From Parkland to Nashville: an analysis of knowledge and framing activities in Reddit discussions surrounding news coverage of guns in the United States

Corinne Dalelio
Coastal Carolina University

Dahlia Boyles
University of North Carolina at Chapel Hill

Kyle J. Holody
Coastal Carolina University

Wendy Weinhold
Coastal Carolina University

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From Parkland to Nashville: an analysis of knowledge and framing activities in Reddit discussions surrounding news coverage of guns in the United States

Corinne Dalelio, Dahlia Boyles, Kyle J. Holody and Wendy Weinhold

Communication, Media, and Culture, Coastal Carolina University, Conway, SC, USA; Department of Communication, University of North Carolina, Chapel Hill, NC, USA

ABSTRACT
This research explores discussions surrounding news stories on r/news after two separate school shooting events in 2018 and 2023 to understand how and when variables related to knowledge exchange and framing emerge in context. These activities were found to be an antecedent to engagement, and exchanges of disagreement resulted in longer chains of discussion. ‘Metaframing’ was found to be linked to media distrust. Users in 2023 were far more ideologically aligned and shared knowledge more frequently, but cited sources less frequently, than in 2018. Implications for impacts of news, disagreement, and content moderation on online civic discourse are offered.

The online discussions on the subreddit, Reddit.com/r/news, highlight the fluid interactions between knowledge and information sharing practices, source selection, and framing, while elucidating the complex and multilayered nature of pseudonymous everyday civic discourse online. Though fraught with the pitfalls of incivility and misinformation, the conversations resulting in response to user-posted news links reveal a tapestry of embedded knowledge and perspectives that can be more diverse, rich, contextual, and confrontational than those offered in the original news stories.

Prior research in the context of r/news found analyses in the broad context of 'news' can be a bit too disparate for the richest of interactions to really emerge, and suggested focusing on stories and discussions surrounding a single issue or event might prove more fruitful (Dalelio & Weinhold, 2020). Therefore, one of the most polarizing recurring news events in the United States, mass shootings, which bring the gun control debate to the forefront of the news cycle and public discourse, are the focus of the present study. Specifically, we analyze how gun policy is discussed on r/news in the politically charged aftermath of two widely covered school shootings.

To conduct this analysis, discussions were sampled from the r/news community after the February 2018 school shooting in Parkland, FL and again five years later after the March 2023 school shooting in Nashville, TN. Notably, Reddit changed its content moderation rules and implemented a quarantine policy in September 2018 (Chandrasekharan et al., 2022). Since that initial policy change, Reddit has made a series of moderation decisions in response to media pressure (Habib & Nithyanand, 2022) that have...
been found to have increased polarization (Shen & Rosé, 2022) and toxicity (Trujillo & Cresci, 2022) on the platform, making civic deliberation between opposing views around controversial issues more difficult to come by on the site.

Thus, the goals of this study are three-fold: (1) to better understand how news sources, knowledge-sharing, and common frames surrounding gun policy emerge in the online communication context, (2) to explore the ways in which people engage in discussions around a controversial political topic after a news event creating heightened interest and concern, and (3) to observe the particular influences a platform's evolution may have over its users' civic and political discourse. A comprehensive sequential analysis is conducted to tease out micro-level features in the sampled discussions, exploring how common frames in the gun debate are used, discussed, and debated, and how knowledge and information is shared. We also apply the concept of 'metaframing', which we define as the acknowledgement, discussion, and/or analysis of framing and related strategies as points of critique in these discussions.

**Literature review**

According to Entman (1993), 'to frame is to select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation for the item described' (p. 52). As Gamson (1992) uncovered, framing plays a large role in people's everyday talk around news and public issues. In his 1992 book *Talking Politics*, he identified the ways that people negotiate meaning in their everyday political talk, concluding that 'the various frames offered in media discourse provide maps indicating useful points of entry, and signposts at various crossroads highlight the significant landmarks and warn of the perils of other paths' (p. 179). Although the relationship Gamson identified between media framing and the frames used in everyday talk seems to persist today, our communication practices have evolved and shifted into new contexts online, which has had profound impacts.

**Knowledge sharing and news frames**

Scholars have found that within online communities, users frequently engage in not only framing but also knowledge sharing activities (Ahmed et al., 2019), despite the fact that knowledge-sharing is theoretically linked to trust, which is harder to establish in computer-mediated environments (Hislop, 2002; Nonaka, 1994). Such shared knowledge circulated online is an increasingly powerful force in shaping public opinion. In online discussions about news, users frequently rely on the sharing of knowledge and information resources, including news stories, as evidence to add credibility to their assertions (Rowe, 2015). These resources themselves can then become the subject of debate as alternative knowledge, information, and frames are offered, often resulting in re-framing, counter-framing, and media distrust (Atkinson, 2017; Dalelio & Weinhold, 2020). At times, users may even go beyond re-framing or counter-framing to discuss the news frames themselves, engaging in what we term 'metaframing'.

**Metaframing**

Metaframing is when individuals highlight the act of framing or other related concepts such as agenda-setting or rhetorical strategy as a point of discussion itself. In doing so, they are engaging in a kind of layman's frame analysis or rhetorical analysis. They might discuss the failure of a news organization or political group to engage with certain inconvenient facts, for instance, or discuss how a message is trying to present a public figure or issue in a certain light. Because this everyday analysis is still employed in a way that advances their own perspective (as opposed to a more systematic empirical or critical scholarly analysis), we view it as an act of framing in and of itself, hence the term 'metaframing'.

