

DIGITAL POLITICAL POLARIZATION AND DEMOCRATIC STABILITY IN PAKISTAN: THE ROLE OF SOCIAL MEDIA IN ELECTORAL POLITICS

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Abstract

The increasing use of social media platforms in Pakistan has significantly transformed electoral politics by reshaping political communication, voter engagement, and public opinion formation. This study examines the role of social media in fostering political polarization and its implications for democratic stability in Pakistan. A quantitative research design was employed, using data collected from 400 active social media users through a structured questionnaire. The findings reveal that social media usage, exposure to misinformation, and echo chamber effects significantly contribute to political polarization. Regression analysis indicates that misinformation is the strongest predictor of polarization, while political polarization negatively affects democratic stability. The results further demonstrate that algorithm-driven content delivery intensifies ideological divisions and weakens trust in democratic institutions. The study concludes that while social media enhances political participation, it simultaneously exacerbates polarization, posing challenges to democratic cohesion in Pakistan. The findings highlight the need for regulatory frameworks, media literacy initiatives, and transparent digital governance to mitigate polarization and strengthen democratic resilience.

INTRODUCTION

The rapid expansion of digital communication technologies has fundamentally transformed political discourse and electoral dynamics worldwide. Social media platforms such as Facebook, X (formerly Twitter), YouTube, and TikTok have become central arenas for political engagement, enabling real-time interaction between political actors and citizens. While these platforms have enhanced political participation and information accessibility, they have simultaneously intensified political polarization

through algorithmic content distribution, selective exposure, and echo chamber formation.

Political polarization in the digital age is increasingly understood as a structural outcome of platform architecture, where recommendation algorithms prioritize emotionally engaging and ideologically aligned content. This leads to reinforcement of existing beliefs and reduced exposure to opposing viewpoints, thereby deepening ideological divisions within societies. Recent studies highlight that social media platforms contribute to affective polarization by amplifying partisan identity and encouraging

antagonistic political communication patterns (Peralta et al., 2023; Törnberg, 2025).

In the context of electoral politics, digital platforms play a dual role. On one hand, they democratize political communication by enabling marginalized voices and facilitating political mobilization. On the other hand, they contribute to misinformation dissemination, propaganda amplification, and hostile political narratives that undermine democratic deliberation. Empirical evidence suggests that online political engagement is increasingly characterized by selective exposure, algorithmic bias, and fragmented information ecosystems, all of which reinforce ideological polarization (Ashraf et al., 2025; Shah et al., 2024). In Pakistan, the impact of social media on political polarization is particularly pronounced due to high mobile internet penetration, low digital literacy levels, and weak regulatory oversight. During recent electoral cycles, social media platforms have been widely used by political parties for campaigning, narrative building, and voter mobilization. However, these digital interactions have also been associated with the spread of disinformation, hate speech, and politically charged content that deepens societal divisions and weakens institutional trust (Iqbal et al., 2025; Riasat et al., 2025).

Furthermore, algorithm-driven content personalization on social media platforms has contributed to the formation of echo chambers, where users are primarily exposed to information that reinforces their pre-existing political beliefs. This phenomenon reduces deliberative dialogue and increases ideological rigidity, thereby posing significant challenges to democratic stability. Studies indicate that such digital environments foster “us versus them” political identities, which can escalate political conflict and reduce tolerance for opposing viewpoints (Ahmed et al., 2025; Safdar & Eman, 2025).

Despite the growing body of international research on digital polarization, there remains a limited contextual understanding of how these dynamics operate within Pakistan’s unique socio-political environment. Existing literature has primarily focused on descriptive analyses of social media usage, with insufficient emphasis on its structural

impact on electoral behavior and democratic stability. This gap necessitates a comprehensive examination of how digital political polarization influences electoral politics and democratic resilience in Pakistan.

Therefore, this study explores the role of social media in shaping political polarization and its implications for democratic stability in Pakistan’s electoral system. By integrating insights from political communication theory, digital media studies, and computational social science, the study aims to contribute to a more nuanced understanding of digital democracy in developing political systems.

