

The Influence of Social Media Algorithms on Political Polarization and Public Opinion

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ABSTRACT

Aim of the Study: The study examined the influence of social media algorithms on political polarization and public opinion in Pakistan. The research began by reviewing existing literature on the relationship between social media and political polarization. The study analyzed recent data on the use of social media in Pakistan, with a focus on the events of 9 May 2023, commonly referred to as the "Black Day."

Methodology: The paper used survey method to explore the ways in which social media algorithms are shaping political polarization in Pakistan. The study critically analyzed the implications of these actions and their potential impact on various aspects of the situation.

Findings: The findings revealed that algorithmic curation of content on social media platforms may exacerbate political polarization. It is because algorithms tend to amplify content that is consistent with users' existing beliefs, while suppressing content that is not. This can lead to users becoming increasingly isolated in their own echo chambers, where they are only exposed to information that reinforces their existing views.

Conclusion: The paper concluded that the increasing use of social media algorithms is likely to further exacerbate political polarization in the country. However, study suggests that there are steps that can be taken to mitigate these effects, such as greater transparency and regulation.

Keywords: Social Media, Polarization, Algorithm, 9 May Incident.

Introduction

The increasing reliance on social media as a primary source of news and information has significantly transformed political communication (Allcott & Gentzkow, 2017). Social media platforms utilize algorithms to curate personalized content for users, potentially creating echo chambers and reinforcing existing beliefs (Pariser, 2011; Sunstein, 2018). The incident that took place in Pakistan on 9 May 2023 serves as a compelling illustration of how social media platforms can influence public perception and amplify certain narratives. In this case, the former Prime Minister of Pakistan benefitted from the reinforcement of his narrative through social media channels, which ultimately provoked the Pakistani establishment. The repercussions were significant, with the establishment resorting to targeting journalists in an attempt to suppress dissenting voices. This incident highlights the power dynamics at play within

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the realm of social media, underscoring the potential consequences for political discourse and freedom of expression (Dawn, 2023).

Minister for Planning and Development Ahsan Iqbal expressed his views on the riots that took place in Pakistan on May 9. According to him, these riots can be considered as attacks on the national interests of the country, comparable to the 9/11 attacks in the United States. The riots occurred following the arrest of Pakistan Tehreek-e-Insaf (PTI) chief Imran Khan in relation to a corruption case. These protests turned violent and targeted sensitive state and military installations. Iqbal expressed his regret that supporters of a political party engaged in destructive actions on May 9, damaging symbols of national pride such as Jinnah House, Yadgare Shuhada, fighter jets from the renowned 1965 war, and the Chagai mountain model.

He found this response to Imran's arrest, driven by corruption charges, to be "unprecedentedly irrational, unacceptable, and no less than the 9/11 attacks carried out in the US in 2001." According to Iqbal, the May 9 incident was equivalent to September 11 for Pakistan's Armed Forces. He made it clear that the violent acts of political party members targeted Pakistan's history and damaged the security agencies' sense of dignity. In addition, he stressed the significance of Jinnah House as a heritage monument connected to the nation's founder as well as the residence of a Corps Commander (APP, 2023).

TikTok has emerged as a relatively unexplored terrain within the realm of Pakistani politics' social media landscape. Among the political parties, only two, namely the PTI (Pakistan Tehreek-e-Insaf) and PML-N (Pakistan Muslim League-Nawaz), possess official TikTok accounts. In terms of TikTok presence, the PTI enjoys a significant lead over its counterpart. With an astonishing three million followers and over 167.4 million likes on its video content, the PTI's official TikTok account has garnered immense traction. In contrast, the PML-N lags far behind with a modest follower count of 41,300 and just over 770,000 likes on its content.

In light of Twitter being inaccessible, the PTI, along with its social media team, strategically leveraged TikTok as a means to counteract the government's actions. They fully embraced the platform and intensified their presence. Within a span of four days, from May 9 (the day of Imran Khan's arrest) to May 12 (when the Supreme Court ordered his release), the PTI's official TikTok account posted a staggering 164 videos, averaging around 41 videos per day. Over 100 million people saw these films, they earned over 62 million likes, 191,000 comments, and almost 260,000 people shared them. Over 618,000 views, 378,000 likes, 1,165 comments, and 1,583 shares were averaged among all videos. The PTI broadcast messages from party leaders on its TikTok platform and displayed montages of Imran Khan in action. While violent incidents were frequently seen on television, the PTI's videos told a story of "peaceful" protests. The PTI also used the platform to mobilize party members by calling for their attendance at certain sites across a number of cities.

