

# “I Don’t Think TikTok Really Cares About the Truth:” Experiences of Users Who Are Low Vision or Blind with Misinformation on TikTok

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## Abstract

Moderating misinformation on social media is a complex task of warning users about potentially harmful content while remaining reliable, unbiased, and non-judgmental. Though this is a valid concern, it doesn’t exempt platforms like TikTok from making their soft moderation interventions *inaccessible* for users who are low vision or blind. Through interviews with 13 low vision or blind TikTok users, we learned that this was exactly the case – the informative cues used for soft moderation were inaccessible in 93% of the cases. To address this participatory exclusion, our participants proposed redesigns for navigable informative cues through auditory means or *audio frictions* that both warn the users and provide them with contextual information on why a particular content might be misleading, false, or generally harmful.

## Introduction

Social media platforms need to accommodate the freedom of expression of diverse opinions but also ensure that users are protected from, or warned about, harmful content. This is quite a complicated task when it comes to misinformation as harmful content because platforms are either reluctant to remove or moderate it, do it selectively, inaccurately, or stopped doing it after they proactively did it in the past (X 2023; Morrow et al. 2021; Ling, Gummadi, and Zannettou 2023). Those platforms that decided to keep moderating misinformation, have offered soft moderation interventions to users in the form of warning labels or “informative cues” (e.g. Facebook, Instagram, YouTube, TikTok) (Meta 2021; YouTube 2023b; TikTok 2023c). Designed as *visual frictions*, the informative cues substantiate suspected content, so users can “get the facts” or “learn more” about a topic often subject of misinformation.

Some users found these informative cues overly intrusive and some as irrelevant (Morrow et al. 2021). And some users – those that are low vision or blind – found them *inaccessible* in the first place (Sharevski and Zeidieh 2023). This is not the first time this vulnerable user population has been excluded from social media participation (Whitney and Kolar 2020). The exclusion usually results from a lack of accessibility support on audiovisual platforms like

YouTube or TikTok such as the absence of alt-text on images, missing audio descriptions, and the presence of incongruent and incorrect captions (Liu et al. 2021; MacLeod et al. 2017). TikTok’s algorithmically-driven social media participatory model where users are “viewing” – instead of interacting with – content exacerbates this exclusion because the content captioning provides little context about the content events, the audio is unrelated to the visual content, and the disjointed clutter of the interface hinders an accessible engagement (Aydin et al. 2021; Whitney and Kolar 2020).

Blind and low vision users suffer from the aforementioned systemic disadvantage when participating on platforms like Facebook and YouTube (Sharevski and Zeidieh 2023), but there is no substantial evidence about their experiences with misinformation and informative cues when accessing short-video content format, typical for platforms like TikTok. Producing such evidence is important for two reasons: (i) addressing a potential systemic disadvantage when it comes to accessibility on the platform; and (ii) addressing discrepancies in the moderation effort that dictates the application of the informative cues on misinformative content. TikTok has been found to exercise a minimum moderation effort where the informative cues are either incongruently applied based on hashtags or *en masse* based on keywords (Ling, Gummadi, and Zannettou 2023), rendering them of little use for “getting the facts” or “learning more” about a topic regardless of the users’ visual (dis)abilities.

To produce such evidence, we interviewed 13 TikTok users who are low vision or blind to share their experiences with potentially misinformative content and informative cues and offer accessibility design recommendations. Our findings reveal that the majority of participants in our study regularly encountered misinformative content in a short-video format on TikTok. When tested with an actual TikTok video containing an information cue to “🔴 Learn the facts about COVID-19,” 65% of our participants entirely failed to notice the soft moderation intervention, and those who did notice it complained that is hardly usable and relevant. When we asked them if the information cue helped them discern whether a TikTok video is misinformation or not, all but one or 93% of them said that it did not help. To address this problem, our participants suggested four accessibility and two cueing redesigns tailored to the interactive habits of users who are low vision or blind on TikTok.

## Background

### Misinformation on Social Media

Misinformation as information lacking truth and truthfulness has a long historical precedence of interfering in the public affairs in societies. For example, fabrications and conspiracies have influenced election outcomes in the US and the UK in the past and public health crises like the AIDS epidemic in the US were exploited for spreading health disinformation (Posetti and Matthews 2018). The lack of editorial oversight paired with the virality and anonymity, catalyzed a process where misinformation allowed users to feel entitled to choose and create their own “facts” as long as they aligned with their views. This process contaminated social media to a point where every political campaign, a public health crisis, or a difference in opinion was “weaponized” in some sort of misinformation effort (Erhardt and Pentland 2022). Initially, this contamination was of little concern for platforms and they let misinformation float without any form of moderation, under the pretext of appearing unbiased and non-judgmental to users with diverse perspectives.

Some platforms still maintain this position of being “a marketplace of ideas,” but others feel that moderation is warranted to prevent hazardous content from interfering with elections, causing personal harm and undermining public health, as well incite violence. Mainstream platforms developed and implemented interventions in the form of *information panels* (YouTube), *labels* (Twitter, now X), *warning labels* (Meta), or *content labels* (TikTok) intended to discourage users from choosing and creating their own “facts” and instead “get the ‘real’ facts” about a topic. The goal of these “informative cues” is to inform and contextualize content by sharing timely information or credible content from third-party sources for topics that are often subject to misinformation (YouTube 2023b; Meta 2021; Twitter 2023).

The informative cues are considered as *soft moderation* interventions, implemented initially in two flavors: (i) *covers*, obscuring the questionable content and requiring users to click through to see it; and (ii) *warning labels*, that did not interrupt the user interacting with the content or compelled any action. Over time, the covers fell out of favor, and platforms set on using the labels as informative cues to warn users about potentially, or suspected, misinformative content (Meta 2021; YouTube 2023b; TikTok 2023c). However, this flavor of soft moderation was also problematic among social media users. For some of them, the informative cues are irrelevant to their engagement with potentially misinformative content, and for others, the informative cues still remain an overly intrusive intervention that signals the platforms’ censorship of free speech (Morrow et al. 2021).

### Misinformation on TikTok

TikTok, a social media platform offering short-form video content, centers the participation mostly around viewing an algorithmically curated feed on the so-called “*For you*” page, usually with minimal user interaction (Kaye, Zeng, and Wikstrom 2022). Misinformation, like on other platforms, quickly found its way onto TikTok. Videos related to the COVID-19 vaccine contained ample anti-vaccination

sentiment, negative rumors about masks, and misleading content regarding the health consequences of the virus (Basch et al. 2021). Conspiracy theories are also peddled on TikTok such as QAnon-related content, COVID-19 virus origins, or voter fraud (Grandinetti and Bruinsma 2022).

TikTok, according to their official anti-misinformation policies (Keenan 2023), moderates misleading content related to vaccines, abortion, or voting by applying informative cues under posts suspected to contain misinformation. Evidence shows, however, that TikTok likely moderates videos based on hashtags included in the description without an in-depth analysis of the content (Ling, Gummadi, and Zannettou 2023). TikTok’s moderation strategy, as such, led to a large false positive rate where about a quarter of the videos with an information label did not contain content related to COVID-19. Worse, the analysis found that 7.7% of the videos that indeed contain misinformation or harmful COVID-19 content do not include any informative cues. Some users also believe that TikTok users erroneously labeled their content for using socially contested commentary in their videos (Zeng and Kaye 2022).