Scholars have used the prefix ‘meta’ with the words ‘frame’ or ‘framing’ in various configurations in the literature, though a solid theoretical construct combining these word forms has yet to be sufficiently operationalized. Our use of the verb ‘metaframing’ is not to be confused with the rhetorical scholarly construct of ‘meta-frames’ or ‘metaframes’. A ‘metaframe’ is a noun, a thing, which might be used to
describe a broader, overarching, or generalized frame category under which more topic-specific subframes might fit, such as racialization (Park et al., 2012), politics as game (Hopmann et al., 2015), or politics as issues (Strömbäck & Dimitrova, 2006).

‘Metaframing’, on the other hand, is an action people engage in, which in our usage is most aptly and succinctly described as ‘framing about framing’. The phrase ‘meta framing’ has been applied by Pedersen (2017) to refer to the ways journalists and journalistic outlets frame themselves, though this might more aptly be called ‘self-framing’. Our adoption of the term as verb is instead much closer to Canavez and colleagues (2021) notion of ‘meta-framing’, which is when people engage in ‘framing the media as untrustworthy’ (p. 25). However, ‘metaframing’, as employed presently, more broadly includes the framing of groups or individuals as well (not just media), and we theorize it as primarily a critique of the messaging strategy over that of the trustworthiness of the specific messenger (although the latter may be implicated as well).

**Mass shootings & the gun policy debate**

Framing is inherent to gun policy debates, which identify different causes, and therefore solutions, to gun violence. When a mass shooting event occurs, it acts as a ‘firearm focusing event,’ meaning it turns the public’s attention to gun control policy (Fleming et al., 2016, p. 1144). Inevitably, each side in the debate applies their respective framing to help support their policy position. These events are relatively rare opportunities ‘capable of getting agenda attention for an item’ (Fleming et al., 2016, p. 1144), so their framing in both news and public discourse is particularly important.

**Gun control vs. Gun rights groups**

Each side in the gun debate has their own preferred framings of the issue. Groups in favor of gun control tend to frame the ease of obtaining guns in the U.S. as a major cause of mass shootings; therefore, increased gun control and government intervention are offered as the solutions (Aslett et al., 2022; Fleming et al., 2016). Gun control groups are also more likely to frame mass shootings as a societal problem than an individual one (Aslett et al., 2022; Rohlinger et al., 2022), and they tend to frame legislators who accept money from the National Rifle Association (NRA) as part of the problem (Rohlinger et al., 2022). Groups in favor of gun rights treat mass shootings as an individual problem rooted either in the perpetrators’ confirmed or unconfirmed mental illness, or law enforcement’s failure to enforce existing gun legislation (Fleming et al., 2016). Rohlinger et al. (2022) found that gun rights groups apply an individualized frame to school policies to prevent gun violence, such as arming teachers, and to gun access, such as preventing people with mental illness from purchasing firearms. They also found social movement framing was used by gun control groups on social media, but not by gun rights groups (Rohlinger et al., 2022). Research comparing the communications of the NRA to the Brady Campaign (a prominent gun control advocacy group) has shown that, while both groups rely on emotional appeals (Smith-Walter et al., 2016) and appeals to rights and safety (Steidley & Colen, 2017), Brady Campaign messaging was more likely to use legal and statistical evidence in their messaging (Smith-Walter et al., 2016) and more likely to receive press coverage in *The New York Times* (Steidley & Colen, 2017).

**News coverage**

News coverage is a crucial element in shaping the public’s understanding and opinion of mass shootings. When mass shootings occur, people tend to turn to news for information to make sense of the crime (Schildkraut & Muschert, 2014). During this fragile time, ‘normative expectations can be reaffirmed and/or redefined’ (Schildkraut & Muschert, 2014, p. 24). For instance, in their analysis of *The New York Times*, Schildkraut and Muschert (2014) found that coverage of the Columbine shooting focused on the perpetrators, and defined mass shootings as a social issue, while coverage of the shooting at Sandy Hook Elementary School was framed with a deliberate focus on the victims rather than the perpetrator. Since news stories surrounding these events tend to use frames focused on assigning blame and in support of gun control, gun owners and Republican voters tend to perceive media coverage of gun
issues as Democrat-biased and an ‘in-group’ attack, which may increase defensiveness and reduce trust in news media (Zhang & Lin, 2022, p. 273).

**Parkland shooting**
News coverage of the Parkland shooting was framed differently than coverage of previous mass shootings in several ways. LaRose et al. (2022) found Parkland was framed as a community standing in solidarity for gun control, rather than a grieving community as depicted in past shootings. While previous coverage of mass shootings allowed survivors to recount their stories in print or on camera, Eckstein (2020) found the Parkland students’ unique use of the social media platform Snapchat to post photos and videos of the school shooting in real time, was replayed on news media. Eckstein (2020) argues the first-person footage from inside the school during the shooting had greater emotional impact than listening to survivors’ accounts afterwards, thus offering the public a new understanding of this type of violence. Although news coverage tends to foreground the most recent mass shooting, Holody (2020) found Parkland news coverage placed greater emphasis on the future (i.e. future gun control legislation would prevent this from happening again). In addition, while previous news coverage of shootings tended to rely on frames such as school safety and the influence of popular culture (i.e. violent video games), Holody and Shaughnessy (2022) found gun control was the most prominent frame in Parkland news coverage. This difference is attributed to the gun control activism role assumed by some of the students in Parkland.