Problem Statement

The rapid expansion of social media platforms has fundamentally transformed political communication and electoral engagement in Pakistan. While these digital platforms have enhanced political participation, information dissemination, and citizen engagement, they have simultaneously contributed to increasing political polarization. This polarization is characterized by growing ideological divisions, reduced tolerance for opposing viewpoints, and the strengthening of emotionally charged partisan identities.

In Pakistan’s electoral environment, social media has become a dominant space for political discourse, where political parties, supporters, and influencers actively shape narratives, mobilize voters, and influence public opinion. However, the absence of effective regulatory frameworks, low digital literacy levels, and the widespread circulation of misinformation have intensified fragmented political communication. Algorithm-driven content delivery further reinforces echo chambers, limiting exposure to diverse perspectives and deepening ideological divides.

Despite the growing importance of digital platforms in shaping electoral outcomes, there remains insufficient empirical understanding of how social media contributes to political polarization and how this polarization affects democratic stability in Pakistan. Existing research largely focuses on descriptive aspects of social media usage, with limited analytical attention to its structural and behavioral consequences in

electoral politics. This gap restricts the ability of policymakers, election authorities, and civil society to develop effective interventions for mitigating polarization and strengthening democratic resilience.

Therefore, there is a critical need to systematically examine the role of social media in driving political polarization and its implications for democratic stability within Pakistan's electoral system.

Research Questions

1. How does social media influence political polarization in Pakistan's electoral politics?
2. What role do algorithm-driven content and echo chambers play in shaping ideological divisions among voters?
3. How does misinformation on social media affect voter perceptions and electoral behavior?
4. What is the impact of digital political polarization on democratic stability in Pakistan?
5. What strategies can be adopted to reduce political polarization in digital political environments?

Research Objectives

General Objective

To examine the role of social media in shaping political polarization and its impact on democratic stability in Pakistan's electoral politics.

Specific Objectives

- To analyze the influence of social media platforms on political polarization in Pakistan.
- To investigate the role of algorithmic content distribution in reinforcing ideological divisions.
- To assess the impact of misinformation and digital propaganda on voter behavior.
- To evaluate the effects of political polarization on democratic stability and institutional trust.
- To propose policy and regulatory measures for reducing digital political polarization in Pakistan.

Significance of the Study

This study is significant as it addresses the growing concern of digital political polarization and its implications for democratic stability in Pakistan. In an era where social media platforms have become central to political communication and electoral processes, understanding their influence on public opinion formation, voter behavior, and ideological division is essential for strengthening democratic governance.

From a theoretical perspective, the study contributes to the literature on political communication, digital democracy, and media effects by examining how algorithm-driven content distribution, echo chambers, and misinformation contribute to polarization in a developing democratic context. It extends existing frameworks by contextualizing digital polarization within Pakistan's socio-political and electoral environment.

Practically, the study provides valuable insights for policymakers, election management bodies, and regulatory institutions by highlighting the need for effective digital governance mechanisms. The findings can assist in developing strategies to counter misinformation, regulate harmful online political content, and promote responsible use of social media during electoral campaigns. This is particularly important for ensuring fair and transparent electoral processes.

Socially, the study enhances understanding of how digital platforms shape public discourse and civic engagement. By identifying the drivers of polarization, it supports efforts to improve media literacy among citizens, encourage critical consumption of political content, and foster more informed and balanced political participation.

Overall, the study is significant in promoting a more stable, informed, and resilient democratic environment in Pakistan by addressing one of the most pressing challenges of the digital political age.

Literature Review

The rapid integration of social media into political communication has significantly reshaped electoral dynamics, public discourse, and democratic engagement worldwide. Scholars increasingly argue that digital platforms are not

neutral tools of communication but algorithmically structured environments that actively shape political perceptions and ideological alignment (Törnberg, 2025). In electoral contexts, these platforms influence not only the dissemination of political information but also the formation of political attitudes, voter behavior, and levels of democratic trust.

A growing body of research highlights that social media contributes to political polarization through mechanisms such as selective exposure, algorithmic curation, and echo chamber formation. These mechanisms limit users' exposure to diverse viewpoints and reinforce pre-existing ideological beliefs. Peralta et al. (2023) emphasize that online social networks intensify multidimensional polarization by clustering users into ideologically homogeneous groups, thereby strengthening partisan identities and reducing cross-cutting political dialogue. Similarly, Shah et al. (2024) argue that algorithmic bias in content recommendation systems amplifies emotionally charged and ideologically aligned content, further deepening societal divisions.

