



RESEARCH PAPER

Social Media and Political Polarization: Investigating the Role of Online Platforms in Shaping Public Opinion

¹Amna Ashraf, ²Khurram Shahzad Gondal and ³Suleman Ahmed

1. Visiting Lecturer, Department of International Relations, University of Sargodha, Sargodha, Punjab, Pakistan.
2. Assistant Education Officer, School Education Department, Punjab, Pakistan.
3. M.Phil. Scholar, Department of International Relations, University of Sargodha, Sargodha, Punjab, Pakistan

***Corresponding Author:** suleman_fn@hotmail.com

ABSTRACT

This qualitative research paper examines the extent to which social media contributes to the polarization of politics and the way it affects the general opinion of the youth in Pakistan. The 12 purposively sampled social media users aged 18-30 were interviewed using semi-structured interviews and analyzed using reflexive thematic analysis. Results indicate four connected mechanisms that organize online political interaction and include selective exposure, echo chambers, algorithmic bias, and affective polarization. Respondents indicated that they are proactive in managing their social media surroundings in order to prevent conflict, but the algorithms used on platforms tend to encourage conformity to the homogeneity of ideologies by promoting emotionally charged and affirmative content. These forces lead to increased in-group identities, high levels of hostility against contrary opinions, and vulnerability to misinformation. Other issues raised by the participants included perceived manipulation in algorithmic curation and a decrease in trust in digital political information. In sum, the paper shows that social media is not a neutral communication site but rather a dynamic mediator of political sense-making, which influences both cognitively and emotionally the political identity. The results support the necessity of the improvement of digital literacy, transparency of the platform, and policies to promote healthier and more constructive political discourse in the online environment.

KEYWORDS Social Media, Political Polarization, Algorithmic Bias, Echo Chambers, Public Opinion

Introduction

The swift development of social media platforms has dramatically transformed political communication and changed the way individuals get information and generate meaning and engage in trending topics. Findings show that scholars predominantly consider platform structures, especially algorithms or called personalized feeds, content sort based on engagement, as determiners of modern political attitudes and behaviour (Arora, 2022; Metzler et al., 2024). With the growing mediation of political interaction through digital spaces, the idea that social media causes political polarization has become a focal point in debates across communication studies, political science, and computational social science (Kubin & von Sikorski, 2021; Weismueller et al., 2024).

Political polarization, which is considered the intensification of ideological distance and an increase in affective aggression between conflicting political parties, has been associated with various platform-mediated processes, such as selective exposure, echo chambers, filter bubbles, and algorithmic reinforcement of earlier convictions (Figà et al., 2022; Onitiu, 2022). In line with similar results reported in systematic reviews, it is possible that the prominence of sensational or identity-charged news, or even partisan news, can be amplified by the use of algorithmic feeds, raising its levels of affective and ideological polarization (Arora, 2022). It has also been discovered by experimental studies that algorithmic content recommendations may influence the attitude of the user by reinforcing

existing prejudices. Nevertheless, it is demonstrated that the influence is of different extent and depends on the heterogeneity of the users and the structure of a platform (Ludwig et al., 2023; Weinhardt et al., 2021).

These polarizing forces are augmented by the circulation of lies and fabricated information. Another major stimulus of the popularity of false or misleading online content is the concept of viral incentives, and they are often employed by political actors, extremists, or robo-accounts (Muzaffar, et. al., 2019; Vasist et al., 2024; Broda, 2024). In the example, false information is prevalent on social media and helps to foster distrust, ideological ghettos, and antagonism between groups (Li et al., 2022; Bragazzi et al., 2024). Studies about the information ecosystem reveal that to control the information via a disinformation campaign makes use of the deficiencies of the social networks to form narratives and win supporters, as well as delegitimize adversaries (Teruel-Rodriguez, 2023; Muzaffar, et. al., 2020 Santos et al., 2021; Chen et al., 2022).

The last research also shows that polarization perspective varies between geographic and political environments. With the current media institutions decentralized in newly formed democracies and youth heavily using online media, social media is more likely to amplify the divisions between people and inject controversy into politics (Larreguy, 2024). In social media, especially Facebook, X (Twitter), and TikTok, in South Asia, and Pakistan, specifically, these platforms have become a source of active political communication, where algorithm internationalisation, fake news, and politicised and partisan-driven political activism have sparked the growth of polarisation among citizens (Raza, 2024; Sultana et al. 2024; salam et. al. 2024). Among Pakistani young audiences, algorithmic feeds contribute to selectivity, increased ideological barricading, and aggressiveness within political groups, even facilitating counteractions on the platform.

