Russia and Ukraine: A Content Analysis of “The World’s First TikTok War”

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1 ABSTRACT

The 2022 Russia-Ukraine war has been deemed by many news outlets the world’s first TikTok war due to the prominence of war-related content on the algorithmic video-sharing platform (Chayka, 2022). Existing literature covers tangential topics such as the use of social media in other conflicts throughout history, the Russian disinformation campaigns that were deployed during the 2022 Russian invasion, and the use of TikTok as an information-sharing platform in other contexts, but there is currently very little academic literature on the use of TikTok during the 2022 Russia-Ukraine war. To address this, I collected 192 viral TikToks across 3 relevant hashtags, developed a codebook to analyze various qualitative dimensions of the TikToks, and collected system data on these TikToks such as user engagements, sounds, and hashtags. From this corpus I compared user engagements between 1) verified and unverified creators 2) videos depicting different emotions, particularly fear, sadness, and humor 3) videos depicting news content and scenes of war featuring soldiers and civilians, and 4) videos using platform affordances or following trends. I find that although citizen journalism through TikTok has been successful in informing global audiences and offering an inside perspective on the lived realities of the war, influencers and news outlets are still dominating the broader narrative, a phenomenon I coin as algorithmic gentrification. Additionally, I find that humorous videos receive more shares:views than fearful videos; news reporting receives more shares than videos depicting scenes of war with soldiers but less likes than scenes of war featuring civilians; and platform affordances play a negligible role in a video’s success compared to a creator’s follower count.

Keywords: Russia, Ukraine, TikTok, information war
2 INTRODUCTION

On February 24 2022 Russia invaded Ukraine. Soon after, Russian propaganda and disinformation campaigns took off to justify this attack, but this information war was not one-sided. Ukrainian citizens began sharing their experiences of the war on social media: the inside of a bomb shelter, depleted grocery stories, highways packed with cars fleeing Kyiv, and more. Non-Ukrainians, influencers, artists, and established news outlets closely followed suit, using social media as a means of communication with the wider public. Together these creators sought to inform, evoke empathy, document scenes from the war, poke fun at, and humanize the war and its effects. Ciuriak (2022) describes this as “ultimately creat[ing] a mosaic for netizens that describes the experience of the war” and underlines its importance in “continuously contributing to the documentary record that will ultimately shape historical narratives” (p. 2).

Though this information war has progressed across various platforms, TikTok has emerged as a novel mode of information-sharing. TikTok is a short-form video-sharing platform where videos appear on a user’s “For You Page” (FYP) via the mysterious and astonishingly personalized TikTok algorithm. As a creator, TikTok provides a platform to reach a massive, globally dispersed audience, and move them with content that feels extremely personal and vivid, and similarly, as a viewer, TikTok provides a look at what is happening far away with a sense of urgency and immediacy; as one viewer interviewed by the New York Times put it, “What I see on TikTok is more real, more authentic than other social media … I feel like I see what people there are seeing” (Frenkel, 2022). This research is valuable in understanding how information regarding this war is being communicated to global audiences, what the role an algorithmic platform like TikTok may play in amplifying certain voices, and what war content resonates the most with viewers.
I examined 192 viral TikToks across the 3 most popular Russia-Ukraine war hashtags to investigate what composes the most highly-viewed war content, what kinds of creators are sharing their perspectives, and what kinds of TikToks users engage with the most to shed light on who is fighting this TikTok war and what has been most impactful with viewers in developing the overall narrative of the war. The specific research questions I address are:

- **RQ1**: How does a TikTok creator’s positionality impact the reach and engagement of their content on the Russia-Ukraine war?
- **RQ2**: How do the emotions portrayed in these TikToks impact how viewers engage with the video?
- **RQ3**: Do TikToks displaying scenes of war have greater engagement and reach than news style TikToks?
- **RQ4**: How does TikTok’s affordances and traits, such as the use of audios, hashtags, and trends affect the reach and engagement of certain videos over others?

Ultimately, I find that the most viral videos relating to the Russia-Ukraine war are largely created by influencers or established platforms, that humorous videos receive more shares:views than fearful videos, that news reporting receives more shares than content depicting scenes of war featuring soldiers but less likes than scenes of war featuring civilians, and that hashtags and trends play a negligible role in a video’s success compared to a creator’s follower count. I also introduce the concept of *algorithmic gentrification* to refer to the phenomenon of established platforms and influencers drowning out the perspectives of smaller-scale creators.

The following literature review sets the stage for this research. The first section will look at how social media was used in other times of conflict, most notably the Arab Spring. The second section unravels the circumstances that led to the Russia-Ukraine war and the
dissemination of Russian disinformation campaigns. The third section focuses on TikTok and how it has been used as an information-sharing tool in other contexts.

3 LITERATURE REVIEW

3.1 Social media use in other conflicts throughout history

The use of social media during times of conflict is not in itself a new phenomenon. As noted by Chayka (2022), in times of war, social networks can sometimes be “the source that we trust the most.” Social media is a tool that democratizes information-sharing; it extends the power of narrative to those who may not have official platforms but do “possess a crucial weapon: a smartphone” (Egea, 2022, para. 1) During the Arab Spring, a time between 2010-2012 when anti-government protests broke out in the Middle East and North Africa, scholars note the use of social networking sites (SNSs) such as Facebook and Twitter for organizing protests, spreading information, and sharing citizen perspectives through grass-roots journalism (Comunello & Anzera, 2012). The citizens of these countries were under oppressive regimes and social media provided an outlet for mobilization. Frangonikolopoulos & Chapsos (2012) explain how such posts on SNSs “served as alternative sources of information and proposals that originated outside authoritarian official discourse … providing a platform for ordinary citizens to express themselves and document their own versions of reality” (p. 14). The counter-narrative is integral to the value of SNSs during times of conflict: it cuts through the dissonance between the political messaging spawned by autocratic regimes and the lived experiences of the people; it empowers citizens to share and validate their realities. Thus countering misinformation, emboldening citizens, and spreading awareness and empathy were all essential traits of SNSs during the Arab Spring (Mainwaring, 2011 in Frangonikolopoulos & Chapsos, 2012)
Furthermore, viral content on SNSs has the power to grab and hold the attention of a global audience. Smidi & Shahin (2017) argue that “social media’s global reach not only allowed activists across Arab nations to share ideas and strategies with each other but broadcast the protests worldwide, helping them gain global support—which, in turn, galvanised even more Arab citizens” (p. 204). Stories, events, and protests are compounded and echoed on a local or regional scale, but if they are persuasive enough, they also have the power to pervade mainstream media across the world, and invite global audiences to join the conversation, or the fight, as it may be. This idea of inciting a broader conversation is echoed by Frangonikolopoulos & Chapsos (2012): “For it was the social media, not formal institutions or political parties, that provided the effective tool for activating the public … They provided an alternate space for reviving a dormant public consciousness into a sentient, dynamic social discourse” (p. 17). SNSs powerfully transcend barriers of time and space between people across the world, and provide a common ground for observation, communication, and interaction. They shed light on realities that oppressive regimes would prefer to be kept in the dark, and they bring commentators to the table that have power to apply political pressure.