### Blind Users, Social Media, and Misinformation

Users who are low vision or blind participate on social media in equal capacity as their visually able counterparts, evidence shows (Wu and Adamic 2014). However, platforms are slow and reactive in addressing the essential needs of these users, valuing accessibility less highly than the participation affordances tailored for the general population of users (MacLeod et al. 2017). For example, audiovisual platforms like YouTube or TikTok pose no requirement for creating or supplying alt-text or audio descriptions (Liu et al. 2021), nor help blind or low vision users with incongruent and incorrect captions (MacLeod et al. 2017).

Users who are low vision or blind have a hard time with details such as emotions, cultural, or political contexts of the videos (Stangl, Morris, and Gurari 2020). Evidence shows that short videos, typical for TikTok, are specifically hard to comprehend for users who are low vision or blind because the captioning provides little context about the events in the video, the audio is completely unrelated to the visual content, and the interface has a lot of disjointed clutter that assistive technologies make it confusing or entirely inaccessible (Aydin et al. 2021; Whitney and Kolar 2020). But, encountering misinformation on social media for users who are low vision or blind has received little attention so far, despite the evidence that these users are equally exposed to subjectivity in information and discrepancies between textual and image/audiovisual data on social media (Siu et al. 2021).

Given that the aforementioned participation hindrances, one could argue that the gap in understanding of low vision and blind users’ experiences with misinformation on TikTok is not the most pressing issue, as the exclusion itself in some way shields this population from being exposed to misinformation in the first place. While limiting exposure to misinformation is a notable goal to minimize harmful effects to public health or social order for any users – including low vision or blind – doing it implicitly by incomplete accessibility instead of explicitly by accurate and fine-grained

soft moderation means that TikTok offers unequal opportunity for participation to all users. This runs against TikTok's terms of service (TikTok 2023d) and against their accessibility policies (TikTok 2023a). Studying how users who are low vision or blind conceptualize misinformation, detect and engage with misinformative content, as well as what they would like to see relative to informative cues on TikTok allows users to hold the platform accountable for both the lax moderation approach and subpar accessibility effort.

## Methodology

### Research Questions

We sought to answer the following research questions:

- **RQ1:** What encounters with misinformation did users who are low vision or blind have on TikTok?
- **RQ2:** What experiences did users who are low vision or blind have with misinformation on TikTok including platform-provided warnings?
- **RQ3:** What accessibility design recommendations do users who are low vision or blind have for platform-provided misinformation warnings on TikTok towards (i) accessibility; and (ii) better truth discernment?

### Sample

Our study was approved by the Institutional Review Board (IRB) of our university and we invited users who are low vision or blind for a virtual interview with open-ended questions (listed in the Appendix). As one of the researchers is a legally blind individual, we did the recruitment through snowballing where we sampled personal low vision or blind acquaintances and a pool of blind and low participants that was recommended to us by a fellow accessibility researcher. We also posted a recruitment advertisement for our study with the National Federation of the Blind (NFB). Recruiting low vision or blind participants who are also TikTok users is a challenging effort for multiple reasons. As mentioned before, the platform's inaccessibility leaves fewer such users who are willing to still participate. Agreeing to participate in a study, for low vision or blind users, is not a trivial task as it is predicated on extended time as well as technology and communication adaptations. Many of these users face a reality of acute marginalization, discrimination, and stigmatization (Duckett and Pratt 2001), so it took an additional effort by the research team to ensure their participation is important in making a strong argument for better accessibility on a popular platform like TikTok.

We decided to use interviews for a couple of reasons relative to the ecological validity of our study: (i) interviews provide a richer insight into the experiences of our target population with misinformation on TikTok; and (ii) we were able to better assist them in accessing the treatment content, listening to their recommendations, and clarifying particular participatory aspects on the platform. We sampled a population who were 18 years or older, from the US, with a significant vision loss per the definition for statutory blindness (Social Security Administration 2023), and are regular TikTok

users. We used Zoom to conduct the interviews with audio-only feature (no video). Each interview was recorded for the purpose of transcription. Initially, the interview transcripts were not anonymized, but once Zoom provided us with the transcript we removed any names and references to individual participants, kept their answers only, and deleted the recordings altogether. The transcripts, assigned only with a participant number in the order of participation, were stored on a secure server that only the principal investigator had access to. The transcripts were also communicated with each interviewee to obtain approval of their statements before we started the qualitative analysis.

Each interview took around 45 minutes and each participant was compensated with a \$25 Amazon eGift card (total of \$325 in participant compensation). The eGift card was sent to an email of choice for each participant (which was not stored or used for any other purpose) and the records of the transaction were in no way related to their transcribed answers (done separately). We reached saturation and concluded our recruitment with 13 participants. The demographics and the sample's visual profile are given in Table 1. We allowed the participants to skip any question they were uncomfortable answering (including the demographic questions where they were also allowed to specify their own answers according to their identity) and we allowed the participants the option to remove their answers if they wished to after the participation (none did). Our sample is diverse, balanced relative to gender, age, and racial/ethnic self-identification, leaning towards the left-leaning and moderate users with college degrees. Users' political self-identification is regularly used to analyze their experiences with misinformation as well as attitudes towards soft moderation. To allow interpretation of our results through the lens of partisanship we therefore collected the participants' political positioning (left-leaning, moderate, right-leaning, apolitical) in the context of the American political dichotomy.

### Methods and Instrumentation

To capture an actual experience, we decided to use content that was labeled by the platform with an informative cue and present it to the participants, shown in Figure 1. The topic of the post was COVID-19 and the updated origins of the virus, following the investigations conducted by the Department of Energy and the FBI (Gordon and Strobel 2023). As shown in Figure 1 we used a short video from a content creator named "the.deep.dive" that was substantiated with an informative cue reading "📌 *Learn the facts about COVID-19*" (The Deep Dive 2023). Not all videos discussing the origins of the COVID-19 virus are labeled with informative cues on TikTok and it might be that this particular post contained a #covid19 hashtag (Ling, Gummadi, and Zannettou 2023).