Research is, however also against the deterministic interpretations. Some of the studies note that polarization in social media is not necessarily fixed but depends on the motivations of users, the specific features of the platforms, and political conditions (Peralta et al., 2021). Some studies say that the influence of echo chambers is less hermetic than people believe, and cross-cutting material is more commonly exposed to a certain network than another (Onitiu, 2022). The potential of positive deliberation, involvement, or civic mobilization is mentioned by some as a means to use the platforms strategically or reorganize them to promote democratic norms (Kubin & von Sikorski, 2021; Arora, 2022).

In light of these conflicting results, it is necessary to conduct additional empirical research to determine the role of social media in political polarization across specific sociopolitical contexts. In polarized contexts like Pakistan, where digital engagement is growing rapidly and institutional trust is weak, there is an urgent need to review platform mechanisms, user practices, and information flows. Based on recent literature on the topic, both globally and locally, this paper examines how online platforms influence public opinion and political polarization, focusing specifically on algorithmic patterns, misinformation processes, and the socio-political features that facilitate them.

Literature Review

The connection between social media and political polarization is now among the most popular issues in modern communication, political science, and computational social science. In the past ten years the problem of transforming the opinion of the population by the Internet through design, algorithms, flow of information and the pattern of its interaction with users has become the subject of more and more attentive consideration of researchers. This literature review summarizes the findings of literature on both international and Pakistani settings, by placing the social media as a technology and a socio-cultural phenomenon that frames political discourse. These studies produce four key areas that include exposure patterns and echo chambers, algorithmic curation and design bias,

misinformation and disinformation, and affective polarization, and politics polarization which is specific to developing democracies like Pakistan.

Exposure, Selective Sharing, and the Creation of Echo Chambers

Studies have always shown that social media sites add to the tendencies of selective exposure and ideological grouping. One of the most powerful empirical illustrations is presented by Bail et al. (2018): exposing users to the content presented by opposing parties instead of cooling their views, many of them become more polarized.

By conducting an experimental investigation on Twitter users, they prove that out-group perceptions may boomerang against the desired outcomes by strengthening existing attitudes through stimulated defensive reactions of identity (Bail et al., 2018). It corresponds with the result of a systematic review study by Kubin and von Sikorski (2021), who state that social media environments promote motivated reasoning and ideological sorting.

Similarly, (Onitui, 2022) argues that the stylish tropes about echo chambers and filter bubbles still retain an analytical logic when it comes to the cultivation of how digital communities reinforce homophile. Their contribution regarding the interplay between cultural taste and the communicative norms and identity processes and technology features highly segmented digital cultures. Figa et al. (2022) expand on this debate by showing the interaction of such cognitive constraints as limited attention, information overload, and heuristics processing with platform-level affordances to moderately affect selective exposure. Bearing this in mind, the echo chambers seem not only technological products, but cognitive-behavioral phenomena, that are enscribed in the online sociality.

Supporting these theoretical views, Jiang et al, (2021) reveal that echo chambers are created in high-stakes events like COVID-19, when political and health discourses become closely intermingled. In their Twitter case study, we see that polarized clusters are formed by the retweet networks which divide communities into ideologically homogeneous blocs. Wang et al. (2020) also emphasize the socio-cognitive factors that result in such clustering, overlooking the fact that prejudices such as confirmation bias and selective attention have inherent propensity to polarize networks.

Taken together, this evidence tends to suggest that social media is more of a polarizing amplifier rather than a mirror of users, and it actually magnifies their ideological leanings. But a number of studies provide a more detailed insight. Indicatively, Ludwig et al. (2023) conclude that both content-based and sentiment-based recommendation systems are comparatively limited in their direct impact on ideology and affective polarization than the beliefs of users do. The polarization on social media are highly exaggerated, and that empirical impacts differ depending on contexts. Those studies suggest that the size and impact of echo chambers can be dependent on the political culture, personal predispositions, and platform-specific processes.

