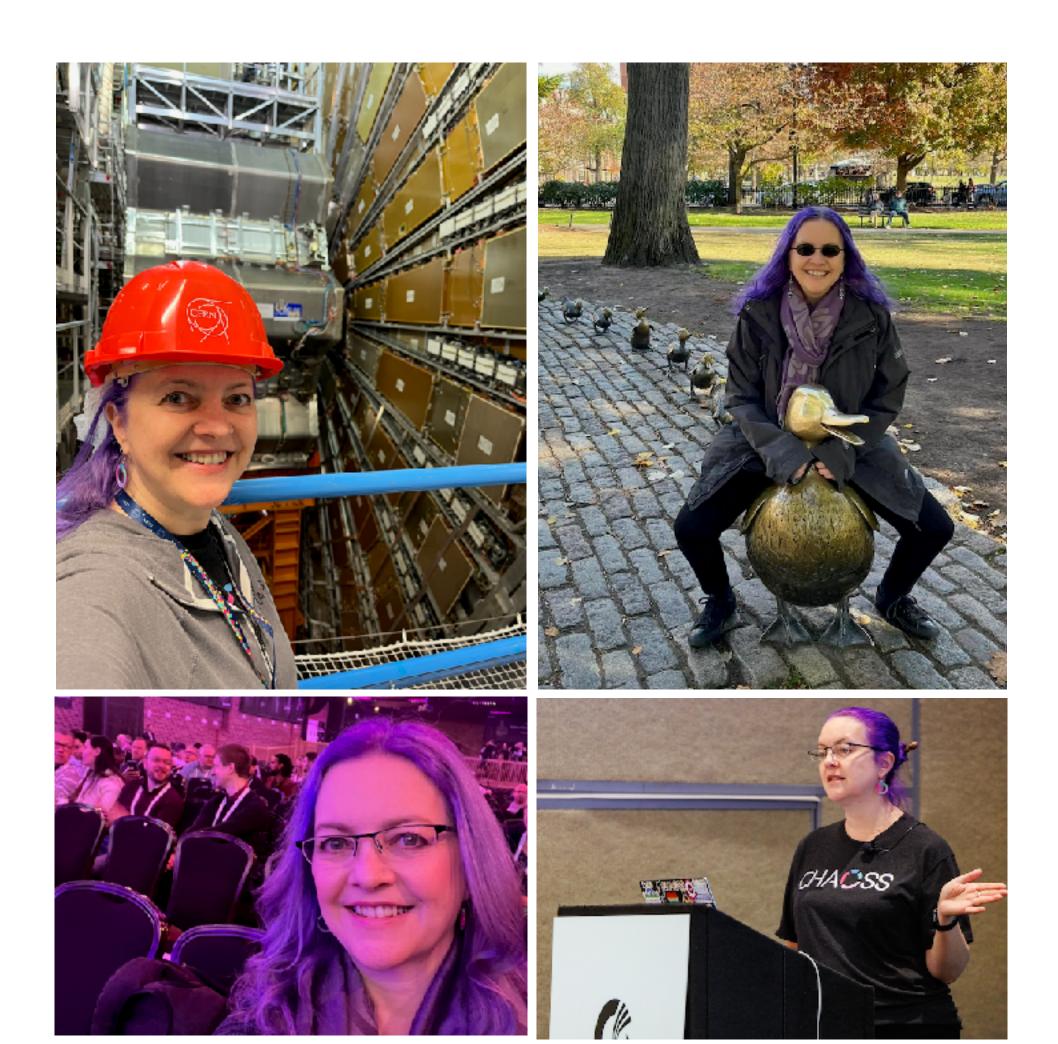


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