

# The Character of Connection: Platform Affordances and Connective Democracy

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## Abstract

While social media optimistically holds the potential to ameliorate political divides by increasing cross-cutting political talk, numerous studies suggest that social media has instead exacerbated political polarization. Yet, social media is incredibly heterogeneous and variation in platform affordances may result in markedly different democratic outcomes. In this paper, we turn to the principles of connective democracy to inform a cross-topic and cross-platform analysis. Our mixed-methods study compares conversations across Twitter and Reddit, finding that Twitter conversations are highly polarized across topics while Reddit displays some promise for enabling productive, intergroup discourse. We argue that this difference is driven by an affordance of conversational visibility in which users can see and engage with conversations as a whole. We further argue that “community” is a distinctive platform affordance that emerges from shared user expectations. This affordance supports user socialization into democratic norms of productive intergroup contact and therefore may prove particularly important to enhancing connective democracy.

## Keywords

Connective democracy, affordances, affective polarization, Twitter, Reddit

## Introduction

Social media has dramatically reshaped citizens’ interpersonal networks, allowing new forms of connection across time, space, and subcultures. The repercussions of this shift continue to be an active area of research, particularly when it comes to understanding the role social media plays in ameliorating or exacerbating political divides. Peer-to-peer conversations are foundational to democracy itself (Dewey 1937; Mansbridge 1999; Overgaard et al. 2022) and one might hope that social media would therefore be conducive to positive democratic health. Unfortunately, previous work has been largely pessimistic about social media as a site for deliberative discourse (Bail et al. 2018; Shugars and Beauchamp 2019). However, subjects repeatedly report having participated in productive cross-cutting conversations online (Brundidge 2010; Kim 2011; Wojcieszak and Mutz 2009).

We argue these findings are heterogeneous for at least two reasons. First, because online platforms vary dramatically in their affordances (Chen et al. 2023), meaning that behaviors observed in one social media context are not necessarily universal to all of social media (Bode and Vraga 2018). Second, because users may experience productive political talk in spaces that are not explicitly political. While overtly political spaces may be dominated by divisive voices (Bail 2022) and avoided by conflict-averse citizens (Carlson and Settle 2022), less contentious topics may play an important role in facilitating cross-cutting connections. Building upon connective democracy (Masullo and Overgaard 2021; Overgaard et al. 2021, 2022; Stroud 2021), we argue that forging these connections—even over non-controversial topics—is critical for democratic health.

In order to better understand the role online discourse may play in democratic life, we therefore conduct a cross-topic and cross-platform study. We examine conversations on Twitter and Reddit around three topics of varied political salience: the 2022 U.S. midterm elections, Russia’s invasion of Ukraine, and children and childcare. We expect conversations about the elections to be the most partisan and acrimonious in nature. Such discourse could silence more moderate voices or those who are conflict-avoidant (Noelle-Neumann 1974), leading to conversations punctuated by affective polarization and minimal intergroup contact. Conversations around the Russian invasion of Ukraine, or even topics like children and childcare, are still political (Hanisch 1969; Mansbridge 1999) but may attract different users or inspire users to engage differently with each other.

Employing a mixed-methods approach of computational estimation and Critical Discourse Analysis (CDA), we examine the following research questions:

**RQ1: In what ways are conversations reflective of connective democracy across varied topics and platform affordances?**

**RQ2: How might connective democracy manifest in computational measures?**

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## Related Work

### *Connective Democracy*

Built upon deliberative theory (Dewey 1937; Habermas 1996; Mansbridge 1999), connective democracy similarly argues that “democracy” is far more than a system of government and that the true soul of democratic life emerges from myriad interactions amongst the people themselves. Connective and deliberative approaches differ, however, in their vision for how political interactions manifest and what outcomes may reasonably be achieved. Specifically, deliberative theory tends to focus on actionable outcomes (Mansbridge 2015) while connective democracy has the more realistic goal of promoting fruitful intergroup contact (Overgaard et al. 2022).

This difference responds to a common critique of deliberation: that the focus on outcomes can overshadow concerns about the process. For example, while “deliberation” must definitionally reflect an absence of power (Mansbridge 2015), deliberative theory does not sufficiently grapple with the realities of systemic inequities (Fraser 2014; Sanders 1997). Sanders (1997) warns that “taking deliberation as a signal of democratic practice paradoxically works undemocratically,” as marginalized populations may be systematically silenced or antagonized through the discursive process. The former leads to undemocratic outcomes by creating the illusion that deliberation is proceeding, while the latter ironically brands those who speak against systems of power as somehow undemocratic themselves.

