“Did You Miss My Comment or What?” Understanding Toxicity in Open Source Discussions

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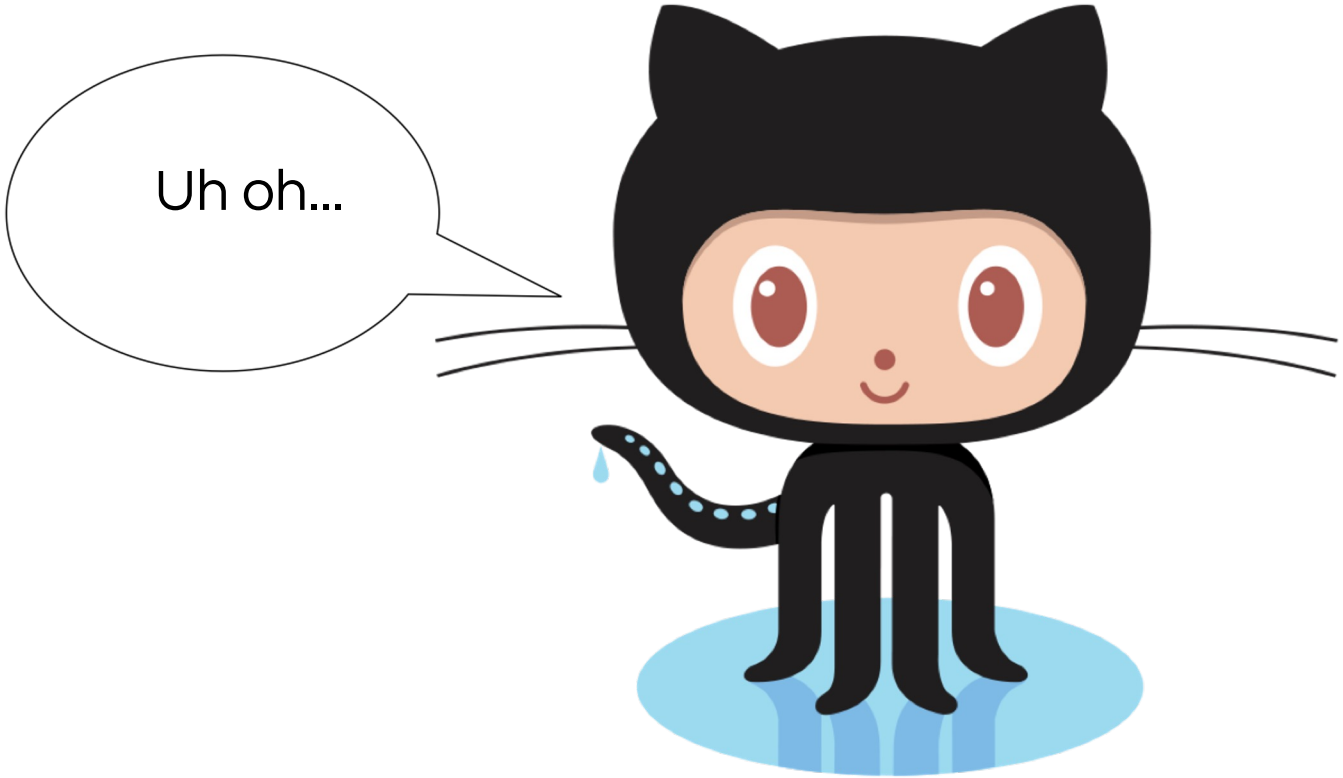
“We define toxicity as a **rude, disrespectful**, or **unreasonable** comment that is **likely to make someone leave a discussion.**”

