

Understanding Perceptions of the Reddit Reaction Mechanism in Political Subreddits

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ABSTRACT

A substantial portion of political discourse today has shifted to social media platforms like Reddit. These platforms have integrated reaction mechanisms, such as upvoting and downvoting, which are intended to enable users to quickly respond to posts and promote engagement. However, it is unclear how users in political online communities perceive the influence of these reaction mechanisms on community discourse and dynamics and what strengths or weaknesses they perceive about the reaction mechanism. Therefore, we conducted a qualitative interview study with five Reddit users who participate in communities focusing on socially and politically important issues. Our study reveals that the current upvoting and downvoting reaction mechanism on Reddit can be used to reinforce community majority opinion and homogeneity in some political subreddits, which especially discourages new users with different perspectives from participating in conversations. Additionally, participants unanimously expressed a preference for more nuanced reaction mechanisms that facilitate clearer feedback.

CCS CONCEPTS

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

KEYWORDS

reaction mechanisms; Reddit; political discourse

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1 INTRODUCTION

Online communities in social media platforms have become important places discussing and debating socially and politically important issues such as government and social policy, economy, and international affairs [14, 22]. Because of the role these social media platforms take in facilitating these political conversations, working to ensure that these community spaces are healthy, constructive,

and ultimately productive becomes an important aspect of how these platforms are designed. However, toxic, unconstructive, and polarizing conversations are still quite common, which may suggest that the interfaces and systems that people interact with today are not succeeding at helping to facilitate constructive conversations [12, 16, 21, 24].

A common aspect of the design of these social media platforms is “reaction” interfaces, which are ubiquitous across social media platforms and online forums such as Facebook and Reddit [18, 22]. These reaction mechanisms are intended to enable users to provide quick feedback to others’ posts, which often influences the platform’s feed ranking algorithms [3, 15, 17]. On Reddit, for instance, the default reaction mechanism is *upvote* and *downvote*, depicted by default as upward and downward pointing arrows, though the visual representation of these voting buttons can be adjusted by community moderators within topic-focused communities, called *subreddits*. Notably, these reaction interfaces play an important role in community dynamics — prior work has found that different design choices for the reaction mechanism on Reddit (upvote only, upvote and downvote, or no voting) are associated with demagogic, civic, and deliberative political discourse in Reddit communities [18]. Other studies have also explored how reaction interfaces influence issues like community toxicity [25].

However, there is a lack of understanding of how users in political subreddits perceive the reaction mechanism, especially with regard to how it influences community discourse and dynamics. In turn, this uncertainty also means that it is unclear how these reaction mechanisms can be leveraged to facilitate constructive and productive conversations in these communities. Understanding users’ perspectives of reaction mechanisms can be particularly valuable, as reaction and voting mechanisms have rich meanings [11, 13] and their use might interact community norms and dynamics [18], which are often only familiar to users who have experience with specific political online communities.

In this paper, we focus on these issues, and report on a short interview study with five Reddit users who are involved in communities focusing on various topics that are socially and politically important, and around which there is an active debate, including gun rights, the Supreme Court, capitalism, and nuclear weapons. We ask:

RQ1: How do Reddit users describe using the reaction (upvote and downvote) mechanism when engaging in communities with discussions on socially and politically important issues?

RQ2: How do they perceive the influence of the reaction mechanism on community discourse and dynamics?

RQ3: What weaknesses and strengths do users in these communities perceive about the reaction mechanism?



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Based on our interviews, our results show that participants from political subreddits perceive that the Reddit reaction feature can be used as a way to reinforce majority or popular opinions of the community, which may discourage people from expressing opposing views and participating in the community, even when the popular opinions are implicit. We also find that participants unanimously want more nuanced reaction mechanisms to communicate more clear feedback to users when giving reactions, although the trade-off between nuance and friction should be considered when implementing such a design.

2 RELATED WORK

2.1 Reaction mechanisms in social media forums

Reaction mechanisms are common in almost every major social media platform and online forum. These interface mechanisms allow users to give one-click responses to user-generated content and interact with other users without commenting. Different social platforms have opted for different interfaces and mechanisms of the feature. X (formerly Twitter) only allows users to “like” a certain post or comment. Reddit users are allowed to upvote and downvote content, and can see the numerical sum of these counts. YouTube also supports both upvote and downvote, but the platform recently transitioned to a design where only upvote counts are visible to the user [10]. Facebook differs from the other platforms in that it allows users to react with emojis instead of just “like” and does not have an analog to “dislike”.