Similar videos on the same topic were also labeled with informative cues on both YouTube and Facebook (Sharevski and Zeidieh 2023), providing evidence that the need for informative cues is justified and valid on TikTok's side too. We also selected this content and topic because it is extensively fact-checked by third parties such as FactCheck.org (Robertson 2023) and Snopes (Kasprak 2023). Here, we are also careful not to imply that the existence of facts (or

Visual Self Identification				
Totally Blind	Blind	Legally Blind	Low Vision	
4 (31%)	4 (31%)	4 (31%)	1 (7%)	
Device				
iPhone		Android		
8 (62%)		5 (38%)		
Assistive Technology				
Screen Reader	Magnifier	Color filters		
8 (62%)	4 (31%)	1 (7%)		
Gender				
Woman		Man		
7 (54%)		6 (46%)		
Racial/Ethnic Self Identification				
White	Latinx	Asian	Black	American Indian
12 (65%)	2 (14%)	1 (7%)	1 (7%)	1 (7%)
Age				
[18-29]	[30-39]	[40-49]	[50-59]	
3 (23%)	5 (38%)	4 (31%)	1 (7%)	
Education				
High School Diploma	Bachelor' Degree	Master's		
1 (7%)	10 (79%)	2 (14%)		
Political Self-identification				
Left-leaning	Moderate	Right-leaning	Apolitical	
7 (54%)	4 (30%)	1 (8%)	1 (8%)	

Table 1: Demographic Distribution

better, absence of convincing evidence) together with the cross-platform decision for soft moderation is not definitive proof that this content *is* misinformative. We only used these methodological safeguards – together with an extensive debriefing – to ensure participants engaged with a topic and realistic content that is often subject to misinformation.

We selected an arbitrary post to avoid the possibility that the participants' answers might be influenced by their familiarity with the content creator and the content they posted on TikTok. We selected this particular video because it was mostly an audio narration where the video part played only a supporting role with images, catering to users who are low vision or blind. We chose this topic as it was: (a) relevant at the period during which we conducted the study; (b) the participants were aware of the existence of the COVID-19 virus; and (c) COVID-19 is an explicitly noted topic in the policies of TikTok (TikTok 2023c) as targets for active moderation, including posts about the origins of the virus. We selected only one post instead of many because it took a considerable time to set up the interviews, to allow our participants to use an assistive technology to access it, engage with it, and provide meaningful answers to our questions.

Each participant was asked about their experience with misinformation on TikTok, then the corresponding link was shared with them over Zoom or an email if they expressed a need for better accessibility. Participants were given unlimited time to access it with the assistive technology of

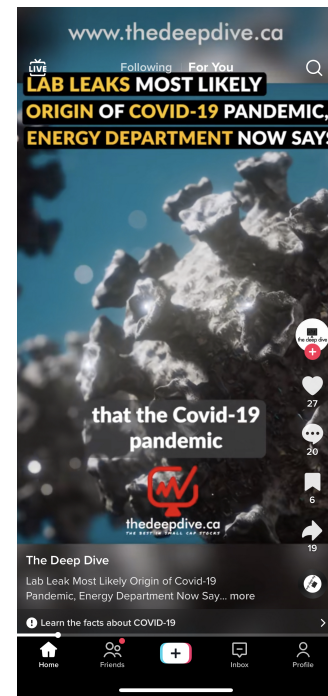


Figure 1: Platform-provided Misinformation Labels on a TikTok Post: ⚡ Learn the facts about COVID-19

their choice. We employed a lengthy debriefing process with each participant after we concluded the interview. First, we ensured that participants experienced anything uncomfortable or harmful from the participation and the exposure to the selected TikTok post. We acknowledged that there is a probability of harmful implications relative to the origins of the COVID-19 virus within a pluralistic social media population, including the community of users who are low vision or blind. Here, we pointed out that our main interest lies in the inaccessibility of the informative cues rather than the broader contextualization of soft moderation as an authoritative and political act of determining truth. We pointed our participants to fact-checking resources (Robertson 2023; Kasprak 2023) about the post we used in our study and offered to help them if a need arises if these or other misinformation-related resources are inaccessible. At the end, we offered them the option to ask for their data to be removed after their participation (no one did so). We also sent a draft of our paper to the participants for feedback and final approval.

We performed an inductive coding approach to identify frequent, dominant, or significant aspects of their answers. Two researchers independently coded the data and reached *Inter-Rater Reliability* (IRR) of  $k = 0.96$ , which we deemed acceptable. The open codes were then used to structure a codebook (listed in the Appendix) that captures three main aspects: (i) *misinformation encounters* i.e. codes pertaining to encounters with content lacking truth or trustfulness on TikTok; (ii) *experiences with informative cues* i.e. codes related to the accessibility and the truth discernment utility of

the informative cues on TikTok; and (iii) *accessibility and truth discernment redesign* i.e. codes describing the participants' recommendations for accessibility and truth discernment redesign of the informative cues on TikTok. In reporting the results, we utilized verbatim quotation of participants' answers, emphasized in "*italics*" and with a reference to the participant as either **P#X** or [**P#X**], where **P** denotes **participant**, **#** denotes the **number** of the participant in the sample (ordered by the time of participation), and **X** denotes their **political self-identification** identity (**L** – left-leaning, **M** – moderate, **R** – right-leaning; **A** – apolitical).

## Results

### Misinformation Encounters

We first asked our participants about their misinformation encounters on TikTok. Misinformation takes on various meanings so we related it to content that lacks truth and truthfulness and listed common types such as falsehoods, fabrications, misleading claims, conspiracies, or rumors. Nine or 69% of our participants shared they encountered misinformation in all the above forms, as shown in Table 2. Topics-wise, the politically-related misleading commentary and short videos peddling COVID-19 rumors were the content mostly recommended by TikTok to our participants. Aware that many content creators are incentivized by TikTok's creator rewards program (TikTok 2023b), our participants unavoidably encountered misleading short-videos about nutrition, health treatments, and conspiracy theories. In the words of participant **P11L**, this content was clearly "*made up or far-fetched just for a content creator to get either attention or revenue*" hinting that visibility of this content is more important than its accessibility and its the consequences to personal health (Zeng and Kaye 2022).

The participants that didn't encounter misinformation on TikTok reckoned that either TikTok has personalized recommendation content for them only from content creators that "*know how to self-filter themselves*" **P12L** or much of the misleading content is "*skipped*" by blind or low vision people because "*is hardly accessible*" (**P5L**). Confirming the previous evidence of content inaccessibility on TikTok (Aydin et al. 2021; Whitney and Kolar 2020), participant **P4L** shared their first-hand exclusion experience:

*"Navigating the tags is quite difficult and you can't follow much because TikTok plays one video after another. So you just find random things that would play, and you'd have no idea what they were, and if you hit anything on the screen you'd be sent back to the beginning, which is when I kind of started checking out of TikTok for a while so like what was shocking to me was really not being able to fully engage in finding content I am interested in."*

Misinformation	Responses	Percentage
Encountered	9	69%
Not encountered	4	31%

Table 2: Encounters with Misinformation

### Experiences With Informative Cues

Next, we asked the participants to open and access content, shown in Figure 1, using any of the assistive technologies they usually use to consume the content at their own pace. We initially asked them to judge the accuracy of the video we shared with them. As shown in Table 3, our participants were equally split on whether the content is accurate (38%) or not (38%), with 24% of the participants stating they were undecided. Those who believe the content was accurate pointed out that the content aligns with their beliefs regarding the "*lab origins of the COVID-19 virus*" **P13M**. Those who believe the content was inaccurate, used the source of the post to quickly dismiss it as misinformation because, as participant **P4L** noted, the content "*did not come from CDC.*" The undecided ones, like **P9R**, held reservations based on the contested narratives around COVID-19, hesitant to accept any theory about the virus's origins as "*they are not a scientist.*"