**Nashville shooting**
Due to the relatively recent nature of the school shooting at The Covenant School in Nashville at the time of this writing, very little scholarly analysis has been published on the news coverage or framing surrounding it. In a talk given at Belmont University in 2023, Kidane and Ellis argued this school shooting was somewhat distinctive in that it highlighted tensions between conservative Christians and the transgender community, as the shooter was a trans-identified individual and the shooting occurred at a private Christian school. Ball and Suleyman (2023) detailed the ways in which news media may have spurred on anti-trans framing in their coverage of the shooter. It is possible a clash of issues surrounding this particular tragedy could have impacted both the news coverage and the employment of frames in the surrounding discourse in unique and unforeseen ways.

**Research questions**
Building on and tying together the scholarship on knowledge-sharing, news framing, mass shootings, and the gun policy debate, the purpose of this investigation is to explore user’s employment of knowledge and information resources, as well their engagement in the broader context of framing activity, in discussions responding to gun-related news stories on Reddit. Specifically, this research focuses particularly on the variables of knowledge sharing, use of outside sources, gun debate frames, gun debate position, and what we term ‘metaframing,’ which is when the activity of framing (or agenda-setting, rhetorical strategy, etc.) is specifically identified or highlighted as a point of critique or refutation. We are also interested in how these patterns persist or change over time, across contexts, and with respect to potential influences of decisions made by platform owners. The research questions are, ‘In r/news discussions responding to news stories about guns following a prominent school shooting…’

RQ1: When and how is knowledge shared?

RQ2: When and how are information resources included?

RQ3: When and how are gun debate frames employed?

RQ5: When and how is metaframing employed?

RQ6: How do these variables relate to activity and engagement?

RQ7: Which of these features persist, and which change, between the discussions that occurred after the 2018 Parkland shooting and the 2023 Nashville shooting?
Methods

After receiving approval from the Coastal Carolina University Institutional Review Board (IRB) under an ‘exempt’ research status (protocol #s 2017.133, 2019.248 and 2022.157), data was collected in the form of posts responding to gun-related news stories in the r/news subreddit on February 22, 2018, eight days after the Parkland shooting, and again on April 4th, 2023, eight days after the Nashville shooting. Posts in these discussions were then coded according to a coding schema outlining the variables of interest, and both quantitatively and qualitatively analyzed via an abductive research process.

Sample

A systematic sampling method employed in previous research (Dalelio & Weinhold, 2020) was used to pull discussions that had between 100 and 200 posts in a single, 24-hour period. These sampling filters allow the researchers to capture comparable discussions occurring within the same time frame that are robust but still at a manageable enough size to be able to be analyzed at a micro-level (Dalelio & Weinhold, 2020).

The first round of sampling resulted in a total of seven discussions that met the criteria. The discussions were sorted by ‘Old’, fully expanded out, and captured via PDF exports. In the wake of the Parkland shooting, six of the seven sampled discussions were based on news stories about Parkland and/or guns. As these discussions were not targeted based on content or topic in any way, but only based on date, time, and length, the sampling itself reflected the issue’s continued dominance in the news cycle and public discussion. The seventh sampled discussion, which was in response to a story about the 2018 Winter Olympics, was then eliminated from the sample. The final six discussions sampled were based on the following news stories:

1. ‘School shooter threatened others with a gun, first host family told police; CNN (Pagliery & Fantz, 2018)
2. ‘Idaho school district buys rifles, will warn visitors building is “armed,”’ KBOI (Gonzales, 2015)
3. ‘Deputy will now carry AR-15 rifles on school grounds in Fla. county, Sheriff says,’ ABC News (Jacobo, 2018)
4. ‘AR-15, multiple weapons found at home of Clarksburg student accused of bringing gun to school, ‘WUSA9 (Leshan, 2018)
5. ‘Students organize school walkouts throughout Broward, Miami Dade,’ WPLG (Rakow & Ramos, 2018)

This first sample resulted in a combined total of 884 posts that were made in response to these news stories. A single post is the unit of analysis in this study.

To learn more about how discovered patterns might persist and change across contexts, subsequent data was collected after another school shooting, just over five years later, at The Covenant School in Nashville, TN. At the same chronological distance from the shooting, the same systematic sampling method was used. This resulted in just four discussions meeting the criteria, only one of which was in response to a story related to the Nashville shooting. The other three discussions were in response to news stories unrelated to guns in any way, having to do with tornadoes, a filicide, and Tesla Corporation, respectively, and thus were eliminated from the sample. Thus, the final discussion sampled for this study was based on the following news story:

7. ‘Nashville school shooting updates: Students demand gun control; shooter fired 152 rounds,’ The Tennessean (Adams et al., 2023)

This discussion had a total of 146 posts that were made in response to this news story, bringing the total number of posts in this corpus of data to 1,030. Because some posts were deleted by their authors or removed by moderators before they were able to be captured in the sample (8 from the Parkland data, 2 from the Nashville data), there were a total of 1,020 posts that contained variable-related information for this analysis. Interestingly, the entire Nashville discussion, including the originating post and all responses to it, was removed from r/news as the posts were being captured, and the following message (see Figure 1) was added to the originating post:
This means all posts in this discussion are now invisible to visitors of r/news and only accessible with a direct link, which the researchers fortunately maintained.

**Procedures**

Researchers collaborated on the development of a codebook to explore a wide range of potential variables of interest in this study relating to knowledge and framing activities, as well as manifest information about the post itself, such as an ID number given to each post based on the nested ordering when sorted by 'Old'; the username of the account that posted it; and the ID number given to the post it was directly replying to. The codebook was put into an online coding form, which coders filled out for each post, and their submissions were automatically input into a spreadsheet.

