

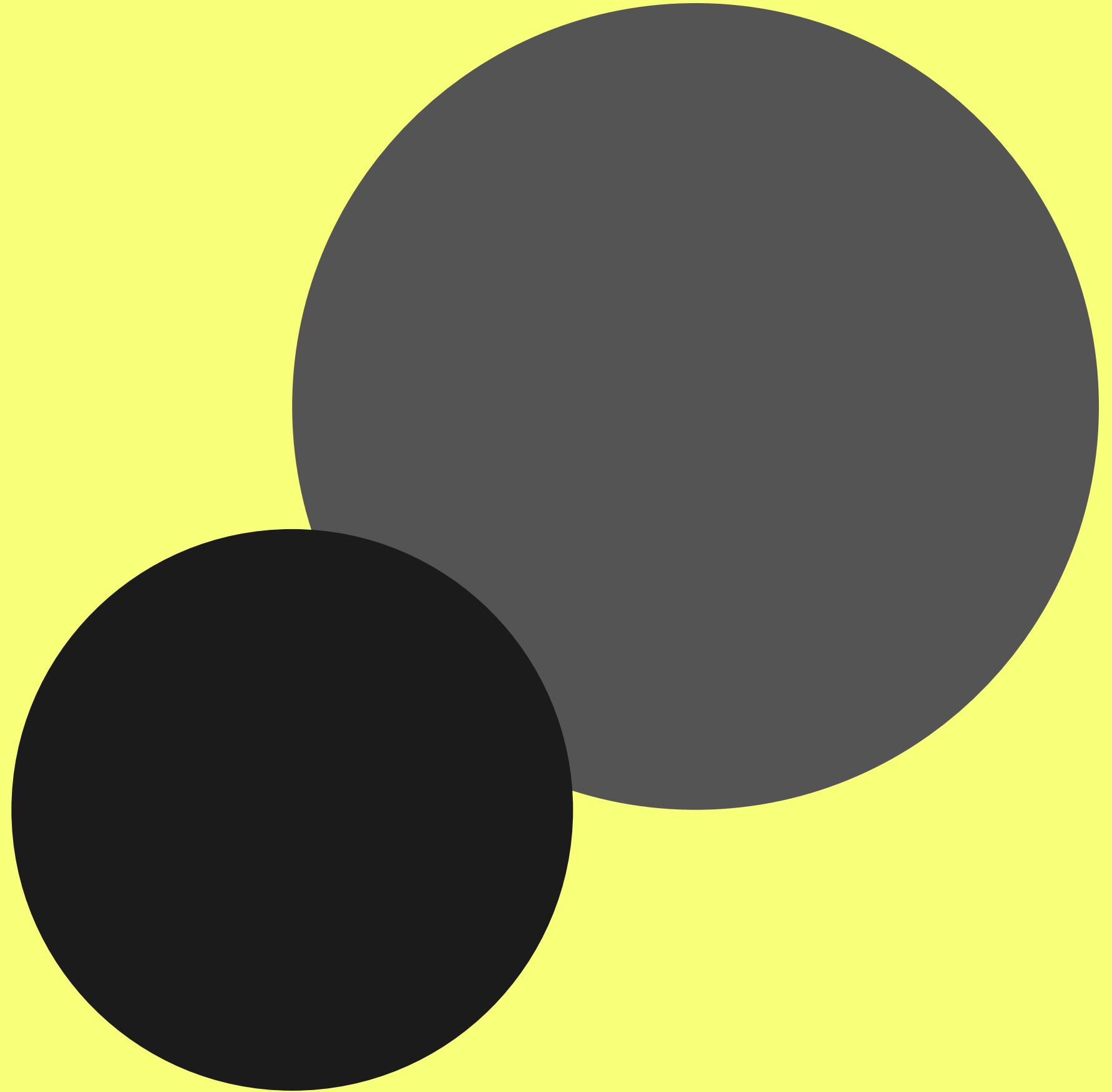
UX RESEARCH: MISINFORMATION COUNTERMEASURES ON TIKTOK & INSTAGRAM

By Rita Yoham

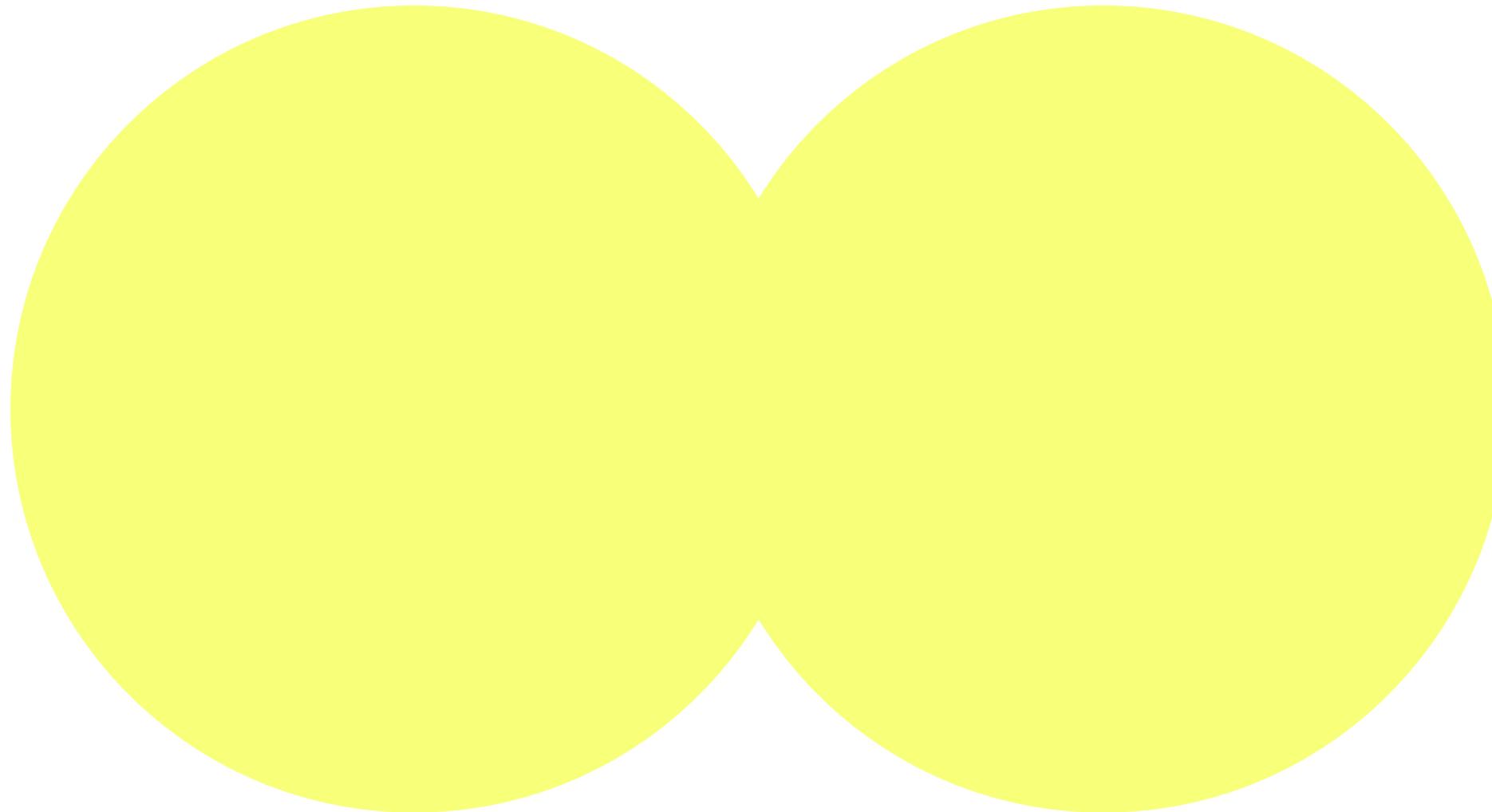
Agenda

1. Introduction to Project
2. Literature Review
3. Methods & Approach
4. Research Findings
5. Discussion
6. Conclusion

Introduction to Project



Research Topic & Design Problem



A large amount of efforts have been put into detecting fake news on social media platforms.

Despite the existence of these approaches, fake news sharing is still widely shared by users.

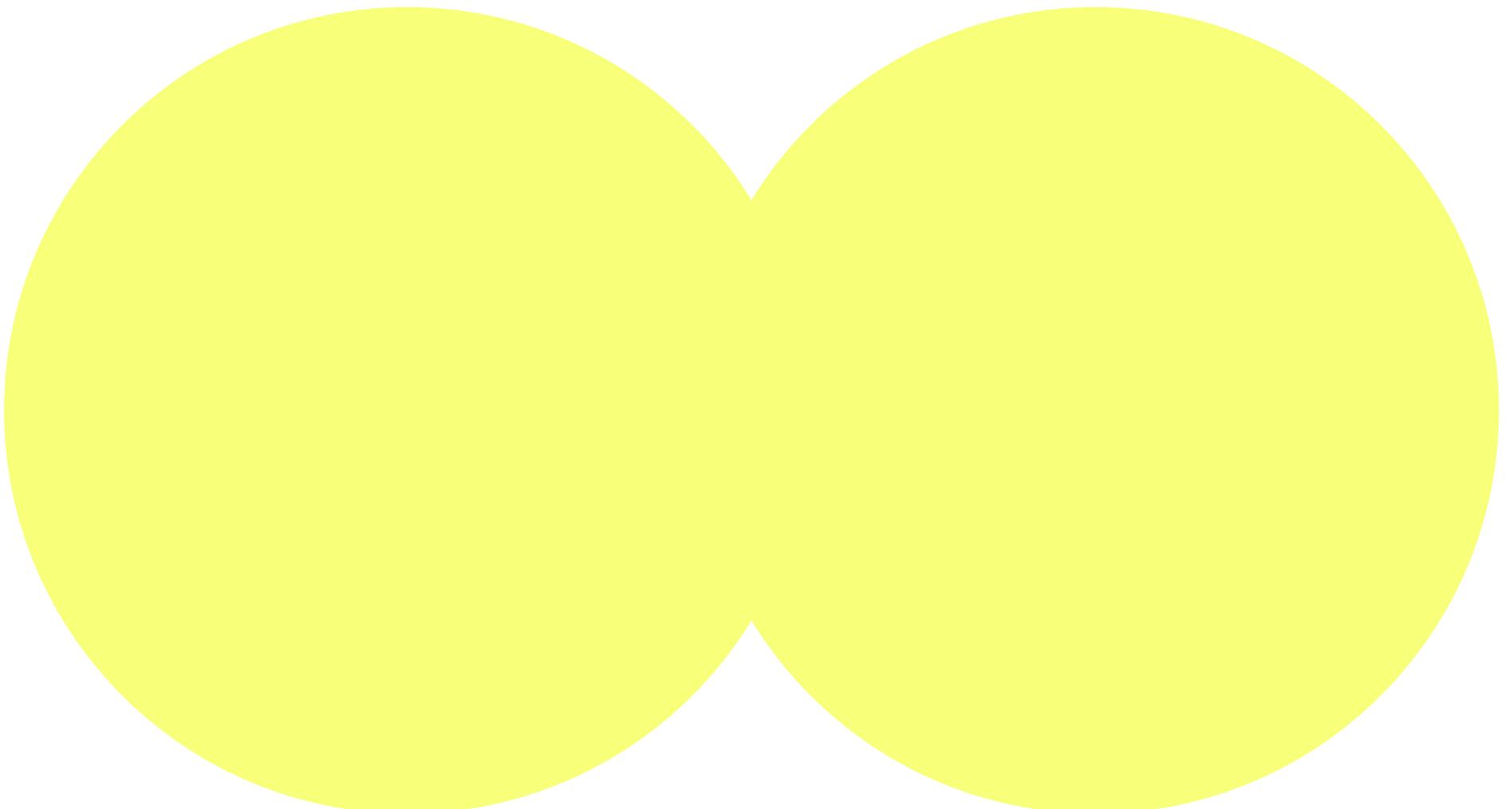
Studies of the video based platforms TikTok and Instagram have discovered high levels of misinformation and active steps have been taken.

