



Mastodon Rules: Characterizing Formal Rules on Popular Mastodon Instances

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ABSTRACT

Federated social networking is an increasingly popular alternative to more traditional, centralized forms. Yet, this federated arrangement can lead to dramatically different experiences across the network. Using a sample of the most popular instances on the federated social network Mastodon, we characterize the types of rules present in this emerging space. We then compare these rules to those on Reddit, as an example of a different, less centralized space. Rules on Mastodon often pay particular attention to issues of harassment and hate — strongly reflecting the spirit of the Mastodon Covenant. We speculate that these rules may have emerged in response to problems of other platforms, and reflect a lack of support for instance maintainers. With this work, we call for the development of additional instance-level governance and technical scaffolding, and raise questions for future work into the development, values, and value tensions present in the broader federated social networking landscape.

CCS CONCEPTS

• **Human-centered computing** → **Empirical studies in collaborative and social computing**.

KEYWORDS

online communities; community rules; Mastodon

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1 INTRODUCTION AND BACKGROUND

In order to be successful, online communities need to be able to effectively regulate the behavior of their community members [28]. This regulation can take a variety of different forms, and may be enforced through architecture, norms, market, or law [30]. For example, “community-created yet formalized rules” serve to regulate at the norm-level [18], while boycotts of particular products or platforms operate at the market-level [25, 31]. The combination of norm- and market-level factors often work together, and can drive users to “vote with their feet.” At a larger scale, this leads to migrate

either within [13], or between [17] platforms, as people seek out better alternatives.

Popular interest in federated social networks has dramatically increased since October 2022, driven in part by an exodus of users from Twitter following Elon Musk’s acquisition [22]. In contrast to more centralized social networking sites like Twitter or Facebook, federated social network accounts exist in collections of different servers run via open-source software, and, similar to email, connect through a shared protocol [29].

At the time of writing, one of the most popular federated social networks is Mastodon, an open-source microblogging service, which uses the decentralized social networking protocol ActivityPub to connect different instances [3].

Because Mastodon is structured quite differently from other social networking sites, understanding the operation of this networked collection of independent servers has been a challenge for many [14]. As a result, many people have compared this arrangement to other “community-focused social networks,” such as Discord and Reddit, in that Mastodon instances can be thought of as “sub-communities” [36]. Facebook and Twitter often deploy commercial content moderation whereby paid content moderators engage in hierarchical moderation practices [20]. More decentralized spaces, such as Reddit, rely on a combination of platform policies and the work of bottom-up, volunteer moderators to govern content. Thus, the experiences of those who use the platform are informed by the interplay of different levels of governance [11]. This can lead to materially different experiences for members of different sub-communities. Exploring this phenomenon via the analysis of “community-created yet formalized rules” on Reddit, Fiesler and colleagues found that these rules are heavily context-dependent, while also having commonalities across the site [18]. The contextuality described in the composition of sub-communities on Reddit contrasts with the common one-size-fits-all approach to platform policy.

The arrangement of instances within Mastodon is qualitatively similar to that of subreddits on Reddit. Each are mostly autonomous subparts of a larger whole: Mastodon instances constitute part of the broader Fediverse, and subreddits make up Reddit. Both Mastodon instances and subreddits are often organized around a unifying principle, like an identity or affinity characteristic. Additionally, users of each often interact with similar groupings of instances or subreddits. However, the organization of Reddit is more hierarchical than Mastodon. While individual subreddits do vary widely in topic, size, rules and values, they are each still accountable to Reddit as a platform (via the content and privacy policies [4, 6]). While Mastodon instances similarly vary and also share a high-level expectations document, the Mastodon Covenant [5], they are not accountable to a higher platform authority in the same way that subreddits are. As such, the degree to which this difference



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is reflected in the rules and values of each is a meaningful open question.

The purpose of this study is to provide an initial exploratory description of the ecosystem of rules in the federated social media landscape at the Mastodon instance level. As such, we take inspiration from Fiesler and colleagues [18] in our approach, and elect to examine public, formalized rules present within different instances on Mastodon. Recognizing that these instances vary widely, we seek to understand the following research questions:

- Which rules are present in Mastodon instances, and in what frequencies?
- How do rules present in Mastodon instances compare and contrast to rules within subreddits?
- Which rules appear at the same time within an instance, and how do they relate to the Mastodon Covenant?