A number of prior studies have focused specifically on Reddit’s binary upvote and downvote interface [11, 18, 25]. As mentioned above, Reddit shows the numerical sum of the two counts (but not the raw upvote and downvote counts). Moderators in a subreddit can also choose to change the icons of the upvote and downvote buttons, and some prior work showed that removing downvote option in online discussion forum significantly reduces toxic discussion culture in the community [25]. Another study quantitatively analyzed 155 million comments in 55 political subreddits with different reaction mechanisms and showed that upvoting is associated with more civic and deliberate discourse and less demagogic rhetoric, while downvoting and no voting have the opposite effect, with no voting associated with the worst quality of discussion [18]. Graham and Rodriguez [11] found that people disregard the rules around voting and make and enforce their own rules and norms around it. We extend this line of work by investigating how users in online communities perceive the effect of reaction mechanism on the discourse and dynamics of the communities.

2.2 Political discourse in online communities

Many studies have explored online political discourse as many political conversations are shifting to online environments. Prior work has looked into when homogeneous and heterogeneous communication happens in online communities, some of which challenged the dominant narrative of “echo chamber” [2] and pointed out ways in which online communities might be heterogeneous [4, 9]. Davis and Graham [7] explored how voting leads to convergence with community norm through affective rewards or consequences. Our study complements this line of work by investigating how users

in political subreddits perceive the effects of voting on political discourse.

3 METHOD

To address our research questions, we conducted semi-structured interviews with Reddit users who participate in a subreddit with discourse on a socially or politically important topic. We chose this research method because interviews allow us to probe into the nuances of how users actually use the reaction mechanism in online communities and how the reaction mechanism interacts with community norms and dynamics.

3.1 Recruitment

In order to recruit participants for our study, we first needed a method to identify subreddit communities on social and political topics. To do so, we used Pew Research Center’s research topics [1] as keywords to construct search queries for subreddits, and performed a systematic search for relevant subreddits using these keywords. We excluded topic names that are unrelated to social and political issues, then used the rest of the keywords to search for relevant subreddits. Some example keywords we used are: *abortion*, *capitalism*, *democracy*, *government*, *gun policy*, *political discourse*. With every search query, we manually inspected the first 20 subreddits shown in the search results, and selected subreddits that met the following conditions:

- The subreddit has more than 1,000 users.
- The most recent submission is within 2 days at the time we performed the search.
- Posts in the subreddit involve discussion on the topic, rather than serving merely as an informational resource.
- The subreddit does not explicitly forbid survey or research in their rules.

We set these conditions to ensure that the subreddits we chose were relevant and active, and had a large pool of users that we could recruit from. After we obtained a list of subreddits that met the conditions, we contacted moderators in those subreddits to ensure our posts in their community would be welcome, and made a recruitment post to those subreddits. We recruited a total of 5 Reddit users.

3.2 Participants

Participants in our study responded to our recruitment posts in five subreddits, with topics including nuclear weapons (*r/nuclearweapons*), the Supreme Court (*r/supremecourt*), gun rights (*r/progun*, *r/2ALiberal*s), and capitalism (*r/Anarcho_Capitalism*). All participants self-identify as white and male, and their average age is 39 years old. Prior to conducting the interviews, we let the participants fill out a survey to share how long they have been in the subreddit we recruited them from, and asked them to estimate how many times they had posted and commented and how often they use the reaction feature (upvote and downvote) in the subreddit. Four out of the five participants self-reported that they have been in the originating subreddit for more than a year, and all of them have been there for at least one month. The self-reported total number of posts they made in the subreddit ranges from 0 to 20, while the number of comments ranges from 1 to more than 50. The

Table 1: Demographic and Background Information of the Participants

Participant	Gender	Age	Ethnicity	Subreddit	Time in Subreddit	Posts	Comments	Voting Frequency
P1	Male	67	White	r/nuclearweapons	> 1 year	0	1 - 5	Less than once per week
P2	Male	33	White	r/supremecourt	1 - 6 month(s)	0	1 - 5	Once a day
P3	Male	30	White	r/progun	> 1 year	1 - 5	5 - 20	Less than once per week
P4	Male	45	White	r/2ALiberals	> 1 year	5 - 20	> 50	More than twice a day
P5	Male	21	White	r/Anarcho_Capitalism	> 1 year	1 - 5	20 - 50	1 - 6 time(s) per week

participants' self-reported frequency of using the reaction feature also varies, from less than once per week, to 1 - 6 time(s) per week. These data indicate that while all the participants have some level of familiarity with the community, they are somewhat representative of users with varying levels of active engagement with the community (through posting, commenting, or upvoting/downvoting). See Table 1 for participant demographic and background information and their originating subreddit.