Video may be particularly powerful in reducing misperceptions and overcoming motivated reasoning, but this has not been studied on Instagram and Tiktok.

The goal of this study is to understand how to improve the effectiveness of countermeasures on fake news short videos.

It further explores the role of video format and platform affordance in shaping message interest and information-sharing in the context of fact-checking.

Importance & Relevance



Despite the actions taken to prevent the spread of misinformation, it is still being widely spread on video sharing platforms.

TikTok and Instagram Reels are where these misinformation videos are being shared the most.

TikTok and Instagram have taken actions to inform the public of this misinformation, but not much testing has been done to prove if they are effective

Measures can be taken, but if they are not proven effective, then they are useless.

It is important that the public is informed and understands that the information being presented to them is not entirely correct.

Again, this makes the effectiveness of misinformation warnings very important.

Research Goals

Understand Effectiveness & Potential Improvements

Conduct research in order to better understand how effective the measures being taken to combat misinformation on video sharing platforms are and identify any potential improvements that could be made.

Explore Role in Shaping Message Interest

Further explore the role the video format and platform affordance in shaping users' interest in the message and how fact checking measures affect that interest.

Explore Role in Information Sharing

Exploring the role in the video format and platform affordance in information sharing among users and whether fact checking affects that desire to share.

Scope of Work

1. Create research plan identifying goals, questions, and data collection methods for project
2. Distribute screening survey to potential participants
3. Conduct interviews with chosen participants and collect data from said interviews
4. Evaluate collected data and quantify through coding in NVivo
5. Compile all materials and data into a final report

Research Questions

Q1

What are the strategies being used to counter misinformation being shared on TikTok and Instagram Reels?

Q2

How do users respond to various approaches used to prevent the spread of misinformation on Tiktok and Instagram Reels?

Q3

How effective are the strategies being used to reduce the sharing of misinformation on TikTok and Instagram Reels?

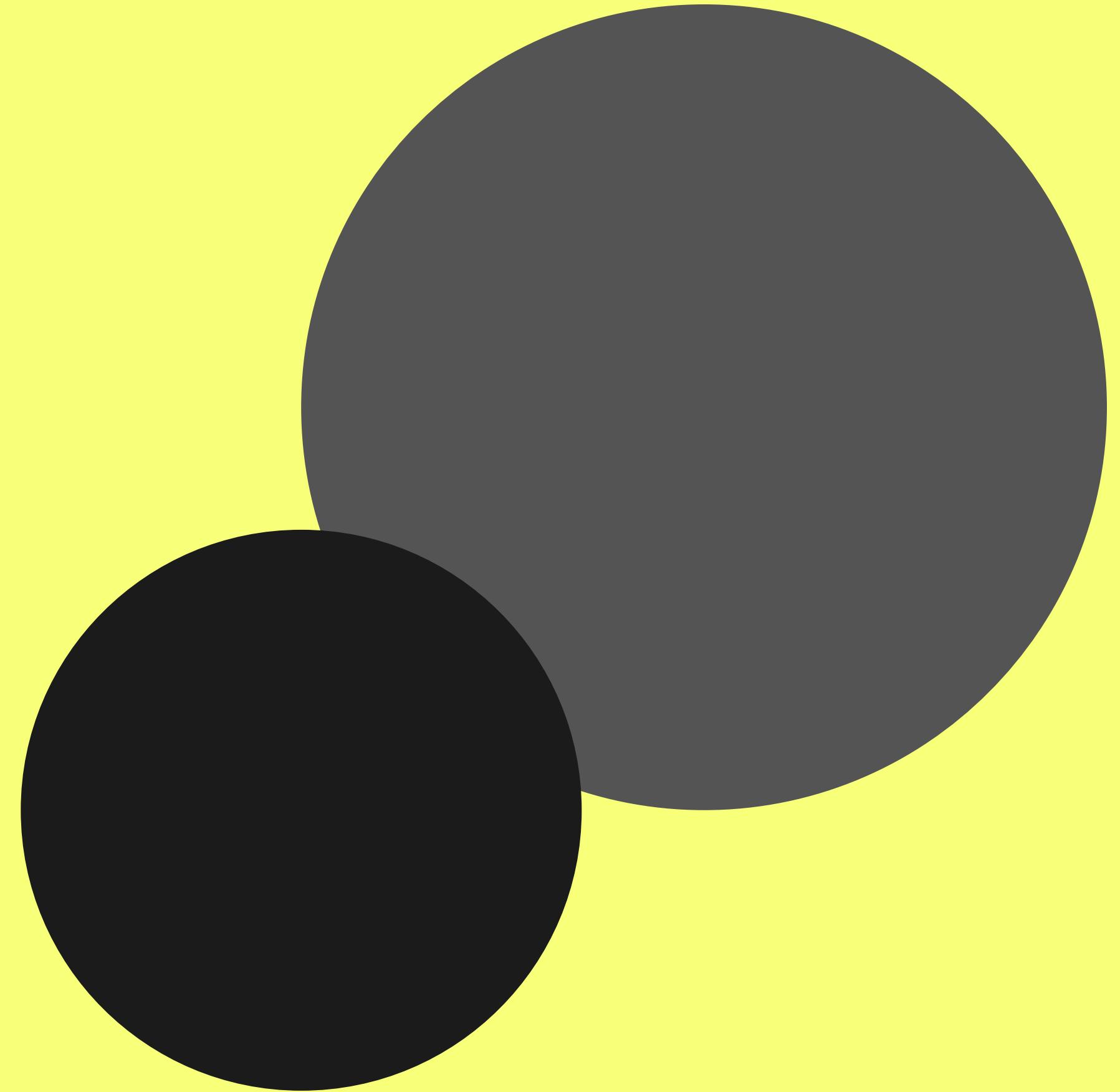
Q4

How do people perceive the countermeasures being used to combat misinformation on TikTok and Instagram Reels?

Q5

How does fact-checking influence people's evaluation of the information on TikTok and Instagram Reels?