To answer these questions, we take a mixed-methods approach to analyze the rules of popular Mastodon instances. Our findings reveal that popular instances on Mastodon are comparatively much more concerned with harassment and hate speech, and often have collections of rules that appear together. From these findings, we begin to see a picture of what the broader alternative social networking ecosystem values both in terms of the people and behavior it privileges. This motivates additional research questions around governance online, community response to newcomers, and the role that instance maintainers play in the socio-technical infrastructure of online spaces.

2 METHODS

Data. For this work, we collected a dataset of the top 1,000 Mastodon instances sorted by active users, as reported by the popular tool *instances.social* in March 2023. The instances ranged in size from nearly 100,000 active users to around 30. We then collected individual rules by scraping from the “Server Rules” section of each listed instance’s publicly facing “About” page. We collected 5,317 individual rules in total. We excluded instances that were down at the time of data collection (15 instances), had rules written in a language other than English (275 instances, 1,814 rules), or had no rules listed in the “Server Rules” section (215 instances). We were left with a total of 495 unique instances and 3,503 individual rules. For the purpose of this initial qualitative analysis, we randomly selected 100 instances from this set of 495 to ensure that a range of instance types and sizes were included. This sample includes 690 rules.

In this analysis, we retrieved publicly facing rules from a variety of communities. Heeding the advice of Fiesler and Proferes [19], we considered the contextuality of this information in making ethical decisions about collection and analysis. These rules are all public, but are simultaneously designed to be public-facing, geared towards potential newcomers, and internal-facing, geared towards existing members. Similarly, many of these communities seem to be hosted by and for groups that may have experienced significant harassment on other platforms. As such, we have chosen to analyze and report findings in aggregate, to avoid directing unwanted attention towards these communities.

Analysis. Using the codebook from Fiesler and colleagues as a reference [18], the first author examined rules from the top 50

instances (411 rules) of the 495 unique instances (3,503 rules) in the full dataset in descending order of number of active users (*e.g.*, *mastodon.social*, *mstdn.social*, *mastodon.world*), in an iterative inductive style [12]. When a new rule category appeared more than five times in the set of rules from the top 50 instances, each previous rule was examined with this new category in mind. In the process of this initial coding, new rule codes became saturated. Though all authors consulted during the analysis process, the first author conducted all of the final coding to ensure consistency across the dataset.

The first author then used the codebook to manually code the 100 instance sample of rules ($N = 690$) in the dataset. The full list of codes can be found in in Table 1. We describe the types of rules, their relationships to other rules within instances, and to the rules found in subreddits by Fiesler and colleagues in the next section.

3 RESULTS

In relation to the categories found from Fiesler and colleagues’ work on subreddits [18], we found a sizable collection of rule categories that differ on Mastodon in our inductive coding step. For differences directly attributable to the tacit differences between settings, we removed the category. For example, many rules on Reddit center on “Voting” (as content is surfaced based on upvotes and downvotes), while there is no analogue across Mastodon instances.

More interestingly, there are a number of rules across the Mastodon dataset that are materially different in nature as compared to those on Reddit. For example, 34% of the instances in our sample dataset had a rule against the incitement of violence. There are also a collection of related, but distinct categories that seem more overarching than those typically found at the subreddit level. In particular, there are a number of rules against illegal content, and rules that require content to be presented in a particular language for the purposes of moderation.

While these rules are not representative of Mastodon as a whole, the relative proportions of these rule types (Table 1) is telling. When comparing Mastodon instances in our sample and subreddits in the large sample from Fiesler and colleagues [18], we see rules about Hate Speech, Harassment, and Doxxing/Personal Info are far more common on Mastodon, while rules about Consequences/Moderation/Enforcement, Behavior/Content/Format Allowed, and Links & Outside Content are much less common. This contrast may suggest that these spaces have different values and purposes.

To analyze the co-occurrence of different rule types across instances, we one-hot encode the presence of each rule type within each instance by assigning a value of 1 if an instance has any rules of a given type, and 0 otherwise. We then analyzed the pairwise Pearson’s r for each rule type in the sample. In this context, a value of 1 indicates that a linear equation describes the relationship between rule type i and rule type j perfectly. In other words, a value of $r_{ij} = 1$ indicates that every Mastodon instance in the sample either has both *ruletype_i* and *ruletype_j*, or neither. Similarly, a value of -1 indicates that every instance either has *ruletype_i* or *ruletype_j*. A value of 0 indicates that there is no relationship between these rule types.

