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Keepin' it Reel: Investigating how Short Videos on TikTok and Instagram Reels Influence View Change

Keepin' it Reel

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Social media platforms featuring short video content, such as TikTok and Instagram Reels, have rapidly become key part of our information landscape. While they often entertain, they can also inform and may persuade. Recent human-information interaction research has demonstrated the potential for information encounters on social media to sow the seeds of view change. However, little research has examined the role of this new type of social media platform in view change. To examine this role, we conducted a two-week diary study, followed by interviews, with 12 regular users of TikTok and Instagram Reels. All participants reported viewing videos that influenced their views. They predominantly passively encountered these videos on their personalized feeds, rather than actively seeking them. Content verification was limited, with many participants voicing (potentially misplaced) trust in influencers and accessible experts. Reassuringly though, some demonstrated a higher level of critical engagement. Overall, our findings highlight the strong persuasive power of short video platforms and the risk they may be used to misinform or manipulate. Based on our findings, we discuss key implications for research and platform design.

CCS CONCEPTS • Information Systems • Information Retrieval

Additional Keywords and Phrases: View Change, TikTok, Instagram Reels, Algorithmic Human Information Interaction, Video

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1 INTRODUCTION

Short video platforms are a new social media format used for several reasons, including escapism, entertainment, social validation and information {Bucknell Bossen, 2020 #2029; Kang, 2022 #2015; Menon, 2022 #2014}. Short video platforms provide access to content as diverse and seemingly innocuous as personal blogs, micro cookery classes and life hacks {Kang, 2022 #2015}. These platforms also provide information on more serious topics, including political videos intended to persuade {González-Aguilar, 2023 #2016} and health information {Song, 2021 #2049}. Sadly, they also showcase hateful speech, such as transphobic content {Zenone, 2021 #2054}, misogyny and racism {Weimann, 2023 #2024}. This is particularly concerning, given the high proportion of people in the UK {Ofcom, 2022 #2051}, US {Flintham, 2018 #1491} and elsewhere {Australian Competition and Consumer Commission, 2018 #1188} who use social media as their primary news and information source.

Early work on how view change (aka attitudinal change) can be facilitated by Human-Information Interaction has demonstrated that view change can be, and often is, seeded by highly emotive visual content, especially video {Mckay, 2020 #1622}. Furthermore, view change often occurs after a serendipitous information encounter on social media {Mckay, 2020 #1622}. Recent research on short video platforms has found them to be both addictive {Nong, 2023 #2053} {Kang, 2022 #2015} and serendipity-triggering {Nong, 2023 #2053}. The combination of these findings creates a situation where these platforms could, potentially, have a high degree of persuasive power.

Research on the persuasive power of short videos has found that, at least in terms of smart home technology adoption, they can be somewhat influential, and that videos shot in first-person perspective are more persuasive than other forms {Wang, 2020 #2025}. However, we could not find any prior research that has examined whether and how short video platforms influence peoples' day-to-day views. Examining the influence of short videos on view change is important due to the popularity and potentially addictive nature of this type of content and the social media platforms (e.g. TikTok, Instagram Reels) that allow short video content to be viewed and shared. We addressed this research gap by conducting a two-week diary study where participants sent the researcher links to short videos on TikTok or Instagram Reels they thought had influenced their views on issues they considered important. This was followed by semi-structured interviews, where we examined how participants found and interacted with the short videos that influenced their views.

The rest of this paper is structured as follows: First we examine the role of digital information in view change, followed by research on short video platforms specifically. Then we explain and justify our participant sampling, data collection and analysis approaches and present our findings, focusing on how and why short videos influenced our participants' views. Next, we discuss the importance of our findings, highlighting implications for research and the design of short form video platforms.

2 BACKGROUND

In this section, we first review the background literature on Human-Information Interaction and view change. We then discuss studies of short video social media platforms specifically.

2.1 View Change

Studies of view change (aka attitudinal change) were, until recently, broadly confined to psychology e.g. {Petty, 2003 #1502} {Wood, 2000 #1514}. However, with a rise in interest in how digitally-mediated information (and misinformation specifically) might influence views, there has been more research focus on how view change is facilitated by digital information. Some of this work has focused on examining the shift away from traditional media and towards social media news sources, which are perceived to be less reliable. Studies in several countries have shown that many people now

primarily find and consume news through social media (see {Guess, 2019 #1507}{Flintham, 2018 #1491}{Australian Competition and Consumer Commission, 2018 #1188}{Ofcom, 2022 #2051}{Pentina, 2014 #2052}). Some of these studies have demonstrated younger news consumers in particular prefer more opinionated, emotionally-charged news—a type of news that brings higher risks of polarization {Marchi, 2012 #1506}. Other studies have investigated how the creation of echo chambers might lead to polarization by encouraging people to consume mostly agreeable information, while avoiding much disagreeable information {Sergeant, 2019 #1626}{Weeks, 2016 #1617}{Flaxman, 2016 #1501}{Ledwich, 2020 #1613}. While it has been argued filter bubbles might algorithmically (and unwittingly) force people into echo chambers by hiding disagreeable information, including on social media {Pariser, 2011 #1181}, this is difficult to investigate empirically and there is, so far, little empirical evidence to suggest social media algorithms alone are responsible for manipulating peoples' views {Bruns, 2019 #1559}. In contrast, some literature demonstrates that exposure to a diversity of viewpoints can itself result in polarization and entrenched viewpoints, possibly through partisan sorting {Törnberg, 2022 #2031}.

In response to concerns about polarization, proposals have suggested digital systems should reflect a range of viewpoints {Helberger, 2018 #1614}, and explained how they might do so {Yom-Tov, 2013 #1620}{Bozdag, 2015 #1487}. While some research has found people engage little with news across political lines {Weeks, 2016 #1617}{Flaxman, 2016 #1501}, a recent study found people engaged strongly with a range of views, including (but not limited to) political ones {McKay, 2022 #1930}. Turning specifically to how people change their views in response to digital information, there has been surprisingly little study of how this happens organically. Recent work has found people report encounters on social media as a key view change driver, with follow-up active seeking coming afterwards {McKay, 2020 #1622}. Emotionally impactful images and videos were commonly mentioned information types that catalyzed view change {McKay, 2020 #1622}.

