

# Investigating How University Students in the United States Encounter and Deal With Misinformation in Private WhatsApp Chats During COVID-19



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# Overview

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- Misinformation on WhatsApp is a unique sociotechnical challenge
- Studied how US university students responded to COVID-19 related misinformation in private WhatsApp chats

# Pandemic

# Infodemic

# Infodemic

*“Overabundance of information, both online and offline. It includes **deliberate attempts to disseminate wrong information** to undermine the public health response and advance alternative agendas of groups or individuals.”*

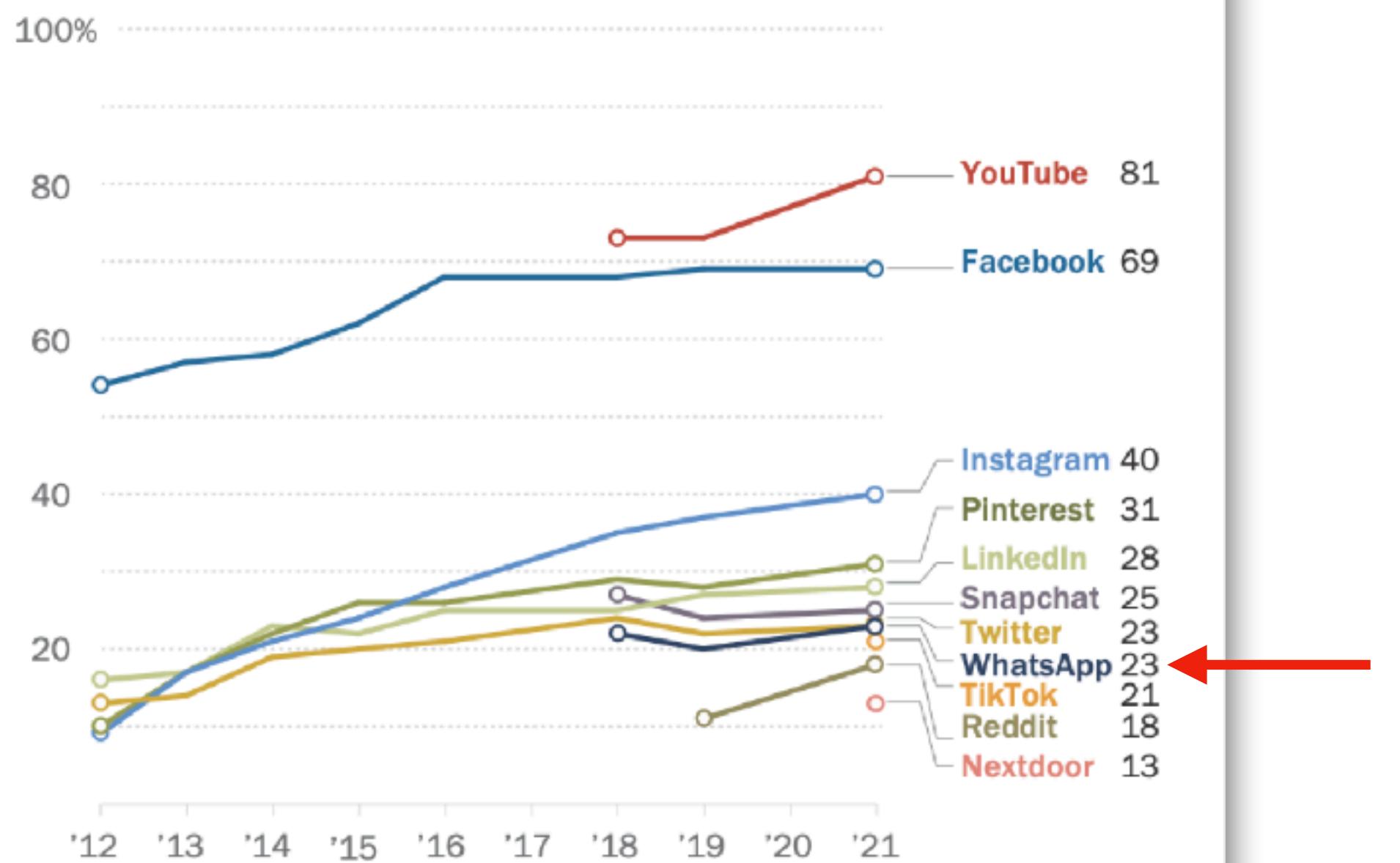
— World Health Organization (WHO)