Rule Type	Mastodon Instances	Subreddits
Restrictive	93%	99.4%
Prescriptive	83%	99.8%
Hate Speech	71%	1.6%
Reddiquette/Mastodon Covenant	67%	5.9%
Harassment	64%	2.7%
NSFW	60%	4.1%
Personality	53%	30.4%
Content Warnings	50%	N/A
Illegal Content	48%	N/A
Consequences/Moderation	43%	90.5%
Spam	42%	1.7%
Incitement of Violence	34%	N/A
Mis/Disinformation/Conspiracy	32%	N/A
Doxing/ Personal Info	31%	0.5%
Advertising & Commercialization	30%	7.6%
Images	28%	0.8%
Brigading/Dogpiling	27%	0.2%
Behavior/Content/Format Allowed	21%	99.9%
Impersonation	20%	N/A
Codes of Conduct	17%	N/A
Copyright/ Piracy	16%	1.0%
Server Interference	14%	N/A
Automated Tools	14%	N/A
Off-topic/topic Specific	12%	15.6%
Politics	9%	0.1%
Low-Quality Content	8%	0.8%
Reposting/Crossposting	8%	1.6%
Trolling	7%	0.3%
Links & Outside Content	7%	24.2%
Spoilers	4%	0.7%

Table 1: The prevalence of Rules in Mastodon and Reddit sub-communities. Rules can be both prescriptive and restrictive and can cover multiple content categories. For example, "Treat others with respect" is a prescriptive personality rule, "Don't be a jerk" is restrictive personality rule and "Be civil and be kind. If you need to criticise, punch up, never down. Hate speech, intended to incite or offend, is not acceptable" is a both prescriptive and restrictive rule that covers multiple categories, including personality, hate speech, and harassment. "Mastodon Instances" refers to those in the sample dataset (100 instances, 690 rules), and "Subreddits" refers to those in Fiesler and colleagues large-scale dataset [18].

We find several pairs of rules that often appear within a particular Mastodon instance. The most correlated pairings are rules around dogpiling and doxing ($r = 0.810$), the Mastodon Covenant and hate speech ($r = 0.723$), and content warnings and NSFW content ($r = 0.653$). Noticeably not strongly correlated with any other rule types were rules against illegal content. We discuss these findings in relation to the previous work in the following section.

Limitations. Because we sampled based on instance popularity, we are systematically missing the long tail of small instances (<30 active users) from this analysis. It is possible that smaller instances have materially different rules due to either size, or nature, and this provides a direction for future study. Additionally, a significant portion of the originally explored instances had rules in a language other than English. Because a number of the findings suggest that rules are quite contextual, it is possible that these rules fall into a significantly different category than any we described.

4 DISCUSSION AND FUTURE WORK

In comparison to Reddit, rules on Mastodon instances seem to emphasize the need to create spaces that avoid common harms like harassment and hate speech. Yet, maintaining these spaces presents a governance and content moderation challenge. Our examination of rules on Mastodon suggests that instance administrators may not be adequately supported as they seek to reduce harm in their spaces.

Mastodon Covenant vs Reddiquette. While instances within Mastodon are analogous to subreddits, they vary most significantly in their relationship with the larger whole. We find that the prevalence of rules dedicated to following the Mastodon Covenant [5] is much higher than rules dedicated to Reddiquette [8], despite the Mastodon Covenant having less power over its users. This may be a signaling effect — Mastodon instances proclaim and own their values

in a way not seen on Reddit. The consequences of breaking Reddiquette include post removals, bans, or quarantines [10], while the consequences of breaking the Mastodon Covenant is the removal of the offending instance from the official list of available instances. On Mastodon, outside of defederation, there are few options available to assert power over any one instance. Therefore, one direction for research within the CSCW community might be to study the impacts of this arrangement, with attention to both information sharing about known misbehaving instances [23], and how instances make defederation decisions.

While Mastodon is a looser collection of instances, the commonalities between our sample and the rules on Reddit hint towards a similar sense of culture across each domain. Mastodon has elements of techno-libertarian leanings, similar to what has been described in other spaces like Reddit [33]. Similarly, today, both spaces have rules against illegal activities and have norms around the use of content warnings. However, rules on Mastodon often explicitly engage with systemic oppression across many different intersectional identities beyond what is required by the Mastodon Covenant. For example, this sample very often had rules against some combination of ableism, racism, sexism, homophobia, xenophobia, or casteism, while Reddiquette's stance is much less direct – “Remember the human” and “Don't be (intentionally) rude at all” [8]. While there are certainly some commonalities between the Mastodon Covenant and Reddiquette in the manifestation of rules – especially in their techno-libertarian leanings – Mastodon instances seem to have more of an orientation towards justice. Future work should focus on how these rules and norms come to be, and how they are enforced and interpreted by users [9, 21].

