CONTRIBUTION OF SOCIAL MEDIA TO POLITICAL POLARIZATION AMONG UNIVERSITY STUDENTS

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Abstract: *This study investigates the contribution of social media to political polarization among university students from the United States and Mongolia. Data was collected using an online survey distributed to currently active students at the University of Southern Indiana (USI) and the National University of Mongolia (NUM).*

The findings of this study reveal that social media platforms such as Facebook, Instagram, YouTube, TikTok, and X (formerly known as Twitter) are social media platforms used among students the most. Students spend approximately 2-5 hours per day on social media on average. While respondents perceive social media to be an efficient tool for political engagement such as getting news, the data report suggests selective exposure behaviors in students, such as muting, blocking or unfollowing individuals who had differing views from them, which contribute to the creation of echo chambers.

The study highlights the role of social media in strengthening ideological divergence while encouraging civic involvement. These findings emphasize the nuanced relationship between social media and political polarization.

Keywords: *Political polarization, Social media, University students, the United States of America, Mongolia*

Purpose of Usage of Social Media: Literature Review

Social media is known for being one of the primary causes of political polarization as its algorithms serve as echo chambers. The increasing number of social media users could also lead to the rise of misinformation. (A.Bessi & E.Ferrara, 2016) (N.Newman, R.Fletcher, A.Kalogeropoulos, D.A.L.Levy, & R.K.Nielsen, 2017) (M.Napoli, 2019) (Shu, Wang, Lee, & Liu, 2020) The research question for this study is whether social media contributes to political polarization. The reason for choosing this topic is the lack of a straightforward answer on whether there is any relationship between social media and political polarization.

Literature by scholars such as J.A.Tucker (2018), who argues that social media is causing political polarization, and S.Boulianne (2015) who, on the contrary, argues it serves as a method for increased political and civic engagement will be the main literature for this review. The sole purpose of this review is to examine terms often associated with the relationship between social media and political polarization and to provide understanding on this topic (J.A.Tucker, A.Guess, P.Barbera, C.Vaccari, & A.S. Siegel, 2018) (S.Boulianne, 2015).

The media refers to traditional mass communication systems and content generators as well as other technologies for mediated human speech (A.Hoag, 2008)**.** Nowadays, media is more knowingly defined as social media and television, internet. Although, traditional media is quite rare now, newspapers such as "Өдрийн сонин"/Udriin sonin (Mongolian newspaper) can be used as an example.

The main differences between old media, such as newspapers, and new media (social media) are that traditional/old media have one-way communication. This implies that you cannot reply or interact with the content, unlike social media which we have now. (Barberá, 2015) Social media allows two-way communication and promotes live communication between people around the world. In his article, Al-Quran mentions that another way to differentiate between them as following:

1) Traditional media has a bigger audience

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2) Social media can target specific groups of people. He also added that traditional media is less biased in terms of audience because (the newspaper, etc.) is an approved medium designated for the public (M.W.Al-Quran, 2022). Based on articles related to social media, they often do not explain the definition of media. Therefore, the definitions for different types of media have been added.

According to a study conducted by Pew Research Center in November 2019, the results showed that 1 in 5 adults in the US get their political and election news from social media (A.Mitchel, M.Jurkowitz, J.B.Oliphant, & E.Shearer, 2020). In another small research study conducted by Brooke and peers in 2022, the results showed that 269 out of the 510 US participants get news about for gun violence news from social media (McKeever, Choi, & McKeever, 2022). Based on this, we can see that people do use social media as a means of getting political news, and updates.

In his study, Tucker (2018) used *"political talk",* conversations between individuals, and disinformation as the measurements. He also mentioned the significance of the context of what politicians/elites' post and say could affect polarization. On the other hand, Boulianne (2015) who used meta-data as a measurement, have concluded that an increase in social media usage also increases their likelihood of political activeness.