So what of these newer, highly-personalized short video platforms? Short video platforms create strong potential for view change: they feature short, engaging videos that can grab and hold attention, they are designed to be engaged with through personalized feeds that often prioritize content similar to that already seen, which can potentially reinforce existing views, and they provide access to news and informational content. Is this a concern on platforms mostly used for escapism and entertainment {Kang, 2022 #2015}{Menon, 2022 #2014}, though? A study of YouTube demonstrated that recommended content becomes more extreme over time {Ledwich, 2020 #1613} and an early study of a specific genre of TikTok videos found a mild persuasive effect {Wang, 2020 #2025}. Understanding *how* these videos might persuade is, however, an open research question. Our study addresses this gap by investigating viewers' own experiences of view change.

2.2 Short Videos

Short videos are easy and cheap to produce, creating a low barrier to entry. Platforms are used by a young and impressionable user base {Bucknell Bossen, 2020 #2029}, are described by their users as addictive {Kang, 2022 #2015}{Montag, 2021 #2047} and, in some people, trigger neurological effects that mimic addiction {Su, 2021 #2017}. One study participant described the TikTok recommender algorithm as 'knowing me better than I know myself' {Lee, 2022 #2018} and studies of short video platform use found most content is consumed through personalized feeds {Kang, 2022 #2015; Lee, 2022 #2018}{Menon, 2022 #2014}. If these feeds were made up entirely of cat videos, this would not be concerning. But recent studies show they are vessels for right wing political information {González-Aguilar, 2023 #2016} and hate speech {Weimann, 2023 #2024}. Interestingly, a study of political communication on TikTok found many of the most-watched videos presented two viewpoints simultaneously {Serrano, 2020 #2022}, increasing viewpoint diversity.

However, the extent to which personalized short video algorithms surface diverse views is an open question, and moving target. Short video platforms also showcase important health information: studies of TikTok use at the height of COVID found demand for health information outstripped supply {Ostrovsky, 2020 #2020}, and that while most viewed trustworthy COVID information, over 4% of videos contained harmful misinformation {Basch, 2022 #2023}. While existing work points to the persuasive potential of short video platforms, no prior research has investigated specifically whether these platforms influence view change in day-to-day use. Our study addresses this gap.

3 METHOD

To understand how interacting with short videos influences view change, we conducted a two-week diary study with 12 regular TikTok and Instagram Reels users, focusing on documenting and discussing their engagement with short videos. In this section we explain and justify our participant recruitment, data collection and analysis approaches and discuss their limitations.

3.1 Participant Recruitment

Participants were recruited from the researcher's personal network; 10 identified as female, two as male, and all were 18-29 (reflecting the most active users on both platforms, {Statista, 2022 #2050}). This sample size is common in diary studies in information interaction (e.g., {Du, 2012 #2048}, {Makri, 2017 #1483; McKay, 2022 #1930}). Participants lived in the US or UK. Six were TikTok users, the rest used Instagram Reels, none used both. All were regular users; seven reported using the platform at least an hour per day, the rest at least thirty minutes, more than three times a week. Information Power {Malterud et al., 2016} was used as a sampling principle: rather than aim for saturation, sufficient data was gathered to address the research aims.

3.2 Data Collection

We chose the diary study method as this is an effective means of accessing experiences that occur in everyday life {Du, 2012 #2048}. As view change may be regular but rare, our study ran for two weeks. Over this period, participants used the direct messaging function of each platform to share with the lead author videos they felt had influenced their views; they used this function to avoid disrupting the recommendation algorithm. They were also asked to add a short note about how each video had influenced their views, to avoid sharing anything they found upsetting or might find uncomfortable to discuss or was illegal. Participants were not sent regular prompts. They were only prompted if their participation dwindled. Participants shared 8.2 videos each, on average.

At the end of the two weeks, we conducted 40-60 minute semi-structured remote interviews with participants over Zoom to interrogate participants' thoughts, feelings, and actions in relation to their view changes. For instance, we asked participants to provide details on *how they found* each video (was it recommended, forwarded to them, searched for?) and *why*, what they *thought* and how they *felt* (before, during, and after viewing each video) and *how the video changed their view*. After examining how exactly each video had contributed to a view change, we also asked if they did anything as a result of watching the video. We played back the videos during the interview to aid participants' memory. The interviews ended with an open discussion, where participants were asked to reflect on their perceptions of the risks and benefits of consuming news and current affairs content on short video platforms. A follow-up text message after each interview asked whether participants had watched any videos about the same topic at a later date, and whether their views had changed since their interview. This allowed us to get an initial understanding of the longer-term impact of the content they had viewed.

All participants gave informed consent. Our study was approved by the Computer Science Research Ethics Committee at City, University of London.

3.3 Data Analysis

We analyzed the diary and interview data together using an inductive, reflexive Thematic Analysis approach (Clarke, 2021 #2042), supported by Dovetail. We organized the data into a hierarchy of preliminary codes and subcodes (e.g., how people engaged with short videos to facilitate view change). We then created overarching themes to explain *how* and *why* engaging with short videos facilitated view change. For example, people engaged with short videos to facilitate view change by reading comments to benchmark their own views' against others and conducted follow-up active seeking to feed curiosity and support verification—two key themes.

