Misinformation and Social Media as a Historical Process: Insights from the American Experience

James W. Cortada

Charles Babbage Institute

University of Minnesota

February 4, 2025

MEGATRENDS IN INFORMATION'S HISTORY

Five key patterns of behavior in dissemination of inaccurate information have existed since the 1700s.

- Misinformation, lies, conspiracy theories, propaganda, falsehoods & accidental errors have been part of all information ecosystems

- Every new ICT was immediately used to disseminate such information

- The more unregulated flow of facts, the more these patterns were & are true

- The richer an economy the more this is the reality

- Social media largely reflects earlier patterns of behavior —just more widespread today

These behaviors were remarkably similar over time

3

Historical perspectives facilitate understanding the role of social media & all manner of information in the shaping & behavior of American society.

- Did President Jefferson sleep with a slave in early 1800s?

- Yes, and had 6 children by her

- Was President Lincoln assassinated by Canadians? J. F. Kennedy by the Russians, or Castro?

- No, he was killed by one assassin & several collaborators; No one man

- Are COVID vaccines harmful?

- No, but 230,000 died in USA believing this untruth

- Is global warming not happening?

- No, but USA is the only country to deny it

Information experts want to know if behaviors are the same over time, change, if so how—Turns out more is the same than different

First Observation: Groups that are rivals use every information communication tool available, always simultaneously.

- 1700s-Present: Print media, especially newspapers before 1900—books & magazines always

- 1840s-1960s: Telegraph, telephones and electricity

- 1920s-Present: Radio (1920s), then Television (1950s)

- 1960s-Present: Computer generated information

- Internet-Present (1990s)--PCs with modems

- Social Media-Present (1990s)—PCs, tablets smartphones (2007)

Users and readers learn from each other

Second Observation: Personal information handling methods were applied.

- Americans had some of the highest literacy rates in the world since the 1600s; so, read books, pamphlets & newspapers—consuming published information

- Schools taught myths, facts, & use of print, later electronic media

- US economy made affordable information

- US created information management practices:
  - Library cataloging systems
  - Professions and academic disciplines
  - Exploited use of electricity, telegraphy, computing, creation of the Internet

So became used to consulting organized information

Third observation: Historians began to study ICTs, but then information itself. I did too & as did others around the world.

The topic was so big that one could not limit their reporting to a few articles or to one book!
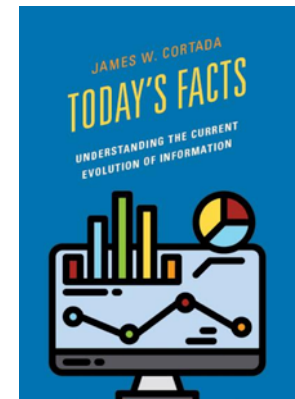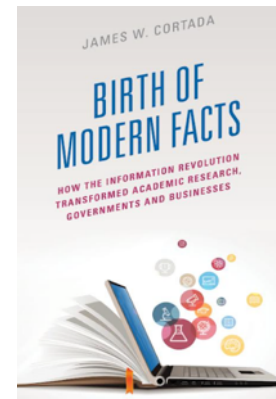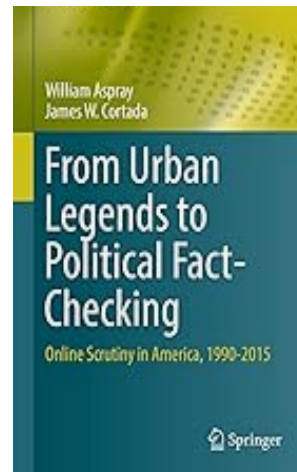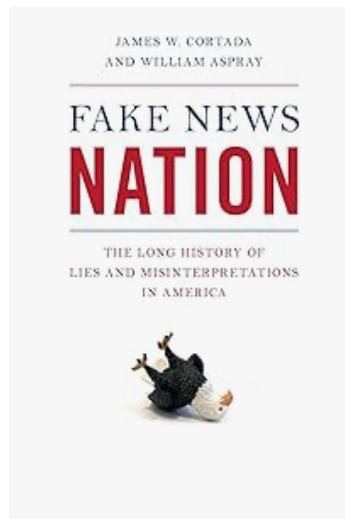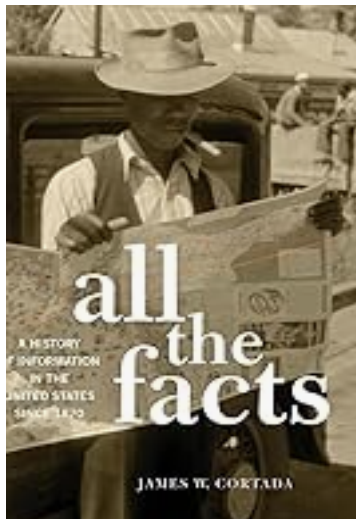
Scholars in dozens of disciplines study it & find the topic vast & complicated—even biologists and brain scientists