It is crucial to look at the analytics for the account over the previous seven days in order to put the PTI's fervent activity during Imran Khan's detention into context. The PTI's TikTok account only released 95 videos from May 1 to May 8, a noticeably slower time span, with an average of 14 videos per day. An estimated 24.4 million individuals saw these videos, resulting in a combined engagement of 41.8 million likes, 51,400 comments, and 73,800 shares. According to Malik, Moiz Abdul (2023), each video received an average of 257,000 views, 44,000 likes, 541 comments, and 776 shares. This study intends to contribute to the ongoing discussion on the role of social media in democracy by examining the effects of these algorithms on political polarization and public opinion.

Literature Review

Previous studies have looked into the connection between public opinion, political polarisation, and social media algorithms. The filter bubble effect (Pariser, 2011), the function of echo chambers (Bakshy et al., 2015), and the effects of fake news (Allcott & Gentzkow, 2017; Vosoughi et al., 2018) have all been the subject of studies. The intricacies of social media algorithms and their impact on political discourse still

require additional knowledge, notwithstanding recent investigations (Zuiderveen Borgesius et al., 2016; Garrett, 2019). At first glance, TikTok and political talks may not seem connected in the context of Pakistan. Although the platform is frequently linked to funny videos, it offers more. In reality, TikTok serves as a forum for serious discussions on a variety of today's hot-button topics, such as racial justice, climate change, politics, and gender-based violence. The considerable contribution of Generation Z users, who account for roughly 39% of the platform's entire user base, is largely responsible for this unanticipated transition. TikTok gives young people a window to the world by delivering daily news in the form of "explainer" films that are simple to grasp.

The use of TikTok for news among young people aged 18 to 24 has surged fivefold across all markets, according to a 2022 report from the Reuters Institute. In 2020, only 3% of people in this age bracket used TikTok for news; by 2022, that percentage had increased to 15%. TikTok's popularity as a new front in political conflict can be linked to a number of things. It is the most downloaded app and the second-most visited website after Google, with over a billion active monthly users across more than 150 countries. Videos that are meticulously polished and produced are not necessary because of the platform's raw, unedited way of communicating. Users may easily create and share material using the platform's built-in editing tools, overlaying catchy graphics with music, applying filters, and creating content. Political parties and politicians have built a presence on TikTok to engage and court young voters, who have the power to influence elections if they can be persuaded to participate. They are doing this because they recognise the platform's enormous reach and importance. The influence of TikTok on international elections is becoming more comparable to that of Facebook and Twitter. The elections in Malaysia in 2022 were referred to as the "TikTok elections." Nearly 30% of the major party candidates running for a Senate seat in the US midterm elections of 2022 had a TikTok account. Jagmeet Singh, the head of one of Canada's biggest political parties, is also quite famous among young people thanks to his active TikTok account.

Digital media analyst Talha Ahad explained why short-video platforms like TikTok are so popular by pointing out that people from rural or poor areas are particularly likely to use these platforms. These platforms provide people in these areas with a space to express their ideas. In the past, politically engaged people in rural areas tended to flock to Facebook or Twitter since campaigns there were more planned. People are now choosing platforms where they feel more at ease and where they can express their creativity since they have more possibilities.

Problem Statement

There is rising worry that social media platforms' algorithmic content filtering may be exacerbated political divisiveness. This is so because algorithms frequently highlight information that supports users' pre-existing opinions while downplaying information that does not. Due to being exposed exclusively to information that supports their pre-existing beliefs, users may become increasingly isolated in their own echo chambers as a result.

Significance of the Study

This study is important because it investigates how Pakistani political polarization and public opinion are affected by social media algorithms. Political division in Pakistan has a long history, and the usage of social media has only made it worse. In addition to highlighting the need for more openness and regulation in this sector, this study will offer insights into how social media algorithms are influencing political division in Pakistan.