3.4 Limitations

This study has some sampling and method limitations; participants were predominantly female, selection via the primary researcher's network may have resulted in a biased set of views, and people who are willing to discuss view change may be more open minded and reflective than others. We are not aware of any gender-based factors in view change, and none of these limitations negate the aims of the study: to understand whether, how, and why short video platforms facilitate view change. This focus means that findings are not generalizable to other, longer form platforms (e.g. YouTube), though our use of the two dominant short video platforms mitigates against bias introduced specifically by interfaces. While participant self-selection of videos could introduce social desirability bias, the videos participants chose represented a range of (popular and less-popular) views. While some of the experiences described as view change by participants did not represent a change in view to the researchers, view change is a highly-personal and subjective experience, so capturing examples of situations our *participants* considered as view changes was appropriate. Also, while participants may not have reported all of their view changes during the two week period (e.g., any they considered too personal to discuss), the aim of the study was to understand the *nature* of their view changes as a result of engaging with short videos, rather than to document a comprehensive range of view changes. Therefore none of these limitations undermine the validity of the study.

4 FINDINGS

Over the two week diary study period, participants viewed 98 short videos they thought had changed their views (average 8.2 per participant). Table 1 provides examples of the short videos viewed and how they changed peoples' views. Some of the videos and related participant comments cover potentially distressing issues. We advise reader discretion.

P#	Description of short video content	Original and changed view
1	A woman claims Mother Teresa was corrupt and used funds for personal gain, under a religious guise.	P1 originally thought Mother Teresa was philanthropic and had pure intentions but no longer believes so.
3	A man celebrates people who switch to spring water and stop buying purified water, which he refers to as 'highly processed tap water.'	P3 originally thought purified water was better for you because spring water brands (like Arrowhead) are cheaper. After doing some research, P3 now only buys spring water.
5	A woman shows examples of how to express love through the 'love language' of physical touch and how it can hurt if it isn't or responded to correctly.	Originally, P5 hadn't considered much about differences in love languages and stated " <i>I think this helped me understand my partner more.</i> " (P5).
6	A mortician responds to the question 'when dirt is put on a casket during burial, does the casket lid cave in on the body?' by explaining why this is true.	" <i>I am now 100 percent getting cremated when I die.</i> " (P6). Originally, P6 was considering cremation to save money. Now, P6 changed their rationale: (" <i>to not get crushed</i> ").

Table 1: Example View Changes Influenced by Short Videos

4.1 Discovering Short Videos that Facilitated View Change: ‘The Algorithm Gave It to me’

Short videos were predominantly passively encountered, likely due to continuously-looped personalized algorithmic feeds and the (relative) lack of prominence of search/browse functionality on short video platforms. Several serendipitous information encounters occurred, where participants considered videos to be both unexpected and useful. Other types of passive information encounters that facilitated view change, but were not considered unexpected, also occurred. Participants expected to see videos on their feeds from accounts they followed, as creators tend to post content related to their previously created content. Many demonstrated awareness of how consistent engagement with videos from particular accounts would continue to bring related content into their feed, making the reported useful videos somewhat expected: *“It popped up on my For You page. I’ve seen that guy’s videos before. If you watch the videos they notice and continuously show you that person.. You don’t even have to like the video for it to show you similar content again”* (P4). Echoing this, P2 stated the *“algorithm gave it to me, probably because I watch her stuff but don’t follow her.”*

Participants often drew conclusions for why a video featured in their feeds based on their own perceptions of their current interests. For instance, in rationalizing why a video about the differences in love languages came up on TikTok, P3 explained that she does *“interact a little bit more with ones about relationships”* because she is *“curious about different people’s opinions and what their relationships are like.”* P3 demonstrated understanding that interactions like watching a video in full would affect her future feed and thus expected to continually satisfy this curiosity in seeing videos about love and relationships. Other participants cited virality and current trends as being possible factors that influenced what videos came up on their feeds and, therefore, their video content discovery.

4.2 Types of Informational Content that Facilitated View Change

Short video content that facilitated view change resonated with participants. Factors that influenced the extent to which content resonated with them included how *relatable*, *informative*, *impactful*, and *timely* they considered it.

4.2.1 Relatable Content

Participants considered videos relatable when they reflected their personal experiences or psyche. This, in turn, encouraged them to confront their pre-existing views. For example, P5 viewed an Instagram Reel created by a resident doctor. In the video, the recently-graduated doctor reflected on dismissing the advice of a mentor not to pursue a pre-med track but graduating from medical school nonetheless. P5 found this video relatable because it closely related to her personal experience; the doctor’s advice to persevere with education despite challenges strongly resonated with P5, who had succeeded so far in her university education despite her mentors similarly discouraging her. This advice was particularly timely for P5, who was trying to match into pharmacy residency programs. She explained it *“gave me nostalgia, reminded me where I was, where I am, where I’m going”* and reminded her that *“if I did it back then, I can do it again.”* Hearing the doctor’s success story served as motivation for P5 to persevere with her match attempts.

4.2.2 Informative Content

Informative content also supported participants in confronting their preconceived views, such as by showing a topic in a different light and thereby challenging norms and assumptions. For example, P7 confronted her pre-existing views after encountering a TikTok of a woman responding to another video made by someone else (called a ‘stitch’ video, Figure 1, as it ‘stitches’ the response and original videos together). In the original video, a white Western man asks viewers: *‘Name*

one thing that your country does that Japan can't do better?' The woman responds, explaining how this view is problematic and dismissive of the specific social, racial, and systemic issues that Japanese citizens have to deal with.

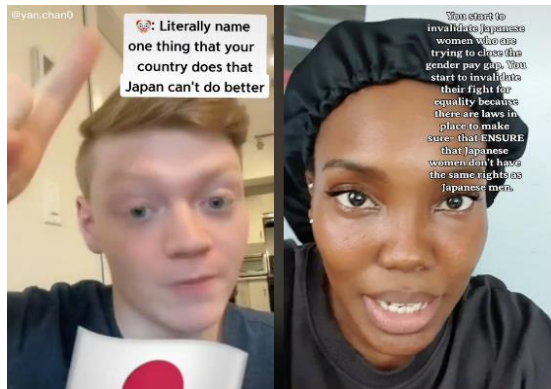


Figure 1. (Left) the controversial video that prompted the woman (right) to make a stitch in response.