In contrast, connective democracy builds off intergroup contact theory (Allport et al. 1954) to center *connectivity*: “a willingness to prioritize relationships over competitiveness and engage in conversation with one’s political adversaries to genuinely understand their viewpoints” (Overgaard et al. 2022). By centering connection, connective democracy outlines boundary conditions of deliberative democracy and grapples directly with the challenges of building productive, cross-cutting relationships.

To this end, connective democracy elaborates on what productive intergroup contact should look like by reflecting on different types of polarization. Ideological and issue polarization, which emerge from substantive policy disagreements (Fiorina and Abrams 2008; Gentzkow 2016; Stroud 2021), are not necessarily of democratic concern. Indeed, disagreement and dissent can be positive indicators of a pluralistic society (Huckfeldt et al. 2004; Mercier and Landmore 2012), alleviating concerns that minority voices are being silenced. On the other hand, affective polarization, which revolves around emotionally charged ingroup favoritism and outparty dislike (Iyengar et al. 2019), presents a larger risk to democratic health (Overgaard et al. 2022). In particular, when outgroup contact becomes consistently acrimonious, people may retreat from conversation and may become even more polarized (Bail et al. 2018; Carlson and Settle 2022; Mutz 2006).

A key challenge, then, is that while intergroup contact holds the potential to mitigate societal fissures (Wojcieszak and Warner 2020), this contact may instead exacerbate divisions if it is characterized by affective polarization (Bail et al. 2018; Overgaard et al. 2022). Connective democracy therefore explicitly advocates for connections

across difference but not necessarily focused on that difference (Overgaard et al. 2022). Separating individuals’ identities from their partisan affiliations supports a sense of shared humanity and enables them to see others as *people* rather than as political adversaries (Wojcieszak and Warner 2020).

Connective democracy is realized through cross-cutting connections that are not weighed down by affective polarization—which at times may mean actively avoiding the most controversial of issues (Overgaard et al. 2022). This suggests that studying only overtly political topics may not provide sufficient insight into online political discourse. Indeed, we may expect that productive partisan interactions are *least* likely to occur in conversations around explicitly political or controversial topics—but that does not mean they are not happening at all.

### *Platform Affordances*

In line with growing calls for cross-platform research (Bode and Vraga 2018; Chen et al. 2023; Lukito 2020), our analysis compares two popular social media platforms: Twitter, as it was known at the time of data collection and analysis, and Reddit. As perhaps the most widely studied social media platform (Tufekci 2014), Twitter was a natural choice for one of our points of inquiry. Previous research on Twitter has found some evidence for cross-cutting political discourse, though these ties tend to be acrimonious in nature (Bail et al. 2018; Shugars and Beauchamp 2019). Reddit, on the other hand, has shown promise for productive democratic engagement (Matias 2019). Additionally, while similar in size and demographics (Auxier and Anderson 2021; Gottfried 2024), the platforms vary along several key affordances.

Affordances, or “possibilities for action” (Evans et al. 2017), exist at the intersection of a platform’s structural and cultural properties. They represent not only what buttons exist but more richly reflect the potentials seen by people who interact with that platform. For example, platforms vary in how visible content or users are to others, and this perceived visibility has implications for users’ comfort with disclosure, vulnerability, and being corrected (Scott 1998; Duffy and Chan 2019).

In this paper, we focus on four affordances which we expect to be relevant to connective democracy: conversational visibility, content searchability, user anonymity, and community. The first three of these affordances can be understood as branches of the “root affordance” of visibility (Flyverbom et al. 2016; Ronzhyn et al. 2022). As a broad concept visibility refers to the effort required for content, connections, or user information to be seen (Treem and Leonardi 2013). For example, both Twitter and Reddit are highly *visible* in the sense that users typically post content publicly. Yet, the platforms have very different types of visibility and we therefore focus on these “branch” affordances in our study (Flyverbom et al. 2016).

We use the term *conversational visibility* to refer to the ability of users to see and engage in full conversations. As a platform, Twitter has low conversational visibility: reading all comments in a conversation can require many clicks and be difficult to navigate (Hameleers 2020). Reddit, on the other hand, allows users to easily scroll through all

comments that make up a conversation. This facilitates multi-layered interactive discussions and supports engagement with diverse topics and users (Bond and Sweitzer 2022).

Visibility of user information, or *user anonymity*, also varies across our two platforms (Ronzhyn et al. 2022; Scott 1998). While users on Twitter frequently use their real names, Reddit embraces pseudonymity as users' screen names are rarely tied to their true identities (Prakasam and Huxtable-Thomas 2021). There is disagreement in the literature as to the implications of this affordance: user anonymity might cause people to shirk responsibility for displaying hostility or antisocial behaviors (Zimbardo 1969) or it might make people feel safer disclosing trauma or other deeply personal information (Randazzo and Ammari 2023; Scott 1998).

