



Sudurpaschim Spectrum

A Multidisciplinary, Peer Reviewed Journal

ISSN: 3021-9701 (Print)

Published by Faculty of Humanities and Social Sciences,
Far Western University, Mahendranagar, Nepal

Ideological Polarization through Selective Exposure: Social Media Perspectives

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Abstract

This study seeks to outline the problems of polarization caused by social media and its current scenarios. It involves the elaboration of some important questions, but the answers are still open and cannot be overlooked. The paper discussed how social media connects people freely and how everything is done with one click. In this regard, there are many polarization effects for like-mindedness choices that have been discussed here from a social-psychological point of view. This like-minded choice can lead to an idealistic polarization, and the extremities can grow between the two polarities of disgust and hatred. Selective exposure and ideological polarization have been gradually gaining academic attention recently. This study will show that most of the research on polarization has been focused on political polarization while ideological polarization being a much broader aspect, has not been paid an equal amount of attention. Several risky indicators that pose a danger to democratic societies have been also discussed in this paper as the consequence of ideological polarization. From a socio-psychological perspective, the topic of polarization is nothing new but the issue of polarization through selective exposure in social media is on the rise. Social scientists have always serious room to explore this arena.

Keywords: Social media, ideological polarization, political fragmentation, selective exposure.

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Introduction

Social media and the internet have provided a ground where consumers can easily access various information from around the globe. In the contemporary world social media have had deep influences. One of the biggest social media companies Facebook, has 2.3 billion monthly active users worldwide (Facebook 2018). The upsurge of social media platforms such as Facebook and Twitter, allows individuals to enthusiastically share their beloved stories with hundreds of their acquaintances, as well as lowering the circulation prices of publishers (Goel et al. 2012b, Bakshy et al. 2012). The Pew Research Center most recently conducted a study of news consumption in which they documented that 62% of grownups acquire their news on social media in the U.S.A. and 66% of total Facebook consumers use the site for news consumption (Gottfried and Shearer, 2016). Although the research and data are typically based in the West, it is not hard to anticipate the worldwide condition. The internet itself has become a global arena in which every nation and race intermingle. Popular social media like Facebook, Twitter, and Instagram give users more personalized experiences using algorithms that analyze the user data and make the user experience unique for each individual. In contemporary times, social media have exhibited signs of ideological polarization and the development of the so-called filter bubbles[1] related to the evolving phenomenon of false news (Pariser 2011, Dylko et al. 2017). Social media may construct ideological “echo chambers”[2] amongst similar-minded groups of friends, thus growing political polarization (Settle 2018, Sunstein 2017). In addition, propaganda spreads online primarily through social media (Allcott & Gentzkow 2017). Consumers can more simply discover niche content personalized to their preferences, as news aggregators and net search engines become gradually capable of producing personalized outcomes (Das et al. 2007, Agichtein et al. 2006, Hannak et al. 2013). Some scholars have stated that such echo chambers of ideology on social media are “abolishing democracy” (El-Bermawy 2016). Much of the public dissertation regarding social media seems to recommend a belief that online ideological echo chambers are extremely unescapable and intensely challenging for society which is a topic yet to be explored deeply.

The Rising Issue of Polarization through Social Media

Social media has made communication so easy that as a result, users have great access to various contents. The contents are so large in volume that they are bombarded continuously through social media. As a result, to make the user experience lively and pleasant the algorithms are introduced by which users are only presented with the information and topics they are interested in. In the context of democracy many academics claim that for grooming well-knowledgeable citizens, contact with a different variety of perspectives is important who are also open-minded to the thoughts of others

(Gentzkow & Shapiro 2010, Nunn et al. 1978). On the other hand, contact with only like-minded opinions in a type of “echo chamber” may contribute to polarization and the extremes (Warner 2010, Sunstein 2002). As for influencing alternative political perspectives and revealing information to individuals, the role of social media platforms has become much more significant (Bakshy et al. 2015, Bright 2016), and the social significance of the fragmentation proposition will continue to grow.

However, every research does not point toward the negatives and imminent threats. Many researchers have also revealed at least some sign of cross-ideological experience (Wojcieszak & Mutz 2009), at the same time as others have claimed that social media creates an optimistic total influence on the heterogeneity of political systems (Kim 2011, Brundidge 2010). Nevertheless, some other scholars have opposed that excessive cross-ideological experience can lead to political uncertainty, and hereafter at least a definite quantity of fragmentation is essential for political acts (Dahlbergm 2007, Mutz 2002). As in the feeding of news and info social media plays an important part, the impacts of ideological polarization in consumption of information become questionably more outward. However, over the ages, different issues, such as algorithmic filtering and consumer social network configuration, have lessened the scope of content that a consumer consumes. This has led to an ever-growing sequence where consumers on social media simply consume content that supports their opinions and hereafter are suggested more such content, eventually leading to a polarized society where various ideas are not exhilarated.