3.3 Procedure

We conducted the interviews remotely via Zoom. We asked participants about their general experience with their originating subreddit, and their perception of the reaction feature (upvote and downvote) on Reddit. We also asked participants to compare how upvote and downvote are used in another subreddit they interact with. Finally, we asked the participants how they want the Reddit reaction feature to be improved. Interview sessions lasted between 47 and 82 minutes. After all the interviews were completed, two of the participants were randomly selected to receive a \$50 Amazon gift card. The interviews were recorded and automatically transcribed.

3.4 Interview Analysis

The interviews were transcribed and analyzed using Dovetail, a third-party service. Following the principles of thematic analysis [5], the first author initially open-coded three transcripts. Subsequently, in several group meetings, the authors collectively and iteratively refined and expanded the open coding process with new data from additional transcripts. Afterwards, the authors collaboratively applied the final set of codes to all transcripts, resolving any discrepancies through discussion. Finally, the first author employed affinity diagramming as a method to distill and categorize the data, to surface high-level themes from our interviews.

3.5 Methodological Limitations

As an exploratory study, we recruited five participants to our study. We see this work as a starting point of investigating reaction mechanisms within political subreddits, and we envision future, larger, studies that will build on the groundwork we lay here. Further, our work is interview based, and as such cannot make causal claims about how the reaction mechanism on Reddit affects community discourse and dynamics. Future work could examine some of the claims we made in this paper using quantitative methods to investigate more precisely how voting affects discourse and homogeneity of online communities.

4 FINDINGS

Below we describe common themes we found based on our data analysis. Overall, our results suggest that voting seems to reinforce community opinion and homogeneity in the subreddits where our participants are members. We also find that participants would appreciate more nuanced reaction mechanisms, which they believe will be facilitate better conversations in the subreddits.

4.1 Voting reinforces community opinion and homogeneity

4.1.1 Voting reflects alignment or misalignment with community's mainstream opinions. Most participants in our study perceive that users in their corresponding subreddits use the Reddit reaction feature (voting) as a way to simply express that they agree or disagree with someone. P5 said:

"Generally the upvote is just a way of saying I agree with this or I'm glad to see this. [...] I guess I would use the downvote if somebody was saying something I disagreed with."

In general, this is natural and innocuous behavior, but is complicated by a perception that their active communities tend to have collective majority opinions. Participants used terms like "groupthink" and "echo chamber" to describe these communities. P2 and P3 said:

"... that groupthink is largely about tolerance and with a shared agreement about at least some of the basics of what the laws are in the United States and how they should be enforced."

"My experience with Reddit in general is that communities very much get like echo chambery."

These two factors, that voting tends to indicate agreement or disagreement, and that there tends to be a homogenous point of view within these communities, suggest that voting is often used as a way to signal whether a given post or comment aligns with those majority opinions. P2, P4, and P5 described it this way:

"In a fair amount of subreddits simply expressing an unpopular opinion is enough to result in lots of downvotes even if it is reasonably well-presented."

"The communities that are political and that have a majority community opinion, the upvoting and downvoting, I guess I would view more as, like, agreement, your agreement with the community opinion, rather than anything else."

"I would say maybe on r/Anarcho_Capitalism, the votes are given out more on how you adhere to what people already accept."

4.1.2 Community mainstream opinions may be explicit or implicit. Some of the communities represented in our study express their predominant perspective explicitly in the names of the community (e.g., r/progun) or through community rules, according to P1:

"I guess the best example is their, their rules because they insist that no anti-nuclear authors or, you know, arguments and stuff like that."

When these expectations are explicit in the community names or rules, a natural expectation is that users will tend to follow the rules of the communities they are a part of. However, newcomers may not always be aware of the majority opinions in a subreddit. Often they learn about these rules or seemingly homogeneous perspectives through interactions with the subreddit, where voting may play an important role. Participants, like P5, in our study suggest that people often find out an implicit or hidden mainstream opinion after they express an opposing opinion and receive large numbers of downvotes from existing community members:

"There seems to be this, I guess, like unwritten rule that you're supposed to be pro-life if you're involved in that group. But there's plenty of people that aren't pro-life, like myself personally, you know, but anyone who's pro-choice just gets a ton of downvotes and they're like, almost not welcome."