Source: University of Washington magazine

**Growing share of Americans say they use YouTube;  
Facebook remains one of the most widely used online  
platforms among U.S. adults**

*% of U.S. adults who say they ever use ...*

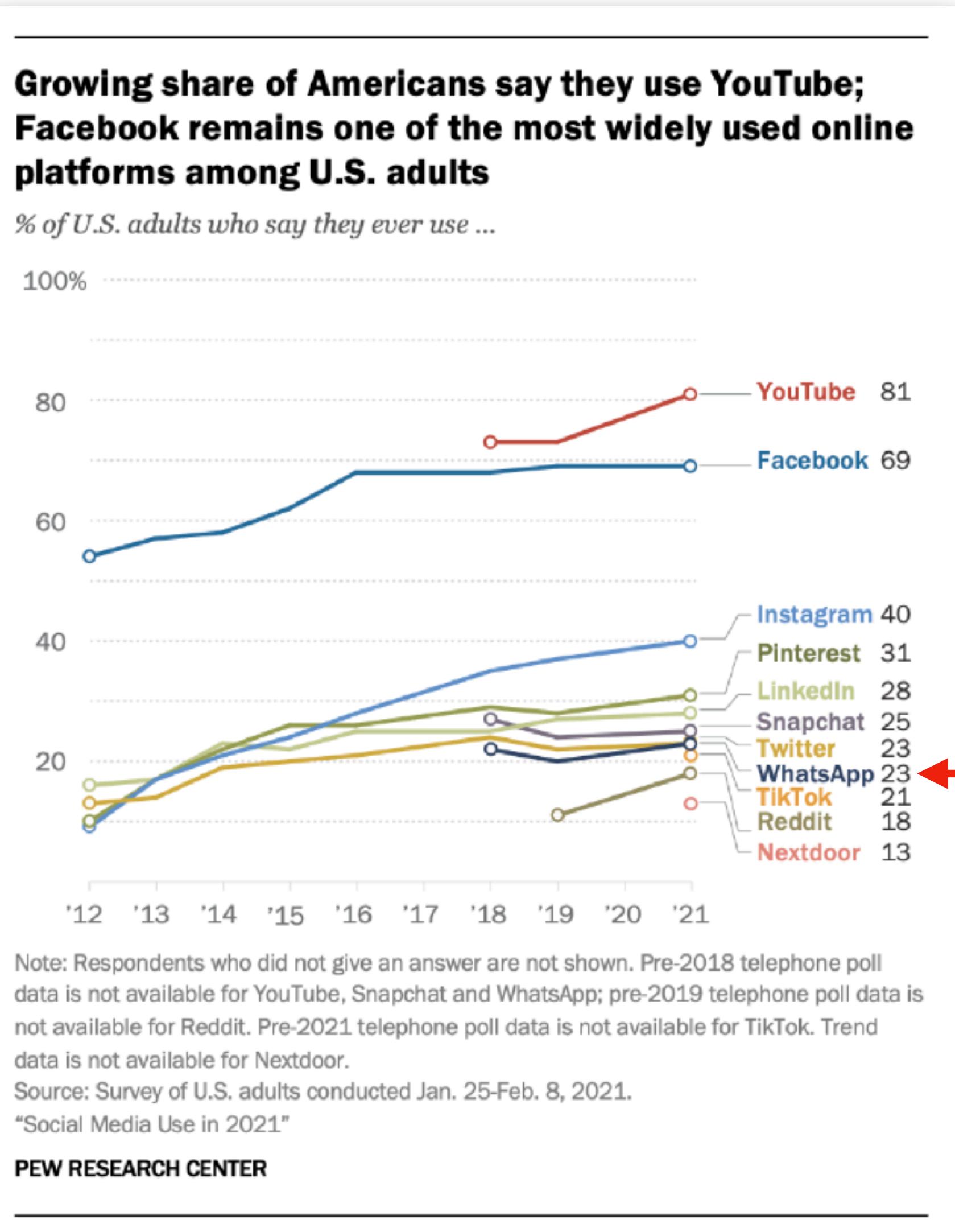


Note: Respondents who did not give an answer are not shown. Pre-2018 telephone poll data is not available for YouTube, Snapchat and WhatsApp; pre-2019 telephone poll data is not available for Reddit. Pre-2021 telephone poll data is not available for TikTok. Trend data is not available for Nextdoor.