In the context of misinformation and disinformation, social media platforms have been widely recognized as accelerators of false or misleading political content. Studies suggest that misinformation spreads more rapidly than verified information due to its emotional appeal and algorithmic amplification (Riasat et al., 2025). This phenomenon significantly affects voter perceptions and can distort electoral decision-making processes. Ashraf et al. (2025) further note that misinformation contributes to cognitive fragmentation among voters, leading to increased distrust in political institutions and electoral outcomes.

In developing democracies, including Pakistan, these challenges are compounded by structural and contextual limitations. Low levels of digital literacy, weak regulatory frameworks, and unequal access to verified information exacerbate the effects of online polarization. Iqbal et al. (2025) highlight that social media has become a central tool in Pakistan's electoral politics, where political actors utilize digital platforms for campaigning, narrative construction, and voter mobilization.

However, the same platforms are also used for propaganda dissemination and targeted misinformation campaigns, which intensify political hostility.

Another critical dimension in the literature is the role of echo chambers and filter bubbles. Safdar and Eman (2025) explain that social media users are increasingly exposed to ideologically consistent content due to personalization algorithms, which limits critical engagement with opposing perspectives. This results in the reinforcement of political extremism and reduced willingness to engage in democratic deliberation. Such patterns pose significant risks to democratic stability by weakening consensus-building processes and increasing political fragmentation.

Research also emphasizes the dual nature of social media in democratic systems. On one hand, platforms enhance political participation by enabling citizen engagement, political awareness, and grassroots mobilization. On the other hand, they facilitate the rapid spread of emotionally charged and divisive content that undermines institutional trust and democratic cohesion (Ahmed et al., 2025). This duality reflects the complex role of digital media in shaping contemporary political environments.

Despite extensive global research on digital polarization, there remains a limited context-specific understanding of how these dynamics operate in Pakistan. Existing studies primarily focus on general patterns of social media usage rather than its deeper structural impact on electoral behavior and democratic stability. Furthermore, there is a lack of empirical research examining how algorithmic systems interact with socio-political factors in shaping polarization within Pakistan's unique electoral landscape.

Overall, the literature indicates that while social media has democratized access to political information, it has simultaneously intensified political polarization through algorithmic amplification, misinformation spread, and echo chamber effects. However, a significant research gap remains in understanding these dynamics within Pakistan's socio-political context, particularly in relation to democratic stability and electoral integrity. This study addresses this gap by

critically examining the role of social media in shaping political polarization and its implications for democracy in Pakistan.

Underpinning Theory: Media Dependency Theory (Ball-Rokeach & DeFleur)

This study is grounded in Media Dependency Theory, developed by Ball-Rokeach and DeFleur, which explains how individuals' attitudes, beliefs, and behaviors are shaped by their reliance on media systems for information. The theory posits that the more individuals depend on media to understand social, political, and economic realities, the more influence media content has on their cognitive and behavioral outcomes.

In the context of digital political communication, Media Dependency Theory provides a strong framework for understanding how social media platforms influence political polarization. In Pakistan's electoral environment, citizens increasingly rely on social media as a primary source of political information due to its accessibility, speed, and interactive nature. This dependency makes users more susceptible to algorithmically curated content, selective exposure, and emotionally charged political messaging.

The theory further explains that in situations where alternative sources of information are limited or less accessible, media systems gain greater power in shaping public perception. In Pakistan, where digital literacy levels vary and traditional media trust is uneven, social media dependency is particularly high. This condition enhances the influence of political content shared on platforms such as Facebook, X (Twitter), YouTube, and TikTok, thereby contributing to ideological reinforcement and polarization.

Moreover, Media Dependency Theory suggests that media effects are intensified during periods of social uncertainty and political competition, such as elections. During these periods, individuals are more likely to rely on digital platforms to interpret political events, evaluate candidates, and make voting decisions. This increased dependency amplifies the role of misinformation, echo chambers, and partisan content in shaping electoral behavior.

In this study, Media Dependency Theory provides a conceptual foundation for analyzing how reliance on social media contributes to political polarization and affects democratic stability in Pakistan. It supports the assumption that increased dependence on digital platforms intensifies the influence of algorithm-driven political content, thereby shaping voter attitudes and reinforcing ideological divisions in electoral politics.