Objectives of the Study

The objectives of this study are to:

- Provide a comprehensive overview of the relationship between social media and political polarization.

- Analyze recent data on the use of social media in Pakistan, with a focus on the events of 9 May 2023.
- Use survey data to explore the ways in which social media algorithms are shaping political polarization in Pakistan.
- Highlight the need for greater transparency and regulation in the area of social media algorithms.

Research Questions

The following research questions will be addressed in this study:

1. Do social media algorithms influence political polarization?
2. Do social media algorithms shape public opinion?
3. Are there negative implications of social media algorithms regarding political discourse and public opinion in Pakistan?
4. Are there viable steps that can be taken to mitigate the negative effects of social media algorithms on political polarization?

Methodology

The research methodology includes a thorough analysis of the pertinent literature (Zuiderveen Borgesius et al., 2016; Garrett, 2019), newspapers, press releases from the Inter Services of Public Relations (ISPR), and an analysis of data on the use of social media and political attitudes (Bakshy et al., 2015). The researcher also used quantitative approaches to collect data for this investigation. Even though there are many ways to collect data for quantitative research, the researcher opts for the survey strategy because it is a simple way to do so.

The survey method also makes it simple to reach the population and provides additional opportunities to obtain accurate and first-hand data. Yes, a survey was utilised to gather the information. A questionnaire is a tool for gathering data that consists of a list of questions, the majority of which are closed-ended. It has 22 questions, and the respondents are asked to rate each one on a Likert scale. Parents in Bahawalpur were handed a Google Forms survey that was conducted online. The Google form URLs were delivered to Parents via email, WhatsApp, Facebook Messenger, and Instagram using the example technique. The use of web resources was sparked by the desire to quickly collect data.

Researchers developed a scale for a quantitative analysis based on Hootsuite's standards for a perfect TikTok video. A popular social media management tool called Hootsuite listed 15 factors that affect a video's chance of becoming viral and having a huge audience. But for the purposes of analysis, researchers concentrated on eight factors that applied to our content: hashtags, editing, music, animations, brief length, caption, uniqueness, and engagement. Researchers used this measure to rate the videos on a scale of one to eight, with eight representing the greatest score and one the lowest.

One video from the Pakistan Tehreek-e-Insaf (PTI) party received the perfect score of 8, while the other 38 movies obtained scores of 7 and 6, 42 videos received scores of 5, 15 videos received scores of 4, and four videos received scores of 3. Comparatively, out of the 100 videos from the Pakistan Muslim League-Nawaz (PML-N) party that were examined, five received an 8 out of 10, 33 received a 7, 35 received a 6, 18 received a 5, and eight received a 4, and one received a 3. The length of the videos was one reason why there were more PML-N videos with perfect or very perfect scores. PTI videos typically lasted 61 seconds, whereas PML-N videos lasted 47 seconds on average. Additionally, nearly 42% of all movies uploaded to the PML-N account were under 30 seconds in length, which is in line with TikTok's recommended video length. Only 29% of all PTI videos, in contrast, were under 30 seconds long. By resolving the shortcomings of earlier studies, this multifaceted method offers a thorough understanding of the effect of social media algorithms on political polarisation and public opinion.

Data Collection and Research Instruments

Data collecting tools are the tools used to collect data for a research study. The researcher employed a questionnaire because this study was based on a survey strategy which contains information on the impact of fast food advertisement on children's eating behaviour.

Table 1: *Do social media algorithms influence political polarization?*

Responses	Frequency	Percentage
Strongly Agree	81	27
Agree	169	56.3
Neutral	40	13.3
Disagree	9	3
Strongly Disagree	1	0.3
Total	300	100
Mean Score	1.933	
Std. Deviation	0.742	

The above table demonstrates the statistics of the data on the question of: "Do social media algorithms influence political polarization?" Hence, the result portrays that 169 (56.3%) people agree with the statement while 81 (27%) people strongly agree, 40 (13.3%) people are neutral whereas 9 (3%) disagree and 1 (0.3%) people strongly disagree with the statement. The mean score is 2.0967 and the std. deviation is 0.91476 which is analyzed via SPSS.