P7 explained she was particularly interested in what this woman had to say, “*especially as a Western black woman who seems to be living in Japan*” and thought “*there’s more value in hearing from people who live in a country than there is from the media.*” Ultimately, P7 found the content captivating and stated it shed light on Japan in a “*complex new way.*” Many factors facilitated P7’s view change: the evoked ability to self-reflect on relevant experiences, the sensibility of the video, and the stitch feature (which enabled this type of discourse in the first place).

Sometimes participants were caught off-guard, because videos they watched questioned conventional wisdom. P2 watched a short video that showed human hair being used to clean up oil spills and how hair salons were donating extra hair off the floors and stated they did not usually see many positive examples of humans helping the environment. As a result, this video was “*a nice surprise*” and ultimately “*gave [P2] hope.*” P2 adopted a more positive view on how sometimes humans help (rather than just harming) the environment.

4.2.3 Timely Content

Sometimes video content was perceived as timely; viewed at the ‘right time’ to have a significant impact on participants’ lives, and associated views. For example, while transitioning into a job change, P3 passively encountered a skit video on her personalized TikTok ‘For You’ feed. In the video, a woman uses humor to portray a dialogue between an employee and a manager. The manager asks the employer to work beyond their job requirements, but the employee declines, to draw boundaries. P3 says she was “*completely fine with doing the job of two people*” when she first started working, because she was “*happy to have had a job at all.*” However, after watching, P3 said the video “*changed [her] mentality*” and made her reflect on how to “*create this little division from work and normal life*” going into her new job. The video was particularly timely because it allowed P3 to reflect on her work-life boundaries at a time she needed to: shortly after a job change. Similarly, while experiencing an emotional “*spiral about something from the past,*” P11 came across an anxiety

self-help Instagram Reel of a man encouraging his followers to ‘imagine that they had no past and their life started now.’ P11 stated the video did not present *“anything crazy or new...But it was what was needed at that specific moment in time.”*

4.2.4 Impactful Content

Short videos do not necessarily *have* to be informative or carefully crafted to change peoples’ views; view change can happen as an unintended consequence. One way was by participants watching videos that had a personal (often emotional) impact. For example, a video of a TV panel discussion had a strong emotional impact on P1; a historian on the panel argued that former British Prime Minister Winston Churchill ‘has as much blood on his hands as some of the worst dictators,’ as his policies contributed to the 1943 Bengal famine, which killed up to three million people. P1 explained this short video *“tugged more emotionally”* on her, due to her South Asian background.

While several short videos had a strong emotional impact, sometimes they triggered personal reflection without associated strong emotions. For example, P8 recalled clicking on a video in her ‘Explore’ feed on Instagram Reels because it reminded her of a pottery course she took in high school. The video shows a girl practicing pottery with music in the background. P8 did not know if it was the creator’s intent, but stated *“it seems like she is doing something that is for her. Her own self-care time.”* This made P8 think it would *“be really beneficial to do something like that outside of work that might bring me little bits of simple joy.”* The video motivated personal self-reflection based on the participant’s prior experiences with pottery. This gradually led to a larger self-realization about her own lack of self-care time outside of work. While the pottery video did not directly reference self-care, it encouraged introspection. This suggests that short video platforms may catalyze view changes that other platforms (with less scope for facilitating introspection) might not.

4.3 How Participants Engaged with Short Videos to Facilitate View Change

Participants engaged with short videos in various ways that facilitated view change, such as *reading comments to surface multiple perspectives and conducting follow-up active information seeking to feed their curiosity and support verification*. Often, however, they *trusted short videos by default* and did not try to verify content.

4.3.1 Reading Comments to Benchmark Own Views Against Others’

Reading comments on videos was integral to the view change experience for many. Aside from being entertaining, participants stated it helped foster a sense of community and support, as well as surfacing multiple perspectives on issues, often presented from a personal standpoint. For example, P6 came across a TikTok video made by a woman who dueted (presented picture-in-picture) a BuzzFeed article, reading aloud stories from people of color of the ‘rules’ they follow in everyday life. While P6 considered the video itself impactful, what particularly captivated her attention and changed her view was reading the comment section: *“It was actually a lot of people talking about their own experiences. It made me realize that this is a collective thing. It’s easy to think that you’re going through it alone...there are certain commonalities we can bond over.”* Participants did not read comments for every video; they prioritized contentious content. P2 stated *“if it’s a controversial take, I’ll take a look at the comments. It’s kind of like seeing what your friends have to say, if they think the same... Like a socratic seminar, online.”* Benchmarking their own views against those expressed by others helped participants reason about the legitimacy of their views.

4.3.2 Conducting Follow-Up Active Seeking to Feed Curiosity and Support Verification

After watching videos (which were usually passively encountered), participants sometimes conducted follow-up *active* information seeking: most participants followed up on information from at least one video. This was often sparked by

simple curiosity, a need for more information, or due to the content's perceived lack of credibility. P4 came across a TikTok video where a man had dueted a response to a CNBC article, stating his understanding of how US President Biden wants to sign the Inflation Reduction Act into law. The video describes the Act as 'cruel' because, according to the creator, it 'doesn't even actually reduce inflation, it just raises taxes.' P4 did not know much about the Act beforehand and was "indifferent" towards it. After viewing the video, she became worried it might raise her own taxes, thereby changing her view to "more negative." She then felt more research was necessary because *"I don't always just trust the first video I see.. I don't know if my taxes are going to be raised because of it."* After reading legal commentary, P4 gave up because she found the research "overwhelming" and "went way over my head." However, P4's TikTok 'For You' feed surfaced another video on the Act at a later date, where a different creator made an argument for it: that 'investment in the future is the best way of mitigating price increases over time.' After watching this video, P4 saw some "good stuff in there" but remained against the Act as she was "impatient and wants the [inflation reduction] results now." On one hand, distilled, accessible content in short videos allows people to form views on issues they might otherwise have found too complex. On the other, it risks oversimplifying complexity and thereby misleading people into changing their views.