Machine Curating, Systems Design, and Organising Political Behaviour

A significant part of the literature is on the influence of the algorithmic curation on the exposure, engagement, and opinion formation. The authors show the way in which Santos et al. (2021) model how link recommendation algorithms have a strong impact on opinion dynamics by showing users ideologically congruent information, which strengthens the divides within the networks. Based on these findings, Peralta et al. (2021) demonstrate that the interaction of network topology with algorithmic bias can lead to community disintegration into polarized groups or sustainable development.

On a more general theoretical plane, Metzler et al. (2024) decide that the digital media ecosystems are self-perpetrating through feedback loops whereby the algorithmic ranking, emotional response, and content generation interact to develop self-reinforcing loops of visibility and opinions reinforcement. Such feedback loops offer fertile soil to the increase in polarization especially in highly charged political situations.

The polarization is not an exception to even decentralized networks like Bluesky. They assess that both algorithmic sorting and network structure influence the patterns of user interaction that even when it is claimed that they are open algorithms or are transparent in nature, they may form polarized clusters. Weinhardt et al. (2021) present experimental data that algorithmic news recommendations do have a substantial impact on the political attitudes, yet the direction and strength of the effects are affected by the emotional tone and ideological presentation of the recommended news.

Localized studies of Pakistan have a significant contextual flavor. As Raza (2024) shows, the algorithmic selection of Facebook content tends to promote controversial political information and influence the way citizens perceive political events and reinforce partisan lines. In the same way, how fact-checkers and other counter-mechanisms can be implemented, the overall algorithmic ecosystem still depends on emotional content or sensational content types, which perpetuate polarization in young people. This tendency is established by Sultana et al. (2024): through the platform design, the ranking of the content, and partisan influencers, divisive narratives are promoted in the context of Pakistani politics.

All in all, these works arrive at a similar conclusion that algorithms are central, but not unilateral in defining the process of political polarization. The design of the algorithm is engaged with human psychology, politics, media literacy, and social-cultural predispositions in order to organize the formation of the online opinion.

Misinformation, Disinformation, and Affective Polarization

Misinformation and disinformation is a third general theme in literature. One of the most extensive reviews is provided by Tucker et al. (2018), who prove that disinformation campaigns (both domestic and foreign) are now directly involved in platform algorithms, partisan identity, and media ecosystems. Their review shows how structured content, artificial Intelligence, and deceptive stories use the logic of engagement characteristic of social media.

Both Arora (2022) and Kubin and von Sikorski (2021) emphasize the role of misinformation in the radicalization of the political discourse that leads to the emergence of emotional responses anger, fear, and moral outrage that promote affective polarization. Choosing the complexity approach, Vasist et al. (2024) demonstrate that hate speech and disinformation are the so-called accelerants of the digital network that rapidly promote ideological differences.

Countermeasures have also been discussed by scholars. Li, Grinberg, and Weeks (2022) demonstrate that fact-checking can be effectively diffused in the social context, but its corrective effect is smaller under the conditions of strong activation of ideological identity. According to Chen et al. (2022), the misinformation against interventions, both platform-based and community-based, encounter structural and psychological challenges, such as the amplification of sensational information by the algorithms and the vulnerability of users to confirmative information.

Raising the issue in Pakistani context, Sultana et al. (2024) discover that politicians actively use misinformation to control the public opinion especially during the election period. These papers demonstrate that misinformation is not merely a technological

problem but a seriously political instrument of influence that is ingrained in the balance of power in nations. Connecting these strands, as Bragazzi et al. (2024) note, interdisciplinary frameworks are instrumental in comprehending how misinformation, algorithmic bias, and socio-political polarization interact.

Affective Polarization and Formation of Public Opinions

Affective polarization, which is emotional hostility to political out-groups, has become a key concept in recent studies. The young voters and show the paradox: even though social media networks allow more people to access the political sphere and engage in it, they also make negative attitudes towards the political parties and groups even stronger. Their results point out that the political polarization is not merely ideological but quite emotional.

In the case of the discussion surrounding climate change on Twitter, Tyagi, Uyheng, and Carley (2020) demonstrate that affective polarization is evident in the use of moral-emotional language, elevated inter-group hate, and selective exposure to identity-congruent content. Marino et al. (2023) also suggest that the role of misperceptions, provoked by biased information flows and emotionally active narratives, is an important factor in the increase in affective polarization. The macro-level approach to the issue by Larreguy (2024) assumes the interplay between internet access, social media usage, and institutional framework in developing democracies. He concludes that weak information institutions, elite manipulation and low media literacy usually lead to polarization in such settings and thus online publics are susceptible to divisive narratives.

