A Strategic Approach to Assessing Viability of **OSS Projects** FOSS Backstage March 2024 Dr. Dawn M. Foster **Director of Data Science for CHAOSS**

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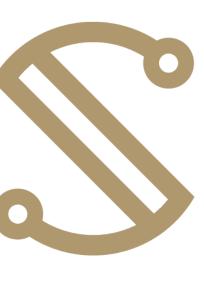


ALFRED P. SLOAN FOUNDATION

THE LINUX FOUNDATION

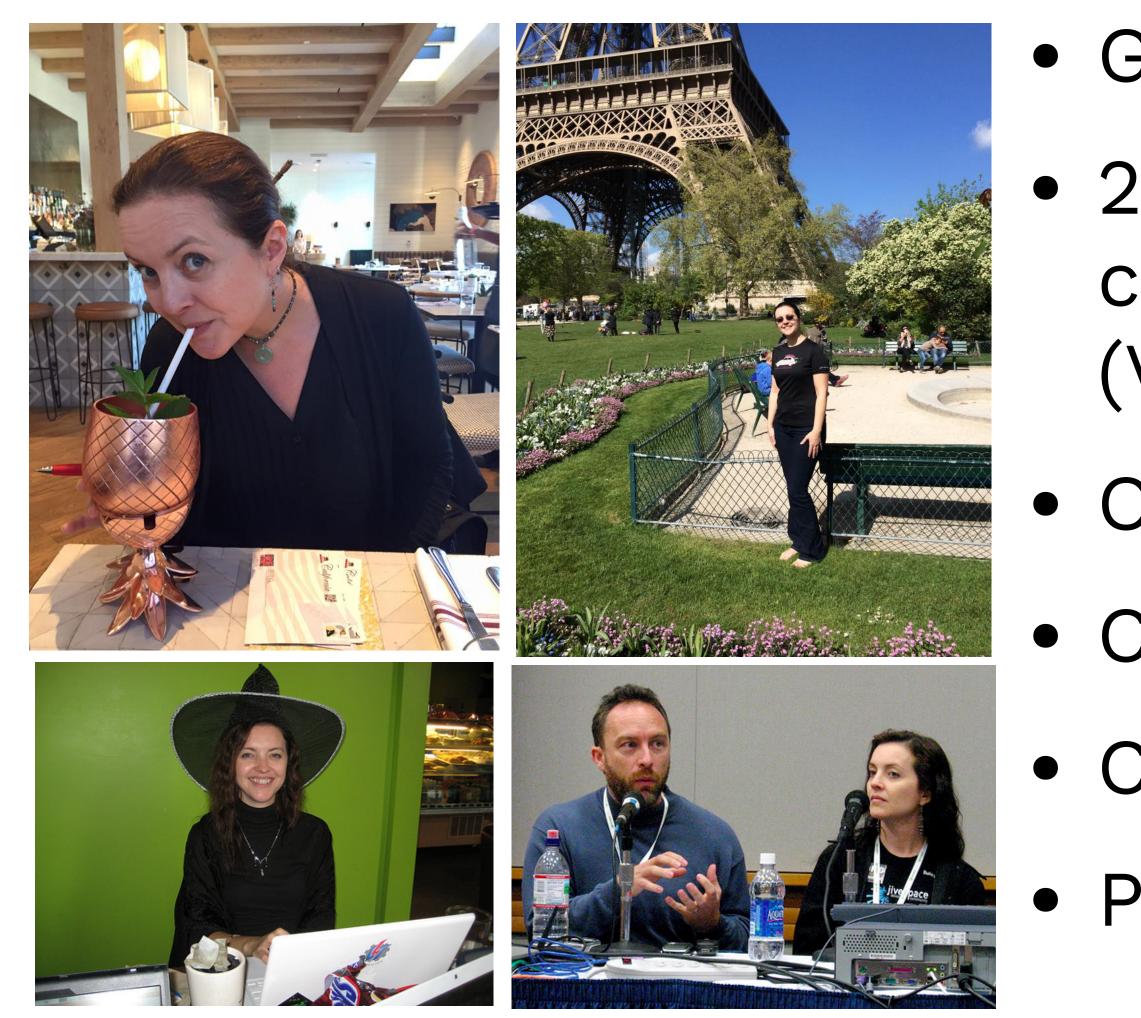


Thank You!





