

Characterizing Reddit Participation of Users Who Engage in the QAnon Conspiracy Theories

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Widespread conspiracy theories may significantly impact our society. This paper focuses on the QAnon conspiracy theory, a consequential conspiracy theory that started on and disseminated successfully through social media. Our work characterizes how Reddit users who have participated in QAnon-focused subreddits engage in activities on the platform, especially outside their own communities. Using a large-scale Reddit moderation action against QAnon-related activities in 2018 as the source, we identified 13,000 users active in the early QAnon communities. We collected the 2.1 million submissions and 10.8 million comments posted by these users across all of Reddit from October 2016 to January 2021. The majority of these users were only active after the emergence of the QAnon conspiracy theory and decreased in activity after Reddit's 2018 QAnon ban. A qualitative analysis of a sample of 915 subreddits where the "QAnon-enthusiastic" users were especially active shows that they participated in a diverse range of subreddits, often of unrelated topics to QAnon. However, most of the users' submissions were concentrated in subreddits that have sympathetic attitudes towards the conspiracy theory, characterized by discussions that were pro-Trump, or emphasized unrestricted behavior (often anti-establishment and anti-interventionist). Further study of a sample of 1,571 of these submissions indicates that most consist of links from low-quality sources, bringing potential harm to the broader Reddit community. These results point to the likelihood that the activities of early QAnon users on Reddit were dedicated and committed to the conspiracy, providing implications on both platform moderation design and future research.

CCS Concepts: • **Human-centered computing** → **Collaborative and social computing**; **Empirical studies in collaborative and social computing**.

Additional Key Words and Phrases: online communities, conspiracy theories, Reddit ban, QAnon, content moderation

ACM Reference Format:

Kristen Engel, Yiqing Hua, Taixiang Zeng, and Mor Naaman. 2022. Characterizing Reddit Participation of Users Who Engage in the QAnon Conspiracy Theories. *Proc. ACM Hum.-Comput. Interact.* 6, CSCW1, Article 53 (April 2022), 21 pages. <https://doi.org/10.1145/3512900>

1 INTRODUCTION

Widespread conspiracy theories may have detrimental impacts on our society, including reducing public trust in science [20] and government entities [30], or radicalizing violent extremist groups [11, 21]. Among them, QAnon emerged as one of the most consequential movements spreading conspiracy theories in the U.S. in recent years. The QAnon conspiracies are rooted in a narrative suggesting that the world is operated by a group of powerful pedophiles and human traffickers [58]. Some tenets of this conspiracy are believed by at least 17% of Americans according to a poll published in December 2020 [27]. In June 2021, a terrorism bulletin issued by the U.S.

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Department of Homeland Security and the Federal Bureau of Investigation listed parts of the QAnon community as domestic violent extremists [44].

Conspiracy theories have attracted an increasing amount of attention from the research community. Studies have analyzed language patterns of conspiracy-related discussions [25, 50, 62], attributes that correlate with conspiracy group engagement [31, 51], as well as circumstances that might foster conspiracy beliefs [16, 33, 42, 67, 68]. In particular, because of the important consequences that it brings, recent work has focused on the QAnon movement on fringe social media websites [46]. However, most of the previous studies focus on the conspiracy theory, or the conspiracy group itself and its activities inside the group. An interesting question that was not as well addressed is how members of a conspiracy group interact with other online communities that are *not* dedicated to the movement.

In this short paper, we characterize the broader participation of users who had early involvement with QAnon on Reddit. Although the conspiracy has spread to many corners of the Internet [45], Reddit was one of the first mainstream social media platforms that had a large QAnon population [76]. The social media platform is comprised of subreddits, communities of users who are interested in particular topics. In September 2018, Reddit banned a range of QAnon subreddits for policy violations [15]. We distinguish these QAnon subreddit bans from others by defining them as the *2018 QAnon ban*. Specifically, we identified 19 *QAnon-focused subreddits* that were shut down by the moderation effort. We use this event to collect a set of users who were active in these banned subreddits. We define the 13,182 users who have posted submissions in these 19 QAnon-focused subreddits as *Q-users*. We further describe two important subsets of the Q-users. **We define *QAnon-enthusiastic users* as the top 25% most active Q-users; authors who have published five or more submissions in the 19 QAnon-focused subreddits.** There are 3,506 such QAnon-enthusiastic users. We refer to the remaining 9,676 users who do not meet the threshold as *QAnon-interested users*. We collected all the 2.1 million submissions and 10.8 million comments of all Q-users on Reddit, from October 28th, 2016, one year prior to the first Q drop [74, 75], to January 23rd, 2021, 72 hours after the U.S. Presidential Inauguration.

With this data, we first characterize activity patterns of Q-users in relation to the emergence of the QAnon conspiracy and to the 2018 QAnon ban. We show that the majority of these users were significantly more active on Reddit during the period between the emergence of the QAnon conspiracy and the 2018 QAnon ban, as compared to the period before the emergence, *and* the period after the ban. Chandrasekharan et. al. [13] have shown that community bans are effective on Reddit in terms of reducing platform participation of users from the banned subreddits. Our findings validate this result, and indicate that the tendency of Q-users' participation, at least in the early period of the movement, was driven by their interest in the QAnon conspiracy.

Looking more generally at the activity of Q-users beyond their community, we analyzed the other subreddits where they were active. To this end, we sampled 915 out of the 12,987 subreddits where at least two QAnon-enthusiastic users have authored submissions. We categorized the sampled subreddits according to the topics that they focus on and the relation of these subreddits to the QAnon conspiracy. Our results indicate that the majority of subreddits that Q-users concentrate activity in focus on content sympathetic towards the QAnon conspiracy, such as pro-Trump rhetoric or centering unconstricted behavior, such as hate speech, pro-freedom of speech, and anti-establishment discourse. In particular, our results show that more activity had shifted to these types of subreddits after the 2018 QAnon ban.

Finally, we characterize the type of participation and harmful content posted by Q-users across different communities. We qualitatively analyzed 1,571 submissions from these users, sampled from the categorized subreddits. Our findings suggest that Q-users might have influence on other subreddits, by acting as moderators, sometimes in subreddits that are of topics that are misaligned with

the QAnon conspiracy. The majority of the harmful content these users post across communities contain links to low-quality sources. Surprisingly, very few of the submissions that we sampled were characterized as negative interactions and hate speech, even when Q-users post in subreddits where users are likely to hold opposite views.

Our findings provide better understanding on the consequential QAnon conspiracy movement, as well as on how the early, dedicated members of that conspiracy community interact with a broader audience. The discoveries may also help inform platform moderators to take stronger actions to prevent further harms.

2 BACKGROUND AND RELATED WORK

The QAnon conspiracy has received significant recent research attention, including its activity on Reddit and other social media. We provide some relevant background on the QAnon conspiracy community and its relation with Reddit. We then review related work that examine conspiracy theories, in particular QAnon's activities on social media, as well as work on the efficacy of deplatforming deviant communities.

The QAnon conspiracy theory and Reddit. The QAnon conspiracy theory refers to a series of narratives that emerged in October 2017, when an anonymous poster known as "Q" posted what became known as "Q drops" [74, 75] on the fringe image-board website 4chan [7]. The core of the conspiracy theory asserts that former U.S. President Trump would use his executive powers to arrest a cabal comprised of pedophilic Satan-worshipping elites from Hollywood to the U.S. Government [58]. Since its inception, despite failed prophecies and a lack of supporting evidence, the QAnon conspiracy has evolved to incorporate a more expansive and sometimes conflicting set of conspiracies. These theories center around a supposed "deep state" and a "global elite" and range from predictions, such as the re-emergence of a deceased John F. Kennedy Jr., to responses to current events, such as claims of election fraud and the "plandemic" [59, 66, 72]. According to the Pew Research Center [69], by September 2020, 47% of the Americans have heard of the conspiracy theory. A separate survey conducted in December 2020 shows that 37% of the Americans were unsure whether QAnon was true or false while 17% believed in some of its tenets [27]. QAnon adherents are feared to threaten and incite violence [15, 19, 37, 53] and are listed by U.S. law enforcement to be tied to domestic violent extremism [44].

After QAnon's success in propagating on fringe platforms, a community was created on Reddit in December 2017 to focus on QAnon discussions [71]. Reddit, a mainstream social media platform, consists of over two-million topic-focused content generating and sharing communities, known as subreddits. Users can make submissions, or comment on other users' submissions in subreddits. On September 12, 2018, Reddit banned several QAnon subreddit communities in response to repeated violations of the site's Content Policy [15]. Reporting suggested that the 2018 QAnon ban was successful in terms of reducing QAnon narratives on Reddit [70].

Conspiracy communities on social media. Social media clearly contributes to the accelerated propagation of conspiracy content. The algorithms create echo-chambers that promote conspiracy theories [22]. Platforms foster trust within social circles [4, 24] that spread rumors, and support the human nature to bond through collective sense-making and gossip [32]. Prior work examining conspiracy communities on Reddit have focused on language patterns [50, 62, 63] and user engagement inside the conspiracy communities [61]. Most related to our research, Phadke et. al. [51] studied factors that might draw Reddit users into conspiracy groups, including interacting with current members of the conspiracy group. While their work focuses on predictors for engagement within conspiracy communities, our study characterizes the engagement of a conspiracy community across Reddit.