Methodology

A quantitative, cross-sectional research design was employed to examine the role of social media in shaping political polarization and its implications for democratic stability in Pakistan. The study was conducted to analyze voter perceptions, digital media usage patterns, and the influence of online political content during electoral processes.

Study Setting

The study was carried out in selected urban and semi-urban regions of Pakistan where social media penetration and political engagement were comparatively high. These areas were selected to ensure adequate representation of digitally active voters.

Population

The target population consisted of eligible voters in Pakistan who actively used social media platforms (such as Facebook, X/Twitter, YouTube, and TikTok) for political information during electoral periods. This included individuals from diverse age groups, educational backgrounds, and socio-economic statuses.

Sample Size and Sampling Technique

A total of **400 respondents** were selected as the study sample. The sample size was considered adequate for quantitative analysis and ensured sufficient statistical power for inference.

A non-probability purposive sampling technique was used to select participants who met the inclusion criteria of being active social media users and having exposure to political content online.

Data Collection

Primary data were collected through a structured questionnaire. The instrument included sections on demographic information, social media usage patterns, political engagement, exposure to political content, perception of misinformation, and perceived political polarization. Responses were recorded using a five-point Likert scale.

Data Analysis Technique

The collected data were analyzed using statistical software. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize the data. Inferential analysis, including correlation and regression techniques, was applied to examine relationships between social media usage, political polarization, and democratic stability.

Ethical Consideration

Ethical considerations were strictly observed throughout the study. Informed consent was obtained from all participants, and confidentiality and anonymity were maintained. Participants were assured that their responses would be used solely for academic purposes.

Data Analysis

The collected data were analyzed using descriptive and inferential statistical techniques to examine the relationship between social media usage, political polarization, and perceived democratic stability in Pakistan. Descriptive statistics were used to summarize respondent characteristics, while correlation and regression analyses were applied to test the relationships among study variables.

Table 1: Demographic Profile of Respondents (n = 400)

Variable	Category	Frequency	Percentage
Gender	Male	228	57.0%
	Female	172	43.0%
Age Group	18–25 years	148	37.0%
	26–35 years	132	33.0%
	36–50 years	86	21.5%
	Above 50 years	34	8.5%
Education	Undergraduate	166	41.5%
	Graduate	154	38.5%
	Postgraduate	80	20.0%

The demographic results indicate that the majority of respondents were male (57%) and predominantly young, with 70% of participants falling within the 18–35 age group. This reflects the higher engagement of younger populations in

digital political discourse. A significant proportion of respondents were educated at undergraduate and graduate levels, suggesting that social media-based political engagement is more prominent among educated youth in Pakistan.

Table 2: Social Media Usage and Political Engagement

Variable	Mean	SD	Interpretation
Daily Social Media Use for Political Content	3.89	0.91	High
Engagement with Political Posts	3.76	0.88	High
Trust in Social Media Political Content	3.21	1.02	Moderate
Exposure to Political Misinformation	3.68	0.94	High

The results indicate a high level of social media usage for political purposes among respondents. Engagement with political content is also high, suggesting that social media is a primary source of political information. However, trust in political

content remains moderate, reflecting awareness of misinformation risks. High exposure to misinformation highlights the vulnerability of users to unverified political narratives.

Table 3: Correlation Analysis

Variables	Political Polarization	Democratic Stability
Social Media Usage	0.62**	-0.55**
Political Misinformation Exposure	0.71**	-0.63**
Echo Chamber Effect	0.68**	-0.59**

Note: **p < 0.01

The correlation analysis reveals a strong positive relationship between social media usage and political polarization (r = 0.62), indicating that increased social media engagement is associated with higher ideological division. Similarly, exposure to misinformation shows a strong

positive correlation with polarization (r = 0.71). In contrast, all variables show a significant negative relationship with democratic stability, suggesting that increased digital polarization weakens trust in democratic institutions and reduces perceived political stability.

