Social Media and News Exposure

CEPR Media Plurality Webinar

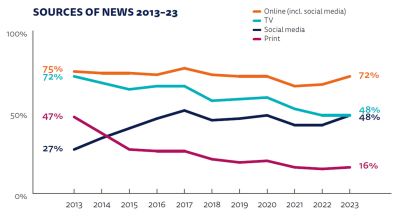
Ro'ee Levy

May 2024

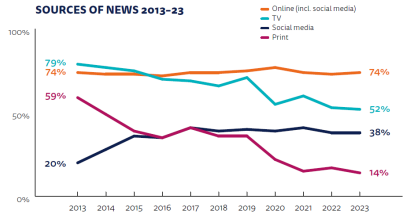
More news consumed through social media

Which, if any, of the following have you used in the last week as a source of news? (Reuters 2023)

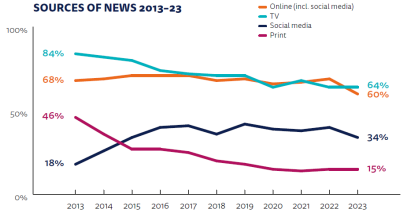
US



UK

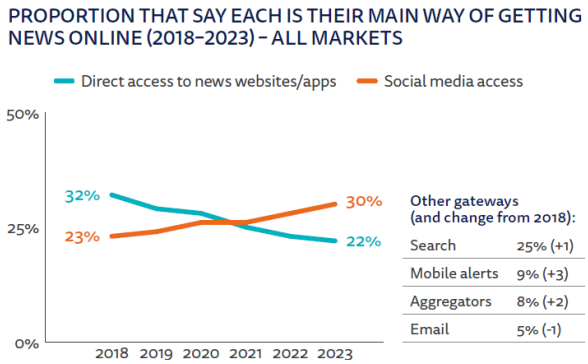


France



More news consumed through social media (2)

Which of these was the main way in which you came across news in the last week?



Source: Data from 36-46 markets, Reuters Institute Digital News Report 2023

Plan for today

- Literature on social media news consumption
  - Algorithms
  - Echo chambers
- Discussion mostly based on:
  Guy Aridor, Rafael Jiménez Durán, Ro'ee Levy and Lena Song - *The Economics of Social Media* (R&R, Journal of Economic Literature)

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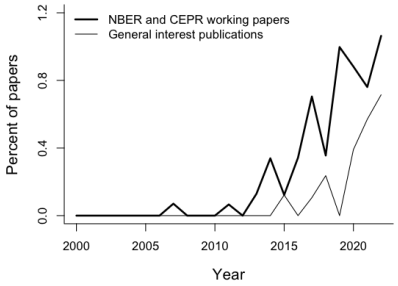
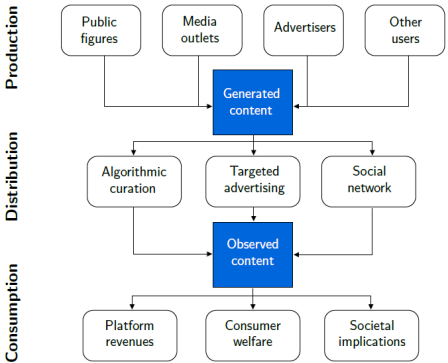
- Dramatic increase in number of papers



Social media and news consumption

- Production
  - Why is toxic content shared on social media?
  - How can we decrease misinformation?
  - How does social media affect the type of news produced, online and offline?
- Distribution
  - Are social network characterized by homophily?
  - How do algorithms affect news distribution?
  - Are individuals in online echo chambers?
- Consumption
  - How does social media affect downstream political outcomes? Protest, polarization, political participation, hate crime

Figure 2. : Flow of content



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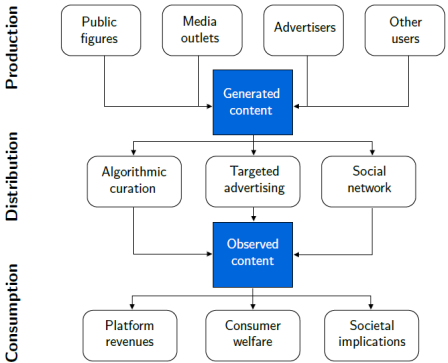


Concerns related to algorithms

- Promote low-quality news
- Promote like-minded news
- Radicalize users by driving them down rabbit holes (YouTube)
- Algorithms biased, e.g., against conservatives

Concerns related to algorithms

- Promote low-quality news Mixed evidence
  - Facebook's algorithm doubles the amount of uncivil content (Guess et al., 2023)
  - However, Facebook also decreases untrustworthy content (Guess et al., 2023)
- Promote like-minded news
- Radicalize users by driving them down rabbit holes (YouTube)
- Algorithms biased, e.g., against conservatives