Whoami



Photos by Mom, <u>Josh Bancroft</u>, <u>Don Park</u>



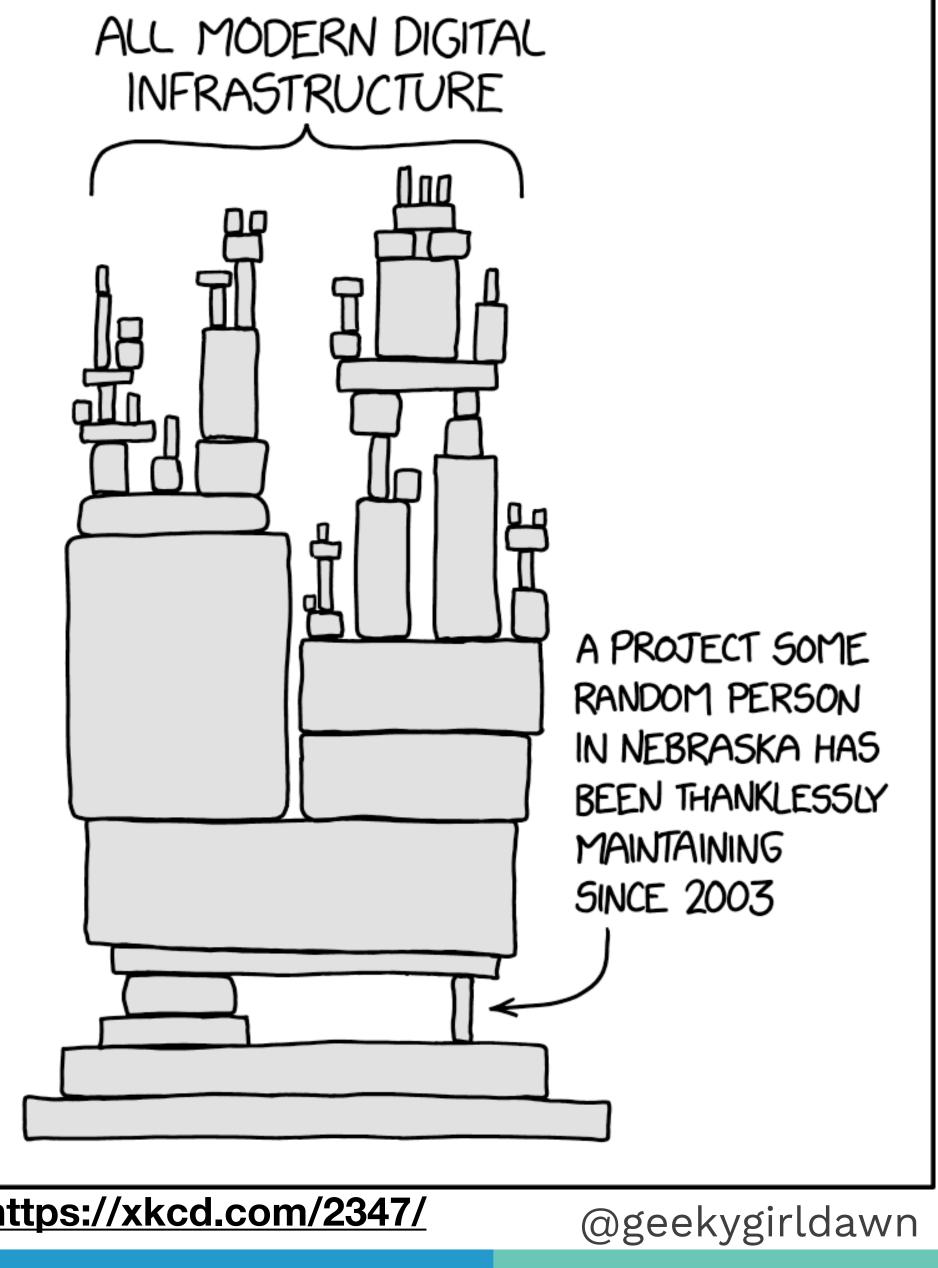
- Geek, traveler, reader
- 20+ yr tech career focused on community & open source (VMware, Intel, Puppet, ...)
- OpenUK Board
- CHAOSS Board and Maintainer
- CNCF TAG Contrib Strategy co-chair
- PhD on Linux kernel collaboration



Why Does Viability Matter?