Given its importance, a growing body of research focuses on the QAnon conspiracy theory, including characterizing the QAnon movement through analysis of Q drops and QAnon user social imaginaries [3, 50]. Researchers have explored QAnon users within fringe [45] and instant messaging-based social media [26], and examined the cross-platform movement from fringe to mainstream social media [18]. Previous work has also pointed out that social media platforms not only contribute to disseminating QAnon content that incites or leads to violence [5], but also support the movement's collective sense-making [47]. Different from prior work, we focus on QAnon users' behaviors on a mainstream platform interacting with a diverse range of communities, and on how these users were impacted by the platform's moderation action.

The effectiveness of deplatforming. Prior work has shown that for social media websites, deplatforming is a powerful tool to reduce harmful behaviors on the platform [13, 28, 60]. However, users or communities that were deplatformed might move to alternative platforms [54, 57] and engage in more toxic behaviors [2, 55]. Nevertheless, on Reddit, researchers have examined platform-level actions such as subreddit quarantines [12, 64] and subreddit bans [13, 43, 60], showing the effectiveness of both types of actions within the platform. Different from previous studies, we characterize QAnon users' participation on Reddit in other communities from a period before the creation of the QAnon-focused subreddits and through a period after the 2018 QAnon ban. Further, our study is not only focused on deplatforming effectiveness, as we are interested more generally in the activities of Q-users in other Reddit communities.

3 DATA COLLECTION

To better understand QAnon participants' activity patterns on Reddit, we collect a multi-part dataset. The core of our dataset consists of 2,099,875 submissions and 10,831,922 comments from 63,697 subreddits, posted by 13,182 Q-users identified from 19 banned QAnon-focused subreddits. This set of subreddits was not made public, but we explain how we extracted it below.

To find Q-users, we first had to identify the QAnon-focused subreddits. On September 12, 2018, Reddit coordinated a large-scale intervention against QAnon-focused subreddits for platform policy violations [15]. To list these impacted subreddits, we start from a large such community, which had been identified in media reports [15] as one of the banned communities: r/greatawakening. At the time of the 2018 QAnon ban, r/greatawakening had 12,862 submission authors and over 71,000 subscribers [15]. We use r/greatawakening as a seed community and search for subreddits that are of a similar user base. We search for all subreddits satisfying the following three conditions:

- The subreddit shares more than one submission author with r/greatawakening.
- The subreddit name contains at least one of the QAnon-associated terms¹, which we identified from hashtags on Reddit, Twitter, Facebook, and Instagram, converted to lowercase, and lemmatized.
- The subreddit contains at least one submission within 45 days prior to the 2018 QAnon ban and no further activity after.

In total, we identify 19 QAnon-focused subreddits, including r/greatawakening. The list of subreddits, number of submission authors, submissions, and reasons for the ban for each subreddit are listed in Table 2 in Appendix A.

Most of these discovered subreddits were small in size, with r/greatawakening containing over 18 times as many users as of the next largest community. The remaining 18 QAnon-focused subreddits

¹QAnon-associated terms: qproofs, calmbeforethestorm, qanon, greatawakening, stqrm, cbts, wwq, wga, cabal, outoftheshadows, enjoytheshow, awake, thestorm, q, theshow

have 78 submission authors on average. Using this set of 19 subreddits, we identify a total of 13,182 Q-users who have made at least one submission in any of the subreddits.

Given this initial set of users, we expand the dataset to include the Q-users' activities in other subreddits. We use the Pushshift API [6, 39] to collect all the comments and submissions of Q-users during a 50-month period. The data collection period starts on October 28th, 2016, one year prior to the first Q drop [74, 75], and ends on January 23rd, 2021, 72 hours after the U.S. Presidential Inauguration. The 2021 inauguration was chosen as it was a significant event for the QAnon conspiracy movement, and marked the end of a period with potentially heightened activity and attention. In total, our dataset includes 2,099,875 submissions and 10,831,922 comments from 63,697 subreddits. We refer to the subset of 12,987 subreddits where at least two of the QAnon-enthusiastic users have made a submission as the *QAnon-enthusiastic active subreddits*, which include 1,554,183 submissions and 9,687,789 comments made by Q-users.

In summary, our extensive dataset includes users who were active in QAnon-focused subreddits banned by Reddit, as well as the activity of these users in other communities for a period starting before the emergence of the QAnon conspiracy and continuing for years after the 2018 QAnon ban.

Ethical considerations. Our work uses data in the public domain, collected through a publicly available APIs from Reddit and Pushshift. Further, the Pushshift API provides Reddit users with a mechanism to request to remove their account and its content from the dataset. We recognize that some users may not be aware that their data is accessible and used in this way, so we hashed usernames to further obscure identification. Additionally, we focused our analysis on the aggregation of the user base.

4 ACTIVITY PATTERNS OF Q-USERS

We first study the activity patterns of Q-users across all Reddit communities, and how these patterns changed with the emergence of QAnon conspiracy theory and the 2018 QAnon ban. For Q-users, the QAnon conspiracy theory may have motivated their participation on Reddit. On the other hand, moderation actions [13, 60] against them, such as the 2018 QAnon ban, may have a negative impact on their future participation. We analyze the basic account statuses and activity patterns of Q-users with unrestricted accounts, or existing accounts without limitations on participation. We obtain user account status (unrestricted, suspended, and does not exist) for all Q-users as of June 2021. We find that the majority of Q-users were significantly less active before the QAnon conspiracy theory emerged, indicating the possibility that the motivation of their participation on Reddit was heavily influenced by the conspiracy. Further, many of the Q-users, even those who stayed on the platform, decreased activity by a large extent after the 2018 QAnon ban by Reddit, likely due to the effect of moderation.

We refer to the *user's activity* as the total number of submissions and comments by a Q-user in any subreddit. The *Q period* spans the 319 days between the first "Q drop" on 4chan, on October 28th, 2017 and the moderation action from Reddit to ban QAnon-focused subreddits on September 12, 2018. For ease of comparison, we use same-length before-and-after time periods for our analysis here. The *pre-Q period* spans the 319 days right before the Q period, beginning on December 13, 2016. The *post-Q period* spans the 319 days right after the Q period, ending on July 28, 2019.

Table 1 shows the total number of QAnon-enthusiastic users and QAnon-interested users, as well as a June 2021 snapshot of the account status of the users in each group: the number of users from each group that are unrestricted, that do not have an existing account (indicates account deletion), or that are suspended (indicates a moderation intervention of account suspension or ban). Note that

²https://github.com/sTechLab/QAnon_users_on_Reddit

Table 1. Q-users on Reddit.

	Total	Account Status (as of June, 2021)			Among unrestricted users	
		Unrestricted	Does Not Exist	Suspended	Active: Pre-Q	Active: Post-Q
QAnon-interested	9676	8081 (83.52%)	1156 (11.95%)	439 (4.54%)	2702 (33.44%)	4611 (57.06%)
QAnon-enthusiastic	3506	2933 (83.66%)	468 (13.35%)	105 (2.99%)	855 (29.15%)	1951 (66.52%)

more of the QAnon-interested users were suspended (4.54%) compared to the QAnon-enthusiastic users (2.99%). The table indicates that among all the users who have unrestricted account status, majority of the users from both groups were not active before the emergence of Q (66.56% of the unrestricted QAnon-interested users and 70.85% of the unrestricted QAnon-enthusiastic users). After the 2018 QAnon ban, around one-third of these users disengaged with Reddit. For example, among the unrestricted QAnon-enthusiastic users, 66.52% of them remained active on Reddit.

While some Q-users were on Reddit before and after the Q period, we set to understand how Q-users' activity patterns differed before and after that period. We compare these users' activity in three consecutive time periods of equal length, the pre-Q, Q, and post-Q periods. Figure 1 shows a comparison of the relative activity of each user in the pre-Q period (a) and post-Q period (b) with that in the Q period. We restrict users to those who posted at least 5 submissions or comments in the Q period across all of Reddit, and whose account statuses were unrestricted at the time of our data collection, which consists of 58% of the QAnon-interested users and all of the QAnon-enthusiastic users. We use the ratio of activity between pre- (or post-) and the Q period; when users are more active in the Q period, that ratio will be smaller than 1 (on the left side of each figure). The X-axis represents a range of user activity ratio, from 10^{-4} to 10^3 and the Y-axis represents the cumulative percentage of Q-users with a given activity ratio. Most Q-users were significantly more active in the Q period. For example, looking at the pre-Q figure, and the X-axis at a user activity ratio of 10^{-1} , we see that 63% and 78% of the QAnon-interested users and QAnon-enthusiastic users (respectively) were at least ten times more active in the Q period as compared to in the pre-Q period. Similarly, in the post-Q figure, 44% and 58% of the QAnon-interested users and QAnon-enthusiastic users (at a user activity ratio of 10^{-1}) were at least ten times more active in the Q period as compared to in the post-Q period. This result echos our observation in Table 1, showing that many of the Q-users increased activity after the emergence of the QAnon conspiracy theory. The results also show that even if Q-users were still active on the platform, their activity decreased across Reddit after the 2018 QAnon ban.