- Google’s Perspective API

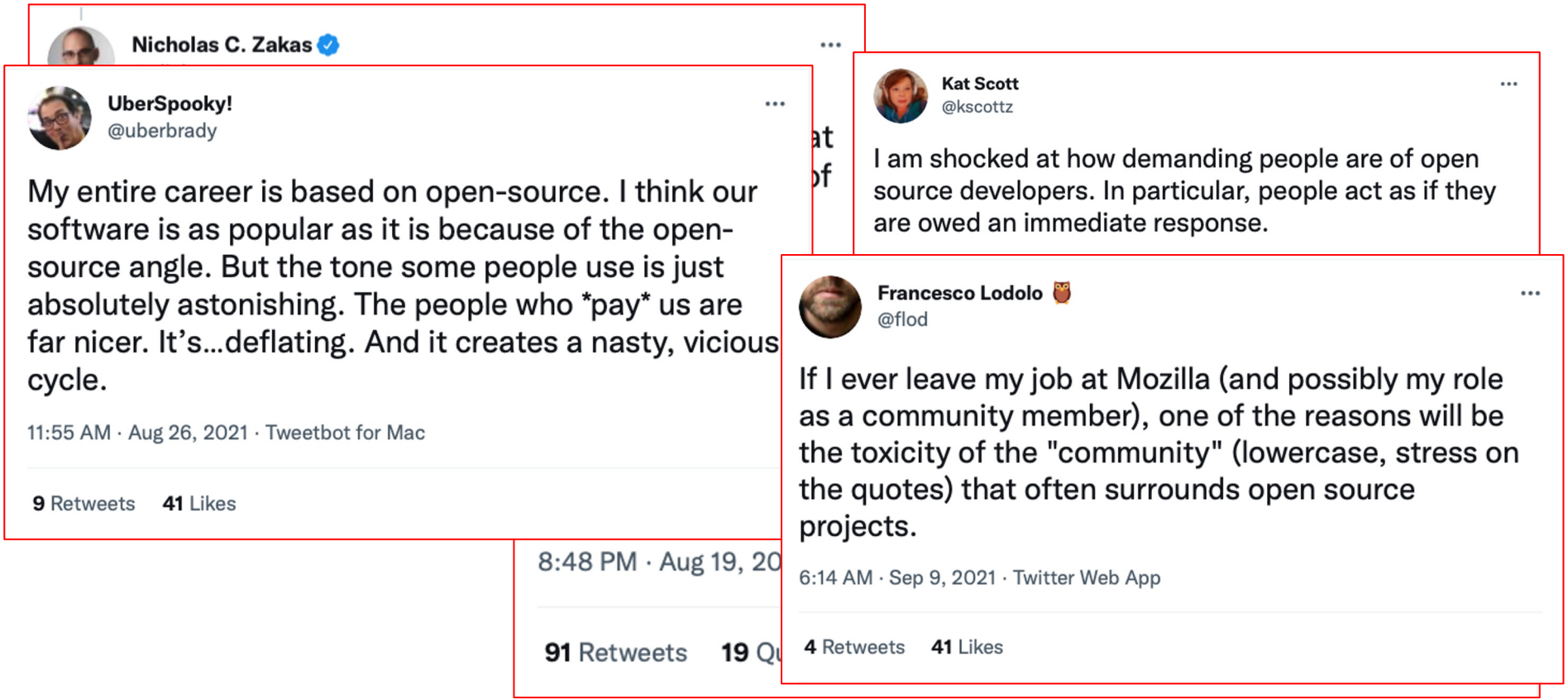
online toxicity is pervasive

online toxicity can be harmful

online toxicity exists in open source



open source practitioners have reported toxicity
open source practitioners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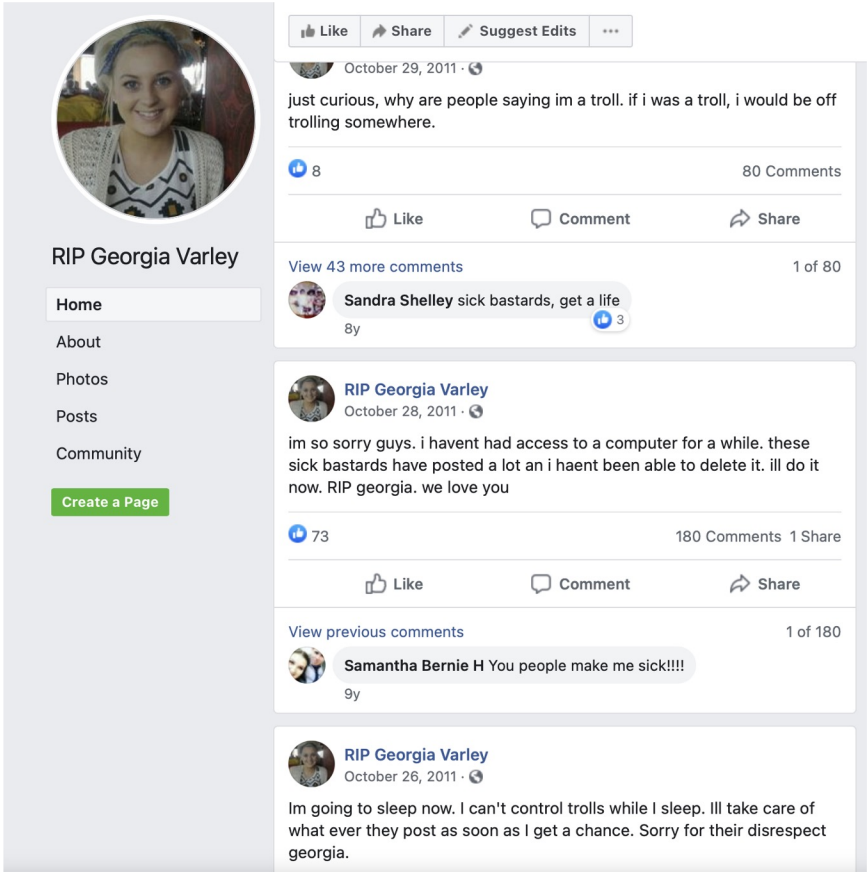