Fourth observation: Information experts are documenting common behaviors.

- Everyone lies
- Everyone practices some 100 possible biases
- Facts & lies are socially constructed realities
- Colleagues & I uncovered 5 behaviors:
  - All participants in our case studies **used information** as their **primary tool** for accomplishing their objectives
  - All information was **presented in the rhetorical style** of its day
  - Most everyone **weaponizes** information
  - **All organizations** of any size **did & do too**
  - **Impact** of individuals on accuracy **declined** over time

The more they explored the more complicated their topic became

# MEGATRENDS IN U.S. USE OF INTERNET, SOCIAL MEDIA & PRESENCE OF FAKE FACTS

Pew Research Center has reported about U.S. Internet use for decades. Social media is a central concern.

"As recently as 1995, 42 percent of American adults said they had never heard of the Internet. Today, use of the Internet is pervasive at home, work, and on mobile devices." Today: 70.1% use it = 239 M. people.

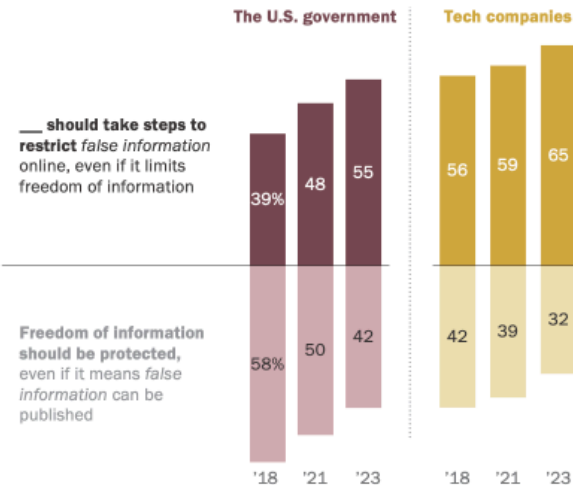**Almost 4 in 10 U.S. adults under 30 get news from news influencers**

% of U.S. adults who regularly get news from news influencers on social media

All U.S. adults	21%
Ages 18-29	37
30-49	26
50-64	15
65+	7
Rep/Lean Rep	21
Dem/Lean Dem	22
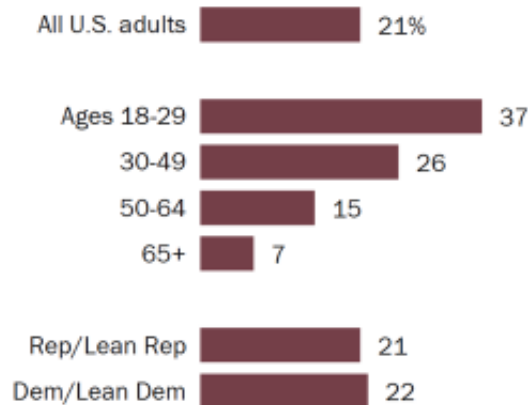
Source: Survey of U.S. adults conducted July 15-Aug. 4, 2024.
"America's News Influencers"

PEW-KNIGHT INITIATIVE

Support for the U.S. government and tech companies restricting false information online has risen steadily in recent years

% of U.S. adults who say ...

