

The Value of Anonymity: Evidence from Wikipedia

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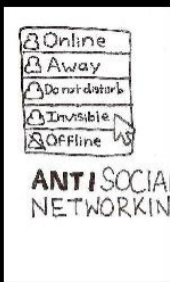
Nazanin Andalibi, Shruti Sannon: University of Michigan

Aaron Shaw: Northwestern University

Nora McDonald: University of Cincinnati

November 12, 2022







["Anonymity and Privacy," mike (fbobolas). CC BY-SA 2.0. Via flickr.]

Why do people seek anonymity?

1. Violation of Laws and Terms of Service?



A Forte, N Andalibi, R Greenstadt. Privacy, Anonymity, and Perceived Risk in Open Collaboration: A Study of Tor Users and Wikipedians in *Proceedings of the 2017 ACM Conference on Computer Supported Cooperative Work and Social Computing (CSCW 2017)*. <https://dl.acm.org/doi/10.1145/2998181.29982733>

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1. Violation of Laws and Terms of Service?
2. Principle?
3. Safety?



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["Image of Bassel Khartabil (Safadi) taken in Seoul" Joi Ito. CC 2.0. Via Wikimedia Commons.]



[Image of Pavel Pernikau from <https://prisoners.spring96.org/en/person/pavel-pjarnikau>. CC By 3.0.]



[Image of Mark Bernstein from <https://prisoners.spring96.org/en/person/mark-bernsztein>. CC By 3.0.]

Service provider perspective

1. Concerns about harassment



Nora McDonald and Andrea Forte. 2020. The Politics of Privacy Theories: Moving from Norms to Vulnerabilities. *Proceedings of the 2020 ACM Conference on Human Factors in Computing Systems*. (CHI 2020)

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Service provider perspective

1. Concerns about harassment
2. Impact of identity policies can be hard to see



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1. Concerns about harassment
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Service provider perspective

1. Concerns about harassment
2. Impact of identity policies can be hard to see
3. Perspective of vulnerable populations may be unknown
4. Platforms see a “closure = safety” versus “openness = risk” trade-off



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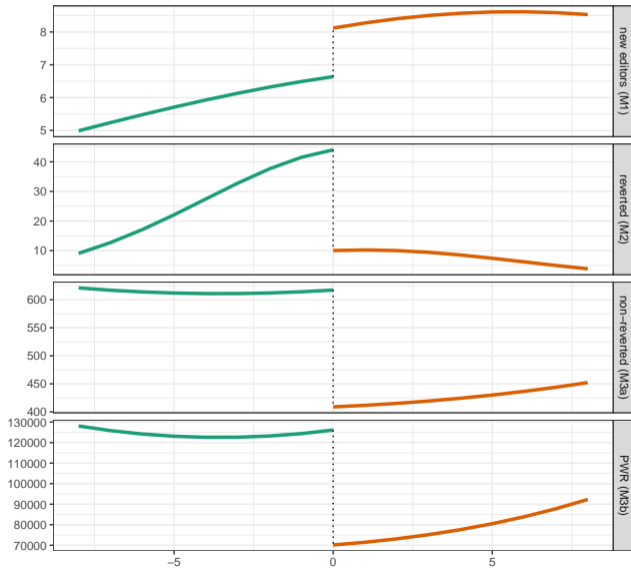
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Hidden Costs: Fandom.com Example