Source: Survey of U.S. adults conducted Jan. 25-Feb. 8, 2021.

“Social Media Use in 2021”

PEW RESEARCH CENTER



The New York Times

PLAY THE CROSSWORD

STATE OF THE ART

## For Millions of Immigrants, a Common Language: WhatsApp

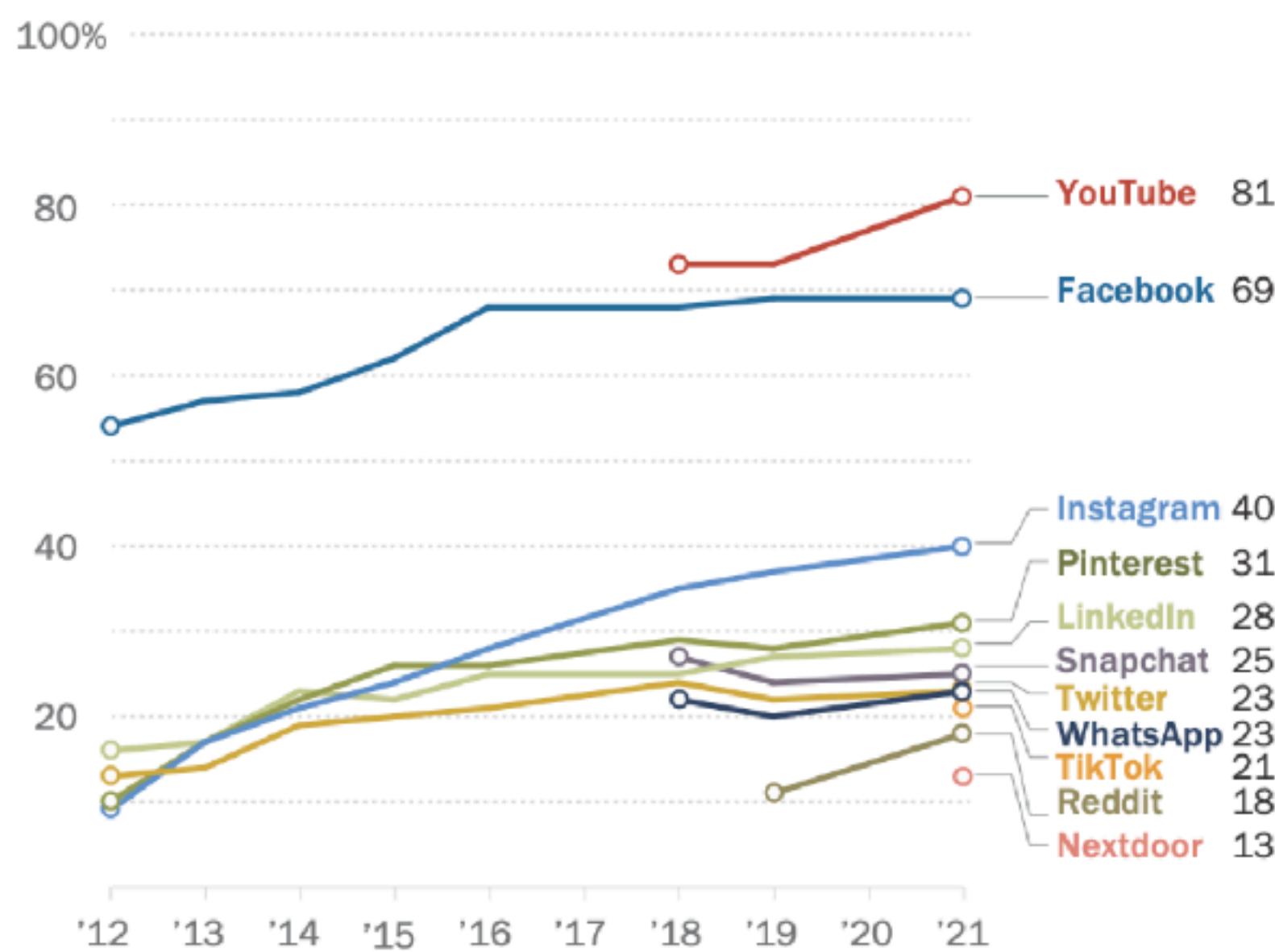
Give this article 2

More than a billion people regularly use WhatsApp, which lets users send text messages and make phone calls free over the internet. Doug Chayka

