

Risks of Academics' Political Engagement on Social Media

In the “post-truth” era, public trust in science is indispensable (McIntyre, 2018; Angelucci & Prat, 2024; Bursztyn et al., 2023b; Arold, 2024; Ash et al., 2024). Trust ensures support for evidence-based policies, as seen during the Covid-19 pandemic (Algan et al., 2021; Calonico et al., 2023), drives climate action (Druckman & McGrath, 2019), and underpins technological and social progress.

Although science and scientists have traditionally enjoyed high levels of trust, this credibility has eroded in recent years, particularly among conservative groups (Nichols, 2017). Conservative political orientation and science-populist attitudes—characterized by skepticism toward scientific expertise and its societal role—are key factors linked to low trust, both in the United States and across many European countries (Rutjens et al., 2022; Cologna et al., Forthcoming). One driver of this decline is the perception of political bias within the scientific community (Altenmüller et al., 2024). Social media exacerbates this issue by making scientists' personal and political views more visible to the public.

The increased visibility of scientists online intersects with populist rhetoric that challenges expertise. Figures like President Trump have dismissed the scientific consensus on climate change, contradicted health experts such as Anthony Fauci during the Covid-19 pandemic, and accused agencies like the CDC and FDA of political bias, fueling growing polarization around science in American society.

Similarly, European leaders and parties have played a role in fostering skepticism toward scientific expertise. Marine Le Pen and the National Rally in France have been linked to anti-vaccine sentiments and conspiracy theories, while Matteo Salvini in Italy has questioned the role of science in shaping policies on immigration and public health. Germany's Alternative for Germany (AfD) party has consistently denied the scientific consensus on climate change, and Spain's Vox party has promoted similar climate skepticism. In Hungary, Viktor Orbán has openly challenged the role of scientific expertise in policymaking, particularly on climate and public health, amplifying distrust in evidence-based approaches.

In this increasingly politicized landscape, what role should scientists play?

As social media grows in importance, many scientists use it to share their research. **But do they also engage in political discourse?** And if they do, **how does this impact their credibility with the public?** We explore these two central questions in our [new study](#):

To answer these, we adopted a two-step approach:

- **Measuring political expression:** leveraging Large Language Models (LLMs) we measure the extent to which scientists express diverse political views on social media.
- **Assessing reputational costs:** Through an online experiment, we identified how academics' political commentary influences public perceptions of their credibility.

Academics political expression online

Building on the work by Garg and Fetzer (Forthcoming), we analyzed the public Twitter (now X) accounts of 98,000 U.S.-based university researchers from 2016 to 2022. Using Large Language Models (LLMs), we assessed whether and how they openly expressed their views on issues like abortion, racial equality, climate, and others.

Studying the ideological polarization of scientists through social media offers several advantages:

1. It allows analysis of a large number of academics from various disciplines, offering a broad perspective.
2. It enables examination of a wide range of political issues, offering insights beyond the traditional left-right spectrum.
3. Unlike surveys or academic publications, which may be inaccessible to the public, social media profiles are public-facing and reflect what the general audience can observe.

Here's what we learned:

Do scientists talk about politics? Yes, they do. Forty-four percent of the academics we monitored openly shared non-neutral opinions (pro or against) on at least one of the topics studied—abortion, immigration, redistribution, climate change, and racial equity. In contrast, only 7% of average Twitter/X users engaged in similar political expression. Political engagement among academics is consistent across disciplines and topics.

Interestingly, 29% of their tweets on politically relevant issues are research-related, highlighting a notable overlap between research and political discourse.

How diverse are scientists' opinions? As shown in Figure [1], many academics (at the center of the chart) maintain balanced positions on politically salient topics, though this is not universal. Scientists tend to adopt more neutral positions in research-related tweets but take more explicit stances in non-research tweets. Some express liberal views (to the right) or conservative views (to the left of the chart), indicating a degree of ideological polarization. However, this polarization is less pronounced compared to the average social media user—except in the case of racial equity, where scientists' opinions show greater divergence, with a gap that has widened over time.