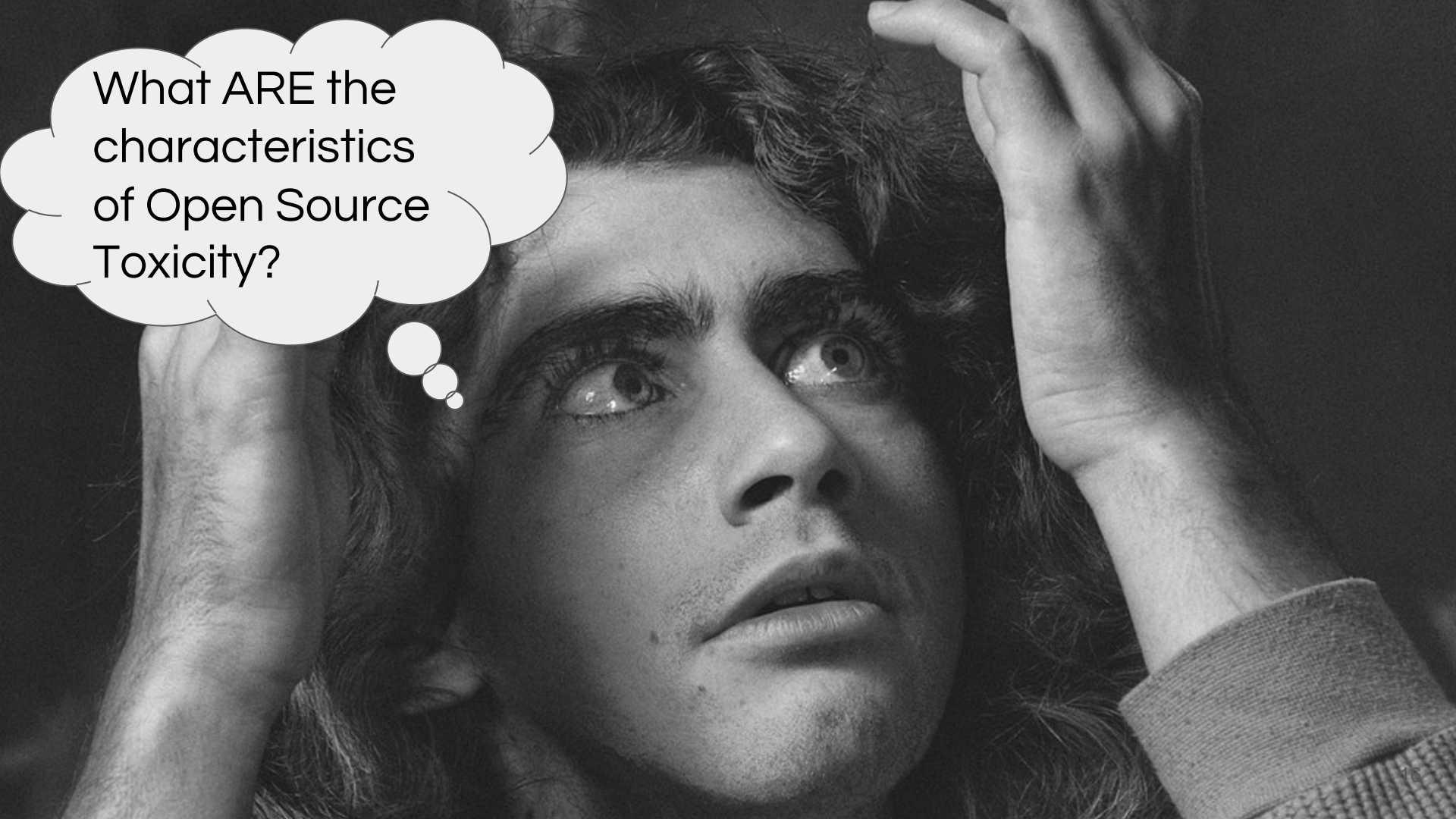
online toxicity has been studied on...

online toxicity manifests differently on different platforms



different strategies are effective on different types of toxicity


What ARE the characteristics of Open Source Toxicity?