Table 2: *Do social media algorithms shape public opinion?*

Responses	Frequency	Percentage
Strongly Agree	91	30.3
Agree	151	50.3
Neutral	41	13.7
Disagree	10	3.3
Strongly Disagree	7	2.3
Total	300	100
Mean Score	1.9700	
Std. Deviation	0.886	

The above table demonstrates the statistics of the data on the question of 2. "Do social media algorithms shape public opinion?" Hence, the result portrays that 151 (50.3%) people agree with the statement while 91 (30.3%) people strongly agree, 41 (13.7%) people are neutral whereas 10 (3.3%) disagree and 7 (2.3%) people strongly disagree with the statement. The mean score is 2.0967 and the std. deviation is 0.91476 which is analyzed via SPSS.

Table 3: *Are there negative implications of social media algorithms regarding political discourse and public opinion in Pakistan?*

Responses	Frequency	Percentage
Strongly Agree	59	19.7
Agree	159	53
Neutral	55	18.3
Disagree	20	6.7
Strongly Disagree	7	2.3
Total	300	100
Mean Score	2.1900	
Std. Deviation	0.907	

The above table demonstrates the statistics of the data on the question of “Are there negative implications of social media algorithms regarding political discourse and public opinion in Pakistan?” Hence, the result portrays that 159 (53%) people agree with the statement while 59 (19.7%) people strongly agree, 55 (18.3%) people are neutral whereas 20 (6.7%) disagree and 7 (2.3%) people strongly disagree with the statement. The mean score is 2.0967 and the std. deviation is 0.91476 which is analyzed via SPSS.

Table 4: *Are there viable steps that can be taken to mitigate the negative effects of social media algorithms on political polarization?*

Responses	Frequency	Percentage
Strongly Agree	88	29.3
Agree	160	53.3
Neutral	42	14
Disagree	7	2.3
Strongly Disagree	3	1
Total	300	100
Mean Score	1.923	
Std. Deviation	0.7828	

The above table demonstrates the statistics of the data on the question of: “Are there viable steps that can be taken to mitigate the negative effects of social media algorithms on political polarization?” Hence, the result portrays that 160 (53.3%) people agree with the statement while 88 (29.3%) people strongly agree, 42 (14%) people are neutral whereas 7 (2.3%) disagree and 3 (1%) people strongly disagree with the statement. The mean score is 2.0967 and the std. deviation is 0.91476 which is analyzed via SPSS.

Table 5: *Bivariate Correlations*

		Watching TV Ads	Children Intention (Psychology or Thinking)	Eating Behavior
Watching Polarized Content	Pearson Correlation	1	.624**	.550**
	Sig. (2-tailed)		.000	.000
	N	300	300	300
People Intention (Psychology or Thinking)	Pearson Correlation	.624**	1	.508**
	Sig. (2-tailed)	.000		.000
	N	300	300	300
Change in Behavior	Pearson Correlation	.550**	.508**	1
	Sig. (2-tailed)	.000	.000	
	N	300	300	300

** . Correlation is significant at the 0.01 level (2-tailed).

Results and Discussion

According to the findings of this study (Bakshy et al., 2015; Flaxman et al., 2016), algorithms used by social media platforms have the potential to contribute to political polarisation by serving to bolster already-held ideas and restrict users' access to a variety of points of view. In addition to this, in light of the event that occurred in Pakistan on May 9, 2023, which is being recognised as Black day by the Pakistani Establishment, the algorithm used by social media platforms is working in support of Mr. Imran Khan, who served as prime minister of Pakistan in the past. Hashtags, much like on other social media platforms, play an important part in the process of amplifying information on TikTok by boosting the platform's overall reach. Videos that use the same hashtag are compiled into one playlist, which makes it

simpler for users to find content that is relevant to their interests. When a hashtag achieves widespread recognition and adoption, it is elevated to the status of a trend and included to the Discover section of TikTok.