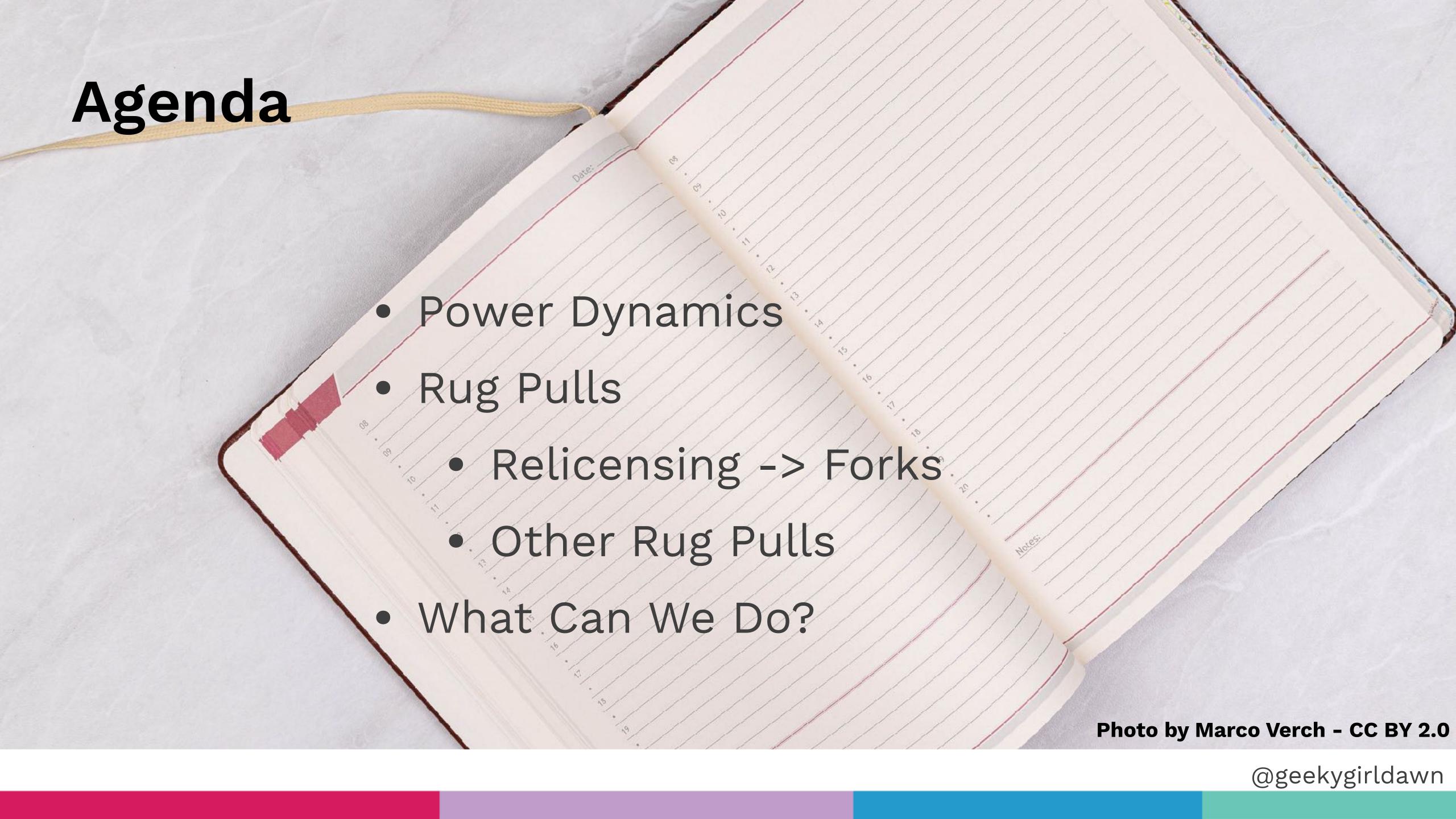