Misinformation is usually processed by employing heuristics (Pennycook and Rand 2021) but also analytical thinking (Bago, Rand, and Pennycook 2020). As we wanted to uncover how our participants processed the video, we next asked them about what cues they use when assessing content on TikTok. As shown in Table 4, our sample was roughly split in half when it came to their truth discernment strategies. Those participants that relied on analytical thinking like **P3M** predominately mentioned that when it comes to contested topics like COVID-19 they would "*definitely do a research [to find] if there's a political agenda of that content creator and fact-check the 'seemingly' convincing but very probably cherry-picked statements*" in the short video. Those that employed heuristics like participant **P2L**, offered the following approach:

*"I definitely listen to the words because the audio is really important to me. So the audio actually sounded pretty good. But what threw me off that it said the Department of Energy led an investigation about COVID-19. I would have expected those investigations to be a CDC thing. Also, the source of the post says that is 'deepdive.ca' or something like that. Why is a place out of Canada telling me about what the US Department of Energy is doing? So that's making me feel like it's fake."*

A noticeable element in the heuristic truth discernment approach for blind and low vision participants, as our results indicate, is the impression of a convincing and reliable-sounding audio. This finding confirms the past evidence suggesting that blind and low vision users are specifically attuned to natural prosody of the voice, how prominent and

Content	Responses	Percentage
Accurate	5	38%
Inaccurate	5	38%
Undecided	3	24%

Table 3: TikTok's Post Accuracy

Cues	Responses	Percentage
Heuristics	7	54%
Analytical	6	46%

Table 4: Truth Discernment Strategies

convincing it sounds, and what value or meaning the audio conveys to determine the credibility of a piece of information online (Gadde and Bolchini 2014). While this is certainly of help for blind and low vision users in navigating misinformative content on TikTok, it might not be sufficient when accessing synthetically generated audio content. Evidence shows that blind and low vision people are around 60% accurate in discerning credible from deepfake audio (Han, Mitra, and Billah 2024), content that increasingly finds its way on TikTok (Rosenblatt 2023).

### Informative Cues’ Accessibility

As part of the second research question, we wanted to specifically test the accessibility and the truth discernment utility of the informative cues on TikTok. As shown in Table 5, the majority of the participants (63%) didn’t notice the **🔔** *Learn the facts about COVID-19* cue. When we redirected them back to the warning on the post, participants located it with some difficulties as they didn’t expect it or were not used to informative cues on TikTok. Participant **P3M** stated:

*“It was right next to the navigation buttons, oh my God! This is why it’s very easy to miss it. There needs to be a sound as you’re flicking through the voice-overs and the different buttons to warn you. This is something different, the warning is not probably seen as a button. Because there are a lot of different things you can click on here. And it’s especially true with TikTok. It’s so easy to go to the next video.”*

Those who did notice the informative cue, nonetheless complained that it is hardly usable at all and the link doesn’t work for them. Participant **P8L** complained:

*“I looked at the warning and tried to open it to learn the facts about COVID-19. Kind of thing at the bottom. But it wasn’t working for me, I couldn’t access the article behind it. So I guess it didn’t help me at all and I had to just go off of the TikTok video itself to figure out if it’s accurate or not”*

When we asked the participants whether the informative cue helped them with the truth discernment or determining the accuracy of the post, all but one (93%) of the participants said that the cue did not factor at all, as shown in Table 6. Participant **P4L** pointed out that *“it doesn’t really*

Warning	Responses	Percentage
Did Not Notice	8	62%
Noticed	5	38%

Table 5: Misinformation Warning Friction

Discernment	Responses	Percentage
Did Not Help	12	93%
Helped	1	7%

Table 6: Misinformation Warning Utility

*say much beyond the general COVID pleasantries”* and participant **P10M** objected that *“these warnings are judged by TikTok and the algorithm and not necessarily related to the video.”* The only participant that said the warning was helpful, **P5L** noted that *“It does make me pause for a second and really rethink how accurate the content is.”*

Considering these findings in the context of past evidence suggesting inadequate application of the informative cues on TikTok (Ling, Gummadi, and Zannettou 2023), it comes as no surprise that our participants were unable to make sense of the disjointed relation between the video and the informative warning. Echoing the exclusion sentiment when it comes to short-videos (Aydin et al. 2021; Whitney and Kolar 2020), our participants felt that the text of the informative cue was completely unrelated to the visual content and drowned by the disjointed auditory clutter that their assistive technologies conveyed back, trying to make sense of the confusing TikTok interface.

Aware of past exclusions when it comes to informative cues for blind and low vision people (Sharevski and Zeidieh 2023), we also asked the participants about how accessible the informative cues are. As shown in Table 7, all but one (93%) said that the cue in the post was not accessible. Participants, as **P3M**, complained that:

*“First of all, the warnings are not easy to find. Second of all, I had to press and activate that button and then kind of hit an extra empty item, just to get it to open. So it just falls in line with the lack of accessibility of the platform. In general, it’s not easy to really interact with them without getting this lucky, randomly”*

Towards the general lack of accessibility of TikTok, participant **P6L** added:

*“I think VoiceOver should be allowed to intercept my flip left and right gestures. TikTok should implement previous and next buttons so that I can have a better experience navigating that screen and catch the warning. But right now the previous/next object gestures are being intercepted by the application, which means VoiceOver doesn’t have them anymore”*

The only participant who said the informative cue was somewhat accessible, **P13M**, added:

*“I mean it was there, but it didn’t say if it was a button or a link. It didn’t say that it was generated by*

Accessibility	Responses	Percentage
Not Accessible	13	93%
Accessible	1	7%

Table 7: Misinformation Warning Accessibility

*TikTok. It was just literally text. Learn the facts about COVID-19, that's all. It had no indication whatsoever that hinted it was clickable. I wouldn't have known if it was. I wouldn't have known it was a link if you hadn't said anything."*

Juxtaposing our findings with the obvious inaccessibility of the informative cues with their reception among the general social media population, it also apparent that platforms – and TikTok in this case – are hardly achieving their goal to inform and contextualize content by sharing timely information or credible content from third-party sources for topics that are often subject to misinformation (YouTube 2023a; Meta 2021; Twitter 2023; TikTok 2023c). Perhaps this is because the informative cues visually blend with the user interface aesthetics and contain vague text, which for visually able users require extra cognitive effort and for blind or low vision users, in addition, require even more cognitive effort to navigate the interface, find them, and contextualize their meaning (Sharevski and Zeidieh 2023). The deliberate choice of minimally intrusive design might help TikTok avoid developing an image of “overtly imposing,” “biased,” and “punitive” misinformation moderator (as Twitter, Facebook, and YouTube did in the past) (Zeng and Kaye 2022), but our results indicate that at least for the blind and low vision population the image of an inaccessible platform that excludes these users is hard to avoid.