**Intercoder agreement**

For both datasets, two researchers coded 15% of the sample, which was selected at random in groupings of 10 consecutive posts so as to retain some degree of context. After an initial round of coding, a review was conducted to identify any areas of confusion and inconsistency. This resulted in revisions to the codebook to simplify, clarify, and remove variables as needed. Thus the coding schema was developed iteratively as members of the research team coded 15% of the posts chosen at random until satisfactory levels of agreement were reached. If at least 75% interrater agreement was not achieved for certain variables, this process was repeated. Ultimately, interrater agreement was achieved at 76.8% or greater for all variables of interest.

**Variables**

**Knowledge-Sharing**

Adapting the knowledge-sharing measure used in Dalelio and Weinhold (2020), the sharing of knowledge was coded as present if the post included a ‘piece of information that someone may not have known’. It was not necessary to determine the accuracy of the information in order to code it as knowledge sharing, and it was explicitly stated on the coding form that this should not be a consideration in coding. It was also made clear evaluative opinions should not be included. As an example of the difference, the following prompt was given, ‘(i.e. NOT ‘I don’t like the way the government is handling technology law…’ BUT ‘The government recently passed a law about this…’ NOT ‘The republicans don’t care about the working class…’ BUT ‘The republicans tend to vote no on these measures…’). Finally, a follow-up code prompted the coders to consider whether the knowledge was presented as fact; as informal, first-person knowledge; as personal, expert/official knowledge; or some combination thereof.

**Sources**

Again building on prior research (Dalelio & Weinhold, 2020), a post was coded as including a source citation if ‘one or more citations’ was ‘given to a person or entity (i.e. making a reference to or naming a source, directly linking, or quoting)’. Follow up categories helped to clarify the codes. Coders were instructed to indicate first if the person or entity was ‘referred to (i.e. “it was reported…” “scientists agree…”); named (i.e. “on wikipedia”, “on CNN…”); linked (an actual URL); or quoted (actual quote in quotation marks or in a tag box, but not made up).
Gun debate frames

Presence of gun debate frames was coded for if one or more frames in the gun debate was implied or articulated. A list of common frames, derived and adapted from a combination of prior research (Dorfman, 2000) and a first pass through the data, was presented to coders to help determine if one such frame was present (see Appendix A). An ‘Other’ category was also provided for any frames not already listed. A follow up code asked coders to indicate whether the position of the post was clearly in support of gun rights or gun control. Coders were instructed to be very conservative in these determinations, only using the words used in the post itself, not any context from prior posts, to determine this. This led to a lot of ‘neutral/unclear’ codings, but also helped to establish greater interrater agreement.

Metaframing

A post was coded for the presence of metaframing if ‘the activity of framing (or agenda-setting, rhetoric, etc.)’ was ‘specifically identified or highlighted as a point of critique or refutation’. When metaframing was present, coders were directed to indicate whether or ‘a counter-frame or re-frame’ was ‘articulated or implied (i.e. providing an alternative way to frame it/describe it/see it instead)’. If there was, the alternative frame was provided by the researcher.

Analysis

Following the structural approach of sequential mapping developed by Dalelio (2010), this study takes a unique approach to analyzing online communication based on the nested structure of back-and-forth online conversations to identify the variable occurrences in context. In this approach, the assumption that some of the variables may be more likely to occur in posts that are in some way sequentially related to each other is tested. Thus, all posts are coded in the order of the chains of discussion (who replied to whom) that result from an originating post, so each sequence of exchange is preserved in analysis, regardless of when it actually occurred in real time. This allows for the identification of ‘long chains’, or subsets of four or more nested posts in sequence (each replying to the one prior), as well as ‘activating posts’, or those with two or more replies, as potential sites of interest. Quantitative analyses serve to identify where variables of interest may be more likely to occur within the discussion, so they may then be identified and analyzed qualitatively in order to better understand their emergence and development in sequence, following the abductive research process (Peirce, 1940/1955).

Knowledge activities

It was found that a total of 514 (50.4%) of the 1,020 posts analyzed included some use of knowledge and information resources. This means half of the posts made in response to the news stories included either shared knowledge, cited a source, or had some combination thereof.

Knowledge sharing

Knowledge-sharing was found in 444 (43.5%) of the 1,020 posts. It was found in ‘long chain’ posts more often than would be expected according to a chi-square analysis, \( \chi^2(1) = 10.73, p < .001 \). Of these 444 knowledge sharing posts, 382 (86.0%) included knowledge presented as fact, while 86 (19.4%) included knowledge presented as informal, first-person knowledge, and just 2 (0.5%) included knowledge presented as personal expertise.

Source citing

Outside knowledge and information resources were referenced in 197 out of the 1,020 posts, representing just 19.3% of the data. Of 444 knowledge sharing posts, a source was found to be cited in just over a quarter of them \( (n=127, 28.6\%) \). Source citing was also found more often than would be expected within long chain posts, \( \chi^2(1) = 6.93, p < .01 \). Perhaps unsurprisingly, a higher proportion than expected of posts with knowledge-sharing also included source citing, \( \chi^2(1) = 43.54, p < .001 \). For instance, in one
of the longest chains of posts observed \((n=16)\), knowledge was shared in 10 of them, and sources were cited in 8 of them, with 5 of these posts containing both knowledge sharing and source citing.