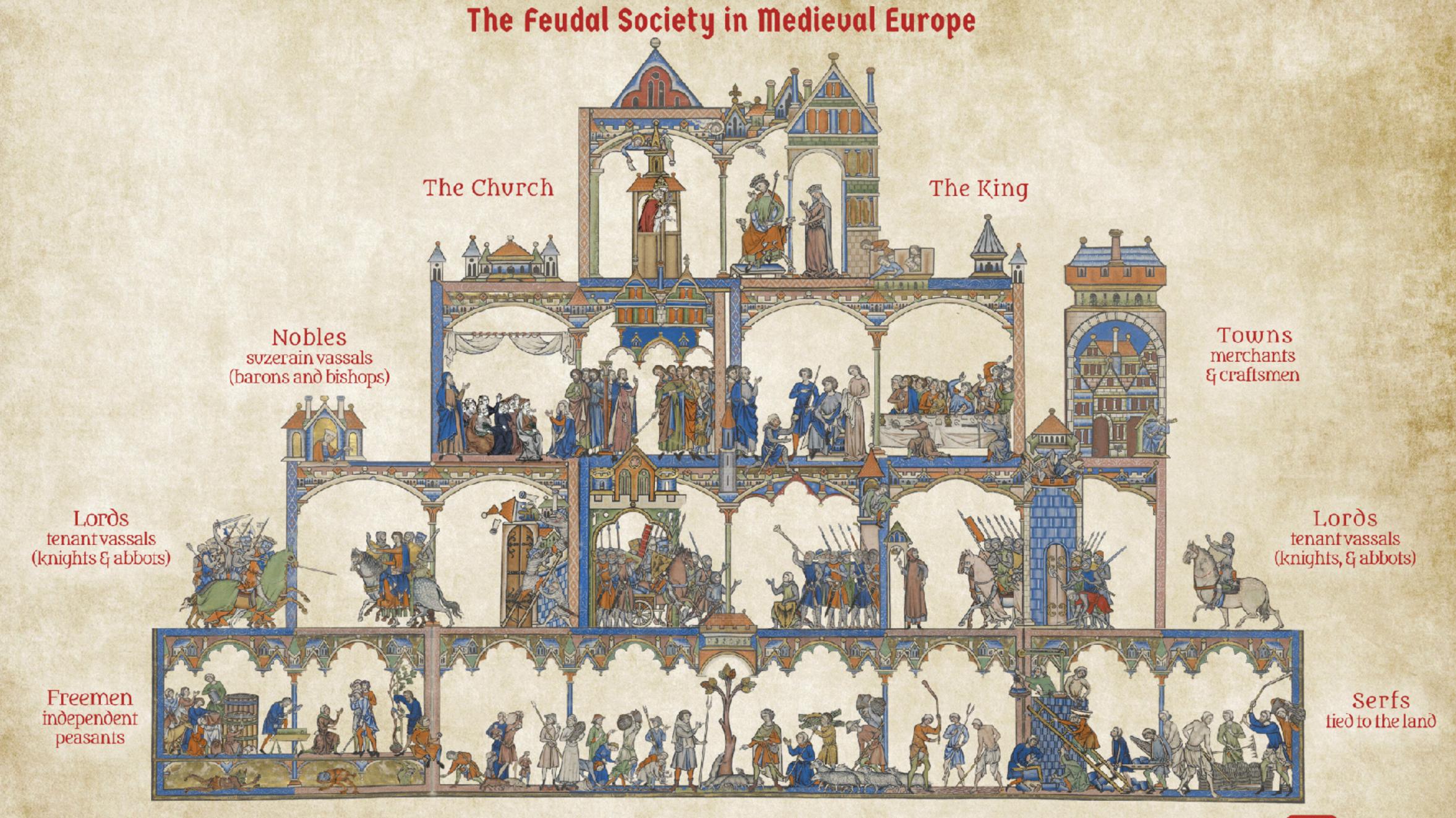
Whoami



Photos by Mom, the Linux Foundation, and me

- Geek, traveler, reader
- 20+ yr tech career focused on community & open source (VMware, Intel, Puppet, ...)
- OpenUK Board
- CHAOSS Board and Maintainer
- CNCF TAG Contrib Strategy co-chair
- PhD on Linux kernel collaboration