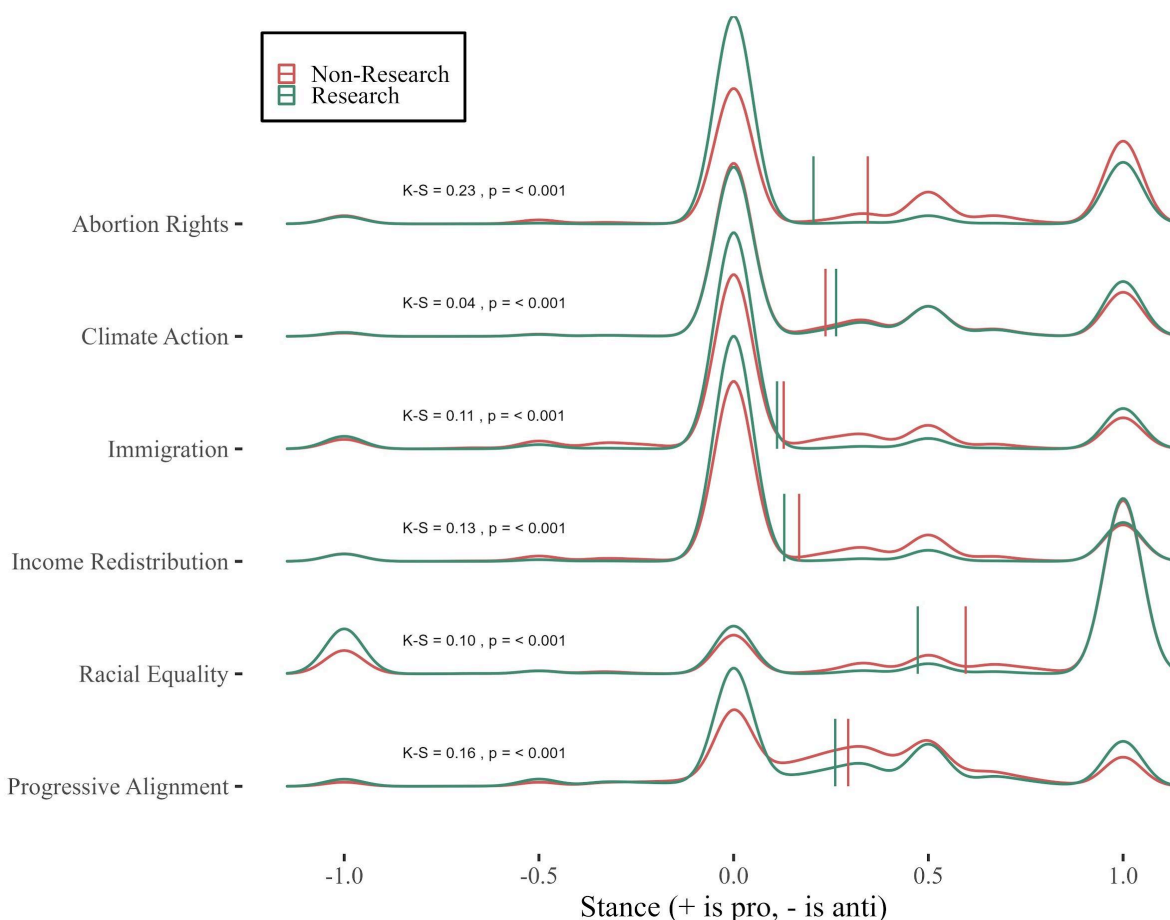


Figure 1: Polarization of Academics on Twitter/X between 2016 and 2022. Notes: The figure shows the cross-sectional distribution of academics' ideological slant across various topics. Vertical lines represent the mean values for each group. "Progressive alignment" reflects the average ideological alignment across all topics combined. The K-S test evaluates the equality of the two distributions: tweets mentioning scientific research (green) versus tweets not mentioning research (red).

Consequences for public perceptions

To understand the impact of scientists' political expressions on their perceived credibility, we conducted an online experiment with a representative sample of 1,700 U.S. residents. Participants were asked to evaluate hypothetical scientist profiles with varying characteristics (gender, discipline, university, and seniority) and Twitter bios/posts reflecting different political positions, modelled after real high-engagement content.