By Farhad Manjoo  
Dec. 21, 2016

## Growing share of Americans say they use YouTube; Facebook remains one of the most widely used online platforms among U.S. adults

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"Social Media Use in 2021"

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## STATE OF THE ART

### *For Millions of Immigrants, a Common Language: WhatsApp*

Give this article 2

For migrants who leave their homes out of desperation, WhatsApp offers another advantage that many other networks lack: It's secure. The app is encrypted, making it safe from government snoops. The company has also long been adamant about its



More than a billion people regularly use WhatsApp, which lets users send text messages and make phone calls free over the internet. Doug Chayka

By Farhad Manjoo

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## WhatsApp Monitor: A Fact-Checking System for WhatsApp

Philipe Melo<sup>1</sup>, Johnnatan Messias<sup>2</sup>, Gustavo Resende<sup>1</sup>,  
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## Countering Misinformation Via WhatsApp: Evidence from the COVID-19 Pandemic in Zimbabwe

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## WHATAPP AND NIGERIA'S 2019 ELECTIONS: MOBILISING THE PEOPLE, PROTECTING THE VOTE

### Authors:

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Idayat Hassan

(Centre for Democracy and Development),  
Dr Jonathan Fisher  
(University of Birmingham),  
Professor Nic Cheeseman  
(University of Birmingham)

## A Study of Misinformation in WhatsApp groups with a focus on the Brazilian Presidential Elections.

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## WhatsApp as a verification tool for fake news. The case of 'B de Bulo'

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## Analyzing Textual (Mis)Information Shared in WhatsApp Groups

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# What can we learn from qualitative explorations of misinformation in private WhatsApp chats during the COVID-19 pandemic?

# Study Overview

# Tailoring Our Focus

- Different experiences can come from different user demographics
- Focus on WhatsApp users in the US
- Focus on younger users (undergrad + graduate students)
  - Unreciprocated concern directed towards older family members, especially for COVID misinformation [Tandoc Jr. and Lee 2020]

## Study Overview

# Interviews to Understand Misinformation Encounters

- Semi-structured, virtual interviews with 16 university students in the US:
  - Age 18-34
  - 9 female, 7 male
  - Regularly use WhatsApp (multiple times a week)
- 3 topic categories:
  - General WhatsApp usage
  - Misinformation encounters
  - Fact-checking strategies + design recommendations

# Findings

# Findings

- Misinformation in private family/friends group chats is often spread from good intentions
- Intimacy in these group chats complicates users' willingness and ability to deal with misinformation
- Users see privacy and stringent content moderation as trade-offs on WhatsApp

## Findings

# Misinformation Spreads From Good Intentions

**Very easy to forward  
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**Mindset differences in senders & receivers**

*“She was more of the mindset that we should do whatever we can even if it’s not true [...] but she also didn’t consider it misinformation.” — P3*

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# Social Relationships in Groups Hinders Correction

## **Intimacy is attached to misinformation**

Users tend to trust those close to them, but also receive misinformation from the same people

*"I know [many] have their families in WhatsApp, and people tend to trust things that come from people close to you. So, I feel like it adds almost a level of genuineness to this misinformation, and then it causes people to panic, which I think is the biggest con [of using WhatsApp]."* — P6

# Social Relationships in Groups Hinders Correction

## **Correcting older relatives is often seen as disrespectful**

Older relatives are also ones who typically send misinformation

*“Just because they are **not as able to filter out fake news from real news**. I mean, obviously it’s presented in a more and more realistic way every single day and they just lap it up and believe in it, and also, **they are not as tech savvy** to be able to go and Google immediately and do a quick check on what’s actually happening” – P2*

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## **Misinformation is typically ignored rather than disputed**

Active disputes sometimes happened with those of a similar age range (e.g. siblings), or parents

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# Trade-off With Privacy and Security

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## Privacy-focused messaging should be clear

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The screenshot shows a GOV.UK page with a dark blue header containing the GOV.UK logo, a search bar, and navigation links for 'Topics' and 'Government activity'. Below the header, the URL 'Home > Society and culture > Online safety' is visible. The main content area has a light gray background. At the top left, there is a section titled 'Correspondence' with the heading 'Open letter to Mark Zuckerberg'. Below this, a paragraph states: 'The letter concerns Facebook's proposals to apply end-to-end encryption to all its messaging services.' At the bottom left, smaller text indicates the letter was 'From: Home Office and The Rt Hon Priti Patel MP', 'Published 4 October 2019', and 'Last updated 23 December 2019 — See all updates'. On the right side of the page, a large yellow callout box contains the following text: 'We are writing to request that Facebook does not proceed with its plan to implement end-to-end encryption across its messaging services without ensuring that there is no reduction to user safety and without including a means for lawful access to the content of communications to protect our citizens.'