### Useful and Accessible Informative Cues

Lastly, we asked the participants what would they recommend to make the platform-provided informative cues (i) accessible; and (ii) helpful towards a better truth discernment. Accessibility-wise, we received four main design recommendations, as shown in Table 8. The most prevalent recommendation was to make the informative cues easily navigable and noticeable so the assistive technologies offer more control to the participants. For example, participant **P10M** felt that it would be useful for the informative cues to be “just a swipe or two away, instead of a lot.”

Participants also recommended making the informative cue more distinguishable and apparent than it is now, size-wise or “another color so that it's not white on black” per participant **P2L**. Participant **P9R** felt the cues should be “4 times the size they are now and put on top of the video because low vision users naturally will look top down” standing a much better chance of noticing it. Participant **P3M** suggested the informative cues to be implemented as pop-ups or covers over the content, feeling that “they would probably see them and to click on.” Participant **P7A** suggested adding a specific audio alert as a friction:

Recommendations	Responses	Percentage
Navigation Element	6	48%
Size/Color	4	31%
Pop Ups/Cover	2	14%
Warning Sound	1	7%

Table 8: Accessibility Design Recommendations

*“TikTok is so easy to lose the content you're watching in the first place. The warnings are even less accessible. I don't think TikTok really cares about the truth. It's just an entertainment app. But I would add some kind of sound, even a click to know that there is a warning.”*

Truth discernment-wise, we received design recommendations, as shown in Table 9. Users complained that hearing just the words “*Learn the facts about COVID-19*” simply appears “*out-of-the context of the video*”, as participant **P13M** put it. On top of that, the informative cues are not designated interactive elements so assistive technologies “*don't pick them up and announce them so a blind user would know what to do with it,*” participant **P2L** pointed out. To address this exclusion, the majority of the participants (69%) recommended designing to be navigable and users are “*are on-boarded*” when installing the app.

In addition, the informative cues should provide extensive, verbose contextual announcements on why they substantiate a given video, according to **P1M**. Participant **P3M** added that “*it would be nice if the warning is first verbalized as a warning about the video that you are about to watch and then reading out a better explanation to give you some context on why you should pause and think about this video.*” These recommendations result from the impression that the current TikTok interface – informative cues included – simply caters to visually able users accustomed to “*fast, mindless swiping*” in the words of participant **P10M**. To address the problem, participant **P13M** proposed:

*“The swipe factor is very unforgiving with Tiktok for users like me. Sometimes when I use VoiceOver navigation it takes me to the next video, sometimes it will loop back to the first video for explicable reasons. On top of that, there are a lot of VoiceOver commands that TikTok has labeled with random letters, numbers, and symbols that simply make it hard for me to find the pause command for the videos. So a warning, in my opinion, needs to allow for a user to pause and not autoplay a video so it gets the context about it. Or even better, have some unique pause for videos with any warnings or labels as an indicator that they are different than the others on the platform”*

From an interactive perspective, the blind and low vision participants in our study generally pointed out that any informative cue or specific friction in the interface needs to be fitted to their *navigation habits*. This is an important design consideration, given that the habit of using screen readers on “fast” – as many blind and low vision people (including our participants) do – naturally demands a sort of an alarm sound not just to notice the informative cue, but to grab their

Recommendations	Responses	Percentage
Contextual Announcements	9	69%
Scroll/Warning Pause	4	31%

Table 9: Truth Discernment Design Recommendations

attention in the context of the video to which it is applied. But given that TikTok *en masse* applies these informative cues (Ling, Gummadi, and Zannettou 2023), one must here consider the habituation aspect of a repeated exposure to these sounds or clicks, which might result in a diminished response and their consideration for truth discernment.

## Discussion

### Accessibility, Misinformation, and Moderation

Users who are low vision or blind, our study shows, encounter misinformation on TikTok in a comparable degree to their visually able counterparts (Basch et al. 2021). But these encounters are not without accessibility barriers as the observation of our participants' experiences in our study indicates. TikTok, offering a predominately visual, "viewing" mode of social media participation, favors popular and viral content in personalizing the feeds of its users (Zeng and Kaye 2022). Many of these videos are of limited relevance to our participants as they can only engage with the audio parts and, if present, textual content such as alt-text or comments. Even the selection of an audio-only short-video in our study didn't help them feel they could fully engage with it. The lack of interface accessibility support, audio description, and intuitive navigation left participants to heavily rely on audio-based inferences that, in turn, left them to resort to source heuristics and familiarity in discerning the truth.

The accessibility exclusion becomes starkly apparent considering that our participants entirely missed the informative cue in 62% of the cases and in the rest, they weren't able to navigate to the associated link and make sense of the warning. Several participants felt that the informative cue is a simple "COVID-19 pleasantry" (P4L), incongruent with the narrative in the video, along the lines of the similar predicament users who are low vision or blind experienced before with video captions (MacLeod et al. 2017; Aydin et al. 2021; Whitney and Kolar 2020). The barrier to participation is further emphasized by the fact that 93% of the participants found the informative cue neither accessible nor helpful towards a better truth discernment. The clutter of disjointed commands in the TikTok interface, the inability to control when and what video could be accessed with assistive technology, and a lack of topological interface organization (Whitney and Kolar 2020), clearly added to the practical indistinguishability of the informative cue. The current moderation implementation on TikTok simply goes against the interaction habits of blind and low vision users, leaving them in a systemically disadvantaged participatory position.

### Designing for Inclusive TikTok Participation

Disadvantaged as such, our participants proposed redesign recommendations for inclusive TikTok participation. The inclusivity considers practical accessibility adaptations, but also the navigation habits and the capabilities of blind and low vision users. As the interactive experience on TikTok is based on swiping through visually consumed content, participants felt that they would benefit from tagging that could analogously enable this functionality only for audio consumed (or both, with assistance, for low vision users) con-

tent. This tagging would also help with the implementation of the informative cues as navigation elements that blind or low vision users could *separately* from the content engage with. This engagement could well be facilitated if the information cues, in addition, be designed as *audio frictions*. The need for separation is seen as a flexibility in maintaining concurrent audio streams that ultimately will help heeding the information from the cue, not ignore it because is sequentially added to the audio of the video and the interface.

The separation, in the view of our participants, would be also helpful to implement the informative cues as covers that will introduce a *before* content friction sufficient for them to think twice about its accuracy. The current practice of placing the informative cues at the bottom on all platforms is to make them more easily accessible to users' thumbs but presumes that users are able to *visually skim* the interface and act (type or tap) on the screen immediately. This, however, is not the "interactions on-the-go" of low vision or blind users who tend to *auditory skim* the interface instead (Gadde and Bolchini 2014). A navigable informative cue with an optional audio friction was seen as naturally ergonomic to our participants' habits that often involve screen readers on "fast."