*Content searchability* refers to the accessibility of individual comments, separate from the conversations they are part of (boyd 2010). One prominent tool for aiding searchability is the hashtag, a symbol chosen by Twitter users in 2007 and quickly adopted by that platform and many others (Bernard 2019). Hashtags put searchability into the hands of users themselves, serving as a self-organizing mechanism through which users can signal their interest in discussion (Brock 2012) and relevance to specific topics and audiences (Zappavigna 2015). The wide use of hashtags on Twitter makes topical content easy for other users to find, giving the platform high searchability (Kakavand 2024). While Reddit does have basic search functionality, the lack of hashtags makes it harder for users to find discourse focused on specific topics.

Finally, we build upon previous work showing that social media has the capacity to provide a sense of belonging and support (Doerfel and Moore 2016; Randazzo and Ammari 2023; Vitak 2012) by arguing that *community* is a distinctive platform affordance. We refer here to “community” in the democratic sense (Dewey 1937; Habermas 1996), not merely as a technical mechanism through which users can form groups. A community welcomes members as equal co-creators of the space, enabling collaborative development of shared norms (Dewey 1937) and bolstering social capital as a common good (Coleman 1988). A platform which affords community not only fosters individuals' sense of belonging, but empowers members as democratic citizens who play an active role in shaping the culture of a space and feel a civic responsibility to steward the belonging of others. Such an affordance is particularly relevant for the study of connective democracy, as users may engage differently in conversation if they perceive their words and actions to be contributing to a shared community.

While Twitter has successfully fostered connections within distinctive communities (Brock 2012), we argue that the affordance of community is much stronger on Reddit. For one thing, Reddit has a structure in which identifiable communities (subreddits) establish and maintain their own rules and community norms. Many subreddits are run by moderators who actively model expectations for participation. Furthermore, many subreddits have “regulars”—active members who have been fully socialized into the norms of the community and further help model those norms for new members. In other words, the sense of community afforded by Reddit encourages users to

see themselves as a part of a miniature public, gives implicit and explicit guidance on how “citizens” are expected to behave in this space, and empowers communities to remove content or users who violate those norms.

## Methods

We collect conversations from Twitter and Reddit relating to three topics of study: the 2022 U.S. midterm elections, Russia's invasion of Ukraine, and children/childcare. We focus on the time period between October 1—November 30, 2022, putting election day (November 8) slightly past the midpoint. This window also includes several important milestones relating to Russia's invasion of Ukraine, including the Ukrainian liberation of Kherson (November 11) as well as the announcement of two major U.S. aid packages to Ukraine (October 4 and November 10).

Additionally, about halfway through this time period (October 27), Elon Musk acquired Twitter and stepped in as CEO. We discuss possible implications of this change in Appendix D. However, our primary interest is in comparing Twitter to Reddit. While this leadership change could cause Twitter conversations to not be uniform over our time period, we argue that internal variation is likely to be relatively small compared to variation *between* platforms.

## Data Collection and Classification

On both platforms, conversation-level data was collected through a two-step process. We first used keywords to identify individual posts potentially relevant to a focus topic. We then extracted entire conversations around these initial “seed” posts. Details of our data collection procedure are described in Appendix A.

*Topical classification.* Given that keywords are not always a perfect identifier for a topic (Shugars et al. 2021), we next developed classifiers to determine whether or not each conversation was relevant. We sampled 100 conversations from each topic-platform pair (3 topics x 2 platforms) and manually labeled the topical relevance of each post within these conversations. Details of this sampling and handcoding can be found in Appendix B.

We used a RoBERTa-based transformer pipeline available through the Python package SpaCy to develop binary classifiers for each of our topics, making three classifiers in total. We trained our classifiers on a randomly selected 80% of our data and tested model performance against the remaining 20% of data. All classifiers performed quite well with F1 scores ranging from 0.85 (for children and childcare) to 0.97 (for the Russian invasion of Ukraine). Confusion matrices for all models can be found in Appendix B. Our final dataset of 146,742 conversations classified as relevant to one of our focus topics is detailed in Table 1.

## Indicators of Connective Democracy

Following Nelson (2020)'s computational grounded theory, we approach our analysis by first computationally estimating indicators of connective democracy and then using those estimates to inform a sample for qualitative analysis. While our computational measures provide large-scale insights into the macroscopic patterns of connective democracy

Topic	Platform	Total comments	Total conversations	CDA comments	CDA conversations
Midterms	Twitter	794,817	4,749	12,506	20
	Reddit	174,548	2,812	690	23
	<b>Total</b>	<b>969,365</b>	<b>7,561</b>	<b>13,196</b>	<b>43</b>
Russia	Twitter	3,471,199	34,437	22,189	15
	Reddit	3,090,129	18,890	1,860	38
	<b>Total</b>	<b>6,561,328</b>	<b>53,327</b>	<b>24,049</b>	<b>53</b>
Children	Twitter	17,559,243	53,668	3,136	23
	Reddit	29,480,420	93,074	225	23
	<b>Total</b>	<b>47,039,663</b>	<b>146,742</b>	<b>3,361</b>	<b>46</b>

**Table 1.** Conversations and comments in the full dataset, used for computational analysis, and in the subset used for Critical Discourse Analysis.