Your business could be disrupted





https://xkcd.com/2347/



Foundations vs. Companies





Assessing and Measuring Viability:

Governance

Community

Compliance and Security

Strategy

Resources and final thoughts

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Ownership: Foundation vs. Company







Neutral Foundations

Participate as equals, but make sure the foundation is really neutral





CLOUD NATIVE COMPUTING FOUNDATION



THE INUX FOUNDATION





Company Originated

Higher risk: single company in control





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Assessing and Measuring **Project Viability**







CHAOSS Viability **Metrics Models**

Governance Community **Compliance and Security** Strategy

https://chaoss.community/kbtopic/all-metrics-models/



https://chaoss.community/chaoss-guide-oss-viability/





Photo by <u>Marissa Grootes</u> on <u>Unsplash</u>



Governance is about People

Processes for how people collaborate and make decisions





Leadership

Fair and transparent process for selecting leaders







Metric Model: Governance Viability

Metrics:

- Issues Inclusivity
- Documentation Usability
- Time To Close
- Change Request Closure Ratio
- Project Popularity
- Libyears
- **Issue Age**

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Release Frequency

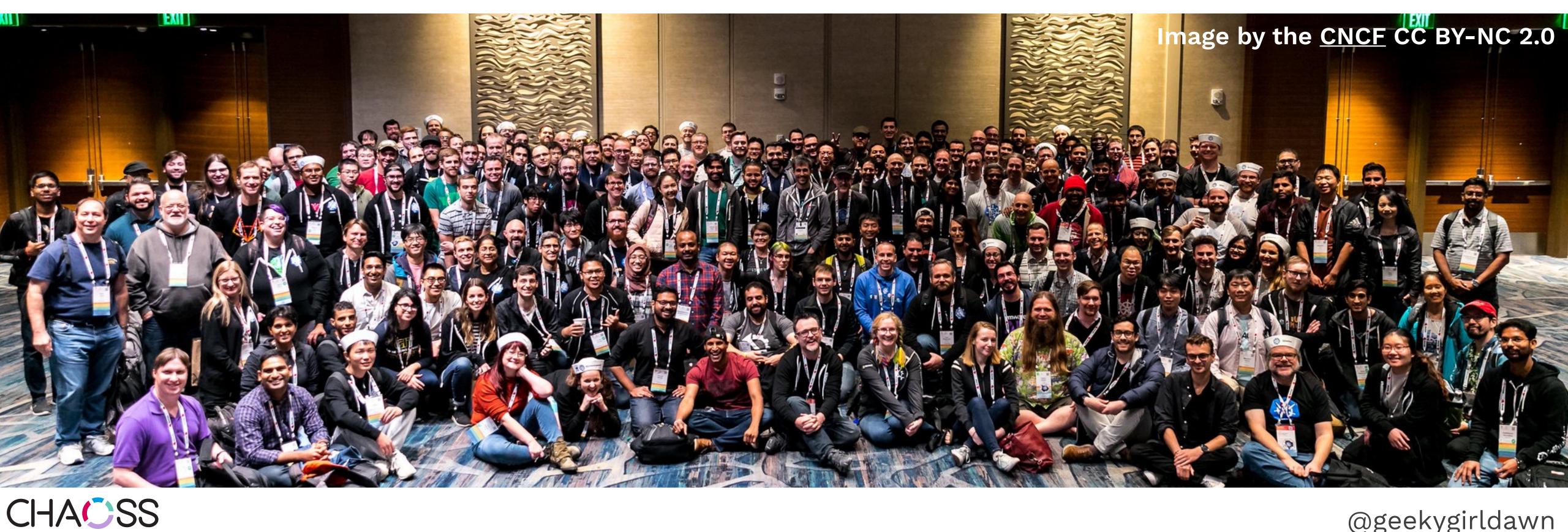
https://chaoss.community/kb/metrics-model-oss-project-viability-governance/