According to the meta-data used by Boulianne (2015), the study concluded that there is a positive relationship between social media and participation in civic and political life. Whilst Tucker (2018) mentioned the negative effects of social media on politics, (Brooke, Choi, Walker, & Robert, 2022), Boulianne (2015) highlight the positive effects of social media. Although social media is known as a contributor to political polarization, it also promotes civic and political participation, giving people a chance to communicate and connect with like-minded people (McKeever, Choi, & McKeever, 2022) (S.Boulianne, 2015).However, it should be noted that both Tucker(2018), Boulianne (2015) agree that there is some connection of social media in politics. It is best to understand that these studies have used different methodologies to measure the relationships between the variables and therefore their hypothesis may differ.

Political polarization can be put into two distinct forms. The first form is ideological polarization, which is the differences of political beliefs, opinions, attitudes, and stances of political adversaries (R.J.Dalton, 1987)The second form is affective polarization, which is the phenomenon of animosity between the parties (S.Iyengar & M.Krupenkin, 2019).

Both Tucker (2018) and Boulianne (2015) did not mention their exact measurements on polarization. However, Boxell (2017) has measured political polarization using data from the American National Election Study. Through their study, they have come to conclusion that greater increases are seen among individuals over age 75 than for those between the ages of 18 and 39 in both the overall index and eight of the nine individual variables. Their main focus for the study was age and based on demographics. This data argues against the hypothesis claiming that internet/social media is the primary cause of rising political polarization (L.Boxell, M.Gentzkow, & J.M.Shapiro, 2017). The main issue with this study can be that it might lack inclusivity, with the survey questions not being clear and the only shown questions in the report being "How Democrat are you? How do you feel about your opposing party?, etc.".

Overall, the report could explain more about the exact survey questions and include a broader set of answers. Although there are some flaws, it presents a strong data analysis and measurements with every definition explained clearly.

R.Sunstein (2018) mentions a new term on his explanation about polarization about humans having tendency to connect to other human beings who share the same interests. In his paper, he also predicts about a potential rise of Artificial Intelligence and algorithm knowing more than you than you do yourself. Although what he says might be true, there seems to be some issues:

Generalizing social media platforms: The study tends to put all social media platforms in one category as if they had the same uses. In today's developing world, there are a lot of different types of platforms with their own very mechanism, algorithms, purpose of use. -----E.g.: LinkedIn and YouTube: LinkedIn mainly focuses on building networking connection but would it suggest you, people to add or

show images that may interest you? Chances are probably not. On the other side, would YouTube show you information about online users who like the same videos and creators as you? Again, the answer is no. However, it is to note that the study might be outdated as the social media platforms we have today are far more advanced and upgraded compared to a few years ago. Additionally, although his arguments are valid, there is insufficient statistical data to support his claim (R.Sunstein, 2018).

"An *echo chamber* is an environment where a person only encounters information or opinions that reflect and reinforce their own (Jamieson & N.Cappella, 2008). Echo chambers can create misinformation and distort a person's perspective so they have difficulty considering opposing viewpoints and discussing complicated topics (Atiqi, 2023). They're fueled in part by confirmation bias, which is the tendency to favor info that reinforces existing beliefs." (GCFGlobal). In simpler words, echo chambers act as a barrier between existing belief and others. Examples could be social media platforms, such as TikTok, Instagram, Facebook, having algorithms in which is used to gather your activity and personalize it using the data and showing you contents that most align with your interests, acting as an echo chamber.

Another example mentioned was in Bakshy (2015). In this study, they used Facebook as a measurement. Individuals on Facebook were more likely to see news that supported their political beliefs. Consequently, users were more likely to hold their pre-existing ideas since they were less exposed to their opposing beliefs. Bakshy (2015) carried out a complicated yet effective method to further prove the echo chamber effect's existence on Facebook. To explain their method in simple terms, Bakshy and his team analyzed links from 100 US Facebook users to identify links to two categories. They divided links into hard news (election, politics, etc.) and soft content (sports, entertainment, etc.), using linear SVM to train a classifier (E.M.Bakshy, 2015). This impressive methodology allowed them to give accurate data analysis.

Another key observation about echo chambers were that only politically salient topics had echo chamber aspects and had high polarization, whilst topics like "Superbowl, Olympics" were considered to be "national conversations" (P.J.Barberá, 2015). Meaning that if a topic is not related to politics, the chances of it being echo chamber and having high polarization is unlikely (E.M.Bakshy, 2015).