Open Source Power Dynamics













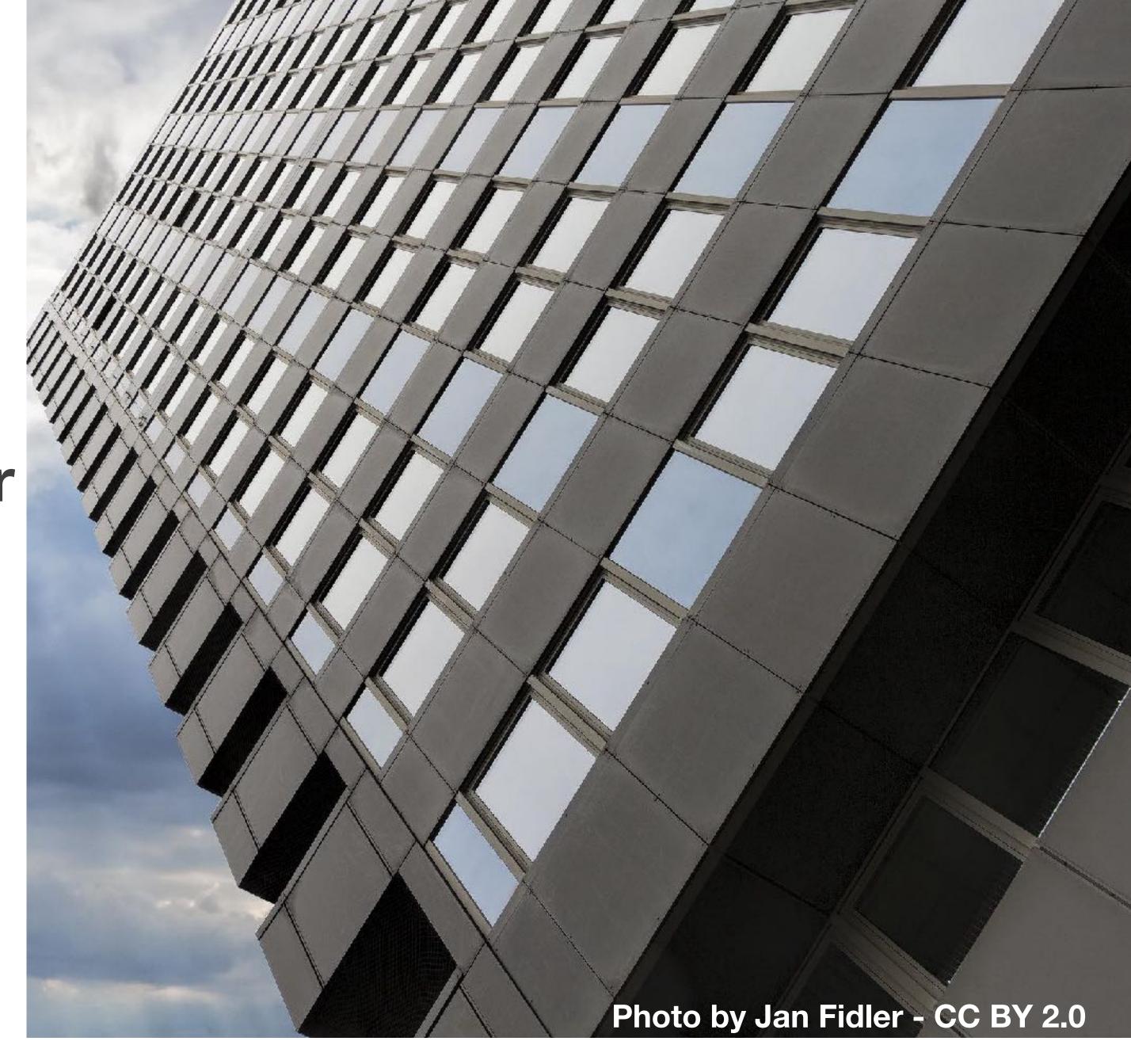
Contributors and Maintainers

Users



Rug Pulls and Disruption

Companies with more power can pull the rug from underneath the rest of us resulting in disruptions





