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Artificial intelligence, social media algorithms, and the amplification of xenophobic narratives in Africa

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Abstract
Artificial intelligence (AI) is developing in many areas of civilization at a tremendous pace. Artificial intelligence is an area of computer science that aims at building machines that can learn, reason, solve problems and make decisions, things which were done by people before. This paper will focus on exploring the roles of artificial intelligence and social media algorithms in spreading xenophobia in Africa and other places. Algorithms in social media are utilized to provide content to individual users based on their preferences and behavior. Although algorithms help in improving the user experience by providing personalized content to them, they can also lead to creation of echo chambers for individual users by restricting their exposure to a few ideas and opinions only. The review will also cover the role of AI technologies in spreading fake news and hate speech against immigrants. It brings together the empirical and theoretical literature related to the topics of artificial intelligence, recommendation systems, algorithmic amplification, online hate speech and xenophobia within an African context. It is found out that AI-driven recommendation systems are biased towards exposing misleading and provocative content, thus giving rise to their increased visibility and dissemination along with reinforcing echo chambers. In addition, there is a need for AI governance, media and information literacy, and transparency and accountability of algorithms in order to counteract digital xenophobia.it is also a contribution to the increasing body of literature on ethical artificial intelligence with evidence-based recommendations to Africa's governments and regional organisations to improve the quality of digital environments to be inclusive, transparent, accountable, and responsible.

Keywords: Artificial intelligence, social media algorithms, xenophobia, hate speech, misinformation, Africa

Introduction

The digital information landscape has undergone significant changes, particularly due to the growing use and development of artificial intelligence (AI) in social media algorithms since 2023. Platforms such as Facebook, X, TikTok and YouTube are more and more relying on advanced AI algorithms to curate, rank and suggest content to billions of consumers worldwide. This has given rise to an algorithmic information landscape that is significantly different from media systems that have been around for some time. They thus have a pivotal role in the formation of public opinion, political participation, social encounters, and social cohesion (Vosoughi et al., 2018; Lazer et al., 2018). Digital information is now increasingly controlled by algorithmic systems, which were previously handled by traditional media editors. Algorithms are more complex than human editors, who usually make decisions based on a set of professional and institutional norms. Their main goal is to ensure high user engagement to boost the profitability of the platform by choosing and displaying content that is most likely to appeal to and capture the

attention of users, thus prompting further interaction.

With the rise of social media, artificial intelligence (AI) has emerged as the main technology adopted by these sites to strike a balance between engagement and a safe and reliable information environment. AI tools have performed well in the detection of harmful content, coordinated inauthentic activity, the detection of AI-generated or manipulated media, and the limitation of the spread of mi sinformation before it reaches large audiences, but their performance has been mixed. The same AI-based systems have been found to also contribute to increased political and social polarization, decreasing transparency about the origin of information and leading to self-reinforcing information environments in which users are mainly exposed to information that fits their existing beliefs and opinions (Allcott& Gentzkow, 2017).

Social media has become one of the most powerful means of communication and social interaction, allowing millions of people from all corners of the world and different cultures to connect and communicate. It includes websites and digital applications that are intended to help people communicate with each other, to engage in community, to interact with one another and to share content and collaboration (Hanna, 2025).These platforms are designed to allow users to share, publish and create information in real-time, meaning that it can be shared quickly and easily, especially if it's sensational, controversial or emotionally charged. With the increasing presence of digital media and organisations, the production, distribution and consumption of information has changed significantly. Social media operates through the application of advanced technologies and algorithms that enhance the consumer experience and engage consumers. These algorithms suggest to a user the content that he or she would find interesting, depending on his or her preferences and interests. While this customized algorithm enhances the consumer's experience, it poses the challenges of the formation of filter bubbles and echo chambers. The filter bubble is the phenomenon where the user receives only those pieces of information that fit into his or her interests, preferences and beliefs.