Tucker (2018) have mentioned disinformation or misinformation as one of MAIN causes for polarization. He also talks about how both political polarization and misinformation could be fueling each other and posing question on whether political polarization make people more vulnerable to disinformation and if in turn does increased disinformation cause political polarization. This question was answered by creating a graphic illumination explaining the answer to the question. "Social media driving political polarization and the prevalence of disinformation, both of which are also accentuating each other and simultaneously potentially undermining democratic quality—that has led to so much concern about the potential impact of social media on democracy." (J.A.Tucker, A.Guess, P.Barbera, C.Vaccari, & A.S. Siegel, 2018)

The hypothesis for this literature review was whether social media and political polarization had any relationship at all.

In summary, the literature review mentions both negative and positive aspects of the relationship between social media and political polarization. While some authors may argue that social media can lead to rise of misinformation, echo chambers and its purpose to act as a barrier between people, some authors may oppose this by emphasizing the increased political and civic engagement and connection between people to people, people to politics. Albeit, there are many stances on this topic, it is clear that there are connection/relationship between social media and political polarization but no clear answers are provided on which influences which.

Further research on this topic may be required with more broad and diverse population and other social media platforms that are on the rise, with potential highest online users such as TikTok, with more up-to-date surveys to provide a better understanding of today's politics.

This topic is significant for preserving democratic systems in the digital era in the future.

Usage of Social Media Among Students: Methodology

This study adopted a quantitative research methodology, specifically using email surveys, and online surveys from currently active students at the University of Southern Indiana (USI) and the National University of Mongolia (NUM). Respondents for the survey were selected through random sampling, which was employed for this study, although there were time and cost constraints, while still considering respondents' willingness to participate. Usage of random sampling has been challenging due to the fact that there are a large number of institutions (universities) in both countries (Mongolia and the United States of America), and with students of USI and NUM representing only a small subset of the broader population of university students.

The data for this study were collected by utilizing a survey to examine the relationship between social media and political polarization among students. The survey included a total of 17 questions, with 12 closed-choice questions (multiple choice questions, scale ratings, single choice questions) and 5 open-ended questions. The entire data collection process was divided into two sections---American students (USI students) and Mongolian students (NUM students) --- and took a span of 5 days to be completed.

USI Students: In a span of 5 days, students at USI were invited to fill out survey via an email with a link to the survey and description of what the study is about and how their answers will be used, through their official USI email addresses. Approximately 150 emails were sent each day.

To ensure that all the respondents were currently active students, the process of filtering the recipients was done. This process was successfully executed through a feature that was available by the platform where the emails were sent (Platform: Outlook by Microsoft) (Feature: Selecting recipients to add—USI Current Students). To make sure that all current students at USI had an equal chance to get selected, they were then randomly selected in alphabetical order (e.g.: Search students whose names start with "A" and randomly choose them to be the recipients). This step also allowed students from all majors and different colleges to get selected *randomly*. In total, 555 students were sent an email with a link and explanation, and total number of 32 responses were recorded**.** Exactly 5.7658% population of the recipients had filled out the survey.

NUM Students: This part of the survey was executed with the help of professor and instructors of NUM. Students at NUM were asked to fill out survey by their professor during their class period. Compared to USI students, students at NUM were not given enough details about how their data will be used and they were also not contacted through their official NUM email addresses. Although, they were asked to fill out survey in class, their sole attendance was a proof that only currently active students at NUM were selected. The classes that were selected to take the survey were the professor's classes and had a diverse group of students compared to other classes---diverse in this context meaning students from rural and urban area and students of different majors and departments---.

An online survey was sent to the professor with brief instructions on how to let the students take the survey. The professor at NUM was instructed to notify the students of the survey and to tell the participants that the participants to fill out the survey was voluntary and anonymous. The survey was not translated to Mongolian or any other languages and contained the exact same number of questions (17) and had the exact same questions. Only changes that were made in this version of the survey were questions about religion and political partisanship.

In total, 448 students were asked to fill out the survey in class and total number of 49 responses were recorded. Exactly 10.94% population of the students who were asked had filled out the survey.

Advantages:

- The use of random sampling ensured a more diverse range of respondents was included.