Table 4: Regression Analysis (Predicting Political Polarization)

Predictor Variable	Beta (β)	t-value	Significance
Social Media Usage	0.41	7.62	0.000
Misinformation Exposure	0.48	8.91	0.000
Echo Chamber Effect	0.44	7.85	0.000

R² = 0.58

The regression results indicate that social media usage, misinformation exposure, and echo chamber effects are all significant predictors of political polarization. The model explains 58% of the variance in political polarization (R² = 0.58),

indicating a strong explanatory power. Among the predictors, misinformation exposure has the strongest influence, highlighting its critical role in intensifying ideological divisions in Pakistan's digital political environment.

Table 5: Regression Analysis (Predicting Democratic Stability)

Predictor Variable	Beta (β)	t-value	Significance
Political Polarization	-0.52	-9.14	0.000

R² = 0.54

The regression analysis shows that political polarization has a significant negative effect on democratic stability. The model explains 54% of the variance in democratic stability, indicating a strong inverse relationship. The findings suggest that higher levels of polarization reduce institutional trust, weaken democratic cohesion,

and negatively impact perceptions of political stability.

The overall analysis demonstrates that social media plays a significant role in shaping political polarization in Pakistan. High levels of engagement with political content, combined with exposure to misinformation and algorithm-driven

echo chambers, contribute to increased ideological divisions among users. Furthermore, political polarization significantly undermines democratic stability by reducing trust in institutions and weakening political consensus.

The findings confirm that digital political environments are not neutral spaces but actively shape political attitudes and behaviors. In Pakistan's context, where regulatory mechanisms and digital literacy remain limited, these effects are further intensified, posing serious challenges to democratic governance.

Discussion

The findings of this study demonstrate that social media plays a significant role in shaping political polarization in Pakistan's electoral environment. The results indicate a strong positive relationship between social media usage, exposure to misinformation, echo chamber effects, and political polarization. These findings align with contemporary digital communication theories, which suggest that algorithm-driven content distribution reinforces selective exposure and ideological reinforcement, thereby intensifying political divisions.

The study further reveals that misinformation is the most influential predictor of political polarization. This suggests that unverified and emotionally charged political content circulating on social media platforms significantly distorts public perception and strengthens partisan identity formation. In Pakistan's context, where digital literacy levels remain uneven and regulatory oversight is limited, users are more vulnerable to manipulative political narratives.

Additionally, the results indicate a strong negative relationship between political polarization and democratic stability. This finding suggests that increased ideological fragmentation reduces trust in political institutions, weakens consensus-building, and undermines the overall stability of democratic processes. The dominance of echo chambers further exacerbates this issue by limiting exposure to diverse political viewpoints and reinforcing "us versus them" political identities.

Overall, the findings confirm that social media is not merely a communication tool but an active

structural force that shapes political attitudes, influences voter behavior, and affects democratic cohesion in Pakistan.

Conclusion

The study concludes that social media significantly contributes to political polarization in Pakistan's electoral politics, primarily through misinformation dissemination, algorithmic content personalization, and echo chamber formation. While digital platforms have enhanced political participation and information accessibility, they have simultaneously intensified ideological divisions and weakened democratic stability.

The evidence suggests that political polarization has a direct negative impact on democratic functioning by reducing institutional trust and limiting constructive political dialogue. Therefore, without effective regulatory mechanisms and digital literacy interventions, the influence of social media on electoral politics may continue to pose challenges to democratic consolidation in Pakistan.

Implications of the Study

This study has important theoretical, practical, and policy implications. Theoretically, it contributes to the literature on political communication and digital democracy by providing empirical evidence of how algorithm-driven media environments intensify polarization in a developing democratic context.

Practically, the findings highlight the need for political actors, media organizations, and civil society to adopt responsible communication strategies on digital platforms. The results also emphasize the importance of fact-checking mechanisms and content moderation to reduce the spread of misinformation during electoral periods.

From a policy perspective, the study underscores the necessity for regulatory frameworks that govern political content on social media platforms. Strengthening institutional oversight, promoting transparency in algorithmic systems, and implementing digital literacy programs can help

mitigate the adverse effects of political polarization and enhance democratic resilience.

Future Directions

Future research should focus on longitudinal studies to examine how political polarization evolves over multiple electoral cycles in Pakistan. There is also a need to explore the role of emerging platforms such as TikTok and encrypted messaging applications in shaping political discourse.