P3, referring to r/Wisconsin, another politically active subreddit they interacted with, had a similar experience:

"That subreddit is interesting because it's not as explicit in its title, as r/progun is. So it's more frequent that you get occasional people who don't agree with the general opinion of the subreddit and those people generally tend to get downvoted a ton."

P4 expressed appreciation of this dynamic, in some cases, because it caused them to reflect further on their perspectives:

"Sometimes it's nice to be able to put a response out there of what I think and get downvoted to, you know, to all heck and realize that, you know, people don't agree with you. Then maybe it's time that, you know, I either reassess that particular thought or just understand that in general the community doesn't agree with me."

4.1.3 Voting reinforces popular opinions and sentiments. Indeed, participants described feeling that the voting mechanism on Reddit, in some cases, serves to reinforce mainstream opinions, sentiments, or norms in the community (P1, P2):

"I think it does help people stick to the rules."

"I do think that upvotes tend to be associated with a reinforcement of opinions. [...] With popular sentiment, no matter how well or poorly it is presented, it receives the most reinforcement."

4.1.4 Downvotes discourage participation and reinforce homogeneity. Conversely, many participants noted that downvotes are used

as a way to show animosity and exclude people who hold different views from the community (P3):

"If it's in opposition to the community, it's generally like go away. So it's like excluding people if they're disagreeing with the community."

Moreover, when people find out their opinions are not accepted by the community, they may simply stop engaging or leave the community (P1, P4):

"It would not be a surprise at all that there's a significant number of people who get discouraged about posting because they've been downvoted."

"None of the communities I've been in have I seen anyone in that position who disagrees with the community that sticks around for maybe more than like, three or four days. They throw their couple posts a day out where they disagree with people, they get downvoted and then eventually, you know, they, they stop going or stop participating in that community."

Overall, participants report that the result of this is that people who hold different views will no longer be a part of the community, as in r/progun (P4):

"I don't think there's any people hanging around the sub I guess that I would say are strictly anti-gun."

This observation that the, sometimes implicit, opinions and perspectives of a community shape how "agreement" and "disagreement" with a given post are perceived, and drive upvoting and downvoting behavior to create "echo chambers" was consistent across our participants. While some recognized that this may influence newcomers' ability to join a community, or may create barriers to alternative perspectives being present within communities, in general participants described this process as a common experience.

4.2 Participants want more nuanced reaction mechanisms

4.2.1 Dissatisfaction with the current reaction mechanism. At the same time, however, many of our participants were unhappy with the current upvote/downvote design of the Reddit reaction mechanism because it lacks nuance, context, and clear feedback (P3, P4):

"I would say that there's a part of me that says I'm not terribly satisfied. I think there should be different sorts of reactions. ... It's kind of hard to tell if someone is just being dumb and doesn't get it or like, doesn't agree with you, and, like, has a good reason why, or if you're just not popular."

"... everything ends up being contextual and, you know, simply a thumbs up or thumbs down doesn't have a lot of context."

4.2.2 More nuanced reaction mechanisms. Similarly, participants unanimously mentioned that a more nuanced reaction mechanism would help facilitate better discussions better in their communities. P5 expressed wanting "more options", but P2 and P3, respectively, were looking for deeper understanding of the reasons behind the upvotes or downvotes:

"explain why you were giving your up or down vote, whether it was because it was an insightful comment or because it was a funny comment, or because it was a well-argued comment"

"So I would personally find it useful to have a degree of, yes, this was funny, yes, I agree with you, yes, this was useful as like three separate features versus downvoting, like, I think you're dumb versus, I think this wasn't helpful, versus you need to stop saying that, like, that's really bad. Like, I think those are all a little bit different and they could be valuable."

Notably, some participants (P3 and P5) also referenced Facebook's emoji reactions as an example of a more nuanced reaction mechanism, that they might prefer over Reddit's binary choices.

Participants had a variety of different reasons for why they would prefer a more nuanced reaction mechanism in their subreddits with political discourse. One benefit described by participants is that such designs could help them better communicate and understand feedback (P3):

"So I think it would help me express what I mean better and I think that it would help me understand the community feedback better."