research methods

ethical considerations

toxicity can be sensitive topic
&&
additional stress == bad

goal: understand the nature and characteristics of OSS toxicity

collecting sample

qualitative analysis

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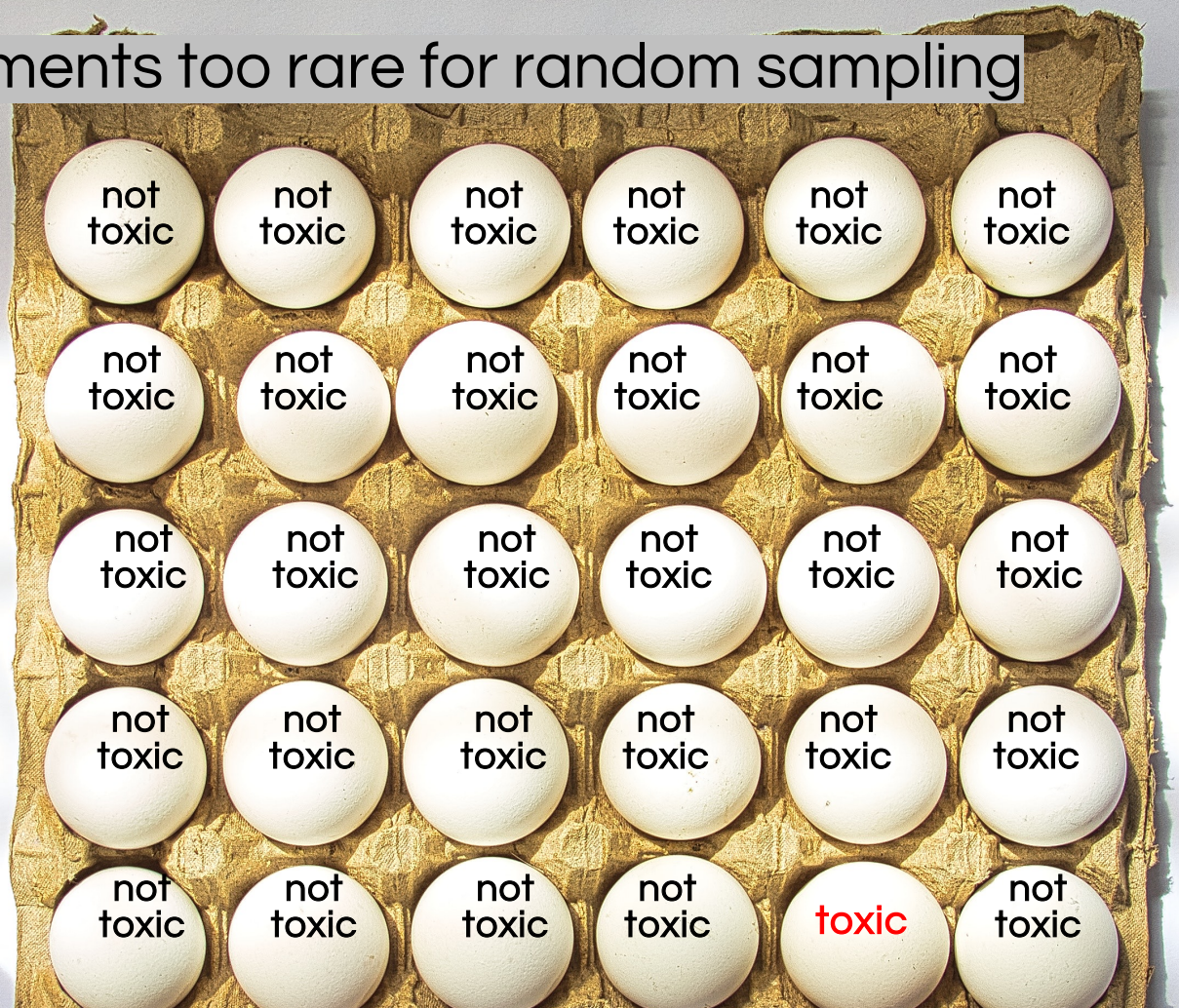
qualitative analysis

highly accurate &
unbiased toxicity
detector

toxic comments too rare for random sampling



we used five strategies to identify toxic issues

Strategy
Toxicity model (issue)
Toxicity model (comment)
Code of conduct
Locked issue (too heated)
Deleted issue

toxicity detector
(issues and comments)

code of conduct

[redacted] commented on Mar 6, 2020 Member

Hi [redacted], as a member of [redacted]'s Community Governance Committee, I need to inform you that we have found your language and tone to be in violation of our stated Code of Conduct. Specifically, the above comment (among other interactions you have thus far made) is unwelcoming, insulting, and overall inappropriate for this community. This is an official warning to adhere to our Code of Conduct, and any further violations will result in escalated action, including but not limited to being banned from this project.

We would like to encourage all individuals to be able to participate in our community. To that end, our top priority is to create a positive environment. We encourage everyone to be respectful and use welcoming and inclusive language. We hope that you will realize the necessity of this, and would be happy to continue working with you if you can adjust your interactions appropriately.