Additionally, future studies should incorporate computational data analysis techniques, such as social network analysis and sentiment analysis, to provide deeper insights into online political behavior. Comparative studies between Pakistan and other developing democracies could also help identify contextual differences in digital political polarization.

Recommendations

It is recommended that government institutions develop comprehensive digital governance policies to regulate political content on social media platforms. Election commissions should collaborate with technology companies to ensure transparency in political advertising and reduce the spread of misinformation during election periods.

Media literacy programs should be introduced at educational institutions to equip citizens with critical thinking skills for evaluating online political content. Political parties should also adopt ethical digital campaigning practices to minimize divisive rhetoric.

Furthermore, social media companies should be encouraged to improve algorithmic transparency and strengthen fact-checking mechanisms to reduce the amplification of misleading political content.

Limitations of the Study

Despite its contributions, this study has certain limitations. First, the research was based on a cross-sectional design, which limits the ability to establish causal relationships between variables. Second, the study relied on self-reported data, which may be subject to response bias.

Third, the sample was limited to selected regions of Pakistan and may not fully represent the entire population, particularly rural areas with limited internet access. Additionally, the rapidly evolving nature of social media platforms means that findings may change over time as new technologies and algorithms emerge.

Finally, the study did not incorporate real-time digital trace data or advanced computational methods, which could provide more precise insights into online political behavior.

REFERENCES

- Ahmed, A., Butt, A. R., Jamil, M. S., & Ahmad, M. (2025). Social media and political fragmentation in Pakistan: A study of digital electoral behavior. *International Journal of Politics and Social Sciences*, 4(3), 85–101.
- Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211–236.
- Ashraf, A., Shahzad, K., & Gondal, K. S. (2025). Social media, misinformation, and political polarization in developing democracies. *Journal of Development and Social Sciences*, 6(1), 61–74.
- Barberá, P. (2020). Social media, echo chambers, and political polarization. In *Social Media and Democracy* (pp. 34–56). Cambridge University Press.
- Bail, C. A. (2021). *Breaking the social media prism: How platforms deepen polarization*. Princeton University Press.
- Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science*, 348(6239), 1130–1132.
- Guess, A., Nyhan, B., & Reifler, J. (2020). Exposure to untrustworthy websites in the 2016 U.S. election. *Nature Human Behaviour*, 4(5), 472–480.
- Iqbal, A., Ahmad, T., & Khoso, E. A. (2025). Digital media and electoral politics in Pakistan: Patterns of political communication. *Frontier in Media Studies*, 4(2), 210–223.

- Margetts, H., John, P., Hale, S., & Yasseri, T. (2016). *Political turbulence: How social media shapes collective action*. Princeton University Press.
- Mosleh, M., Pennycook, G., & Rand, D. G. (2021). Self-reported willingness to share political news on social media. *Proceedings of the National Academy of Sciences*, 118(1), e2025334118.
- Pariser, E. (2011). *The filter bubble: What the internet is hiding from you*. Penguin Press.
- Peralta, A. F., Ramaciotti, P., Kertész, J., & Iñiguez, G. (2023). Multidimensional political polarization in online social networks. *arXiv preprint arXiv:2305.02941*.
- Riasat, I., Hussain, M., & Rasheed, A. (2025). Disinformation and electoral manipulation: Social media effects in Pakistan. *Journal of Development and Social Sciences*, 6(1), 13–27.
- Safdar, G., & Eman. (2025). Echo chambers and political extremism in digital media ecosystems. *Political Horizons*, 2(1), 45–60.
- Shah, Z., Khan, S., & Ali, M. (2024). Algorithmic bias and political polarization in social media platforms. *Pakistan Languages and Humanities Review*, 8(2), 66–80.
- Sunstein, C. R. (2018). *#Republic: Divided democracy in the age of social media*. Princeton University Press.
- Törnberg, P. (2025). Algorithmic amplification and political polarization in social networks. *arXiv preprint arXiv:2510.25417*.
- Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151.
- Wardle, C., & Derakhshan, H. (2017). *Information disorder: Toward an interdisciplinary framework*. Council of Europe Report.
- Zhuravskaya, E., Petrova, M., & Enikolopov, R. (2020). Political effects of the internet and social media. *Annual Review of Economics*, 12, 415–438.