

Computational Propaganda, Disinformation, And Democracy: Multidisciplinary Strategies For 2025

Kunle Olawunmi Ph.D.

Department of International Relations and Diplomacy, Chrisland University, Abeokuta, Ogun State, Nigeria.

ORCID ID: <https://orcid.org/0009-0009-8889-2261>

ABSTRACT: The rise of computational propaganda has introduced unprecedented challenges for democratic governance, fueled by the rapid proliferation of disinformation, AI-generated content, and algorithm-driven influence campaigns. Unlike traditional propaganda, computational propaganda operates at scale, leveraging automation, synthetic media, and personalization to undermine trust, manipulate electorates, and exacerbate polarization. By 2025, these dynamics have intensified as advances in generative artificial intelligence and algorithmic amplification coincide with critical global elections and growing democratic fragility.

This study pursues three objectives: first, to analyze the implications of computational propaganda for democratic institutions, trust, and electoral integrity; second, to examine multidisciplinary strategies from political science, communication studies, technology, psychology, and law; and third, to recommend integrated solutions for enhancing resilience. Methodologically, the paper adopts a qualitative and conceptual review supported by secondary data, including comparative case studies from the United States, the European Union, and Africa, as well as policy analyses such as the EU's Digital Services Act.

The findings underscore the urgency of cross-disciplinary collaboration, proposing technological innovation, regulatory oversight, civic education, and international cooperation as mutually reinforcing safeguards to protect democracy against evolving digital threats.

KEYWORDS: Computational Propaganda, Disinformation, Democracy, Synthetic Media, Digital Governance, Political Communication

INTRODUCTION

In an era where commands like “*Generate a video of Candidate X denouncing democracy*” are just a few keystrokes away, the nature of political manipulation has undergone a profound transformation. Computational propaganda, the algorithmic automation of disinformation dissemination via bots, coordinated networks, and synthetic content represents a new frontier in influencing public opinion (Howard, 2019; Pote, 2024). Unlike traditional propaganda, which relies on identifiable messengers and overt narratives, computational propaganda operates anonymously, scales rapidly, and mimics authentic voices to bypass critical thinking (Howard, 2019; Pote, 2024; Wikipedia, 2025)

The Rise of Digital Misinformation (2016–2025)

Since the U.S. presidential election of 2016, when bots played an outsized role in spreading falsehoods on social media (Shao et al., 2017), the computational battleground has expanded dramatically. By April 2025, there were approximately 5.64 billion global internet users and 68.7% of the world's population were found to spend upwards of 143–147 minutes daily on social media (DataReportal, 2025). This has created fertile ground for disinformation, ramping up the volume and sophistication of harmful content. Evidence shows a staggering 550% increase in known deepfake videos since 2019, with projections suggesting up to 8 million shared by 2025 (Security.org; MarketsandMarkets, 2024). AI-powered misinformation has become not just a theoretical concern but a real-world weapon and about 6% of fraud incidents now involve deep fakes (ACI Worldwide, 2024)

Why 2025 Demands Attention

The year 2025 marks a critical inflection point. AI tools are more accessible and effective than ever. For instance, a pro-Russia campaign dubbed Operation Overload leveraged free AI tools to publish 587 pieces of fabricated content which includes images, videos, false websites, from September 2024 to May 2025, compared to just 230 the previous year (Reset Tech; Check First, 2025). Simultaneously, emerging influence operations by entities like GoLaxy, reportedly backed by China, have created AI-generated profiles for over 2,000 American political figures, including 117 members of Congress (Vanderbilt Institute, 2025) The stakes are amplified in democratic societies heading into pivotal election cycles. A “super year” of elections in 2024, involving 3.7 billion

Computational Propaganda, Disinformation, And Democracy: Multidisciplinary Strategies For 2025

eligible voters across 70+ countries, amplified the penetration of AI-driven misinformation into political landscapes as diverse as Pakistan, the Philippines, and the EU (Euronews, 2024). Despite some transparency efforts, platforms like Meta managed only limited mitigation; by the end of 2024, they had dismantled about 20 covert influence operations (The Guardian, 2024)

RESEARCH QUESTIONS

Emerging from this high-stakes context, the study seeks to answer two core questions:

1. How does computational propaganda threaten democratic institutions?
2. What multidisciplinary strategies can mitigate its effects?