Another form of active seeking instigated by passive encounters was when participants sought more content by the same creator, expecting to find additional useful information. For example, P3 held the original view that spring water was worse than purified water because it *"tends to be cheaper."* After encountering a TikTok video which commended people for switching to spring water, P3 became curious, researched the creator and found out he was well-known for a documentary on the issue (Figure 3). She watched the documentary, which convinced her that spring water *"has all the vitamins the body needs."* This curiosity-driven active seeking exposed P3 to the creator's view to an even greater extent than the original video, which had the effect of changing her view. This can be useful when (as it seems in this case) the creator's views are grounded in fact, but potentially dangerous when they are not.



Figure 3. 'The Water Sommelier' documentary on water quality that P3 watched as a result of active seeking

4.3.3 Trusting Short Videos by Default

Upon reflection, several participants realized they took the factuality of videos they consumed as a given, trusting the videos by default. P1 changed her view on a range of public figures—Mother Teresa, Winston Churchill, Picasso, and Hailey Bieber (an American media personality married to Canadian singer Justin Bieber), after viewing TikTok videos expressing opinions about them. For example, a model shared a story about his unpleasant experience meeting Hailey Bieber while working with her and made a point that it is better to not meet people you idolize. P1 took the model's word for it and now

believes Hailey is unpleasant, despite previously being a fan. She explained her willingness to believe him: *“this guy is a fan. Even if he’s not a fan, I don’t think he has a vendetta, why would he lie about it? You can tell a lot about how people treat their co-workers...it made me think about her differently and changed my view of her.”* P1 was also convinced by another video that Picasso was ‘a misogynist who mentally and physically abused women,’ but did not try to verify any of the information in the video (e.g., a snippet of what claims to be Picasso’s granddaughter, Diana Widmaier Picasso, denouncing his relationship with women). While this video is likely factual, as historians have recently highlighted Picasso’s callous treatment of women, P1 accepted it without question, *“no longer supports”* Picasso’s art and intends to *“tell other people.”*

P1’s view change was largely aided by the convincing video format; the inclusion of several screenshots (Figure 4) meant P1 was not motivated to verify this information. During her interview, P1 subsequently noticed the creator had included a link to a source in the comments. However, P1 did not see the link before the interview. This highlights the importance of comments, not only to support verification but also because the creation of the entire video (and related discourse) was sparked by an individual commenting and asking for more information on ‘why [Picasso] was...a bad person.’ While this video is unlikely to have misled P1, this example highlights the potential susceptibility of short video platform users to be misled.

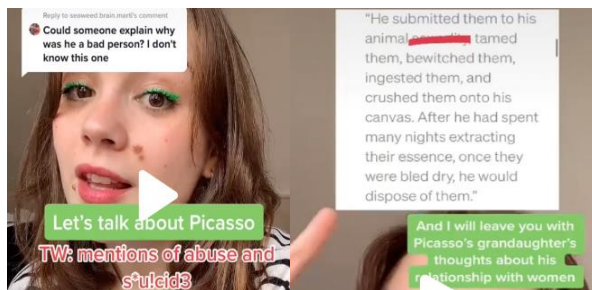


Figure 4. The TikTok video claiming Picasso abused women that earned P1’s trust

4.4 How Short Videos Influenced Participants’ Views (and Lives)

The impacts of view changes varied in *size* and in nature, influencing participants’ *mindsets* and their *behavior*. View changes also served to create both a *‘prepared mind’* (Makri, 2014 #642) and a *‘prepared algorithm.’*

4.4.1 Size of Impact: From Small to Profound

View changes ranged from small micro realizations to having a more profound impact. Short videos were deemed helpful for decision-making: from everyday decisions, such as product purchases, to more profound life decisions. P12 was looking for ways to be efficient with furniture space. He passively encountered a video on Instagram Reels, which shows a man using a collapsible sofa. Afterwards, he no longer considered buying something similar because *“the process has too many steps. People are not that diligent.”* A particularly profound view change occurred when P6 viewed a video created by a mortician, which explained how casket lids often deform and cave in some time after burial. While P6 was already leaning towards cremation over burial for financial reasons, she declared she is *“now 100% getting cremated. After watching the*

video, my thoughts behind the rationale completely changed. It's not so much about the money anymore, it's more not wanting to get crushed."

4.4.2 Influencing Mindsets

Much of the content in the short videos prompted mindset shifts. For example, P5 passively encountered an Instagram Reel showing a father feeding his baby with the following text (Figure 5):

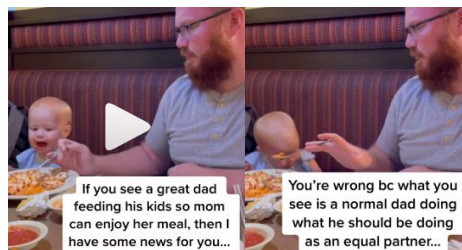


Figure 5. A video on Instagram Reels which prompted P5's cultural and gendered view change.

P5 stated she was "guilty of thinking it...When we see moms doing the same thing, it's expected. It made me change the way I think." She explained the video made her reflect on her cultural background and the more traditional gender roles that often accompany it. Gender-based and cultural view shifts like P5's were common, likely triggered by the interplay of personal experiences and psyche.

4.4.3 Influencing Behavior

Beyond thought, many also put their view changes into action. On Instagram Reels, a man shared his recipe for low calorie buffalo chicken taquitos. After watching this video, P5 reflected on the restrictive and intense diet she had previously followed. She stated "videos like this make me excited about food and have a healthier relationship with my diet...Just because it's healthy, doesn't mean it has to be boring." P5 stated she is not only more mindful about the way she approaches dieting, but has also made this recipe three times. Videos containing 'hacks'—obscure or unique methods for solving problems—were popular among participants. For instance, P10 encountered a video of a woman who demonstrated a quick math division hack. P10 practiced it a few times, determined that "it works," and wished she had known about it earlier. She intends to keep using it for future math courses.