Relicensing: Flip the Power Dynamic

Cloud providers often cited as cause for relicense, which puts more power in the hands of the smaller company



Rug Pulls -> Forks

Social fork: forking a project to collaborate and contribute back to it (GitHub fork)

Hard fork (aka hostile fork):
starts a new project that often
competes with the original





Forks Flip the Power Dynamic

Forks are a form of collective action where those with less power can take control of the governance of a project via a fork

(Mindel et al., 2018)





Rug Pulls: Relicensing,

Forks, and More





Relicensing Rug Pulls -> Forks: The Data

Elasticsearch (Elastic relicensed 2021-02-03)

- 1 yr before: 67 Employees >96% adds / deletes. 3 non-employees <1% adds / deletes.
- 1 yr after: similar results

OpenSearch (Amazon launched fork 2021-04-12)

- 1 yr after fork: 7 Employees / >80% adds / deletes. 2 non-employees <7% adds / deletes.
- 1 yr before LF: 40 Employees / >63% adds / deletes.
 6 non-employees <13% adds / deletes.

Terraform (HashiCorp relicensed 2023-08-10)

- 1 yr before: 21 employees, > 93% adds / deletes. 2 non-employees: < 1% of adds / deletes.
- 1 yr after: similar results

OpenTofu (Linux Foundation launched fork 2023-09-05)

- 1 yr after fork: 31 people at 11 companies: Spacelift, Env0, Scalr, Harness, Red Hat ...
- None previously contributed to Terraform

Redis (Redis relicensed 2024-03-20)

- 1 yr before: 6 employees 28% commits, > 74% adds / deletes. 12 non-employees 54% commits, 12% additions, 15% deletions
- 6 mos after: 0 non-employees with 5+ commits

Valkey (Linux Foundation launched fork 2024-03-28)

- 6 mo after fork: 29 people at 10 companies: Amazon, Tencent, Huawei, Ericsson, Google, others
- 18 previously contributed to Redis

Primary project repo. ElasticSearch / OpenSearch: 10+ commits, Other projects: 5+ commits. Data: https://github.com/chaoss/wg-data-science/tree/main/publications



Relicensing Rug Pulls without Forks

Relicensing events don't always result in a popular fork.