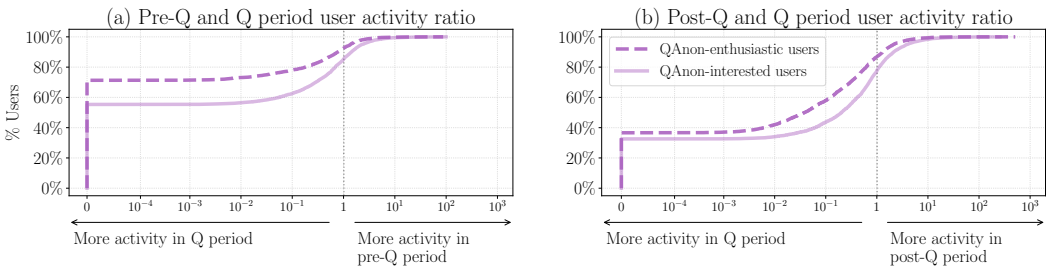


Fig. 1. Q-users are more active in the Q period. (a) The ratio between a user's activity in the pre-Q period over that in the Q period. (b) The ratio between a user's activity in the post-Q period over that in the Q period.

5 CHARACTERIZING COMMUNITIES WITH Q-USERS' SUBMISSIONS

Here we focus our analysis on *where* the Q-users were active on Reddit beyond the QAnon-focused subreddits throughout the 50-month study period. We use qualitative analysis to characterize the QAnon-enthusiastic active subreddits, where at least two QAnon-enthusiastic users have published submissions. Our analysis is centered on QAnon-enthusiastic users, the most active Q-users, who contributed five or more submissions as defined above. Our results show that although the majority of the sampled QAnon-enthusiastic active subreddits are of content unrelated to QAnon, the majority of activities of these users are concentrated in the communities that are sympathetic to or aligned with the QAnon narrative. In particular, their submissions are in the communities that cover topics that are supportive of Trump or about unconstricted behavior, such as hate speech, pro-freedom of speech, and anti-establishment.

The submissions in QAnon-enthusiastic active subreddits accounted for over 89% of all submissions by QAnon-enthusiastic users on Reddit during that period. In total, this activity amounts to 923,942 submissions by 2,636 QAnon-enthusiastic users in QAnon-enthusiastic active subreddits during the study period. To understand the activities of these most active users we sample and categorize 915 QAnon-enthusiastic active subreddits according to their topic, and the relation between the sampled subreddits with the QAnon conspiracy theory. The sample consists of communities with varying sizes and different estimated percentage of QAnon-enthusiastic users in the community.

Methods. We begin by sampling QAnon-enthusiastic active subreddits for qualitative analysis. Our sampling strategy ensures that we cover subreddits with different types of engagement from the general public as well as that from QAnon-enthusiastic users. First, to ensure coverage of the subreddits where QAnon-enthusiastic users are most active, we sample the top 3% of the QAnon-enthusiastic active subreddits with the most QAnon-enthusiastic users' submissions. This set includes 390 subreddits, each with at least 125 submissions from QAnon-enthusiastic users. Second, we group the remaining QAnon-enthusiastic active subreddits into five stratified bins, according to the number of subscribers that they have. We obtain subscriber counts using the Reddit API [9] as of June 2021. For private, quarantined, or banned subreddits, we use Metrics For Reddit [23] to retrieve the number of subscribers. For 88 (0.68% of all) subreddits, none of these were available, we use the median of all known subscriber counts of the QAnon-enthusiastic active subreddits as an estimate. To estimate the levels of QAnon-enthusiastic users infiltration in subreddits, we compute the number of the subreddit's QAnon-enthusiastic users submission authors over the number of the subreddit's subscribers. Inside each of the five bins, we group the subreddits into three strata according to this ratio. To create our sample of subreddits, we randomly sample 35 subreddits from each of the fifteen (5×3) groups, yielding a set of 525 subreddits. Finally, we combine the set of subreddits from the top 3% and the set from the stratified random sampling to obtain a sample of 915 QAnon-enthusiastic active subreddits, which includes 85% of the QAnon-enthusiastic users' submissions and 58% of all Q-users' submissions in all QAnon-enthusiastic active subreddits.

We use an inductive thematic analysis [10] to understand the different content focuses and types of the subreddits in our sample. The analysis is based on key information of each subreddit: the subreddit name, public description, and the most recent top five upvoted "hot" designated submissions. Two authors independently reviewed the data and conducted four rounds of iterative coding and reconciliation to produce a subreddit codebook (Appendix A, Table 3). Two authors coded the sampled subreddits, each with one or more of the 24 codes. The Cohen's kappa for the this coding of the subreddits is 0.83. After this step, the two authors resolved conflicts in the code through discussion. We grouped the 24 codes in the book in two different dimensions: (1) nine *topic labels* derived from common subreddit themes; and (2) six *relation labels* representing

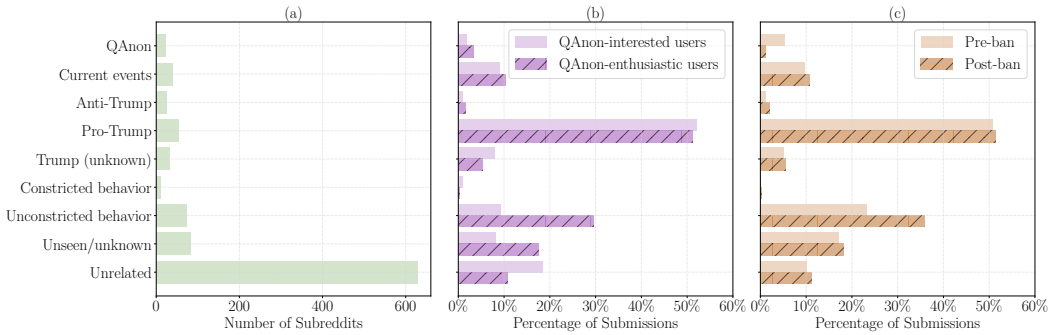


Fig. 2. Sampled QAnon-enthusiastic active subreddits with different topic labels: (a) Number of subreddits with content of different topics. (b) QAnon-enthusiastic users' and QAnon-interested users' submissions in subreddits with different topics. (c) QAnon-enthusiastic users' submissions in subreddits with different topics before and after the 2018 QAnon ban.

the relationship of the subreddit with the QAnon narrative. The mapping of codes to relation and topic labels are detailed in the codebook (Appendix A, Table 4 and Table 5, respectively). For example, subreddits with the codes *conspiracy - other* and *politics - right* are assigned a relation label of *Sympathetic* due to having similar views or supporting common QAnon themes. In addition to the relation label, subreddits with the code *conspiracy - other* were assigned a topic label of *Unseen/unknown*, capturing subreddits where the community speculates or searches for meaning and explanation of different phenomena (see Appendix A, Table 5). The code *politics - right*, to use another example, was assigned a topic label of *Pro-Trump* in addition to its relation label.

Topic labels. Figure 2 shows the analysis of sampled QAnon-enthusiastic active subreddits according to their topic label. Figure 2(a) shows the count of subreddits in our sample where QAnon-enthusiastic users were active during the entire 50-month study period, categorized by the topic labels. The X-axis represents the number of subreddits that contain the type of topic specified by the Y-axis. The figure shows that QAnon-enthusiastic users were broadly active: most of the sampled subreddits (629 out of 915) contain *Unrelated* topics (bottom row).

While QAnon-enthusiastic users were active in many different types of subreddits, most of them of *Unrelated* topics, the majority of their *activity* was focused on a number of subreddits with topics relevant to QAnon. In total, QAnon-interested users and QAnon-enthusiastic users posted 421,908 and 794,423 submissions in all sampled subreddits respectively. Figure 2(b) shows the percentage of submissions from QAnon-interested users and QAnon-enthusiastic users in subreddits with different types of topics. The X-axis represents the percentage of total submissions posted by each user group in a subreddit with the type of content specified by the Y-axis. For example, the bottom row of Figure 2(b) shows that only 18% of the QAnon-interested users' submissions (bar with lighter shade) and 11% of the QAnon-enthusiastic users' submissions (bar with darker shade and stripes) were posted in subreddits that are about topics unrelated to QAnon. Most of the submissions from both groups are concentrated in subreddits with *Pro-Trump* topics (52% for QAnon-interested users and 51% of QAnon-enthusiastic users). Compared with QAnon-interested users, more of the QAnon-enthusiastic users' submissions are in subreddits with topics of *Unconstricted behavior* (29% vs. 9%). The difference is significant ($\chi^2(8, N = 1,491,678) = 82,077.3, p < 0.001$).

Figure 2(c) shows the percentage of QAnon-enthusiastic users' submissions before and after the 2018 QAnon ban over the entire study period, in subreddits with different types of topics. QAnon-enthusiastic users posted 397,752 and 396,671 submissions in these sampled subreddits

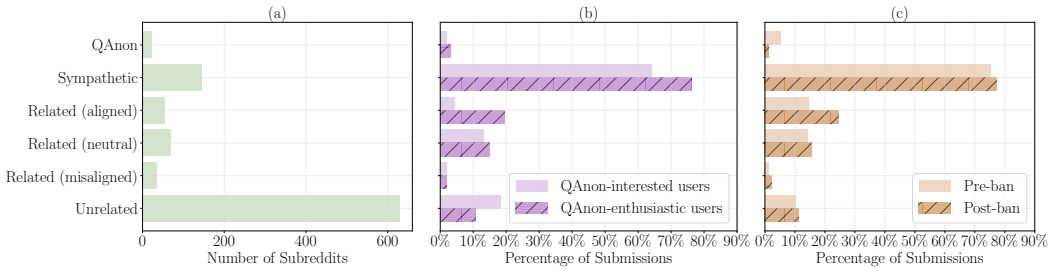


Fig. 3. (a) Sampled QAnon-enthusiastic active subreddits with different relation to QAnon. (b) QAnon-enthusiastic users' and QAnon-interested users' submissions in subreddits with different relation to QAnon. (c) QAnon-enthusiastic users' submissions in subreddits with different relations to QAnon before and after the 2018 QAnon ban.

before and after the 2018 QAnon ban. The X-axis represents the percentage of total submissions from one of the time periods specified by the legend. For example, the fourth row from top shows that 51% of the QAnon-enthusiastic users' submissions before the ban (bar with lighter shade) and 52% of the QAnon-enthusiastic users' submissions after the ban (bar with darker shade and stripes) posted in subreddits that focus on *Pro-Trump* topics. Similarly, there is increased activity from QAnon-enthusiastic users after the ban on submissions in subreddits we labeled as *Unconstricted behavior*. The difference is significant ($\chi^2(8, N = 1,029,581) = 20,398.2, p < 0.001$).