A further exploration of long chains that contained a high proportion of both knowledge sharing and source citing together, which occurred regularly throughout the entire sample of data across all seven discussion threads, might be best characterized as ‘informational disagreement’. These tended to involve users who may disagree on some aspect of an issue but remain within the realm of civility to keep the conversation going, mostly engaging in providing one another with information and asking and answering questions about the specifics of a topic in more depth: the technical aspects of guns/ammunition, laws and practices in different countries/states, statistics about shootings, etc. A brief exchange that represents this well can be seen in the posts below:

**EXAMPLE 1**

Not really. Rifle bullets have a really nasty habit of punching through people and walls and striking other people, or bouncing and hitting people you aren't aiming at. Which is the whole reason handguns with hollow-points are the preferred weapon for anyone in an urban area that isn't retarded. Those are, like you said, more likely to be 'fuck that guy in particular' weapons.

Over penetration is not as much an issue now with modern ammo. Over penetration issue [link] I have seen tests using drywall and different rifle/pistol/shotgun rounds and .223/5.56 penetrated less than some pistol and shotgun rounds ...again it has to do with the round.

I have not seen these special rifle rounds before, are they actually used in real life though? Even then, it defeats the only reason to have a rifle in a building if it can't penetrate, since at that point it is just a large unwieldy handgun.

There were also some instances of long chains in which very little to no knowledge sharing or source citing was found. These tended to either involve an exchange of non-relevant jokes (i.e. 'What do you expect from a state named after a potato', or 'is a human cannon a cannon that shoots humans, a cannon that shoots at humans or a cannon made of humans?') or involve at least one participant pushing the boundaries of civility and getting personal with their interlocutor. An example of the latter can be seen in the following exchange:

**EXAMPLE 2**

So ban all guns made after 1885? (the first successful semi-automatic gun was made in 1885 known as the Model 85)

Sure. I'm fine with that. With the exception of vocational purposes.

Cool. And who is going to do the dirty work of stripping hundreds of millions of citizens of their property and rights? You?

Happy to. Gun nut tears would be delicious.

Seen Waco? Also we will start you on the south side of Chicago. We need you to single handedly remove all of the guns from the gangs. Please laugh at them and their male tears when you do it.

These qualitative observations suggest that disagreement itself is not a hindrance to knowledge and information exchange, but both humor and incivility do seem to be linked to its diminishment, at least within longer sequential exchanges.

**Framing activities**

It was found that a total of 397 (38.9%) of the 1,020 posts included the framing variables investigated. This means just over one-third of the posts made in response to the news stories included either a gun debate frame, metaframing, or some combination of these.
Gun debate frames

Gun debate frames were found in 322 (31.7%) of the sampled posts. The position of the posts with gun debate frames was about equivalent between the two sides (77, or 23.9% of these posts were clearly pro-gun rights and 78, or 24.2% of posts were clearly pro-gun control), with the majority of them (n=167, or 51.9%) coded as neutral. There was no significant difference in the proportion of long chain posts that had gun debate frames, $x^2(1) = 2.12, p = .15$, but posts including gun debate frames were more likely to be ‘activating’ (i.e. have two or more replies), $x^2(1) = 11.17, p < .001$.

Due to the inconsistent finding that gun debate frames tended to be present in activating posts but not in long chains, further exploration of their presence in long chains was warranted. This pattern analysis uncovered that gun debate frames tended to either be infrequent in long chains or present within all or nearly all of their posts. When gun debate frames were present in a long chain, the discussions were nearly all characterized by a ‘tit for tat’ back-and-forth exchange of alternating opposing ideas or frames. One such exchange can be seen in Example 2 offered above. Another good example of this can be seen in the exchange below, which is between two individuals and presents a series of posts alternating between their use of pro-gun rights vs. pro-gun control frames (‘AWB’ = ‘Assault Weapons Ban’):

**EXAMPLE 3**

The AWB was from 1994 to 2004. AR-15s have been available to the public since 1964. The recent uptick in mass shootings does not correlate with the accessibility of semi-automatic rifles.

Your right. But the correlation is that society is messed up more then ever, and that we may have unbanned these weapons at the wrong time. You didn’t need them banned back in the day because people in general had more respect for life and better morals.

Well maybe, since the guns aren’t the problem, we should focus on what has changed in our society since the better part of the 20th century. I’d rather fight the problem at the core than implement ineffective bans.

Well you can’t say they aren’t at least part of the problem. Easy to get and cheap. They aren’t the cause of the problem, it’s true. But it doesn’t help when you look at mass shootings and 90%+ is AR with 30 round mag. It’s the weapon of choice for someone who wants to do maximum harm. How easy is it to fight the problem at its core. I mean changing society doesn’t happen over night.

It’s the weapon of choice because the public wrongly views them as the most dangerous. In reality, as we’ve seen with the VT shooting and others, handguns or other rifles can be just as dangerous.

It again boils down to a societal problem. After almost every mass shooting, news stations have a segment on AR-15s and why they’re ‘so dangerous’. If we stop viewing ARs as the gun god of destruction, psychopaths won’t be so quick to use them.

Let’s be honest here. A gun that has fast fire rate, inexpensive, large capacity magazines that are readily available, and is collapsible to be easier to conceal. Is probably the most dangerous to inflict maximum harm on somebody. Society may be crazy but they aren’t entirely stupid. These guns were designed for war. Why use anything else?

Long chains that had little or no gun debate frames often similarly involved a tit-for-tat exchange that had to do with other debates unrelated to gun policy.