Polarization: An Overview

The concept of polarization itself is openly connected with the measurement policy of the term. McCarty, Poole, and Rosenthal (2006) describe it in a very precise manner— “Polarization is, for short, a separation of politics into liberal and conservative camps.” (McCarty et al. 2006:3). Fiorina and Abrams (2008:566) put it as, “Standard dictionary definitions of Polarization emphasize the simultaneous presence of opposing or conflicting principles, tendencies, or points of view.” Gelman proposes that polarization comprises of three “complementary, but conceptually distinct notions” (Gelman 2008:113). Three features of polarization include- partisan polarization, opinion radicalization, and issue alignment. Partisan polarization refers to a categorization process in which people gradually line up their party association with ideology. But Fiorina et al. (2006:61) say that “partisan polarization is not the same thing as popular polarization.” The recognized definition of polarization is a growing detachment between partisans about their issue-based ideology, at times mentioned to as “ideological polarization” (Westwood and Iyengar 2015). It is to be considered that, whether supporters of this opinion have faith that ideological polarization is growing

or not (Abramowitz 2010, Fiorina 2009), it is a particularly issue-based opinion of polarization. In this opinion of polarization, without any straight or provisional association to issue-based ideological disparities partisans dislike each other even more. To date, this type of polarization has only been applied to partisan, not ideological, distinctiveness. Social distinctiveness mainly drives Affective polarization since social distinctiveness has frequently been found to produce in-group opportunity and out-group derogation (Mason 2015, Mackie et al., 2000, Mason et al. 2015). Even amongst fictional factions that exist only in a research laboratory, followers of that party will honor their group in the expense of the greater good (Billig & Tajfel 1973).

According to Gelman's (2008) typology, in refining the conceptualization opinion radicalization can perform a complementary part. Underneath radicalization, "people gravitate away from the political center toward more extreme positions on issues" (Gelman 2008:114). So, the situation of contradictory issue positions has been emphasized by this feature.

Issue alignment distresses to the level issue positions are connected. Often positions are associated across diverse issue aspects, there might be some people who are conformist in one issue aspect but are generous in the other aspect at the same time. Ideological dissections become vague in this state of cross-cutting cleavages, and by this means the possibility of clashes or fights between surrounding groups decreases (Gelman 2008). As a whole, according to Gelman (2008), these three different ideas provide different essences of polarization correspondingly and can also be joined together in many different ways to explanation for other potential systems of polarization.

That Initiates Polarization

There are some incentives such as Homophily, Cognitive dissonance, Echo chamber, Selective exposure, Information overload, Media bias, and Algorithmic bias, etc. are responsible for an ideologically polarized society

In 1962 Festinger recommended cognitive dissonance theory but Fisher et al. 2008 redefined cognitive dissonance as the "phenomenon by which people experience positive feelings when presented with information" (Fischer et al. 2008). The level of discrete media consumption activities is stimulated by this phenomenon, for example, the existence of the information that is underpinning perspective is likely to upsurge the probability of exposure, and as a result, the exposure to a different source of info is decreasing (Garrett 2009). On social media, people only connect (following, friending, sharing, etc) with whom they feel positive about their perspectives.

Another reason for polarization is confirmation bias. The propensity to look for, read, favor, and remember info in such a technique that approves one's previous views or propositions. The inclination of people to have a relationship and connection with those who are alike to themselves is called Homophily (McPherson 2001, Kandel 1978). On social media, homophily drives users to attach to those who share the same opinions as their own, as a result extending echo chambers. Echo chambers refer to conditions where individuals "listen to their speech" on social media platforms. Echo chambers also refer to conditions where users consume content that shares similar perspectives that users themselves believe in. In online platforms echo chambers can be found in different forms such as forums (Edwards, 2014), and in social media platforms (Barberá et al. 2015) blogs (Gilbert et al. 2009, Wallsten 2005), as closed groups and pages or servers. Garrett (2009) claimed that how information has turned out to be a one-sided preference has been described by echo chambers. Echo chambers also have been used to describe how those preferences bias sources that underpin opinions instead of challenging them, irrespective of the validity of the source (Adamic & Glance 2005). The trouble that users confront in understanding a matter and making decisions efficiently when they have too much information about that matter is known as information overload (Stroud 2010). This information overload has been emphasized by the emergence of social media platforms and the internet and performs as a facilitator to biases that have been described above. The observed bias of reporters and news creators inside newspapers to remain biased openly to a particular belief/perspective is known as Media bias (Harrison 1985).

However, media bias could be well-defined in a wider perspective, but in the perspective of polarization, media bias is cautiously and unambiguously supporting one side over the other side. Research has revealed that media bias can drive alterations in voting behavior (Dellavigna et al. 2007). Bias that is spread by algorithms behind online platforms such as social media search engines, and reference systems is called algorithmic bias. Though these algorithmic biases are not visible to users, they can influence user's choices. Algorithmic bias leads to Filter bubbles, where users see filtered information, and therefore underpins their opinions (Pariser 2011).

Methodology

This review article adopted a qualitative research approach to broadly analyze the contemporary state of ideological polarization driven by social media. The methodology employed a systematic review of literature, drawing on a diverse range of academic sources to construct a nuanced understanding of the multilayered phenomenon.

Data Collection

The research expansively studied scholarly articles, books, and reports related to social media, ideological polarization, and their interrelated dynamics. A thorough search was conducted in academic databases, including but not limited to JSTOR, and Google Scholar, to ensure the presence of diverse perspectives and a wide-ranging representation of the literature.