In conclusion, our results indicate that although most of the QAnon-enthusiastic active subreddits are of unrelated topics, the majority of the QAnon-enthusiastic users' submissions are concentrated in subreddits with *Pro-Trump* and *Unconstricted behavior* content. After the 2018 QAnon ban, QAnon-enthusiastic users' submissions in *Unconstricted behavior*-focused subreddits increased significantly while those in *Pro-Trump*-focused subreddits increased only slightly. One possible explanation for the shift being relatively minor could be the banning in June 2020 of the largest *Pro-Trump* subreddit, *r/The_Donald*, where 41.5% of QAnon-enthusiastic users authored submissions [41].

Relation labels. Figure 3 shows the analysis of where QAnon-enthusiastic users were active in the sample according to the subreddits' relation labels, a direct evaluation of how the subreddit relates to the QAnon narrative. Figure 3(a) shows the number of subreddits with different types of relation labels. The X-axis represents the number of subreddits in our sample for each type of relation, specified by the Y-axis. Similarly, most of the sampled subreddits (629 out of 915) are of *Unrelated* relation (bottom row).

Figure 3(b) shows the percentage of submissions from the two user groups, QAnon-interested users and QAnon-enthusiastic users, in subreddits with different types of relations to the QAnon narrative. The X-axis represents the percentage of total submissions from one of the user group specified by the legend, that were posted in a subreddit with the type of relation specified by the Y-axis. Similar to our previous findings, most of the submissions from both groups are concentrated in subreddits that are *Sympathetic* towards QAnon (64% for QAnon-interested users and 76% of QAnon-enthusiastic users). Further, compared with QAnon-interested users, more of the QAnon-enthusiastic users' submissions are in subreddits with QAnon-related topics that are *Related (aligned)* with the narrative (19% vs. 4%). The difference is significant ($\chi^2(5, N = 1,444,019) = 56,617.7, p < 0.001$).

Figure 3(c) shows the percentage of QAnon-enthusiastic users' submissions before and after the 2018 QAnon ban, in subreddits with different types of relations. The X-axis represents the percentage of total submissions from one of the time periods specified by the legend, that were

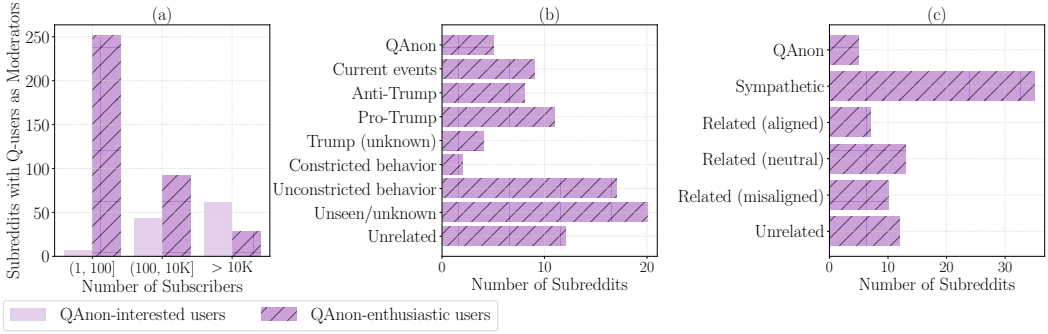


Fig. 4. (a) Number of QAnon-enthusiastic active subreddits with Q-users as moderators, with varying number of subscribers. Number of sampled QAnon-enthusiastic active subreddits that have QAnon-enthusiastic users as moderators, (b) with contents of different topic labels and (c) of different relation labels.

posted in a subreddit with the type of relation specified by the Y-axis. For example, the second row from top shows that 75% of the QAnon-enthusiastic users' submissions before the ban (bar with lighter shade) and 77% of the QAnon-enthusiastic users' submissions after the ban (bar with darker shade and stripes) were posted in *Sympathetic* subreddits. There's also an increase in the portion of the QAnon-enthusiastic users' submissions after the ban in subreddits that are *Related (aligned)* to the QAnon narrative. The difference is significant ($\chi^2(5, N = 1,003,887) = 20,575.7, p < 0.001$).

Our findings show that the majority of QAnon-enthusiastic users' submissions are concentrated in subreddits that are *Sympathetic* towards the QAnon conspiracy theory, especially when compared with QAnon-interested users. After the 2018 QAnon ban, QAnon-enthusiastic users concentrated more in subreddits that share similar elements, views, or themes with QAnon, that were not directly misaligned with or focused on the conspiracy.

6 Q-USERS' ACTIVITIES ACROSS COMMUNITIES

Q-users interact with different types of subreddits in different ways. One of the more concerning types of interactions is when these users serve as moderators of subreddits, where they can exert outside influence on these communities. Another interaction that may be concerning is the posting of content that is harmful within these subreddits. In this section, we explore these two types of interactions. Our analysis shows that a non-trivial number of subreddits could potentially be heavily influenced by Q-users who were serving as their moderators. This phenomenon is not limited to subreddits that are of similar views or themes to QAnon, but is also extended to subreddits that promote opposing or disjointed content. Our results below also show that Q-users spread low-quality information across all other subreddit types, although we detected less such activity in subreddits that are *Unrelated* to QAnon.

Q-users as moderators. We examine the different types and characteristics of the QAnon-enthusiastic active subreddits where Q-users act as moderators. We obtain the moderator names as of June 2021 using the Reddit API [9]. In total, out of 12,987 QAnon-enthusiastic active subreddits, we found that 88 QAnon-interested users and 143 QAnon-enthusiastic users are moderators of 113 and 371 subreddits, nine of which have over 1,000,000 subscribers including r/worldnews and r/politics. In particular, 240 of these subreddits have moderation teams solely comprised of Q-users.

Figure 4(a) shows the number of QAnon-enthusiastic active subreddits with at least one Q-user as moderator (Y-axis) by number of subscribers that these subreddits have (X-axis). The legend

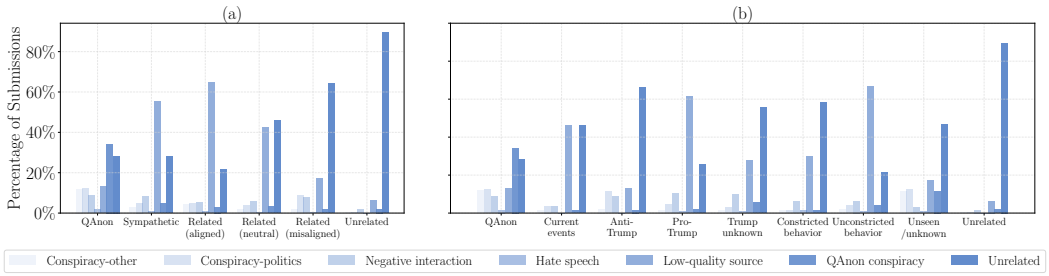


Fig. 5. Types of harmful submissions (different color bars) in sampled QAnon-enthusiastic active subreddits according to their frequency in subreddits of (a) different topic labels, and (b) different relation labels.

separates QAnon-interested users (bar with the lighter shade) and QAnon-enthusiastic users (bar with the darker shade and stripes.) For example, the first column from left shows that most of the QAnon-enthusiastic active subreddits (251) that have QAnon-enthusiastic users as moderators are small communities, with fewer than 100 subscribers. At the same time, several larger communities with more than 10,000 subscribers have moderators who are QAnon-interested users (62 subreddits, first bar with the lighter shade from right) or QAnon-enthusiastic users (28 subreddits, first bar with the darker shade and stripes from right). These numbers indicate that both QAnon-enthusiastic users and QAnon-interested users might have large impact on the broader community and conversation on Reddit.

To understand the types of subreddits where these users serve as moderators, we examine our sample of 915 QAnon-enthusiastic active subreddits (as described as in Section 5). Within this sample, we find that 38 QAnon-enthusiastic users are moderators of 69 of these subreddits, and 31 QAnon-interested users serve as moderators of 29 of the 915. Furthermore, 25 of the 915 sampled subreddits have moderation teams solely comprised of Q-users. Figure 4(b) and (c) break down the types of subreddits moderated by these users according to the topic labels and relation labels (Y-axis) respectively. The X-axis represents the number of subreddits moderated by QAnon-enthusiastic users for each type of relation and topic label. For example, in Figure 4(c), the majority of the subreddits with QAnon-enthusiastic users as moderators are *Sympathetic* to the QAnon conspiracy theory (35 subreddits, second column from top.) However, as shown in Figure 4(b), there are cases where QAnon-enthusiastic users moderate subreddits with topics that are not clearly aligned with the QAnon narratives, such as *Current events* (9 subreddits), *Unseen/unknown* (20 subreddits), or even subreddits with topics that are clearly misaligned with the QAnon narratives, such as *Anti-Trump* (8 subreddits).