Wolfsfeld et al. (2013) caution that “one cannot understand the role of social media in collective action without first taking into account the political environment in which they operate” (p. 115). To understand the use of SNSs during the Arab Spring, one must understand the need for alternative news reporting and political mobilization under oppressive government regimes. Similarly, to understand the use of TikTok during the Russia-Ukraine war, one must understand the social and political circumstances that propelled this. The next section will be dedicated to understanding the conditions preceding the Russia-Ukraine war and the Russian misinformation campaigns that proliferated thereafter.
3.2 Russian disinformation campaigns

It is widely believed the 2022 Russian invasion was instigated by Ukraine’s interest in joining the North Atlantic Treaty Organization (NATO). George & Sandler (2022) express that “Putin views [NATO’s] eastward expansion to the borders of Russia in the case of a number of new NATO allies (e.g., Estonia, Latvia, and Lithuania) as a threat to Russia” (p. 783). With Ukraine considering membership, Putin evidently decided to take a more active stance in resisting the spread of Western ideologies and alliances, although according to him, his motives were vastly different.

Just before attacking Ukraine, Putin announced in a nation-wide televised speech, “We will strive for the demilitarization and denazification of Ukraine, and will bring to justice those who committed multiple bloody crimes against civilians” (Brangham, 2022). Putin claimed he was launching a “special military operation” centered on fighting the genocide against the Russian minority in Ukraine under the regime of the Ukrainian neo-Nazi government (Fortuin, 2022). No such Nazi regime rules Ukraine; as it so happens, Ukraine’s President, Volodymyr Zelensky, is Jewish.

The Nazi-regime narrative was only one of many sensationalist disinformation campaigns to circulate in Russia once the war took off. Other such claims included that Russia had not attacked a residential area in Kharkiv, killing and injuring civilians, rather the Ukrainian military itself had done so; Russia had not attacked a nuclear power plant in Zaporizhzhia, it had actually been protecting it; and the civilians in Chuhuiv bloodied by attacks from Russian missiles were actually crisis actors planted by Ukraine’s psychological operations unit (Thompson, 2022).
Disinformation campaigns have always been a part of Russia’s military strategy, especially through its state-controlled media outlets, but in the era of social media, such objectives have new and increasingly widespread effects. Benková (2018) states “digital technologies and the Internet ease the way and the reach of false information misleading citizens and misrepresenting reality” (p. 2), alluding to the disturbingly malleable nature of reality on social media. In reference to the 2014 Russia-Ukraine conflict, Jaitner & Geers (2015) corroborate this sentiment, maintaining that “the traditional ‘fog of war’ has changed in the internet era” (p. 93), reflecting the fact that capturing the reality of war has always been a challenge, and that is now further complicated with the rise of SNSs.

We see evidence of this in Russian disinformation operations on Twitter, claiming that the US military, in cooperation with pharmaceutical companies Pfizer and Moderna, was funding “biological weapons laboratories in Ukraine” (Hanley et al., 2022, para 4). It is likely this disinformation campaign leaned on biological warfare and pharmaceutical involvement to strike a chord with Western anti-vax conspiracy theorists as English-language tweets of this nature achieved organic growth, but Russian-language tweets on this topic artificially gained traction through Russian bot accounts, as Pfizer and Moderna were not vaccines that were implemented in Russia (Alieva et al., 2022). As Ciuriak (2022) notes, “For Russia, social media is another channel in which the “fog of war” must be generated” (p. 2). The information war has truly begun and there is no question that Russia started it — but Ukraine might just end it.

3.3 TikTok as a tool for information sharing

In response to this onslaught of Russian disinformation, Ukrainians took to social media, and TikTok in particular, to provide counter-narratives. TikTok is a video sharing platform owned by the Chinese company ByteDance. As of September 2021 it was reported to have
roughly 1 billion monthly users globally, including an estimated 50 million daily users in the United States (Ceci, 2022). This platform experienced a period of rapid growth during the COVID-19 pandemic when stay-at-home orders had more people turning to social media platforms for an escape (Alexandro et al., 2022).

It is interesting to note, however, that TikTok is not technically a social networking platform. As Feldkamp (2021) notes, it is an anti-social media platform: “neither friends nor followers are needed … TikTok is not built upon the principle of community building like other social media platforms” (p. 79). Its core functionalities are not based on many-to-many interactions amongst users; rather it is an algorithmic media platform that curates user-generated video content for any given user, though it does include functionalities for communicating and engaging with other users (Zeng & Abidin, 2021 as cited in Klug & Autenrieth, 2022).

It is curious then, that part of the appeal of TikTok is the immediacy and intimacy users feel with creators as they watch their content. Researchers find that “TikTok elicits a stronger sense of user engagement than other social media apps and platforms in terms of aspects such as social presence and immersion” (Zhang et al., 2019 as cited in Song et al., 2021, p. 2121).

TikTok’s original use as a quirky dancing and lip-syncing app has evolved and matured over time. Feldkamp (2021) postulates that the COVID-19 pandemic had a hand in the evolution of TikTok, and that the platform was used differently than originally intended to adapt to the circumstances of a world that changed overnight. Along with dancing trends, TikTok now includes content on a vast array of topics such as news, beauty tutorials, political commentary, book reviews, recipes, fitness routines, and much more. “I’m not on that side of TikTok” is a common refrain among users that communicates their shared understanding that 1) their TikTok
feeds are intensely personalized, 2) they can fall into certain niches and “sides” of TikTok, and 3) others may view vastly different things based on their own curated algorithms.

