The Agenda-Setting Function of Social Media

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Social media can influence ***what issues*** **we think are important** in the news, and ***how* we think** about these issues.

"The Agenda-Setting Function of **Mass Media**" (McCombs and Shaw, 1972)

The news that the mass media chooses to cover or not cover can influence the political agenda, since mass media becomes the only way people have contact with politics.

This paper opened a whole new area called *agenda-setting theory* in communications studies, and has been **cited ~20k times**.

Agenda-Setting: what *issues* are covered / not covered.

Framing / Second-Level Agenda-Setting: what *aspects of a certain issue* are emphasized / not emphasized.

In our day, a similar sentiment could be expressed about **social media**.

The Agenda-Setting Function of **Social Media**

BY MAXWELL E. McCOMBS AND DONALD L. SHAW

Social media is an increasing part of people's information ecosystems.

- In 2024, 72% of Americans used social media as a news source.

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- Single issue (Demszky et al., 2019; Field et al., 2018; Mendelsohn et al., 2021)
- Subset of issues (Mendelsohn et al., 2021, Russell Neuman et al., 2014)
- Single news source (Kwak et al., 2020).

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- Single news source (Kwak et al., 2020).

Past research on potential exposure, actual exposure, and user engagement with news articles on social media platforms has primarily analyzed news articles at the…

- Domain-level (Bakshy et al., 2015; Gonzalez-Bailon et al., 2023)
- News-story level (Gonzalez-Bailon et al., 2023).

We ask: How does the **online social media environment** influence **user perception of news** via **agenda-setting and framing** effects?

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News

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News

Subreddits

Posting News
on Social Media

r/news

r/democrats

r/Conservative

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We define the **production** and **consumption** of news articles on **Reddit**.

Production is the news articles that were shared on Reddit. This consists of *what* news articles were shared, and *where*.

Consumption is a **score-weighted measure of user engagement** with the news articles that were shared on Reddit.

$$score = \# \ upvotes - \# \ downvotes$$

A higher score means that more users have signalled support for the article, and the article appears higher on a Reddit user's feed.

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r/news · 5 yr. ago
schwachs

Supreme Court rules workers can't be fired for being gay or transgender

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Open

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The **primary topic / issue** was determined by creating a **topic model** using a **BERTopic-like workflow** on the news articles in our dataset.

We used INSTRUCTOR-LARGE embeddings, performed dimensionality reduction, and using soft HDBSCAN clustering.

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The **primary topic / issue** was determined by creating a **topic model** using a **BERTopic-like workflow** on the news articles in our dataset.

The **primary frame** was one of the **15 issue-general frames** outlined in the **Policy Frames Codebook** (Boydstun, 2014).

The primary frame was determined by **fine-tuning a roberta-large model** on the **Media Frames Corpus** (Card, 2015). The accuracy was 72.3% and the macro-F1 was 64.2%.

Issues are **more polarized in social media** than in **traditional media.**

Issue Production

Immigrants, Migrants, and Refugees in Europe
Extremism and Terrorism
Immigration in the US