Examples: MongoDB, Sentry





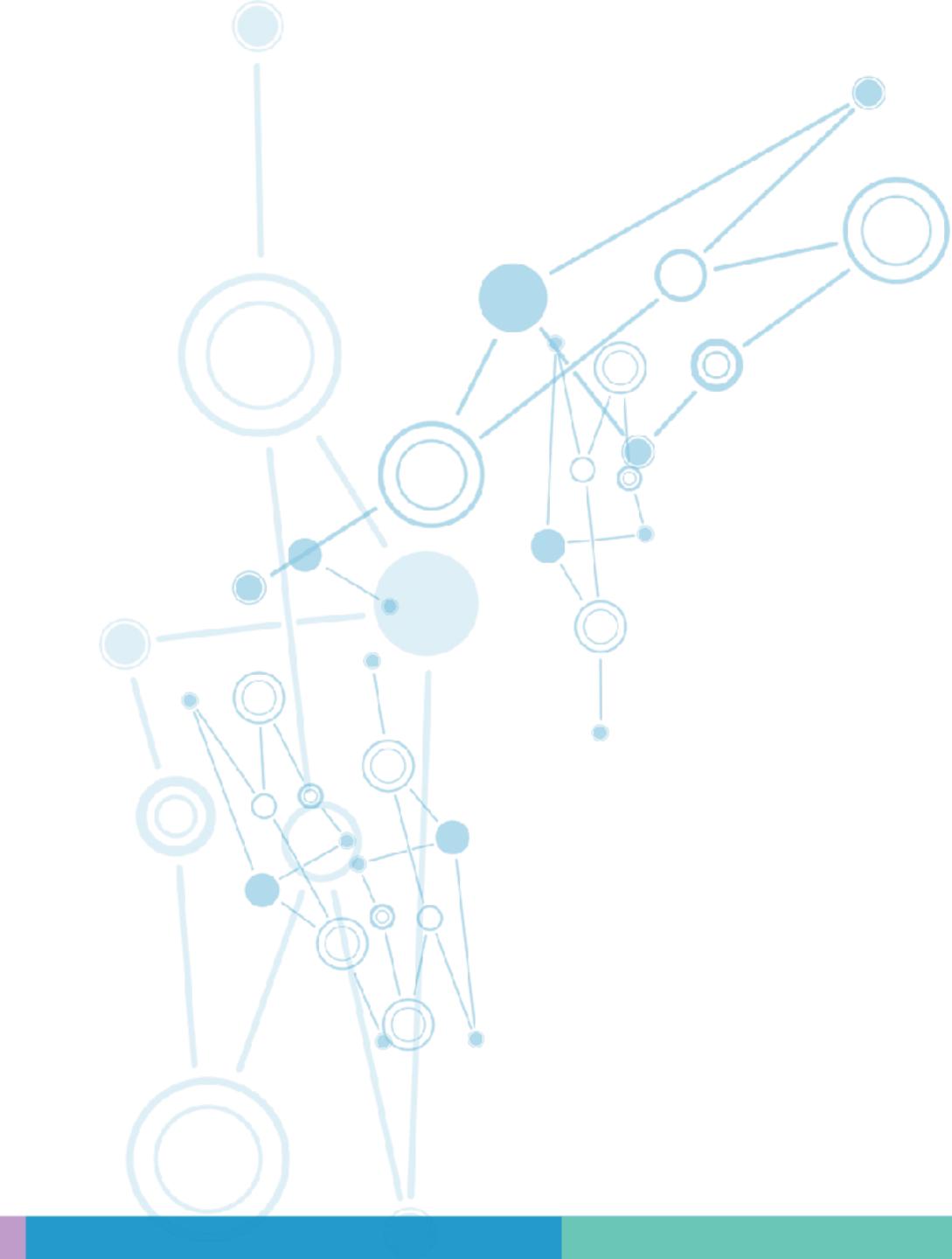
Other Rug Pulls

Perforce doesn't "relicense" Puppet, but they move the development and releases to behind closed doors, which resulted in the OpenVox fork





What can we do?





Legal Stuff*

Contributor License Agreement (CLA) vs.

Developer Certificate of Origin (DCO)





Neutral Foundations

Embrace projects
under foundations
where we can all
participate as equals











Neutral Governance

Level playing field with leaders/ maintainers from a variety of organizations and a fair and transparent process for selecting them





Image by the CNCF CC BY-NC 2.0

@geekygirldawn

Contributor Sustainability

Active contributors from a variety of different organizations





@geekygirldawn

Contribute!

Have your employees contribute to the projects that are most important for your company to improve the sustainability of those projects from within