4.4.4 Creating a 'Prepared Mind' and 'Prepared Algorithm'

While some short videos immediately impacted participants' mindsets and behavior, others seeded view change by creating a 'prepared mind,' where information was 'saved' (both figuratively and literally) for future use. This is a similar seeding to that which occurs when newly-found information is considered interesting or useful in relation to previously retained information. This also served to curate a 'prepared algorithm'—one explicitly primed with example content of interest. For example, P7 had labeled 25 TikTok folders to date, with labels such as 'political,' 'mental health' and 'history.' She saved a video into her 'self-defense' folder and noted that, over time, TikTok started recommending related videos, such as one offering advice on how to use a shoelace to cut out of a zip tie if kidnapped; saving the video signaled to TikTok's

recommender system that P7 was interested in self-defense. TikTok's 'prepared algorithm' also helped cultivate a 'prepared mind,' where P7 became more interested in self-defense, and therefore more receptive to a feed promoting more self-defense videos. Both P7 herself (though saving) and the algorithm (through promoting) helped shape an interest in self-defense. This highlights the participatory nature of the creation of echo chambers, part-facilitated by both algorithms and humans.

4.5 The Influence of Influencers

Influencers had a varying degree of influence on participants' view changes, from sizable to minimal, and trust was a key factor in the role of influencers in view change.

4.5.1 High Trust in Influencers

Those producing content with a considerable following, colloquially referred to as 'influencers,' were key in driving participants' view changes. Becoming an influencer is potentially easier on short video platforms than on traditional social media; P10 explained anyone can go viral and this can have a far-reaching impact on others' views: *"people use TikTok to their advantage because you can easily blow up...If you say something wrong or something that you shouldn't have said, people can believe it. That harms people."* Many participants expressed a degree of underlying willingness to be influenced. For example, P5 said she *"trusts every single word"* a certain Instagram 'influencer' posts. In a specific video P5 encountered, the 'influencer' shares her 'Three favorite tools for making passive sales' (linking to her own online courses). P5 explained she originally viewed the path to success in a more *"traditional"* sense—*"go to school and get a high paying job."* Now, however, P5's admiration for this influencer inspired her to learn how to make passive income. In explaining her rationale for trusting the influencer, P5 said *"no one cares how you look anymore. It's all about your content. Is it quality? Is it informative? Does it make you feel a certain way because it changes what you think? That's what people care about."*

4.5.2 Influencers as 'Accessible (Non-)Experts'

Participants placed particular emphasis on expert advice when deciding to change views. While expert advice in short video format can be accessible and raise awareness, there is also potential for it to mislead when influencers overstate their expertise. For example, P6's view was influenced by a TikTok video created by a (self-proclaimed) dermatologist who explained 'five things [she] would never put on [her] skin and why.' One of these was natural deodorants, which she claimed were not meant for sensitive areas. As a long-time natural deodorant user, this captured P6's attention and resulted in her switching her deodorant choice. She later regretted this decision and reverted back to natural deodorant after actively investigating the issue. Upon investigation, she found new research about the benefits of natural deodorants and did not find evidence that confirmed the video creator's claim.

Similarly, P1 encountered a TikTok video by a doctor who duets an original video posted by a young girl that claims drinking a mixture of coffee and lemon helps weight loss. This led P1 to *"spend an hour or two looking into it"* because the video had almost convinced her as it *"looked doctor-approved"* and *"there were so many testimonials and responses"* in the comments. As a result of her active search, however, her *"common sense kicked in"* and she stopped engaging with similar content. There was a lag, however, in this being reflected in her TikTok 'For You' feed; *"it took a while to stop showing up"* (P1). These examples highlight the risk of false or misleading short video content (in extreme cases resulting in negative health outcomes). As TikTok recommended undesired content for longer than necessary, this reveals potentially

harmful outcomes from engagement with these platforms, but also an opportunity for improving user experience of the platforms.

4.5.3 Influencers Not Influencing

While some participants blindly trusted influencers, others took what they said with a pinch of salt; P11 thought *“a lot of influencers spew nonsense.”* Referring to cryptotrader influencers, he stated: *“they don’t even know how to trade, end up losing money, and just make money off people by charging for their courses. They make a lot of promises that sometimes have hidden motives.”* Several participants highlighted the potential for short videos containing misinformation to dangerously shape peoples’ views. For example, P3 discussed kickboxer Andrew Tate, who had amassed nearly four million followers on Instagram before being banned for misogynistic and offensive comments. P3 explained: *“there’s a ton of young boys that look up to this guy who has very misogynistic views. This is hurting the state of society, these are the boys that are going to grow up one day, be fathers, boyfriends...Apps like TikTok and Instagram are giving everybody a platform...that’s what makes it really dangerous.”* P2 gave the example of the wellness TikTok trend of drinking chlorophyll water, stating *“you learned it on TikTok, but do you do research on it? Is it just a marketing scam? People are blindly going into either buying products or thinking different things, opinions from other people, and they just take it as their own.”* Referring to the negative influence of platform design features such as endless scroll and short video duration, P2 warns against *“mindlessly scrolling, sometimes for hours. You’re getting thrown different information in such a short time frame that you don’t even think or process what you’re watching until you turn off your phone.”*

4.6 Summary of Findings

The primary mechanism for engaging with videos on both TikTok and Instagram Reels is through a personalized ‘feed.’ The only choice viewers make, then, is whether or not to engage with videos featured in it. Passive information acquisition, often in the form of serendipitous information encounters, played a key role in the discovery of short videos that facilitated view change. Short video content that facilitated view change resonated with participants because they considered it relatable, informative, impactful and/or timely. Participants engaged with short videos in several ways that facilitated view change, such as reading comments to benchmark their own views against those expressed by others and conducting follow-up active seeking to feed their curiosity and support verification. However, they often trusted short videos by default and did not attempt to verify content. The impacts of view changes as a result of engagement with short video content varied in both size and in nature, influencing participants’ mindsets and their behavior. View changes also served to create both a ‘prepared mind’ and a ‘prepared algorithm.’ While some participants had misplaced trust in influencers, especially ‘accessible experts,’ others took their messages with a pinch of salt. Most importantly, they also highlighted the dangerous risks of their views being influenced by misinformation—risks that may be exacerbated by platform features that discourage critical thinking.