The U.S. government | Tech companies

___ should take steps to **restrict** *false information* online, even if it limits freedom of information

	The U.S. government			Tech companies		
	'18	'21	'23	'18	'21	'23
restrict	39%	48	55	56	59	65
Freedom of information should be protected, even if it means *false information* can be published	58%	50	42	42	39	32

Note: Respondents who did not answer are not shown.
Source: Survey of U.S. adults conducted June 5-11, 2023.

PEW RESEARCH CENTER

10

Americans have long used the Internet for many uses, not just to create and distribute false information.

1. Social engagement (e.g, Facebook, TikTok, X)
2. Email communications (e.g., Gmail, employer systems)
3. Research on such topics as medical issues, employment opportunities, gaming, entertainment
4. Online purchases of *everything*
5. Limits on how young a user barely unregulated
6. All organizations felt the need to have a Web presence since around 2000
7. Display an appetite to share news, questionable facts, to socialize

How many fake facts are out there in social media? Well anywhere?

- President Trump made over 19,000 false or misleading comments in 1,170 days. *Washington Post* April 14, 2020
- 1,000 "predatory journals" operated in 2013, 13,000 journals in 2023. *The Economist* May 30, 2020.
- Russian Internet Research Agency reported injecting massive quantities of fake facts through European and US Internet social services.
- Hundreds of thousands of fake Internet sites also continuously reported by academics, government agencies, news media.
- And then there was the U.S. 2020 "corrupt" election and much about the Ukranian war.
- This is a problem: "It is not clear that new generations will be able to distinguish trustworthy knowledge from misinformation." Marcum & Schonfeld, *Along Came Google* (2021)

The problem is that we do not know quantity of fake facts & misinformation flow through social media—just that it is a great deal from inventors of it & from public statements that enter into it.

Several types of falsehoods have flowed through social media that have been around, also, for 200+ years

- **Political untruths** from slander in 1800 to Trump giving people nicknames (eg "Sleepy Joe" for President Biden)
- **Misrepresentations of a product**, usually called false advertising, especially for medicines, bleach to cure COVID
- **Issue based misrepresentations** such as propaganda, press releases, pseudoscientific reports, such as about cigarettes or global warming
- **Russians** altering **American election results** in 2020, 2022
- **Rumors** of slave revolts, corporate sackings, Haitians eating dogs and cats in Ohio

Reminder: It seems "everyone" & most organizations have been involved one way or another. It is difficult to say who was not involved.

In the USA, the public's ability to discriminate between truth and falsehoods deteriorated with the arrival of social media. Why? Research findings so far . . .

- Fake content is presented graphically like actual trusted sources 📖 📺 ☎️ 🤑 😇 🤮 😬

- Everyone started to use social media without thinking it would be misleading—naiveté 🤷‍♀️

- Children & adults received little or no formal training in how to scrutinize facts 🎓 🏋️

- They migrated to sources that reinforced prior beliefs—echo chamber phenomenon 🛗 ✈️

- Sought approval for posting content 👍

This happened so fast before we knew the dangers

Social media facilitates flow of misinformation & other untruths for reasons unique to modern times.