Likewise, echo chambers are virtual spaces in which people are constantly exposed to views that conform to their own, and other views and opposition is downplayed or discounted (Sunstein, 2009). This algorithmic filtering of content can reinforce and amplify existing bias and constrain the ability to have balanced public discussion. AI is widely used in everyday life, as indicated by the growing field of Artificial Intelligence (AI) ethics, and the rise in the number of studies on algorithmic fairness.

Xenophobia is a powerful force today which is shaping political landscapes in many parts of the world (Bowman, 2021; Arredondo, 2018; Kopyciok& Silver, 2021; Yakushko, 2018; Akinola &Klimowich, 2018; Chenzi, 2021). It has been part of the rise in the popularity of authoritarian forms of populist populist movements and the development of political programs emphasizing negative attitudes towards migrants and foreign nationals, anti-immigration policies (Jörke, 2019; Chatterjee, 2021). An important point of focus in the struggle against xenophobia within AI research, is the identification of "hate speech" and "dangerous speech". This has led to the development of AI based content moderation systems that aim to detect, monitor and reduce the spread of hateful and harmful content on social media platforms (Fortuna & Nunes, 2018; Cao et al., 2020; Awal et al., 2021; Röttger et al., 2020).

Marginalisation, discrimination and social conflict continue to be a major cause of xenophobia. While there is increasing awareness of the need to be fair in the design of artificial intelligence (AI) systems, the majority of current AI systems trained on learning frameworks that promote fairness fall short in terms of the recognition and mitigation of the various forms of harm resulting from xenophobia. Social media are now vital tools for information sharing, communication, interaction and public engagement. The incorporation of artificial intelligence (AI) into such platforms has also revolutionized digital communication by leveraging intelligent algorithms, automated systems, and personalized content delivery based on user preferences and actions, in recent years. This research outlines a framework for the governance of algorithms which stresses the need for enhanced transparency and regular testing for bias and participatory design. This paper, through NLP, sentiment analysis and machine learning, looks into and analyzes X tweets about xenophobia in South Africa between 2017 and 2022.

The goal is to gauge the public perception of xenophobia and create models that can be used to predict possible xenophobic events. The results will be useful to policy makers when developing evidence-based interventions to improve social cohesion and increase a more inclusive and tolerant society.

Artificial intelligence (AI) is a field that has its origins in a variety of disciplines, such as philosophy, mathematics, computer science, psychology, and neuroscience. The utilization of AI in manufacturing and the service sector has generated significant results in enhancing the efficiency, communication, and information flow since its rise (Ibarra et al., 2018; Müller, Buliga, & Voigt, 2020). AI is a broad, multi-disciplinary and dynamic field with various methods dedicated to the understanding and simulation of human intelligence using machines. It is about creating technologies that can implement cognitive functions that the human mind normally performs, such as learning, reasoning, problem solving, and decision making (Broussard, 2018; Frankish & Ramsey, 2014).

Moreover, the success of cutting-edge computing technologies is greatly influenced by the development of advanced algorithms that are the backbone of today's social media platforms. These algorithms are crucial for enhancing communication, knowledge sharing, networking, and managing online interactions. Content creators and users are both increasingly dealing with AI-driven algorithms that have been designed to improve the user experience and boost engagement on social media platforms (Ibert O. et al., 2022). Social media has been completely changed by incorporating artificial intelligence, as it is now able to perform key social media operations, including content search, prediction, recommendation, creation, and filtering, with intelligent algorithms (Zhang & Lu, 2021). AI algorithms, too, have been proven to significantly contribute to social media platforms' access and information consumption by users (Kang & Lou, 2022; Manoharan et al., 2020).