Data Analysis

The collected data undertook qualitative analysis techniques, including thematic investigation and content analysis. A thematic investigation was undertaken to identify recurrent themes across the literature, allowing for the extraction of key concepts related to social media's role in ideological polarization. Content analysis was utilized to examine the qualitative content of different studies, examining patterns, trends, and fluctuating viewpoints within the literature as shown in the next sections.

Socio-Político-Cultural Aspects

The methodology prioritized a contextual analysis, spotting the influence of socio-political and cultural factors on the subtleties of ideological polarization. The review measured variations in social media usage patterns, polarization trends, and their consequences across different regions and socio-cultural contexts. This contextual lens is intended to improve the understanding of how social, political, and cultural factors interconnect with the subject under investigation.

Exploration of External Events

External events, such as political developments, technological advancements, and societal shifts, were discovered to distinguish their effect on online discourse and ideological polarization. This consideration acknowledged the dynamic aspect of social media and its susceptibility to stimuli in real-world scenarios. The qualitative methodology adopted in this review facilitated a multifarious examination of the intricacies surrounding ideological polarization in the context of social media. By mixing diverse sources and viewpoints, the research intended to provide a comprehensive analysis that contributes to the current academic discourse on this critical social issue.

Results and Discussion

On Selective Exposure and Political Fragmentation

In theoretical terms, political fragmentation arises in such a network when participants in the course of debates about politics on social media start to oppose

more with others who are ideologically alike than they do others who are ideologically dissimilar (Garcia et al. 2015). As forms of conversation between ideologically alike groups droplet (compared to forms of communication inside these groups) fragmentation turns out to be more severe, and discussions start to be similar to what has been named “echo chambers,” where individuals only perceive their particular perspective repeated back to them (Sunstein 2002). “Echo chambers,” or forms of info sharing by restraining disclosure to opposite political opinions underpin preexistent political views (Bakshy et al. 2015, Prior 2013). Despite primary optimism that social media might allow individuals to find more heterogeneous sources of info about contemporary events, there is rising distress that such opportunities aggravate political polarization due to social network homophily, or the well-documented predisposition of people to create social network relations to those who are alike to themselves (Edelmann & Vaisey 2014, McPherson et al. 2001). The “echo chambers” emphasize the extremely fragmented, modified, and niche-oriented features of social media and recommend these sites raise more political polarization of public view. An echo chamber is a place where consumers strengthen their perspectives and dishonor the perspectives they disagree with (Olmstead et al. 2008). This can hypothetically lead to a descending curve of ever-growing political polarization, which, makes it firmer in turn to have a fact-based argument and to reach an agreement on debatable topics.

“Homophily”[3] is the most commonly identified individual tendency (Barberá, 2014). In that connection, it is widely seen in social media as well. Homophily is a part of the human environment and an organizing belief which is supporting digital social networks. Such a predisposition means that political fragmentation will arise in online debates as people join to others with the same perspective. Nevertheless, in culture or politics, homophily can intensify ethnic beliefs and create “echo chambers” which reduce the security, value, and variety of online discourse. The notion of “selective exposure” is closely interrelated to homophily (Westerwick & Meng 2009).

‘Selective exposure’ is a matter where individuals choose sources or info that they already reach agreement with at the same time as straining out others (Garrett 2009a). Over the earlier half-century, the connection concerning media effects and selective exposure has experienced a revolution. Selective exposure made its presentation as a clarification for why the media may have restricted influences on the views of people. The reasoning was that if the public were not exposed to info that disagreed with their views, then they would have slight motivation to alter their views. That is exactly the issue, why people have a propensity to consume information that supports their opinions and principles and escape such issues that are dissimilar to their viewpoint or even challenging to their point. which is known as selective exposure, or sometimes partisan selective exposure (Stroud 2008, Frey 1986). There is a growing indication to

support the debate that polarization and group homogeneity are influenced by selective exposure. Homogeneous media exposure can extend relations between homogeneous social network exposure and political polarization (Huckfeldt et al. 2004). One of the advocates of the idea Klapper claimed earlier that ‘the tendency of people to expose themselves to mass communications in accord with their existing opinions and interests and to avoid unsympathetic material, has been widely demonstrated’ (Klapper, 1960:19). Previous academics commonly examined variables that would improve or restrain individual’s predisposition to take part in selective exposure. Ideas alike to polarization, for instance, were examined as variables that would affect people’s inclination to search for agreeable info. But now, selective exposure is perceived differently. The possibility for selective exposure is amplified by contemporary media sites with their ever-growing diversity of media passages (Stroud 2008). Sunstein (2001) delivered a strong caution about the concerns of exposure to in agreement with views; with particular orientation to the Internet, he warned that polarization and fragmentation could occur, which drive to less open-mindedness and more extreme opinions. But not all consequences of experiencing same-minded notions are essentially normatively unwanted, some study recommends that exposure to same-minded interactive opinions is associated with higher levels of political involvement (Mutz 2002).

When politically active individuals can evade people and info that contradicts their views, their views are expected to turn out to be gradually extreme due to being exposed to more homogeneous perspectives and fewer trustworthy opposite views. A premeditated democracy depends on a good environment of challenging philosophies as well as a largely knowledgeable public. Democracy would not act to its full potential if people were exposed entirely to individuals or facts that support their pre-existing views (Sunstein 2002, 2007).