These differences between Reddit and Mastodon might be explained by a number of factors, including a difference in the timing of these analyses, and Mastodon's positioning as an alternative to traditional social media. The data used in the analysis from Fiesler and colleagues was collected from November 2016 to April 2017. Since then, awareness and popular interest in the harms of online spaces have increased dramatically [27]. It is quite possible that if the analysis of Reddit's rules were performed today, many of the new categories found in our analysis (e.g., Mis/ Disinformation/Conspiracy) would have been more prominent. Similarly, many of the rules on Mastodon may have emerged in response to the public problems plaguing other domains – for example, the backlash against sex workers online in the wake of the passage of FOSTA in the US [16]. There were a significant number of Mastodon instances centered around some marginalized identity, and these may have been developed in response to either widespread harassment from others on a different platform, or as a result of changing platform policies.

Common rules on Mastodon instances may have emerged as a response to widespread issues with existing platforms, and these policy choices are central to platform exodus and uptake [17]. Demonstrating this self-awareness, one Mastodon instance in the sample included a rule against “behavior that forces us to create new rules.” Using this work's findings as a baseline, one promising extension of this work might be to examine how rules on Mastodon co-evolve with the broader community [26, 32].

Humans and Infrastructure involved in Running an Instance. The rules analyzed remind us that maintainers and admins are central to the governance of Mastodon instances, and that each instance is sometimes governed by a single person. As such, many of these instances have rules that assert the power of the administrators of their instance, while simultaneously hedging their liability with rules against “illegal content,” sometimes with attention to particular content (e.g., child sexual abuse material) or locale. Our findings suggest that if we value the ability for individuals to create their own spaces, the CSCW community should create more technical and legal support for instance maintainers.

The prevalence of rules against illegal content and their lack of strong correlation with rules of any other type reflects the salient liability challenges of running an instance. There is a prevailing perception that Mastodon instances are legally accountable to wherever their servers are physically located. In the United States, this comes with a number of legal and regulatory obligations [1, 2].

The nuance of how these laws apply is evidently not clear to many instance administrators. In explaining their decision to shut down an instance they created, The Financial Times' hesitation is revelatory of the ongoing challenges of running even a small platform.

“Do these same conclusions hold for a sort-of-but-not-really decentralised silo of user generated content? Dunno. The only place to find out for sure would be in court, and we'd really rather not.” [15].

The Financial Times is much more resourced and, as a media company, ought to be much more prepared than the individuals that run instances. While it is possible that reputational risk may have outweighed formal legal liability in this case, their apprehension is telling of the current (perceived) fluidity in the regulatory landscape around federated social media, and the lack of formal guidance provided by Mastodon.

While the Mastodon Covenant is quite permissive, a large number of third party tools functionally sway the values of particular instances. Mastodon argues that running an instance provides “absolute control over your own voice on the web, not subject to anyone else's rules or whims” [7]. This is true, but only for those with the technical skills necessary to perform the complex series of system administration tasks necessary to spin up and maintain the infrastructure. This arrangement of instances reflects a kind of “implicit feudalism” wherein admins act as “benevolent dictators for life” [34]. Thus, the primacy of technoculture, coupled with the *laissez-faire* attitudes towards rules, affords absolute control only to some, and has the potential to enable the same “toxic technocultures” that Massanari describes of Reddit [33]. The coupling of unilateral instance control and the high infrastructural barrier towards set up makes Mastodon's promise of true autonomy nearly impossible. If we believe that instance autonomy is worth having broadly, both the Mastodon and CSCW communities should create additional scaffolding with particular attention to the governance, and technical challenges of running an instance. In turn, this motivates further questions around who gets to be a moderator, the values that they bring, and the degree to which rules are in tension with moderator values [24, 35]

In our exploration of the rules of popular Mastodon instances, we begin to fill in the picture of what the broader federated social network ecosystem values and privileges. This study establishes a launching point from which the community can better understand governance online, and the role that the people play in the socio-technical infrastructuring of online spaces.