Thank you,

[redacted] on behalf of the [redacted] Community Governance Committee

locked as too heated

deleted

Issue : [redacted]#2306 (https://github.com/[redacted]/issues/2306)

> Such a shit ui element
>
> The user expects the back button to navigate to the previous location in the app's navigation history...
> Except they dont. In fact they probably won't even see it when their focus is on toolbar in opposite corner....

each strategy picks up on different signals

Strategy
Toxicity model (issue)
Toxicity model (comment)
Code of conduct
Locked issue (too heated)
Deleted issue

we performed manual labeling

the strategies all left room for improvement

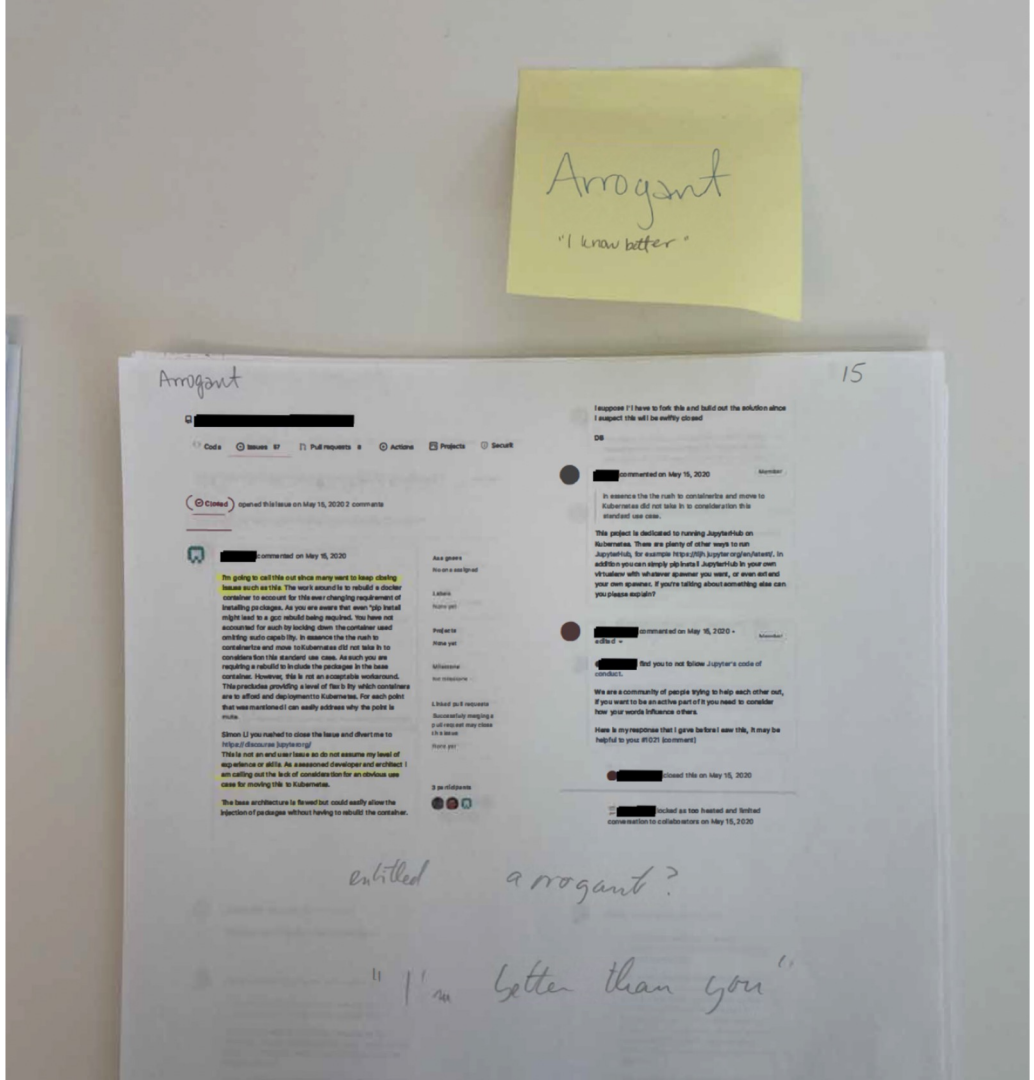
Strategy	# detected	# labeled	# toxic	FPR
Toxicity model (issue)	168,293	494	82	.83
Toxicity model (comment)	42,911	255	69	.69
Code of conduct	688	179	33	.82
Locked issue (too heated)	2,530	165	40	.76
Deleted issue	60,959	1,644	29	.98