On Selective Exposure and Ideological Polarization

Selective exposure and ideological polarization have been receiving much academic attention recently. There is little disparity in the academic literature that over the past several years political elites have turned out to be rapidly polarized (Fiorina et al. 2005, Jacobson 2003). However, elite views are transferred to the public through social media. Those selecting media channels that adhere to their political preferences may be predominantly likely to accept the polarized attitudes of elites. It is possible mass polarization can be intensified by elite polarization (Abramowitz & Saunders 2008). In the spread of polarizing content through social media elites also perform an enormous part. Ideological campaigns of all sorts are widely spread in social media despite their correctness. Starting from election campaigns that spread false news to the opposing party to scientific myth believers such as the discovery of aliens and flat earthers all

sorts of ideological echo chambers are visible in social media. The general idea is that the chance is abundant to simply access any type of info offered by social media and the internet. However, the recent algorithms of social sites have made use of homophily and it filters the opposing views of the users after analyzing user behavior. This, in turn, reinforces the polarization process, and increased fragmentation and polarization online have been led by this selective exposure. In this connection, some academics argue that algorithmic curation places us in echo chambers of our views by filtering out our online experiences efficiently which leads to ideological polarization (Pariser 2011, Rader & Grey 2015) and increases the significance of fake news.

An important explanation for an association between friendly media consumption and polarization is provided by the study on like-minded interpersonal groups. Huckfeldt et al. (2004) found that people who discuss politics with politically like-minded people have more polarized political assertiveness compared with those who discuss politics with people who have different political inclinations. People who are indulging in discussions just with like-minded groups, after listening to viewpoints that are in favor of their view, are convinced to develop more polarized approaches in the course of the group norm. Individuals amend their views toward the observed group mean to be observed well by their fellow group participants. Chaffee and McLeod (1973) found that people who discussed a political movement more often were more likely to search for info on political partisans.

Homogeneous discussion groups prefer supportive arguments over conflicting info to an extent larger than the preference for supportive info among people (Hardt et al. 2000). Individuals may turn more polarized by pursuing and adopting more encouraging partisan info for social causes. Bill Bishop in his famous book, stated that over ‘as people seek out the social settings they prefer the nation grows more politically segregated’ and they cluster “in communities of like-mindedness’. The result, he explains, is a growing intolerance for political differences that have made national consensus impossible; and politics so polarized that elections are no longer just contests over politics, but bitter choices between ways of life” (Bishop 2008: 6–14).

The other causes of polarization such as ‘selective exposure behavior’, ‘confirmation bias’ and ‘availability bias’ make us more likely to act together with content that approves our pre-existing beliefs which prompts ideological polarization, online as well as offline (Stroud 2008).

In the age of social media distress about selective exposure to info and political polarization has amplified (Pariser 2011, Bakshy et al. 2015, Boxell et al. 2017). Online social networks and personalization are rapidly arbitrating exposure to civic information and news (Olmstead 2011). Even though these technologies are capable

of exposing people to more different perspectives, they also can limit contact to information that challenges existing approaches (Pariser 2011, Sunstein 2007). This phenomenon is related to the embracing of more extreme approaches over the period and misunderstanding of facts about present occasions (Kull et al. 2003). In what way people are connected in the network is designed by the flow of info on social media such as Facebook and Twitter. Isolated construction of political blogs and the interpersonal networks on Facebook are not the same (Adamic & Glance 2005); according to political affiliation on Facebook, though there is grouping, there are also many relationships that cut through ideological associations.

On Consequences

While polarization through social media is an emerging topic, the consequences of polarization are not. Ideological polarization takes along with it different types of risky indicators that pose a danger to democratic societies. The loss of different views and opinions is the most important result of polarization. Bishop in his book, has shown that in polarized situations, “the benefit that ought to come with having a variety of opinions is lost to the righteousness that is the special entitlement of homogenous groups” (Bishop 2008:14). Bishop also claimed that the polarization is more than an upsurge in bias in the society of Americans. Since it touches more ranges than just political life which includes views, way of life, and others. Enormous numbers of the society have moved in a condition where the view of the individual gives way to the philosophy of group what Bishop called a ‘self-perpetuating, self-reinforcing social division’ (2008:6). The main concern here is that these groups, lose the predisposition to proactively debated notions with people or groups of a diverse view as they persuaded by the echo which encloses them with their specific opinions and biases. This drives to a society in which individuals ‘hold overwhelmingly positive views of their co-partisans, and highly negative views of those on the other side of the political spectrum’ (Gentzkow 2016:13).