Artificial intelligence

Artificial intelligence (AI) is the ability of computer systems to perform tasks that usually require human intelligence, including learning from data, problem solving, decision making, pattern recognition, and adapting to new information (Abbas & Hanif, 2025). At the social media level, AI is used to process vast amounts of user data, analyze it using sophisticated algorithms, recommend content to users, filter information, detect harmful or inappropriate content, and enhance user engagement (Alim et al., 2025). This makes

it possible for social media sites to provide customized services for the users based on their likes and activities. This is because social media communication has become more personalized through the use of AI (Islam et al., 2026). The second main application of artificial intelligence (AI) in social media is the use of automated communication services like chatbots and AI-generated contents. AI-driven chatbots are becoming an essential tool for businesses, organisations, and service providers to engage with customers, deliver immediate responses, enhance customer service, and streamline communication (Nahid et al., 2025).

Artificial intelligence (AI) is one of the crucial factors that can boost user engagement on social media platforms (Arshad et al., 2024). User engagement is the extent of user interaction with the digital content through likes, comments, shares, views, and online discussions. These engagement metrics are continuously being analyzed by AI technologies, and those that result in more attention and interaction are regarded as successful. From these learnings, the notion of using AI algorithms to prioritize and suggest highly engaging content to users, which helps it gain visibility in their news feeds and in their recommended list of posts, has been adopted by social media platforms. In addition, the breakthroughs in AI have led to much greater capabilities in creating realistic text, images, audio and video, so interactions with AI are becoming more and more indistinguishable from those that are produced by humans. In the midst of a public distrust of the traditional news media, AI-powered content recommendation systems can exacerbate the information landscape and shape media use and exposure. As a result, these algorithmic mechanisms can propagate misinformation and disinformation unintentionally and help exacerbate divisions in society and amplify harmful narratives.

Social media algorithms

Social Media algorithms are the algorithms used by social media platforms to process and prioritize signals created by users to generate content, ads, and recommendations for each user (Mosseri, 2021). These algorithms look at various types of engagement, such as likes, comments, shares, time spent on posts, viewing history, metadata (time, location, format of the content), and more. They also take into account users' behaviours in addition to what others are doing who share similar interests and levels of activity. These algorithms then analyze the data to determine the types of posts and ads that are likely to capture the attention of users and keep them engaged. As such, social media platforms employ these algorithmic practices to tailor users' web experience, to "maximize engagement" and to ensure that users stay on the platform when consuming content and ads (Mosseri, 2021).

Implications of social media algorithms

Social media algorithms are very efficient at holding users' attention by providing personalized content based on their online actions, tastes and communications. These algorithms can generate highly personalized information environments by analyzing users' activity, including likes, shares, comments, and browsing habits, ensuring that users engage with the most relevant content in the broadest possible sense. According to Matz et al. (2017), even users' single "likes" can be used to uncover psychological traits, which then allows digital platforms to make personal predictions about their users and leverage them in different ways to affect their behaviour with personalized content. In the same way, Kozyreva et al. (2020) suggest that algorithmically created personality profiles are used by technology firms to enable 'microtargeted' advertising, which enables advertisers to send personalised

messages that can impact users' attitudes, decisions and actions to a large extent.

Algorithms and the spread of misinformation and polarising content

Recommendation algorithms, which aim to enhance user experience by suggesting relevant content, often recommend sensational, controversial, or emotionally charged material, which are more likely to generate higher interaction rates. Empirical evidence indicates that YouTube's recommendation system has directed some users towards increasingly extremist content (Kozyreva et al., 2020). Similarly, in 2018, Facebook made changes to its recommendation algorithm to boost user engagement, which had the unintended effect of promoting sensational and misleading content, increasing the likelihood of it going viral and circulating on social media networks (Hagey& Horwitz, 2021).