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REFERENCES

- [1] [n. d.]. 17 U.S. Code § 512 - Limitations on liability relating to material online. <https://www.law.cornell.edu/uscode/text/17/512>
- [2] [n. d.]. 47 U.S. Code § 230 - Protection for private blocking and screening of offensive material. <https://www.law.cornell.edu/uscode/text/47/230>
- [3] [n. d.]. ActivityPub. <https://www.w3.org/TR/activitypub/>
- [4] [n. d.]. Content Policy - Reddit. <https://www.redditinc.com/policies/content-policy>
- [5] [n. d.]. Mastodon Server Covenant for joinmastodon.org. <https://joinmastodon.org/covenant>
- [6] [n. d.]. Reddit Privacy Policy. <https://www.reddit.com/policies/privacy-policy>
- [7] [n. d.]. Running your own server - Mastodon documentation. <https://docs.joinmastodon.org/user/run-your-own/>
- [8] 2023. Reddiquette. <https://reddit.zendesk.com/hc/en-us/articles/205926439-Reddiquette>
- [9] Jie Cai and Donghee Yvette Wohn. 2021. After Violation But Before Sanction: Understanding Volunteer Moderators' Profiling Processes Toward Violators in Live Streaming Communities. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (Oct. 2021), 410:1–410:25. <https://doi.org/10.1145/3479554>
- [10] Eshwar Chandrasekharan, Shagun Jhaver, Amy Bruckman, and Eric Gilbert. 2022. Quarantined! Examining the Effects of a Community-Wide Moderation Intervention on Reddit. *ACM Transactions on Computer-Human Interaction* 29, 4 (March 2022), 29:1–29:26. <https://doi.org/10.1145/3490499>
- [11] Eshwar Chandrasekharan, Mattia Samory, Shagun Jhaver, Hunter Charvat, Amy Bruckman, Cliff Lampe, Jacob Eisenstein, and Eric Gilbert. 2018. The Internet's Hidden Rules: An Empirical Study of Reddit Norm Violations at Micro, Meso, and Macro Scales. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (Nov. 2018), 1–25. <https://doi.org/10.1145/3274301>
- [12] Kathy Charmaz. 2006. *Constructing grounded theory*. Sage Publications, London ; Thousand Oaks, Calif.
- [13] Cai Davies, James Ashford, Luis Espinosa-Anke, Alun Preece, Liam D Turner, Roger M Whitaker, Mudhakar Srivatsa, and Diane Felmlee. 2021. Multi-Scale User Migration on Reddit. In *15th International AAAI Conference on Web and Social Media*. Virtual, 9. <https://doi.org/10.36190/2021.13>
- [14] Jesus Diaz. 2022. Using Mastodon is way too complicated to ever topple Twitter. <https://www.fastcompany.com/90808984/using-mastodon-is-way-too-complicated-to-ever-topple-twitter>
- [15] Bryce Elder. 2023. We tried to run a social media site and it was awful. *Financial Times* (Jan. 2023). <https://www.ft.com/content/8d995a24-d77c-4208-a3a6-603d8788ebcd>
- [16] Megan Farokhmanesh. 2018. The anti-sex trafficking crackdown is pushing sex workers to Mastodon. <https://www.theverge.com/2018/4/11/17188772/trump-sesta-fosta-bill-swifter-sex-workers-mastodon>
- [17] Casey Fiesler and Brianna Dym. 2020. Moving Across Lands: Online Platform Migration in Fandom Communities. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW1 (May 2020), 1–25. <https://doi.org/10.1145/3392847>
- [18] Casey Fiesler, Jialun Jiang, Joshua McCann, Kyle Frye, and Jed Brubaker. 2018. Reddit Rules! Characterizing an Ecosystem of Governance. *Proceedings of the International AAAI Conference on Web and Social Media* 12, 1 (June 2018). <https://doi.org/10.1609/icwsm.v12i1.15033> Number: 1.
- [19] Casey Fiesler and Nicholas Proferes. 2018. "Participant" Perceptions of Twitter Research Ethics. *Social Media + Society* 4, 1 (Jan. 2018), 205630511876336. <https://doi.org/10.1177/205630511876336>
- [20] Tarleton Gillespie. 2018. *Custodians of the Internet: Platforms, Content Moderation, and the Hidden Decisions That Shape Social Media*. Yale University Press, New Haven, UNITED STATES. <http://ebookcentral.proquest.com/lib/ucb/detail.action?docID=5431574>