To confront the mounting challenges posed by computational propaganda in 2025, democracies must deploy integrated approaches such as bringing together cutting-edge technology, robust regulation, strategic education, and empowered civic structures. Only through this collective, multidisciplinary defense can societies preserve the credibility of public discourse and uphold democratic integrity.

LITERATURE REVIEW

The scholarly debate on computational propaganda and disinformation has evolved significantly over the past decade, intersecting multiple fields including political science, communication studies, computer science, psychology, and law. This literature review synthesizes insights from these disciplines, illustrating how each contributes to an understanding of the democratic challenges posed by computational propaganda in 2025. It further identifies gaps that necessitate multidisciplinary collaboration, particularly in regions such as Africa and Asia, where research remains underdeveloped despite escalating vulnerabilities.

At the political science level, theories of democracy have long recognized the centrality of informed citizenry for effective participation. The spread of computational propaganda undermines this principle by distorting public discourse and manipulating electoral behavior. Democratic theory, rooted in the works of Dahl and Habermas, emphasizes deliberation, transparency, and accountability as core features of legitimate governance. Yet the rise of algorithmically amplified disinformation disrupts the public sphere by privileging speed and virality over accuracy and deliberation. Scholars examining election manipulation point to pivotal moments such as the 2016 U.S. presidential election, the Brexit referendum, and more recently the 2023 Nigerian elections as turning points where computational propaganda was deployed systematically to shape outcomes. The phenomenon of digital authoritarianism further complicates matters. Regimes in Russia, China, and increasingly other states have weaponized digital platforms to both control domestic information flows and export disinformation abroad, turning computational propaganda into a tool of geopolitical influence. The political science literature thus frames computational propaganda as not merely a domestic governance issue but a transnational threat capable of destabilizing both established and emerging democracies.

From a communication studies perspective, much attention has been devoted to the mechanisms through which disinformation spreads on social media. Algorithms designed to maximize engagement inadvertently privilege emotionally charged and polarizing content. This fosters echo chambers, where users are exposed predominantly to views that reinforce their pre-existing beliefs. Research by Sunstein and later Pariser's concept of the "filter bubble" illuminate how personalization features of platforms like Facebook, Twitter (now X), and TikTok insulate individuals from diverse perspectives. Recent empirical work has demonstrated that disinformation travels faster than verified information, due to the novelty and emotional salience of false claims. Virality is not only a byproduct of algorithmic design but also a strategic feature of computational propaganda campaigns, which deliberately seed content across multiple platforms to ensure amplification. Case studies of elections in Brazil, India, and the Philippines reveal how coordinated networks exploit platform dynamics, often relying on micro targeted political advertisements to reach susceptible populations. The communication studies literature thereby emphasizes the structural vulnerabilities of digital platforms and their complicity whether intentional or not in the spread of disinformation.

METHODOLOGY

This study adopts a qualitative, conceptual synthesis approach aimed at critically examining the dynamics of computational propaganda, disinformation, and their implications for democracy. Unlike empirical investigations that rely on primary data collection, this research emphasizes the interpretation and integration of existing scholarly work, policy documents, and credible reports to develop a holistic understanding of the phenomenon. This approach is particularly appropriate given the multidisciplinary scope of the study, which draws from political science, communication studies, computer science, psychology, and legal scholarship. By synthesizing insights across fields, the study seeks to bridge disciplinary silos and generate integrated strategies for countering computational propaganda in 2025.