US Politicians and Elections
Healthcare
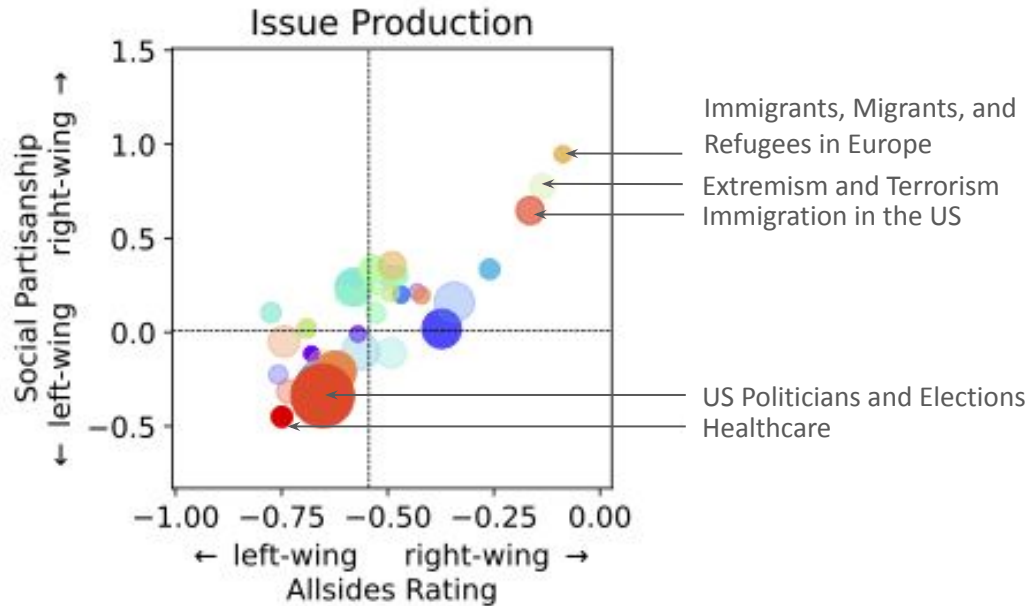
We take the **interquartile range (IQR)** of the issues' Allsides rating (traditional media) and social partisanship scores (social media).

To enable comparison, we convert the Allsides ratings into z-scores.

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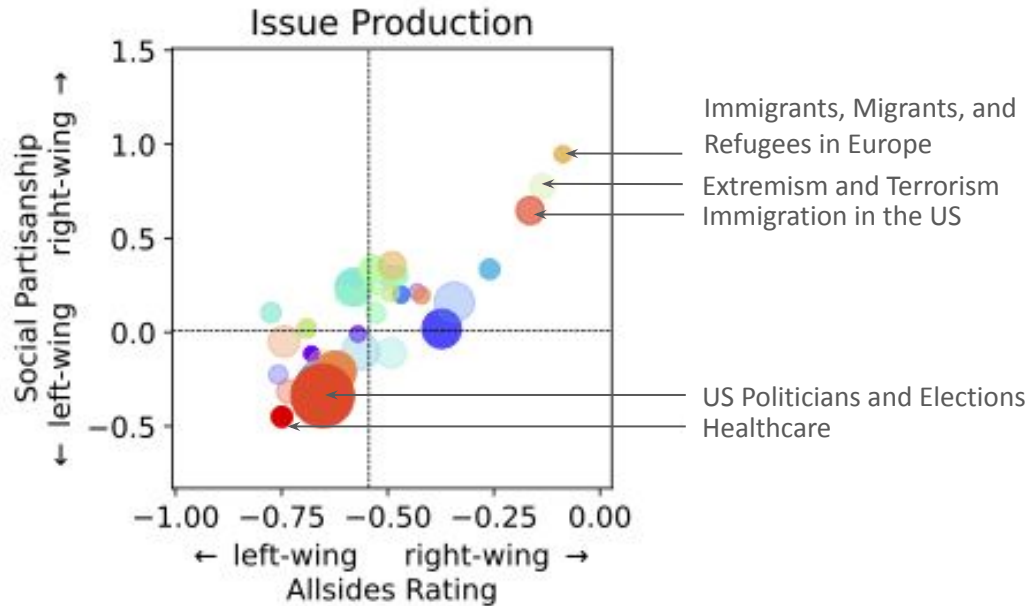
Traditional Media IQR: 0.162

Social Media IQR: 0.380

⇒ The act of *sharing news on social media* contributes to **issue polarization**.

