Today I learned…..

The 2025 FLOSS Research Roundup

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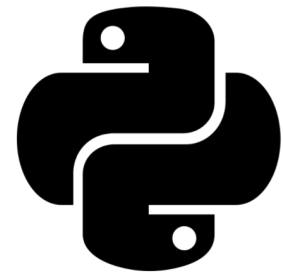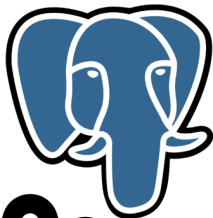Community Data Science Collective   UNIVERSITY of WASHINGTON

What can research tell us about building, leading, and sustaining open source?

- Getting oriented

Overview

What can research tell us about building, leading, and sustaining open source?

- Getting oriented
- What's new?

The world runs on open source software – including academic research.

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- Thank you for being here to help bridge this gap!
- Note: tons of citations – all at the end. All links to free / open downloads!

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- Getting oriented
  - The world runs on free software.
  - Extensive research record on FLOSS and FLOSS communities.

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10,000 Foot View

Key topics:

- Insights on working together

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- Trends in architecture

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- …and also AI. So much AI.

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  - Key quote: "External contributions have a distinct correlation with the number of new commits: it's inversely related in non-company projects but shows a positive correlation in company projects."
  - Small sample size (4 company, 4 non-company)

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[Su et al. 2025]

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- Are we working against an open web when we architect to assume these massive superstructures?

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  - Key quote: "pinning all direct dependencies has a significant influence on the three measures of cost–higher exposure to security vulnerabilities, number of outdated dependencies that need to be manually updated, and higher exposure to dependency conflicts."

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  - There is a talk about reproducible builds going on right now here at SeaGL!

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  - Those that left tended to be low-collaboration, low-volume, narrow scope from the beginning
  - My take: We talk about onboarding newcomers to our communities – seems like we also should think about how we onboard organizations

Governing: Advice and Practice

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  - If we grow governance by accretion, where might more radical change come from? Can we end up with a heavier / more rules-heavy environment than we want?
  - Bountyhunters want a security.md file to exist....

- "10 quick tips for making your software outlive your job"

Graceful Transitions

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- TLDR: Open source is a strategy for resilience against a changing social and political environment

[Littauer et al. Working Paper.]

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- There's an opportunity here: Research software is an area we can build stronger connections to FLOSS in general.

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- ...and also AI. So much AI.

  Growing evidence for skepticism about AI. Does your project have an AI policy? Let's talk :)

kaylea@uw.edu—@kaylea@social.coop

https://kayleachampion.com

https://communitydata.science—@communitydata@social.coop

Actively seeking new funding and collaborators! Let's work together!

Credits

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