Participants also suggested that this kind of design could help facilitate better conversations. P3 said he would *"react to it differently"* and that it would *"change my willingness to engage in the community"* if the reactions he received had more nuanced feedback. P4 believed that more nuanced designs

"would maybe help a lot of people to take things more seriously to not get peeved off and maybe have more civil discussion"

P2 believed more nuanced reactions could be

"a more effective mechanism of social reward, social control, reinforcement to encourage the type of interaction that Reddit and its subreddits desire within their communities"

P4 further echoed these perspectives and suggested that these kinds of nuances could also help navigate and filter content more easily.

A practical issue that arises is *how* to design a more nuanced voting mechanism in online communities. Some participants believed that this could be universal across all subreddits, while others believed this should be customizable to adapt different community norms like "flairs", which are community-specific annotations that help distinguish different types of posts in subreddits.

4.2.3 Friction to user interaction. One benefit of the binary up-vote/downvote reaction mechanism perceived by many participants is its ease of use: it is quick and convenient, to the extent that some participants described it as "habitual" (P1) and "reflexive" (P2 and P5). A potential problem that would come with adding more nuance to this kind of reaction interface is that it would likely add some friction to user interaction, which we return to below. As P2 said:

"I don't know how much that [sort of idea] delays interaction and I suspect that even a small delay causes less interaction which the website doesn't want."

5 DISCUSSION

5.1 Reaction mechanism, community homogeneity, and constructive political discourse

Our preliminary finding which suggests upvotes and downvotes reflect (mis)alignment with community majority opinion aligns with prior work [7], which found that rating features on Reddit can encourage convergence and discourage divergence from community norms through affective rewards or consequences. Our interview findings provide additional nuances to this general effect of rating features. First, participants in this study highlighted that certain community majority opinions and norms can be implicit and especially obscure for newcomers; though of course, some newcomers figure out these norms or opinions through interactions with existing members. Second, as unstable members of a community, newcomers may not converge to community norms as stable members do, but rather stop engaging and leave the community altogether, likely also as a result of the emotional consequences of rating. In other words, our preliminary findings suggest that the Reddit voting mechanism in political subreddits is not only about affective experiences and convergence or divergence from community norms, but also whether new users (who potentially hold diverse opinions) remain in the community.

Participants' perception of their originating political subreddit being homogeneous is not surprising, given that studies have found that political conversation on Reddit is mostly characterized by political homophily, especially in communities dedicated to political topics [4], and that the dominant narrative of "echo chamber" both in academic research [6] and popular media [8] may have shaped participants' perception on community homogeneity on Reddit (for example, P3 explicitly mentioned this term during the interview). In general, homogeneity is thought to be unconstructive for online conversation as it leads to polarization of discourse [23]. However, as prior studies pointed out [2, 9], homogeneity should not be taken as a default in online communities. Although it is largely the case for long-term users in certain communities, heterogeneity can be a result of new users' influx [9] and as more users contribute to a conversation [4]. Our findings suggest that while new users present an opportunity to increase the heterogeneity and opinion diversity of a Reddit community, they are unstable members of political subreddits and can be easily discouraged by negative votes to the extent that they may leave the community. This presents a challenge to communities and platforms who wish to increase conversations between heterogeneous users and promote more constructive and less polarizing discourse. Prior work by [18, 25] suggests that negative votes are associated with unconstructive discourse and community culture, and our findings provide preliminary evidence of negative reaction interfaces being unproductive for online conversation by reinforcing homogeneous community composition and opinion. Moreover, if our results here bear out, these findings would also contribute to the ongoing discussion of the inclusion or exclusion of negative reaction mechanisms in social media platforms, especially in political communities where constructive conversations are hard to reach.

Based on our preliminary findings here, we suggest that future work might explore how reaction mechanisms, user influx and outflow, and community homogeneity relate to one another. Empirical quantitative approaches here might be to consider the potential mediating role of user outflow in how rating shapes community discourse. It may also be worth exploring what reaction mechanisms facilitate retention of new users, in order to potentially help grow more constructive conversations from users with heterogeneous opinions.