(**RQ2**), it is our qualitative analysis that provides a more nuanced understanding into *how* conversations are reflective of connective democracy in the context of specific topics and platform affordances (**RQ1**).

Drawing on the principles of connective democracy, we identify two indicators of interest: intergroup contact and affective polarization. We expand on existing computational measures to estimate distributions of conversations within this two-dimensional space. Critically, we do not argue that either computational measure provides a perfect reflection of these dimensions—rather, we argue that these measures serve as useful indicators for informing a meaningful qualitative sample (**RQ1**). We take as an empirical question the degree to which these measures capture connective democracy (**RQ2**).

To estimate affective polarization, we use the Perspective API (Lees et al. 2022) to calculate toxicity for every comment in our collected conversations. This score estimates the percent of readers who would interpret a comment as toxic. For example, a toxicity of 0.8 indicates that 80% of people reading a comment would consider that comment to be toxic. The toxicity of a conversation is then calculated as the average toxicity of its constituent comments. While “toxicity” does not provide nuanced understanding into uncivil discourse (Rossini 2022), it does represent a useful dimension for sampling when aiming to better understand such discourse (Bianchi et al. 2022). We do not argue that higher toxicity scores are synonymous with more affective polarization—indeed, strongly-worded dissent could be a positive indicator that people feel free to speak their minds (Huckfeldt et al. 2004; Mercier and Landmore 2012). We therefore use this score to inform our qualitative sampling, but do not approach this work with any *a priori* sense of what scores, or distributions of scores, are normatively appropriate.

Similarly, we imagine that intergroup contact may be intertwined with the topical diversity exhibited by a conversation. To estimate this dimension, we therefore use topic modeling, specifically Latent Dirichlet Allocation (LDA) (Blei et al. 2003). While topic modeling is often used to identify the latent topics which occur within a corpus, here, we are not interested in the topics themselves but in the topical diversity exhibited by conversations. Following an approach similar to Shugars and Beauchamp (2019), we fit a 10-dimensional topic model which effectively embeds each comment in a shared “topic space.” Every dimension in this

topical space then represents a latent topical theme within the underlying text. In order to estimate the topical diversity of a conversation, we take the gini coefficient of the resulting topic distribution. This results in a value between 0 and 1 with higher numbers indicating greater topical diversity. Our estimated distributions of topical diversity were robust across multiple iterations of the topic model.

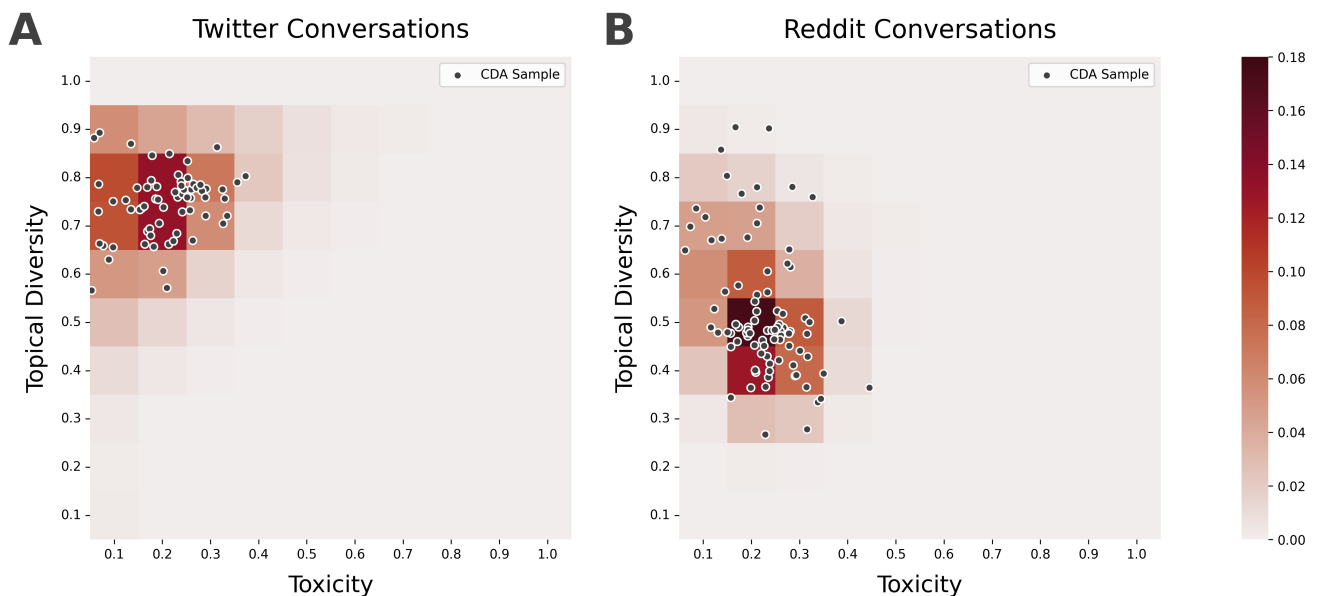
We use both these dimensions to inform a qualitative analysis, sampling 142 conversations across topics, platforms, toxicity, and topical diversity. Heatmaps showing the distribution of toxicity and topical diversity for each platform are shown in Figure 1. We then conducted a Critical Discourse Analysis (CDA) (Fairclough 2013) of these conversations, carefully reading through all comments and noting trends and patterns. Critical approaches provide an essential balance to computational measures (Shugars 2024), and CDA in particular aims to critically interpret discursive signals and behaviors in order to identify actionable strategies capable of improving the world (Fairclough 2013, p.226). Frequently used in the context of interrogating the discursive maneuvers that invite or deny equal political participation (Brock 2018; Fairclough 2013; Gitomer et al. 2023; Van Leeuwen 2008), CDA is especially relevant to the deliberative concerns raised by Sanders (1997). By taking a critical approach we aim to not only determine whether connective democracy is present, but to more deeply interrogate the actions and affordances which support or diminish productive intergroup discourse.