- Conducting the study across two universities in two countries from different continent also allowed a broader range of insights into the topic of contribution of social media to political polarization.

Disadvantages:

- Two universities represent a small population of students in both countries.

- The survey was not translated into Mongolian which could have potentially affected comprehension of the topic, questions, and responses collected from NUM students.

- The low response rates may have potentially introduced non-response bias.

A Step Toward Understanding Political Polarization: Findings

The data showed that the majority of the participants spend 2-5 hours on social media per day on average (see Figure 1). Platforms such as Facebook, Instagram, YouTube, TikTok, and X (formerly known as Twitter) were most commonly used by the students (see Figure 2).
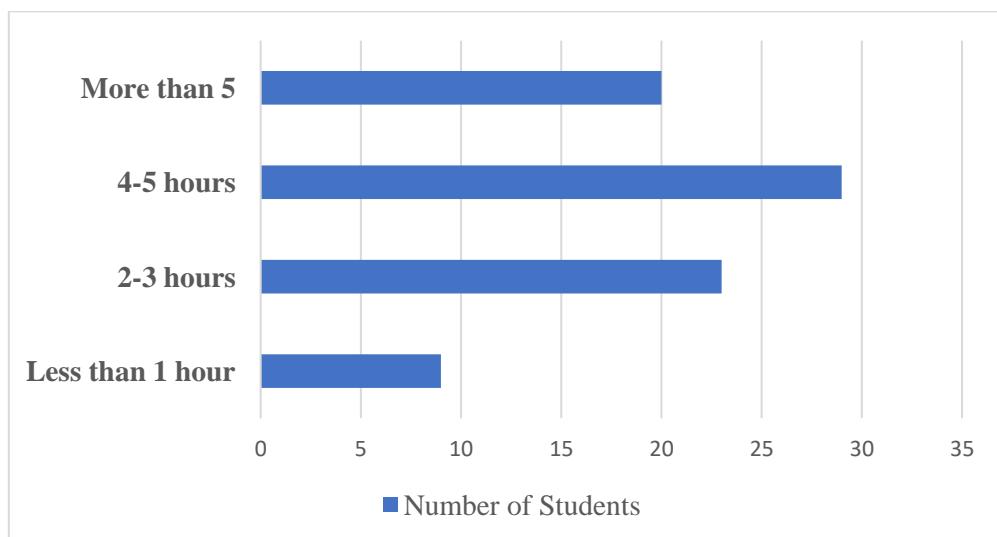
Figure 1 (Hours spent on social media per day)
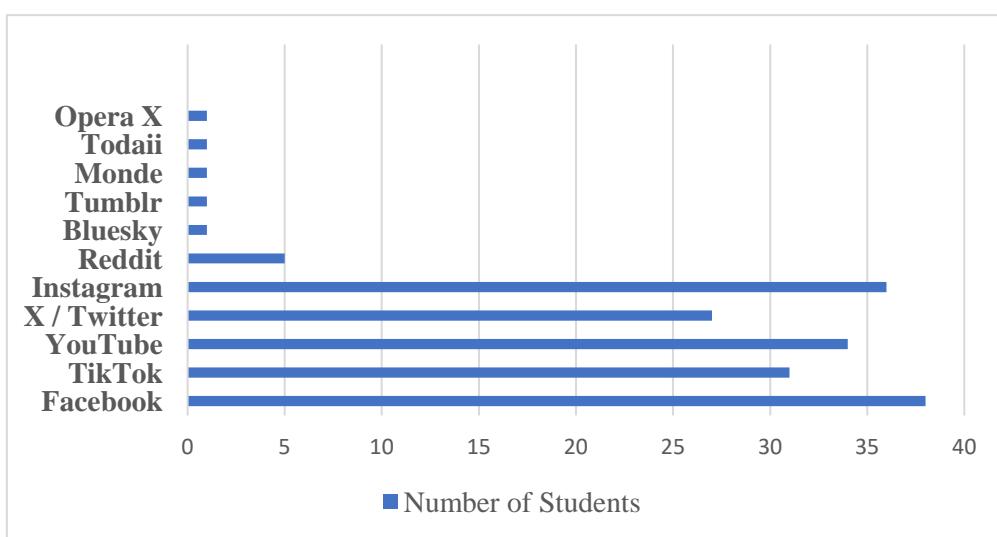
Figure 2 (Usage of different social media platforms)