Community

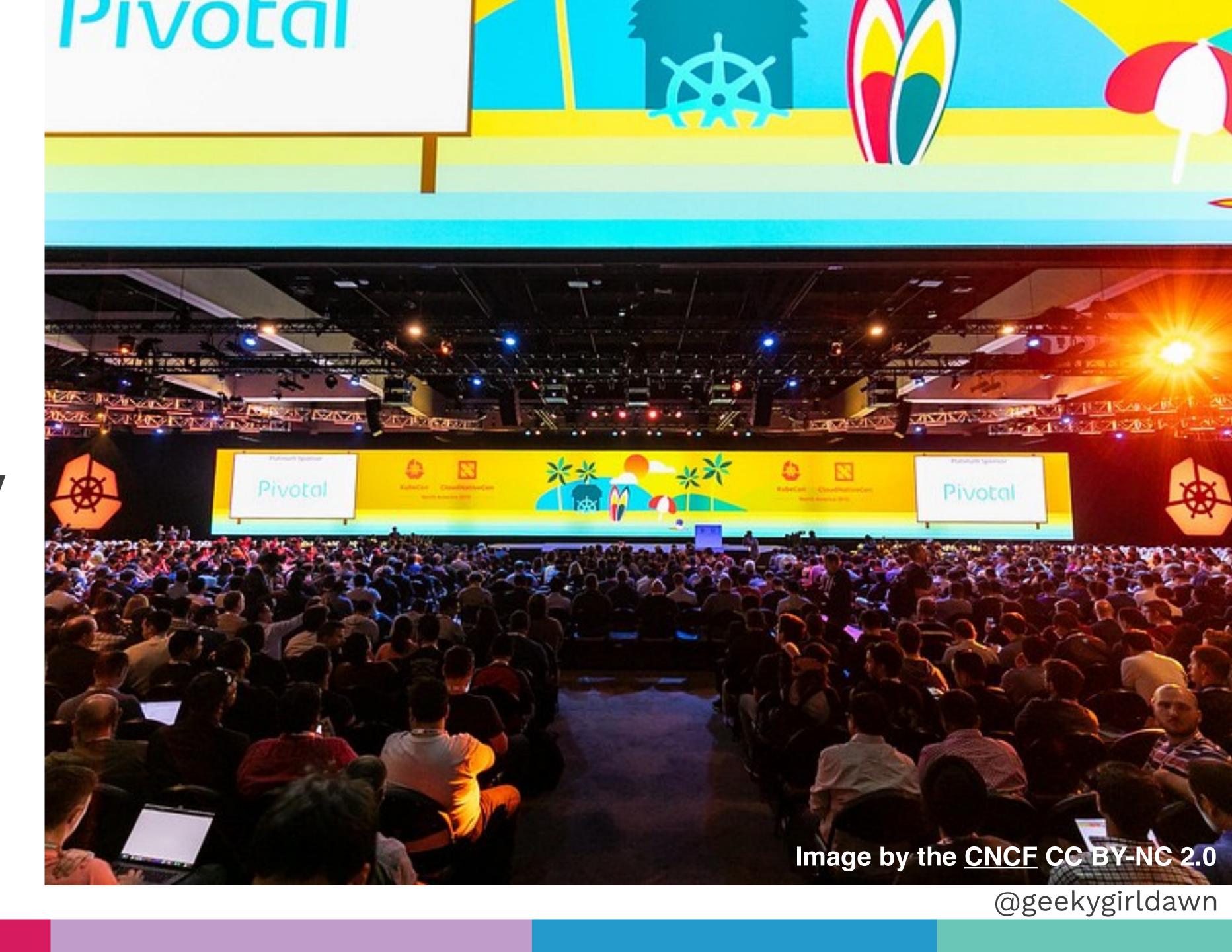
Look for helpful, kind, respectful, and welcoming





Adopters

Projects with many adopters / end users are more viable





Responsiveness

Project that can keep up with contributions will be move viable









Diversity, Equity, and Inclusion

Inclusive projects are more viable





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Metrics Model: Community Viability

Metrics

- Clones
- Forks
- Types of Contributions
- Change Requests
- Committers
- Change Request Closure Ratio
- Project Popularity
- Libyears

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







Look for proactive security response and policies







Master



Metrics Model: Compliance and Security Viability **Metrics**

- OpenSSF Best Practices
- Licensing
 - License Coverage
 - OSI Approved Licenses
 - Licenses Declared
- Defect Resolution Duration
- Libyears

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Upstream Code Dependencies

https://chaoss.community/kb/metrics-model-oss-project-viability-compliance-security/