One of the reasons why the Pakistan Muslim League-Nawaz (PML-N) party found it difficult to gain traction with its material was due to the fact that they used hashtags in an inconsistent manner. Since Ms. Sharif's return, the PML-N has made a concerted attempt to present her as a potential future leader by giving her a prominent feature on the organization's TikTok account. The political party pushed videos and the hashtag #Umeed_e_Seher_Maryam_Nawaz to draw attention to Maryam Nawaz.

However, out of the 22 videos that have been uploaded since she has returned, only six of them have used this hashtag in the descriptions of the videos. As a direct result of this, the hashtag has received a total of only 6.3 million views. On the other hand, the Pakistan Tehreek-e-Insaf (PTI) party routinely added hashtags such as #Imran_Khan_Hamari_Redline in the caption of every video starring Imran Khan. There have been a total of 281 million views across all of the videos that use this hashtag.

The Pakistan Muslim League-Nawaz's videos each had an average of three hashtags, while the Pakistan Tehreek-e-Insaf's videos had an average of four hashtags. Only four of PTI's videos out of 144 that were analysed lacked any hashtags, in contrast to nine out of PML-N's films out of 100 that were analysed. In addition, there were five videos uploaded by the PTI that did not have a description, while seven videos uploaded by the PML-N did not have a description at all. According to the findings of the study (Allcott and Gentzkow, 2017; Vosoughi et al., 2018), public opinion can be swayed by the proliferation of fake news and misinformation on social media platforms. This can have an effect on how people vote. According to the findings (Tufekci, 2018; Zuiderveen Borgesius et al., 2016), increased regulation and transparency of the algorithms used by social media platforms are required in order to foster an information ecosystem that is more equitable and rich in variety.

Conclusion

According to the findings of this research (Zuiderveen Borgesius et al., 2016; Garrett, 2019), algorithms used by social media platforms play a substantial part in affecting both the political discourse and public opinion. As social media platforms continue to dominate the information landscape, it is essential to identify and address the potential adverse effects of algorithmic curating (Tufekci, 2018; Sunstein, 2018). This is because it is crucial to understand and address the potential negative repercussions of algorithmic curation. It is clear that Pakistan has been sluggish to adopt new technology, and this is reflected in the way that it handles political propaganda. There has been some reluctance on the part of political parties in the country to make full use of social media as an efficient form of communication.

When you take a deeper look at the social media presence of the 15 parties who currently hold seats in the current parliament, you'll notice that the majority of them have only adopted a select few sites. Twelve of these parties are active on Facebook, eleven of these parties are active on Twitter, eight of these parties are active on Instagram, and five of these parties have channels on YouTube. Only the Pakistan Peoples Party (PPP), the Pakistan Muslim League-Nawaz (PML-N), Jamiat Ulema-e-Islam-Fazl (JUI-F), the Pakistan Tehreek-e-Insaf (PTI), the Awami National Party (ANP), and Jamaat-i-Islami have an active presence across all of these platforms.

The People's Party of India stands out among these parties as having the most extensive and robust presence on social media. The party is well recognised as an innovator in the use of social media for the purpose of influencing narratives. According to the book "Pakistan's Political Parties: Surviving between Dictatorship and Democracy," written by Niloufer Siddiqui, Mariam Mufti, and Sahar Shafqat, the PTI was a "early mover" in utilising platforms like Twitter and Facebook to mobilise and attract the youth vote. This was characterised as a "pioneer" in the field.

A research paper authored by Saifuddin Ahmed and Marko M. Skoric in 2014 examined the Pakistan Tehreek-e-Insaf's (PTI) use of Twitter and discovered that the party took a unique approach. It entailed

having more interaction with the general public, providing regular campaign updates, and successfully mobilising citizens to cast their votes. The growth of the PTI as a social media force began around the turn of the century, primarily as a result of its ability to attract a cohort of tech-savvy young supporters who naturally gravitated towards internet-based expression and organisation. This ability to attract this group of young supporters launched the PTI's rise as a social media force. Tabinda Khan, a political scientist who was affiliated with the PTI in the past but left in 2016, notes that the party was effective in tapping into the default mode of the younger generation, which mainly relies on the internet for their political engagement and communication. The effects of social media algorithms on political polarisation and public opinion should be investigated in future studies, and various remedies and interventions should be looked at as part of this investigation.

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Conflict of Interest


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