- [21] Oliver L. Haimson, Daniel Delmonaco, Peipei Nie, and Andrea Wegner. 2021. Disproportionate Removals and Differing Content Moderation Experiences for Conservative, Transgender, and Black Social Media Users: Marginalization and Moderation Gray Areas. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW2 (Oct. 2021), 1–35. <https://doi.org/10.1145/3479610>
- [22] Kalley Huang. 2022. What Is Mastodon and Why Are People Leaving Twitter for It? *The New York Times* (Nov. 2022). <https://www.nytimes.com/2022/11/07/technology/mastodon-twitter-elon-musk.html>
- [23] Shagun Jhaver, Sucheta Ghoshal, Amy Bruckman, and Eric Gilbert. 2018. Online Harassment and Content Moderation: The Case of Blocklists. *ACM Transactions on Computer-Human Interaction* 25, 2 (March 2018), 12:1–12:33. <https://doi.org/10.1145/3185593>
- [24] Jialun Aaron Jiang, Peipei Nie, Jed R. Brubaker, and Casey Fiesler. 2023. A Trade-off-centered Framework of Content Moderation. *ACM Transactions on Computer-Human Interaction* 30, 1 (March 2023), 3:1–3:34. <https://doi.org/10.1145/3534929>
- [25] Sharon Kann, Angelo Carusone, and Ruby Seavey. 2022. In less than a month, Elon Musk has driven away half of Twitter's top 100 advertisers. <https://www.mediamatters.org/elon-musk/less-month-elon-musk-has-driven-away-half-twiters-top-100-advertisers>
- [26] Charles Kiene, Andrés Monroy-Hernández, and Benjamin Mako Hill. 2016. Surviving an "Eternal September": How an Online Community Managed a Surge of Newcomers. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*. ACM, San Jose California USA, 1152–1156. <https://doi.org/10.1145/2858036.2858356>
- [27] Kate Klonick. 2023. The End of the Golden Age of Tech Accountability. <https://klonick.substack.com/p/the-end-of-the-golden-age-of-tech>
- [28] Robert E. Kraut and Paul Resnick. 2012. *Building Successful Online Communities: Evidence-Based Social Design*. <https://doi.org/10.7551/mitpress/8472.001.0001>
- [29] Lucio La Cava, Sergio Greco, and Andrea Tagarelli. 2021. Understanding the growth of the Fediverse through the lens of Mastodon. *Applied Network Science* 6, 1 (Dec. 2021), 64. <https://doi.org/10.1007/s41109-021-00392-5>
- [30] Lawrence Lessig. 2006. *Code* (version 2.0 ed.). Basic Books, New York. OCLC: ocm77638613.
- [31] Hanlin Li, Bodhi Alarcon, Sara Milkes Espinosa, and Brent Hecht. 2018. Out of Site: Empowering a New Approach to Online Boycotts. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (Nov. 2018), 106:1–106:28. <https://doi.org/10.1145/3274375>
- [32] Zhiyuan Lin, Niloufar Salehi, Bowen Yao, Yiqi Chen, and Michael Bernstein. 2017. Better When It Was Smaller? Community Content and Behavior After Massive Growth. *Proceedings of the International AAAI Conference on Web and Social Media* 11, 1 (May 2017), 132–141. <https://doi.org/10.1609/icwsm.v11i1.14884> Number: 1.
- [33] Adrienne Massanari. 2017. #Gamergate and The Fappening: How Reddit's algorithm, governance, and culture support toxic technocultures. *New Media & Society* 19, 3 (March 2017), 329–346. <https://doi.org/10.1177/1461444815608807>
- [34] Nathan Schneider. 2022. Admins, mods, and benevolent dictators for life: The implicit feudalism of online communities. *New Media & Society* 24, 9 (Sept. 2022), 1965–1985. <https://doi.org/10.1177/1461444820986553> Publisher: SAGE Publications.
- [35] Joseph Seering, Tony Wang, Jina Yoon, and Geoff Kaufman. 2019. Moderator engagement and community development in the age of algorithms. *New Media & Society* 21, 7 (July 2019), 1417–1443. <https://doi.org/10.1177/1461444818821316> Publisher: SAGE Publications.
- [36] Caroline Sindors. 2022. Social Networks Are Going Much, Much Smaller. *Slate* (Nov. 2022). <https://slate.com/technology/2022/11/mastodon-discord-small-social-networks.html>