Content Posted by Q-users. In total, the Q-users made 1,554,183 submissions in the 12,987 QAnon-enthusiastic active subreddits over the 50-month study period. To better understand what type of harmful content Q-users post in other subreddits than the QAnon-focused ones, especially inside the QAnon-enthusiastic active subreddits, we apply a labeling scheme to a sample of 1,571 Q-user-authored submissions. These submissions are extracted from the 915 sampled QAnon-enthusiastic active subreddits.

We used a stratified random sampling strategy to obtain the submissions sample in order to ensure a balance across subreddit relation labels and subreddit topics. For each relation label R and topic label T pair, we sample a number of submissions is proportional to the number of subreddits labeled with both R and T . In total, we sample 1,571 submissions made by Q-users in the sample of 915 QAnon-enthusiastic active subreddits.

The 1,571 sampled submissions were assigned one or more labels indicating if the post contained different types of harmful content: *QAnon conspiracy*, *Conspiracy-politics*, *Conspiracy-other*, *Hate speech*, *Negative interaction*, and *Low-quality source*. We expand on these labels in Appendix A, Table 6. Two authors independently reviewed and labeled the submissions. If a post did not contain one of these pre-defined harms, it was labeled *Unrelated*. To apply the *Low-quality source* label we use Media Bias Fact Check [14] (MBFC, accessed June 2021), a resource frequently used in previous work [49, 65, 77]. The authors labeled a link submission as a *Low-quality source* if it was labeled by MBFC as low credibility, mixed, low or very low factual reporting, questionable sources, or conspiracy-psuedoscience. In total, 55% of the unique links in our sample were included in MBFC. The Cohen's kappa for labeling was 0.53, followed by a reconciliation process that produced the final labels used in the analysis.

To understand where Q-users promoted harmful content, we examine these labeled submissions across different types of subreddit. Figure 5 shows the different types of submissions posted by Q-users in subreddits of (a) different topic labels and (b) different relation labels. The Y-axis represents the percentage of the different types of submissions. The submission types are the columns, using different shades of blue for each type as specified in the legend. The percentage is the ratio of this type of submission out of all the sampled submissions for that category of subreddits. For example, in subreddits *Related (neutral)*, *Related (misaligned)*, and *Unrelated* to QAnon narratives, the majority of the submissions are labeled *Unrelated* (do not contain harmful content). As is clear from the figure, the submission behavior of Q-users differ in different types of subreddits, and the differences between subreddits are significant in both plots ($\chi^2(30, N = 1,571) = 897, p < 0.001$ and $\chi^2(48, N = 1,571) = 1,086, p < 0.001$). In the *QAnon* subreddits, the most common type of the submissions (34%) are of *QAnon conspiracy*. However, in subreddits with *Sympathetic* and those with *Related (aligned)* relation labels (the second and third group of columns from left in Figure 5(a)), the majority (55% and 65% respectively) of the submissions by these users are of *Low-quality source* (third darkest shade). In particular, these *Low-quality source* content submissions make up a large portion of Q-users' submissions in subreddits labeled with different topics as well. As shown in Figure 5(b), subreddits that are about *Current events*, *Pro-Trump*, and *Unconstricted behavior* contain 46%, 61%, 67% *Low-quality source* submissions, respectively. Interestingly, in departure from the findings of previous research [17, 34], *Negative interactions* constituted only a small portion of the sampled Q-users' submissions (less than 10% for all types of the subreddits). Overall, our results indicate that Q-users tend to spread low-quality information in the broader community, causing harm in Reddit communities at large. This finding is especially concerning as some of the communities they are active in are focused on current events, such as discussions surrounding the COVID-19 pandemic.

7 DISCUSSION AND LIMITATIONS

In this paper, we use the 2018 QAnon ban event as a source of information about early users dedicated to the QAnon conspiracy. We identify QAnon-focused subreddits on Reddit and users who were active in these communities. We then characterize the activities of these early QAnon users beyond their these communities, from a year before the emergence of the conspiracy theory to 72 hours after the 2021 U.S. Presidential Inauguration. Our analyses provide the first clues towards understanding whether these users are "casual conspiracists" who participate in conspiracy-related conversations occasionally and have a regular presence in other communities, or "committed conspiracists" who join the platform only to participate in the activities that are related the conspiracy. The findings point towards the latter. We discuss these findings below, and review the limitations of this work.

While not focused on the efficacy or outcomes of the ban, our findings echo some of the earlier results on the effect of community bans. Previous research [13, 60] has shown that Reddit bans were

effective in reducing participation from users of the banned communities and preventing some harmful behaviors. Our data and findings suggest that the 2018 QAnon ban has similar effects on the early Q-users community. We show that most of the Q-users accounts we could observe stopped being active or significantly decreased their activity after the ban. Further, a higher percentage of accounts from QAnon-enthusiastic users relative to QAnon-interested users no longer exist, implying account deletion by the most active in the QAnon-focused subreddits. One unexpected finding was the higher percentage of banned or suspended QAnon-interested users relative to QAnon-enthusiastic users. In the absence of metadata or other mechanisms to understand the reasons for account suspension, future work could consider the final posts of these users to uncover whether or not the moderation intervention was related to their QAnon association.

While most researchers have tracked the activities of banned community members *after* [2, 28, 43, 54, 56, 57, 60] the ban or *right before* the ban [13], our analysis goes earlier in the existence of these communities to show that the majority of the Q-users likely *joined* Reddit to engage in and focus on QAnon-related activities. This finding extends our understanding of conspiracist behavior on Reddit, and provides a recommendation for future works to study the other aspects of the participation of active members *prior* to the creation of the later-banned communities, or *in parallel* to their activities there. One particular research question that this result raises is of the association between the success of a community ban and the degree of its participants engaging with other communities on the site.

Our analyses on the more-active Q-users show that while these users were involved in other communities, they concentrated their participation in subreddits with similar viewpoints. Previous research had examined inter-community interactions and conflicts between communities, including on Reddit. Besides some of the interactions shown in previous work, like coordinated hate attacks [38] and toxic conversations [17, 34], we have shown that the Q-users also engage in other types of harmful behaviors when interacting with communities that are of misaligned topics, such as propagating mis- and disinformation from low-quality sources and spreading conspiracy theories. At the same time, despite the majority of QAnon-focused subreddits being banned for harassment (Appendix A, Table 2), we have found only a small percentage of Q-users' submissions contain negative interactions and hate speech. According to our results, 7% and 0.6% of the sampled submissions by these users are labeled *Negative interaction* and *Hate speech* respectively. Nevertheless, as Q-users made 1,554,183 submissions in the nearly 13,000 subreddits in which they were active over the 50-month study period, this would mean that there were over 118,000 submissions with negative interaction or hate speech content, a large amount that could still have significant impact on the broader community. This finding of somewhat limited proportion of negative interaction and hate speech could be a result of our sample, or the fact that our analysis only focused on Reddit submissions, not taking comments into account. It is likely that there is more harassment happening in comments posted by Q-users. A more in depth comparison of Q-users' content, submissions and comments included, could be an area of future work.

There are other ways in which these users can impact the overall Reddit community. As we report above, our results indicate that several of the Q-users act as moderators of non-QAnon subreddits. Content moderation plays an important role on Reddit, with moderators often having outsized influence on the content posted [29, 40]. It is important for future work to understand what is the Q-users' impact on those communities and what harms to our information ecosystem may be caused by this kind of involvement creates.

Our study focused on Reddit communities and early, committed adopters of the QAnon conspiracy theory on the platform. On other social media platforms, even those that offer similar "community" structures, different platform affordances enable different types of user expressions [35, 52, 73]. For example, Facebook groups also support community discussions. However, unlike Reddit, people can

be added to groups, and group activities are well integrated — often driven by — Facebook’s existing social graph [36]. Such features might lead to more nuances when analyzing QAnon adherents’ behaviors on Facebook [8]. Further, community migrations caused by deplatforming [2, 13, 56] raise interesting questions of how QAnon users may exploit the affordances of various platforms. The activities of QAnon community members beyond their community boundaries in other social media platforms and across multiple platforms is another area of future work.

Nevertheless, the patterns of community and content engagement we see on Reddit might resemble that of QAnon user interactions with the broader information ecosystem in other places, online and offline. For example, recent studies of Twitter activities around the 2020 U.S. elections [1, 48] have shown that on Twitter, the QAnon community forms a tight network community. Echoing our findings, showing that Reddit QAnon users engage in large amount of the activities within sympathetic subreddits, the QAnon community on Twitter is also quite integrated with other alt-right and extremist groups [1, 48] holding sympathetic views towards QAnon. We believe that our dataset and analyses may add knowledge to the growing research body on understanding the online alt-right activities (e.g. [1, 45, 46, 56]), and help researchers from multiple disciplines better understand this consequential movement.