goal: understand the nature and characteristics of OSS toxicity

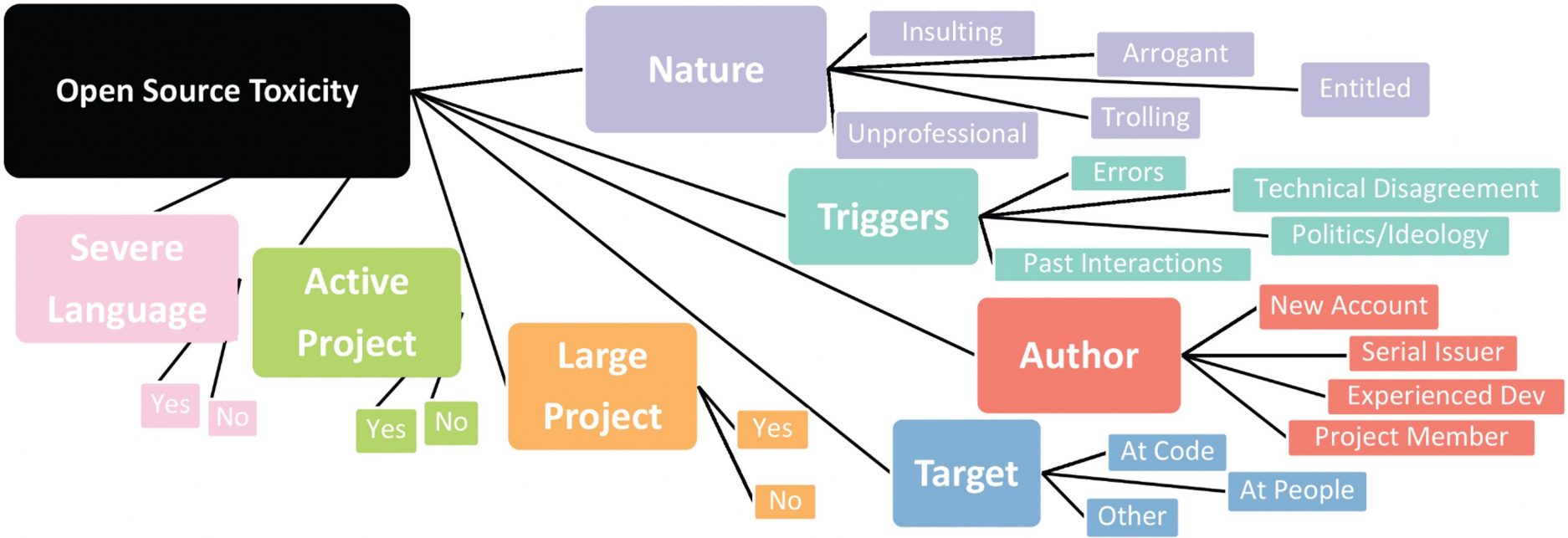
collecting sample

qualitative analysis

we performed
thematic analysis
&
card sorting

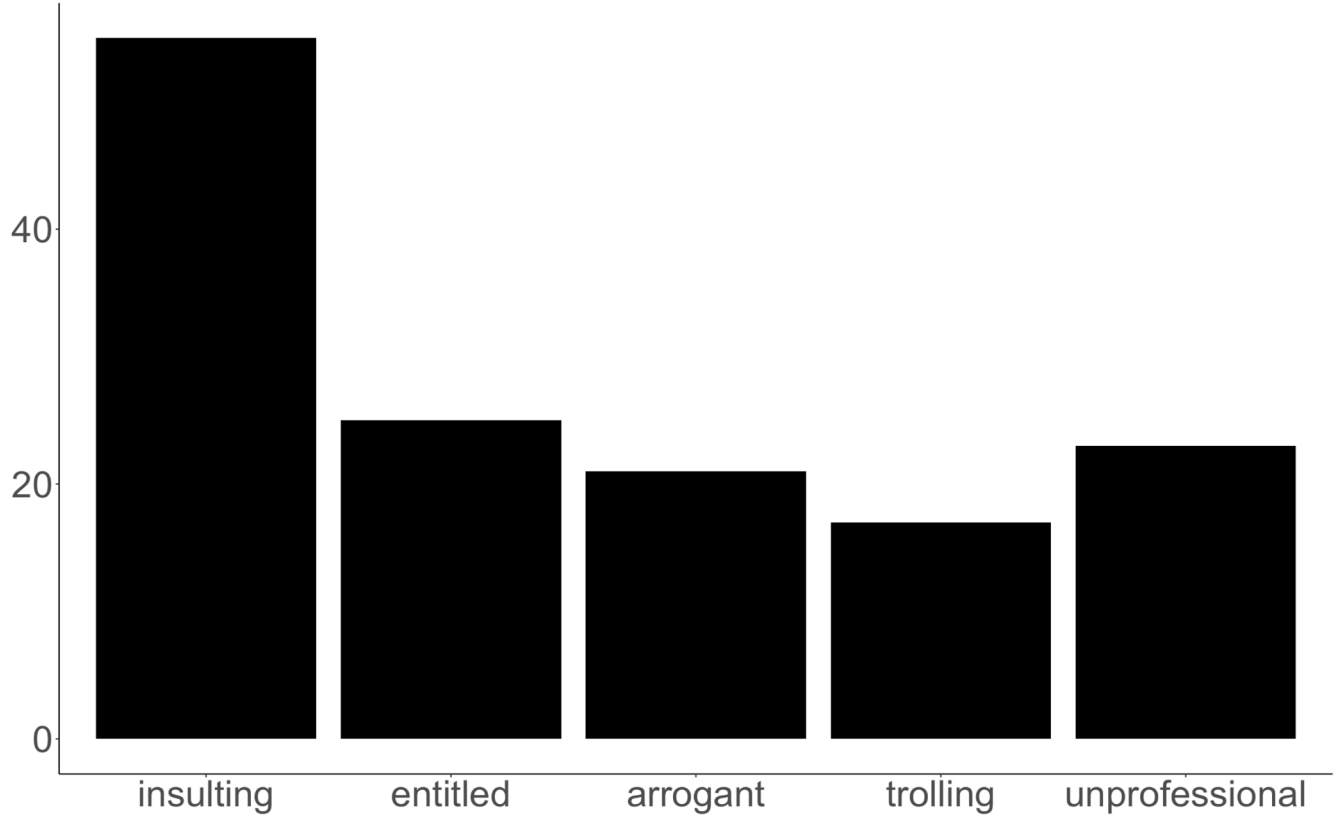


we identified dimensions of toxicity



some findings

#1. open source toxicity is built different



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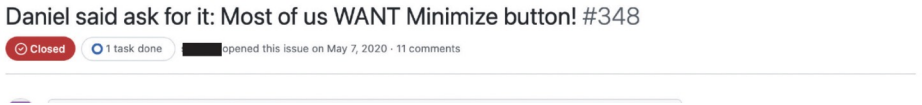