What are the consequences? Politically neutral scientists and their research were consistently rated as the most credible. However, as scientists' political opinions became more explicit—whether to the “left” or to the “right”—both their perceived credibility and the public's willingness to engage with their content declined significantly [Figure 2].

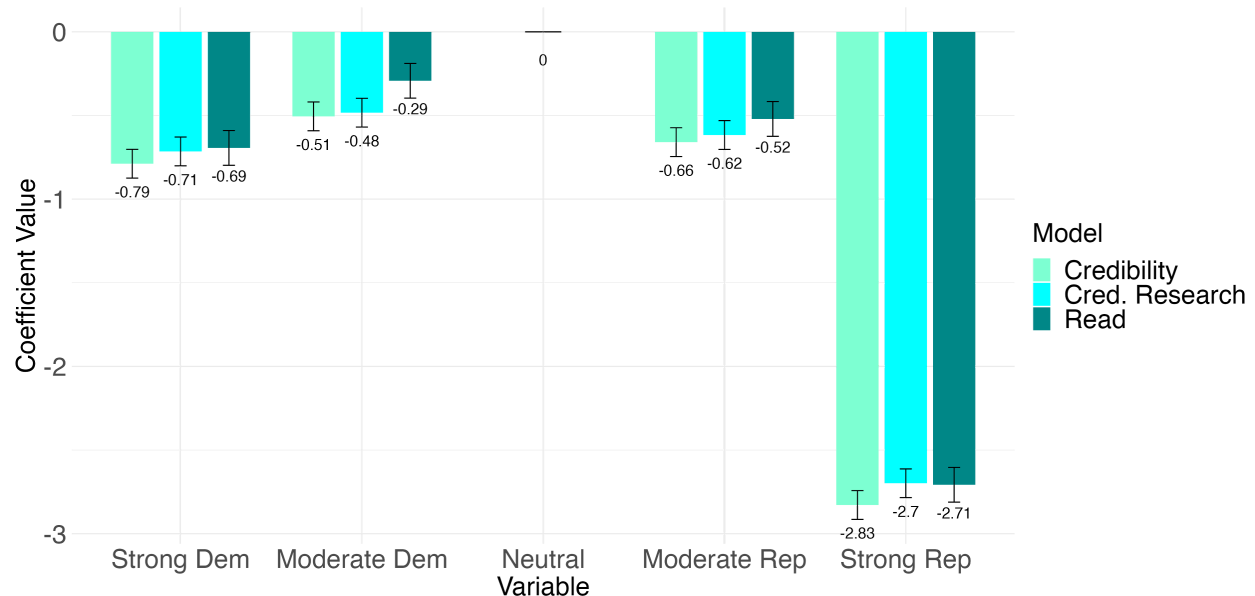


Figure 2: Impact of Scientists' Political Expression on Perceived Credibility and Public Engagement. Notes: Bars represent coefficient values from a regression analysis of scientists' characteristics on respondents' perceived credibility and willingness to engage with their content. The x-axis represents different political affiliations of scientists, with "Neutral" as the excluded category.

Who doesn't “trust”? Credibility penalties reveal a strong partisan bias, as respondents tend to view scientists aligned with opposing political views as less credible, highlighting significant affective polarization. Democrats (blue) tend to rate Republican scientists negatively while showing little distinction between Democratic and neutral scientists. In contrast, Republicans (red) hold less favourable views of

Democratic scientists but express a preference for those with a moderately Republican stance [Figure 3].