Limitations. Our analysis suffers from several limitations worth considering here, beyond the focus on Reddit and its limited generalization to other platforms. First, our observational data cannot be used to interpret causal relations among the observed actions. For example, QAnon-enthusiastic users increased participation in *Sympathetic* subreddits post-ban relative to their pre-ban activity. Given how the data is presented, this might be interpreted as a result of the 2018 QAnon ban. However, there could be other explanations, such as an increase in political subreddit submissions discussing U.S. elections which also occurred during the study period. Further, we note some limits on data collection. For example, we could not retrieve the subreddit metadata from subreddits that are currently banned, quarantined, or private. This limit may have impacted our data analysis in ways that are hard to estimate. Finally, we used the 2018 QAnon ban event and the QAnon-focused subreddits to derive the set of Q-users we built on in this work. There are other Reddit users who are interested in the QAnon discussions, whose behaviors are not fully captured and analyzed in these results, as we only consider a specific subset of communities. An opposite phenomena may have also impacted our results: there could also be non-QAnon members who authored submissions in the subreddits being used to derive Q-users, leading us to include such accounts in the analysis. However, we estimate that the likelihood of such inclusion is low.

8 CONCLUSIONS

We focus our work on the consequential QAnon conspiracy theory and in particular its early, dedicated users, those who engaged in the QAnon movement before 2018. We characterized these users’ participation on Reddit, especially outside of the QAnon-focused subreddits. We collected a large-scale dataset of Reddit activities from identified QAnon users. Our results indicate that the majority of these early QAnon users were only active on Reddit after the emergence of the QAnon conspiracy theory and decreased in activity after Reddit’s 2018 QAnon ban. Our qualitative analysis further shows that the more active QAnon users engage with a wide range of subreddits focusing on various topics, that are of different relations to the QAnon conspiracy theory. However, the majority of these users’ submissions were concentrated in subreddits that hold sympathetic attitudes towards QAnon, including topics that are supportive of Trump or unconstricted behaviors. These submissions often include links from low-quality sources, potentially propagating mis- and disinformation. We also found that some of the early QAnon users become moderators in subreddits, including those that are of topics that are misaligned with the QAnon narrative. These results

improve our understandings of the QAnon community and their potential influence on the broader Reddit ecosystem, providing insights for both future researchers and platform providers.

9 ACKNOWLEDGEMENTS

We thank Nicola Dell for her consultation on this project. This material is based upon work partially supported by the National Science Foundation under grants SaTC-2120651 and IIS-1840751.

REFERENCES

- [1] Anton Abilov, Yiqing Hua, Hana Matatov, Ofra Amir, and Mor Naaman. 2021. VoterFraud2020: a Multi-modal Dataset of Election Fraud Claims on Twitter. In *Proceedings of the Fifteenth International AAAI Conference on Web and Social Media*. AAAI Press.
- [2] Shiza Ali, Mohammad Hammas Saeed, Esraa Aldreabi, Jeremy Blackburn, Emiliano De Cristofaro, Savvas Zannettou, and Gianluca Stringhini. 2021. Understanding the Effect of Deplatforming on Social Networks. In *13th ACM Web Science Conference 2021*. Association for Computing Machinery.
- [3] Max Aliapoulos, Antonis Papasavva, Cameron Ballard, Emiliano De Cristofaro, Gianluca Stringhini, Savvas Zannettou, and Jeremy Blackburn. 2021. The gospel according to Q: Understanding the QAnon conspiracy from the perspective of canonical information. *arXiv preprint arXiv:2101.08750* (2021).
- [4] Gordon W Allport and Leo Postman. 1947. *The psychology of rumor*. Henry Holt and Company.
- [5] Amarnath Amarasingam and Marc-André Argentino. 2020. The QAnon conspiracy theory: A security threat in the making. *CTC Sentinel* 13, 7 (2020).
- [6] Jason Baumgartner, Savvas Zannettou, Brian Keegan, Megan Squire, and Jeremy Blackburn. 2020. The pushshift reddit dataset. In *Proceedings of the Fourteenth International AAAI Conference on Web and Social Media*. AAAI Press.
- [7] Michael Bernstein, Andrés Monroy-Hernández, Drew Harry, Paul André, Katrina Panovich, and Greg Vargas. 2011. 4chan and/b/: An Analysis of Anonymity and Ephemerality in a Large Online Community. In *Proceedings of the Fifth International AAAI Conference on Web and Social Media*. AAAI Press.
- [8] John Bodner, Wendy Welch, and Ian Brodie. 2020. *Covid-19 conspiracy theories: QAnon, 5G, the New World Order and other viral ideas*. McFarland.
- [9] Bryce Boe. 2016. Python Reddit API Wrapper (PRAW). Retrieved 2021-06-30 from <https://praw.readthedocs.io/en/stable/>
- [10] Virginia Braun and Victoria Clarke. 2006. Using thematic analysis in psychology. *Qualitative research in psychology* 3, 2 (2006), 77–101.
- [11] Rob Brotherton. 2015. *Suspicious minds: Why we believe conspiracy theories*. Bloomsbury Publishing.
- [12] Eshwar Chandrasekharan, Shagun Jhaver, Amy Bruckman, and Eric Gilbert. 2020. Quarantined! Examining the Effects of a Community-Wide Moderation Intervention on Reddit. *arXiv preprint arXiv:2009.11483* (2020).
- [13] Eshwar Chandrasekharan, Umashanthi Pavalanathan, Anirudh Srinivasan, Adam Glynn, Jacob Eisenstein, and Eric Gilbert. 2017. You Can't Stay Here: The Efficacy of Reddit's 2015 Ban Examined Through Hate Speech. *Proceedings of the ACM on Human-Computer Interaction* 1, CSCW (2017).
- [14] Media Bias Fact Check. 2021. Search and Learn the Bias of News Media. Retrieved 2021-06-01 from <https://mediabiasfactcheck.com>
- [15] Ben Collins and Brandy Zadrozny. 2018. Reddit bans Qanon subreddits after months of violent threats. Retrieved 2021-10-06 from <https://web.archive.org/web/20211006092128/https://www.nbcnews.com/tech/tech-news/reddit-bans-qanon-subreddits-after-months-violent-threats-n909061>
- [16] Matthew Costello, James Hawdon, Thomas Ratliff, and Tyler Grantham. 2016. Who views online extremism? Individual attributes leading to exposure. *Computers in Human Behavior* 63 (2016).
- [17] Srayan Datta and Eytan Adar. 2019. Extracting inter-community conflicts in reddit. In *Proceedings of the Thirteenth International AAAI conference on Web and Social Media*. AAAI Press.
- [18] Daniel de Zeeuw, Sal Hagen, Stijn Peeters, and Emilija Jokubauskaite. 2020. Tracing normification. *First Monday* (2020).
- [19] Jonathan Dienst. 2019. Accused Mob Boss Killer Followed QAnon, Thought He Had President Trump's Support, Filing SAYS. Retrieved 2019-12-27 from <https://web.archive.org/web/20191227065043/https://www.nbcnewyork.com/news/local/mob-killer-trump-qanon-cali-comello/1525252/>
- [20] Karen M Douglas, Robbie M Sutton, and Aleksandra Cichocka. 2017. The psychology of conspiracy theories. *Current directions in psychological science* 26, 6 (2017), 538–542.
- [21] Karen M Douglas, Joseph E Uscinski, Robbie M Sutton, Aleksandra Cichocka, Turkay Nefes, Chee Siang Ang, and Farzin Deravi. 2019. Understanding conspiracy theories. *Political Psychology* 40 (2019), 3–35.
- [22] Marc Faddoul, Guillaume Chaslot, and Hany Farid. 2020. A Longitudinal Analysis of YouTube's Promotion of Conspiracy Videos. *arXiv preprint arXiv:2003.03318* (2020).