Issues are **more polarized in consumption** than in **production.**

Issue Production

Issue Production to Consumption
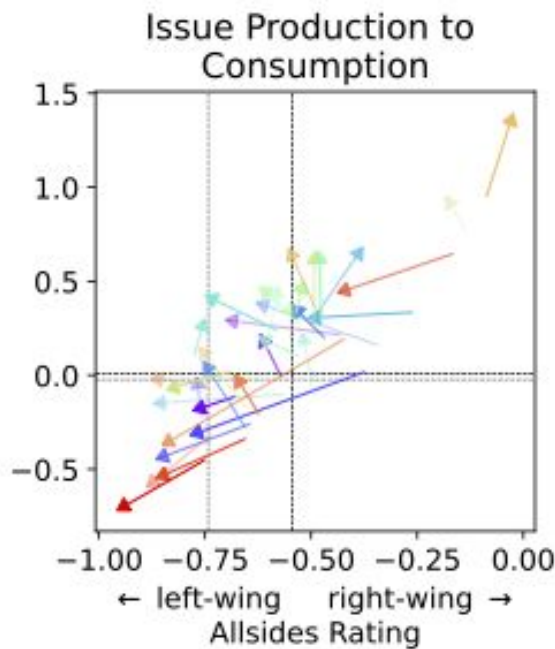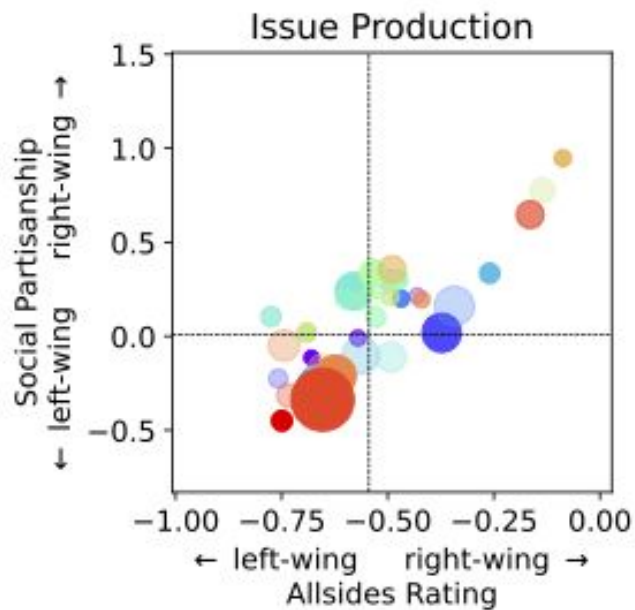
Traditional Media IQR: 0.162 → 0.227

Social Media IQR: 0.380 → 0.533

⇒ Along with the act of sharing news, ***the selective exposure effects of Reddit*** further contribute to **issue polarization**.

In contrast to the significant polarization of news outlets on Reddit in 2016, *issues* **do not polarize over time**.
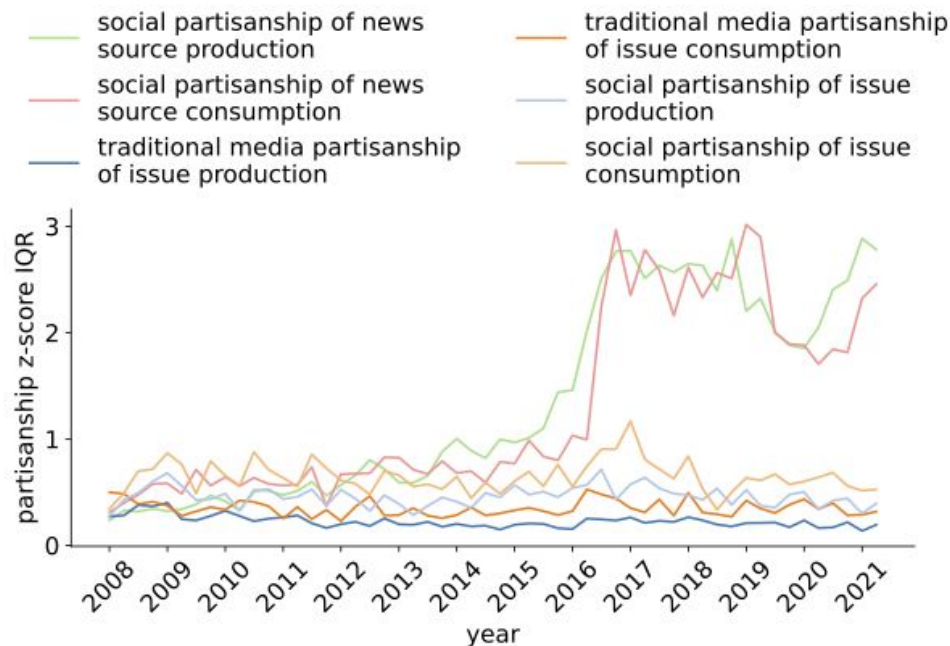
⇒ While left- and right-wing communities have become increasingly segregated in the news articles sources that are produced and consumed, the news articles are *not* becoming as segregated in the *issues that they discuss*.