Filter bubbles and echo chambers

The term filter bubbles or echo chambers are used to describe information environments that continually feed users information that does not challenge or alter their beliefs and opinions. Filter bubbles happen when algorithms show users information related to their past online behaviour and preferences, and echo chambers happen when users mostly find people and information sources that are like-minded to their own views (Kozyreva et al., 2020). These environments are not algorithmically generated on their own, but algorithms enhance the preferences that people already have and push them to seek out more of the same. It can contribute to further polarization of ideology and users' susceptibility to misinformation (Hameleers et al., 2022; Kozyreva et al., 2020). Additionally, while it may be true that a small percentage of users are directed by algorithmic recommendations to highly extremist content, the massive number of users who use social media means that millions of users could potentially be exposed to polarising and radicalising content via algorithmic recommendations.

Xenophobia in Africa

The word xenophobia comes from the Greek word xenos which means stranger or foreigner and the word phobos which means fear (Mabera, 2017). It is usually described as fear or hatred of foreigners and is frequently manifested as discriminatory attitudes, abusive behavior, violence and hostility (Ejoke& Ani, 2017). The manifestations of xenophobia in the South African context is characterized by negative perceptions, discrimination, hostility and violent behavior towards non-nationals. Harris (2002) also believes that the idea should include physical abuse and violent practices that often go hand-in-hand with fear or dislike for foreigners.

In general, xenophobia can be described as an animosity or prejudice towards foreigners, immigrants or people felt to be "others". The expression can be in the form of fear, aversion or hatred towards people who are deemed to be different on the basis of nationality, culture or customs. Xenophobia is associated with a range of social and psychological factors such as stereotypes, cognitive bias, misperceptions, projection and the ‘otherness' of certain groups (Banton, 1996; Sanchez-Mazas& Licata, 2015; Wimmer, 1997; Yakushko, 2009; Rydgren, 2004). There have been a growing number of platforms that have taken on significance in sharing information on xenophobic attacks in South Africa through social media. These channels allow people to send photos, videos, statements of witness, and news reports in a quick manner, making incidents accessible to the national and international community. This information has helped to sensitize the public about the issue, mobilize citizens and attract the

attention of security agencies and government officials to the issue of xenophobic violence. But the role of social media in the spread of xenophobia is complex, and is influenced by the economic, political and social climate. While these websites may be employed for raising awareness and rapid response, they may also disseminate misinformation, rhetoric, and anti-immigrant propaganda, which may fuel further social segregation and xenophobia.

This research is designed to address this gap by examining the potential of AI systems to be on both sides of the equation, both to promote and to minimize the occurrence of xenophobic outcomes, and to assist the ethical and responsible development of AI technologies. The study makes recommendations on the development of AI systems, which are more inclusive, equitable, and oriented to xenophobia, to promote social inclusion and minimize discrimination in these areas by identifying the interaction between AI technologies and xenophobic practices.

The role of artificial intelligence and social media algorithms in amplifying xenophobic narratives in Africa

Social media is a collection of digital technologies and Internet-based applications that allow people to share, create and publish information and ideas instantaneously. These platforms can be used to communicate, collaborate and socialize with others in real-time, regardless of their location in the world. Today, there are more than 4.7 billion people (or nearly 59% of the world's population) using social media platforms, such as Facebook, Instagram, X (formerly Twitter), YouTube and more. Their prevalence has greatly improved the interconnectedness of the world, overcoming geographical barriers and facilitating seamless communication. Social Media is not just a tool for personal use; it has also become a crucial media tool for businesses, helping them in digital marketing, segmentation, brand promotion, and product commercialisation. With their increasing power, these platforms are proving to be effective in influencing the public perception, attitudes and behavioural patterns. Moreover, social media has changed the way people interact with one another, especially amongst youth, by affecting their communication, friendship building, and family and social networks interactions (Baha, 2022).

These technologies can play a meaningful role in society through community development, empowering citizens, public interest messages, economic growth, and justice and responsible consumption (Chang & Zhang, 2024). Social media and other sites are important in this regard as they have a viral design and a tremendous amount of content is shared on social media every day. They are built and function in a way that can promote the rapid dissemination of xenophobic messages. Short post content and algorithms that reward engagement and controversial posts help spread messages that elicit strong responses like fear and anger, typical hallmarks of hate speech. In addition, the anonymity of the platforms facilitates a lack of social accountability and allows for the posting of discriminatory content against minorities such as migrants and refugees.