- [23] Metrics for Reddit. 2021. Total Subscribers. Retrieved 2021-06-01 from <https://frontpagemetrics.com>
- [24] Adrien Friggeri, Lada Adamic, Dean Eckles, and Justin Cheng. 2014. Rumor cascades. In *Proceedings of the Eighth international AAAI conference on weblogs and social media*. AAAI Press.
- [25] Carl F Graumann and Serge Moscovici. 2012. *Changing conceptions of conspiracy*. Springer Science & Business Media.
- [26] Mohamad Hoseini, Philippe Melo, Fabricio Benevenuto, Anja Feldmann, and Savvas Zannettou. 2021. On the Globalization of the QAnon Conspiracy Theory Through Telegram. *arXiv preprint arXiv:2105.13020* (2021).
- [27] IPSOS. 2020. More than 1 in 3 Americans believe a ‘deep state’ is working to undermine Trump. Retrieved 2021-10-14 from <https://web.archive.org/web/20211014221557/https://www.ipsos.com/en-us/news-polls/npr-misinformation-123020>
- [28] Shagun Jhaver, Christian Boylston, Diyi Yang, and Amy Bruckman. 2021. Evaluating the Effectiveness of Deplatforming as a Moderation Strategy on Twitter. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW (2021).
- [29] Prerna Juneja, Deepika Rama Subramanian, and Tanushree Mitra. 2020. Through the looking glass: Study of transparency in Reddit’s moderation practices. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW (2020).
- [30] Minchul Kim and Xiaoxia Cao. 2016. The impact of exposure to media messages promoting government conspiracy theories on distrust in the government: Evidence from a two-stage randomized experiment. *International Journal of Communication* 10 (2016), 20.
- [31] Colin Klein, Peter Clutton, and Adam G Dunn. 2019. Pathways to conspiracy: The social and linguistic precursors of involvement in Reddit’s conspiracy theory forum. *PLoS one* 14, 11 (2019), e0225098.
- [32] Yubo Kou, Xinning Gui, Yunan Chen, and Kathleen Pine. 2017. Conspiracy Talk on Social Media: Collective Sensemaking during a Public Health Crisis. *Proceedings of the ACM on Human-Computer Interaction* 1, CSCW (2017).
- [33] Danaï Koutra, Paul N Bennett, and Eric Horvitz. 2015. Events and controversies: Influences of a shocking news event on information seeking. In *Proceedings of the 24th International Conference on World Wide Web*. 614–624.
- [34] Srijan Kumar, William L Hamilton, Jure Leskovec, and Dan Jurafsky. 2018. Community interaction and conflict on the web. In *Proceedings of the 27th International Conference on World Wide Web*. 933–943.
- [35] Ganaele Langlois and Greg Elmer. 2013. The research politics of social media platforms. *Culture machine* 14 (2013).
- [36] Xiao Ma, Justin Cheng, Shankar Iyer, and Mor Naaman. 2019. When do people trust their social groups?. In *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*.
- [37] William Mansell. 2020. Man pleads guilty to terrorism charge after blocking Hoover Dam bridge with armored truck. Retrieved 2020-02-24 from <https://web.archive.org/web/20200224161228/https://abcnews.go.com/US/man-pleads-guilty-terrorism-charge-blocking-bridge-armored/story?id=68955385>
- [38] Enrico Mariconti, Guillermo Suarez-Tangil, Jeremy Blackburn, Emiliano De Cristofaro, Nicolas Kourtellis, Ilias Leontiadis, Jordi Luque Serrano, and Gianluca Stringhini. 2019. “You Know What to Do”: Proactive Detection of YouTube Videos Targeted by Coordinated Hate Attacks. *Proceedings of the ACM on Human-Computer Interaction* 3, CSCW (2019).
- [39] David Marx. 2020. Python Pushshift.io API Wrapper (PSAW). Retrieved 2021-06-30 from <https://psaw.readthedocs.io/en/latest/>
- [40] J. Nathan Matias. 2015. What Just Happened on Reddit? Understanding The Moderator Blackout. Retrieved 2021-04-26 from <https://web.archive.org/web/20210426103521/https://socialmediacollective.org/2015/07/09/what-just-happened-on-reddit-understanding-the-moderator-blackout/>
- [41] Robert McMillan and Deepa Seetharaman. 2020. Reddit Bans Popular Forum for Donald Trump Supporters. Retrieved 2020-06-29 from <https://web.archive.org/web/20200629185830/https://www.wsj.com/articles/reddit-bans-the-donald-a-popular-forum-for-trump-supporters-11593454866>
- [42] Tanushree Mitra, Graham Wright, and Eric Gilbert. 2017. Credibility and the Dynamics of Collective Attention. *Proceedings of the ACM on Human-Computer Interaction* 1, CSCW (2017).
- [43] Edward Newell, David Jurgens, Haji Mohammad Saleem, Hardik Vala, Jad Sassine, Caitrin Armstrong, and Derek Ruths. 2016. User Migration in Online Social Networks: A Case Study on Reddit During a Period of Community Unrest. In *Proceedings of the Tenth International AAAI Conference on Web and Social Media*. AAAI Press.
- [44] Federal Bureau of Investigation. 2021. Adherence to QAnon Conspiracy Theory by Some Domestic Violent Extremists. Retrieved 2021-06-15 from <https://web.archive.org/web/20210615103840/https://www.heinrich.senate.gov/download/?id=3B668ACC-7008-4CBB-819A-7AD6F3D5AEB1&download=1>
- [45] Antonis Papasavva, Jeremy Blackburn, Gianluca Stringhini, Savvas Zannettou, and Emiliano De Cristofaro. 2021. “Is it a Coincidence?”: An Exploratory Study of QAnon on Voat. In *Proceedings of the 30th International Conference on World Wide Web*. 460–471.
- [46] Antonis Papasavva, Savvas Zannettou, Emiliano De Cristofaro, Gianluca Stringhini, and Jeremy Blackburn. 2020. Raiders of the lost kek: 3.5 years of augmented 4chan posts from the politically incorrect board. In *Proceedings of the Fourteenth International AAAI Conference on Web and Social Media*. AAAI Press.

- [47] William Clyde Partin and Alice Emily Marwick. 2020. The Construction Of Alternative Facts: Dark Participation And Knowledge Production In The QAnon Conspiracy. *AoIR Selected Papers of Internet Research* (2020).
- [48] Election Integrity Partnership. 2021. The Long Fuse: Misinformation and the 2020 Election. Retrieved 2022-02-13 from <https://purl.stanford.edu/tr171zs0069>
- [49] Victoria Patricia Aires, Fabiola G. Nakamura, and Eduardo F. Nakamura. 2019. A link-based approach to detect media bias in news websites. In *Companion Proceedings of the 28th International Conference on World Wide Web*. 742–745.
- [50] Shruti Phadke, Mattia Samory, and Tanushree Mitra. 2021. Characterizing Social Imaginaries and Self-Disclosures of Dissonance in Online Conspiracy Discussion Communities. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW (2021).
- [51] Shruti Phadke, Mattia Samory, and Tanushree Mitra. 2021. What Makes People Join Conspiracy Communities? Role of Social Factors in Conspiracy Engagement. *Proceedings of the ACM on Human-Computer Interaction* 4, CSCW (2021).
- [52] Jean-Christophe Plantin, Carl Lagoze, Paul N Edwards, and Christian Sandvig. 2018. Infrastructure studies meet platform studies in the age of Google and Facebook. *New media & society* 20, 1 (2018), 293–310.
- [53] Melissa Quinn. 2021. FBI says followers of QAnon conspiracy theory could engage in "violent action". Retrieved 2021-06-15 from <https://web.archive.org/web/20210615181319/https://www.cbsnews.com/news/qanon-conspiracy-real-world-violence-fbi/>
- [54] Adrian Rauchfleisch and Jonas Kaiser. 2021. Deplatforming the far-right: An analysis of YouTube and BitChute. Available at SSRN (2021).
- [55] Manoel Horta Ribeiro, Shagun Jhaver, Savvas Zannettou, Jeremy Blackburn, Emiliano De Cristofaro, Gianluca Stringhini, and Robert West. 2021. Does Platform Migration Compromise Content Moderation? Evidence from r/The_Donald and r/Incels. *Proceedings of the ACM on Human-Computer Interaction* 5, CSCW (2021).
- [56] Manoel Horta Ribeiro, Raphael Ottoni, Robert West, Virgílio AF Almeida, and Wagner Meira Jr. 2020. Auditing radicalization pathways on YouTube. In *Proceedings of the 2020 conference on fairness, accountability, and transparency*. 131–141.
- [57] Richard Rogers. 2020. Deplatforming: Following extreme Internet celebrities to Telegram and alternative social media. *European Journal of Communication* 35, 3 (2020), 213–229.
- [58] Kevin Roose. 2021. What Is QAnon, the Viral Pro-Trump Conspiracy Theory? Retrieved 2021-10-14 from <https://web.archive.org/web/20211014221524/https://www.nytimes.com/article/what-is-qanon.html>
- [59] Olivia Rubin, Lucien Bruggeman, and Will Steakin. 2021. QAnon emerges as recurring theme of criminal cases tied to US Capitol siege. Retrieved 2021-01-20 from <https://web.archive.org/web/20210120003742/https://abcnews.go.com/US/qanon-emerges-recurring-theme-criminal-cases-tied-us/story?id=75347445>
- [60] Haji Mohammad Saleem and Derek Ruths. 2018. The aftermath of disbanding an online hateful community. *arXiv preprint arXiv:1804.07354* (2018).
- [61] Mattia Samory and Tanushree Mitra. 2018. Conspiracies online: User discussions in a conspiracy community following dramatic events. In *Proceedings of the Twelfth International AAAI Conference on Web and Social Media*. AAAI Press.
- [62] Mattia Samory and Tanushree Mitra. 2018. 'The Government Spies Using Our Webcams' The Language of Conspiracy Theories in Online Discussions. *Proceedings of the ACM on Human-Computer Interaction* 2, CSCW (2018).
- [63] Shadi Shahsavari, Pavan Holur, Tianyi Wang, Timothy R Tangherlini, and Vwani Roychowdhury. 2020. Conspiracy in the time of corona: automatic detection of emerging COVID-19 conspiracy theories in social media and the news. *Journal of computational social science* 3, 2 (2020), 279–317.
- [64] Qinlan Shen and Carolyn Rose. 2019. The discourse of online content moderation: Investigating polarized user responses to changes in reddit's quarantine policy. In *Proceedings of the Third Workshop on Abusive Language Online*. 58–69.
- [65] Lisa Singh, Leticia Bode, Ceren Budak, Kornraphop Kawintiranon, Colton Padden, and Emily Vraga. 2020. Understanding high-and low-quality URL Sharing on COVID-19 Twitter streams. *Journal of computational social science* 3, 2 (2020), 343–366.
- [66] Marianna Spring and Mike Wendling. 2020. How Covid-19 myths are merging with the QAnon conspiracy theory. Retrieved 2020-09-03 from <https://web.archive.org/web/20200903004708/https://www.bbc.com/news/blogs-trending-53997203>
- [67] Kate Starbird. 2017. Examining the alternative media ecosystem through the production of alternative narratives of mass shooting events on Twitter. In *Proceedings of the International AAAI Conference on Web and Social Media*, Vol. 11.
- [68] Carl Stempel, Thomas Hargrove, and Guido H Stempel III. 2007. Media use, social structure, and belief in 9/11 conspiracy theories. *Journalism & Mass Communication Quarterly* 84, 2 (2007), 353–372.
- [69] The Pew Research Center. 2020. Five facts about the QAnon conspiracy theories. Retrieved 2021-10-11 from <https://web.archive.org/web/20211011150300/https://www.pewresearch.org/fact-tank/2020/11/16/5-facts-about-the-qanon-conspiracy-theories/>

