Extended Abstract

In this new, three-year programme, researchers from the Oxford Internet Institute and the Reuters Institute for the Study of Journalism will examine the interplay between systematic misinformation campaigns, news coverage, and increasingly important social media platforms for public understanding of science and technological innovation.

The Challenge

In some key domains of public life there appear to be coordinated efforts to undermine the reputation of science and innovation.

Scientists now protest in the streets just to get governments to base policy on scientific evidence. Long-held scientific consensus on issues like the causes and consequences of climate change or the importance of vaccines for public health is increasingly contested, and heavily debated on social media and sometimes in the news. New technological innovations like artificial intelligence are discussed in terms that veer from the alarmist to the exuberant.

Public understanding of key issues in science and technology is often limited and misinformation about basic issues in science and technology - from natural selection to global warming - abounds. How can we better understand public discussions of science and technology, and what can be done to improve them?

Our Approach

In this three-year programme researchers from the Oxford Internet Institute and the Reuters Institute for the Study of Journalism will examine the interplay between systematic misinformation campaigns, news coverage, and increasingly important social media platforms for public understanding of science and technological innovation.

The programme will turn to the problem of “junk science”, “fake news” and public policy issues.

We will focus on three questions:

1. How does the public's understanding of science and technology vary from country to country and how is this variation related to differences in media use?

2. How do misinformation campaigns on social media influence public learning about science and technology?

3. How can scientists, journalists, and policy makers be better at communicating about science and new innovations, so as to contribute to evidence-based policy making and respond to misinformation and junk science?

Methodologically, the project will combine the established social science methods of surveys, content analysis, and qualitative research with new computationally-intensive methods of auditing algorithms, scraping social media posts, and social network analysis of big data.

Ambition

Until now, understanding of the interplay between the public, misinformation campaigns, and social media has been limited and most research carried out has focused on elections and candidates for public office rather than broader but equally important issues of science communication.

Our aim is to combine social science and computer science to address the damaging impact of computational propaganda and other forms of digitally-enabled misinformation campaigns on scientific innovation, policy making, and public life. We will engage with stakeholders in journalism, the technology industry, the scientific community, and among policymakers in the search for evidence-based actionable interventions.

Project Principal Investigators

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Find out more here.