Galston and Nivola (2006) cautioned that jeopardizing the strength of important political institutes such as the court of law, and Parliament, and the news media polarization may intimidate the constancy of democracy. These are recognized outcomes of elite (partisan) polarization. As with growing divisions, controls, and uncertain voters, political elites travel on the way to ideological extremes, they may feel isolated from politics (Fiorina et al. 2006, Hetherington 2008). Therefore, voters can be detached or less involved in political polarization. Further negative publicity can also dismiss the electorate, particularly unaligned supporters when strong partisan separation is progressively connected with negative publicity in votes (Ansolabehere & Iyengar 1995). On the other hand, whereas many researchers have contended the harmful impacts of polarization on democratic organizations, some

researchers have also challenged the conformist opinion and emphasized the useful aspect of polarization. Brooks and Geer point out that the notion that polarization has theoretically advantageous impacts on public involvement in politics is not a recent idea (Brooks & Geer 2007). Parties seem to become more accountable than earlier as a result of growing polarization within party positions. Therefore, Hetherington claimed that political involvement at the public level has been inspired by elite polarization (Hetherington 2008). With augmented polarization, individuals tend to join in more since electorates consider the vote as being significant if they see greater changes among the nominees and the parties (Abramowitz and Saunders 2008, 552). At the public level ideological polarization between political elites is affected by political changes just like elite polarization leads to changes in mass assertiveness. Jacobson claims that the “relationship between mass and elite partisan consistency is inherently interactive” (Layman et al. 2006:95).

Although technology has provided the opportunity to access varied sources of information easily, even with the accessibility of such info, it has become disturbingly common and easy for individuals to confine themselves to social spheres that agree with their views. Social media is not for the most part effective at evolving info similar to our interests, but they are narrow by the set of issues and persons we select to follow. Algorithmic bias and personalization by providing custom-made content constructed on the views of the user emphasize these effects, as a result segregating the user from an all-inclusive view on an issue. Social media sites recommend content similar to that was previously consumed by consumers, therefore driving consumers to consume issues that are limited to a much narrower perspective. This narrow perspective paves the pathway for a society that is more and more polarized by raising disrespect to opposite opinions. Polarization can lead to consumers getting predisposed info that can nurture narrow-mindedness to opposite perspectives which in turn drives toward ideological isolation and resentment in typical political and societal matters. Generally due to the vagueness of the personalization algorithms lots of users might not even be conscious that they are being restricted to a certain set of views. Being conscious and overcoming bias in the consumed information by users is vital for a well-adjusted, balanced, and just society. Considering all these matters it can be said that social media has indeed the capacity to influence and shape voting behavior in a democratic society (Mitchel et al., 2014). It goes without saying if social media has the power to influence and change voting behavior or nudge inclinations, it also has the great potential to incline users to certain ideologies which is not just confined to the political perspective but to the core philosophical perspective as well. The important notions and ideologies that people choose such as moral principles and religion or the take on honesty and what they view as a crime can also be inclined to a particular pole without the knowledge of the very

individual. So, the question arises, is it happening already? Is it moral? Does that mean that artificial intelligence and algorithms are somewhat influencing human behavior?

Liao et al. (2014) suggested that it is possible to lessen the effect of echo chambers by creating users' consciousness of other users and exposing them to the stance of each other on that particular matter, their expertise, and how extreme their position is. The findings of their study demonstrate that participants are exposed to various types of opinions when they try to obtain more precise info about a matter, as well as agree more with those users who reveal moderately diverse stances on the matter. The tolerance to others' diverse opinions is observed. Vydiswaran et al. (2015) researched users to comprehend which techniques best represent info about debated topics to users to influence them. The results of their study demonstrate that the likelihood of other users trusting in the content upsurges if the credibility of a source, or the proficiency of a user is shown. In the same way, based on the news articles the users read construct a browser strategy that calculates and shows the bias of users (Munson et al., 2013). Their research concludes that presenting users with their biases pushes users to read articles that conflict with their opinions.

Graells et al., 2014 demonstrate that the sheer exhibition of contrarian content has adverse emotional consequences. To surpass this impact, they suggest a graphic interface for creating references from various groups of users, where the user admires the variety and stands on an issue. On the other hand, Munson et al. (2010) display that not every user respects variety. The technique of representing information creates a variance in the way users observe information. Graells et al. (2014) also suggested discovering subjects that might be of concern to both sides which they named "intermediary subjects" by creating a subject diagram.

Conclusion

This paper was an endeavor for the ease of the understanding of the current upsurge and trend of social media that initiates social polarization. It can be either political or ideological. In the current age of information technology, this study suggests that it is a must be up to date of the information and it needs to be aware of the course of information technology. The rise of online media and a media environment of choice have further eased the way to selective exposure and led to polarization of opinion and in turn, ideology among the public. Side by side, news consumption from digital media results in incidental exposure to selective news, making associations with weak ties. The Internet and social media have been found to work together and cause polarization for a variety of reasons like,

- a. Sudden increase in information availability and media sources getting ultra-personalized which is leading people to ultimately choose information with which they already agree (homophily, information overload, selective exposure);
- b. Massive increase in filtering in social media which results in people avoiding reading information of a conflicting nature (confirmation bias, algorithmic filtering);
- c. A huge rise in social feedback within social media translates to homogeneity and reinforced group thinking (group polarization) even though since the internet allows a wide range of choices, it should help expose users to a much broader viewpoint which is rather counterintuitive.

