INVASION OF THE PLAUSIBLE SLOP

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Generative AI and Open Source Cybersecurity

Dr. Kaylea Champion – kaylea@uw.edu https://www.kayleachampion.com https://communitydata.science University of Washington | Bothell FOSSY Science of Community—August 2, 2025



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- But I'm not alone...



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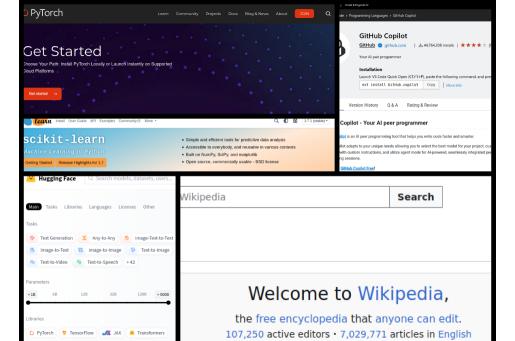
Programming languages

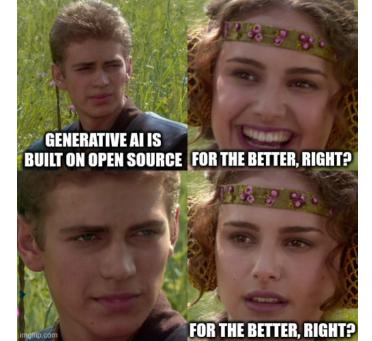
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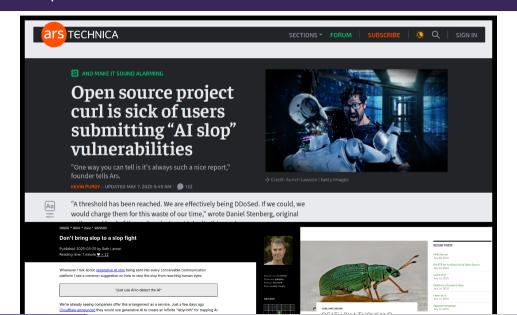
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Training data

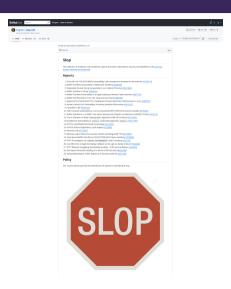




Cue the Slop



A Gist of Horrors



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- Document list initially developed from observation, supplemented by following links and doing searches

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- · Grouping and re-grouping codes into themes
- "How are these ideas connected?"
- · Describing the themes you see

From this...

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Don't bring slop to a slop fight

Published 2025-03-25 by Seth Larson

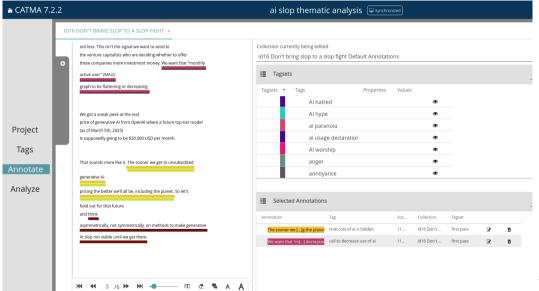
Reading time: 1 minute ♥ × 22

Whenever I talk about generative AI slop being sent into every conceivable communication platform I see a common suggestion on how to stop the slop from reaching human eyes:

"Just use AI to detect the AI"

We're already seeing companies offer this arrangement as a service. Just a few days ago Cloudflare announced they would use generative AI to create an infinite "labyrinth" for trapping AI crawlers in pages of content and links.

To this:



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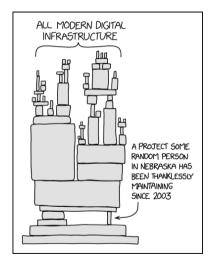
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- · If detected: Draws time away from real security issues
- · If not detected: Waste, fraud, abuse, malware

How bad does it have to be?



What's our threat model here? How would we go about measuring the problem?