A screen reader on "fast" coupled with autoplay between videos on TikTok is not necessarily conducive to truth discernment, especially if analytical thinking is warranted to dispel a misinformative topic in a short video. A more verbose and standalone informative cue, as our participants suggested, might sufficiently produce enough friction for a blind or low vision person to stop and think about the truth carried in the recommended content. In addition, our participants also proposed an ability for blind users to pause between videos, which could actually allow them to visit the link to the third-party fact-checking service embedded in the informative cue. All recommendations are well-intentioned and experiential, but nonetheless require actual user testing, which we plan to do in our next study. The goal is to make the informative cues accessible and useful, but balance for potential negative effects such as habituation.

### Political Contextualization of the Findings

Past studies show that the misinformation proclivity is observed among political conservatives, both for production and consumption (Garrett and Bond 2023). In our study, we had one participant that politically-self identified as right-leaning, P9R. While this participant indicated they did not encounter misinformation on TikTok (as they used the platform mostly for "entertainment"), they were nonetheless undecided about whether the post we used in our study was misinformation or not. Granted, this is anecdotal evidence, but the participants who identified as moderate and apolitical in our study had a more pronounced proclivity for the claims expressed in the video from Figure 1 instead.

Past studies also suggest that the informative cues fail to reduce misperceptions about misinformative content among the political conservatives, or in some cases, the exposure to these cure results in increased proclivity for misinformation (i.e., caused a "backfire effect" (Morrow et al. 2021)). The right-leaning, moderate, and apolitical participants in

our study indicated they the informative cue wasn't helpful for them to decide whether the post was accurate or not (we didn't find any anecdotal evidence of the backfire effect either). The only participant that actually utilized the informative cue towards truth discernment was participant **P5L** who politically self-identified as left-leaning.

### Limitations

We note several limitations to our study. We sampled English-speaking social media users in the US that have regularly used TikTok up to the first half of 2023 and the state of accessibility interface implemented in the respective versions of the platform application. Future improvements in the way TikTok offers accessibility might render our results obsolete (which we sincerely hope will be the case soon). Equally, a limitation comes from the current assistive technologies our participants used. Any new assistive technologies might change how the users experience misinformative content and informative cues on TikTok, and with that, affect the overall findings. Our small sample of 13 participants may not result in generalizability in the traditional sense. This is a limitation we acknowledge but note that we were interested in the "richness" of the participants' experiences rather than the commonality of these experiences. This, in turn, provides sufficient justification for the proposed design recommendations for the informative cues that could be further validated with a larger sample.

The misinformation moderation policies on TikTok at the period of the study also affected our results in that future changes, developments, and revisions of these policies relative to new evidence of the COVID-19 virus origins might change which content is labeled and how (i.e. change in signage, text, and authoritative resource link). Next, we were limited to one topic of presumably misleading content related to COVID-19. Other topics, for example, election rumors, health treatments, or downright falsehoods could well be labeled with different informative cue formats and therefore differently received by users who are low vision or blind. In as much as we tried to limit any confounding factors when selecting the treatment video, there certainly are elements that factor in the truth discernment, if not the accessibility, among the participants such as the source of the video, its length, the appearing of the narrator in the video, the surrounding recommendations, and even the comments/engagement sections attached to the video. Though we left our participants sufficient time and support to meaningfully engage with the video through the assistive technology of their choice, nonetheless, the allowed time might have not been insufficient for them to formulate a more informed expression about their experience with it.

### Conclusion

The informative cues employed as soft moderation interventions by TikTok, for users who are low vision or blind, do not fulfill the intended goal of conforming and contextualizing content for well-established topics that are often subject to misinformation. Our findings indicate that these informative cues are both inaccessible and provide little contextualization as to why content might be misinformative.

Our low vision or blind participants provided structural as well as design/interaction recommendations for addressing these shortcomings that are intended to help users who interact with the TikTok interface by auditory, instead of visual, means. Though pertaining to a small group of the overall TikTok user population, we believe that these recommendations offer a novel perspective in informative cue design that does not revolve around the default visually-able persona, which is currently the case.

### Ethical Statement

Ethical concerns do arise when dealing with misinformation, as the probability of harmful implications is non-negligible even in a controlled setting with only one TikTok video as a treatment. Exposing participants to misleading statements, even in controlled settings and with an extensive debriefing, runs the risk of conceiving or perpetuating any misconceptions about the origins of the COVID-19 virus as a developing and actively debated topic. One could argue that we could have used another superficial post on an unrelated topic to COVID-19, but that would not have captured the true experiences and interaction habits with the informative cues when accessed by our participants (assuming it got labeled by TikTok) because it would have precluded them using their assistive technology of choice, on their usual device, and on real-life content on the platform.

There is no easy solution to this predicament and we communicated to our participants that we would share a post on a COVID-19-related topic (without telling them whether the post was true or not) as part of the informed consent process prior to participation and offered them to decline their participation if they felt the content might be of any potential harm to them. All of the 13 participants were okay to proceed with accessing the study content and acknowledged they accepted this risk. We employed lengthy debriefing to ensure our participants that we are impartial to the claims expressed in the video and that we act independently from TikTok. Here, we provided them the fact-checking reports about the topic discussed in the post from FactCheck.com (Robertson 2023) and Snopes (Kasprak 2023) so they could verify the facts about the topic at the time we conducted the study. We were also careful not to appear in favor or not of soft moderation. We communicated that our ultimate goal is to create circumstances for *inclusion* for users who are low vision or blind on TikTok for any content and informative cues. This, however, doesn't prevent from misusing or misinterpreting our findings in the broader debate of soft moderation as intrusive to the right of free speech. To prevent this, we make no claims pertaining to the general moderation effort, nor do we engage in a deeper discussion on what constitutes "misinformation" in the first place.

### References

- Aydin, A. S.; Ko, Y.-J.; Uckun, U.; Ramakrishnan, I.; and Ashok, V. 2021. Non-Visual Accessibility Assessment of Videos. In *Proceedings of the 30th ACM International Conference on Information & Knowledge Management*, 58–67.
- Bago, B.; Rand, D. G.; and Pennycook, G. 2020. Fake news,