CHAOSS Resources

Practitioner Guides

and collections of

metrics to improve the

health and sustainability

of your projects

https://chaoss.community/kb/metrics-model-project-viability-starter/

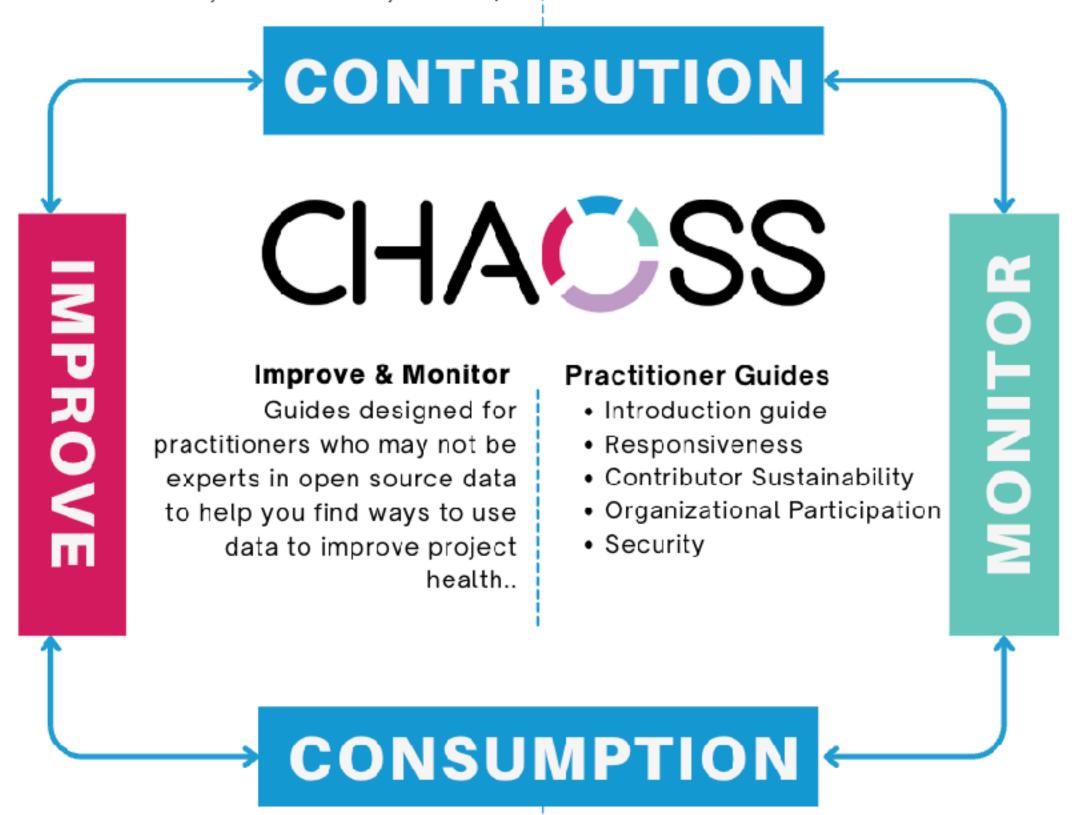
https://chaoss.community/about-chaoss-practitioner-guides/

Contribution

Metrics related to outbound / upstream contributions to open source projects whether developed by your org or a 3rd party (e.g., development culture, collaboration, and DEI).

Metric Model: Starter Project Health

- Time to First Response
- Change Request Closure Ratio
- Contributor Absence Factor
- Release Frequency



Consumption

Metrics related to inbound / downstream consumption of open source software within an organization's products, services, and infrastructure (e.g., compliance, procurement, and viability).

Metric Model: Viability

- Governance
- Community
- Compliance & Security
- Strategy

Resources and References

Resources:

- chaoss.community
- github.com/chaoss/wg-data-science
- github.com/chaoss/wg-data-science/tree/main/dataset/license-changes/fork-case-study
- chaoss.community/about-chaoss-practitioner-guides

References:

- Foster, D. (2024, November 13-14). The New Dynamics of Open Source: Relicensing, Forks, and Community Impact. OpenForum Academy Symposium 2024, Boston, Massachusetts, Available at https://doi.org/10.48550/arXiv.2411.04739.
- Germonprez, M., Kendall, J. E., Kendall, K. E., Mathiassen, L., Young, B., & Warner, B. (2017). A Theory of Responsive Design: A Field Study of Corporate Engagement with Open Source Communities. Information Systems Research, 28(1), 64-83.
- Mindel, V., Mathiassen, L., & Rai, A. (2018). The Sustainability of Polycentric Information Commons. MIS quarterly, 42(2), 607-632.



Final Thoughts

Relicensing and forks shift the power dynamics in open source projects to allow those with less power to take collective action and gain power back





THANK YOU! Any Questions?



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