The study in general recommends that it should have facilitated more cross-individual interactions as the social-psychological impact of social media in this regard on the mass population is very far-reaching and possesses immense potential indeed, like most things are both malign and benign.. With some adjustments and reengineering it is possible to incline ideologies that very well go to the realm of controlling the mass. As it is a slippery slope of human beings' fundamental sense of freedom, the connection between social media and the prevalence of online ideological bubbles is not clear yet with critical analysis of strong empirical data as well as the consequences are not clear from a theoretical approach. But it cannot be overlooked that there is a strong reinforcing connection. Even though selective exposure may drive partisans to polarize further in the direction of their original views, this consequence is not yet documented well enough to reach a concrete decision. Finally, the discussion of the role of the Internet and social media in the consumption of ideologically diverse content can lead to contradictory hypotheses that predict both the presence and absence of ideological bubbles. In either case, there are still plenty of research opportunities for researchers regarding this topic and the answer to some core significant question is yet to be answered.

Acknowledgement

The authors would like to thank Nazmul Karim Study Center of the University of Dhaka, Bangladesh for yielding the opportunity of this study.

Conflict of Interest: The authors declare no conflict of interest.

References

- Abramowitz, Alan. I., & Kyle, L. Saunders. (2008). "Is polarization a myth?" *The Journal of Politics*, 70 (02), 542–555.
- Abramowitz, A. (2010). *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. New Haven. CT: Yale University Press.
- Adamic, L. A., and Glance, N. (2005). In *Proceedings of the 3rd International Workshop on Link Discovery (ACM, New York)*, pp. 36–43.
- Adamic, L.A., and Glance, Natalie. (2005). The political blogosphere and the 2004 us election: divided they blog. In *LinkKDD*, pages 36–45.
- Agichtein, E., Brill, E., and Dumais, S. (2006). Improving web search ranking by incorporating user behavior information. In *Proceedings of the 29th annual international ACM SIGIR conference on Research and development in information retrieval*.
- Allcott, H. Gentzkow, M. (2017). Social Media and Fake News in the 2016 Election, *Journal of Economic Perspectives*, 31 (2): 211–36.
- Ansolabehere, S. and Iyengar, S. (1995). *Going Negative: How Political Advertisements Shrink and Polarize the electorate*. New York: The Free Press.
- Bakshy, E., Messing, S., and Adamic, L.A. (2015). Political science. Exposure to ideologically diverse news and opinion on Facebook. *Science*, 348:1130–1132.
- Bakshy, E., Rosenn, I., Marlow, C., and Adamic, L. (2012). The role of social networks in information delusion. In *Proceedings of the 21st international conference on World Wide Web*, pages 519-528. ACM.
- Barberá, P. (2014). Birds of the same feather tweet together: Bayesian ideal point estimation using Twitter data. *Political Analysis*, 23(1), 76–91.
- Barberá, P., Jost, J. T., Nagler, J. Tucker, J.A. and Bonneau, R. (2015). Tweeting from left to right: Is online political communication more than an echo chamber? *Psychological science*, 26(10):1531–1542.
- Bishop, B. (2008). *The Big Sort: Why The Clustering of Like-minded America is Tearing Us Apart*. New York: Mariner Books.
- Billig, M., and Tajfel, H. (1973). "Social Categorization and Similarity in Intergroup Behaviour." *European Journal of Social Psychology*, 3:27–52
- Boxell L, Gentzkow M, Shapiro JM (2017) Greater Internet use is not associated with faster growth in political polarization among us demographic groups. *Proc Natl Acad Sci USA* 114:10612–10617.

- Brundidge, J. (2010). Encountering “Difference” in the Contemporary Public Sphere: The Contribution of the Internet to the Heterogeneity of Political Discussion Networks. *Journal of Communication*, 60(4), 680–700. <https://doi.org/10.1111/j.1460-2466.2010.01509.x>
- Brooks, D. J. and Geer, J.G. (2007). ‘Beyond negativity: The effects of incivility on the electorate’. *American Journal of Political Science* ,51 (1), 1-16.
- Chaffee, S. H., & McLeod, J. M. (1973). Individuals vs. social predictors of information seeking. *Journalism Quarterly*, 50, 237–245.
- Dahlberg,L.(2007).Rethinking the fragmentation of the cyberpublic: From consensus to contestation. *New Media & Society*, 9(5), 827–847. doi:10.1177/1461444807081228
- Das, A. S., Datar, M., Garg, A., and Rajaram, S.(2007). Google news personalization: Scalable online collaborative filtering. In *Proceedings of the 16th international conference on World Wide Web*, pages 271 {280}. ACM.
- DellaVigna ,S.,and Kaplan,E.(2007). The fox news effect: Media bias and voting. *The Quarterly Journal of Economics*, 122(3):1187–1234.
- Dylko, I.Dolgov,I. and Hoffman,W.(2017).The dark side of technology: an experimental investigation of the influence of customizability technology on online political selective exposure. *Computer in Human Behavior*, 73: 181–190.
- Edelmann, A. and Vaisey, S. (2014).Cultural resources and cultural distinction in networks. *Poetics*, 46:22–37.
- Edwards, C., Autumn, E. Patric, S.and Ashleigh, S. (2014). “Is That a Bot Running the Social Media Feed? Testing the Differences in Perceptions of Communication Quality for a Human Agent and a Bot Agent on Twitter.” *Computers in Human Behavior* ,33 (April): 372–76.
- El-Bermawy, M. M. (2016,). Your filter bubble is destroying democracy. *Wired*. Retrieved from <https://www.wired.com/2016/11/filter-bubble-destroying-democracy/>
- Facebook. (2018). “Facebook Reports Third Quarter 2018 Results.” Press Release. <https://investor.fb.com/investor-news/press-release-details/2018/Facebook-Reports-Third-Quarter-2018-Results/default.aspx>.