TikTok has previously been studied as a public health information-sharing platform during the COVID-19 pandemic, when it was used by healthcare professionals, governments, and public health organizations to advise a large populace on COVID-19 updates and best practices (Li et al., 2021). It has also been used in social justice movements; following the murder of George Floyd in the summer of 2020 it was used to capture police brutality and share messages of solidarity from Black Lives Matter protests across the world (Literat et al., 2023). It is now gaining distinction as a news source among younger generations — according to some studies, nearly half of American Millennials and Gen Zs get their news from TikTok (Deuber et al., 2022). In this paper, the use of TikTok as a news source on the Russia-Ukraine war will be looked at in closer detail.

4 METHODS AND ANALYSIS

4.1 Data Collection

To create the dataset for this research, I sourced TikToks from a subset of hashtags pertaining to the Russia-Ukraine war; this method is consistent with similar studies looking at large bodies of TikToks (Literat, 2021). First I identified relevant hashtags by searching different keywords related to the Russia-Ukraine war, and noting all the ones that came up (examples include #Putin, #standwithukraine), along with how many views each hashtag had. When I had this long-list, I used the corresponding view counts as a determinant of how to focus my research. As I was interested in the most popular TikToks that are fueling the conversation on the Russian invasion, I looked at the top 3 hashtags with the most views at the time of collection,
which were #ukraine (67.1B views), #ukraine🇺🇦 (11.8B views), and, #ukrainewar (3.4B views).

I collected 150 TikToks from #ukraine, 25 from #ukraine🇺🇦, and 25 from #ukrainewar.

Originally this research was meant to include 200 TikToks, but as my study progressed, some TikToks were taken down and therefore my final sample consists of 192 videos. The unequal distribution collected from each hashtag aims to account for the fact that the first hashtag, #ukraine, has significantly more views than the other two; thus, collecting more from #ukraine is meant to create a more representative sample set of the most popular TikToks regarding the Russia-Ukraine war. The other two hashtags were still included to a lesser extent to ensure other popular TikToks were not excluded from this research simply because they were tagged under a slightly different hashtag.

For each hashtag, the top $x$ videos that appeared at the top of the search were selected for the analysis ($x$ being the number of videos collected for that hashtag). This was likely in itself enough to ensure all videos collected would fall under the heading of “viral” but to formalize this definition, I also ensured I only collected videos with greater than 1 million views. At the time of writing, there exists no objective definition of TikTok virality so this is simply a constructed benchmark. Videos were excluded from collection if:

1. the creation date of the video predated the beginning of the Russian invasion (February 24 2022),
2. the video was a duplicate of another video that had already been collected for data analysis under another hashtag or the same hashtag,
3. the content of the video was not related to the Ukraine-Russia war in any regard — the creator used the hashtag to gain popularity, a concept known as “wave-riding” (Garcia et al., 2022)
(4) the content of the video was not understandable to an English speaker. Non-English videos were occasionally included if the content of the video was understandable, as is consistent with protocols in similar studies (Garcia et al., 2022)

This research is exempt from the Institutional Review Board as it deals only with publicly available data and no human subjects.

4.2 System traits

Various system traits of all TikToks were also collected. I use the term system traits to refer to attributes of the TikTok that are not interpretive, but rather traits or facts about the video (see Fig. 1). Below is the exhaustive list of all of the system traits that were gathered:

Sounds. The sound (audio) the creator used for the video. If the sound was an original sound it was simply tagged as “OS”, otherwise it was noted in its full form. This was collected to see if popular (ie. highly-used) sounds were leveraged to achieve virality, and to see which sounds were used most often in Russia-Ukraine TikToks.

Engagement. Specifically, the number of views, likes, comments, and shares the video received at the time of data collection. This was collected to verify it fell into the threshold of virality (defined here as >1M views) and to calculate reach and impact.

Other hashtags used. Other than the primary hashtag, which other hashtags were used. This was collected to deduce if the number of hashtags had any affect on how much engagement the video got.

Creator’s attributes. The creator’s username, verification status, number of followers, number of accounts they follow, and number of profile likes. This was collected to determine if these creators were established sources, influencers, or “ordinary” users.
**Date.** Video creation date. This was collected to ensure the video fell inside the relevant time frame (after February 24, 2022).

As per TikTok’s terms of use, this research did not use any web-scraping tools to gather these traits. All TikToks were hand-collected and parsed manually for this information. A new TikTok account was created to source these TikToks, however it cannot be ensured that personalization did not occur based on the basic characteristics of this account (ie. IP address, email used, etc.).

*Fig. 1: An example of how I identified and collected various system traits from TikToks.*

### 4.3 Qualitative traits

In addition to the system traits, I sought to understand the qualitative nature of these TikToks. Specifically I wanted to unpack:

*Creator’s dominant role.* Where does the creator fit into the video?
Video content. What is happening in the video? What is it trying to convey?

Video style. How is the video filmed or edited?

Emotion. Which emotions are prevalent in the video?

The codebook (see Fig. 2) encapsulating these dimensions was partially original and partially adapted from existing codebooks, particularly from a study that looked at TikTok content as a source of COVID-19 information (Li et al., 2021) and another one on war journalism on Twitter during the Arab Spring (Harlow, 2011). I made modifications, additions, and deletions as per my study goals and from input from my advisors as well as from the other coders who performed the Inter-Coder Reliability tests. The codebook categories will be expanded on in more detail in the next section.

4.4 Inter-Coder Reliability

Once this codebook was developed, I coded a small sample of TikToks (n=30). I then enlisted the help of two Research Assistants (RAs) at the University of Michigan School of Information to perform Inter-Coder Reliability (ICR) to validate my codebook. I met with each RA separately. My process of collaborating with each of them was as follows:

1. Explaining the project and debriefing them on the codebook
2. Allowing them to code 10 TikToks independently
3. Noting any differences in our codes and reconvening to come to a conclusion on how these codes should be applied
4. Allowing them to code the remaining 20 TikToks independently
5. Comparing our codes yet again and concluding on any changes required to the codebook

When this process concluded I ran ICR tests to determine which of my codes had an acceptable degree of agreement for me to proceed using them on the rest of the sample. I used
Krippendorf’s alpha to calculate this degree of agreement. Below is a result of the codes that had viable scores. Krippendorf’s alpha of > 0.8 is an indicator of good reliability and an alpha between 0.67 and 0.8 allows for tentative conclusions to be made (Carletta, 1996). For this research, the cut-off point of 0.67 was chosen.

Fig. 2: Codebook addressing the creator’s dominant role, the video content, the video style, and the specific emotions detected in the video.