- ✓ It is fast—one can post something on social media & it becomes instantly available around the world to "everyone."
- ✓ It is easy to use—click on a social media site & "Like" something, repost it, or just type whatever.
- ✓ There is minimal vetting—you do not have to be credentialed or be a recognized expert to opine on anything.
- ✓ There is no incremental cost beyond whatever technology one is using, (e.g., smartphone)
- ✓ There is no punishment or accountability for posting rubbish.
- ✓ One can also be anonymous.
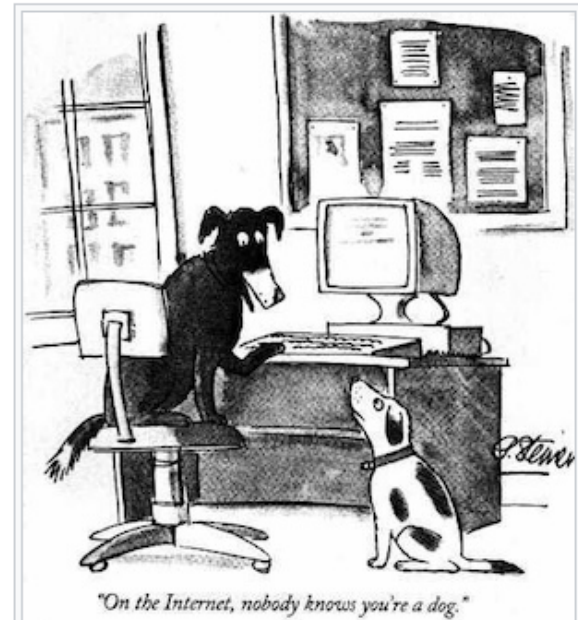
"On the Internet, nobody knows you're a dog."

Peter Steiner's 1993 cartoon, as published in *The New Yorker*

POSSIBLE RESPONSES TO SOCIAL MEDIA DIFFUSION OF MISINFORMATION & LIES

What can we do to reduce fake, misleading & harmful information? First, understand the challenges.

➤ Users cannot tell the difference between truth & lies.

➤ Teachers & professors do not know how to teach

  the literacy needed or are not allowed to do so.

➤ Legislators & regulators, too, also do not know how

  to regulate it, or do not have the appetite to do so.

➤ Public shows concern for falsehoods, but embrace much of what they see in social media feeds from friends & like-minded organizations.

➤ Falsehoods can easily hide in social media.

➤ There is little or no accountability for trafficking in falsehoods.

➤ Only dictatorships aspire to control fake (or other news), not democracies which value free speech & open flow of facts.

As awareness grows, so too appetite to address these problems, especially in Europe, Australia and North America, beginning largely regarding children.

Science & technology | Digital detoxes

What is screen time doing to children?

Demands grow to restrict young people's access to phones and social media

Teenagers tell me that some restrictions would be useful, but that they would get around these. Australia just ordered social media companies to find a way to block such behavior. Parents around the world wonder. Hmm?

18

As societies, nations, & individuals continue to use the Internet & social media, we need to confront several issues. Getting tactical & specific about social media:

- Problem of organizations facilitating spread of misinformation using social media & other platforms

- News media fighting false information, fact-checking organizations (e.g., snopes, FactCheck.org) need help

- Problem of adults & teenagers not able to differentiate factual from falsehoods/misinformation is extensive

- Vast numbers of individuals need to learn critical thinking skills, just as they need to know basic mathematics, use of PCs, literacy

- American experience suggests much that is fake can be flushed out, but that other misinformation comes into all corners of the Internet, not just in social media

AND TO CONTINUE THE DISCUSSION . . .

On how to stay current on social media developments in the USA because social media issue will remain for many years, possibly decades.

Pew Research Center
https://www.pewtrusts.org/en/topics/internet-and-tech
Has studied the Internet since the 1990s, has hundreds of reports, continuously publishes on users, topics, issues

Institute of Electrical & Electronics Engineers (IEEE)
https://www.ieee.org/about/index.html
IEEE magazines: *Computer*, *ComputingEdge*, *IEEE Spectrum*
Major sources for ICT trends, news, technologies, both technical and for lay readers

Statista
https://www.statista.com/search/?q=social+media&p=1
Vast quantities of statistics on all manner of issues & trends, US & global

. . . And on a personal basis—Thank You for listening to my comments.

- My current research involves false/fake information (including in social media)

- Nature & use of explicit & tacit knowledge

- Reach me at jcortada@umn.edu

- There is much more that
  we have to learn about
  information & its relations
  with ICTs from *each other*.