The screenshot shows the Fandom.com homepage with a dark purple and red color scheme. At the top, the Fandom logo is centered above a search bar with the text "Search the world's largest fan wiki platform". Below the search bar is a grid of four featured article teasers, each with a category label (TV, MOVIES, MOVIES, GAMES) and a thumbnail image. The teasers are: 1. 'Ms. Marvel' Head Writer on Fan Reaction to That Huge Finale Reveal (TV); 2. Thor: Love and Thunder Fans Have a Voracious Appetite for One Breakout Character (MOVIES); 3. Star Wars on Disney's New Cruise Ship Includes Caged Porgs and Tasty Drinks (MOVIES); 4. Evil Dead and the Good and Bad of Horror Movie Video Games (GAMES). Below this grid is a navigation bar with categories: TOP MIXES, GAMES (Terraria, Microsoft, Genshin Impact), MOVIES (Star Wars, Harry Potter, Marvel), TV (Memory Alpha, Animeverse, SpongeBob), ANIME (One Piece, Naruto, My Hero Academia), and a button for "Plus over 150,000 more to explore". The main content area is titled "MOVIES" and "VIEW ALL". It features a section for "Popular Wiki Pages in Movies" with six thumbnails: Harry Potter, Neo, Harley Quinn, Snake Eyes, Disney Princesses, and Godzilla. Below this is a "Top News Stories in movies" section with two large article teasers: "Thor: Love and Thunder Fans Have a Voracious Appetite for One Breakout Character" (dated July 12) and "Star Wars on Disney's New Cruise Ship Includes Caged Porgs and Tasty Drinks" (dated July 12). The first teaser includes a sub-headline: "The MCU community has reacted to Thor: Love and Thunder -- find out what fans have been searching for the most and what they've been saying." The second teaser includes a sub-headline: "We investigate the varied Star Wars experiences on the new Disney Wish cruise ship, from encountering familiar creatures to a \$5000 drink."

Natural Experiment: Enable Account Requirement



Hidden Costs and Spill-over

Identity policy changes can deter positive participation



BM Hill, A Shaw. The Hidden Costs of Requiring Accounts: Quasi-Experimental Evidence From Peer Production. Communication Research. Preprint: <https://arxiv.org/abs/2111.10688>



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Welcome to Wikipedia,

the free encyclopedia that anyone can edit.
6,546,853 articles in English

From today's featured article



A hand reaching for the necktie worn by Annabelle West (Laura La Plante)

The Cat and the Canary is a 1927 American silent horror film directed by German Expressionist filmmaker Paul Leni. An adaptation of John Willard's 1922 black-comedy play of the same name, the film stars Laura La Plante, Forrest Stanley and Creighton Hale. The plot revolves around the death of a man, and the reading of his will 20 years later. A woman inherits her uncle's fortune, but when she and her family spend the night in his mansion they are stalked by a mysterious figure (*scene pictured*). They have also been told that a lunatic has escaped from an asylum and is hiding in the mansion. The film is part of the genre of **comedy horror films** inspired by 1920s Broadway plays. *The Cat and the Canary* blends expressionism with humor, a style for which Leni was notable. It was influential in the "old dark house" genre of films popular from the 1930s through the 1950s. The film was one of

Universal's early horror productions, and is considered to be the "cornerstone of Universal's school of horror".
([Full article...](#))

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Did you know ...

- ... that touch-screen technology, pay-at-the-pump, car phones, and Coca-Cola Cherry were shown at the **1982 World's Fair** (*pictured*)?
- ... that **Yosef Shenberger** was inspired to add *stained glass* and other decorative elements to his synagogues through his study of ancient ruins?
- ... that the software-testing framework **pytest** has been described as a key ecosystem project for the **Python** programming language?
- ... that **Irving L. Branch** headed the X-15 rocket program and the first test flight of the B-70 Valkyrie supersonic bomber?
- ... that the **Maizbhandari** order of Sufism in Bangladesh is each year host to reportedly the fifth-largest gathering of Muslims in the world?
- ... that Danish-born soprano **Louise Janssen** appeared at the Grand Théâtre de Lyon as Eva in the French premiere of Wagner's *Die Meistersinger von Nürnberg*?
- ... that **HMS Chichester** was designed to carry 44 guns but never carried more than 22?
- ... that a **South Dakota radio station** once played nothing but various recordings of "Amazing Grace"?

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Sunisphere at the 1982 World's Fair

In the news

- Amid protests over the economic crisis, Ranil Wickremesinghe (*pictured*) **is elected** President of Sri Lanka by the parliament.
- Heat waves** across Europe leave more than 4,200 people dead.
- NASA releases **the first operational image** taken by the James Webb Space Telescope.
- Angola's former president **José Eduardo dos Santos** dies at the age of 79.
- Former Japanese prime minister Shinzo Abe **is assassinated** while giving a speech in Nara.