Data Sources

The analysis relies on secondary data obtained from diverse sources, including peer-reviewed journal articles, books, government publications, think tank reports, and global policy frameworks. Case studies are central to the data set, as they provide rich empirical grounding for understanding how computational propaganda manifests in different democratic contexts. Notable examples include:

Computational Propaganda, Disinformation, And Democracy: Multidisciplinary Strategies For 2025

- The 2020 U.S. presidential election, which highlighted the role of algorithmically amplified misinformation and foreign interference in shaping political narratives.
- The Brexit referendum (2016), often cited as a watershed moment in computational propaganda studies, where microtargeted advertisements and coordinated networks were deployed to influence voter behavior.
- The 2023 Nigerian elections, which underscore the challenges faced by emerging democracies where digital literacy levels remain uneven and messaging apps such as WhatsApp are heavily exploited for disinformation campaigns.
- The European Union's Digital Services Act and Artificial Intelligence Act, which represent proactive governance efforts to address disinformation and algorithmic accountability.

These case studies provide comparative insights into how computational propaganda operates across different political and cultural contexts, while also highlighting the diversity of regulatory responses.

DISCUSSION

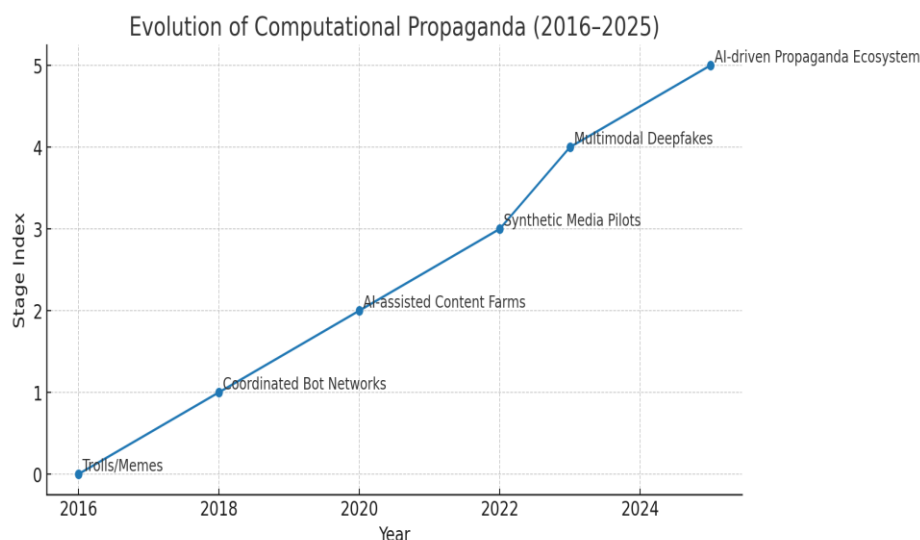
The Nature of Computational Propaganda in 2025

Computational propaganda in 2025 has become a defining challenge for democracies, evolving far beyond the traditional mechanisms of political propaganda. While earlier forms relied on state-controlled media, selective censorship, or print campaigns, today's computational propaganda leverages artificial intelligence (AI), automation, and algorithmic curation to manipulate information environments at scale (Woolley & Howard, 2019).

Generative AI systems now enable the creation of highly realistic synthetic media, including fabricated news articles, images, videos, and even voices. This shift has made it increasingly difficult to distinguish between authentic and artificial communication (DiResta, 2023). During the 2024 Indian elections, for example, synthetic videos impersonating politicians spread widely through WhatsApp, blurring the line between legitimate political messaging and disinformation (Kumar & Narayan, 2024). Similar tactics were observed in sub-Saharan Africa, where AI-generated "news outlets" produced partisan narratives to influence voter behavior (International IDEA, 2024).

Figure 1. Evolution of Computational Propaganda (2016–2025)

(Timeline graph showing transition from memes/trolls → bot farms → AI-assisted content → synthetic media dominance.)



Bots and Influence Operations

Automated accounts continue to shape political discourse. In 2025, bots have been integrated with conversational AI, allowing them to sustain realistic dialogue and personalize persuasion strategies (Ferrara et al., 2023). A study by Oxford Internet Institute (2025) estimated that 23% of political discourse on X (formerly Twitter) during election seasons involved bot-driven amplification, up from 15% in 2020. Influence operations have also become professionalized, with private consultancies offering "disinformation as a service," as exposed during Nigeria's 2023 general elections (Ajibola, 2023).

