

Social Media Use And Polarization In Ontario: 2018 Case Study

Rafael Campos-Gottardo

Simon Kiss

Introduction

Will this work? We hope so.

```
#primary_media_interest_policy
```

Social Media And Polarization

- Define polarization, affective and policy
- Summary state of knowledge from big papers
 - Against (Boxell, Gentzkow, and Shapiro 2017) and (Bakshy, Messing, and Adamic 2015)
 - Try to review Kubin and Von Sikorski (2021)

The relationship between social media usage and polarization

It is often considered a forgone conclusion that social media usage is linked to increased levels of affective and policy polarization. Proponents of this idea argue that social media platforms create “echo chambers” or “filter bubbles” where users will only encounter ideas and policies that they already agree with Terren et al. (2021). Since the internet is a high choice media environment individuals can either choose to be exposed to diverse information or select media that reinforce their pre-existing opinions (Dubois and Blank 2018). On social media echo chambers occur because users shown ideologically agreeable materials as a result of these platforms’ algorithms that show users content based on their past behaviour (Raynauld & Grennberg 2014). However, the empirical evidence supporting the existence of echo-chambers on social media has been mixed. Most studies in the United States find that Republicans and Democrats have similar media diets, both online and offline. Additionally, studies have found that there is some evidence that echo chambers exist on Twitter (now known as X) but not

on Facebook. Notably, Terren et al. (2021) found that studies that used digital trace evidence found more evidence of echo-chambers and polarization than studies that used self-reported data. For example, using Facebook trace evidence Bakshy, Messing, and Adamic (2015) find that most users have Facebook friends who belong to the other party and that individuals are exposed to cross cutting content. They also find that individual choices, not algorithms, are what determine if an individual engages with opposing viewpoints. Using self reported social media usage, Dubois and Blank (2018) find that the majority of social media users, encounter information they disagree with, use multiple sources, and often attempt to confirm the information they are presented.

The evidence linking the presences of echo chambers to increased polarization is also unclear (Kubin and Von Sikorski 2021). Some studies find that increased social media usage predicts increased polarization (Cho et al. 2018; J. A. Tucker et al. 2017). This relationship is also re-enforced by posting more on social media and sharing politically relevant content. However, other studies have found that social media usage has a small or no effect on polarization. Through a review of recent studies on the relationship between social media usage and polarization, Bavel et al. (2021) posit that social media usage is unlikely to be the main driver of polarization but is often a key facilitator. A recent experimental evidence has found that individuals who de-activated their Facebook accounts became less polarized due to less exposure to political news and opinions. Other studies have demonstrated that the “echo chamber” aspect of social media is not what drives polarization. Instead, exposure to hyper-partisan messages from the opposing party leads to a significant increase in polarization among Republicans but not democrats. Boxell, Gentzkow, and Shapiro (2017) observe that the individuals who are the most polarized are those who are the least likely to use social media. Specifically, they found that adults over 75 are becoming polarized at a faster rate than those under 40, while also being far less likely to use social media. Therefore, any account that links social media usage to increased polarization must also account for why individuals who do not use social media are becoming more polarized than social media users.

The evidence that social media usage leads to increased polarization in Canada is even more limited. There is evidence that affective polarization has been increasing in Canada (Johnston 2019). Additionally, there is some evidence that ideological polarization has been increasing since the 2019 Canadian election (Merkley 2022). However, none of these studies investigate the factors that have been contributing to the rise of both affective and ideological polarization in Canada.