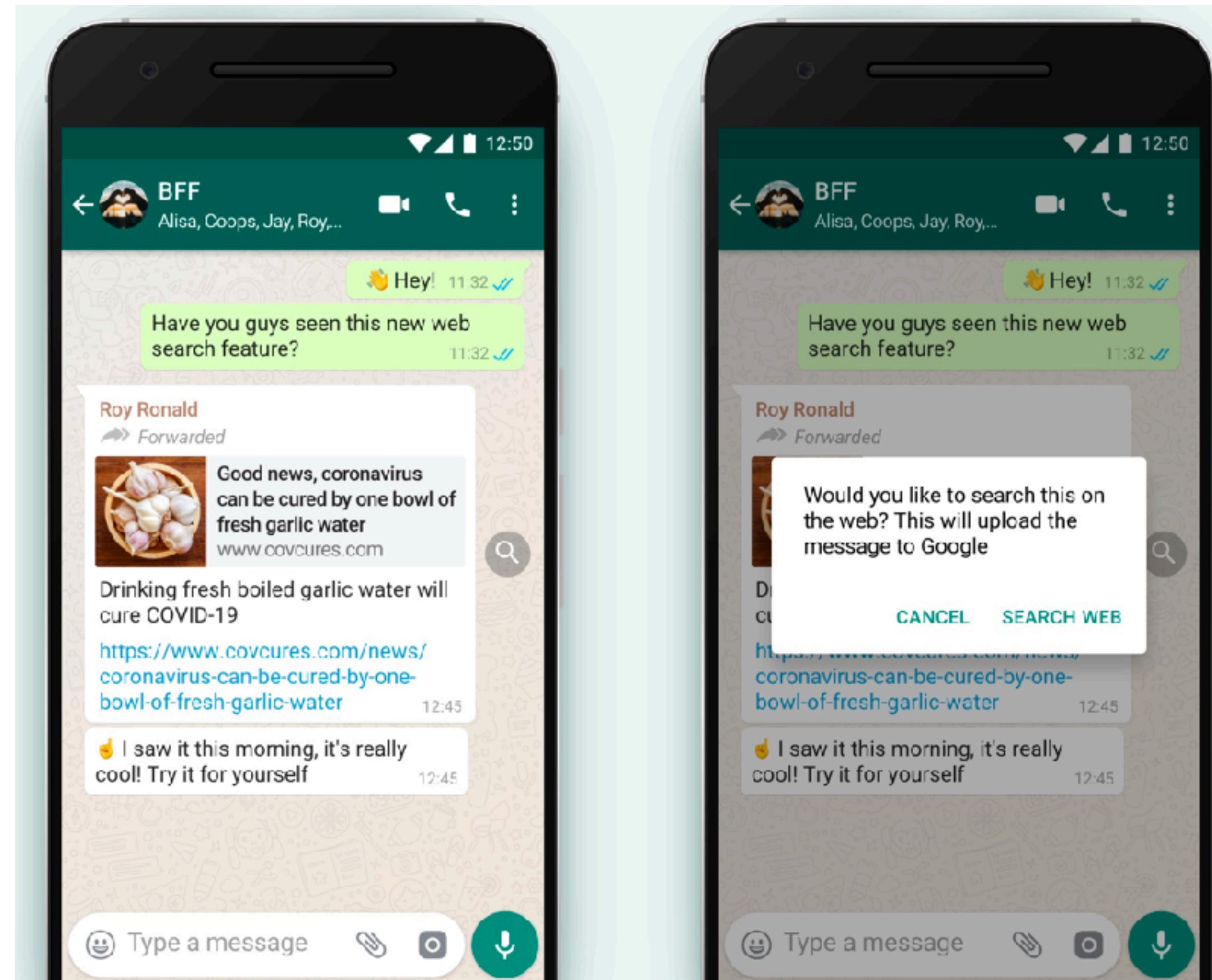
# Design Implications

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- Helping users deal with misinformation in ways that mitigate social power dynamics
- Empower the user to better fact-check or flag misinformation for themselves