5.2 Trade-off between nuance and friction in reaction mechanism design

As noted in Section 4.2, participants in our study unanimously believed that a more nuanced voting mechanism could be helpful for online communities, especially to facilitate civil and constructive conversations in communities about socially and politically important topics. However, implementing such changes might be tricky, because the binary voting mechanism provides a fast, low-friction interaction. In other words, there seems to be a trade-off between nuance and friction in the design of reaction mechanism. Reddit currently allows users to purchase and give "awards" to posts or comments [20], which may be one avenue for providing more nuanced reactions. Today, these awards are simply dynamic images, and it remains unclear if such a technique is likely to provide additional context or clarity to user reactions in the way our participants suggested.

Past work on recommender systems shows that simpler rating schemes with higher chances of getting user feedback outperform finer-grained rating schemes due to the increase in the quantity of user feedback [19], which supports the benefits of many real-world rating systems that favor less nuanced rating schemes. However, in online discussion settings, it may be worth focusing designs to better facilitate user behavior and community dynamics, rather than optimizing to increase the overall the quantity of user feedback. Increasing the time and effort needed to give a reaction may help people deliberate about their feedback, which may help improve the quality of conversation. We see exploring nuanced feedback interface designs, that enable users to provide additional context or rationale as an important area of future work. This is likely even a fruitful direction if the results from recommender systems research bear out and reduce the amount of overall feedback.

6 CONCLUSION

This study preliminarily investigates the impact of Reddit's reaction mechanism in communities discussing socially and politically important issues. Through interviews with five Reddit users, we found that users in political subreddits perceive that the Reddit reaction feature can reinforce community opinion and homogeneity, which can impede constructive conversation and engagement from users with heterogeneous opinions. Additionally, we found that participants want more nuanced reaction mechanisms to communicate more clear feedback to users when giving reactions, although there may be a trade-off between low-friction and high-nuance interfaces that presents an interesting design opportunity.

REFERENCES

[1] [n. d.]. Pew Research Center Research Topics. <https://www.pewresearch.org/topics/>. Accessed: 2024-01-22.