Ontario 2018 Summary

Summary of OPES, Methods

- Sampling strategy
- Questions used to construct variables

Measuring Polarization

Affective polarization

We measure affective polarization using the Weighted Affective Polarization (WAP) equation developed by Wagner (2021). The WAP equation for parties j and voters i is:

$$Spread_i = \sqrt{\sum_{p=1}^P v_p (like_{ip} - \overline{like_i})^2}$$

where v_p is the vote share of each party measured as proportion with a range of 0 to 1, and the mean affect scores weighted by party using the following equation:

$$\overline{like_i} = \sum_{p=1}^P (v_p * like_{ip})$$

- Policy polarization

We used a number of common strategies to measure policy/ideological polarization. The first measure was adapted for individuals from Polacko (2022) and uses the following formula to distance of each respondent i from the mean of policy issue j :

$$Policy\ Polarization_i = \frac{|\bar{x}_j - x_i|}{\sigma_j}$$

Results

Discussion

Conclusion

References

- Bakshy, E., S. Messing, and L. A. Adamic. 2015. "Exposure to Ideologically Diverse News and Opinion on Facebook." *Science* 348 (6239): 1130–32. <https://doi.org/10.1126/science.aaa1160>.
- Bavel, Jay J. Van, Steve Rathje, Elizabeth Harris, Claire Robertson, and Anni Sternisko. 2021. "How Social Media Shapes Polarization." *Trends in Cognitive Sciences* 25 (11): 913–16. <https://doi.org/10.1016/j.tics.2021.07.013>.

- Boxell, Levi, Matthew Gentzkow, and Jesse M Shapiro. 2017. "Is the Internet Causing Political Polarization? Evidence from Demographics." Working Paper 23258. National Bureau of Economic Research. <https://doi.org/10.3386/w23258>.
- Cho, Jaeho, Saifuddin Ahmed, Heejo Keum, Yun Jung Choi, and Jong Hyuk Lee. 2018. "Influencing Myself: Self-Reinforcement Through Online Political Expression." *Communication Research* 45 (1): 83–111. <https://doi.org/10.1177/0093650216644020>.
- Dubois, Elizabeth, and Grant Blank. 2018. "The Echo Chamber Is Overstated: The Moderating Effect of Political Interest and Diverse Media." *Information, Communication & Society* 21 (5): 729–45. <https://doi.org/10.1080/1369118X.2018.1428656>.
- Johnston, Richard. 2019. "Affective Polarization in the Canadian Party System 1988-2015." In *Annual Meeting of the Canadian Political Science Association*. Vancouver, B.C. <https://www.cpsa-acsp.ca/documents/conference/2019/334.Johnston.pdf>.
- Kubin, Emily, and Christian Von Sikorski. 2021. "The Role of (Social) Media in Political Polarization: A Systematic Review." *Annals of the International Communication Association* 45 (3): 188–206. <https://doi.org/10.1080/23808985.2021.1976070>.
- Merkley, Eric. 2022. "Polarization Eh? Ideological Divergence and Partisan Sorting in the Canadian Mass Public." *Public Opinion Quarterly* 86 (4): 932–43. <https://doi.org/10.1093/poq/nfac047>.
- Polacko, Matthew. 2022. "Inequality, Policy Polarization and the Income Gap in Turnout." *Party Politics* 28 (4): 739–54. <https://doi.org/10.1177/13540688211011924>.
- Terren, Ludovic, Open University of Catalonia, Rosa Borge-Bravo, and Open University of Catalonia. 2021. "Echo Chambers on Social Media: A Systematic Review of the Literature." *Review of Communication Research* 9: 99–118. <https://doi.org/10.12840/ISSN.2255-4165.028>.
- Tucker, Joshua A., Yannis Theocharis, Margaret E. Roberts, and Pablo Barberá. 2017. "From Liberation to Turmoil: Social Media and Democracy." *Journal of Democracy* 28 (4): 46–59. <https://doi.org/10.1353/jod.2017.0064>.
- Tucker, Joshua, Andrew Guess, Pablo Barbera, Cristian Vaccari, Alexandra Siegel, Sergey Sanovich, Denis Stukal, and Brendan Nyhan. 2018. "Social Media, Political Polarization, and Political Disinformation: A Review of the Scientific Literature." *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3144139>.
- Wagner, Markus. 2021. "Affective Polarization in Multiparty Systems." *Electoral Studies* 69 (February): 102199. <https://doi.org/10.1016/j.electstud.2020.102199>.