# Design Implications—Mitigating Social Power Dynamics

## Selective Application of Fact Checker Icon



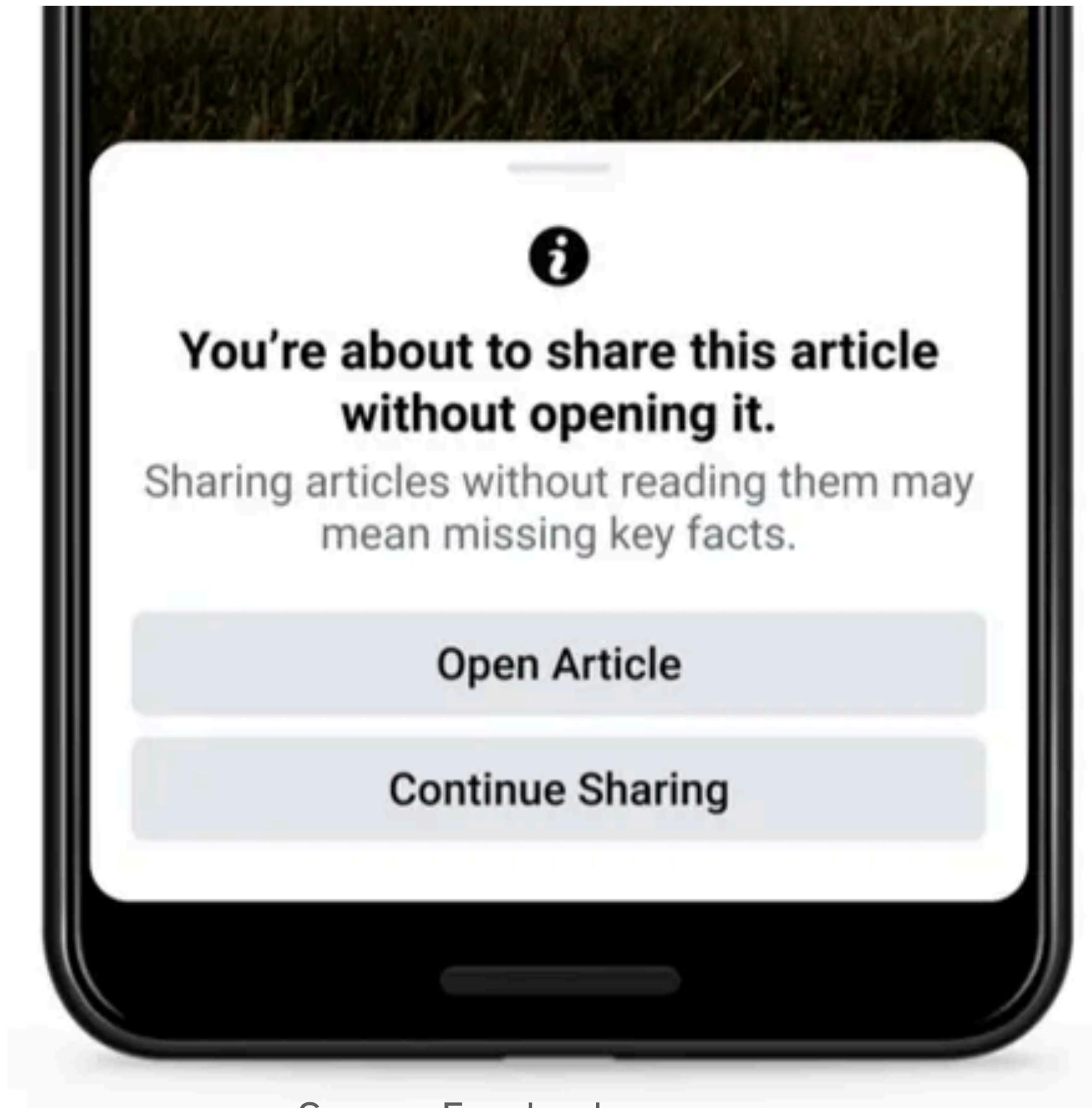
Source: WhatsApp blog

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## Design Implications—Empowering the User

# Add Friction When Sharing Unopened Links



Source: Facebook newsroom

# Summary

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- Misinformation in private WhatsApp groups can look very different than open social media platforms
- Social relationships and privacy commitments brings about challenges to misinformation management
- User empowerment and mitigating social power dynamics can be future design considerations

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Thanks!

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