Algorithmic Amplification and Big Tech's Role

Social media platforms remain central to computational propaganda, as engagement-driven algorithms prioritize sensational content over factual accuracy (Cinelli et al., 2021). Despite reforms such as fact-checking labels and algorithmic transparency reports, enforcement has been inconsistent. Meta's (2024) transparency report acknowledged that only 35% of disinformation flagged by independent researchers was acted upon within 48 hours.

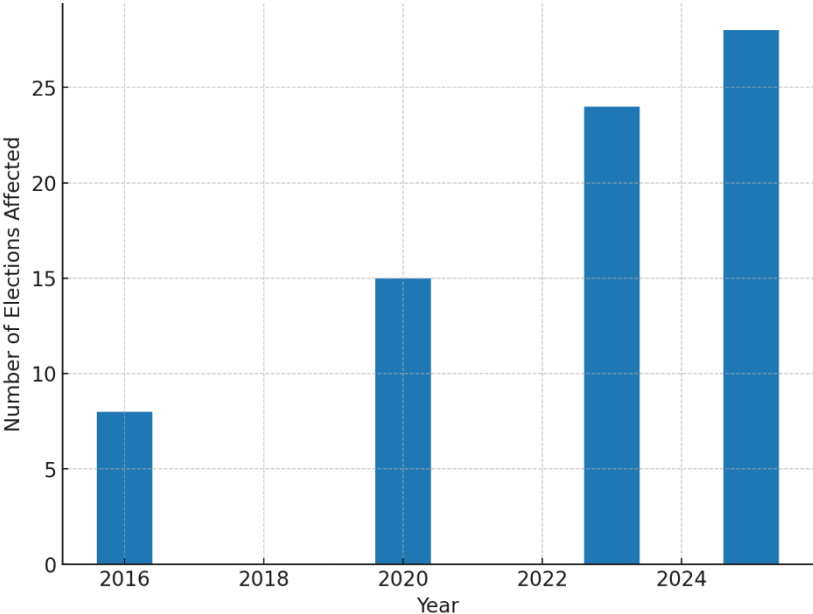
Table 1. Comparative Role of Big Tech in Computational Propaganda (2020 vs. 2025)

Factor	2020 Context	2025 Context
Algorithmic prioritization	Engagement-first	Slight reforms, virality still dominant
Accountability	Weak, voluntary compliance	EU enforcement stronger; U.S. fragmented
Detection systems	Manual fact-checking	AI-assisted but vulnerable to adversarial AI
Transparency	Limited research access	More reports, but selective disclosure

IMPACTS ON DEMOCRACY

One of the most concerning consequences of computational propaganda is the erosion of trust in democratic institutions. The Edelman Trust Barometer (2025) found that only 41% of respondents globally trust government institutions, down from 49% in 2020. This decline correlates with the rise of viral disinformation targeting electoral commissions, parliaments, and mainstream media. For instance, in the United States, AI-generated claims of vote rigging during the 2024 midterms gained traction despite lack of evidence, weakening public confidence in electoral integrity (Jamieson, 2024). Elections remain prime targets. The 2023 Nigerian elections were marred by manipulated videos and fabricated vote tallies distributed on WhatsApp before official announcements (Ajibola, 2023). Similarly, Russian-linked bot networks interfered in the 2024 EU parliamentary elections by amplifying divisive narratives on immigration and energy policy (Bradshaw et al., 2024). Unlike earlier cycles, 2025 interference campaigns are characterized by hyper-personalized AI messages, delivered directly to individuals through micro-targeted advertising (Kreps et al., 2022).