One such critique is the philosophical and cultural one, which Rolli and Weydner-Volkman (2023) suggest is that the filter bubbles harm the Deweyan ideas about shared experience, which are critical to deliberative democracy. Their conceptual contribution can be addressed to the larger normative question of polarization: not only does social media transform opinions, but it also changes the circumstances in which democratic publics may co-exist.

Pakistani Sociopolitical Context

The Pakistani digital environment will have its own challenges and opportunities. Raza (2024), Sultana et al. (2024), arrive at a number of general conclusions: Such emotional attachment to political messages contributes to polarization among the young people.

- Algorithms favor scandalous and polarizing political content.
- Misinformation is used by political parties and wielders to gain strategic power.
- Poor media literacy predisposes one to disinformation.
- Affective polarization increases with institutional mistrust in the internet.

These local studies amalgamate previous world understanding, demonstrating that Pakistan political polarization is heavily reduced by the conjunction of technological forces (it is algorithms), socio-political structures (party accounts), and psychological processes (identity-driven thinking).

They highlight that social media is not just a technology of communication, it is a political arena where ideologically based battles are fought on a real-time basis.

Material and Methods

This qualitative study was based on semi-structured interview, the exploration of in-depth experiences of political involvement, beliefs about algorithmic control, and emotional responses to online political content. The sampling frame was purposive, where

12 respondents were highly active in social media and political participation to ensure a sampling that was very varied in ideological perspectives and use practices on the platform of choice. The face-to-face interviews were recorded, (25-30 minutes), and recorded with the consent of respondents and transcribed word-to-word to be analyzed. The interview guide was drafted according to various constructs of the theoretical framework which include selective exposure, echo chambers, algorithmic bias, and affective polarization which enabled the participants take the opportunity to discuss the impact of the discussed process on their online attitudes and interactions. The method of data analysis was reflexive thematic analysis (Braun and Clarke, 2021), followed by getting acquainted with the transcripts, creating initial codes, finding patterns, generating themes and refining them to produce a coherent story. Themes were triangulated with quantitative findings to place them into a context and improve the knowledge of online political behavior. The ethical values were observed strictly: the participants were notified and given the right to consent, anonymity was not violated, sensitive topics were discussed in a way so as not to make it uncomfortable or threatening to politics. This qualitative design provided worthy and descriptive research of the experience of social media users, along with the quantitative examination of tendencies of polarization, and in elucidating of the subjective and affective element of current political involvement on the Internet.

Table 1
Demographic Characteristics of Study Participants (n 12)

Participant ID	Age (years)	Gender	Education Level	Primary Social Media Platform	Political Engagement Level*
P1	21	Male	Undergraduate	Facebook	High
P2	24	Female	Undergraduate	Instagram	Medium
P3	28	Male	Graduate	Twitter/X	High
P4	22	Female	Undergraduate	TikTok	Medium
P5	30	Male	Graduate	Facebook	High
P6	26	Female	Graduate	Instagram	Medium
P7	23	Male	Undergraduate	Twitter/X	High
P8	29	Female	Graduate	Facebook	High
P9	25	Male	Undergraduate	TikTok	Medium
P10	27	Female	Graduate	Instagram	High
P11	31	Male	Graduate	Twitter/X	High
P12	24	Female	Undergraduate	Facebook	Medium

*Political Engagement Level is a self-reported indicator of the frequency with which the individual is exposed to the political content, discusses it, and posts/shares online-categories: Low, Medium, High.

Results and Discussion

Theme 1: Selective Exposure to Digital Self-protection

The information about active filtering of political content to prevent cognitive dissonance or ideological confrontation was consistently discussed within the scope of the participants. One of the mechanisms used in the maintenance of emotional comfort and ideological wholeness was selective exposure. *"I realized that whenever I read anything that was not on the politics that I believe in I would ruin my whole mood. I now only read the pages that are appropriate to my ideas. It is just easier that way."* (Participant 07)

One of them added that not only is there a purpose in this filtering, but that it is all but normal: *"The platforms pre-read my mind, as though they have. I do not even have to search. I do just appear to agree to anything that comes up."* (Participant 11)

This means that the two aspects of user preferences and algorithmic reinforcement play off and then create polarization and restrict exposure to alternative perspectives. The act aligns with existing studies that indicate that online partisan consumption strengthens partisan identities and decreases tolerance of counter-view theologies.