Data suggested that respondents had a mixed perceptions of efficiency of social media for getting political news compared to other media outlets. Majority of respondents, approximately 58% believe that social media is somewhat more efficient for political news than other media outlets.
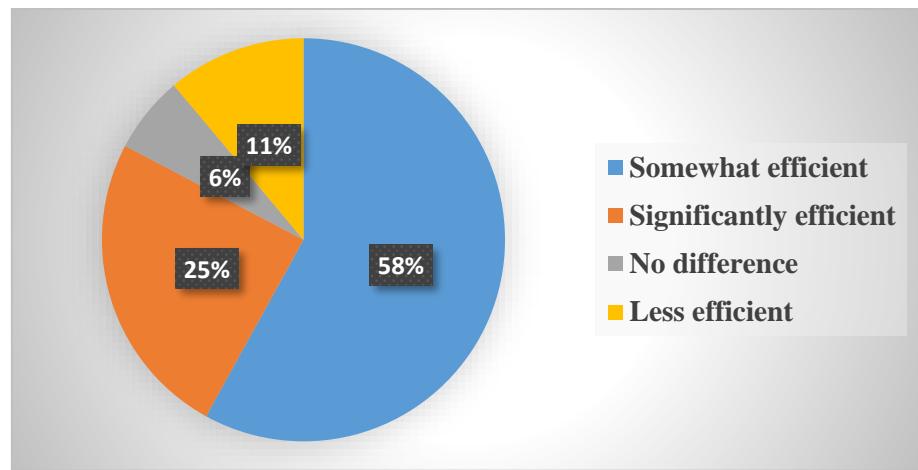
Figure 3 (Comparison of efficiency of social media to other media outlets for getting political news)

74 out of all 81 respondents which is roughly 91% admitted to using social media. 64 respondents reported that they have encountered political contents on social media (counted all responses except "never" "rarely") and 62 respondents mentioned their encounter with political content that differ from their existing beliefs (counted all responses except "never" "rarely"). Although data showed that a significant number of respondents do encounter political content on social media platforms (see Figure 4), only a small subset of respondents actually engage in political content and political discussions (see Figure 4).
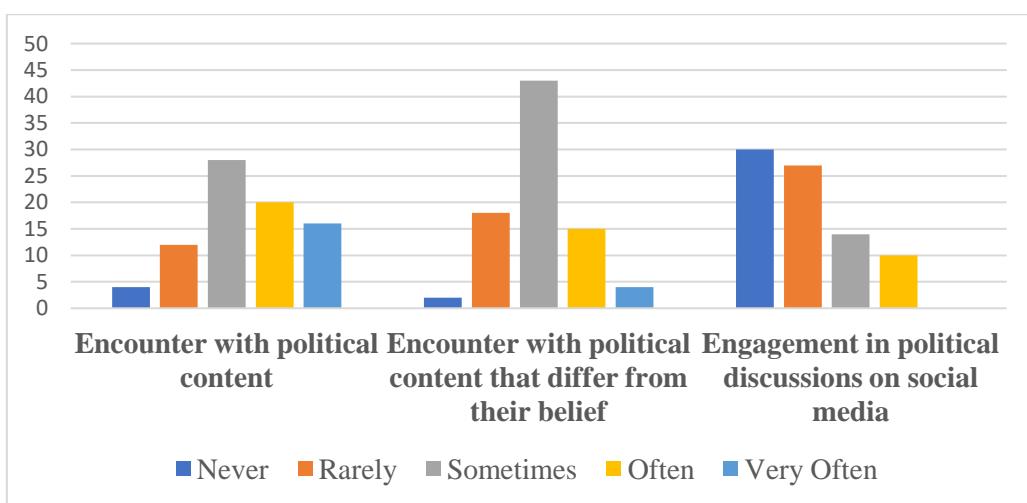
Figure 4 (Encounter and engagement with political content on social media)