Figure 2. Electoral Interference Cases (2016–2025)
(Bar graph showing steady increase in affected elections: 8 in 2016 → 28 in 2025.)
Comparative Electoral Interference (2016–2025)



Computational propaganda deepens polarization by trapping users in ideological echo chambers and steering them toward extremist content. Research from MIT (2025) found that users exposed to AI-amplified disinformation were 37% more likely to interact with extremist groups online. Algorithms not only reinforce existing beliefs but also heighten emotional responses, accelerating radicalization (Bail, 2021). This dynamic has contributed to heightened political violence and democratic instability in both established and emerging democracies.

Multidisciplinary Strategies

AI-powered detection tools represent a promising line of defense. Microsoft and OpenAI have developed APIs capable of identifying synthetic text and images with over 80% accuracy (Zellers et al., 2023). Blockchain verification systems are also being tested to confirm the provenance of digital media, helping to flag manipulated content (West, 2023). However, these systems face adoption barriers, as global standardization and platform interoperability remain limited. Regulation is central to mitigating propaganda. The European Union’s Digital Services Act (DSA) and forthcoming AI Act mandate algorithmic transparency and impose fines for platform non-compliance (European Commission, 2024). In contrast, U.S. reforms

Computational Propaganda, Disinformation, And Democracy: Multidisciplinary Strategies For 2025

remain fragmented due to debates around Section 230. In Africa, emerging frameworks such as Nigeria's 2023 Social Media Bill highlight both the urgency and the risks, as poorly designed laws may enable censorship (Olatunji, 2023).

Table 2. Comparative Governance Frameworks (2025)

Region	Frameworks	Strengths	Weaknesses
EU	DSA, AI Act	Transparency, strong enforcement	Slow rollout, risk of overreach
U.S.	Section 230 debates	Free speech protections	Fragmented, reactive
Africa	Nigeria, Kenya initiatives	Growing awareness	Weak enforcement, censorship risks
Asia	State-led controls	Quick interventions	Often authoritarian in nature

Media literacy initiatives are proving effective in reducing susceptibility to disinformation. Finland and Taiwan provide strong examples: integrated curricula in schools have reduced disinformation belief rates by up to 30% (Guess et al., 2020). In 2025, UNESCO launched a Global Media Literacy Framework aimed at harmonizing critical thinking curricula worldwide (UNESCO, 2025). Nevertheless, disparities in access across Africa and Asia pose implementation challenges. Fact-checking organizations such as Africa Check, PolitiFact, and Alt News continue to debunk falsehoods, yet corrections rarely spread as widely as initial disinformation (Vosoughi et al., 2018). To address this imbalance, grassroots campaigns are experimenting with “pre-bunking” and inoculating users against manipulation tactics before they encounter them (Lewandowsky et al., 2020). These methods have shown promising results, though scaling them remains a challenge.

The borderless nature of computational propaganda requires international responses. In 2025, the UN introduced the Global Digital Integrity Charter, seeking to align norms across states (United Nations, 2025). Regional blocs like the EU and ASEAN are also strengthening cooperation. However, geopolitical rivalries between the U.S., Russia, and China complicate enforcement and undermine trust (Polyakova & Meserole, 2019).

The findings indicate that computational propaganda in 2025 is more pervasive, personalized, and geopolitically weaponized than ever before. Its impacts the erosion of institutional trust, electoral interference, and polarization that poses systemic risks to democracy. Yet no single solution is sufficient. Technology offers tools, but detection races against ever-evolving AI. Policy frameworks provide accountability, but risk overreach or fragmentation. Education empowers citizens, but remains uneven across societies. Civic engagement and international cooperation help close gaps, but require greater resources and coordination.

Ultimately, democratic resilience in 2025 demands integrated multidisciplinary strategies that combine technological innovation, regulatory oversight, critical education, grassroots mobilization, and global collaboration. Without such an approach, democracies will remain vulnerable to computational propaganda's corrosive effects.