Contributor Risk

Active contributors and organizational diversity





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Metrics Model: Strategy

Metrics

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- Programming Language Distribution
- Bus Factor
- Elephant Factor
- Organizational Influence
- Release Frequency

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



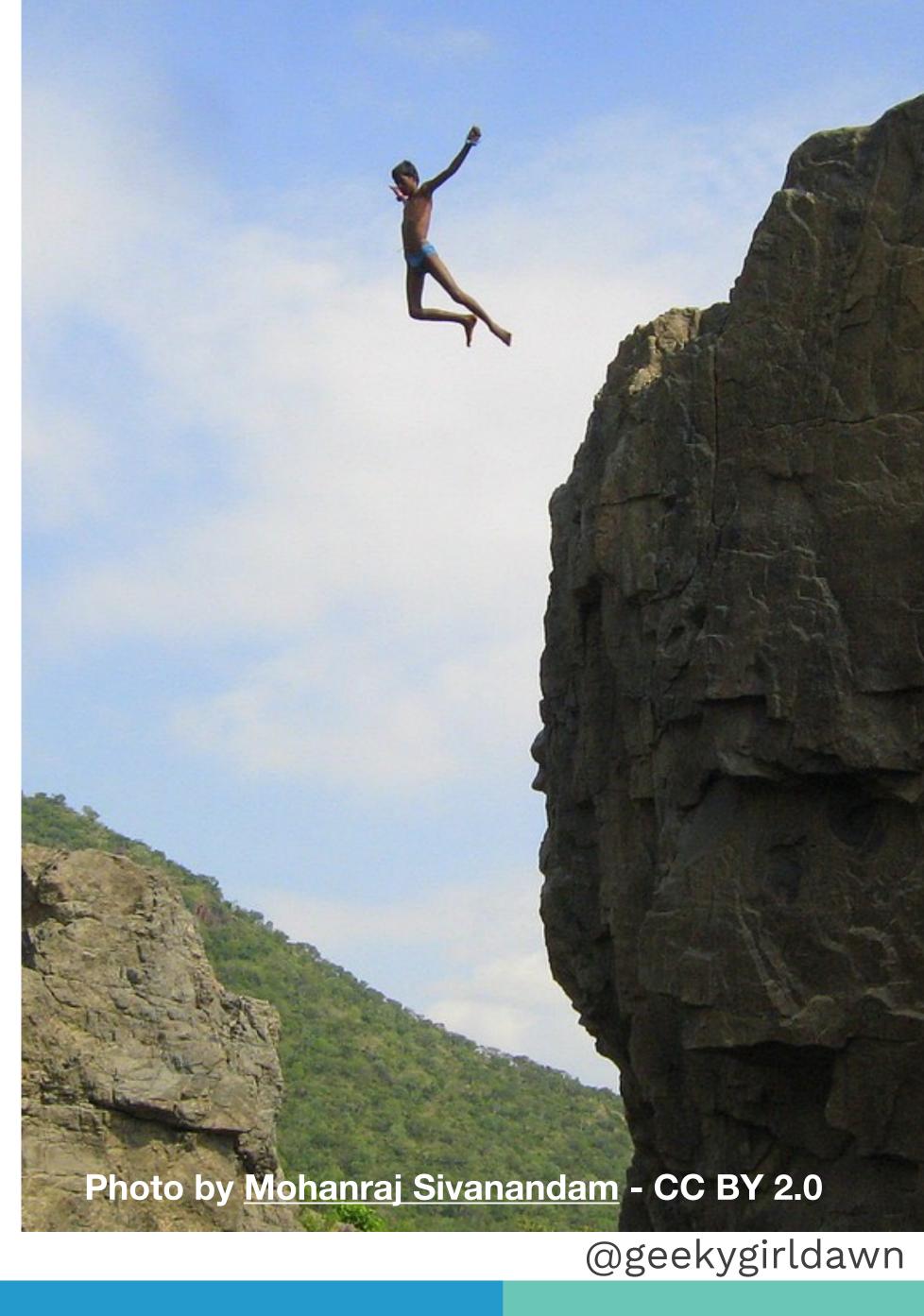




Mitigating Risk

Can you employ contributors to mitigate the risk for projects that are less viable?