In this context, social media media are not only a reflection of the dominant xenophobic norms, but also as a tool that reinforces these sentiments, particularly in times of heightened political events or global crises. When migration and immigration are at the center of events, there's often an increase in online content that negatively portrays foreigners, and such content is often based on misinformation, disinformation and conspiracy theories. This shows how important social media is as a digital platform that allows the expression and intensification

of social tensions. These platforms, however, enable the spread of hateful and polarizing material at ease, while also fostering echo chambers that further reinforce ideologies and extremist ideologies among users (Weber et al., 2023).

Moreover, platform capabilities like reposts, shares, retweets and instant replies enable offensive and discriminatory content to spread rapidly through online networks, leading to a perception that xenophobic attitudes are more common and acceptable among people than they really are. However, the polarizing and intense nature of these online conversations is reduced in communities where there are frequent in-person interactions with immigrants. The results of this study by Arcila et al. (2022a) corroborate this. The researchers analyzed the connection between the intensity of hate speech on social media and the density of immigrant communities in the places where the hate posts originated using geolocation methods. Their research revealed that there is a negative correlation between the size of an immigrant population and xenophobic content on social media in a country.Their findings indicated that there is a negative correlation between xenophobic content on social media and the size of immigrant population in a country.The results in this study indicate that direct interpersonal contact with immigrant groups has the potential to positively shape public attitudes and perceptions, and to help minimize discriminatory attitudes by increasing understanding and social cohesion (Arcila et al., 2022a).

AI is both a tool to curb and enhance misinformation—an increasingly critical national security issue—in social media. AI technologies like automated fact checking and sentiment analysis can be employed to detect and flag misinformation on one hand.On the other hand, automated fact-checking and sentiment analysis tools can be leveraged to identify and flag misinformation. However, the same technologies can also be used in ways that could threaten to shape narratives and skew the information environment. AI can be used by malicious actors to produce fake content, such as fake images (deepfakes) and automated bots that mimic human actions. The use of these tools has been observed to have added to the spread of misinformation and disinformation, which can undermine the political systems, trigger ethnic and religious conflicts, and have also undermined public confidence in government institutions (Pawelec, 2022; Mwai, 2020). With the current security issues in Nigeria, the role of AI in exacerbating the situation underscores the importance of exploring the interaction between the social media landscape and the use of AI.

Conclusion

The employment of Artificial Intelligence (AI) has become increasingly important when it comes to safeguarding democratic debate and social cohesion in Africa. Although the AI recommendation systems offer innovative opportunities for participation and growth in economies, they may pose some risks to society in the form of sharing sensationalist, polarizing and emotional information. A multi-stakeholder approach needs to be employed to address this problem where stakeholders include governments, regional bodies, tech companies, researchers, academic institutions and civil society organizations. To reduce the spread of xenophobic rhetoric through AI recommendation systems, it becomes necessary to improve AI governance to ensure that AI is used responsibly, enhance transparency and accountability in decision-making by algorithms, fund multilingual AI solutions, increase media and information literacy programs and conduct interdisciplinary AI

research. Through such collaboration, countries in Africa will be able to benefit from the positive aspects of AI without necessarily being exposed to its negative sides as well. Through these actions, they will be able to create digital environments that respect the human rights of everyone and are ethical as well. Such measures will help them create awareness and foster social harmony among different communities.