<table>
<thead>
<tr>
<th>Code</th>
<th>Score</th>
</tr>
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<tbody>
<tr>
<td>Creator’s Dominant Role (mutually exclusive)</td>
<td></td>
</tr>
<tr>
<td>None / observer</td>
<td>Creator does not appear to have a role</td>
</tr>
<tr>
<td>Analyst / commentator</td>
<td>Analyzing the actions of those involved in the conflict and providing perspective or opinion</td>
</tr>
<tr>
<td>Actor</td>
<td>Has an active role in the scene</td>
</tr>
<tr>
<td>Catalyst for change</td>
<td>Influencing those already involved; encouraging others to get involved</td>
</tr>
<tr>
<td>Video content (not mutually exclusive)</td>
<td></td>
</tr>
<tr>
<td>Official news</td>
<td>Content from official news sources</td>
</tr>
<tr>
<td>Advice</td>
<td>Practical advice / tips</td>
</tr>
<tr>
<td>Protest</td>
<td>Protesting or making a statement - can include songs, paintings, signs</td>
</tr>
<tr>
<td>Scenes of war - soldiers</td>
<td>Includes a soldier or military personnel, typically in uniform</td>
</tr>
<tr>
<td>Scenes of war - civilians</td>
<td>Includes civilians. Note: civilians do not have to be in a physical warzone. Daily life during the war qualifies.</td>
</tr>
<tr>
<td>Scenes of war - no human subjects</td>
<td>Explosions, rockets, missiles, etc. are depicted but no humans are visible in the video.</td>
</tr>
<tr>
<td>Video style (not mutually exclusive)</td>
<td></td>
</tr>
<tr>
<td>First person POV</td>
<td>Creator is filming themselves and may or may not be talking to the camera.</td>
</tr>
<tr>
<td>News reporting</td>
<td>Official or unofficial news reporting.</td>
</tr>
</tbody>
</table>
TikTok dance or trend | Creator is performing a TikTok dance. | 0.898
---|---|---
Photo slideshow | Multiple photos shown in a successive slideshow. | 1.0

Specific Emotions Detected (not mutually exclusive)

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humorous</td>
<td>Causing amusement or lightheartedness</td>
<td>0.726</td>
</tr>
<tr>
<td>Sad</td>
<td>Showing unhappiness, sorrow</td>
<td>0.698</td>
</tr>
<tr>
<td>Scared</td>
<td>Portraying fear</td>
<td>0.925</td>
</tr>
</tbody>
</table>

Several categories had to be eliminated as a result of the ICR process; see Appendix A for the full original codebook.

### 4.5 Data analysis

My dependent variables (DV) were the codebook categories outlined above, and my independent variables (IV) were the comments, likes, shares, views and the ratios of likes:views, comments:views, shares:views for the collected videos. Across these dimensions, I had to first determine which comparisons were statistically significant. To do this I conducted two different types of t-tests; for data that was unpaired (ie. all categories that were mutually exclusive) I conducted an unpaired two-tailed t-test between all categories, and for data that had some pairs but not others (ie. videos that were tagged under multiple content categories) I conducted a partially overlapping two-tailed t-test. Google Sheets and RStudio were used for these calculations; Python was used for data cleaning and creating data visualizations. For brevity and relevance, only statistically significant findings are reported in this paper (p < 0.05).

### 5 RESULTS

The findings from this research correspond to the major research questions posed.
In response to RQ1, I found that creators of these TikToks are for the most part unverified accounts, yet many do have large followings that grant them influencer status. I also found that videos with verified creators received more shares than videos with unverified creators, yet videos with unverified creators received a greater ratio of likes:views. Verification status on TikTok refers to a blue checkmark beside a creator’s username that TikTok has granted them; it is a recognized sign of fame or credibility.

In response to RQ2, I detected an effect of certain emotions over others when it came to user engagement. Namely, videos depicting negative emotions (ie. sad, scared) received more comments than videos that were humorous, but videos that were humorous had a greater ratio of shares:views than videos that were fearful.

In response to RQ3, I found that news reporting style videos received more shares than scenes of war featuring soldiers but less likes than scenes of war featuring civilians.

Finally, in response to RQ4, I found that platform affordances and traits played a negligible role in a video’s popularity. The most highly viewed, shared, and liked videos used on average less than 6 hashtags. Additionally, popular audios did not seem to have a notable effect as almost half of the videos studied used original sound (OS) rather than a popular TikTok sound. Similarly, creators did not seem to be leveraging TikTok trends or dances to achieve high view counts; only 3% of the videos fell into the category of following a TikTok trend.

These findings are explored more thoroughly in the following sections.

6 CREATOR POSITIONALITY

I will address RQ1 in this section, that is, how a TikTok creator’s positionality impacted the reach and engagement of their content on the Russia-Ukraine war. The intent behind this
question was to determine if the TikToks that are composing the most popular videos on the Russia-Ukraine war are a product of “citizen reporting” or if they are from established platforms or verified sources. This question was answered by looking at the relevant TikToks, identifying the creator accounts, and collecting their follower count, following count, number of profile likes, and verification status, in combination with the video metadata that was also being collected (video likes, shares, and number of comments).

6.1 Verification status of a creator has inverse impacts on shares and likes

76% of videos (n=145) were created by unverified accounts. This means that official sources constitute a minority of the overall TikTok content on the Russia-Ukraine war. (Note that this does not necessitate that the 76% of unverified accounts are “ordinary” TikTok users; among the unverified users the average follower count is 707,473 with a median of 128,150. Later in this section, I will more thoroughly address how to classify these unverified accounts in terms of their influence and platform. Let us return to verification status for the moment). In my analysis, I found that the verification status of a creator had a notable impact for shares (p=0.048) and the ratio of likes:views (p=0.000043). Interestingly, it had opposing effects on these two engagements:

Firstly, the number of shares was far greater for videos produced by verified creators (M=44408, median=24350, SD=48709.83) than unverified creators (M=28460, median=14100, SD=40411.45) (see Fig. 3). In other words, when users are looking to disseminate war news or information to others off of the platform, they are more likely to opt for verified sources, such as news accounts or high-credibility influencers.

Secondly, the average ratio of likes:views was greater for unverified creators (M=0.14, median=0.14, SD=0.051) than verified ones (M=0.11, median=0.11, SD=0.037) (see Fig. 4).
This indicates that while users may be more inclined to share videos from verified accounts, they are more likely to like videos from unverified sources. This implies that videos of this nature, ie. from unofficial news sources, commentators, or ordinary citizens evoke more of a passive response from the user, whereas verified videos incite more of an active response.