- Festinger, L., & Aronson, E. (1962). The arousal and reduction of dissonance in social contexts. In D. Cartwright & A. Zander (Eds.), *Group dynamics*, (2nd ed. pp. 214–231). Evanston, IL: Row, Peterson and Company
- Fiorina, M. P., Abrams, S. J., and Pope, J. C. (2005). *Culture war? The myth of a polarized America*. New York: Pearson Longman.
- Fiorina, M. P. and Matthew S. L. (2006). Disconnected: The Political Class versus the People.” In *Red and Blue Nation? Characteristics and Causes of American Polarized Politics*. ed. Pietro S. Nivola and David Brady. Washington, D.C.:Brookings Institution Press. Pages 49-71.
- Fiorina, M. P. and Abrams, S, J. (2008). “Political Polarization in the American Public.” *Annual Review of Political Science*, 11: 563-588.
- Fiorina, M. P. (2009). *Disconnect: The Breakdown of Representation in American Politics*. Norman: University of Oklahoma Press.
- Fischer,P. Frey ,D., Peus ,Claudia., and Kastenmüller,A.(2008). The theory of cognitive dissonance: State of the science and directions for future research. In *Clashes of Knowledge*, pages 189–198. Springer.
- Frey, D .(1986). Recent research on selective exposure to information. In: Liao QV, Fu W, Mackay Wendy E. (eds) *Beyond the Filter Bubble: Interactive Effects of Perceived Threat and Topic Involvement on Selective Exposure to Information*.
- Galston, W.A. and Nivola, P. S. (2006).Delineating the Problem.” In *Red and Blue Nation? Characteristics and Causes of American Polarized Politics*. ed. Pietro S. Nivola and David Brady. Washington, D.C.: Brookings Institution Press.
- Graells,G.E.,Mounia, L. And Daniele, Q. (2014).People of opposing views can share common interests. In *Proceedings of the 23rd International World Wide Web Conference Companion*, pages 281–282. International World Wide Web Conferences Steering Committee.
- Garrett, K.K.(2009). Echo chambers online?: Politically motivated selective exposure among internet news users. *Journal of Computer-Mediated Communication*,14(2):265–285.
- Garrett, R. K. (2009a). Politically motivated reinforcement seeking: Reframing the selective exposure debate. *Journal of Communication*, 59(4), 676–699.
- Garcia, D., Abisheva, A., Schweighofer, S., Serdült, U., and Schweitzer, F. (2015). Ideological and temporal components of network polarization in online political participatory media. *Policy & Internet*, 7(1), 46–79.

- Gelman, A. (2008). *Red state, blue state, rich state, poor state: why Americans vote the way they do*. Princeton, NJ: Princeton University Press.
- Gentzkow, M., and Shapiro, J. (2010). "Ideological Segregation Online and Offline." NBER Working Papers. NBER. Available from: <http://www.nber.org/papers/w15916>
- Gilbert, E., Bergstrom, T., and Karahalios, K. (2009). Blogs are echo chambers: Blogs are echo chambers. In 42nd Hawaii International Conference on System Sciences, pages 1–10.
- Goel, S., Watts, D. J., and Goldstein, D. G. (2012b). The structure of online diffusion networks. In Proceedings of the 13th ACM Conference on Electronic Commerce, pages 623–638. ACM.
- Gottfried, J., Shearer, E. (2016) News use across social media platforms 2016. Pew Research Center. Available at: <http://www.journalism.org/2016/05/26/news-use-across-social-media-platforms-2016/> (accessed 19 July 2017).
- Grömping, M. (2014). 'Echo Chambers' Partisan Facebook Groups during the 2014 Thai Election. *Asia Pacific Media Educator*, 24(1):39–59.
- Hannak, A., Sapiezynski, P., Molavi Kakhki, A., Krishnamurthy, B., Lazer, D., Mislove, A., and Wilson, C. (2013). Measuring personalization of web search. In Proceedings of the 22nd international conference on World Wide Web, pages 527–538. International World Wide Web Conferences Steering Committee.
- Hardt, S., Frey, S. D., Lüthgens, C., & Moscovici, S. (2000). Biased information search in group decision making. *Journal of Personality and Social Psychology*, 78, 655–669.
- Harrison, M. (1985). *TV News, Whose Bias?: A Casebook Analysis of Strikes, Television and Media Studies*. Hermitage [England]: Policy Journals.
- Hetherington, M. J. (2008). "Turned off or Turned on? How Polarization Affects Political Engagement." *Red and Blue Nation*, 2: 1–33.
- Huckfeldt, R., Mendez, J. M., & Osborn, T. (2004). Disagreement, ambivalence, and engagement: The political consequences of heterogeneous networks. *Political Psychology*, 25, 65–95.
- Iyengar, S. and Westwood, S. J. (2015). "Fear and Loathing across Party Lines: New Evidence on Group Polarization." *American Journal of Political Science*, 59:690–707.