Theme 2: Echo Chambers and the illusion of Consensus

The respondents reported that they found the online space an ideologically homogenized space which prompted them to create a false impression that a majority had accepted their preferred political views. As one participant noted: *"As I open my social media, I see nearly everyone appearing to support my party. As though the whole nation had ideas like this."* (Participant 02)

Another one was emphasizing the fact that echoes are stronger in conflictual situations: *"When it comes to political crises, my schedule is skewed. You think we can only be on the right side and the rest are morons or traitors."* (Participant 12) The experiences prove that the chambers of echo are involved in the perception of polarization, reaffirming extreme interpretations and closed-mindedness.

Theme 3: The Algorithmic Prejudice and Politics of Personalization

Participants widely perceived that social media algorithms were manipulating their political realities. Whether or not it is true, such perception increases a sense of manipulation and hardens opinions. One of the participants told about the experience in descriptive terms: *"I may watch a single political video and then the next week my feed is loaded with similar political content. I feel that the app is forcing me in a certain direction."* (Participant 11)

And yet another said he mistrusted platform motives: *"It seems like they want us to fight sometimes. They never miss an opportunity to be emotional or controversial in their posts."* (Participant 05) These anecdotes imply that algorithmic curation is considered to be more sensationalizing, bolstered in its opinions, and dividing ideologically. The participants tend to attribute personalization of politics by using customized feeds to political confidence, mistrust, or intensity, a phenomenon by scholars referred to as the algorithmic personalization of political identity.

Theme 4: Affective Polarization and Emotionalization of Political Identity

Emotions- especially anger, contempt, and moral confidence- were found to be the most important fuel to online political conflict. Participants revealed the increasing suasion by political out-groups, which is caused by platform dynamics. One of the respondents said: *"I have not hated the representatives of other political parties ever before through social media. They are now, I believe, the source of the miseries of the nation."* (Participant 09)

One of them reported the emotional responsibility of e-confrontation: *"When I discover something on the other side I feel angry. I start to reason in comments, and I am sorry- but I can do nothing about it, as though I were in chains, or driven by a bridle."* (Participant 03) These words show affective polarization, which is no longer ideological division of opinion, but a more emotional and moralized division. Internet communication accelerates these feelings with the anonymity, real-time communication, and access to provocative information any time.

Discussion

The voluntary implementation of avoidance of cross-cutting political information by its participants is consistent with the existing research, which indicates that users are more inclined to search information that supports their preconceived ideological beliefs and reduces the occurrence of cognitive dissonance (Kubin and von Sikorski, 2021). The participants put this move into perspective as an act of emotional self-defense, which reamers staying on a consistent footing with the literature that says that the maladaptation of the selective exposure is not only about ideological parsimony but also about emotional

relief and protection of identities (Figa et al., 2022). Such self-curation is enhanced by the illusion that the platforms are already aware of user preferences which can also be found as a result of findings that the more individuals apply algorithmic personalization to their choices by making preference-affirming content more salient, the stronger motivated reasoning ensues (Metzler et al., 2024; Weinhardt et al., 2021).

The selective exposure of the Pakistani youth studied, in this case, assumes a dual nature, which the two forces combine in promoting ideological hardening: intentionally (user-driven) and unintentionally (algorithm-driven) (Onitiu, 2022; Ludwig et al., 2023).

The fact that participants felt an impression of everyone in their social networks having similar political views is the not new inverse echo chambers effect, where homogeneous groups of people can form unrealistic beliefs of ideological support (Bail et al., 2018; Jiang et al., 2021). The delusion of consensus cited by the respondents reflects the results of a global study according to which the emotionally significant political cycles strengthen unfavorable circumstances in the effects of the echo chamber (Wang et al., 2020).

The digital enclaves can be traced as stronger in the highly partisan political environment of Pakistan. This is similar to the local studies that indicated that partisan political activism on social media sites such as Facebook, Tik Tok, and X is more likely to divide users into partisan groups (Raza, 2024; Sultana et al. 2024).

The knowledge of algorithmic manipulation became a potent theme, with people regularly noting that their feeds pushed them towards certain ideological guidelines. Such an image is aligned with academic literature describing algorithmic systems as effective intermediaries in terms of political visibility as something that users will be exposed to and how often they will be exposed to it (Santos et al., 2021; Metzler et al., 2024). The inputs of the participants, when asked about the emotional or sensational content that algorithms alleged to feed them, also provide evidence of literature that claims that algorithms are more interested in engagement-driven content rather than informative one, which is often partisan and morally suggestive (Arora, 2022).