*Fig. 3 (left): Verified creators received more shares than unverified creators; Fig. 4 (right): Unverified creators received a greater ratio of likes:views than verified creators*

6.2 *Most creators were unverified, however they still met other thresholds of credibility that grant them influencer-status*

76% of videos (n=145) were created by unverified accounts, however, these creators would on average still be considered influencers (see Fig. 5).
Fig. 5: An unverified account with 5.7M followers, establishing it as an influential source of information, if not an official source

There is no concrete definition as to what qualifies as a TikTok influencer but I have adopted these measures to evaluate creator influence: (1) their number of followers, (2) the ratio of video likes (for the selected video) to profile likes, (3) the discrepancy between the number of views their video received and their number of followers. Note that I am excluding verified accounts in this section of the analysis as that was covered in the preceding section. I address each of these dimensions below:

(1) 93% of videos created by unverified accounts were produced by creators that had 10,000+ followers. This number has been used in influencer marketing as the minimum number of followers to be considered an influencer (Haenlein et al., 2020, p. 17). Again, it’s highly likely that their viral video led to an increase in their follower count, but it is safe to assume that many had large followings that predated (and perhaps precipitated) their viral video.

(2) Only 34% of videos by unverified creators had a ratio of video likes to profile likes equal to or greater than 0.75 (ie. their viral video made up the clear majority of their profile likes). This means that a minority of videos were created by creators who only had the selected video to show for their success. This implies that either before or after the selected video gained
virality, many creators had one or more other videos that were receiving a significant amount of likes. This could be a byproduct of the selected video bringing new viewers onto their page and driving engagement with other videos, but it also seems highly possible that these creators already had a platform at the time of sharing their video and experiencing virality with it. To verify this, it would be useful to conduct a time-series analysis to study creators’ videos’ popularity before and after the selected video to determine if there were any major changes; this is outside the scope of this research.

(3) For 66% of videos by unverified creators, the video views surpassed the video creator’s follower count by 1000%. This means that in the majority of videos, the viewers were likely not followers of the creator and instead came across this video on their FYP or from others.

Points (1) and (2) indicate that the majority of these creators had an established following or presence on TikTok regardless of their video’s success, however, point (3) indicates that their video’s success still outpaced their established influence.

6.3 Most creators were Commentators/Analysts and videos with this creator role received the most shares

In 39% of videos (n=75) creators take on the role of a Commentator / Analyst, in 31% (n=60) they are Actors in the video, in 23% (n=44) they are Observers, and in only 7% (n=13) they are Catalysts for Change.

A Commentator / Analyst was identified as a creator who was providing commentary, analyzing political or military moves, speculating on the outcomes of the war, or otherwise opinionating on particular events regarding the war without having a more active role in the scene (see Fig. 6). An Actor had a role in the scene; the video showcased them moving about and
performing some action or task (see Fig. 7). Observers had no visible role in the scene (see Fig. 8) and Catalysts for Change were invoking some call to action or inspiring others to get involved (see Fig. 9).

Fig. 6 (left): Example of an Analyst, Dylan Page covers developing news relating to the Russia-Ukraine war; Fig. 7 (right): Example of an Actor, Valerisssh, taking followers along on her day in a bomb shelter.
Additionally, statistically significant comparisons could be made between certain creator roles and different types of engagements. Specifically, videos where the creators were Commentators / Analysts received greater shares (\(M=41276.33, \text{median}=22300, \text{SD}=49639.90\)) than videos where creators were Actors (\(M=19269.12, \text{median}=7795.5, \text{SD}=31368.68\)) (\(p=0.0021\)) (see Fig. 10), yet videos where creators were Actors (\(M=1852908.33, \text{median}=1450000, \text{SD}=1351343.39\)) received a greater number of likes than videos where creators were Commentators / Analysts (\(M=1347469.33, \text{median}=1100000, \text{SD}=914230.62\)) (\(p=0.015\)) (see Fig. 11).
Fig. 10 (left): Creators who were Commentators/Analysts received a greater number of shares than videos where creators were Actors; Fig. 11 (right): Creators who were Actors received a greater number of likes than videos where Creators were Commentators/Analysts.

Controlling for engagements based on views, videos where creators were Commentators / Analysts received a greater ratio of shares:views (M=0.0038, median=0.0022, SD=0.0041) than videos where creators were Observers (M=0.0023, median=0.0014, SD=0.0022) (p=0.0094) or videos where creators were Actors (M=0.0015, median=0.00067, SD=0.0028) (p=0.00024) (see Fig. 12). However videos where creators were Catalysts for Change or Observers received a greater ratio of comments:views (M=0.0030, median=0.0025, SD=0.0022 and M=0.0016, median=0.0014, SD=0.0011, respectively) than videos where creators were Actors (M=0.0011, median=0.00091, SD=0.00087) (p=0.011 and p=0.017, respectively) (see Fig. 13).

Fig. 12 (left): Analysts received a greater ratio of shares:views than Observers or Actors; Fig. 13 (right): Catalysts for Change received a greater ratio of comments:views than Observers or Actors.
This implies that (1) viewers were more likely to share videos that remark on something in an analytical way than a video that simply shows something, even if the creator is an active party in the scene, and (2) viewers are more likely to comment on videos where the creator is an Observer rather than an Actor perhaps in an attempt to analyze and comment in a way that the video does not, and they are even more likely to comment on a video where the creator is a Catalyst for Change perhaps as a response to the call to action invoked.

7 EMOTION EFFECTS

I will address RQ2 in this section, which considers how emotions portrayed in Russia-Ukraine TikToks impact how viewers engage with the video, and if TikToks conveying humor have greater engagement and reach than those conveying fear or sadness.

Humorous videos included memes, irony, the use of certain sounds or trends, lightheartedness, and self-deprecation, with an overall intent to cause amusement (see Fig. 14). Sad videos were more serious and often depicted the impact of the war on one’s life, or the aftermath of some particular event (see Fig. 15). Videos depicting fear often included scenes of the war, loud sounds, explosions, or a feeling of unsafety, uncertainty, or alarm (see Fig. 16).
Fig. 14 (left): Example of a humorous video, an analogy is made between the Russia-Ukraine war and a scene from Spongebob; Fig. 15 (right): Example of a sad video, a father is separated from his daughter

Fig. 16: Example of a video depicting fear; a woman is screaming, resisting arrest from riot police at an anti-war protest in Moscow

7.1 Humorous videos receive less comments than videos depicting fear or sadness but more shares:views than videos depicting fear

Comments were greater for videos tagged as sad (M=24675.51, median=13900, SD=29282.51) or scared (M=28760.75, median=15350, SD=32798.51) than videos tagged as humorous (M=16529.91,
median=10900, SD=17259.00) (p=0.032; p=0.02) (see Fig. 17), yet videos that are humorous have a higher share:view ratio (M=0.00342, median=0.00172, SD=0.0084) than those that were tagged as scared (M=0.0.00206, median=0.00158, SD=0.0018) (p=0.019) (see Fig. 18). This suggests that negative or fearful emotions may evoke a response from viewers to console or support through commenting, however when it comes to sharing videos with others, viewers are likely to opt for the funnier videos. It is hard to make a decisive statement whether positive or negative emotions have a greater impact on a viewer; sharing a video off-platform and commenting are both actions that require greater effort from the user than simply viewing or liking, so in either case it is evident that these emotions do engender active responses, and yet they do so in their own ways.