- Jacobson, G. C. (2003). Partisan polarization in presidential support: The electoral connection. *Congress & The Presidency*, 30, 1–37.
- Kandel, B. D. (1978). Homophily, selection, and socialization in adolescent friendships. *American journal of Sociology*, 84(2):427–436.
- Kim, K. (2011). Public understanding of the politics of global warming in the news media: The hostile media approach. *Public Understanding of Science*, 20(5), 690–705.
- Kim, Y. (2011). The contribution of social network sites to exposure to political difference: The relationships among SNSs, online political messaging, and exposure to cross-cutting perspectives. *Computers in Human Behavior*, 27(2), 971–977.
- Klapper, J. T. (1960). *The Effects of Mass Communication*. Glencoe: The Free Press.
- Kull, S., Ramsay, C., and Lewis, E. (2003). *Polit. Sci. Q.* 118, 569–598.
- Layman, G. C., and Green, J. C. (2006). Wars and rumors of wars: the contexts of cultural conflict in American political behavior. *Br. J. Polit. Sci.* In press.
- Liao, V. Q., and Fu, T. W. (2014). Can you hear me now?: mitigating the echo chamber effect by source position indicators. In *Proceedings of the 17th ACM conference on Computer supported cooperative work & social computing*, pages 184–196.
- Mackie, D. M., Devos, T., and Smith, E. R. (2000). “Intergroup Emotions: Explaining Offensive Action Tendencies in an Intergroup Context.” *Journal of Personality and Social Psychology*, 79:602–16.
- Mason, L. (2015). “‘I Disrespectfully Agree’: The Differential Effects of Partisan Sorting on Social and Issue Polarization.” *American Journal of Political Science*, 59:128–45.
- McCarty, N., Poole, K. T. and Rosenthal, H. (2006). *Polarized America: the dance of ideology and unequal riches*. Cambridge: MIT Press.
- McPherson, M., Smith, L. L., and Cook, J. (2001). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27, 415–444.
- Mitchell A., Gottfried J., Kiley J., Matsa K. E. (2014). Political polarization & media habits. <http://www.journalism.org/2014/10/21/politicalpolarization-media-habits>
- Munson, A. S., Lee, Y. S and Resnick, P. (2013). Encouraging reading of diverse political viewpoints with a browser widget. In *Proceedings of the 7th AAAI International Conference on Web and Social Media*, 2013.

- Munson, A.S., Lee, Y., S and Resnick, P. (2010). Presenting diverse political opinions: how and how much. In Proceedings of the SIGCHI conference on human factors in computing systems, pages 1457–1466.
- Mutz, D. (2002). The consequences of cross-cutting networks for political participation. *American Journal of Political Science*, 46(4), 838–855.
- Nunn, C., Crockett, H., and Williams, J. (1978). *Tolerance for nonconformity*. San Francisco, CA: Jossey-Bass.
- Olmstead, K., Mitchell, A., and Rosenstiel, T. (2011). Navigating news online. Pew Research Center. Available at www.journalism.org/analysis_report/navigating_news_online.
- Pariser, E. (2011). *The Filter Bubble: What the Internet is Hiding from You*. New York: Penguin Group.
- Prior, M. (2013). Media and political polarization. *Annu Rev Polit Sci*, 16:101–127.
- Rader, E., and Gray, R. (2015). Understanding user beliefs about algorithmic curation in the Facebook news feed. In: Begole B, Kim J (eds) Proceedings of the 33rd Annual ACM Conference on Human Factors in Computing Systems, Seoul, Republic of Korea, 18–23 April 2015, pp. 173–182. New York, NY, USA: ACM.
- Settle, J.E. (2018). *Frenemies: How Social Media Polarizes America*. New York: Cambridge University Press.
- Stroud, N.J. (2008) Media use and political predispositions: revisiting the concept of selective exposure. *Political Behaviour* 30:341–366.
- Stroud, N.J. (2010) Polarization and partisan selective exposure. *Journal of Communication* 60(3): 556–576.
- Sunstein, C.R. (2001). *Republic.com*. Princeton, NJ: Princeton University Press.
- Sunstein, C.R. (2002). The law of group polarization. *Journal of Political Philosophy*, 10(2):175–195.
- Sunstein, C. R. (2007). *Republic.com 2.0*. Princeton University Press.
- Sunstein, C R. (2017). *#Republic: Divided Democracy in the Age of Social Media*. Princeton, NJ: Princeton University Press.
- Vydiswaran, V.G., Zhai, C.X., Roth, D. and Pirolli, P. (2015). Overcoming bias to learn about controversial topics. *Journal of the Association for Information Science and Technology*.

- Wallsten, K. (2005). Political blogs and the bloggers who blog them: Is the political blogosphere and echo chamber. In American Political Science Association's Annual Meeting., pages 1–4.
- Warner, B. R. (2010). Segmenting the electorate: The effects of exposure to political extremism online. *Communication Studies*, 61(4), 430–444.
- Westerwick, K.S., and Meng, J. (2009). Looking the other way: Selective exposure to attitude consistent and counter attitudinal political information. *Communication Research*, 36(3), 426–448.
- Wojcieszak, M., & Mutz, D. (2009). Online groups and political discourse: Do online discussion spaces facilitate exposure to political disagreement? *Journal of Communication*, 59(1), 40–56.