Concerns related to algorithms

- Promote low-quality news Mixed evidence
- Promote like-minded news Strong/mixed evidence
  - More like-minded news in actual feed (Gonzalez-Bailon et al., 2023)
  - More exposure to like-minded pages liked (Levy, 2021)
- Radicalize users by driving them down rabbit holes (YouTube)
- Algorithms biased, e.g., against conservatives

Concerns related to algorithms

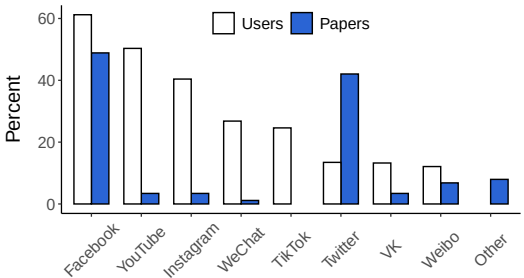
- Promote low-quality news Mixed evidence
- Promote like-minded news Strong/mixed evidence
- Radicalize users by driving them down rabbit holes (YouTube) No/weak evidence
  - Videos do not become more extreme within sessions (Hosseinmardi et al., 2021)
  - Recommendations do not substantially shift toward like-minded content (Brown et al., 2022)
  - Extreme videos not recommended to most people (Chen et al., 2023)
- Algorithms biased, e.g., against conservatives

Concerns related to algorithms

- Promote low-quality news Mixed evidence
- Promote like-minded news Strong/mixed evidence
- Radicalize users by driving them down rabbit holes (YouTube) No/weak evidence
- Algorithms biased, e.g., against conservatives No/weak evidence
  - Twitter's algorithm amplified the political right more than the political left (Huszar et al., 2022)
  - YouTube recommendations slightly nudge users toward conservative videos (Brown et al., 2022)
  - However, Facebook flags more conservative content as misinformation (Gonzalez-Bailon et al., 2023)

Future research: algorithms

- New platforms are different and barely studied
  - Distribution of content: do not rely on social networks
  - Content: videos instead of text, less news, but recently increasing
  - Audience: much younger



(CEPR, NBER, and general interst journal in economics, 2000-2022 data, Aridor et al. (2024)

- How will this affect the news people are exposed to?

Evidence on echo chambers

Gap between public concerns over echo chambers and literature

Evidence on echo chambers

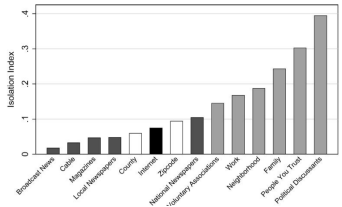
Gap between public concerns over echo chambers and literature

- Segregation online is not dramatic though it may be increasing
- Segregation is higher on social media
- Social media increases like-minded exposure, but also provides exposure to other news
- Channels: algorithms, selective exposure, following pages or elite accounts

Evidence on echo chambers

Gap between public concerns over echo chambers and literature

- Segregation online is not dramatic though it may be increasing
  - In 2009, segregation not dramatic or higher than offline network (Gentzkow and Shapiro, 2011)



  - Segregation increased substantially by 2016 (Peterson et al., 2021)

- Segregation is higher on social media
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Evidence on echo chambers

Gap between public concerns over echo chambers and literature

- Segregation online is not dramatic though it may be increasing
- Segregation is higher on social media
  - Segregation on social media substantially higher than other online content 20%-300% (Peterson et al., 2021; Levy, 2021; Gonzalez-Bailon et al., 2023)
    - Isolation sites not visited through FB $\approx$ national newspaper or volunatry associations
    - Isolation sites visited through FB $\approx$ family members
- Social media increases like-minded exposure, but also provides exposure to other news
- Channels: algorithms, selective exposure, following pages or elite accounts

Evidence on echo chambers

Gap between public concerns over echo chambers and literature

- Segregation online is not dramatic though it may be increasing
- Segregation is higher on social media
- Social media increases like-minded exposure, but also provides exposure to other news
  - Higher segregation, yet share of opposing articles 2-3% $\rightarrow$ 5-8% (Flaxman et al., 2016)
  - Median FB user: 50% like-minded sources, 10% cross-cutting, 40% neither (Nyhan et al., 2023)
- Channels: algorithms, selective exposure, following pages or elite accounts

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- Channels: algorithms, selective exposure, following pages or elite accounts
  - Reddit users comment on negative news about opposing candidates (D'Amico and Tabellini, 2022)
  - FB segregation higher among pages followed compared to friends (Levy, 2021; Gonzalez-Bailon et al., 2023)

Thank You!

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