Literature Review



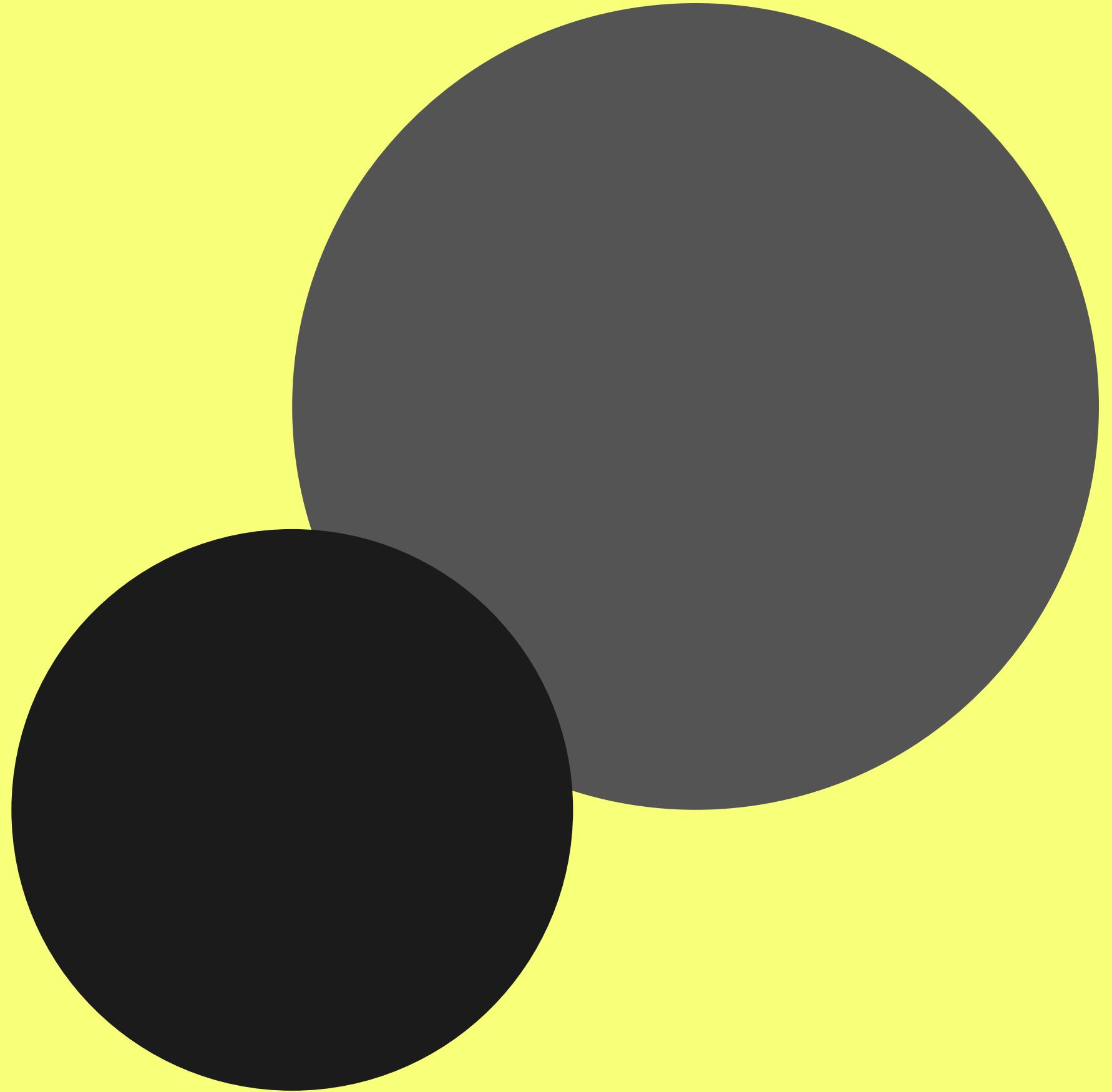
Related Research

- There has been some research about the measures taken on TikTok and Instagram but not much testing of those features.
- Irrational Labs did a study to see how effective the tags present on TikTok are and how they used behavioral design for this. Read more about it [here](#).
- The Carnegie Endowment for International Peace has taken note of the different ways that Instagram counters misinformation as well. Read more about it [here](#).

Need for Further Research

Misinformation is a relatively new development on social media platforms and it has greatly affected minds in our society. Measures to avoid the spread of misinformation are starting to be more developed but there has not been much testing to confirm that said measures are effective. If these measures don't have effective design and wording and users don't understand their purpose, then misinformation will continue to spread and be a problem.

Methods & Approach



Data Collection Procedure

Recruitment of Participants

Convenience & Snowball Sampling

We used convenience and snowballing sampling to recruit our participants. We recruited people by posting our fliers on social media and asking friends, family, and non-UX classmates to participate.

Screener Survey

We had potential participants fill out a screener survey in order to collect information about their social media experience and demographics. We then evaluated the responses received and determined which participants were best suited for our research.

Data Collection

Semi Structured Interviews

We collected our data through semi structured interviews with our selected participants. These interviews were either conducted in person or through Zoom depending on the participant. We used the interviews to gather information about user habits regarding platform affordances around fake news on video sharing platforms including TikTok and Instagram.

Notes & Audio/Video Recording

During our interviews, we took detailed notes on note taking sheets. Additionally, we recorded audio for the entire conversation and took videos during the "Think Aloud" questions. We took these videos in order to preserve initial reactions and to analyze body language. Finally, we conducted our interviews using our interview protocol.

Why did we choose this method?

We believed it was the best suited way for the data being collected

This method ensures that we choose participants that fit the qualifications for our study, especially by administering a screener survey. During our interviews, we ensured that we collect as much data as possible through detailed notes, audio, and video recordings.

Sampling Procedure

We found our participants through
convenience and snowball sampling:

- *Convenience Sampling* is when your sample is drawn from a population that is close at hand
- *Snowball Sampling* is when your sample comes from within your acquaintances
- Through this sampling, we distributed our screener surveys to potential interviewees and determined which participants we wanted to interview from there

Screening Survey

Our [screening survey](#) attempts to obtain information about potential participants including:

Demographics

We collected demographics from potential participants including age, gender, race, community, education, religion, political affiliation, income, if they are a college student, and more. These were all important factors to consider when selecting who we wanted to interview for our study. We also collected their contact information in the case that they were selected for an interview.

Video Sharing Platform Use

We also collected information about the video sharing platforms that our potential participants use. This includes what platforms they use and how often they use them. We also asked them questions about their news consumption on these apps.

News Consumption

Finally, we asked our potential participants questions about their news consumption. We asked about how much news they seek out on their own outside of video sharing platforms as well as the amount they consume within them.

Semi Structured Interview

Information seeking & feature questions:

1 . What did you notice first on the screen? Why do you think you noticed that first?	Saw the flag and noticed it was upside down which was a first red flag, then saw military, and then saw his username which is <u>fromthesouth2020</u> , another red flag, also saw the anti-state on the shirt, prepared her for what was about to come from the video, still tried to keep an open mind
2. Is there anything specifically your eye was drawn to after that?	His bald head and glasses, stillness in his eyes
3. How did you decide what to scan or read on this screen and what to ignore?	Visual person, first thing was gone to the colors and shapes on his shirt and did a scan and noticed the military information
4. What features are useful for you when evaluating the credibility of this post? (There are two fact-checking features: warning label and a pop-up warning when sharing the video. Ask both.)	Looking for sources and <u>listens</u> to see if there is <u>biases</u> involved, you can usually hear if it is one sided vs trying to be in the middle.
a. What assumptions, if any, does this tag/the pop-up share warning change your feelings about the content presented in the video?	Goes along with how she was feeling, thinking it was unverified and makes her suspicious of the information given, makes her upset that someone took time out of their day to possibly make false accusations and stories to make an unclear point, frustrating when they could be doing better things
b. How does this tag/ the pop-up share warning affect your feelings about the content presented in the video?	Makes her upset and sad, we want to be able to create a space where we can share accurate information so people can have information and news readily available
c. How effective do you think this tag/the pop-up share warning is?	Thinks its effective in that it makes you have a second guess as to whether this is true or not, depending on which side you are on you would have suspicions or people would think they are being silenced, would make some moderates think they should do more research

We used a semi structured interview protocol for our data collection

This is when there are questions planned in advance of the interview, but the interviewer will also go off script and ask additional questions in order to best gather the data needed.

Script and questions were prepared, but probing questions and humanizing interviews were encouraged

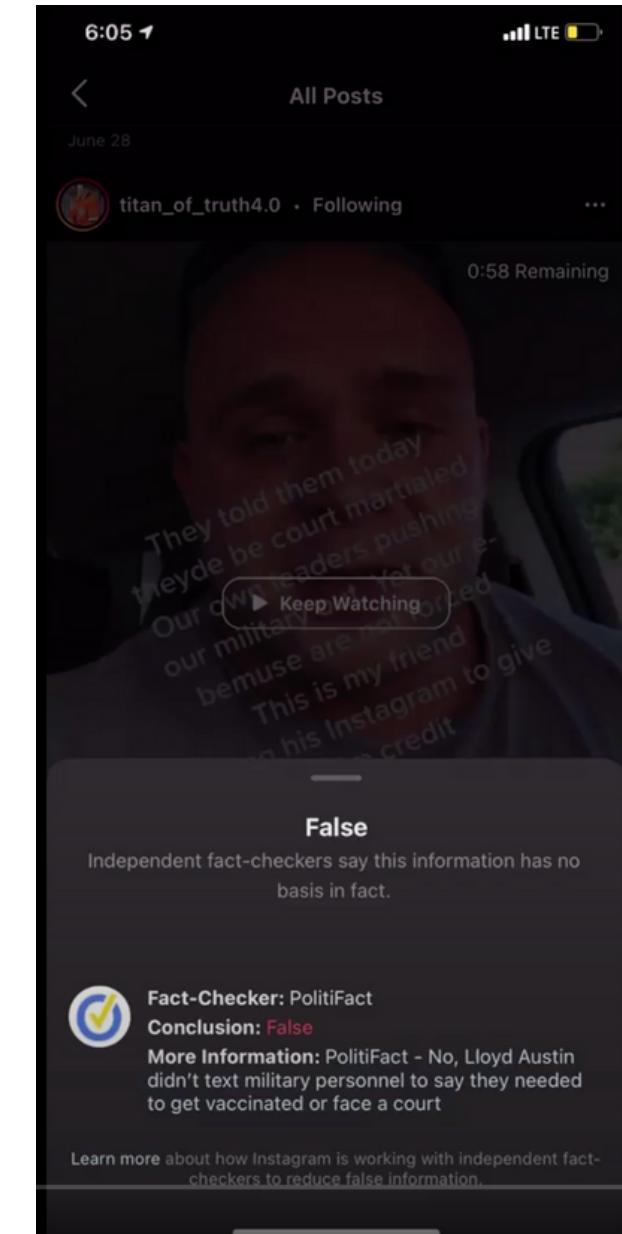
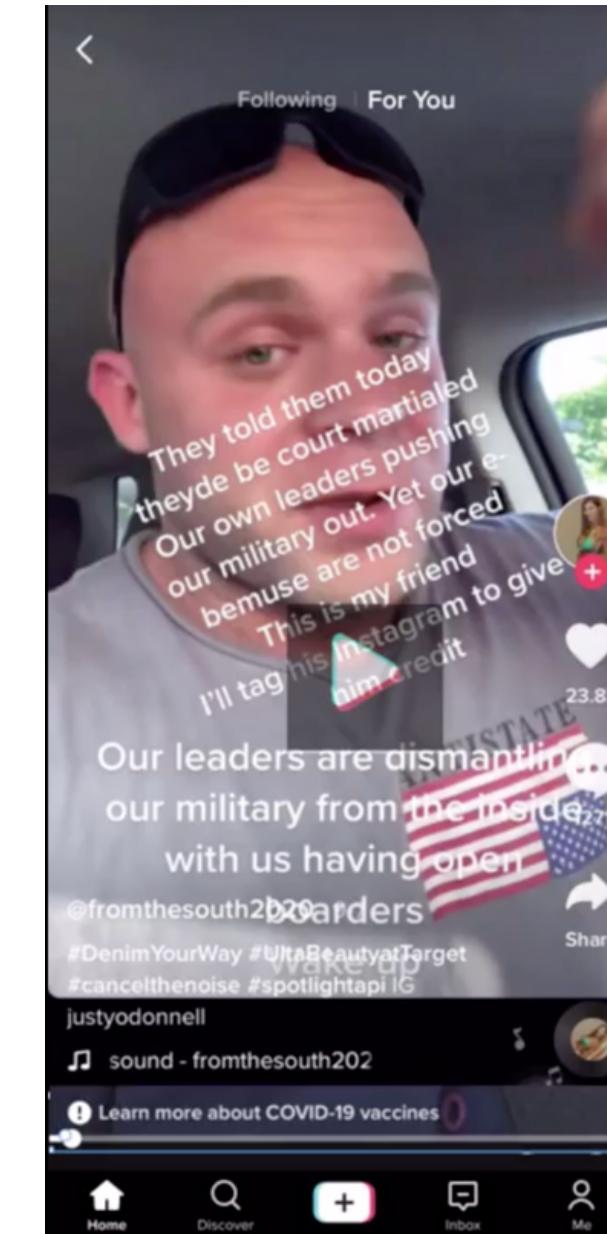
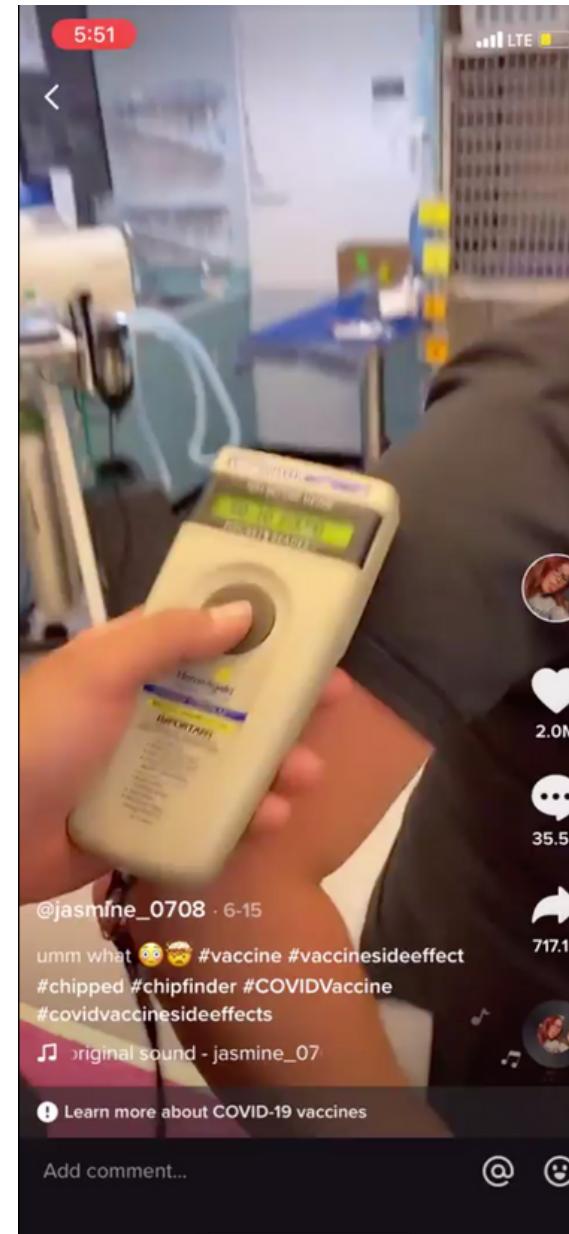
We came into our interviews with a prepared script and questions, but in order to get the most detailed information asking probing questions and going off script is best. View our interview protocol [here](#).