Following the tradition of grounded theory, CDA takes an iterative and inductive approach to building theory “grounded” in the data (Meyer 2015, p.18). For this portion of the analysis, we intentionally did not randomize the order of conversations, but instead focused on a single platform and topic at time. Specifically, we first reviewed Twitter conversations about the U.S. midterm elections followed by Reddit conversations about the elections. Next, we evaluated Twitter conversations about Russia’s invasion of Ukraine followed by Reddit conversations on this same topic. Finally, we examined Twitter conversations about children and completed the analysis with Reddit conversations about children. This methodical approach allowed us to focus on the norms, patterns, and behaviors that occurred around a specific topic and platform, giving us greater insights into the platform affordances which worsened or ameliorated connective democracy. All conversations were read independently by both authors, and then the authors met to discuss key themes, patterns, and behaviors that emerged. The first author then iteratively compared all pairs of topic-platform categories to identify both within- and cross-platform differences.

## Results

### Critical Discourse Analysis

To answer **RQ1**, we conducted a Critical Discourse Analysis (Fairclough 2013) focused on evaluating systematic differences between Twitter and Reddit with the expectation that the varied affordances of these platforms would have implications for connective democracy. As reported in Table 1, we reviewed a total of 58 Twitter conversations (composed of 37,831 comments) and 84 Reddit conversations (2,775 comments). While our analysis relied upon a relatively small



**Figure 1.** Density of toxicity and topical diversity on Twitter (A) and Reddit (B) for conversations classified as relevant to a studied topic. Black dots indicate conversations studied in our Critical Discourse Analysis.

number of conversations for each topic on a single platform, we believe these results are illustrative of systematic differences between the two platforms as a whole.

Across all topics, Twitter displayed less promise as a conduit for connective democracy. Conversations tended to have very little back-and-forth interaction and to feature one-off engagement as respondents jumped into conversations to make a quick jab at political rivals. Twitter also demonstrated high levels of affective polarization, and was largely characterized by antagonistic comments targeting “the other side.” While this sometimes reflected a weak form of “intergroup contact”—hostile responses to disagreeable content—several conversations demonstrated high affective polarization *without* intergroup contact. This is in line with previous work (Shugars and Beauchamp 2019), which similarly found it was common for groups of like-minded individuals to make antagonistic comments about “the other side” without that side being represented in the conversation.

Reddit, on the other hand, while far from the ideals of deliberative democracy, showed promise for the more practical ideals of connective democracy. While discourse was at times heated and even antagonistic, people *did* engage with one another—often going back and forth to share perspectives, information, and arguments. Affective polarization was typically only present in conversations about electoral politics and was minimal or absent for conversations on other topics. Furthermore, conversations on Reddit often displayed evidence of intergroup contact. As Reddit users shared personal stories and perspectives it was often clear that people were engaging across salient dimensions of difference. Indeed, perhaps the most promising aspect of Reddit was seeing users—across topics and subreddits—continually engage with each other as *people* and build the kinds of connections critical to connective democracy.