Ranil Wickremesinghe

Ongoing: [COVID-19 pandemic](#) · [Russian invasion of Ukraine](#)

Recent deaths: [Ángela Abós Ballarín](#) · [Larry Jeffrey](#) · [Patrick Michaels](#) · [José Ramón Balaguer](#) · [Sixtus Lanner](#) · [Claes Oldenburg](#)

[Nominate an article](#)

On this day

July 21: Belgian National Day (1831)

- 1378 – Unrepresented labourers **revolted and violently took over** the government of the Republic of Florence, demanding that they be granted political office.
- 1952 – **An earthquake** registering 7.3 *M_w* struck the southern San Joaquin Valley in California, causing 12 deaths and an estimated \$60 million in property damage.
- 1959 – The inaugural **International Mathematical Olympiad**, the leading mathematical competition for pre-university students, began in Romania.
- 1960 – **Sirimavo Bandaranaike** (*pictured*) was elected the prime minister of Ceylon, becoming the world's first democratically elected female head of government.
- 1977 – Libyan forces carried out a raid at Sallum, sparking a **four-day war** with Egypt.



Sirimavo Bandaranaike

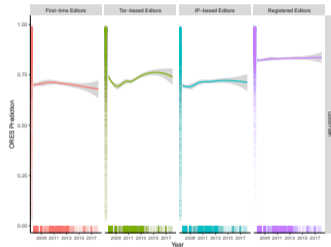
Fiammetta Wilson (d. 1920) · **Louis Vauxcelles** (d. 1943) · **Rilwanu Lukman** (d. 2014)

More anniversaries: [July 20](#) · **[July 21](#)** · [July 22](#)

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But anonymity-seekers may be a lot like everyone else

- Context: Wikipedia



C Tran, K Champion, A Forte, BM Hill, R Greenstadt. Are anonymity-seekers just like everybody else? An analysis of contributions to Wikipedia from Tor in *2020 IEEE Symposium on Security and Privacy (SP)* Preprint: <https://arxiv.org/pdf/1904.04324.pdf>

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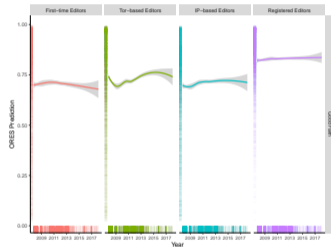
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- 4-group comparison:

Newcomers

Anonymity-seekers using Tor

Contributors without accounts

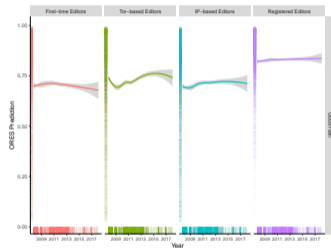
Accountholders



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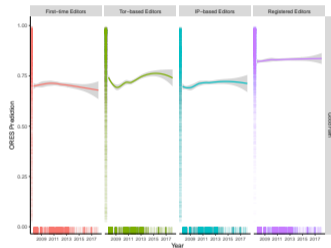
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- 4-group comparison:
 - Newcomers
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 - Contributors without accounts
 - Account holders
- Anonymity-seekers at the same or slightly better quality than newcomers, non-account holders



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- Different topics (more politics, religion, tech, less American football)



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Deep Dive: What were those contributions?

- Many typical edits:

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 - removing conspiracy theories

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But the bad stuff!

- Same four groups:
 - Newcomers
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 - Contributors without accounts
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K Champion. Characterizing Online Vandalism: A Rational Choice Perspective in *ACM International Conference on Social Media and Society* (SMSociety 2020). Preprint: <https://arxiv.org/abs/2007.02199>

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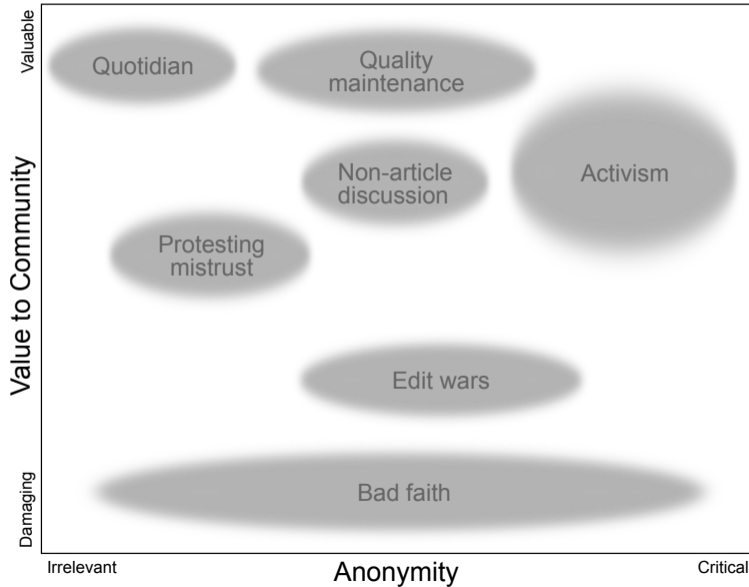
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- Lower rates of vandalism from Tor than those without accounts
- Tor users challenged attempts to block them