Goal was to test multiple warning features used by TikTok and Instagram to see if they are effective

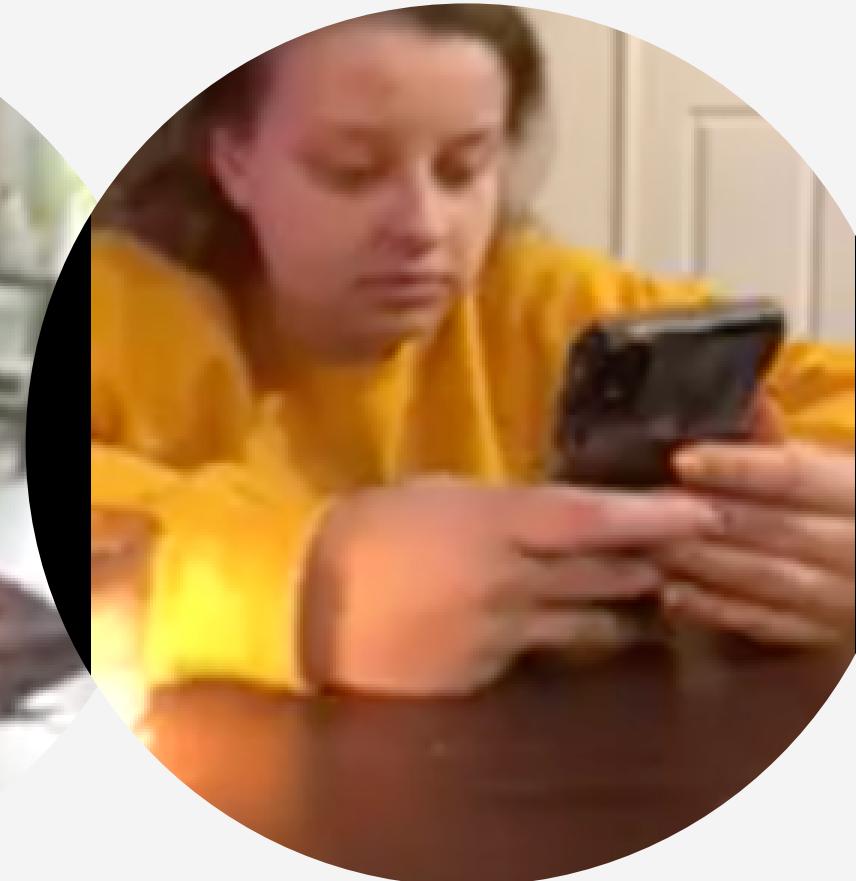
The questioning was focused around testing the misinformation warning features in TikTok including a tag and sharing warning. It also tested the warning features on Instagram including a block screen, misinformation tag, and sharing warning.

Photo/Video Elicitation

Screenshots from the videos presented to participants on both TikTok and Instagram, including the features being tested. For the full screen recordings of the videos click [here](#).



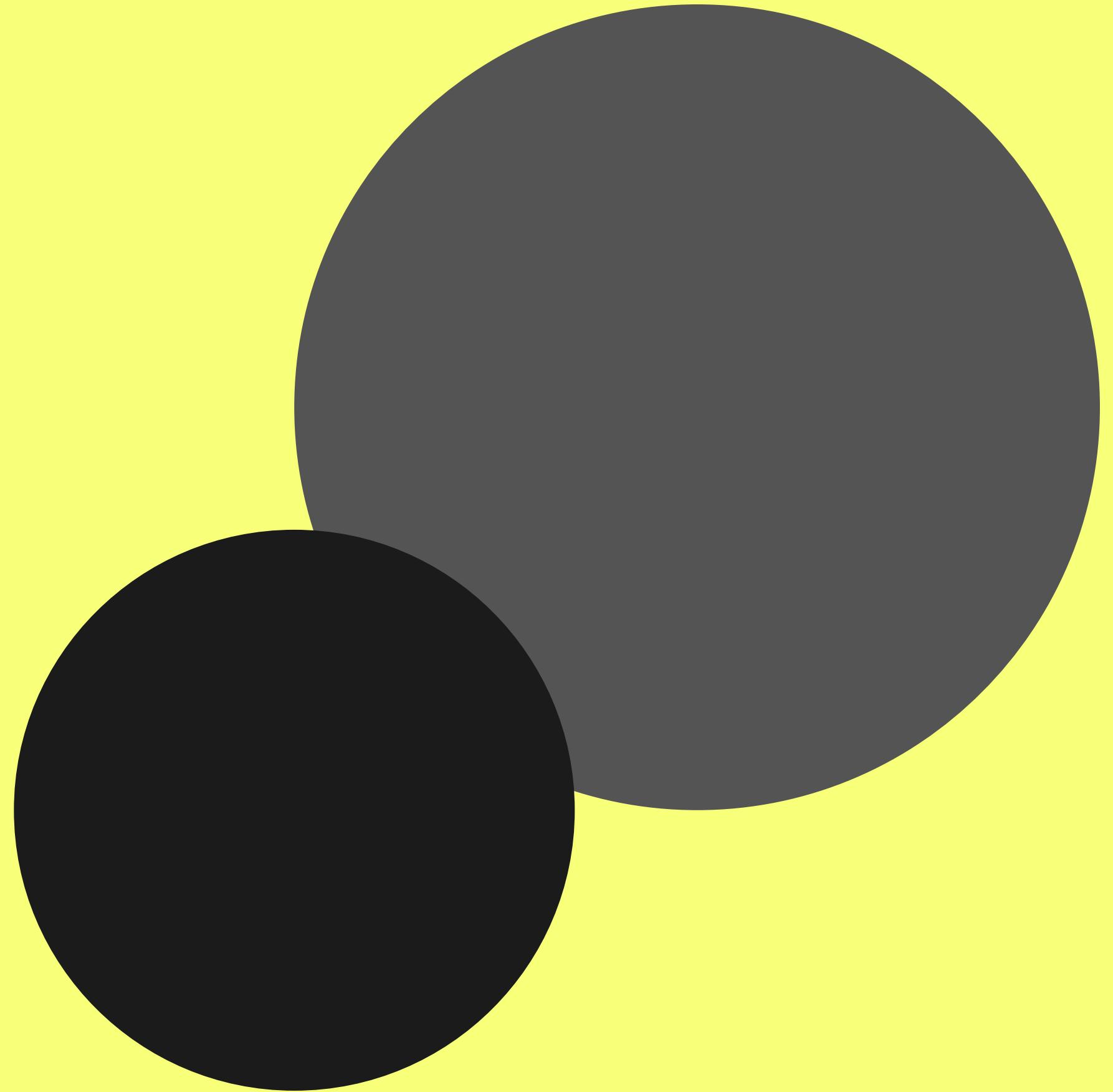
Think Aloud & Observations



We conducted "Think Aloud" activities where participants spoke about anything that comes to mind when first interacting with the information

- Participants interacted with four different misinformation videos, two on TikTok and two on Instagram.
- When they were first presented with the information, they were asked to "think aloud" about anything that came to mind while they watched the video and interacted with the app.
- While they did this, we recorded them through both video and audio as well as took detailed notes on things that they said and their behavior/body language.