Fig. 17 (left): Videos that are sad or scared receive more comments than videos that are humorous; Fig. 18 (right): Videos that are humorous receive more shares:views than videos that are scared

8 SCENES OF WAR - CIVILIANS AND SOLDIERS

I will address RQ3 in this section, which investigated if TikToks displaying scenes of war have greater engagement and reach than TikToks that do not show war footage, and how this may differ for scenes of war depicting soldiers or civilians.
Videos with scenes of war featuring soldiers were often scenes from war zones and sometimes included soldier-civilian interactions (as this category was not mutually exclusive) (see Fig. 19). Scenes of war featuring civilians rarely included war zones, but more often depicted the effects of the war on daily life (see Fig. 20).

Fig. 19 (left): A scene of war featuring a soldier; a birds-eye view of a soldier huddled in a trench. Fig. 20 (right): A scene of war featuring civilians, refugees reuniting in Hungary

Videos tagged as official news were established journalism or news platforms and had a blue verified checkmark (see Fig. 21). Videos tagged as news reporting style included official and unofficial news sources, such as citizen reporting (see Fig. 22).
8.1 News reporting videos received more shares than scenes of war depicting soldiers but less likes than scenes of war depicting civilians

Videos marked as news reporting style received more shares (M=40225.85, median=21000, SD=52711.93) than videos depicting scenes of war with soldiers (M=26109.35, median=12000, SD=38366.52) (p=0.018) (see Fig. 23). Additionally, videos tagged as official news received more comments (M=24352.57, median=16800, SD=18985.80) than videos depicting scenes of war with soldiers (M=17193.11, median=12250, SD=16337.83) (p=0.046) (see Fig. 24). This implies that users engage with TikToks around the Russia-Ukraine war as a source of official or unofficial news reporting, and less to see scenes from an active battlefield.
Fig. 23 (left): Videos following a news reporting style received a greater number of shares than videos with scenes of war featuring soldiers Fig. 24 (right): Videos tagged as official news received more comments than videos with scenes of war featuring soldiers

It is interesting to note however, that videos tagged as news reporting style received less likes (M=1386126.97, median=1000000, SD=1265535.23) than videos tagged as scenes of war depicting civilians (M=1771621.31, median=1200000, SD=1550085.38) (p=0.032) (see Fig. 25). So although scenes of war depicting soldiers may not engage users as much as news reporting, scenes of war depicting civilians outpace news reporting videos on this engagement dimension.

Fig. 25: Videos with scenes of war featuring civilians received a greater number of likes than videos following a news reporting style

The combination of these findings leads me to conclude that when looking at TikToks on the Russia-Ukraine war, users are most engaged with videos following a news reporting style (official or unofficial) and this may include civilian perspectives. They are surprisingly less impacted by scenes of war featuring soldiers.
This could indicate that the primary value of TikToks on the Russia-Ukraine war is not to get a glimpse of the turmoil on the battlefield, but rather to inspect and analyze the broader events of the war, and to hear from civilians who viewers may relate to as “ordinary people”.

9 PLATFORM AFFORDANCES AND SYSTEM TRAITS

I will address RQ4 in this section, which considers how TikTok’s platform traits, such as the use of audios, hashtags, and trends affect the reach and engagement of certain videos over others. Here I describe the relationship between hashtags and a video’s view count, and look at how audios and trends were used.

9.1 The number of hashtags used had a negligible impact on a video's view count

Hashtags can be a way of increasing a video’s visibility, as some users search for videos by hashtags. However, I found that when it came to the number of views a video received, hashtags had a negligible impact. The median number of hashtags used was 5 and the videos with the highest views had fewer than 10 hashtags (see Fig. 26).

Fig. 26: Graph describing the relationship between number of hashtags used and the number of views a video achieved; the most highly viewed videos used < 10 hashtags

Multiple linear regression was used to test if the number of hashtags and the number of followers significantly predicted the number of video views. I included the number of followers
as a variable as I presumed that could also contribute to a video’s view count. One outlier was excluded from the dataset to fit the linear model. The resulting fitted regression model where \( y \) = number of video views, \( A \) = the number of followers and \( B \) = the number of hashtags was:

\[
y = 1.328e+07 + 5.648e-01A + -2.142e+05B
\]

The overall regression was statistically significant \( R^2 = 0.03036 \), \( F(\text{df regression}, \text{df residual}) = 3.975 \) on 2 and 188 DF, \( p = 0.02038 \). I found that the number of followers significantly predicted the number of views (\( \beta = 5.648e-01, p = 0.040 \)), whereas the number of hashtags did not significantly predict the number of video views (\( \beta = -2.142e+05, p = 0.089 \)).

9.2 Almost half of the audios were original sound, but a few repeat sounds emerged

43\% (n=83) of the videos used original sound (OS), meaning that the audio used in the TikTok was not a sound that was applied in the editing process, but rather the audio created by the video itself (ie. the creator speaking into the microphone).

For the remaining videos, popular sounds were still used but to a lesser degree. The popularity of a sound was determined by how many other videos also used that same sound, which over all audios was an average of 649,649, but a median of only 292, indicating that a handful of viral sounds are skewing the average higher. 16\% of videos used audios with 250K+ other videos and only 7\% used audios with 1M+ other videos. These viral sounds will be covered in the next section on trends.

