
EDITING ENCYCLOPEDIAS AND OTHER DANGEROUS JOBS

Why Open Collaboration requires a Privacy-Friendly Internet

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DEVELOPING SUCCESSFUL OPEN COLLABORATION PROJECTS

It's all about participation...

MOTIVATE people to contribute

TEACH people to contribute well

KEEP them contributing over time

... and make sure they feel SAFE

PARTICIPATION CAN BE DANGEROUS



Bassel Khartabil

open source software developer,
Wikipedia editor, founder creative
commons Syria

Founded #NewPalmyra project to use
satellite and high resolution imagery to
create open 3d models of ancient
structures that were razed by ISIS last
year.

Jailed for three years, now disappeared.

INTERVIEW STUDY

- Two populations: anonymity seekers (Tor users) who contribute to online projects and Wikipedia editors who are concerned about their privacy.
- Recruited through Tor project blog and Wikimedia lists.

Forte, Andrea et al. (2017) Privacy, Anonymity, and Perceived Risk in Open Collaboration: A Study of Tor Users and Wikipedians. (CSCW).

PARTICIPANTS

12 Tor Participants	Gender	Male: 8; Female: 3; Fluid Gender: 1
	Age	Min: 18; Max: 41 Avg: 30
	Education	High School/Secondary: 3 Undergraduate (incl. current students): 4 Masters: 3 PhD (including current students): 2
	Location	Austria, Belgium, Canada, South Africa, Sweden, United States (7 from northwest, central, midwest, east coast regions)
11 Wikipedia Participants	Gender	Male: 8; Female: 3
	Age	Min: 20; Max: 53 Avg: 30
	Education	Unreported: 1 Undergraduate (incl. current students): 8 Masters: 1 PhD (including current students): 1
	Location	Australia, France, Ghana, Israel, Sweden, United Kingdom, United States (5 from west coast, midwest, east coast regions)

ANALYSIS

- I conducted all interviews via phone, skype, or encrypted audio channels. (1 F2F with only written notes)
 - I conducted open coding on all transcripts and shared emergent themes with coauthors (Andalibi and Greenstadt); we all reviewed and discussed themes.
 - I collapsed themes into affinity groups (axial coding) and continued to discuss emergent trends with coauthors.
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FINDINGS

- **Perceived threats and sources of those threats**
 - **Conditions for lack of perceived threats**
 - **Strategies for mitigating perceived risk**
including *modifying participation* and *enacting degrees of anonymity*
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PERCEIVED THREATS

Threat	# Participants		
	Total	WP	Tor
Surveillance/ Loss of privacy	12	3	9
Loss of employment/ opportunity	10	4	6
Safety of Self/Loved Ones	9	5	4
Harassment/Intimidation	9	8	1
Reputation Loss	6	4	2

Source of Threat	# Participants		
	Total	WP	Tor
Governments	12	3	9
Businesses	4	0	4
Private Citizens	8	4	4

EXAMPLE DATA: SAFETY

Tor: ...they busted his door down and they beat the ever living crap out of him, he was hospitalized for two-and-a-half weeks, and told him, "If you and your family want to live, then you're going to stop causing trouble." And they said that to him in [his native language]... I have a family. So, after I visited him in the hospital, I started—Well, at first I started shaking and went into a cold sweat, then I realized I have to—I started taking some of my human rights activities into other identities through the Tor network.

WP: I pulled back from some of that [Wikipedia] work when I could no longer hide in quite the same way. For a long time I lived on my own, so it's just my own personal risk I was taking with things. Now, my wife lives here as well, so I can't take that same risk.

CONCRETE FEARS OF PARTICIPANTS*

- having their head photoshopped onto porn
- being beaten up
- being swatted
- being doxxed
- being sent pipe bombs
- being shot
- having fake information about them published

* not a complete list

LACK OF PERCEIVED THREATS

- **not interested in controversial subjects**
- **member of a privileged class**

Tor: I come at it from a completely privileged position. I'm an employed white male, so I have no horse in the race. I have colleagues who get the death threats and the rape threats and all the rest of it.

WP: I'm in a privileged position of not being interested in any topics that would be of particular interest to, say the NSA. And of being a white American who is probably not at the top of the watch lists to begin with.

MITIGATING RISK

- **modifying participation**

WP: I let them know who I am so I'm no fun to chase, but I don't edit topics like, for example, women's health topics or sexuality - not because I think I might be wrong about it because I've got my giant obstetrics textbook open right next to me but I don't want the backlash.

- **enacting degrees of anonymity**

- multiple accounts
 - asking others to post
 - using privacy enhancing tools
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IMPLICATIONS

- Encouraging participation is not just about motivation, incentive or skills, it's also about providing contributors with safe, inclusive places to contribute.
 - Threat of a new kind of digital divide between those in the privileged position to participate and contribute their views and skills under their real identities and those whose participation is chilled by censorship, surveillance, or the need to partition off parts of their identity.
 - Possible socio-technical solutions...
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WHAT NEXT?

1. A disconnect between Internet contributors' threat models and privacy protections that are supported by service providers like Wikipedia.

Some people reported that when they were unable to use privacy enhancing tools, they stopped contributing. But service providers aren't supporting tools like Tor. In order to develop privacy-enhancing toolkits that mitigate threats of both users and providers, we need to understand what threat models inform decisions at organizations that provide platforms for participation.

WHAT NEXT?

2. We saw chilling effects on participation in projects like Wikipedia due to privacy concerns and a lack of access to privacy-enhancing tools.

We know that some people who want to contribute to a free global exchange of ideas and knowledge limit their contributions due to privacy concerns and lack of access to anonymity protections, but we do not know the extent of that loss. Can we measure what **isn't** being contributed?

WHAT NEXT?

3. Anecdotal evidence of edits reverted because a participant stopped editing under his well-known username. He believed his edits were just as good, but people didn't know it was him.

To what extent does the perception of anonymity influence perceptions of quality in online environments?

BRAINSTORMING SOCIOTECHNICAL SOLUTIONS

- **Handling temporal features of privacy concerns**
Open collaboration systems could be designed to offer people the option of creating a new technical identity that is publicly unlinked to their past technical identities when taking on significant new responsibilities and roles but retain markers of trustworthiness or experience.
 - **Supporting users of the anonymous web**
Experimenting with existing tools like pending changes for edits from Tor might help... but needs to incorporate Tor users in testing.
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THANKS

questions now...

or later:
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This work was partially supported by National Science Foundation grants #1253302, 1347151, and 1253418.

The logo for Zooniverse, featuring the word "ZOONIVERSE" in a large, bold, white, sans-serif font on a dark grey background. Below it, the text "REAL SCIENCE ONLINE" is written in a smaller, all-caps font.

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