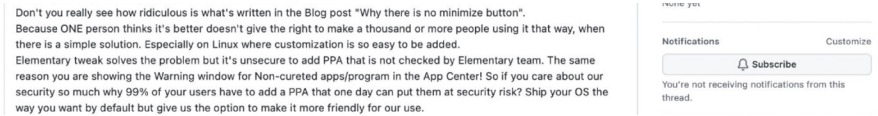
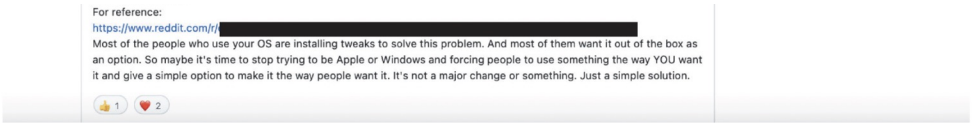


The problem is your team forcing us to use the OS the way you want us to use it although it makes it 1000000 times harder to use it your way, than what would be convenient for us.

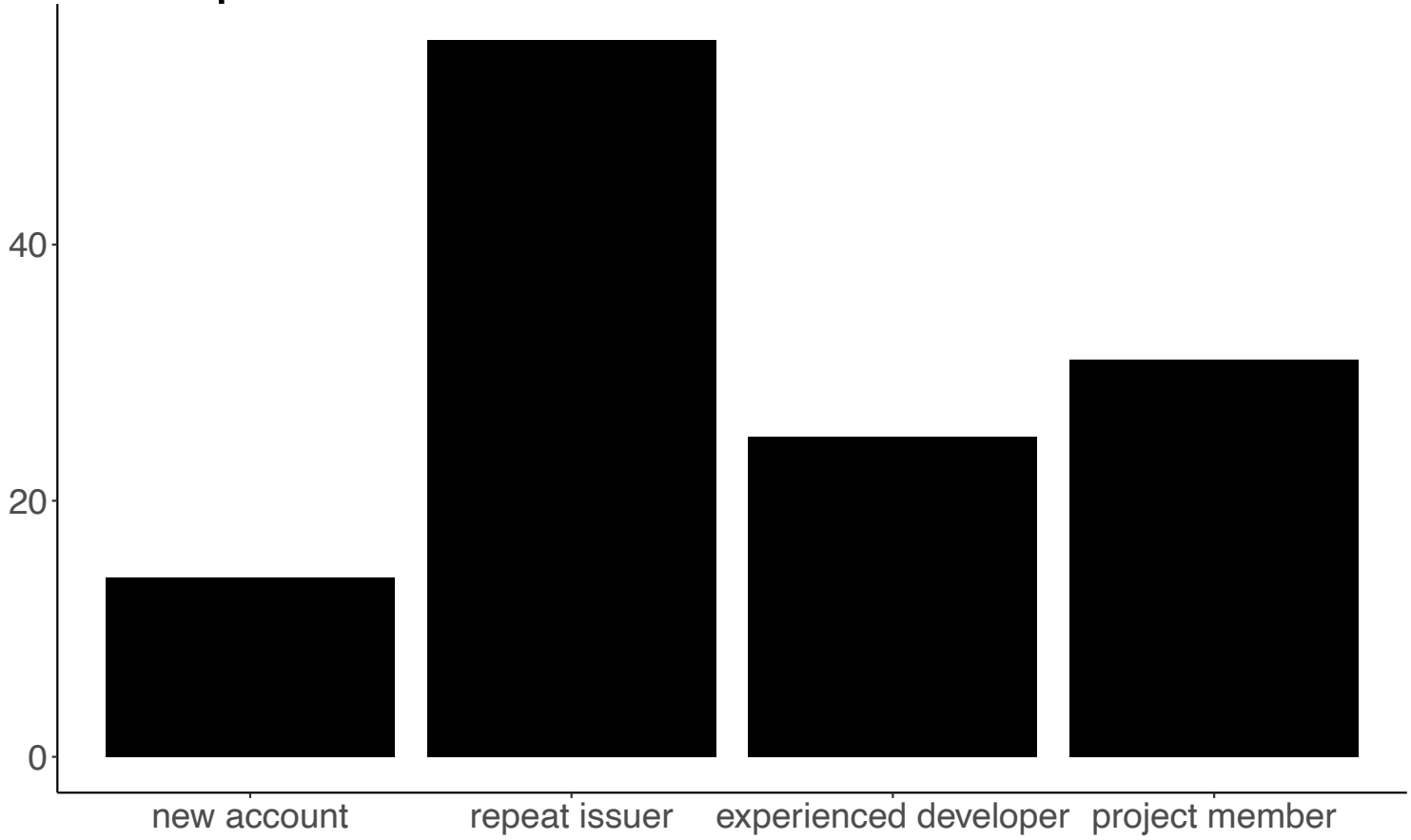
Don't you really see how ridiculous is what's written in the Blog post "Why there is no minimize button".



