

## Misinformation: Why it may not necessarily lead to bad behavior

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Credit: AI-generated image (disclaimer)

"So far as the influence of the newspaper upon the mind and morals of the people is concerned, there can be no rational doubt that the telegraph has caused vast injury." So <u>said the The New York Times</u> in 1858, when the transatlantic cable linking North America and Europe was completed.



The telegraph was assumed to be a means of spreading propaganda that would destabilize society. It was also seen as <u>a vehicle used to disconnect</u> <u>people</u> from the <u>real world</u> by introducing false ideas in their heads. Today, we might dismiss this as an irrational fear—a <u>moral panic</u>.

Go back further and there are examples of questionable information recorded and disseminated via information technologies available to the ancients—<u>in clay, stone and papyrus</u>. Fast forward to today, and the exact same concern exists around social media. So are we overreacting? We have <u>interrogated the evidence</u> suggesting that <u>misinformation</u> leads to bad beliefs and behavior and found we might be.

The concern about misinformation is certainly growing. If you type "misinformation" into an academic search engine, you get about 100,000 hits between 1970 and 2015. In the past seven years alone, there are over 150,000 hits.

In <u>Sweden</u>, <u>Australia</u>, <u>Canada</u>, the <u>United Kingdom</u>, the <u>United States</u>, <u>European Union</u>, <u>World Health Organization</u> and the <u>United Nations</u>, there is intense research on the topic. This is linked to the introduction of laws, bills, task forces and units to block the spread of the misinformation virus. It seems the consensus is that misinformation is a problem, and a big one.

What drives this consensus? When we reviewed the research <u>across a</u> <u>number of different disciplines</u>—including sociology, psychology computer science, philosophy and media studies—we found the finger pointing at the evolution of the internet. The advent of social media has turned passive consumers of information into active producers and distributors. The result is unchecked and uncontrolled information that may boost beliefs in false claims.

This research suggests misinformation may lead to increased distrust in



news media and governments or increased illiberal political behaviors, such as violent attacks on ethnic groups. Or that it may destabilize economic behaviors. After all, Pepsi's stock <u>fell by about 4%</u> because a <u>fake story went viral</u> about their CEO, Indra Nooyi, allegedly telling Trump supporters to "take their business elsewhere".

Yet, the presumed relationship between social media and such social unrest is frequently based on tacit assumptions, not direct empirical evidence. These assumptions commonly take the form of a causal chain, which goes like this: misinformation  $\rightarrow$  bad beliefs  $\rightarrow$  bad behavior.

Such an over simplistic causal relationship between beliefs and behavior has been questioned in both <u>philosophy</u> and <u>psychology</u>. In reality, there's a <u>dynamic relationship between belief and behavior</u>—each can fuel the other in complex ways.

In principle, people should be capable of assessing the quality of information and its source. After all, we have been dealing with lies and inaccuracies for millennia. And although advertisers can sometimes trick us, there's no perfect model of how a particular communication channel with particular content can establish beliefs that will spur people to action on a large scale.

## **Blind spots in research**

Just because a lot of researchers agree that there is an infodemic that is causing societal ills—distrust in institutions, for example—doesn't mean that the issue is settled or that the evidence is secure. By combining a historical and psychological perspective, we discovered blind spots in this reasoning.

The causal chain described requires that we all agree on what misinformation is—and that this doesn't change over time. But what



happens when over time what is initially labeled as misinformation becomes information, or information becomes misinformation? Galileo's 1632 challenge of the geocentric astronomical model, which assumed the Earth was at the center of the solar system, is a classic example. Despite the fact that he was right, the Catholic church did not officially pardon him for heresy until 1992. So, for several centuries Galileo's truth was seen as misinformation.

A recent case concerns the origin of the SARS-CoV-2 virus: the possibility that it was developed in a lab was initially widely labeled a <u>conspiracy theory</u>, before subsequently being seen as a <u>viable hypothesis</u>.

These difficulties resonate with debates and disagreement about the definition of the term misinformation and related notions such as <u>fake</u> <u>news</u> and disinformation, with several <u>proposals for definitions</u> and characteristics in the scientific literature.

If there is no agreement on a definition of misinformation, it's no surprise that there is no clear cut way to determine its role in shaping beliefs and, in turn, how those beliefs affect behavior.

A second blind spot relates to the accessibility of information. Technological advances have not only given rise to new ways of accessing and sharing information. They also provide new opportunities for journalists, governments and researchers to analyze various forms of human communication at an unprecedented scale.

A common impression is that people on <u>social media</u> are going it alone in curating their own facts about the world, and that this is causing a perfect storm where there is mistrust in various institutions (<u>news media</u>, governments, science) and society appears fractured. But just because we have greater access to knowing the sheer volume of communication between people online doesn't mean that it directly causes societal ills.



We may merely be observing part of the fabric of human communication that has always taken place in market squares, pubs and family dinners.

There is still a case to be made about addressing misinformation. But it isn't clear how regulatory measures designed to impede the spread of, say, misleading scientific claims would work. Regulatory measures are necessary to limit unethical research and practices, but if taken to extreme they can erode the foundations of democratic societies.

History shows us the problems with censoring ideas, which <u>often</u> <u>backfires</u>—leading in turn to even less trust in institutions. While there is no easy solution, the goal must be to <u>adequately balance</u> freedom of expression and democratic values against interventions designed to manage the fall out from misinformation.

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