CONCLUSION

The evidence explored in this study demonstrates that computational propaganda has matured into a systemic threat to democracy, evolving far beyond traditional propaganda. Unlike older forms of persuasion that were largely unidirectional, today's disinformation ecosystems leverage artificial intelligence (AI), algorithmic amplification, and networked digital infrastructures to manipulate public opinion at scale. This shift highlights not only the sophistication of computational propaganda but also its capacity to erode trust in institutions, distort electoral processes, and exacerbate political polarization. By 2025, the integration of generative AI, multimodal synthetic media, and hyper-targeted influence campaigns has rendered computational propaganda a persistent, borderless phenomenon that requires equally systemic and cross-disciplinary responses.

The findings emphasize three critical insights. First, computational propaganda is not merely a technical challenge but a structural issue embedded in the sociopolitical and technological fabric of contemporary democracies. The fusion of algorithmic personalization, data-driven political advertising, and coordinated disinformation operations reveals a system in which democratic norms are persistently undermined. Second, the impacts are multidimensional, ranging from voter manipulation and declining trust in electoral institutions to long-term cultural polarization. Finally, while a variety of strategies have emerged, technological detection tools, regulatory frameworks, media literacy initiatives and these responses remain fragmented. Democracies that approach the problem in isolation risk perpetuating reactive rather than proactive solutions.

REFERENCES

- 1) ACI Worldwide. (2024). *Deepfakes and fraud incidents statistics*.
- 2) Ajibola, A. (2023). Disinformation and electoral politics in Nigeria: WhatsApp as a battlefield. *African Journal of Democracy Studies*, 12(3), 44–61.
- 3) Bail, C. A. (2021). *Breaking the social media prism: How to make our platforms less polarized*. Princeton University Press.
- 4) Bradshaw, S., & Howard, P. N. (2019). *The global organization of social media disinformation campaigns*. *Journal of International Affairs*, 71(1.5), 23–32.