Research Findings



Sample

Out of the four respondents I received from the screening survey, here are the demographics of the two people I interviewed from my sample:



19

Black Female

Biology Student at JMU

From a Suburban Community

Weak Democrat

Moderately Interested in News

Uses video sharing apps daily (TikTok, Instagram Reels, and Youtube Shorts)



20

White Female

Communication Sciences & Disorders Student at JMU

From a Suburban Community

Strong Democrat

Moderately Interested in News

Uses video sharing apps daily (TikTok and Instagram)

Data Collected

Collect Data in Multiple Formats

Audio & Video Recordings, Detailed Notes, & Typed Transcripts

In order to preserve the most data possible for the study, we collected it audio recordings of the entire interview, video recordings during think aloud activities, detailed notes, and typed up transcripts of the interviews.

Build Rapport

Additional Questions about Media Use & Beliefs

This is the first section of questions the participants answered. This part of the questioning seeks more information about their use of video sharing apps, their opinions on misinformation within them, and their belief in fact checking.

Think Aloud Activities

Participants Watch & Interact with Misinformation Video & say anything that Comes to Mind

This part of questioning had participants watch a misinformation video on TikTok and Instagram and interact with the misinformation warnings present on both apps. Videos were taken to analyze body language. This was conducted 4 times per interview, 2 times on TikTok, and 2 times on Instagram.

Follow up questions to Think Aloud

Gather Further Data & Feedback After these Activities

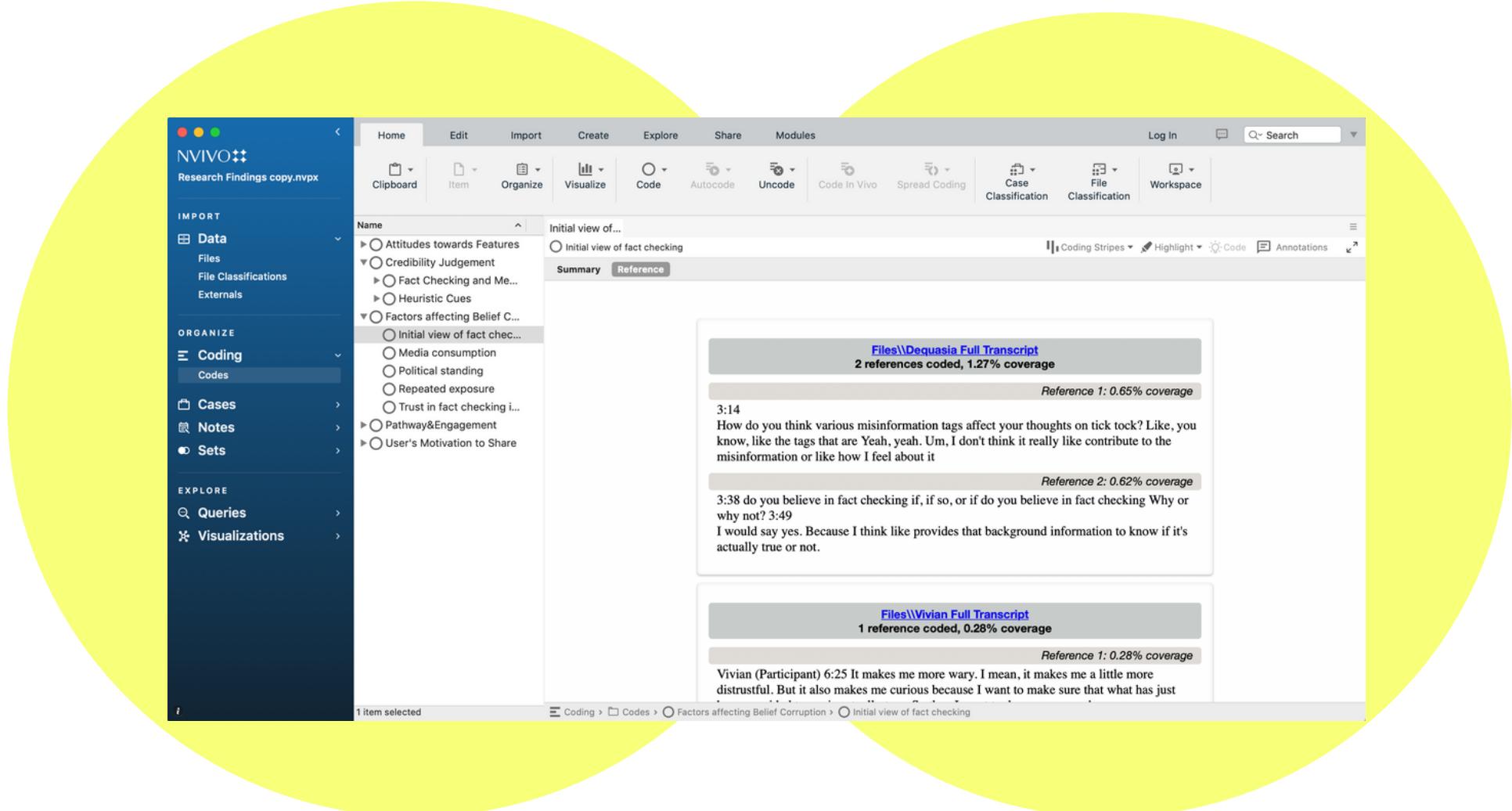
This round of questioning sought to learn how credible the participant believed this video was, how they interacted with it, and how they feel about the misinformation warnings present within the app. These were asked after every think aloud activity.

Post Session Questions

Gain any Further Insight & any Final Thoughts

This final round of questioning was conducted after all think aloud activities and follow up questioning. These questions asked about the most and least effective approaches to countering misinformation, what should be done differently, and how their opinions about the topic have changed.

Data Analysis Procedure



Use NVivo to analyze transcript data & notes

NVivo is a program that allows individuals to analyze and code qualitative data in order to find patterns and quantify it. In order to analyze the data, I uploaded transcripts and notes from both interviews and added codes to them.

Create code main categories & child codes within those

The parent categories used include attitudes towards features, credibility judgement, factors affecting belief corruption, pathway and engagement, and user's motivation to share.

Determine which category data should go under & assign child codes

When something notable was said within a transcript or notes, I determined which category it should go under. From there I would place that text within the child codes. Some text was applicable to multiple child codes and some just fit under one. I also looked for patterns between the two interviews through coding.

Findings

Pathway/Engagement

Participants had a general distrust when interacting with the videos

Because of their distrust of the videos, the pathway most commonly taken was to check the comments and see if the information presented was true when on TikTok. When on Instagram, the pathway most commonly taken to confirm if this was true were the fact checking features.

Credibility Judgement

Most common way credibility was determined was through warning designs

Some other common ways credibility was determined was through their pre-stance vs their post-stance, the sources used, the comment section, and social cues.

User's Motivation to Share

The main reason that participants would share is for entertainment purposes

Another common reason that they would share a misinformation video was to provoke discussion with friends and to demonstrate their political beliefs.

Attitudes Towards Fact Checking

The feature that was best overall was the fact checking feature on Instagram

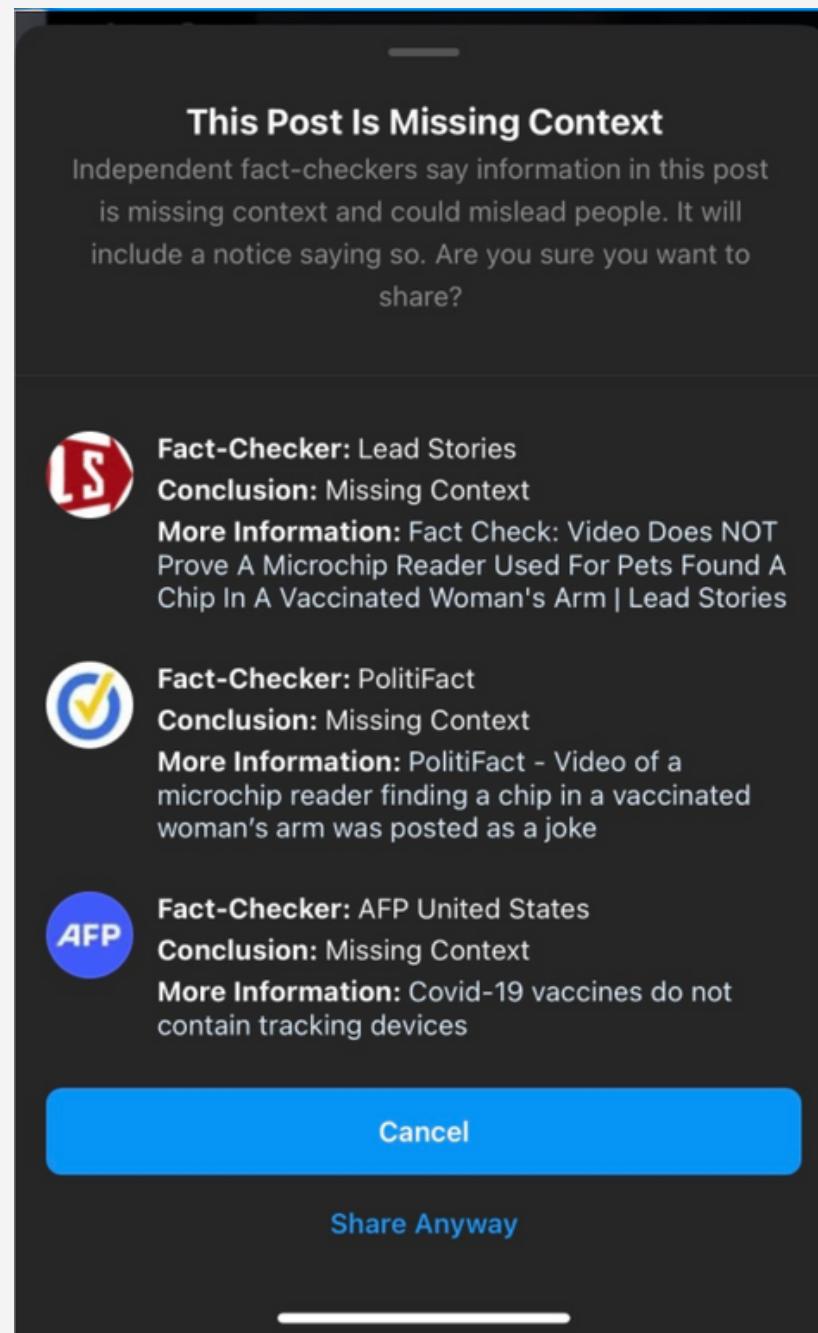
Participants agreed that citing sources and explaining why the information in the video was incorrect was the most effective and likable. They also thought that because this feature had red text that their eye was immediately drawn to it and they viewed it as a warning.