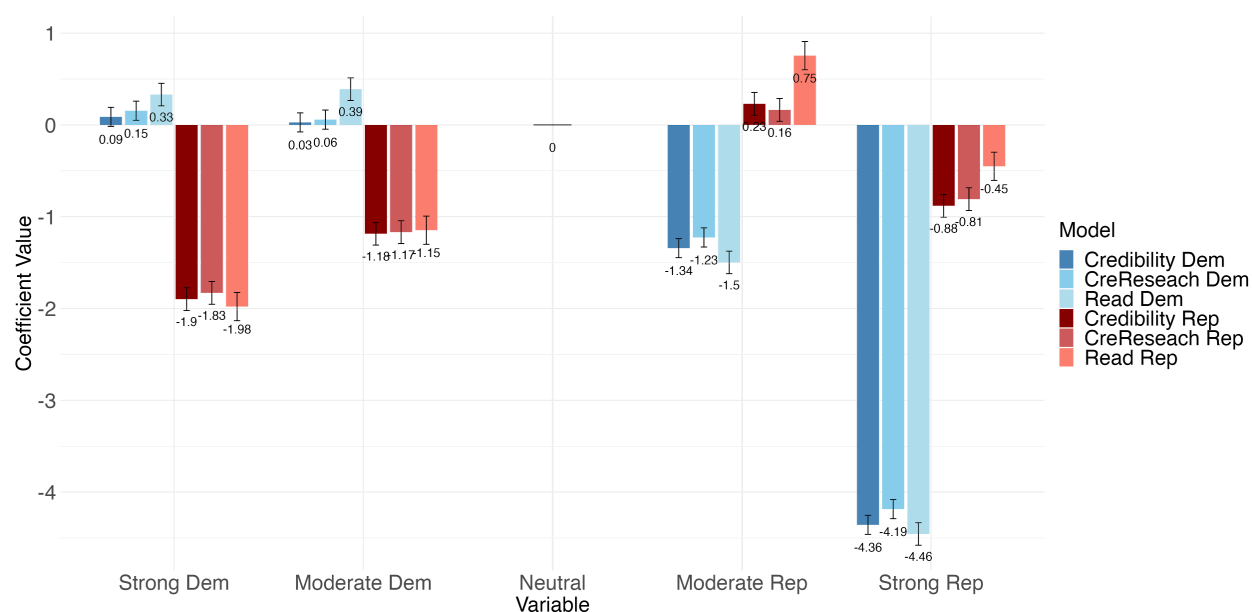


Figure 3: Impact of Scientists' Political Expression on Perceived Credibility and Public Engagement, based on Individuals' Political Leaning Notes: Bars represent coefficient values from a regression analysis of scientists' characteristics on respondents' perceived credibility and willingness to engage with their content. Results are shown separately for Democrat-leaning (blue) and Republican-leaning (red) respondents. The x-axis reflects the political affiliation of scientists, with "Neutral" as the excluded baseline category.

Does this only apply when scientists speak beyond their expertise? Not entirely. Both publishing research on politically relevant topics (e.g., promoting immigration studies) and signalling political affiliations unrelated to their work (e.g., listing them in Twitter bios) shape public perceptions of credibility.

What do scientists think? Interviews with a small group of academics revealed that many anticipate—and often overestimate—a loss of credibility when expressing political views. They generally view commentary within their area of expertise as more acceptable than opinions on unrelated topics, reflecting a widely shared professional norm. As a result, many avoid sharing opinions publicly, despite acknowledging the potential visibility benefits. Interestingly, their perceptions of whether the costs or benefits of such engagement prevail is not clear.

What have we learned?

In summary, our study highlights a critical trade-off for academics:

- **Expressing political views** can influence policy and enhance the visibility of academics and their work. However, it also carries significant reputational risks, particularly among certain segments of the public, potentially undermining the effectiveness of future communication and contributing to public polarization around science.
- **Choosing not to express political opinions** safeguards credibility but limits the positive impact social media can have on academic careers. More importantly, it reduces the presence of scientific perspectives in political debates.

While this study highlights the risks of political engagement for academics, a comprehensive evaluation of both the costs and benefits remains a crucial direction for future research.

This question is especially pressing as social media continues to evolve. For instance, following the recent U.S. presidential elections, many users, including academics, began migrating from X to alternative platforms. Such shifts could increase homophily within networks, amplifying polarization and reducing opportunities for meaningful dialogue across diverse perspectives.

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Twitter thread: <https://x.com/EleAla/status/1821124625616474165>