- [70] Kaitlyn Tiffany. 2020. Reddit Squashed QAnon by Accident. Retrieved 2021-10-07 from <https://web.archive.org/web/20211007025202/https://www.theatlantic.com/technology/archive/2020/09/reddit-qanon-ban-evasion-policy-moderation-facebook/616442/>
- [71] u/baruchthescribe. 2018. CBTS_Stream wiki. Retrieved 2018-01-18 from https://web.archive.org/web/20180118204500/https://www.reddit.com/r/CBTS_Stream/wiki/index
- [72] Justin Vallejo. 2021. Why some QAnon believers think JFK Jr is still alive – and about to become vice president. Retrieved 2021-07-22 from <https://web.archive.org/web/20210722202015/https://news.yahoo.com/why-qanon-believers-think-jfk-183333654.html>
- [73] José Van Dijck. 2013. *The culture of connectivity: A critical history of social media*. Oxford University Press.
- [74] Angela Wang and Sawyer Click. 2020. We analyzed every message ever posted by 'Q', the enigmatic persona that started the QAnon conspiracy theory. Retrieved 2021-08-10 from <https://web.archive.org/web/20210810162210/https://www.businessinsider.com/every-qanon-message-q-drop-analyzed-2020-10>
- [75] Wikipedia. 2021. QAnon – Wikipedia, The Free Encyclopedia. Retrieved 2022-02-13 from <http://en.wikipedia.org/w/index.php?title=QAnon&oldid=1032452028>
- [76] Brandy Zadrozny and Ben Collins. 2018. How three conspiracy theorists took 'Q' and sparked Qanon. Retrieved 2021-10-14 from <https://web.archive.org/web/20211015190753/https://www.nbcnews.com/tech/tech-news/how-three-conspiracy-theorists-took-q-sparked-qanon-n900531>
- [77] Xinyi Zhou, Apurva Mulay, Emilio Ferrara, and Reza Zafarani. 2020. Recovery: A multimodal repository for covid-19 news credibility research. In *Proceedings of the 29th ACM International Conference on Information & Knowledge Management*. 3205–3212.

A DATA AND CODEBOOKS

Table 2. Selected QAnon-focused subreddits.

subreddit	submission authors	submissions	banned for	subreddit	submission authors	submissions	banned for
greatawakening	12862	97644	violence harassment doxxing	WWG1WGA01	18	207	content - unspecified
The_GreatAwakening	698	3984	harassment	TheCalmBeforeTheStorm	306	1978	harassment
AFTERTHESTORM	46	745	harassment	BiblicalQ	142	464	harassment
TheGreatAwakening	12	391	harassment	thestorm	33	252	ban evasion
QAnon	59	122	harassment	QProofs	2	79	harassment
QGreatAwakening	23	34	spam	QanonandJFKjr	14	31	spam
QanonUK	12	27	harassment	qresearch	15	19	harassment
QanonTools	3	18	harassment	NorthernAwakening	5	13	harassment
greatawakening2	6	7	ban evasion	Q4U	2	5	ban evasion
Quincels	4	5	ban evasion				

Table 3. Codebook for subreddits.

Code	Code Description	Example Subreddits
anti-establishment	Against the norms, against the institutions, anti-governance	4chan, wallstreetbets
anti-hate speech	Empowering those targeted by hate speech	lgbt, TwoXChromosomes
anti-left	Against left leaning politics or politicians, against progressive concepts or figures/organizations	Liberalstupidity, DNCLawsuit
anti-right	Against right leaning politics or politicians, against conservative concepts or figures/organizations	FoxFiction, Republicancer
anti-Trump	Against the 45th US President	LyingTrump, MarchAgainstTrump
Christianity	Discuss Christianity or are defined by a membership of current/former believers	Christianity, ChristiansAwake2NWO
conspiracy - other	Devoted to, discussing, or promoting conspiracy theories not related to QAnon or other political conspiracy	aliens, ConspiracyZone
conspiracy - politics	Devoted to, discussing, or promoting politics-related conspiracy theories not related to QAnon	911truth, PoliticalConspiracy
coronavirus	Discussing or providing updates about the COVID-19	Coronavirus, China_Flu
apocalypse	Crumbling society, dark age, Armageddon, apocalyptic, end times, new world order	Apocalypse, collapse
hate speech	Anti-Arabic, anti-diversity, anti-Semitic, anti-globalisation, pro-nationalist, sexism, white supremacy	MGTOW, CringeAnarchy
metaphysical/wellness news	Beyond perception, open to the unseen Sharing articles and stories about current events	PsychedelicMessages, zen news, CorruptionNNews
politics - left	Supporting ideas, a political movement or party, and politicians from the center-left to far-left on the US political spectrum	democrats, WayOfTheBern
politics - other	Political movement or party, third party or international, not related to US left or right sides	ukpolitics, Israel
politics - right	Supporting ideas, a political movement or party, and politicians from the center-right to far-right on the US political spectrum	Republican, new_right
politics - unaffiliated	About politics, no strong direction leaning	politics, The_Mueller
pro- high quality information	Pro-moderation, high-quality sources	Coronavirus, Qult_Headquarters
pro-freedom of speech	Anti-moderation, low-quality sources	LibertarianUncensored, 4chan
pro-Trump	In support of the 45th US President, identifying as Trump supporters	The_Donald, DrainTheSwamp
QAnon	Q, the Great Awakening, and other elements central to the QAnon narrative	CBTS_Stream, QRedPills
save the children	Pedophilia, human trafficking	PedoGate, adrenochrome
the unexplained	Mysteries, the unknown	theunexplained, CoincidenceTheorist
unrelated	Does not fit into existing labels	xboxone, vegan

Table 4. Subreddit code to relation labels map.

Relation Label	Label Description	Codes
QAnon Sympathetic	QAnon narrative Having similar views or support common QAnon themes.	QAnon, save the children conspiracy - other, conspiracy - politics, anti-establishment, anti-left, politics - right, pro- freedom of speech, pro-Trump apocalypse, metaphysical/ wellness, Christianity, the unexplained, hate speech
Related (aligned)	Share similar elements that are directly aligned with QAnon views or common themes	coronavirus, new, politics- other, politics-unaffiliated
Related (neutral)	Sharing similar elements, but not evidently aligned or misaligned with QAnon views or common themes	anti-right, anti-Trump, politics- left, pro-high quality informa- tion, anti-hate speech
Related (misaligned)	Sharing similar elements, but directly misaligned with QAnon views or common themes	unrelated
Unrelated	Does not fit into existing relationships	

Table 5. Subreddit code to topic labels.

Topic Label	Label Description	Codes
QAnon	Mentions of Q, pedophilia, human trafficking, cannibalism, satanic ritual	QAnon, save the children
Unseen/unknown	Speculation or searching for meaning or explanation about: Christianity, metaphysical/wellness, the unexplained, conspiracies.	conspiracy - other, conspiracy- politics, Christianity, meta- physical/wellness, apocalypse, the unexplained
Pro-Trump	Politics with a history of supporting Trump	pro-Trump, politics-right, anti- left
Trump (unknown)	Politics where Trump affiliation is unknown or not relevant	politics - other, politics- unaffiliated
Anti-Trump	Politics with a history of opposing Trump	politics - left, anti-right, anti- Trump
Current events	News without a stance on speech/moderation, coronavirus.	news, coronavirus
Constricted behavior	Pro-high-quality information / pro-high quality information / moderated news	anti-hate speech, pro-high quality information
Unconstricted behavior	Pro-freedom of speech / free speech over information quality / hate speech / unmoderated news (communication based)	hate speech, pro-freedom of speech, anti-establishment
Unrelated	Unaffiliated with other topics	unrelated

Table 6. Codebook for submissions.

Harmful Content Label	Label Description	Example Submission
QAnon conspiracy	Q, the Great Awakening, and other elements central to the QAnon narrative	"Latest Qanon-Related Developments 7-24-18 stroppy me"
Hate speech	Derogatory or discriminatory language against identity-based attributes such as color, disability, ethnicity, gender identity, nationality, race, religion, sex, and sexual orientation	"What the Bible Really Says About Homos"
Conspiracy-politics	Devoted to, discussing, or promoting politics-related conspiracy theories not related to QAnon	"212.5. Hillary's Leakers and Hackers, Awan Brothers Saga Deepens"
Conspiracy-other	Devoted to, discussing, or promoting conspiracy theories not related to QAnon or other political conspiracy	"Interesting interview on the Vatican infiltration. I can't vouch for the trustworthiness of the people (Westall, Rothstein), but maybe you can separate the wheat from the chaff"
Low-quality source	Labeled by Media Bias Fact Check as "Low Credibility", "Mixed Factual Reporting" and below, Questionable Sources, or Conspiracy-Pseudoscience	"Jerry Nadler Subpoenas Corey Lewandowski for Testimony", linked article from Breitbart
Negative interaction	Accusations or attack on a person or group based on views or non-protected characteristics affiliation	"Swalwell Inexplicably Wades Back Into His Own Diarrhea Pit on His Nuke Threat"
Unrelated	Unaffiliated with other harm labels	"Mercedes-Benz apologizes to Chinese for quoting Dalai Lama"

Received July 2021; revised November 2021; accepted November 2021