Behaviors & Attitudes Affecting Belief Corruption

The factor that most affected their belief was their initial view of fact checking

Some other factors that affected this was participants' media consumption, trust in fact checking institutions, and their political standing,

Themes



The most effective feature overall was the fact-checking warning on Instagram

Participants agree that this was the feature that caught their attention the easiest, was the most likable and effective, and convincing that the information in the video was false. They both said because the text was in red, this caught their attention and it seemed more urgent. The tag felt more like a warning and participants wanted to learn more since it was so attention catching. It also had detailed information about why the information was incorrect after clicking on the tag, which both participants agreed was important and helpful.

Quotes from Users:

- “The fact check because it was in red so it stuck out.”
- “I think the ones where it had colorful tags at the bottom so it looks different from the caption. It catches your attention and gives you that warning.”



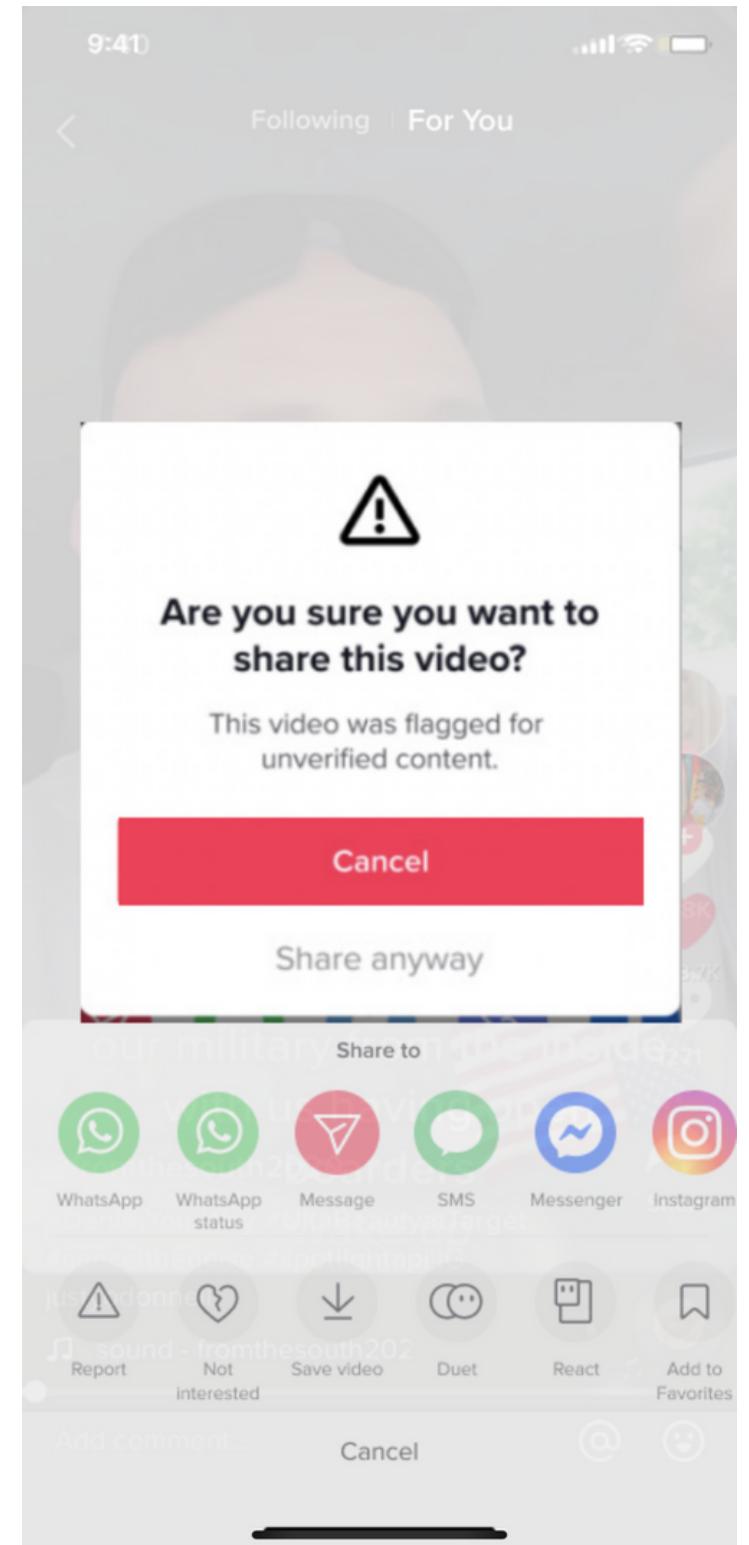
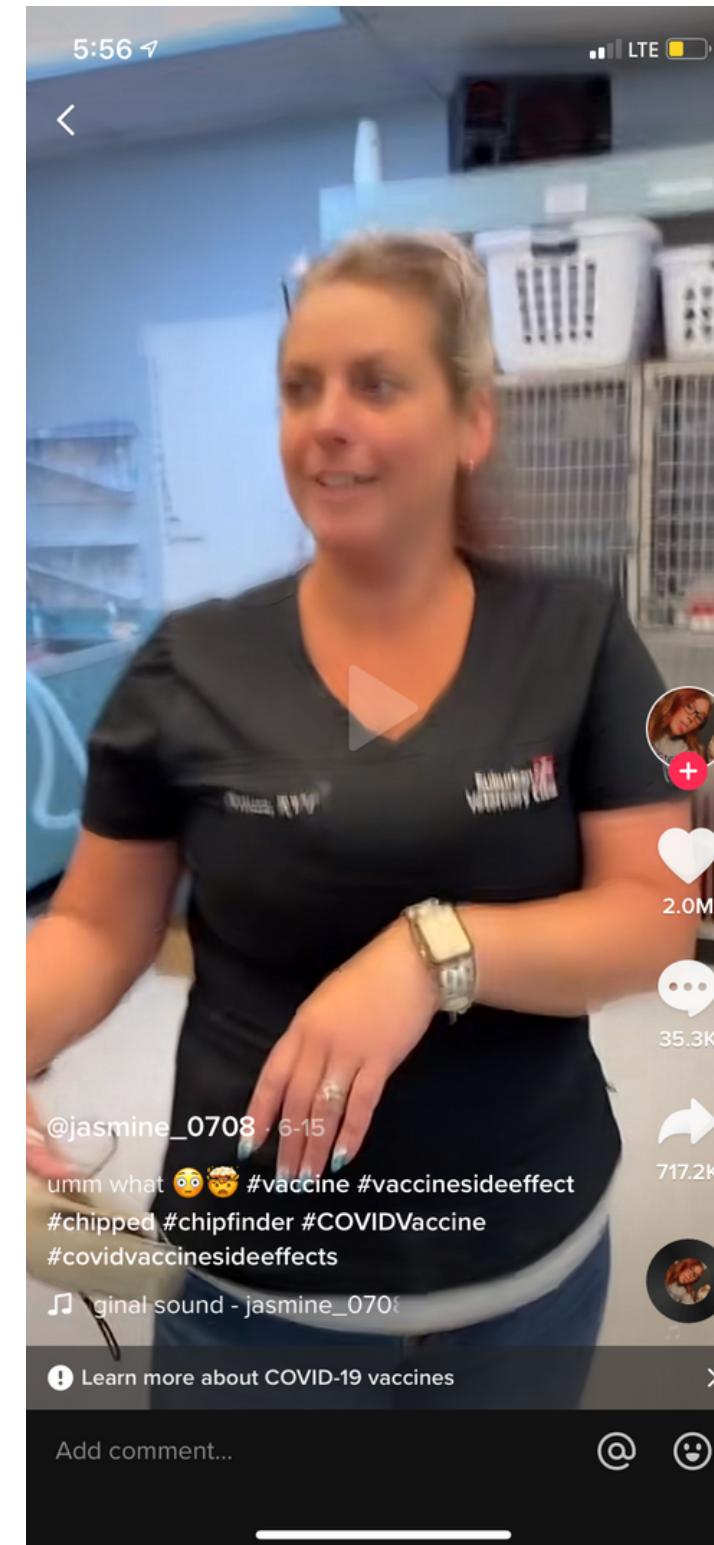
More Themes

The features that need the most improvement are the ones on TikTok.

The Instagram features all proved effective to users, especially the red warning tag. However, the ones on TikTok were not as effective. Participants said the tag at the bottom of the video on TikTok was beneficial, however, they wish it explained why there was misinformation present. They also believe that it blends into the navigation bar at the bottom and the video. They believe the sharing warning is beneficial as well, but it hidden within other features and difficult to find.