- 5) Bradshaw, S., Bailey, H., & Howard, P. N. (2024). *Industrialized disinformation: 2024 EU elections and coordinated manipulation*. Oxford Internet Institute.
- 6) Chesney, R., & Citron, D. K. (2019). Deep fakes: A looming challenge for privacy, democracy, and national security. *California Law Review*, 107(6), 1753–1819. <https://doi.org/10.2139/ssrn.3213954>
- 7) Cinelli, M., Morales, G. D. F., Galeazzi, A., Quattrocioni, W., & Starnini, M. (2021). The echo chamber effect on social media. *PNAS*, 118(9), e2023301118.
- 8) Dahl, R. A. (1989). *Democracy and its critics*. Yale University Press.
- 9) DataReportal. (2025a, 2025b). *Global internet and social media usage statistics*.
- 10) DiResta, R. (2020). Computational propaganda in the United States of America: Manufacturing consensus online. *Journal of International Affairs*, 72(1), 55–68.
- 11) DiResta, R. (2023). AI and the future of disinformation: Synthetic media challenges. *Journal of Information Integrity*, 5(2), 14–27.
- 12) Edelman. (2025). *Edelman Trust Barometer 2025: Global report*. Edelman.
- 13) EURONEWS. (2024, December 27). *How did misinformation and foreign interference shape the 'super year' of elections?*
- 14) European Commission. (2024). *The Digital Services Act package*. Brussels: European Union.
- 15) Ferrara, E. (2023). Disinformation and social bot operations in the age of artificial intelligence. *Harvard Kennedy School Misinformation Review*, 4(1), 1–12. <https://doi.org/10.37016/mr-2020-67>
- 16) Ferrara, E., Chang, H., Chen, E., Muric, G., & Patel, J. (2023). Social bots and the evolution of digital manipulation. *First Monday*, 28(6).
- 17) Guess, A., & Lyons, B. (2020). Misinformation, disinformation, and online propaganda. In N. Persily & J. Tucker (Eds.), *Social media and democracy: The state of the field and prospects for reform* (pp. 10–33). Cambridge University Press.
- 18) Guess, A., Nagler, J., & Tucker, J. (2020). Less than you think: Prevalence and predictors of fake news belief. *HKS Misinformation Review*, 1(1).
- 19) Habermas, J. (1989). *The structural transformation of the public sphere*. MIT Press.
- 20) Howard, P. N. (2019). *Computational propaganda*. In *Fake News, Disinformation, and the Algorithmic Propaganda Ecosystem*.
- 21) Howard, P. N., & Woolley, S. (2018). *Computational propaganda: Political parties, politicians, and political manipulation on social media*. Oxford University Press.
- 22) International IDEA. (2024). *Democracy under pressure: Global state of democracy report*. Stockholm: IDEA.
- 23) Jamieson, K. H. (2024). *Cyberwar 2.0: Disinformation in the American midterms*. Oxford University Press.
- 24) Kreps, S., McCain, R., & Brundage, M. (2022). All the news that's fit to fabricate: AI and the future of disinformation campaigns. *International Security*, 46(3), 7–50.
- 25) Kumar, A., & Narayan, S. (2024). WhatsApp, synthetic media, and voter manipulation in India's 2024 elections. *Journal of South Asian Politics*, 18(2), 112–131.
- 26) Lewandowsky, S., Cook, J., Ecker, U., Albarracin, D., & Amazeen, M. (2020). The debunking handbook 2020. *American Psychological Association*.
- 27) MarketsandMarkets. (2024). *Deepfake video proliferation data*.
- 28) Meta. (2024). *Transparency report: Integrity of political communication*. Menlo Park, CA.
- 29) Norris, P., & Inglehart, R. (2019). *Cultural backlash: Trump, Brexit, and authoritarian populism*. Cambridge University Press.
- 30) Olatunji, R. (2023). Regulating disinformation in Africa: Between protection and repression. *Journal of African Media Studies*, 15(4), 89–107.
- 31) Oxford Internet Institute. (2025). *Computational propaganda research report 2025*. University of Oxford.
- 32) Pariser, E. (2011). *The filter bubble: What the Internet is hiding from you*. Penguin Press.
- 33) Polyakova, A., & Meserole, C. (2019). Exporting digital authoritarianism. *Brookings Institution Report*.
- 34) Pote, M. (2024). *Computational Propaganda Theory and Bot Detection System: Critical Literature Review*. arXiv.
- 35) Reset Tech & Check First. (2025). *Operation Overload disinformation study* (via WIRED).
- 36) Shao, C., Ciampaglia, G. L., Varol, O., Yang, K., Flammini, A., & Menczer, F. (2018). The spread of low-credibility content by social bots. *Nature Communications*, 9(1), 4787.
- 37) Shao, C., Ciampaglia, G. L., Yang, K., Flammini, A., & Menczer, F. (2017). *The spread of low-credibility content by social bots*. arXiv.
- 38) SQ Magazine. (2025). *Social media misinformation statistics 2025*.
- 39) Sunstein, C. R. (2017). *#Republic: Divided democracy in the age of social media*. Princeton University Press.
- 40) The Guardian. (2024, December). *Meta dismantles covert influence operations*.

Computational Propaganda, Disinformation, And Democracy: Multidisciplinary Strategies For 2025

- 41) United Nations. (2025). *Global Digital Integrity Charter*. UN Department of Political and Peacebuilding Affairs.
- 42) Vanderbilt University Institute for National Security. (2025). *GoLaxy AI disinformation report*.
- 43) Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146–1151.
- 44) West, S. (2023). Blockchain for truth: Authenticating digital media in the age of AI. *Journal of Digital Security*, 4(1), 33–48.
- 45) Wikipedia. (2025). *Computational propaganda; Artificial intelligence in politics*.
- 46) Woolley, S. C., & Howard, P. N. (2019). *Computational propaganda: Political parties, politicians, and political manipulation on social media*. Oxford University Press.
- 47) Woolley, S. C., & Howard, P. N. (2019). *Computational propaganda: Political manipulation online*. Oxford Internet Institute.
- 48) Zellers, R., Holtzman, A., Rashkin, H., Bisk, Y., Farhadi, A., Roesner, F., & Choi, Y. (2023). Defending against neural fake news. *Advances in Neural Information Processing Systems*, 36.



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0) (<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.