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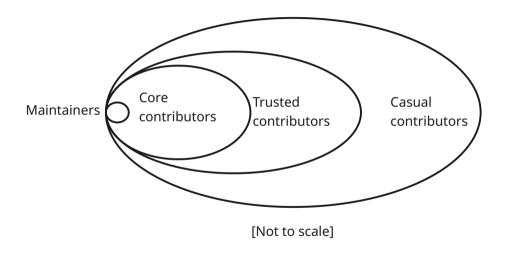
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 ...what's this social model?



Onion model



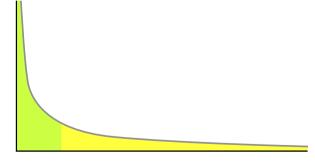
Long tail model

• 80-20 rule



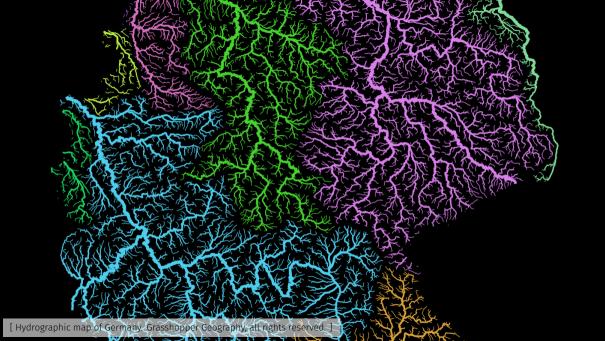
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- · 80-20 rule
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Long tail model

- 80-20 rule
- · ...might feel more like the 99.5-.5 rule...
- · Core work from a smaller group, unique work from an expanded group



[What] So what even is this plausible slop?

Recollect definition:

- · High volume, unwanted
- · Cheap to produce
- Al generated (context-sensitive, probabilistic)
- · Difficult to validate and assess (but ultimately fabricated)
- · Attacks both social and technical structures

Spam:

 \cdot High volume, unwanted messages \checkmark

- · High volume, unwanted messages ✓
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- \cdot Easy to detect imes

- · High volume, unwanted messages ✓
- · Cheap to produce \checkmark
- Procedurally generated ×
- Easy to detect X
- \cdot Attacks (some social?) certainly technical structures \Leftrightarrow

A DDOS is:

· High volume, unwanted messages 🗸

- · High volume, unwanted messages ✓
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Is slop like spearphishing?

Spearphishing is:

 \cdot Low volume messages imes

- Low volume messages X
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- \cdot Attacks both social and technical structures \checkmark

Slop vs historical examples

	Volume	Production	Toolset	Identification	Structural Cost
Spam	High	Easy	Procedural	Easy	(Social?) & Technical
DDOS	High	Easy	Procedural	Easy	Technical
Spearphishing	Low	Hard	Augmented	Hard	Social & Technical

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- · And if we can't adjust to the volume, does it matter why?

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- Fraudsters and attackers also get better and smarter they might look less like AI over time with better prompt engineering

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- · I'm drawing heavily from the community

How are communities responding to this threat?

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- · Dialectical oppositions in proposed solutions

don't bring slop to a slop fight	←	AI to stop AI
blame tool not user	←	blame user not tool
need for automation	←	need for education
platform withdrawal	←	platform improvements
collective strategies	←	per-project strategies
alternate paradigms		improvements to current strategies

financial bonds

trust webs

faster detection

seek regulation

raise barriers to submission



Next steps:

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- · Measuring impacts (both of slop and counter measures)

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- · Beyond detection: Improved validation tools

What do you think?

Are you seeing slop in your part of FLOSS? How plausible is it? What kinds of traits would you look for in a solution?

Questions? Feedback?

```
kaylea@uw.edu—@kaylea@social.coop

https://kayleachampion.com

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

This work has been unfunded so far. I am actively seeking new funding and collaborators!
```



Newcomers

- Newcomers
 - good faith contributors

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 - good faith contributors
 - range of motives

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 - · high quality submissions
- · Fraudsters, attackers

- Newcomers
 - good faith contributors
 - range of motives
 - · low quality submissions
- Experienced reward seekers
 - · good faith contributors
 - · payment
 - glory
 - · high quality submissions
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 - payment
 - · glory
 - deceptive submissions