Metaframing

Metaframing, in which frames and other rhetorical strategies were explicitly discussed or critiqued, was observed in just 127 (12.5%) of the posts in the sample. There was no significant difference in the proportion of these within long chain posts, $x^2(1) = .17, p = .68$, but posts that included metaframing were more likely to be activating, $x^2(1) = 7.46, p < .01$. As with gun debate frames, the inconsistency between the presence of metaframing within activating posts but not long chains prompted a similar follow-up
A qualitative analysis of the posts including metaframing was conducted, however, based on coders’ responses to the follow-up question as to whether or not a counterframe to the critiqued frame was offered. It was found that counter-frames were offered about two-thirds of the time and tended to fall under two main themes: (1) ‘journalists/people lack enough knowledge about guns to report on the issues accurately’, and (2) ‘there is an agenda to sensationalize/mislead’. For instance, one post states, ‘AR-15s are one of, if not the most common rifle in America, and one of the least used firearms in homicides. Let’s stop acting like having one makes you a potential mass-murderer, and using the mention of it as click-bait because people fear what they don’t understand’, exemplifying both of these themes well.

**2018 (Parkland) data vs. 2023 (Nashville) Data**

Comparisons between the Parkland \((n=876)\) and the Nashville \((n=144)\) datasets found them to be similar with respect to the degree in which they included framing activities, and different with respect to degree of knowledge activities and positionality. Specifically, the Nashville data had significantly more knowledge sharing but conspicuously less source-citing, and had far more posts clearly in support of gun control. These observations are expanded upon in more detail below.

**Knowledge activities**

As noted, knowledge was shared more frequently in the Nashville data, in 62.5% of posts \((n=90)\) as opposed to just 40.4% in the Parkland data \((n=354)\), \(x^2(1) = 24.55, p < .001\). Meanwhile, sources were cited less frequently in the Nashville data, just 9.0% of the time \((n=13)\), as opposed to 21.0% in the Parkland data \((n=184)\), \(x^2(1) = 11.38, p < .001\). Within the knowledge sharing posts of each dataset, the source citing effect was even more pronounced. Of the knowledge sharing posts in the Parkland data, 33.1% \((n=117)\) also included sources, while just 11.1% \((n=10)\) of the knowledge sharing posts in the Nashville data did, \(x^2(1) = 16.91, p < .001\).

Acknowledging the variance in terms of samples, each of the seven collected discussions, which had between 101 and 190 posts total \((M=146.00, SD=36.49)\) were also compared to one another individually. While all six Parkland discussions included knowledge sharing in fewer than half of their posts (ranging from 26.5% to 48.5%), the Nashville discussion was the only one sampled with a majority of posts including knowledge sharing (62.5%). In addition, all six Parkland discussions had sources cited in at least 19% of their knowledge sharing posts (ranging from 19.2% to 50.9%), compared to the Nashville discussion’s mere 11.1%.

**Framing activities**

The most notable similarity between the datasets was that the proportion of posts including gun debate frames persisted across the two datasets, found in 31.4% of the Parkland posts \((n=275)\) and 32.6% of the Nashville posts \((n=47)\), \(x^2(1) = .09, p = .77\). Similarly, metaframing was found to have relatively equivalent proportionality, with 114 (13.0%) of the Parkland posts \((n=114)\) and 13 (9.0%) of the Nashville posts, \(x^2(1) = 1.80, p = .18\).

Despite the consistency in the proportion of posts with gun debate frames, the variation in the position of these posts was significantly lower in the Nashville data, \(x^2(2) = 33.35, p < .001\). In fact, in the Nashville data, the majority of the gun frame posts were clearly in support of gun control \((n=27, 57.4\%)\), with just five clearly in support of gun rights \((10.6\%)\), and 15 coded as neutral. This is in stark contrast to the Parkland data, in which the majority of gun debate frames posts were neutral \((n=152, 55.3\%)\), followed by those in support of gun rights \((n=72, 26.3\%)\) and then those in support of gun control \((n=51, 18.5\%)\). Again all seven threads were compared individually, and the Nashville discussion was the highest in its proportion of gun control supporting posts, and the lowest in its proportion of gun rights supporting posts and neutral or unclear posts, \(x^2(12) = 63.71, p < .001\) (see Table 1).
Discussion

This study provides further detail about the complex relationship between knowledge sharing, framing, and platform control in online discourse surrounding news related to mass shootings and guns. The findings of this study support the notion that knowledge, information sharing, and metaframing are all important factors to consider in the complex web of collective sense-making around important news events and issues discussed online. The nature, character, and depth of these discussions also inform a new understanding of how these variables emerge in online communication, specifically on the platform Reddit which has implemented increased content moderation in the past five years. The results of this study may be useful to researchers interested in better understanding online civic and political discourse and the role of the platform in that discourse, as well as the current state of the gun debate, the role of continuing and emerging frames around that debate, and the strategies and methods of actors across the political spectrum on this issue.

Emergent knowledge-sharing and framing activity

Although only focused around a single issue, gun policy in the US, the findings of this study support Gamson’s (1992) initial conclusions, which challenged ‘the conventional wisdom that most political issues and events do not make much sense’ to ordinary people (p. 175). In fact, as evidenced by the examples given here, the level of knowledge and information about this topic was quite extensive amongst Reddit users, in some cases seemingly more in-depth than that of the news sources being cited. Additionally, the questioning and critiquing of frames in the form of metaframing has emerged as a feature of online discourse (Canavez et al., 2021). In the present study, this tended to occur most often when inaccurate information or a policy agenda was perceived in news stories, the latter of which was found by Holody and Shaughnessy (2022) to be especially prevalent in the news coverage surrounding Parkland. As noted by Canavez et al. (2021), metaframing tended to be linked to media distrust.