Quotes from Users:

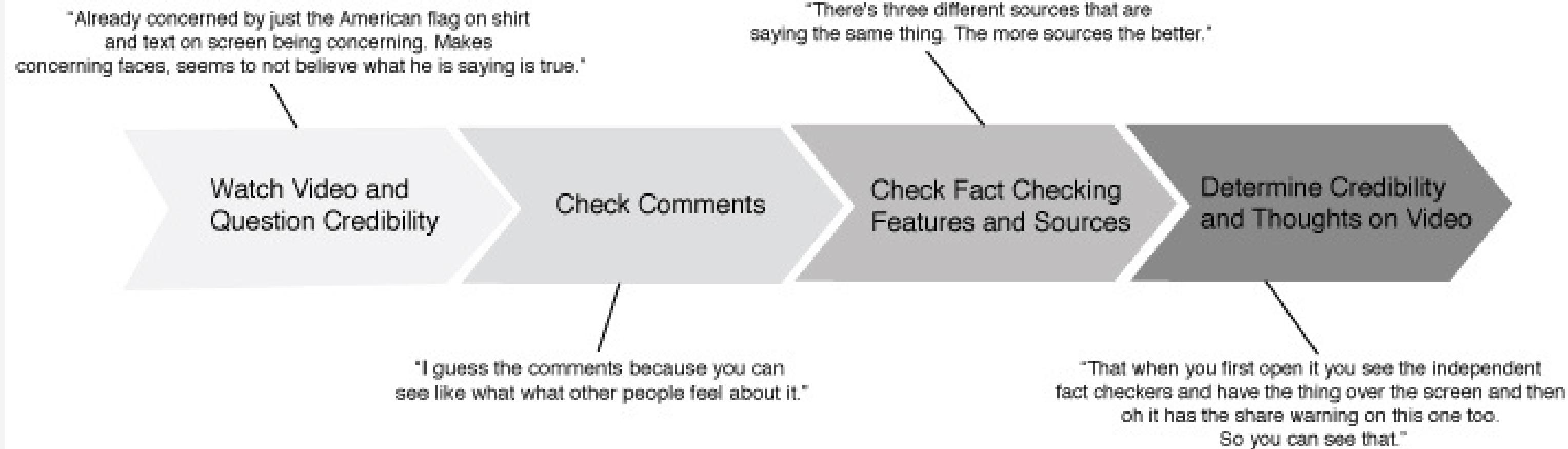
- "I don't think it's effective. I don't think people pay attention to it and actually want to learn more about it."
- "I think the TikTok one. Just putting the learn more about vaccines I don't think that's very effective."



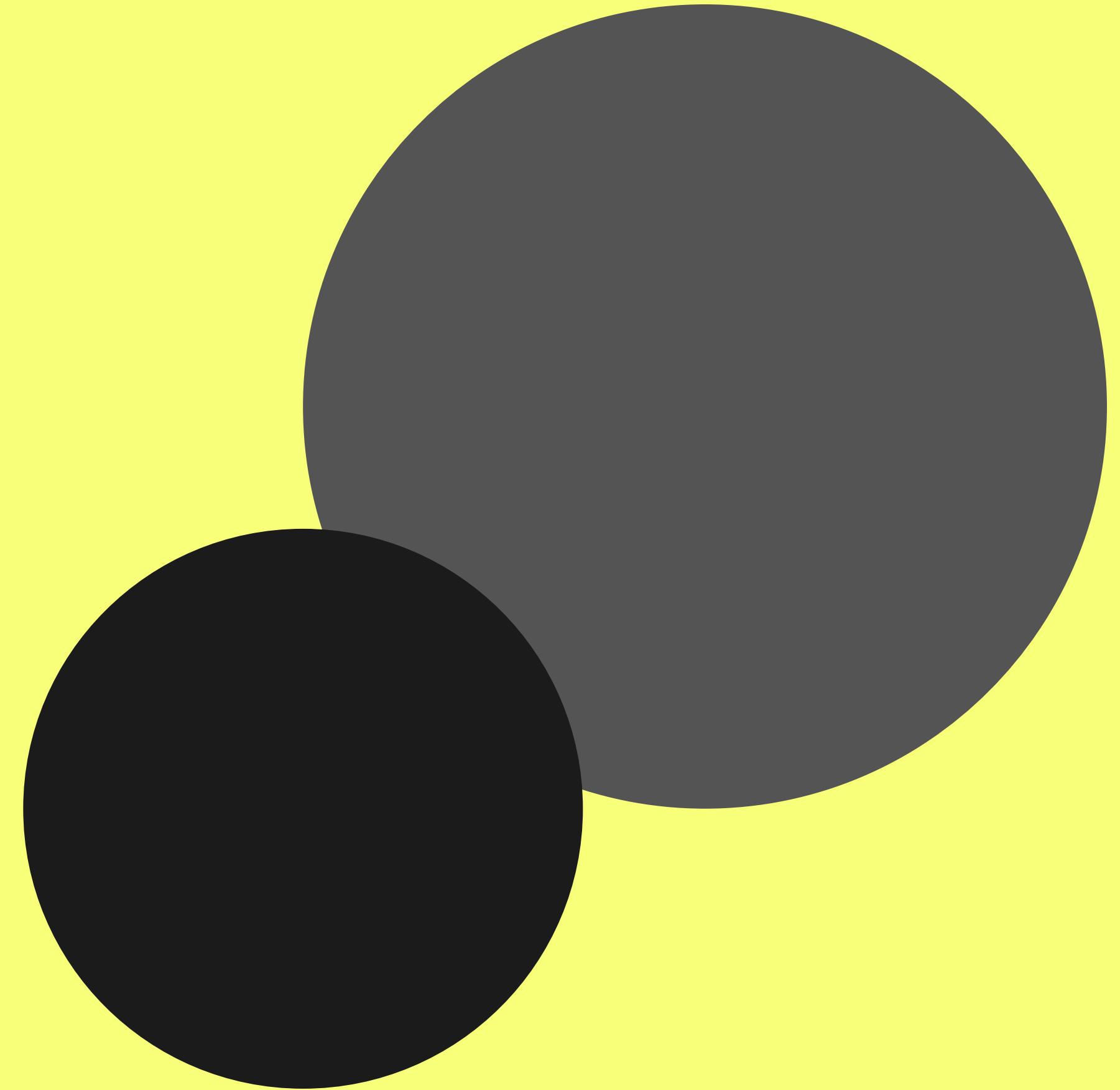
User Journey

Describes the average journey a user takes when interacting with misinformation post on TikTok or Instagram and includes quotes from those interviewed.

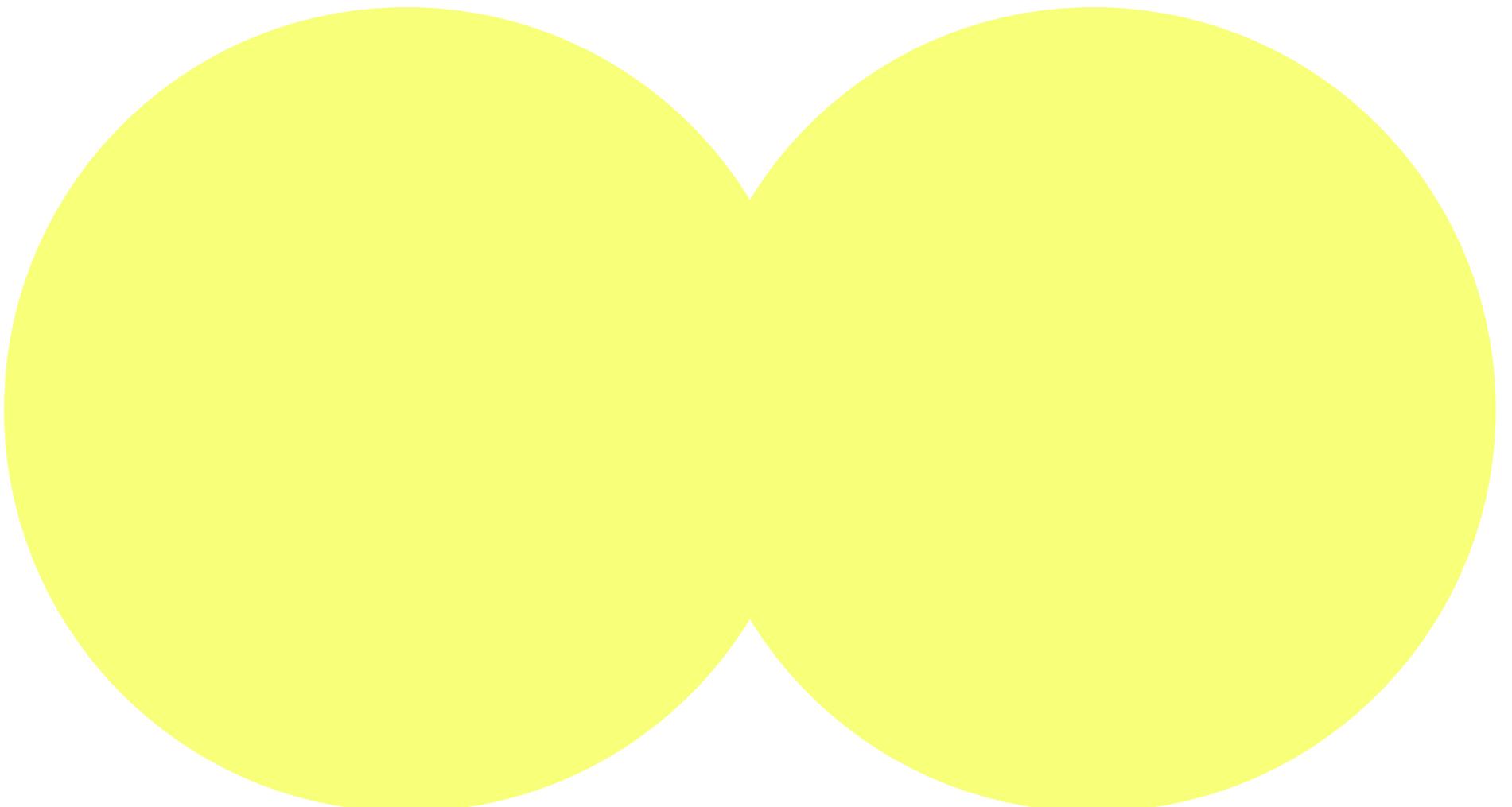
User Journey when Interacting with a Misinformation Post



Discussion



Meaning, Significance, & Implications



So what? Why is this important?

Misinformation is something that has increasingly become a bigger issue, especially on video sharing platforms. The features made to combat misinformation on TikTok and Instagram are relatively new and testing for effectiveness is important or else these features are useless.

Understanding that TikTok's features aren't very effective and Instagram's are is crucial and concerning information for these features

This means that TikTok needs to reevaluate the features they have and conduct further research to find ways to improve this issue.