As expected, conversations about the U.S. Midterm elections were the most overtly political and contentious on both platforms. On Twitter, the majority of conversations

on this topic were initiated by political elites—elected officials or political commentators. These posts often attracted thousands of comments, retweets, and quote tweets. While the total response was typically mixed—with some users staunchly pro-Democrat and others staunchly pro-Republican—most replies were one-off posts which received no further response from anyone. Furthermore, the majority of these replies clearly demonstrated affective polarization, and many comments included derogatory and offensive remarks targeted at outpartisans.

Interestingly, this trend continued across Twitter to the other topics examined. Conversations about children and childcare predominately reflected a larger, political “culture war.” Many conversations in this category focused on queer rights and frequently included transphobic slurs and threats. Other threads centered on school COVID policies, with users from both parties attacking the other for “not caring about children.” Similarly, several Twitter conversations about Russia’s invasion of Ukraine pivoted to be about U.S. politics and were equally acrimonious. For example, one Twitter discussion of Ukraine quickly turned to comments about how the “woke mob” has not “contributed anything except a blue & yellow emoji.” This topic, however, appeared to be the least polarizing on Twitter as several threads came from Ukrainian or Russian experts sharing important insight and information relating to the situation. These informational threads appeared to generally get less attention and engagement than those which primarily engaged in discussion of U.S. politics.

While conversations on Twitter were likely to be acrimonious, not all the conversations we examined fell into this category. Our sampling strategy aimed to gather conversations which were diverse with respect to connective democracy, and we observed a small number of Twitter conversations which demonstrated less affective polarization. For example, one election conversation featured a user talking about their experience as a poll worker and encouraging others to volunteer for this role. This post came

from a small account and replies appeared to be largely from mutual contacts. Another conversation started with a basketball-focused account sharing an announcement that NBA games would not be held on election day so that people could vote. On the topic of children and childcare, a few threads discussed book recommendations, one shared parenting advice, and a few discussed Halloween candy. Replies in all these threads were typically uncontentious and free of affective polarization—making them notable outliers from the bulk of Twitter conversations we examined. However, these conversations tended to be smaller and, similar to other threads on the platform, demonstrated little to no meaningful intergroup contact.

Discourse on Reddit was notably different for having both less affective polarization and more intergroup contact. While some Reddit comments expressed affective polarization, many were more tempered than comments on Twitter, were more likely to reflect genuine issue polarization, and were largely restricted to conversations about electoral politics. For example, on Twitter, many comments across topics expressed negative sentiment aimed broadly at “Democrats,” “liberals,” “Republicans” or “conservatives” with little nuance in who was targeted. While that did happen on Reddit as well, it was not nearly as prevalent. We observed many instances of people being precise about attacking specific politicians and policies, often explicitly stating that they were not attacking “everyday” members of a political party.

One important technical difference between the two platforms was the presence of moderators on Reddit. Many of the subreddits, particularly those focused on politics, had explicit moderation policies. These subreddits ensured users were aware of these policies by pinning an auto-generated reminder immediately after an initial post. For example, every post on the ‘r/PoliticalDiscussion’ subreddit begins with this AutoModerator comment: “This is a subreddit for genuine discussion: Please keep it civil. Report rulebreaking comments for moderator review. Don’t post low effort comments like joke threads, memes, slogans, or links without context. Help prevent this subreddit from becoming an echo chamber. Please don’t downvote comments with which you disagree. Violators will be fed to the bear.” By explicitly stating the norms of the subreddit, these types of automoderator posts help support Reddit’s affordance of *community*, setting clear expectations for conversational engagement. Throughout our analysis, we saw numerous examples of users explicitly citing these community norms and working to gently correct other users’ behavior.

Furthermore, throughout these discussions, there were often signs of users actively trying to maintain productive, intergroup discussion by de-escalating tension, sharing personal stories or reasons, and even apologizing for things they said. For example, in one thread about political campaign contributions a person was asked for a citation for a claim they had made. In requesting this evidence, the user clearly and politely explained why they were skeptical of the claim. The user who made the claim then responded “that’s a great point” and implying they may have misinterpreted the data that had led to the claim. In another thread focused on a particular U.S. state, a conservative user complained that the “Vote Dem” users hated the state under discussion. A

Democrat responded, “I love [this state], I was born here....I just hate what Republicans have done to it.” The initial user then replied with thanks, adding “I respect how you feel. People should vote for what they feel is best.” This type of back-and-forth discussion between people of differing views was never observed on Twitter.

Discussions around Ukraine and children were notably less polarized on Reddit, with these conversations rarely becoming about U.S. politics. This did happen occasionally, for example one conversation had several strong words to say about someone flying a Russian flag and a Trump flag together, while another focused on debates about Critical Race Theory in U.S. schools. But for the most part, these conversations highlighted the key to connective democracy—people, just being people and talking together about life. People shared their personal stories, asked for life advice, and shared knowledge and resources.