These algorithmic relationships assume an even more political importance in a society where platform management is relatively low, and where the training of political messages is rather organized (Pakistan). Influencers and political operatives are divisive influences partizers who strategically make use of platform architecture to propagate divisive histories. In this way, the results corroborate the idea that algorithmic bias in Pakistan is not merely a technical problem but it touches on political capacity and manipulation of the media (Sultana et al. 2024).

Misinformation and political speculation was also another important element of the experience of the participants and led to distrust and hostility. This coincides with the international studies that have proven that misinformation flourishes in the emotionally-driven algorithmic systems and exacerbates the enmity among the groups (Vasist et al., 2024; Bragazzi et al., 2024). The testimonies of participants who came across extremely contentious stories represent the contribution of viral incentives to the distribution of false political information (Chen et al., 2022; Li et al., 2022).

Within the Pakistani context, the results confirm the allegations that partisan use of misinformation is an employed tool toward a partisan advantage, especially during election periods (Sultana et al. 2024). The lack of trust in political information that the participants have towards the Internet supports the statement that the lack of institutional credibility increases the vulnerability to highly divisive and misleading information which is present online (Larreguy, 2024).

Digital Political Behavior and Affective Polarization as its Consequence

Emotions exhibited by the participants, including anger, contempt, out-group hostility, portray a distinct tendency of affective polarization, which is also observed across the world (Tyagi et al., 2020). Their stories trace the change in ideological divergence to the moralised adversity, which was reported in online political psychology studies (Marino et al., 2023).

Regular exposure to content with emotional coloring and antagonistic discourse seems to drive affective polarization, which confirms assumptions that social media contributes to the creation of moral outrage and in-group loyalty at the cost of democratic debate (Kubin and von Sikorski, 2021; Weydner-Volkman, 2023).

Domesticized political opponents and their application of the national threat discourse, which is defined by the interviewees as endless (South Asian, in specific) is specifically evident in digital politics (Sultana et al. 2024; Raza, 2024).

The study shows that the experiences of the participants are founded on the universal tendencies, however, they are accentuated by the political situation in Pakistan. The media literacy, mistrust in the institutions, and political instability of the situation, according to literature data, have been granted to amplify the impact of the algorithmic and information arrangement to developing democracies (Larreguy, 2024; Peralta et al., 2021). The collected stories reveal how underlining algorithmic structures, partisan political motive, and emotional engagement come together to increase polarization amongst the Pakistani youth-a finding in accordance with its local findings (Peralta et al., 2021).

Recommendations

According to the findings of the study, a number of recommendations stem out as practical and policy-oriented to curb the polarizing nature of a social media and encourage healthier online political dialogue. To begin with, the purpose of the education should be to improve the skills of users in critical evaluation of information, understanding of misinformation, and respectful interaction in an online discussion. Researchers have demonstrated that media literacy has the potential to make one less prone to disinformation and minimize the effectiveness of echo-chambers (Gaultney et al., 2022; Li et al., 2022; Bragazzi et al., 2024). The targeted curricula and workshops to build critical thinking and digital resiliency in young people should be integrated in universities, schools, and civil society organizations. Second, social media platforms need to develop algorithms that deliberately present individuals with alternative perspectives without resulting in a backlash and alienation. The manipulation of exposures suggests that a reasonable exposure to divergent opinions can reduce affective polarization and cause a more sophisticated perception of politics (Bail et al., 2018). Nudges can be also added by the platform design, promoting the reflective experience with counter-attitudinal material. Lastly, in the same vein, more empirical research is needed to be conducted in these settings as Pakistan to examine the course of social media, political identity, and misinformation in interaction (Sultana et al. 2024). Evidence-based interventions at the local level may be embraced to mirror cultural, political and social realities and not necessarily on world models.

Policy Implications

The outcomes of the present research have profound policy implications to the policymakers, institutions of digital governance, institutions of learning, and social media platforms. First, the paper identifies the hastiness of evidence-based regulatory frameworks to respond to the algorithmic amplification of polarizing political material. The problems of manipulation and biased curation that were expressed by the participants tell of more general arguments by the scholars that opaque algorithms tend to favor divisive and emotionally driven content. Regulators could subsequently obligate algorithms to be disclosed so that platforms bring out the mechanics of political information screening,

ranking, and political targeting. These would contribute to reversal of the effects of a decrease in the digital trust and strengthen more responsible management of the platform.