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Analyzing contributions



Successful Strategies for Remaining Open to Anonymity Seekers

1. Incorporate anonymity-seekers into the operational model

C Tran, K Champion, BM Hill, R Greenstadt. The risks, benefits, and consequences of pre-publication moderation: Evidence from 17 Wikipedia language editions in *Proceedings of the ACM on Computer Supported Cooperative Work and Social Computing* (CSCW 2022). Preprint: <https://arxiv.org/abs/2202.05548>

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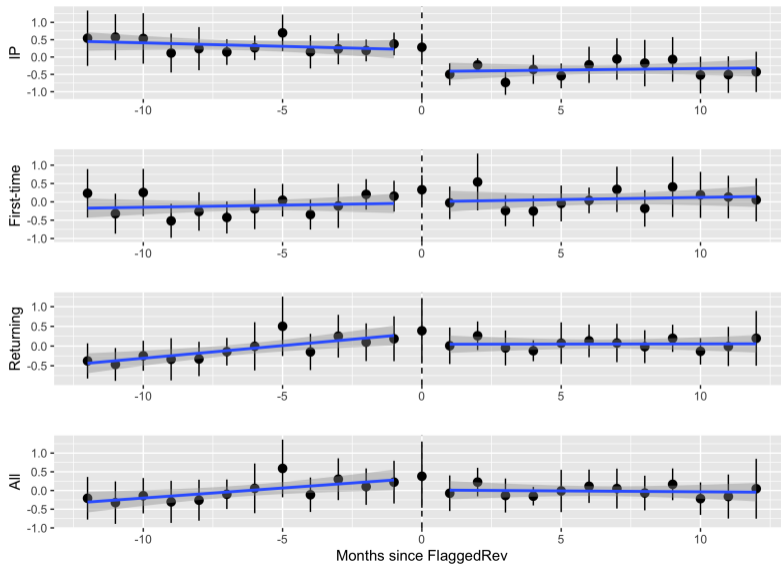
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Success Example: Pre-publication Moderation



1. Examining the value of anonymity in handling taboo subjects (Under Review)

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2. Extending pre-publication moderation solutions (In Preparation)

Forthcoming and Future Work

1. Examining the value of anonymity in handling taboo subjects (Under Review)
2. Extending pre-publication moderation solutions (In Preparation)
3. Finding new settings and techniques for measuring the value of anonymity

People have good reasons to be anonymous online....

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but platforms and communities may respond to them with suspicion

People have **good reasons to be anonymous** online....

but platforms and communities may respond to them with suspicion
and not take up their perspective.

Anonymity-seekers are often comparable to other groups...

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like newcomers and casual contributors.

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like newcomers and casual contributors.

They may offer some unique value or tackle riskier types of work.

When they act badly, it may be similar to bad behavior we see from others...

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although banning them for being an anonymity seeker
may make them angry, or trigger a desire to subvert the block....

When they act badly, it **may be similar to bad behavior we see from others...**

although banning them for being an anonymity seeker
may make them angry, or trigger a desire to subvert the block....
and **there are options** for mitigating negative behaviors without banning.

How can we respond?

- Challenge assumptions about anonymity—in policies, platforms, and research.



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- Continue to innovate around anonymity.



How can we respond?

- Challenge assumptions about anonymity—in policies, platforms, and research.
- Continue to innovate around anonymity.
- Build partnerships between platforms, research teams, and communities.



Let's connect!



Curious about these results?

Anticipating changes in identity policies?

Interested in research about anonymity?

Let's talk!

kaylea@uw.edu

[@kayleachampion](#)

[social.coop/@kaylea](#)

theanonymityproject.org

→ executive summary here: kayleachampion.com

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