The qualitative analyses offered additional insight into the types of exchanges where both knowledge and framing activities tended to occur, and the nature, character, and depth of these discussions, which can help to inform a new understanding of how these variables emerge in online communication. It was found that both gun debate frames and metaframing were antecedents to engagement, and knowledge activities were more likely to emerge in back-and-forth exchanges. Discussions that go on for some length tended to involve some level of disagreement (excepting those involving humor), supporting Masullo Chen and Lu’s (2017) finding that opposing perspectives can motivate participation in political discourse. Interestingly, disagreement also seemed to invite both knowledge sharing and source citing, up until those exchanges became uncivil. Lastly, when framing was present, the discussions were best characterized as a ‘tit for tat’ exchange between opposing frames and ideas.

2018/2023 Comparisons and platform interference

The contrast between the 2018 Parkland data and the 2023 Nashville data offers new insight into how aspects of the communication platform may interfere with these processes. The fact that the sampling method, conducted in the same way and within the same time frame related to the shooting itself,
yielded a much smaller sample in 2023 signaled something was very different from the outset. While the 2018 sample resulted in seven threads, six of which were responding to gun-related news stories, the 2023 sample resulted in just four threads, and just one was responding to a gun-related news story. Further, the one relevant 2023 thread that was yielded was subsequently removed by moderators shortly after it was captured. While these cues are not necessarily indicative of a larger pattern across the r/news subreddit or the Reddit platform, combined with the finding that a significantly larger portion of the comments fell to the gun control side of the debate in 2023, it does seem that the increased platform controls implemented since 2018 may be having an impact, at least in this topical context. Further studies are needed to determine whether these changes are transforming Reddit into a less conducive platform for expression on topics that invite controversy, disagreement, or debate overall.

Other theoretical indicators related to knowledge sharing would also demonstrate the users of r/news in 2023 felt more similarity to one another than did those in 2018. The Nashville data not only contained more knowledge sharing than the Parkland data (62.5% vs. 40.4%, respectively) but also more than was found in the researchers’ prior study (46.1%), which was similarly collected from r/news in 2015 (Dalelio & Weinhold, 2020). This helps to confirm theory that suggests knowledge sharing is more likely to occur when there is more trust within a community (Hislop, 2002; Nonaka, 1994). It is possible that the increased content moderation created a discussion where users felt they were in a safer space, among like-minded others. This also helps to explain the fact that users did not back up their assertions with sources as often. With far fewer opponents of the gun rights side of the argument visibly present, even those who disagreed about other aspects of the story tended to be closer positioned than those in the Parkland discussions, and therefore did not feel as much of a need to defend their statements. However, these findings of position similarity and lack of source-citing, combined with the fact that there was less discussion happening overall, also suggests that the heavier handed platform approach may be contributing to an echo chamber effect, supporting prior conclusions made by Shen and Rosé (2022).

Although these findings do seem to support the conclusion that the platform changes had an impact, alternative explanations may of course be offered. For instance, it may be that users of r/news grew tired of discussing guns after multiple mass shootings occurred in the intervening five years. There may have been aspects of the Nashville shooting, such as that it involved younger students, that the shooter identified as transgender, or that it took place at a private Christian school instead of a public school, that caused people to be less likely to want to discuss it. It is also possible that the data reflect a shift in the opinions of the populace, and not just Reddit users, to become more supportive of gun control since 2018. To more determinately understand whether or not the stark contrast between these datasets had to do with the platform changes, additional studies comparing similar datasets from before and after these changes were implemented, perhaps surrounding other somewhat regularly occurring news contexts such as presidential elections or notable criminal trials, would need to be conducted.

Despite the stark differences between the two datasets, there was no significant difference or discernable pattern with respect to the proportion of posts including gun debate frames or metaframing. This suggests that, while the presence of knowledge activities within everyday civic and political discourse online may be more sensitive to the communication control features on a particular platform, framing activities are not. The frequency of frames appearing in these discussions appeared to persist regardless of the context of the discussion, the timeframe and details of the news story, the amount of discussion about the news story, and other factors that may have influenced the differences between these two data samples.

**Gun policy debate messaging**

The findings presented here also contribute to the growing body of scholarship focused on framing and messaging related to the gun policy debate in the United States. While much of the scholarship in this arena has been focused on the messaging of advocacy groups (Aslett et al., 2022; Fleming et al., 2016; Rohlinger et al., 2022; Smith-Walter et al., 2016; Steidley & Colen, 2017) and news coverage (Eckstein, 2020; Holody, 2020; Holody & Shaughnessy, 2022; LaRose et al., 2022; Schildkraut & Muschert, 2014; Steidley & Colen, 2017; Zhang & Lin, 2022), the present study offers insight into the ways in which those sources may be utilized, mimicked, countered, critiqued, and reframed in the
responding discourse online. Additionally, the noted influences over the nature and character of these
online discussions may be of interest to scholars focused on understanding the gun policy debate
and its relationship to framing in the broader context of public opinion, as well as the potential role
of content moderation and platform design in modifying everyday online discourse around these issues.