This implies TikTok needs a redesign

TikTok may need to figure out some new designs or how to add to the designs they currently have for their misinformation warning features. Using Instagram as a guide for effective misinformation warning features may be helpful in creating a successful features on TikTok since the functions of both apps where these designs exist are relatively the same. In addition, adding more information and using fact checkers could help with this problem as well.

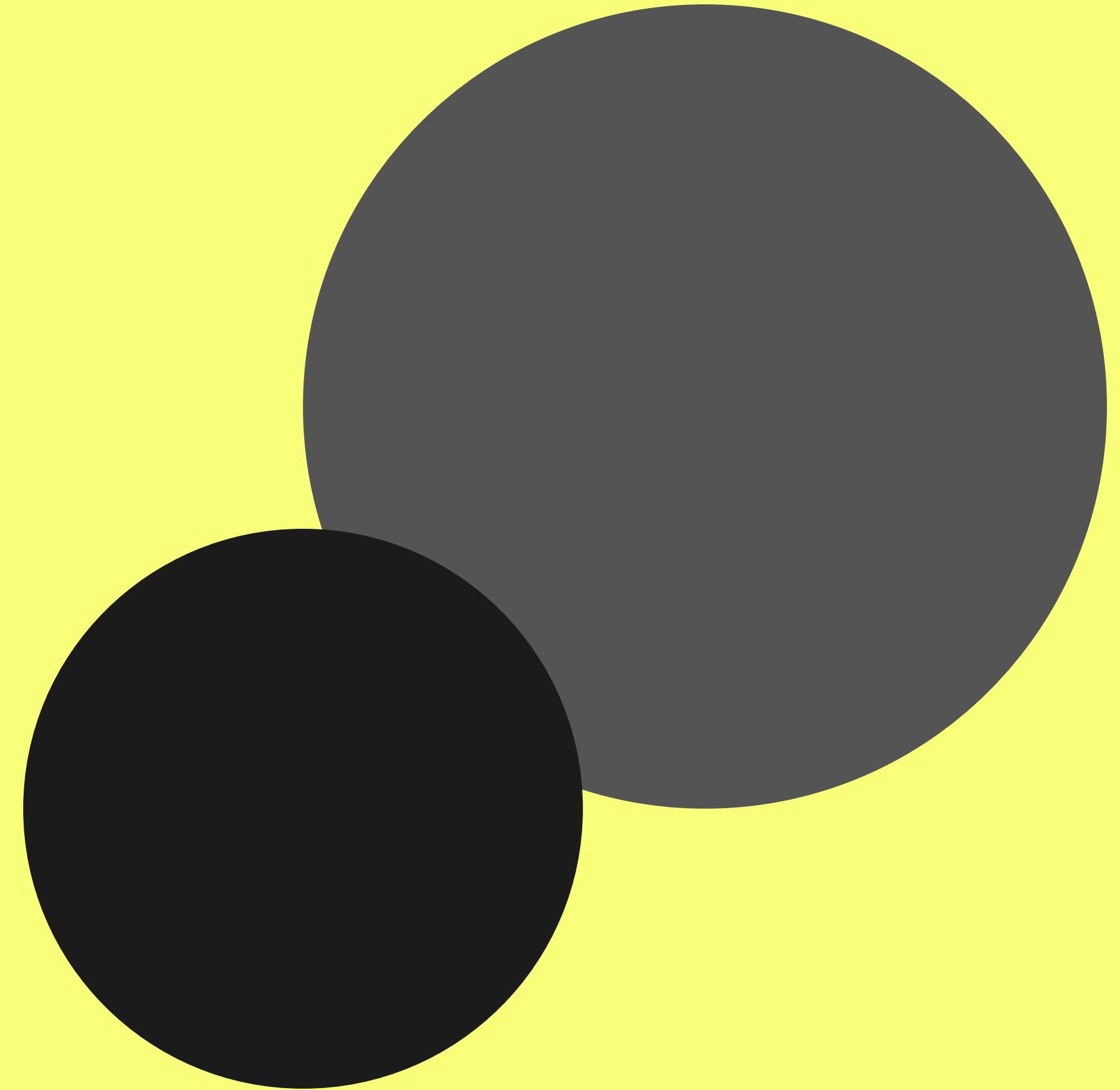
Limitations of Study

1. A limitation of this study was time.

This study was conducted over a few short weeks and had a sample of only 2 users. Gathering more data from more users could help with this.

2. Another limitation was the amount of participants I had. Conducting more interviews could help solidify the data collected and search for further solutions.

Conclusion



In Summary

This study tested misinformation warnings on video sharing platforms, TikTok and Instagram Reels. In order to collect this data, I recruited potential participants through a screener survey and selected two of them to interview. During the interview process they were asked information regarding their media habits, conducted think aloud activities, and followed up with series of questions. That data was then analyzed for patterns and conclusions about the effectiveness of these features were made from there.

Takeaway

While misinformation warnings and measures have relatively been effective, they need to be streamlined. Some of them are difficult to locate while others aren't that effective at all. This is important for the public as a whole and social media companies as misinformation continues to grow into a bigger issue on the internet.

Design Recommendations

Here are some of my ideas based on my user research for improvements that can be made to these features:

TikTok Features

Make them more urgent, easily accessible, and detailed

This can be accomplished by using a color scheme that includes reds. Citing fact checker sources within the tag and including more information about why this is misinformation will help as well. Making them more prevalent through color and not hiding features under multiple tabs will be a great first step in improving these.

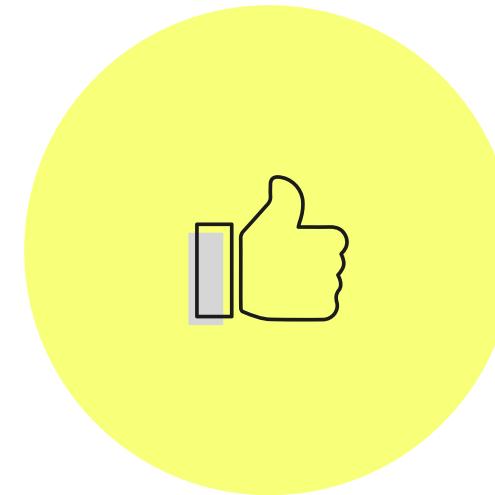
Since users often go to check the comments to determine the credibility, maybe including a feature in there that lets the user know this is misinformation could be helpful.

Instagram Features

Improve the block screen feature

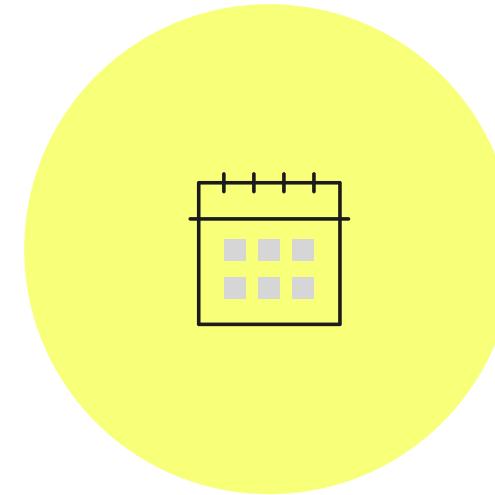
The block screen feature was the more disliked misinformation feature on Instagram. One thing that could be helpful is to include information about the fact checker tag here so that is the first thing that users see. Maybe then they will be more willing to learn more about why it is misinformation and why these features put in place are necessary.

Directions for Future Research



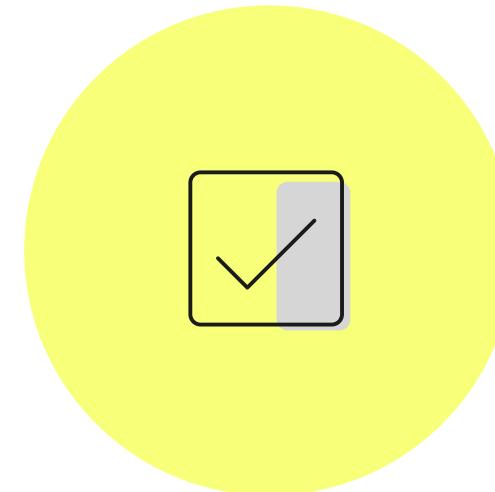
Test new designs for these features and focus on streamlining the design

Try out some of these suggestions and see if it makes the features more effective. Streamlining the designs of these features are crucial because they are relatively new.



Ask a lot of followup & probing questions

Participants have a difficult time elaborating and articulating their ideas and feelings about the features shown to them. Humanize the interview and ask them to explain the reasons behind their answers to gather the best data possible.



Look for any new features or suggestions that could be added

With the limited amount of features available on TikTok, this could be crucial

References

“Tiktok: How Behavioral Science Reduced the Spread of Misinformation.” Irrational Labs, 28 Mar. 2021, <https://irrationallabs.com/case-studies/tiktok-how-behavioral-science-reduced-the-spread-of-misinformation/>.

Yadav, Kamy. “Platform Interventions: How Social Media Counters Influence Operations.” Carnegie Endowment for International Peace, <https://carnegieendowment.org/2021/01/25/platform-interventions-how-social-media-counters-influence-operations-pub-83698>.

Appendix

Screening Survey:

<https://smad327screenersurvey.questionpro.com/>

Interview Protocol:

https://docs.google.com/document/d/1IDsAeBuQegO_ZaNdxCxGPT8b03_jXwEbMHRBvESh_ew/edit

User Interview & Observation Notes:

https://docs.google.com/document/d/1JRloUiouhNcJm_AtlPF6LYInY2wxQdycxLvj16WbmE8/edit?usp=sharing

<https://docs.google.com/document/d/1Zj1BCHo7ALZY4F7lOJ5oKCi5UjKJjXAKAb3heeOopxw/edit?usp=sharing>

Synthesis Resources:

View Codebook:

<https://docs.google.com/document/d/1vFbO7RvReSHsPEu9ZYLcEIFoXDJzsM3uMf1sSQK4k7o/edit?usp=sharing>

Data Analysis Notes:

<https://docs.google.com/document/d/1vmdwbZrbNRVJLtbRY1c89-ggrqmIxWpGql0ZnS28gs/edit?usp=sharing>