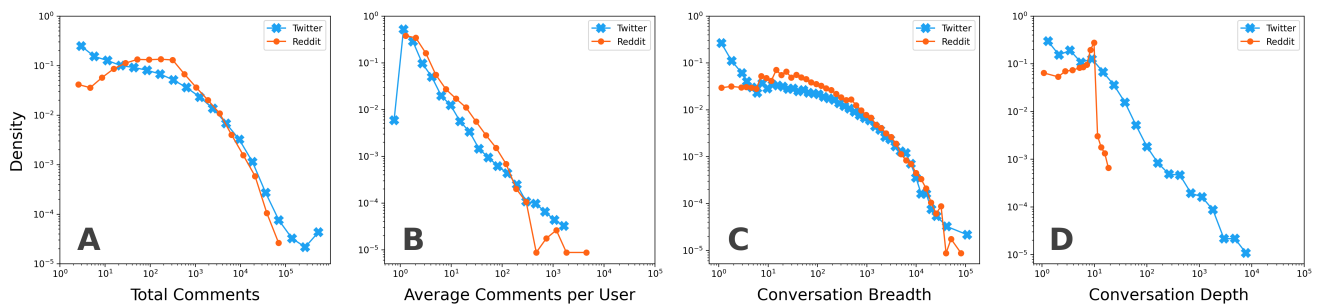
In line with the principles of connective democracy, these intergroup conversations required discussants to develop critical democratic skills in listening and learning across differences. Almost all the Reddit threads we studied included people speaking from personal experience—sharing their experience with war, with politics, with teaching, and with other relevant topics. People listened to each other, thanked each other, apologized to each other, and commiserated with each other. On Reddit, we found many comments saying things like, “thank you for telling your story,” “wow, this is a really insightful response,” “not trying to be argumentative, just genuinely curious because...” This is not to paint an overly optimistic picture of discourse on Reddit—at least one conversation was described by a user as “a trash fire.” Nevertheless, these conversations were starkly more productive than those we saw on Twitter.

### Computational Analysis

While our computational measures informed the sampling strategy, addressing **RQ2** requires these estimates to be interpreted within the context of our qualitative findings. Across our computational measures, we found more meaningful differences between platforms than within platforms. Conversations within Reddit or within Twitter tended to be similar regardless of topic, but conversations on Twitter appeared to be systematically different from conversations on Reddit. We therefore focus on here on aggregate-level findings, comparing all conversations on Twitter to all conversations on Reddit. Versions of these analyses broken down by topic can be found in Appendix C.

Figure 1 compares the density of toxicity and topical diversity on each platform. The black dots represent the conversations which were studied using CDA. While we do not expect either toxicity or topical diversity to be a direct measure of connective democracy, we do find these estimates to be informative for connective democracy.

Toxicity was relatively similar across platforms, with conversations on both platforms having an average toxicity of 0.16. Twitter conversations were more variable on this dimension, with a standard deviation of 0.11 and maximum conversational toxicity of 0.9. Toxicity for Reddit conversations had a standard deviation of 0.08 and reached a maximum of 0.8. Importantly, toxicity scores were estimated



**Figure 2.** Distributions of comments (A), comments per user (B), conversation breadth (C), and conversation depth (D). Figures include all data aggregated over topics.

using only the text included in posts—images did not contribute to this score. Our qualitative results suggest that Twitter, on the whole, is notably more toxic than Reddit and we particularly saw many instances on Twitter of people responding only with images. Thus we believe that, while the Perspective API is still a reasonable tool for informing sampling, it does not provide great insight into connective democracy.

We also see in Figure 1 that these platforms differ in terms of their topical diversity, with Twitter conversations tending to cover more topics than Reddit. On Twitter, conversations had an average topical diversity of 0.68 with a standard deviation of 0.12, while Reddit conversations had an average topical diversity of 0.47 with a standard deviation of 0.13. On their own, these numbers are not that informative—topical diversity could indicate productive cross-cutting discourse or simply people talking past each other. Based on our qualitative analysis, we believe that the high topical diversity of Twitter is most likely to reflect the latter scenario—we saw very few instances of people actually engaging across difference on the platform. This estimate may also reflect the lack of conversational visibility on Twitter, as our qualitative analysis revealed Twitter discourse to be more fragmented. In this case, the increased “diversity” of Twitter could reflect different sub-threads of a conversation engaging in different topics, potentially without any awareness of topics being discussed elsewhere in the conversation. At the same time, Reddit not only benefited from conversational visibility but from the affordance of community. In engaging as members of shared community, respondents often intentionally incorporated the words and perspectives of the people to whom they were responding. This shows up in a topic model as comments being “similar,” but reflects an intentionality when engaging across topics. These findings suggest that connective democracy might manifest through conversations with some—but not too much—topical diversity. We see this as fruitful line for future research and hope these findings will help guide future computational studies.