**Limitations**

There are limitations to the results of the present study. First, one must be wary of drawing conclusions
based on Reddit users active on r/news. Proferes et al. (2021) note that ‘Reddit’s user base trends toward
particular demographics’ (p. 12), such as that ‘it is majority male and skews young’ (p. 10), and this
should be taken into account when interpreting these results. In addition, the demographics cannot be
ascertained from the data collected, which was public and pseudonymous. Although the goal of
micro-level analysis is to explore smaller samples in-depth, it should also be acknowledged that this
subset of posts does not even approach generalizability for online communication, Reddit, or even the
r/news subreddit, considering the massive number of posts contributed daily. This is one miniscule snap-
shot of two separate days in the history of the subreddit, and should only be used for initial insights to
be tested further with larger samples and a triangulation of approaches and methods.

**Future work**

The results of this study may be useful to researchers interested in better understanding the role of the
platform in online civic and political discourse, as well as the relationship between news, knowledge-sharing,
and framing in the gun debate. This project can be extended to confirm, challenge, and expand upon
the tentative conclusions with larger datasets gathered from other subreddits, or other social media
platforms such as Twitter or TikTok, with more rigorous research methods to assess the validity and per-
sistence of the findings. Other controversial topics, such as abortion, election integrity, the COVID-19
pandemic, or the war in Ukraine, may also be explored to see if the dynamics vary by issue, as Gamson
(1992) found. Future work might seek to further test the relationship between depth and interactivity of
sequential online communicative exchange with other factors in relation to the employment of knowl-
edge and information resources, platform rules and moderation processes, amount of ideological align-
ment within a community, or framing. Finally, the development of a classification of the types and
characteristics of news stories that may be more likely to spark metaframing in online discussions could
help to advance this construct in the framing scholarship.

**Author contributions**

Corinne Dalelio, Kyle Holody, and Wendy Weinhold conceived of the original idea for this work and worked together
to create the initial codebook. Corinne Dalelio, Kyle Holody, and Dahlia Boyles conducted the initial round of coding
and revised the codebook. Corinne Dalelio and Dahlia Boyles conducted the coding for the additional dataset.
Corinne Dalelio completed the quantitative analysis with some assistance from Kyle Holody and the qualitative anal-
ysis in collaboration with Dahlia Boyles. All authors contributed to the manuscript, as well as completed intellectual
contribution and critique, at various stages of the implementation, writing, and revision process.

**Disclosure statement**

No potential conflict of interest was reported by the author(s).

**About the authors**

Dr. Corinne Dalelio is an Associate Professor in the Department of Communication, Media, and Culture at Coastal
Carolina University. Her research investigations focus on digital media and online communication. She developed an
original method for mapping and visualizing informal, asynchronous, online discussions, which she has used for
analyses in a variety of contexts, including fan communities, higher education, and citizen discussions of news.
Dahlia Boyles is a PhD student in the Department of Communication at the University of North Carolina at Chapel Hill, and holds Bachelor’s and Master’s degrees in Communication from Coastal Carolina University. Her research concerns the relationship between labor and discourses of worthiness within hunger relief efforts.

Dr. Kyle J. Holody is a Professor in the Department of Communication, Media, and Culture at Coastal Carolina University and received his PhD in Media and Communication from Bowling Green State University. His research focuses on media effects and news coverage of controversial health and safety concerns, mass shootings, abortion, race and ethnicity, and disordered eating.

Dr. Wendy Weinhold is an Associate Professor in the Department of Communication, Media, and Culture at Coastal Carolina University. Dr. Weinhold’s work focuses on the changing definition of U.S. journalists in the digital age. Her interests include critical theory and feminist criticism. She is a qualitative researcher, and her articles have been published in Feminist Media Studies and Journalism Studies.

ORCID
Corinne Dalelio http://orcid.org/0000-0002-6274-1256
Dahlia Boyles http://orcid.org/0000-0002-1918-3666
Kyle J. Holody http://orcid.org/0000-0002-8008-3752
Wendy Weinhold http://orcid.org/0000-0001-9117-1531

Data availability statement
The data collected and analyzed in this study is available upon request from the corresponding author, Corinne Dalelio.

References


Appendix A. Gun debate frames

Enforce existing laws, don’t make new ones (1).
The right to own guns is absolute/gun control violates constitution (2).
Guns are needed for self-defense (3).
‘Virtuous gun use’ – Guns are protective (4).
Gun control hurts law abiding citizens/criminals will get them anyway (5).
The problem isn’t guns, it’s bad people/criminals (6).
The problem isn’t guns, it’s… (something else, i.e. parents, law enforcement, media, etc.) (7).
You can’t blame one company or person for the wrongdoing of another (8).
The people support the right to own guns (9).
Guns are no more dangerous than… (knives, cars, etc.) (10).
It would be too difficult to disarm the population (11).
Bans are based on arbitrary labels/ignorance of weapons types and accessories (12).
Tragedies should not be used for political purposes (14).
Legislators are under the thumb of the gun lobby (15).
We must do more to keep guns out of the hands of children and youth (16).
We have too many guns, too easy to get (17).
The people want gun control (18).
How many deaths will it take before we say enough? (19).
The gun industry should be held accountable for its actions (20).
Guns are a dangerous product that should be subject to safety standards (21).
There is no legitimate reason to own weapons designed for military/maximum harm (22).
Countries with stricter gun laws have less violence than the US (23).
Some restrictions are reasonable/a balance is needed (24).
The second amendment is being misinterpreted/is open to some restrictions (25).
Other (provide in space below) (13).