- fast and slow: Deliberation reduces belief in false (but not true) news headlines. *Journal of experimental psychology: general*.
- Basch, C. H.; Meleo-Erwin, Z.; Fera, J.; Jaime, C.; and Basch, C. E. 2021. A global pandemic in the time of viral memes: COVID-19 vaccine misinformation and disinformation on TikTok. *Human Vaccines & Immunotherapeutics*, 17(8): 2373–2377.
- Duckett, P. S.; and Pratt, R. 2001. The Researched Opinions on Research: Visually impaired people and visual impairment research. *Disability & Society*, 16(6): 815–835.
- Erhardt, K.; and Pentland, A. 2022. Disambiguating disinformation: Extending beyond the veracity of online content. *A Workshop on Information Credibility and Alternative Realities in Troubled Democracies, ICWSM 2021*.
- Gadde, P.; and Bolchini, D. 2014. From Screen Reading to Aural Glancing: Towards Instant Access to Key Page Sections. In *Proceedings of the 16th International ACM SIGACCESS Conference on Computers & Accessibility, ASSETS '14*, 67–74.
- Garrett, R. K.; and Bond, R. M. 2023. Conservatives' susceptibility to political misperceptions. *Science Advances*, 7(23).
- Gordon, M.; and Strobel, W. 2023. Lab Leak Most Likely Origin of Covid-19 Pandemic, Energy Department Now Say. <https://www.wsj.com/articles/covid-origin-china-lab-leak-807b7b0am>. Accessed: 2025-04-01.
- Grandinetti, J.; and Bruinsma, J. 2022. The Affective Algorithms of Conspiracy TikTok. *Journal of Broadcasting & Electronic Media*, 1–20.
- Han, C.; Mitra, P.; and Billah, S. M. 2024. Uncovering Human Traits in Determining Real and Spoofed Audio: Insights from Blind and Sighted Individuals. In *Proceedings of the CHI Conference on Human Factors in Computing Systems (CHI '24)*. New York, NY, USA: Association for Computing Machinery.
- Kasprak, A. 2023. DOE and FBI Say Lab Origin of COVID Is 'Most Likely' — But Won't Say Why. <https://www.snopes.com/news/2023/03/03/fbi-doe-covid-origin/>. Accessed: 2025-04-01.
- Kaye, D. B. V.; Zeng, J.; and Wikstrom, P. 2022. *TikTok: Creativity and culture in short video*. John Wiley & Sons.
- Keenan, C. 2023. TikTok: An update on our work to counter misinformation. <https://newsroom.tiktok.com/en-us/an-update-on-our-work-to-counter-misinformation>. Accessed: 2025-04-01.
- Ling, C.; Gummadi, K. P.; and Zannettou, S. 2023. “Learn the Facts about COVID-19” Analyzing the Use of Warning Labels on TikTok Videos. *Proceedings of the International AAAI Conference on Web and Social Media*, 17(1): 554–565.
- Liu, X.; Carrington, P.; Chen, X. A.; and Pavel, A. 2021. What Makes Videos Accessible to Blind and Visually Impaired People? In *Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems, CHI '21*.
- MacLeod, H.; Bennett, C. L.; Morris, M. R.; and Cutrell, E. 2017. Understanding blind people's experiences with computer-generated captions of social media images. In *proceedings of the 2017 CHI conference on human factors in computing systems*, 5988–5999.
- Meta. 2021. How We're Tackling Misinformation Across Our Apps. <https://about.fb.com/news/2021/03/how-were-tackling-misinformation-across-our-apps/>. Accessed: 2025-04-01.
- Morrow, G.; Swire-Thompson, B.; Polny, J.; Kopec, M.; and Wihbey, J. 2021. The Emerging Science of Content Labeling: Contextualizing Social Media Content Moderation.
- Pennycook, G.; and Rand, D. G. 2021. The Psychology of Fake News. *Trends in Cognitive Sciences*, 25(5): 388–402.
- Posetti, J.; and Matthews, A. 2018. A short guide to the history of 'fake news' and disinformation. *International Center for Journalists*, 7(2018): 2018–07.
- Robertson, L. 2023. Still No Determination on COVID-19 Origin. <https://www.factcheck.org/2023/03/scicheck-still-no-determination-on-covid-19-origin/>. Accessed: 2025-04-01.
- Rosenblatt, K. 2023. MrBeast calls TikTok ad showing an AI version of him a 'scam'. <https://www.nbcnews.com/tech/mrbeast-ai-tiktok-ad-deepfake-rcna118596>. Accessed: 2025-04-01.
- Sharevski, F.; and Zeidieh, A. 2023. Designing and Conducting Usability Research on Social Media Misinformation with Low Vision or Blind Users. In *Proceedings of the 16th Cyber Security Experimentation and Test Workshop, CSET '23*, 75–81. New York, NY, USA: Association for Computing Machinery. ISBN 9798400707889.
- Siu, A. F.; Fan, D.; Kim, G. S.; Rao, H. V.; Vazquez, X.; O'Modhrain, S.; and Follmer, S. 2021. COVID-19 highlights the issues facing blind and visually impaired people in accessing data on the web. In *Proceedings of the 18th International Web for All Conference*, 1–15.
- Social Security Administration. 2023. 404.1581. Meaning of blindness as defined in the law. <https://www.ssa.gov/OP-Home/cfr20/404/404-1581.htm>. Accessed: 2025-04-01.
- Stangl, A.; Morris, M. R.; and Gurari, D. 2020. “Person, Shoes, Tree. Is the Person Naked?” What People with Vision Impairments Want in Image Descriptions. In *Proceedings of the 2020 CHI conference on human factors in computing systems*, 1–13.
- The Deep Dive. 2023. The Deep Dive. <https://www.tiktok.com/@the.deep.dive/video/7204870750694673670>. Accessed: 2025-04-01.
- TikTok. 2023a. TikTok Accessibility. <https://www.tiktok.com/accessibility/>. Accessed: 2025-04-01.
- TikTok. 2023b. TikTok Creator Rewards. <https://support.tiktok.com/en/business-and-creator/creator-rewards-program/creator-rewards-program>. Accessed: 2025-04-01.
- TikTok. 2023c. TikTok Safety. <https://www.tiktok.com/safety/en-us/topics/>. Accessed: 2025-04-01.

TikTok. 2023d. TikTok Terms of Service. <https://www.tiktok.com/legal/page/us/terms-of-service/en>. Accessed: 2025-04-01.

Twitter. 2023. How we address misinformation on Twitter. <https://help.twitter.com/en/resources/addressing-misleading-info>. Accessed: 2025-04-01.

Whitney, G.; and Kolar, I. 2020. Am I missing something? *Universal Access in the InfoSoc*, 19(2): 461–469.

Wu, S.; and Adamic, L. A. 2014. Visually impaired users on an online social network. In *Proceedings of the sigchi conference on human factors in computing systems*, 3133–3142.

X. 2023. COVID-19 Misinformation. <https://transparency.x.com/en>. Accessed: 2025-04-01.

YouTube. 2023a. COVID-19 medical misinformation policy. <https://support.google.com/youtube/answer/9891785?hl=en>. Accessed: 2025-04-01.

YouTube. 2023b. Misinformation Policies. <https://support.google.com/youtube/answer/10834785?hl=en>. Accessed: 2025-04-01.

Zeng, J.; and Kaye, D. B. V. 2022. From content moderation to visibility moderation: A case study of platform governance on TikTok. *Policy & Internet*, 14(1): 79–95.