5 DISCUSSION

We now discuss the importance of our findings in the context of the broader literature. We then highlight some potential avenues for future research and recommendations for the design of short video platforms. Our research and design recommendations deliberately do not focus on how to influence views through information interaction, as although laudable, this aim can easily be misappropriated by bad actors to unwittingly influence peoples’ views. Instead, they focus on *tackling misinformation, promoting reflection and offering choices to social media users about whether and how to engage with short videos.* Tackling mis/disinformation on short video platforms is crucial as accurate information is vital

to good health and social functioning {Lockyer, 2021 #1839;Cuan-Baltazar, 2020 #1718;Benegal, 2018 #1746}, and misinformation and the resultant erosion of trust in authoritative sources is counter to a well-functioning society {Del Vicario, 2016 #1731}. Offering opportunity for reflection can potentially support considered, contemplative view change {Hansen, 2013 #1616;Bozdog, 2015 #1487}, and can itself mitigate against the risks of misinformation {Farrell, 2019 #1942;Benegal, 2018 #1746}. Finally, exposure to a diversity of views is a key underpinning of a democratic society {Helberger, 2018 #1614} and while this can sometimes re-enforce pre-existing views, it can also prompt people to reconsider them (Beall et al., 2023). It can also provide greater transparency of the range of possible viewpoints around an issue, which is particularly important on short video platforms, where there is risk of manipulation by filtering out or over-representing particular views, as has been previously noted in longer form video platforms {Ledwich, 2020 #1613; Matamoros-Fernández, 2021 #2067}.

5.1 Influence of Short Videos on View Change

Like previous work {Lee, 2022 #2037}{Kang, 2022 #2015}, we found participants predominantly engage with short video content through personalized recommendations. This aligns with prior work on human-information interaction-facilitated view change, which has found the process typically begins with a passive information encounter on social media {McKay, 2020 #1622}. Videos recommended by short video platforms were persuasive because they were timely, informative, relatable, or impactful, contributing to their strong emotional impact—a type of impact found to catalyze view change {McKay, 2020 #1622}. Turning to recommendation algorithms, like prior research {Lee, 2022 #2037}{Kang, 2022 #2015}, our participants reported ‘training’ the algorithms to be more attuned to their interests. However, this was problematic during view change, where a ‘training lag’ could prevent a reduction in cognitive dissonance because content did not immediately reflect participants’ new views.

View changes were facilitated not just by videos themselves, but also by the comments. While previous studies of short video platforms rarely discuss interaction with comments, studies of other social media platforms found comments are important for establishing content credibility {Colliander, 2019 #1742}, and can be persuasive {Xiao, 2019 #2064}. Our participants used the comments both to check a video’s credibility and to delve deeper into its content. Some, as in McKay et al., {McKay, 2022 #1930} did so to validate their views by seeing if others supported them. Others found the comments thought-provoking, reinforcing the need for change. This suggests comments are essential rather than supplemental aspects of video when it comes to view change, and should be considered alongside the content itself.

While participants sometimes engaged in follow-up, curiosity-driven information-seeking, this was rare; many had (potentially misplaced) trust in influencers and accessible experts. Worryingly, this was even true for health information, as echoed in studies of interaction with short videos about COVID {Basch, 2022 #2023}{Ostrovsky, 2020 #2020}. In these studies, content from the WHO was considered highly engaging, but so was other content. If participants were consuming short videos, it is perhaps unsurprising they did not engage in follow-up seeking immediately; short video platforms and their recommender systems are demonstrably compelling {Kang, 2022 #2015}{Montag, 2021 #2047}{Lee, 2022 #2037}. Also, switching tasks on mobile devices is rare, and disruptive to peoples’ focus {Leiva, 2012 #2027}. These features of mobile interaction decrease the likelihood of actively seeking information after watching short videos, and this may increase the likelihood of misinformation going unchallenged.

Participants found videos that responded to other videos (‘duets’ on TikTok, ‘stitch’ videos on Instagram Reels) particularly compelling. This video type is frequently found in partisan political messaging, as a type of ‘takedown’ of the other side {Serrano, 2020 #2022}. On the one hand, these videos promote viewpoint diversity, as recommended by scholars {Helberger, 2018 #1614}{Reviglio, 2017 #1748}{Kaminskas, 2016 #1178}. On the other, seeing an opposing view

alongside one's own may not shift an entrenched view; the entrenched view may be too 'sticky' to shift {Nyhan, 2010 #1745}, or the opposing view may not hit the right cognitive strategies {Lewandowsky, 2012 #1732}. In our study, though, seeing opposing views had the desired effect those promoting diversity might want: participants engaged with views other than their own and sometimes changed their view as a result. This makes surfacing opposing views a powerful, but risky approach to promoting reflection and deliberation on own views.

5.2 Research Implications

Our findings raise several important research questions for the fields of human information interaction (and computer/information science more broadly). One question, which concerns all these fields, is, given the persuasiveness of short videos, how might we more effectively detect and mitigate against misinformation? Current automated approaches can be relatively easily circumvented. However, while AI-generated content threatens to flood short video platforms with falsehoods, machine learning can also be leveraged to support better automated detection—provided the platforms are willing to invest in it. How can we best warn users that information might be unreliable, and how can we facilitate more and better fact-checking? How can we best support users in pausing, reflecting on and verifying information before they share it, to prevent widespread propagation of misinformation? Research has examined the potential of labels {Saltz, 2021 #2062} and AI-assisted fact checking {Strickland, 2018 #1737}{Demartini, 2020 #2063} in slowing the flow of information on social media, but not (to our knowledge) in the context of short videos.