- [2] Jisun An, Haewoon Kwak, Oliver Posegga, and Andreas Jungherr. 2019. Political discussions in homogeneous and cross-cutting communication spaces. *Proceedings of the International AAAI Conference on Web and Social Media* 13 (Jul 2019), 68–79. <https://doi.org/10.1609/icwsm.v13i01.3210>
- [3] Robert Bond, Christopher Fariss, Jason Jones, Adam Kramer, Cameron Marlow, Jaime Settle, and James Fowler. 2012. A 61-Million-Person Experiment in Social Influence and Political Mobilization. *Nature* 489 (09 2012), 295–8. <https://doi.org/10.1038/nature11421>
- [4] Robert M. Bond and Matthew D. Schweitzer. 2018. Political homophily in a large-scale online communication network. *Communication Research* 49, 1 (Dec 2018), 93–115. <https://doi.org/10.1177/0093650218813655>
- [5] Virginia Braun and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative Research in Psychology* 3, 2 (Jan 2006), 77–101. <https://doi.org/10.1191/1478088706qp0630a>
- [6] Matteo Cinelli, Gianmarco De Francisci Morales, Alessandro Galeazzi, Walter Quattrociocchi, and Michele Starnini. 2021. The echo chamber effect on social media. *Proceedings of the National Academy of Sciences* 118, 9 (2021), e2023301118. <https://doi.org/10.1073/pnas.2023301118> arXiv:<https://www.pnas.org/doi/pdf/10.1073/pnas.2023301118>
- [7] Jenny L. Davis and Timothy Graham. 2021. Emotional consequences and attention rewards: The social effects of ratings on reddit. *Information, Communication & Society* 24, 5 (Jan 2021), 649–666. <https://doi.org/10.1080/1369118x.2021.1874476>
- [8] Nicholas DiFonzo. 2011. The Echo-Chamber Effect. <https://www.nytimes.com/roomfordebate/2011/04/21/barack-obama-and-the-psychology-of-the-birther-myth/the-echo-chamber-effect>
- [9] Philippe A. Duguay. 2021. Read it on reddit: Homogeneity and ideological segregation in the age of Social News. *Social Science Computer Review* 40, 5 (Apr 2021), 1186–1202. <https://doi.org/10.1177/08944393211001053>
- [10] Google. 2021. Update to YouTube Dislike Counts. <https://support.google.com/youtube/thread/134791097/update-to-youtube-dislike-counts?hl=en>, Last accessed on 2024-01-23.
- [11] Timothy Graham and Aleesha Rodriguez. 2021. The sociomateriality of rating and ranking devices on social media: A case study of reddit's voting practices. *Social Media + Society* 7, 3 (Jul 2021), 205630512110476. <https://doi.org/10.1177/20563051211047667>
- [12] Anna Guimaraes, Oana Balalau, Erisa Terolli, and Gerhard Weikum. 2019. Analyzing the Traits and Anomalies of Political Discussions on Reddit. *Proceedings of the International AAAI Conference on Web and Social Media* 13, 01 (Jul. 2019), 205–213. <https://doi.org/10.1609/icwsm.v13i01.3222>
- [13] Rebecca A. Hayes, Caleb T. Carr, and Donghee Yvette Wohn. 2016. One click, many meanings: Interpreting paralinguistic digital affordances in social media. *Journal of Broadcasting; Electronic Media* 60, 1 (Jan 2016), 171–187. <https://doi.org/10.1080/08838151.2015.1127248>
- [14] Daniel Kreiss and Shannon McGregor. 2017. Technology Firms Shape Political Communication: The Work of Microsoft, Facebook, Twitter, and Google With Campaigns During the 2016 U.S. Presidential Cycle. *Political Communication* 35 (10 2017), 1–23. <https://doi.org/10.1080/10584609.2017.1364814>
- [15] David Lazer. 2015. Social sciences. The rise of the social algorithm. *Science* 348 (05 2015). <https://doi.org/10.1126/science.aab1422>
- [16] Binny Mathew, Ritam Dutt, Pawan Goyal, and Animesh Mukherjee. 2019. Spread of Hate Speech in Online Social Media. In *Proceedings of the 10th ACM Conference on Web Science* (Boston, Massachusetts, USA) (WebSci '19). Association for Computing Machinery, New York, NY, USA, 173–182. <https://doi.org/10.1145/3292522.3326034>
- [17] Meta. 2021. Reducing Political Content in News Feed. <https://about.fb.com/news/2021/02/reducing-political-content-in-news-feed/>, Last accessed on 2024-01-23.
- [18] Orestis Papakyriakopoulos, Severin Engelmann, and Amy Winecoff. 2023. Upvotes? Downvotes? No Votes? Understanding the relationship between reaction mechanisms and political discourse on Reddit. In *Proceedings of the 2023 CHI Conference on Human Factors in Computing Systems* (Hamburg, Germany) (CHI '23). Association for Computing Machinery, New York, NY, USA, Article 549, 28 pages. <https://doi.org/10.1145/3544548.3580644>
- [19] Ladislav Peska and Stepan Balcar. 2022. The Effect of Feedback Granularity on Recommender Systems Performance. In *Proceedings of the 16th ACM Conference on Recommender Systems* (Seattle, WA, USA) (RecSys '22). Association for Computing Machinery, New York, NY, USA, 586–591. <https://doi.org/10.1145/3523227.3551479>
- [20] Reddit. [n. d.]. <https://support.reddithelp.com/hc/en-us/articles/26465598697876-What-are-awards-and-how-do-I-use-them>
- [21] Eugenia Ha Rim Rho and Melissa Mazmanian. 2020. Political Hashtags & the Lost Art of Democratic Discourse. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (Honolulu, HI, USA) (CHI '20). Association for Computing Machinery, New York, NY, USA, 1–13. <https://doi.org/10.1145/3313831.3376542>
- [22] Sebastian Stier, Armin Bleier, Haiko Lietz, and Markus Strohmaier. 2018. Election Campaigning on Social Media: Politicians, Audiences, and the Mediation of

- Political Communication on Facebook and Twitter. *Political Communication* 35 (01 2018), 50–74. <https://doi.org/10.1080/10584609.2017.1334728>
- [23] Cass R. Sunstein. 2018. *#Republic*. Princeton University Press, Princeton. <https://doi.org/doi:10.1515/9781400890521>
- [24] Soroush Vosoughi, Deb Roy, and Sinan Aral. 2018. The spread of true and false news online. *Science* 359, 6380 (2018), 1146–1151. <https://doi.org/10.1126/science.aap9559> arXiv:<https://www.science.org/doi/pdf/10.1126/science.aap9559>
- [25] Changseung (Chang) Yoo, Warut Khern-am nuai, Jitsama Tanlamai, and Yossiri Adulyasak. 2021. Haters gonna hate? how removing downvote option impacts discussions on online forum. *SSRN Electronic Journal* (2021). <https://doi.org/10.2139/ssrn.3838762>