Many respondents, about 40% of respondents agree that social media platforms tend to show content that often aligns with their pre-existing beliefs, which shows that social media platforms' algorithm can contribute to the creation of echo chambers.
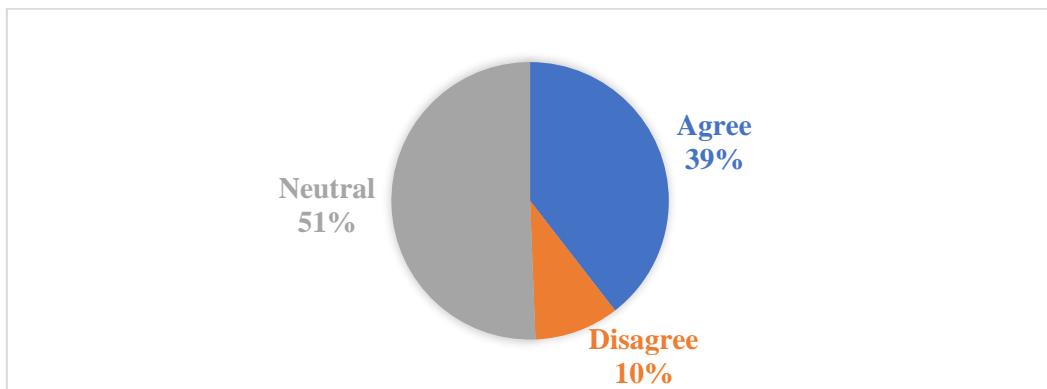

Figure 5 (Social media enforcing pre-existing belief)

A number of 32 respondents (about 40%) have revealed that they have blocked, muted, or unfollowed individuals with differing political views than them (see Figure 6). Interestingly, respondents who have previously reported their less frequent engagement on social media have also admitted avoiding opposing views by blocking, muting, or unfollowing, which could be a way to avoid conflicts on social media. From this result, it is clear that a notable number of participants actively engage in selective exposure on social media. Engagement in selective exposure can contribute to the creation of echo chambers, where individuals tend to interact more with like-minded content or discussions on social media. These patterns suggest the significant role algorithms and user agencies play in shaping the politically polarized digital environment.

The data also highlights a variety of different perceptions students have of the impact of social media on political polarization. Majority of respondents agree that social media contribute to political polarization while a small subset offered an opposing perspective (see Figure 7).
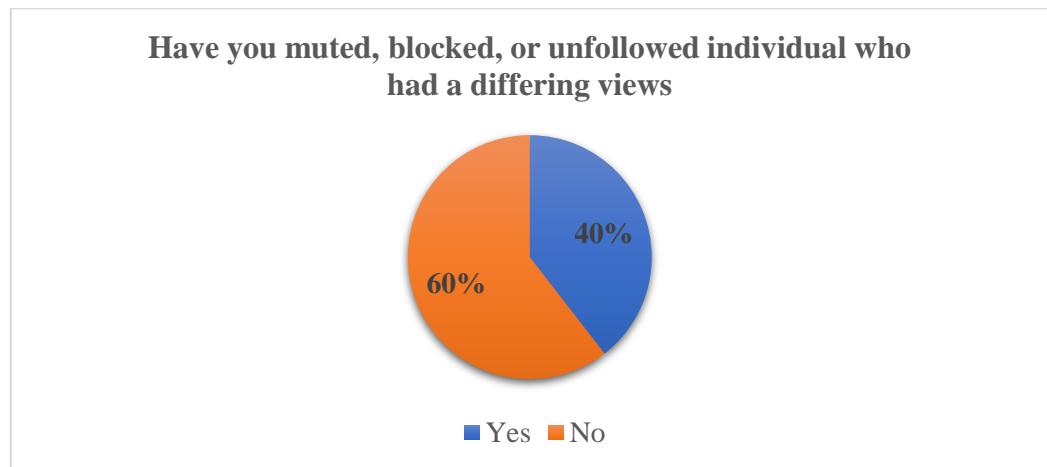