The differing affordances of the two platforms may also result in different conversational structures, which in turn may influence platforms’ potential for connective democracy. Figure 2 compares structural features of Twitter and Reddit conversations. Panel A shows distributions of conversation size—i.e., the total number of comments in a conversation—across the two platforms. While both platforms display a heavy-tailed distribution, with many

short conversations and a few large conversations, Reddit has notably fewer of the shortest conversations. That is, on Twitter, it is most common for “a conversation” to consist of a single tweet and a handful of replies. Reddit conversations, on the other hand, typically include about 100 comments. For most topics, Reddit conversations actually have more total comments than Twitter conversations. Building on our qualitative findings, we believe this may relate to the community aspect of Reddit—when people see themselves as part of a community, it feels rude to let someone’s post go unanswered.

Panel B shows the average number of comments per user, calculated as the total number of comments divided by the number of commenting users. Here we see that for both platforms this ratio consistently results in a heavy-tailed distribution where many users make only a few comments while a few users engage repeatedly in conversation. Panel C shows the distribution of conversation breadth, defined as the maximum number of replies received by a single comment. We see a similar pattern as with conversation size—on Twitter, it is common for the “most popular” comment to only receive one or even no replies, while on Reddit most comments receive at least some engagement.

Finally, panel D shows conversation depth, defined as the longest path from an initial post to a final comment. For example, a thread in which post A responds to post B, which is itself a response to post C, would have a depth of three. Here we see the most notable structural difference between Twitter and Reddit. Twitter conversations continue to demonstrate a heavy-tailed distribution, with some threads having up to 1000 consecutive replies. Such a thing is never seen on Reddit, where the longest threads typically only span about one hundred replies. While users on Reddit do occasionally have “side conversations,” those conversations are typically short and contained. On Twitter, however, side conversations appear to go on for extended periods of time, potentially even moving away from the initial subject of conversation.

This finding highlights an important difference between Twitter and Reddit conversations that follows directly from the differences in affordances. On Reddit, *conversations* are highly visible and are presented as a coherent whole. Having an extended side conversation on Reddit feels almost rude—like whispering to a neighbor while someone in front of you is talking. Combined with the intentional reinforcement of community through explicit norms and user behavior, Reddit is much more conducive to promoting

connective democracy. Twitter, on the other hand, optimizes for the visibility of individual comments, in part through the affordance of content searchability. A Twitter user might reasonably stumble upon a tweet which itself is a response to another response. Users might then engage with the comment they see—perhaps not even being exposed to the hundreds of comments that preceded it. This could result in long threads where users jump in and contribute to a section of conversation without fully being aware of the conversation as whole.

## Discussion

Connective democracy centers meaningful, cross-cutting connections. Those connections need not be explicitly political or focused on actionable outcomes, but they should be characterized by mutual respect. While more practical than the deliberative ideal, connective democracy similarly envisions democracy as a way of life and calls on citizens to engage thoughtfully and earnestly with those who disagree with them. In the digital world, it becomes increasingly important to examine the ways in which platforms can cultivate or detract from such connections. Our qualitative analysis found numerous instances of Reddit fostering such connection and minimal evidence of such connections on Twitter. Our computational analysis then begins to examine some of the ways in which these platforms are structurally different, giving insights to future computational analysis in this area.

Drawing on our analysis, we reflect on specific affordances which enable or constrain connective democracy. Reddit conversations clearly benefited from the *conversational visibility* afforded by the platform as users actively engaged with each other's content. Similarly, Twitter conversations were made worse by the lack of conversational visibility. On Twitter, people tended to only engage very locally—more like shouting at strangers on the street than engaging in real conversation. The affordance of *content searchability* may also play an important role in driving this platform variation. On Twitter, content is relatively easy to find—meaning that trolls or those with a particular agenda may actively search out content to which they disagree. While search is possible on Reddit, users appear more likely to come to conversations organically, often as regular members of a particular subreddit community. While *user anonymity* may encourage trolls, we found that the pseudonymity of Reddit often allowed users to show vulnerability and share personal stories.

All of this points to our last affordance of *community*. Many platforms, such as Twitter, are primarily focused on individuals—promoting individual comments and curating individualized information feeds. But Reddit focuses less on individuals and more on building communities—actively working to create spaces where users can share personal stories, seek meaningful advice, and engage in productive intergroup discourse. There are many dark corners of Reddit and our findings here are not to suggest that the platform is perfect—but it does offer a compelling model for what community-oriented social media could look like. Perhaps we should never expect online discourse to rise to the level of ideal deliberation, but with affordances of community and

conversational visibility, we just might be able to build social media that truly helps people connect.

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