In contrast to the significant polarization of news outlets on Reddit in 2016, *frames* **do not polarize over time**.
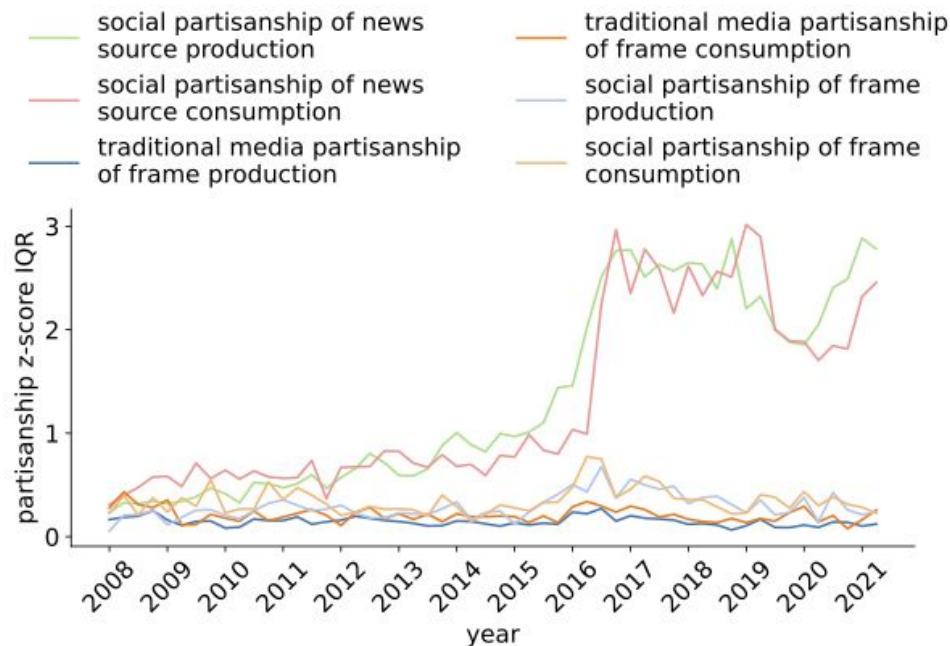
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How do frames **within specific issues** change from production to consumption on traditional and social partisanship lines?
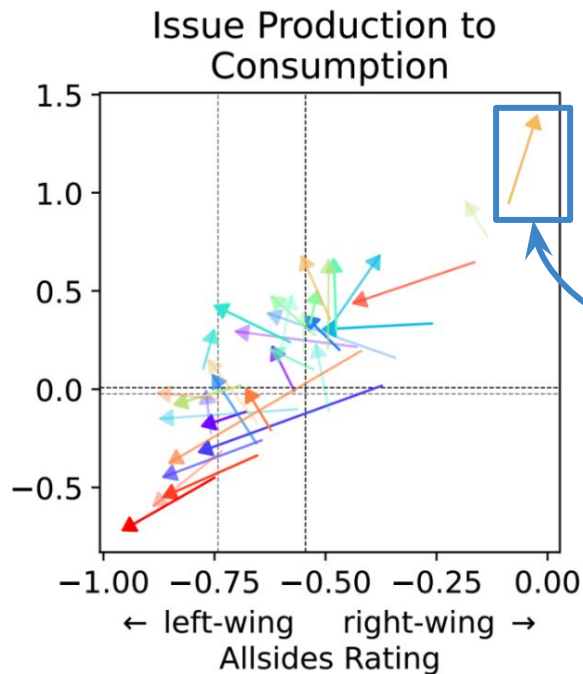

Issue Production to Consumption

"Immigrants, Migrants, and Refugees in Europe" overall moves to the right from production to consumption along both traditional and social media lines.

But do all the *frames* within this issue move right from production to consumption along both traditional and social media lines?