Have you muted, blocked, or unfollowed individual who had a differing views
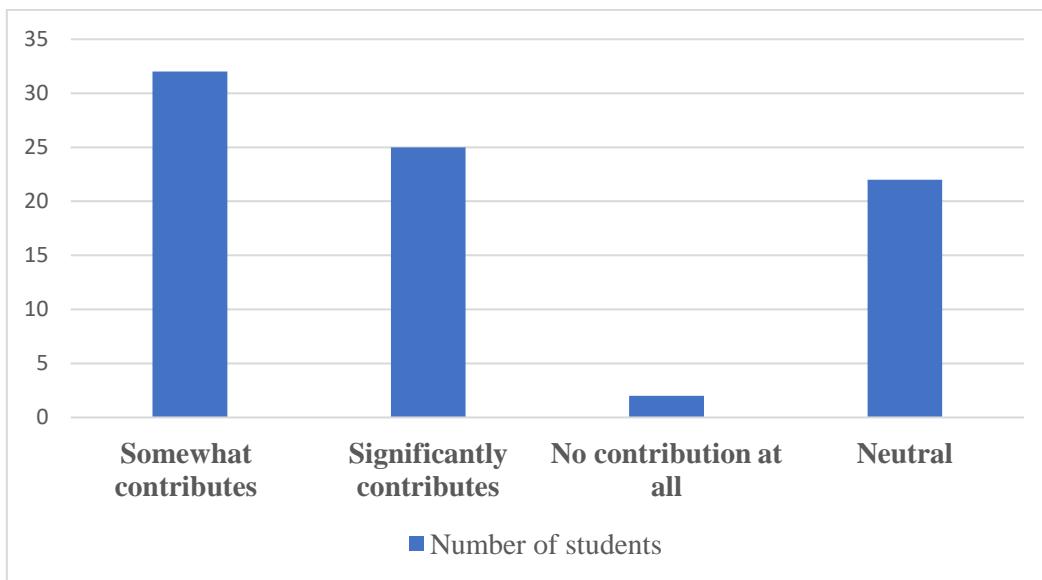
Figure 7 (Does social media contribute to political polarization?)

This divergence in perception of impact of social media could have resulted from personal experience and preference, as well as usage patterns. Respondents who otherwise reported to rarely or never encountering political content may believe social media to have little to no influence.

49% of the respondents also believed that exposure to social media does not contribute to less political polarization.

Insights from Cross-Cultural Student Behavior: Discussion

Discussion A: Hypothesis suggested that social media does contribute to political polarization among university students. This was proven correct by the findings in the study. Key trends, such as the use of social media platforms such as Facebook, Instagram, YouTube, TikTok, and X for political engagement such as getting political news were consistent with the hypothesis.

One of the most important and new behavioral trends recorded in this study was selective behavioral exposure, where participants curate their own digital environments. 40% of the respondents admitted to muting, blocking, and unfollowing individuals who otherwise had different political views from theirs. The hypothesis suggests that this behavior is probably caused by a desire to avoid conflicts. This behavior contributes to the creation of echo chambers, where individuals tend to interact more with like-minded content or discussions on social media. Echo chambers, in turn, contribute to political polarization. Unexpected insights were also shown in this study. For instance:

Only a small number of respondents believed that social media contributes to less polarization while the majority thought otherwise. This finding shows the different perceptions students have and it also suggests that personal social media usage patterns or exposure to diverse content can play significant roles.

This study highlights the importance of understanding the role of selective exposure and algorithms in shaping political discourse. This calls for media awareness and intervention against polarization.

Discussion B: The methodology for this study utilized random sampling and a survey (more specifically, an online survey) distributed to students of two universities---University of Southern Indiana in the United States of America and National University of Mongolia in Mongolia. This

approach ensured a certain degree of diversity in responses from students, there were still limitations.

The random sampling was constrained by time and cost while still trying to be considerate of students' willingness to participate. The response rates were considerably low, ranging from 5.8% at USI and 10.94% at NUM, which raised the concern for non-response bias. The study might be skewed due to participant differences. There were also concerns for the validity of responses, with the decision to not translate the survey into Mongolian, the findings may have been affected by the validity of responses from students at NUM. If time was not a concern, the translation of survey could ensure the comprehensiveness and the validity of responses.