## Paper Checklist

1. For most authors...
  - (a) Would answering this research question advance science without violating social contracts, such as violating privacy norms, perpetuating unfair profiling, exacerbating the socio-economic divide, or implying disrespect to societies or cultures? **Our study shows that low vision or blind users are excluded from accessible participation on TikTok relative to their informative cues**
  - (b) Do your main claims in the abstract and introduction accurately reflect the paper's contributions and scope? **Yes, we clearly stated our contribution and the scope of the paper at the end of the introduction.**
  - (c) Do you clarify how the proposed methodological approach is appropriate for the claims made? **Yes, we provided an extensive justification of our methodological approach towards the ecological and overall validity in section Methodology, subsection Sample.**
  - (d) Do you clarify what are possible artifacts in the data used, given population-specific distributions? **Yes, we also used verbatim quotations in reporting our findings, while maintaining the participants' anonymity**
  - (e) Did you describe the limitations of your work? **Yes, our limitations are listed in section Discussion, subsection Limitations**
  - (f) Did you discuss any potential negative societal impacts of your work? **Yes, we discussed any potential negative societal impacts of our work in section Discussion, subsection Ethical Considerations**
  - (g) Did you discuss any potential misuse of your work? **Yes, we discussed any potential misuse in section Discussion, subsection Ethical Considerations**

- (h) Did you describe steps taken to prevent or mitigate potential negative outcomes of the research, such as data and model documentation, data anonymization, responsible release, access control, and the reproducibility of findings? **Yes, our data is anonymized and includes no references to individual participants.**
  - (i) Have you read the ethics review guidelines and ensured that your paper conforms to them? **Yes, our paper conforms to the ethics review guidelines**
2. Additionally, if you used crowdsourcing or conducted research with human subjects...
    - (a) Did you include the full text of instructions given to participants and screenshots? **Yes, our treatment video we used from TikTok is given in Figure 1 in section Methodology subsection Methods and Instrumentation, our interview script is listed in the Appendix, as well as our full codebook**
    - (b) Did you describe any potential participant risks, with mentions of Institutional Review Board (IRB) approvals? **Yes, we provided an explicit reference to our IRB approval and the potential risks of our research, together with the safeguards we taken to address them in section Methodology, subsection Sample.**
    - (c) Did you include the estimated hourly wage paid to participants and the total amount spent on participant compensation? **Yes, we compensated participants with \$25 Amazon eGift Card and we spent \$325 on participant compensation as indicated in section Methodology, subsection Sample.**
    - (d) Did you discuss how data is stored, shared, and deidentified? **Yes, we discuss the handling of the participants' data in in section Methodology, subsection Sample.**

## Interview Script

1. What type of **device** do you use when accessing TikTok?
2. What **assistive technology** do you use?
3. Have you encountered content on TikTok that you perceived as **false, fabricated, and/or misleading**? Please specify in as much as details you can.
4. Have you encountered content on TikTok that you perceived as **conspiracy theories** and/or **rumors**? Please specify in as much as details you can.
5. We are sending you a link to a TikTok video. Please access it, consume it, and note any elements on the page and the user interface. In your opinion, what is the content's **accuracy**? Take the time you need to review this content and feel free to re-watch it.
6. What **cues** did you use to assess the content's accuracy?
7. Did you notice any **warnings** about the content?
8. Did these warnings induced any **change** or affected your perception of the content's accuracy in any way? Please elaborate more.
9. What is your opinion on how these warnings **are made accessible (or not)** for TikTok users who are low vision or blind?

10. What would you recommend for making these warnings **adequately accessible** for TikTok users who are low vision or blind?
11. What would you recommend for making these warnings **helpful indicating the accuracy** of content for TikTok users who are low vision or blind?
12. Which statement best describes you: (a) I am totally blind and am unable to perceive lights/shapes; (b) I am blind and am able to perceive lights/shapes; (c) I am low vision and consider myself to be legally blind; or (d) I am low vision but I do not consider myself to be legally blind.
13. Demographic Questions
 

Gender/Gender Identity – How do you identify? Woman; Man; Transgender/Trans woman; Transgender/Trans man; Non-Binary; Gender fluid; Genderqueer; Agender; Unsure; Not Listed (Specify); Prefer not to answer

Age – What is your age? Enter age; Prefer not to answer

Race/Ethnicity – Which category best describes you? White; Hispanic, Latinx or Spanish origin; Black or African American; Asian; American Indian or Alaska Native; Middle Eastern or North African; Native Hawaiian or Other Pacific Islander; Not Listed (Specify); Prefer not to answer

Education – What is the highest level of education you have completed? Some High School; High School Diploma; Bachelor’s Degree; Master’s Degree; Ph.D. or higher; Trade School; Apprenticeship; Not Listed (Specify); Prefer not to answer

Political Self-Identification – How do you identify? Left-leaning; Right-leaning; Moderate; Apolitical; Not Listed (Specify); Prefer not to answer
14. Extensive debriefing, assurances that no harm was done with the exposure to the video selected in the study, sharing or fact-checking resources relative to the topic and the misleading/unproven statements in the video

### Codebook

- **Misinformation Encounters** Codes related to the direct encounters of misinformation content on TikTok.
  - **False, fabricated, or misleading content** The participant has encountered content that was verifiable false, fabricated, or misleading
  - **Conspiracy theories, rumors** The participant has encountered content that contains unverified facts, possibly fabrications, and improbable interpretations
- **Misinformation Experience** Codes related to the direct encounters of misinformation content on TikTok:
  - **Content accuracy** Codes pertaining to the truth discernment accuracy of the Figure 1 video.
    - \* **Accurate** The participant deems the claims provided in the video to be accurate
    - \* **Inaccurate** The participant deems the claims provided in the video to be inaccurate
    - \* **Undecided** The participant is undecided whether the claims in the video are accurate or not

- **Truth Discernment Cues** Codes related to the truth discernment approach for the Figure 1 video.
  - \* **Heuristics** The participant mainly employed heuristics (e.g. source of the video)
  - \* **Analytical** The participant mainly employed analytical thinking (e.g. fact-checking, multiple sources)
- **Noticeability** Codes pertaining to the noticeability of the information cue on the Figure 1 video
  - \* **Did Not Notice** The participant expressed they were not able to notice the information cue
  - \* **Noticed** The participant expressed they were able to notice the information cue
- **Utility** Codes pertaining to the utility of the information cue on Figure 1 video
  - \* **Did Not Help** The participant expressed that the information cue was not helpful for truth discernment
  - \* **Helped** The participant expressed that the information cue was helpful for truth discernment
- **Accessibility** Codes pertaining to the accessibility of the information cue on the Figure 1 video
  - \* **Not Accessible** The participant expressed that information cue is not accessible
  - \* **Accessible** The participant expressed that the information cue is accessible
- **Recommendations** Codes related to design recommendations provided by the participants about the TikTok’s information cues.
- **Accessibility Improvements** Codes pertaining to accessibility improvements
  - **Navigation Element** The participant recommends the information cues be implemented as separate navigation elements so they can easily navigate them with their assistive technologies
  - **Size/Color** The participant recommends information cues be implemented bigger in size and in better color/contrast so the warnings are easily noticeable with their assistive technologies
  - **Popup/Cover** The participant recommends the information cues be implemented as pop-ups or warning covers to give a sufficient non-visual friction for them before they access the content
  - **Warning Sound** The participant recommends the information cues be augmented with a sound alarm in order to give a sufficient audio friction for them before they access the content
- **Truth Discernment Improvements** Codes pertaining to truth discernment improvements
  - **Contextual Announcement** The participant recommends the information cues be worded in a contextually relevant language for the video
  - **Scroll/Warning Pause** The participant recommends the information cues be implemented together with the ability to pause the video such that there is enough time for considering further verification