<u>https://chaoss.community/chaoss-guide-oss-viability/</u>

Resources

Linux Foundation's TODO Group https://todogroup.org/guides/

CHAOSS

The Open Source Way Guidebook https://github.com/theopensourceway/guidebook/

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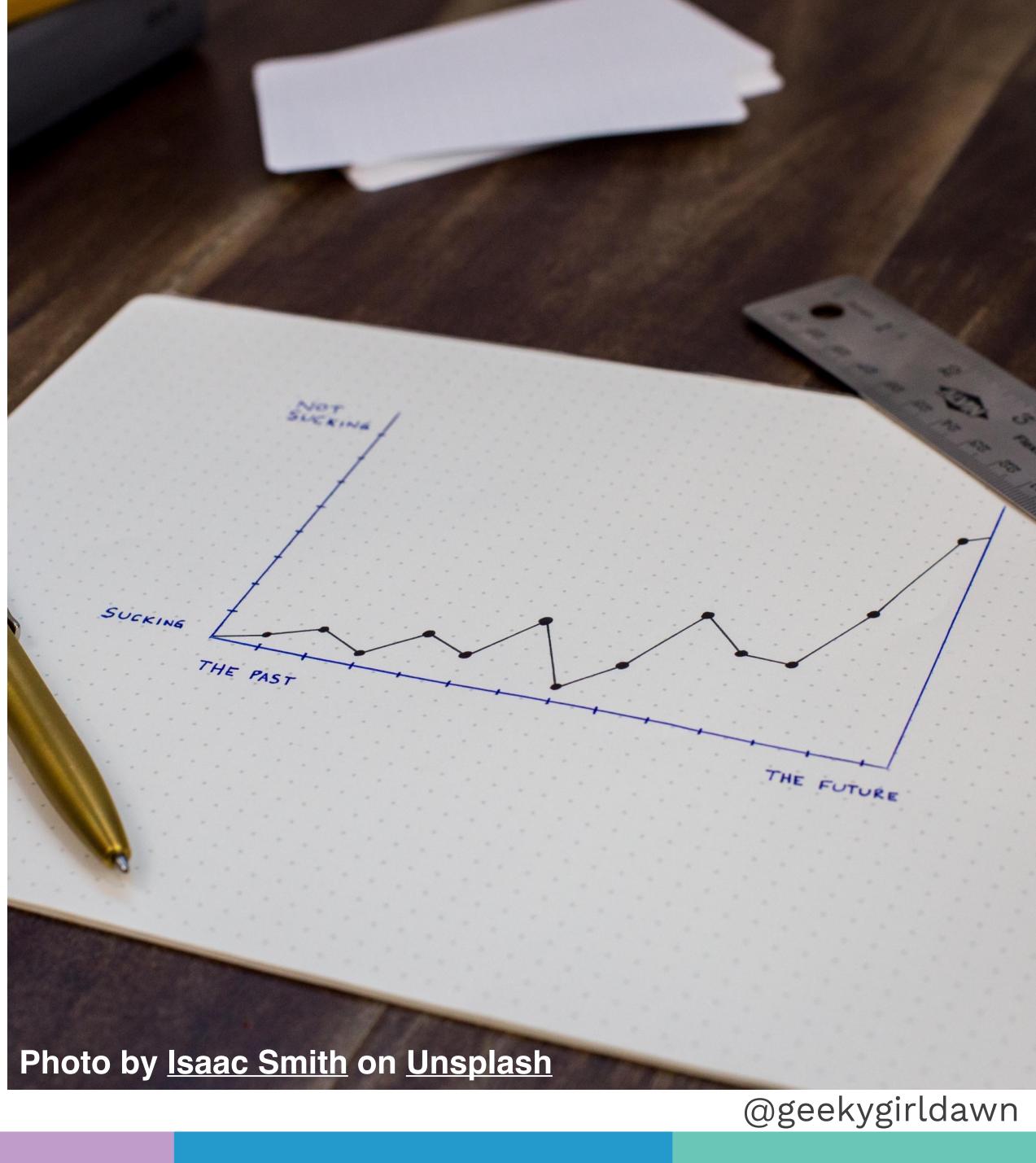
https://chaoss.community/



Final Thoughts

Assessing project viability is an ongoing process required to protect your reputation and avoid negative implications for your customers.







THANK YOU! Any Questions?

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