Another important question is what types of videos are likely to be most persuasive? While early work has shown that first-person videos are persuasive, and humor has mixed effects {Wang, 2020 #2025}, our findings demonstrated that those videos that culminated in view change were timely, informative, and/or personally meaningful. In this diary study, we did not have access to all the videos participants watched; only those they thought had changed their views. Our participants engaged with TikTok or Instagram Reels for over an hour a day, but only sent us around eight videos per person. This could mean most videos they watched did not result in view change, or most view changes went unreported. Are there any distinguishing characteristics of the videos that changed participants' views, or were other videos they watched simply more aligned with their pre-existing views?

Finally, a previous study has demonstrated that YouTube recommendations become more extreme over time {Ledwich, 2020 #1613}. It has been noted that people's interest in issues can expand as a result of their personalized recommendations narrowing and vice versa {Kang, 2022 #2015} and this is further reflected in our findings. It would be interesting to know whether recommendations from short video platforms become more extreme over time, or whether peoples' curation and algorithm training efforts keep this risk at bay. The potential that they might is troubling, especially since there is already detectable hateful speech on these platforms {Weimann, 2023 #2024}. Our two-week study is not enough to trace peoples' longer-term journeys through their personalized feeds to find out to what extent they steer or are steered by the algorithms. Further research in this area is required.

5.3 Design Implications

Our findings give rise to three key recommendations for improving the design improvement of short video platforms: 1) give short video viewers more influence on their social media feeds through *enhanced algorithm feedback mechanisms*; 2) provide *better explainability* of short video recommendations, 3) provide stronger support for creators to *link to authoritative content* in short videos and for viewers to *verify that content*.

Our participants observed a lag between deciding they did not want to see a certain type of content anymore, and that content disappearing from their feed. While not engaging with certain forms of content is a useful passive feedback

mechanism {Boeker, 2022 #2019}, some kinds of content (e.g. the diet content observed by P1) can be harmful to viewers. Providing an *active negative feedback mechanism*, akin to the ‘like’ button, but with the opposite effect, could allow viewers more control over their feeds, and the opportunity to avoid engaging with content they find distasteful, distressing or harmful.

Explanations could focus on factors that might help people understand the influence of content on their views. For example, whether videos have been selected or promoted because they reflect a perspective similar to videos they have already viewed, to consciously present a diversity of perspectives, because they come from commercial or authoritative sources (as with YouTube {Matamoros-Fernández, 2021 #2067}), or based on previous likes and shares (as with TikTok {Boeker, 2022 #2019}).

To tackle mis/disinformation and information that is not demonstrably false but still potentially misleading, There may be opportunity to *allow and encourage users to flag content they consider misleading and explain why*, although this comes with the associated challenge of ensuring this crowdsourced approach cannot easily be gamed. Another plausible approach is to *support content creators in linking to authoritative content in rigorous, transparent and auditable ways*. Current approaches, such as providing links in video descriptions or comments may not be as effective, for example, as providing links within the video itself (e.g. within text-based captions).

Ensuring the success of each of these design approaches requires social media platforms to take greater responsibility for preventing information harms through design. We urge these platforms to work meaningfully with academia and policymakers, including regulators, to create user experiences that are still engaging and commercially viable, but less harmful.

6 CONCLUSION

In this paper we present a diary study and follow-up interviews examining the role of short videos in influencing viewpoints. Our work contributes to a burgeoning literature on short videos and information-facilitated view change. While short videos are often watched to entertain rather than educate or inform, our findings show that they can indeed influence people’s views; participants described both shifts in mindset and behavior as a result of engaging on TikTok and Instagram Reels. To our knowledge, this is the first study to examine the role short video social media platforms play in organic view change.

Every view change in this study was facilitated through passive information encounters while engaging with highly-personalized short video feeds. The algorithms that ‘know [us] better than [we] know [our]selves’ {Lee, 2022 #2037} not only recommend content we find informative, timely, relatable or personally meaningful, but also influential. The passive nature of encountering short videos reflects earlier work on human-information interaction-facilitated view change. However, given the absorbing nature of short video content, we see less follow-up information-seeking than in previous studies. Influencers had mixed influence; some participants accepted their word uncritically, others were more skeptical. While the videos themselves were influential, many participants also noted that reading the comments played an important role in their view changes. Interestingly, ‘stitch’ or ‘duet’ videos—where one user responds to the video of another—were shown to be particularly influential. On the one hand, it is perhaps surprising that seeing two, often opposing, viewpoints juxtaposed can be so persuasive. On the other, doing so can bolster participants’ motivations and help them learn how to defend their views {Clark and Wegener, 2013}.

The passivity with which participants discovered videos, and the trust they often place in them means that short video platforms can be used for good or ill. On one hand, it is likely that careful use could promote public health, pro-science or other types of prosocial communication effectively. On the other, it is also likely that convincing mis/disinformation will

Commented [SM1]: Clark, J.K. and Wegener, D.T. (2013). Message position, information processing, and persuasion. *Advances in Experimental Social Psychology* 47, 189–232. Elsevier.

be well-received. How best to encourage a critical mindset when engaging with short video content and increase follow-up information-seeking, and content verification in particular, remain important questions for future research. Short, engaging videos have considerable persuasive power; they can grab and hold people's attention and resonate with them in ways that other media types, even traditional video, cannot. This places great responsibility on short video platforms to support their users in forming, reflecting on and changing views without the risk of 'information manipulation.' This is a responsibility these platforms must take more seriously.

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REFERENCES

To be generated.