A few repeat sounds emerged. One of these sounds was Where Is The Love for Ukraine by Lauren Amour, a remix of Where is the Love by the Black Eyed Peas, a sound with 58.6K associated TikToks, with lyrics pertaining to the Russia-Ukraine war (see Fig. 27): “The bombs
and the guns and the World War Three / Could they only just stop and think about this? / What are the messages they’re teaching their young kids? / Violence is the way to sort their problems out? / Meanwhile the soldiers in the streets are getting gunned down / Pray for Russia, Pray for Ukraine and whoever”. Another notable repeat sound was Unstoppable (I put my armor on, show you how strong I am) by SIA, a sound with 4.4M associated TikToks: “I put my armor on, show you how strong I am / I put my armor on, I'll show you that I am / I'm unstoppable / I'm a Porsche with no brakes / I'm invincible / Yeah, I win every single game / I'm so powerful / I don't need batteries to play / I'm so confident / Yeah, I'm unstoppable today.” These songs capture an anti-war and pro-Ukraine sentiment that is common among TikToks relating to the Russia-Ukraine war.

Fig. 27: A musician remixes “Where is the love?” by the Black Eyed Peas to relate to the Russia-Ukraine war and calls for an end to the violence

9.3 Creators largely did not follow TikTok trends with a few notable exceptions

Only 3% of videos (n=6) were identified as following a TikTok trend, indicating this was not a significant source of gaining virality. The few that did used viral humorous audios to make light of their circumstances (see Fig. 28 and Fig. 29).
Fig. 28 (left): A creator using the Che La Luna audio and following the corresponding trend of doing a certain hand motion and showing off different areas of your home; Fig. 29 (right): Another creator following the same trend / using the same audio

10 DISCUSSION

10.1 Creator positionality

While most of these videos were made by unverified creators, these creators still have high measures of “influencer” status. This suggests that although TikTok is being used as a tool for citizen reporting, ultimately, those with established platforms are still controlling the broader narrative. This is significant because when referring to social media as a source of on-the-ground reporting it is critical to unpack how true that is; content seen on TikTok may be inherently more visceral than content seen on traditional news reporting sites, but it is not inherently more authentic or true to the Ukrainian perspective. I introduce the concept of algorithmic
*gentrification* to refer to this phenomenon, that is, when established sources and influencers dominate an algorithm and dilute the impact of local perspectives, making the narrative more palatable to a broader audience, and perhaps subverting the original intent of these platforms of providing a space for “ordinary people” to share their realities.

Additionally, many of these viral videos were created by English-speaking creators or for English-speaking audiences. This indicates some key differences between the use of TikTok in the Ukraine-Russia war and the use of other social media in prior conflicts. For one, these creators are speaking to an audience that goes beyond their affected country; in prior conflicts, such as the Arab Spring, social media was used by citizens primarily to communicate and organize with other citizens, and almost as a by-product, this content was viewed across the world. Meanwhile in this information war, not only is it well understood that the audience crosses transatlantic borders, but I would argue the objective is to share the circumstances within Ukraine across the world as an alternative to Russian disinformation. Ukrainians don’t necessarily need TikTok as a platform to communicate with one another the same way citizens did in the Arab Spring; the Ukrainian government is not an oppressive regime (Putin’s personal opinions notwithstanding), and so Ukrainians are not using it as a tool to bear witness to one another’s shared experiences or organize protests, but rather to project their experiences globally, where they can evoke sympathy and call attention to the realities of the war that may contradict Russian narratives. Similarly, creators outside of Ukraine are using the platform to indicate their support by showing protests around the world, or to explain the events of the war to the audience located where they are based.
10.2 Emotions

This research found that while viewers may individually feel moved by content that is sad or scary (such content receives more likes than humorous videos), when they are sharing TikToks with their friends, they are more likely to share humorous videos. This may be due to social desirability effects, where users want to share videos that will favor them with positive associations with those they share it with. A study on virality and memes on Facebook found that strong positive emotions towards a video led to a greater intent for a viewer to share the video in order to pass on the same pleasure the original viewer derived from the video (Taecharungroj & Nueangjamnong, 2014). It may then stand to reason that a person would not want to share negative videos with others and risk self-association with negative content.

This also aligns with a larger pattern for younger generations to turn to comic relief, memes, and dark humor in difficult times, most notably witnessed during the COVID-19 pandemic. Gilbert (2021) writes “the “Zoomer” generation regularly seek recourse in comical, or humorous, ways of grappling with broken cultural, economic, political, and … educational promises” (p. 70). In this way, humor is used as a coping mechanism, a means of critically examining one’s less-than-ideal circumstances in a tongue-in-cheek way. Humor is also conveyed through memes, a form of content that has a base template that is then transformed or edited by the creator to add something new to the conversation, and TikTok’s platform affordances easily allow users to create this type of content. Prior literature has studied memes as a political tool for driving conversations on socio-political issues among Gen Z users (Zeng & Abidin, 2021).
10.3 News reporting

Although these TikToks may be considered a form of war journalism or citizen journalism, it is interesting to note that official news still receives higher engagements than scenes of war featuring soldiers, calling into question if the value of these TikToks is really as an on-the-ground information sharing platform, or a bite-sized information sharing platform. However, it is more likely that official news sources have the ability to give viewers the best of both worlds: such platforms can send journalists to Ukraine and partake in on-the-ground reporting, providing high-quality information in a short, compelling way. Editor-in-Chief of Vice World News (EMEA) Matthew Champion described how Vice’s TikTok account really took off after the Russian Invasion in Ukraine, “‘We had a correspondent, who was on the ground … He’s just kind of walking through Kyiv with the sound of the sirens in the background. He’s experiencing it, but he’s also telling you what’s going on’” (Newman, 2022, p. 19). In this way, official news accounts capture 3 key advantages of news reporting on TikToks simultaneously, 1) the immediacy and authenticity of TikTok’s reporting style, 2) a creator to connect with, 3) a trusted source of information.

10.4 Platform affordances

Hashtags were not as important to a video’s success than the creator’s existing following, and viral sounds and trends were used only sparingly. This implies that affordances can only get you so far; content and existing influence are of greater importance. However, Newman (2022) states that a larger following “gives your video a head start as it is more likely to be shown to those that have expressed an interest, but … this is not as big a factor as on other platforms” (p. 13). Indeed, this research found for 68% of videos the video views surpassed the video creator’s
follower count by 1000%. Thus having a large following helps, but it is not the determining factor of a video’s success. TikTok’s algorithm is designed in such a way that any creator can achieve virality, and indeed this is part of the allure of TikTok. Thus the content of a TikTok is equally as important to a video’s success — TikToks are disseminated on the FYP’s of a handful of users and spread based on their reactions and engagements to it, so if a creator really wants their video to achieve virality, it must be worthy of watching and engaging with beyond their immediate following (Newman, 2022).