When disaggregated into frames, **an issue's shift from production to consumption could be explained in many different ways.**
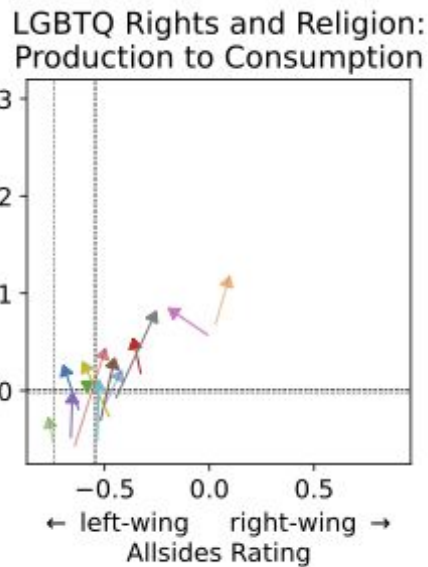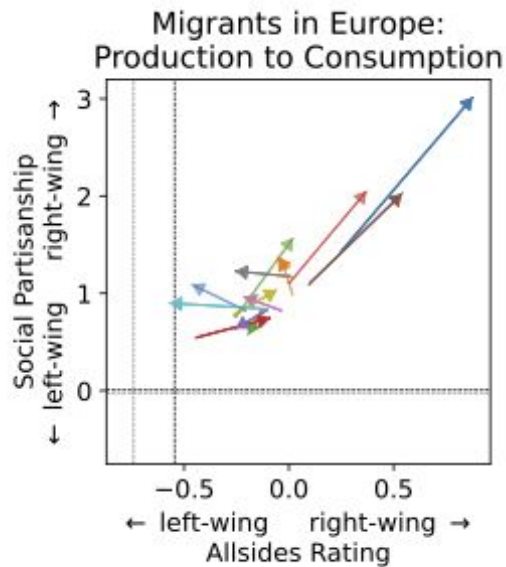
Migrants in Europe: *frames polarize* along traditional media lines.

LGBTQ Rights and Religion: most *frames move to the right* along social media lines.

We studied **3.8M hard news articles** shared on **Reddit** to understand social media's agenda-setting and framing effects.

We found that…

(1) Issues are more polarized in social media than traditional media.

(2) Issues are more polarized in consumption than production.

(3) In contrast to the significant polarization of news outlets on Reddit in 2016, neither issues nor frames polarize over time.

(4) When disaggregated into frames, an issue's shift from production to consumption could be explained in many different ways.

We studied **3.8M hard news articles** shared on **Reddit** to understand social media's agenda-setting and framing effects.

Our work gives insight into how **user selection behaviours on social media platforms** can affect **news articles' shift from production to consumption**, adding to the growing body of work on selective exposure, political polarization, and echo chambers.

Our work illustrates the importance of studying the *media effects* of news sharing on social media, and how these analyses can complement existing knowledge on the news shared and read on social media.

Future work could explore why news sources polarize in 2016, but issues and frames do not, for example.

Thank You!

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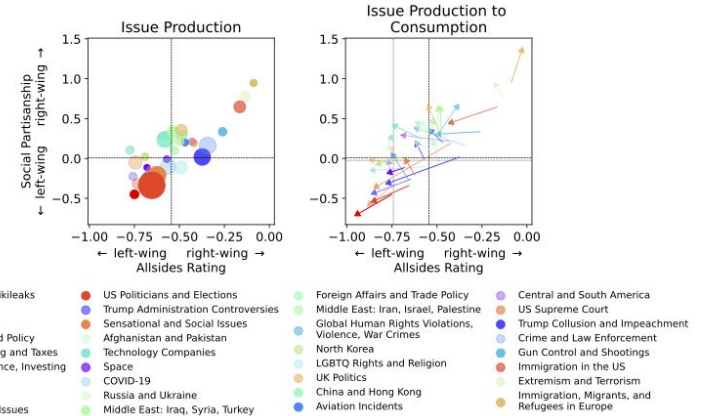
QR Code to Paper ➡️

Poster: May 2 (tomorrow), 12pm – 1pm.

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