Second, the findings support the significance of interventions at the platform level that could contribute to the minimization of echo chambers. Most interpersonal interactions are made in politically homogeneous networks, thus, platform designers must feature functions which open users up to more diverse opinions. The works underline that ego chambers of homophile warped the impressions to the opinion and the feelings polarized. Finally, the study notes that the solution should include the spread of public awareness campaigns that will help the users educate themselves on selective exposure, echo chambers, and jokes on emotions in online settings.

References

- Arora, S. D. (2022). Polarization and social media: A systematic review. *Technological Forecasting and Social Change*, 183(3), 121942. <https://doi.org/10.1016/j.techfore.2022.121942>
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. F., ... & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *Proceedings of the National Academy of Sciences*, 115(37), 9216-9221. <https://doi.org/10.1073/pnas.1804840115>
- Barberá, P. (2020). Social media, echo chambers, and political polarization. *Social media and democracy: The state of the field, prospects for reform*, 34-55. Barberá, P. (2020). Social media, echo chambers, and political polarization. *Social media and democracy: The state of the field, prospects for reform*, 34-55.
- Bragazzi, N. L., & Garbarino, S. (2024). Understanding and combating misinformation: An evolutionary perspective. *JMIR infodemiology*, 4(1), e65521. <https://doi.org/10.2196/65521>
- Braun, V., & Clarke, V. (2021). One size fits all? What counts as quality practice in (reflexive) thematic analysis?. *Qualitative research in psychology*, 18(3), 328-352. <https://www.tandfonline.com/doi/full/10.1080/14780887.2020.1769238>
- Broda, E. (2024). Misinformation, disinformation, and fake news: conceptual clarifications and implications for democracy. *Annals of the International Communication Association*, 48(2), 139-166, <https://doi.org/10.1080/23808985.2024.2323736>
- Chen, C., Wang, H., Shapiro, M., Xiao, Y., Wang, F., & Shu, K. (2022). Combating health misinformation in social media: Characterization, detection, intervention, and open issues. *arXiv preprint arXiv:2211.05289*. <https://doi.org/10.48550/arXiv.2211.05289>
- Figà Talamanca, G., & Arfini, S. (2022). *Through the Newsfeed Glass: Rethinking Filter Bubbles and Echo Chambers*. *Philosophy & Technology*, 35 (1), 20. <https://link.springer.com/article/10.1007/s13347-021-00494-z>
- Gaultney, I. B., Sherron, T., & Boden, C. (2022). Political polarization, misinformation, and media literacy. *Journal of Media Literacy Education*, 14(1), 59-81. <https://doi.org/10.23860/JMLE-2022-14-1-5>
- Jiang, J., Ren, X., & Ferrara, E. (2021). Social media polarization and echo chambers in the context of COVID-19: A Twitter case study. *arXiv preprint*. <https://arxiv.org/abs/2103.10979>
- Kubin, E., & von Sikorski, C. (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>
- Larreguy, H. (2024). The impact of the internet, social media, and polarization: Accountability and political behavior in developing democracies. *Annual Review of Political Science*, 27, 1-25. <https://doi.org/10.1146/annurev-polisci-033123-015559>
- Li, J., Grinberg, N., & Weeks, B. (2022). Combating misinformation by sharing the truth: Experimental evidence on fact-checking diffusion. *Journal of Medical Internet Research*, 24(2), e34120. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9188446/>