Future research should expand the sample size to include more university students and make changes to certain questions (such as which social media platform is being used the most among students for getting political news) and add more questions in the survey concerning social media usage could potentially contribute to give more clearer and broader answer. Future research may also consider platform dynamics, demographic variables, and longitudinal studies to understand the long-term effects of social media.

 REFERENCES:

1. A.Bessi, & E.Ferrara. (2016). Social bots distort the 2016 U.S. presidential election online discussion. *First Monday, 21*(11).

2. A.Hoag. (2008). Measuring Media Entrepreneurship. *The International Journal on Media Management, 10*(2), 74-80.

3. A.Mitchel, M.Jurkowitz, J.B.Oliphant, & E.Shearer. (2020). *Americans who mainly get their news on social media are less engaged, less knowledgeable.* Pew Research Center. Retrieved 7 30, 2020, from https://www.pewresearch.org/journalism/2020/07/30/americans-who-mainly-get-their-news-on-social-media-are-less-engaged-less-knowledgeable/?gad_source=1&gclid=CjwKCAjwwe2_BhBEEiwAM1I7sVVGw_RRn5FbCVYGKDrUnG_gMxTlPMyWvSznW61PBEf3Iw3B-MAcFBoCDiQQAvD_BwE

4. Atiqi, M. A. (2023). *Echo Chamber and Polarization in Social Media: An Agent-Based Modeling Approach.* Singapore: Springer.

5. Barberá, P. (2015). How Social Media Reduces Mass Political Polarization. *APSA Conference 2015* (pp. 1-46). APSA.

6. E.M.Bakshy. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science, 348*(6239), 1130-1132.

7. GCFGlobal. (n.d.). What is Echo Chamber? *Digital Media Literacy*. Retrieved from https://edu.gcfglobal.org/en/digital-media-literacy/what-is-an-echo-chamber/1/

8. J.A.Tucker, A.Guess, P.Barbera, C.Vaccari, & A.S. Siegel. (2018). Social media, political polarization, and political disinformation:A review of the scientific literature. *Political Science Research and Methods, 4*, 80-120.

9. Jamieson, K. H., & N.Cappella, J. (2008). *Echo Chamber: Rush Limbaugh and the Conservative Media Establishment.* New York: Oxford University Press.

10. L.Boxell, M.Gentzkow, & J.M.Shapiro. (2017, March). Is the internet causing political polarization? Evidence from demographics. *National Bureau of Economic Research*. doi:10.3386/w23258

11. M.Napoli, P. (2019). *Social Media and the Public Interest: Media Regulation in the Disinformation Age.* New York: Columbia University Press.

12. M.W.Al-Quran. (2022). Traditional media versus social media: Challenges and opportunities. *Technium Romanian Journal of Applied Sciences and Technology, 4*(10), 145-160.

13. McKeever, B. W., Choi, M., & McKeever, R. (2022). Gun violence as a public health issue: Media advocacy, framing and implications for communication. *News Research Journal, 43*(2), 138-154. doi:https://doi.org/10.1177/073953292210904

14. N.Newman, R.Fletcher, A.Kalogeropoulos, D.A.L.Levy, & R.K.Nielsen. (2017). *Reuters Institute Digital News Report 2017.* Reuters. Retrieved from https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2017

15. P.J.Barberá. (2015). Tweeting from left to right: Is online political communication more than an echo chamber? *Psychological Science, 26*(10), 1531-1542.

16. R.J.Dalton. (1987). Generational change in elite political beliefs: The growth of ideological polarization . *The Journal of Politics, 49*(4), 976-997.

17. R.Sunstein, C. (2018). *#Republic: Divided democracy in the age of social media.* Princeton: Princeton University Press.

18. S.Boulianne. (2015). Social media use and participation: A meta-analysis of current research. *Information, Communication & Society, 17*(8), 524-538.

19. S.Iyengar, & M.Krupenkin. (2019). The origins and consequences of affective polarization in the United States. *Annual Review of Political Science, 22*, 129-146.

20. Shu, K., Wang, S., Lee, D., & Liu, H. (2020). *Disinformation, Misinformation, and Fake News in Social Media - Emerging Research Challenges and Opportunities.* Switzerland: Springer.