11 LIMITATIONS AND FUTURE RESEARCH

Despite the contributions this work makes to the literature, it also has limitations that should be addressed in future work by scholars.

For one, only a subset of qualitative factors could be analyzed in the codebook, and indeed, this research intended to include more variables that later had to be eliminated as they did not reach an acceptable alpha value in the ICR process. Creator attributes such as country of origin, gender, and age were all not included in this study, but may provide interesting insights. Similarly, emotions such as hopeful, angry, and empowered were eliminated through the ICR process, but would be worthwhile to study. As for system traits, video metadata such as video length, title, captioning, and comments could all be studied in future research.

Additionally, only videos that were understandable to an English speaker were included. Although viral videos did meet this criteria by a large margin, a few videos were excluded off this basis; this could eliminate analysis into intra-Ukrainian communications that would be interesting to analyze.
Only posted TikTok videos were looked at, not live broadcasts; these could be an immersive source of on-the-ground reporting that future work could address.

This research also focused on the Ukrainian perspective, as two of the hashtags used for sourcing the videos include only the word Ukraine. Having different hashtags that are more Russia-focused may orient this research towards the Russian perspective of the war. It would be interesting to study how this same platform could be used on the other side of the information war, and to contrast Russian and Ukrainian messaging on the same topics.

This work also focuses on Russia-Ukraine content on TikTok alone; future research should investigate the difference between news absorption across platforms, such as traditional media outlets and other social media platforms, such as Twitter.

This research also speculates the emotional and behavioral impact of TikTok content based on a user’s engagement patterns. Future work should confirm these conjectures with cognitive interviews, surveys, or through analysis of comments left on TikTok videos.

Lastly, information quality and misinformation were not addressed. These videos were coded and studied at face value, and indeed there was an assumption that they are counternarratives to disinformation, but there is no guarantee that they always contained factual information, and instances of misinformation and even disinformation likely exist. Further research should study the quality of the information circulated on TikTok in this information war. In this vein, the issue of content being taken down, free speech, the Chinese ownership of this app and how that may tie into censorship and other such political issues were outside the scope of this research, but may be worthwhile to broadening and deepening our understanding of the use of TikTok in wartime.
CONCLUSION

This research explored the ways in which TikTok was used as a tool for communicating information around the Russia-Ukraine war. It found that the most viral videos relating to the Russia-Ukraine war are largely created by influencers, that humorous videos receive more shares than sad or scary videos, that news reporting had more engagements than content depicting scenes of war featuring soldiers, and that platform affordances played a negligible role in a video’s success compared to a creator’s existing following. This work introduced the concept of *algorithmic gentrification* to refer to the phenomenon of established platforms and influencers drowning out the perspectives of smaller-scale creators, at least in the collection of viral TikToks.

This work highlights the ways that social media use during times of conflict has changed with the emergence of new social networks, under new circumstances that have made them necessary, and the varying ways viewers engage with different forms of this content on a global scale. It has postulated explanations for users’ engagement behaviors towards certain content over others, reflecting the socio-cultural ecosystem this content exists within. It has also described the strengths and limitations of TikTok itself as a platform and its crucial role in this ongoing historical event, opening the door to deliberation on how TikTok may be used in the future at other critical junctures.

Information scientists can develop this work through the lens of the interactions between viewers and creators, and viewers and the technology, as I have. Policy makers can use this as a reference for the uses of TikTok for democratic purposes (despite its autocratic ownership). News sources, activists and citizens can use this as a guide of the potential for impact, connection, and communication with a global audience during times of crisis.
ACKNOWLEDGEMENTS

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Appendix A: Full codebook with eliminated categories

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<th>Code</th>
<th>Score</th>
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</thead>
<tbody>
<tr>
<td><strong>Video content (not mutually exclusive)</strong></td>
<td></td>
</tr>
<tr>
<td>Opinions / explanations</td>
<td>0.370</td>
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<tr>
<td>Official news</td>
<td>0.763</td>
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<tr>
<td>Unofficial news</td>
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<tr>
<td>Encouragement</td>
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<tr>
<td>Advice</td>
<td>0.833</td>
</tr>
<tr>
<td>Protest</td>
<td>0.763</td>
</tr>
<tr>
<td>Scenes of war - soldiers</td>
<td>0.895</td>
</tr>
<tr>
<td>Scenes of war - civilians</td>
<td>0.688</td>
</tr>
<tr>
<td>Scenes of war - no human subjects</td>
<td>0.729</td>
</tr>
<tr>
<td><strong>Video style (not mutually exclusive)</strong></td>
<td></td>
</tr>
<tr>
<td>First person POV</td>
<td>0.779</td>
</tr>
<tr>
<td>Third person / documentary</td>
<td>0.410</td>
</tr>
<tr>
<td>News reporting</td>
<td>0.711</td>
</tr>
<tr>
<td>TikTok dance or trend</td>
<td>0.898</td>
</tr>
<tr>
<td>Video edit</td>
<td>0.098</td>
</tr>
<tr>
<td>Photo slideshow</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Dominant emotion</strong></td>
<td></td>
</tr>
<tr>
<td>Dominant emotion portrayed</td>
<td>0.452</td>
</tr>
<tr>
<td>Creator’s Dominant Role (mutually exclusive)</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>None / observer</td>
<td>Creator does not appear to have a role</td>
</tr>
<tr>
<td>Opinion commentator</td>
<td>Commentator/analyst, analyzing the actions of those involved in the conflict and providing perspective and opinion (ie. stationary environment)</td>
</tr>
<tr>
<td>Protagonist / actor</td>
<td>Has an active role in the scene (becoming a party to one side in the conflict, ie. in the field)</td>
</tr>
<tr>
<td>Catalyst for change</td>
<td>Influencing those already involved, as well as inciting and encouraging others to get involved</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific Emotions Detected (not mutually exclusive)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hopeful</td>
<td>Feeling or inspiring optimism</td>
</tr>
<tr>
<td>Humorous</td>
<td>Causing amusement or lightheartedness</td>
</tr>
<tr>
<td>Sad</td>
<td>Showing unhappiness, sorrow</td>
</tr>
<tr>
<td>Angry</td>
<td>Openly indicating hostility, not merely annoyance, sarcasm, or sadness</td>
</tr>
<tr>
<td>Empowered</td>
<td>Fostering a sense of confidence or strength</td>
</tr>
<tr>
<td>Scared</td>
<td>Depicting or portraying fear</td>
</tr>
</tbody>
</table>