- Ludwig, K., Grote, A., Iana, A., Alam, M., Paulheim, H., Sack, H., Weinhardt, C., & Müller, P. (2023). Divided by the algorithm? The (limited) effects of content- and sentiment-based news recommendation on affective, ideological, and perceived polarization. *Social Science Computer Review*, 41(6), 2188–2210. <https://doi.org/10.1177/08944393221149290>
- Marino, M., Iacono, R., & Mollerstrom, J. (2023). (Mis-) perceptions, information, and political polarization. <http://eprints.lse.ac.uk/id/eprint/119268>
- Metzler, H., & Garcia, D. (2024). Social drivers and algorithmic mechanisms on digital media. *Perspectives on Psychological Science*, 19(5), 735-748. <https://doi.org/10.1177/17456916231185057>
- Muzaffar, M., Chohdhry, S., & Afzal, N. (2019). Social Media and Political Awareness in Pakistan: A Case Study of Youth, *Pakistan Social Sciences Review*, 3 (II), 1-13
- Muzaffar, M., Yaseen, Z. & Safdar, S. (2020). Role of Social Media in Political Campaigns in Pakistan: A Case of Study of 2018 Elections, *Journal of Political Studies*, 27 (2), 141-151
- Onitui, Daria (2022): Fashion, filter bubbles and echo chambers: questions of privacy, identity, and governance, *Law, Innovation and Technology*, DOI: 10.1080/17579961.2022.2113672
- Peralta, A. F., Neri, M., Kertész, J., & Iñiguez, G. (2021). Effect of algorithmic bias and network structure on coexistence, consensus, and polarization of opinions. *Physical Review E*, 104(4), 044312. <https://doi.org/10.1103/PhysRevE.104.044312>
- Raza, A., & Aslam, M. W. (2024). Algorithmic curation in Facebook: An investigation into the role of AI in forming political polarization and misinformation in Pakistan. *Annals of Human and Social Sciences*, 5(2), 219-232. [https://doi.org/10.35484/ahss.2024\(5-II-S\)22](https://doi.org/10.35484/ahss.2024(5-II-S)22)
- Salam, Z., Jamil, M., & Muzaffar, M. (2024). The Role of Social Media in Political Awareness and Engagement among University Students: A Quantitative Study. *Journal of Development and Social Sciences*, 5(4), 691-702. [https://doi.org/10.47205/jdss.2024\(5-IV\)61](https://doi.org/10.47205/jdss.2024(5-IV)61)
- Santos, F. P., Lelkes, Y., & Levin, S. A. (2021). Link recommendation algorithms and dynamics of polarization in online social networks. *Proceedings of the National Academy of Sciences*, 118(50), e2102141118. <https://doi.org/10.1073/pnas.2102141118>
- Sultana, S., Batool, A., & Ibrahim, M. (2024). Evaluating the role of social networking sites in political polarization among university students. *Annals of Human and Social Sciences*, 5(2), 305-316. [https://doi.org/10.35484/ahss.2024\(5-II\)29](https://doi.org/10.35484/ahss.2024(5-II)29)
- Teruel-Rodríguez, L. (2023). Increasing political polarization with disinformation: A comparative analysis of the European quality press. *Profesional de la Información*, 32(6). <https://doi.org/10.3145/epi.2023.nov.12>
- Tucker, J. A., Guess, A., Barberá, P., Vaccari, C., Siegel, A., Sanovich, S., ... & Nyhan, B. (2018). Social media, political polarization, and political disinformation: A review of the scientific literature. *Political polarization, and political disinformation: a review of the scientific literature* (March 19, 2018). https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3144139

- Tyagi, A., Uyheng, J., & Carley, K. M. (2020, December). Affective polarization in online climate change discourse on twitter. In *2020 IEEE/ACM international conference on advances in social networks analysis and mining (ASONAM)* (pp. 443-447). IEEE. <https://doi.org/10.1109/ASONAM49781.2020.9381419>
- Vasist, P. N., Chatterjee, D., & Krishnan, S. (2024). The polarizing impact of political disinformation and hate speech: A cross-country configural narrative. *Information Systems Frontiers*, *26*(2), 663-688. <https://doi.org/10.1007/s10796-023-10390-w>
- Wang, X., Sirianni, A. D., Tang, S., Zheng, Z., & Fu, F. (2020). Public discourse and social network echo chambers driven by socio-cognitive biases. *Physical Review X*, *10*(4), 041042. <https://doi.org/10.1103/PhysRevX.10.041042>
- Weinhardt, C., et al. (2021). Algorithmic effects on political polarization: experimental evidence from news recommendations. *Journal of Broadcasting & Electronic Media*, *65*(3), 402-423. <https://doi.org/10.1080/08838151.2021.1910256>
- Weismueller, J., et al. (2024). Information sharing and political polarisation on social platforms: Field evidence on emotions and engagement. *Information Systems Journal*, *34*(4), 457-482. <https://doi.org/10.1111/isj.12453>
- Weydner-Volkman, S. (2023). Filter bubbles, echo chambers and shared experience. <https://philpapers.org/rec/WEYFBE>