So maybe it's time to stop trying to be Apple or Windows and forcing people to use something the way YOU want it and give a simple option to make it the way people want it. It's not a major change or something. Just a simple solution.



#2. experienced != non-toxic



[redacted] commented on Apr 23, 2020 Contributor

1. You all are probably not using the latest version of the database -- this is not my problem.
2. The database *does* get `VACUUM` after a large operation before I upload it.
3. Whether the database has been recently `VACUUM` 'd *does not* affect the integrity of the data or SQL queries -- what you are suggesting is complete nonsense.
4. Expect a ban if you absolute idiots continue to spam me with "me toos" from issue **Art cover for games missing** Provenance-Emu/Provenance#1314

some implications

#1. there is space for open-source-specific detectors

elektroda.pl (2) #383

Closed [redacted] opened this issue on May 10, 2020 · 2 comments

[redacted] commented on May 10, 2020 • edited

Did you miss my comment or what?

[redacted] added a commit that referenced this issue on May 11, 2020

[redacted] 800cc90

[redacted] commented on May 11, 2020 Member

@[redacted] You could have pinged me in the original issue, but anyways, this should be fixed, for now.

> Did you miss my comment or what?

Well, No & yes. Your suggestion didn't really help, and I wanted to take a look to come up with a solution, had no time back then, then it slipped my mind, good?

Now, I'm not sure if this is the best way to contribute (assuming this is what you want to achieve here), and your expressing is somehow aggravating, please keep this in mind.

[redacted] closed this on May 11, 2020

#2. research into toxicity harms needed

[redacted] commented on May 16, 2020 • edited

> @[redacted] you should probably just close this thread to comments. Nothing good will come out of this.

Cut the free speech?
Maybe you should close your account?
Something good will come when they realize that their way is not the right way.
Nothing good comes from people like you who get what they give them and have no personal opinion or are scared to talk about things they don't like or agree with.

👍 1

[redacted] commented on May 16, 2020 Member

Thanks for the feedback, but this is an issue tracker—not a discussion forum. It wastes everyone's time to notify developers and designers of new comments, especially when they're extremely disruptive, abusive, and in violation of the Code of Conduct. Since there is no action to be taken here, I'm locking this from further discussion. Feel free to discuss this in a more appropriate location.

[redacted] locked as **too heated** and limited conversation to collaborators on May 16, 2020

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Look, we're spread really thin, help us out by putting in

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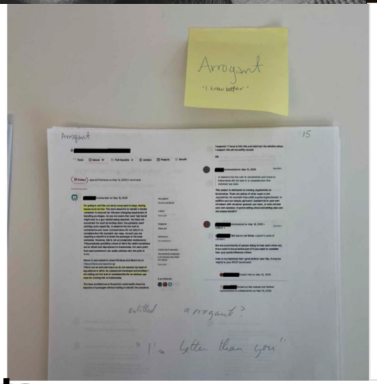
some summarization

Collecting sample



Some Key Takeaways

#1. open source toxicity is built different
#2. experienced != non-toxic
#3. research into toxicity harms needed

courtneymiller@cmu.edu @CourtneyElta