The following are recommended based on the foregoing:

1. African governments need to establish and adopt wide-spread national Artificial Intelligence (AI) governance structures focusing on algorithmic transparency, accountability, fairness and human rights protections. Content ranking, recommendation and amplification must be more transparent in these frameworks, which should call on social media platforms to be more transparent about how these algorithms work and rank content, especially content that may advance hate speech, misinformation and xenophobic discourses. It should also be authorized for independent regulatory bodies to conduct periodic audits of AI systems to guarantee adherence to ethical standards and potential algorithmic bias that disproportionately impacts vulnerable groups. National Governments should continue to establish legal and regulatory frameworks to tackle online hate speech, misinformation and digital discrimination in ways that fully respect international human rights standards, such as freedom of expression.
2. Governments need to also have clear processes for reporting, monitoring and quickly respond to the digitally amplified xenophobic content before it becomes offline violence. Media and Information Literacy (MIL) programmes should be well funded at all levels of education and in communities by the governments. These programmes should enable citizens to be able to spot algorithmic manipulation, identify misinformation, verify information online and interact responsibly on digital platforms. The attention should go to young people as they form the largest segment of social media users in Africa and are likely to be exposed to algorithmically recommended content. There is a need for more funding for national research councils and higher education institutions to undertake interdisciplinary research into AI, social media algorithms, digital governance, hate speech and xenophobia.
3. Harmonised Africa-wide AI governance standards should be developed by regional organisations, particularly the African Union (AU) and Regional Economic Communities (RECs) like Economic Community of West African State (ECOWAS), South African Development Commission (SADC), East African Community (EAC), Common Market for Easttern and Southern Africa (COMESA) and Intergovernmental Authority on Development (IGAD). Such regional approaches should share common ethical principles, algorithmic accountability, cross-border data governance, and coordinated response to xenophobic attacks and other forms of hatred facilitated by digital technology, while fostering cooperation of member states on

cyber security, digital rights and online safety. Regional institutions should develop continent-wide early warning and digital monitoring systems, leveraging artificial intelligence, machine learning and natural language processing to detect the potential for the spread of online hate speech, misinformation and xenophobic narratives. These systems could be used to assist in timely governmental, civil society organisation and law enforcement response before online hostility turns into physical violence or social unrest.

4. The government and other regional organisations can engage more with tech companies, research institutions, civil society groups, fact-checkers, and even the international community such as UNESCO in order to support efforts towards content moderation, responsible innovation in AI, and digital resilience. This engagement should help promote transparency in the governance of platforms, enable independent research by means of secure data sharing, and the development of culturally responsive AI. Lastly, but certainly not least, governments and regional actors must know that efforts to combat digitally enabled xenophobia must deal with structural problems like unemployment, social exclusion, and others. Besides technological efforts, policies aimed at economic inclusion and intercultural dialogue and regional integration as well as peaceful coexistence must be put in place. The ethical and responsible application of artificial intelligence along with other social and economic policies could help African governments and regional bodies to ensure digitally-enabled social cohesion and prevent the spread of xenophobia.

References

Abbas, M. T., & Hanif, F. (2025). Design and control of an autonomous drone navigation system using embedded AI. *Journal of Engineering and Computational Intelligence Review*, 3(2), 68-80.

Akinola AO, Klimowich (2018). *The political economy of xenophobia in Africa*. Springer, Berlin

Alim, I., Akter, S., Afroz, Z., Al Prince, A., & Hasan, M. A. (2025). Business Intelligence in the Age of AI: Evaluating Machine Learning's Impact on US Economic Productivity. *Lead Sci Journal of Management, Innovation and Social Sciences,* 1(3), 15-30.

Allcott, H., & Gentzkow, M. (2017). Social media and fake news in the 2016 election. *Journal of Economic Perspectives*, 31(2), 211-236. https://doi.org/10.1257/jep.31.2.211

Arcila-Calderón, C., Sánchez-Holgado, P., Quintana-Moreno, C., Amores, J., & Blanco-Herrero, D. (2022). Hate speech and social acceptance of migrants in Europe: Analysis of tweets with geolocation. *[Discurso de odio y aceptación social haciamigrantesen Europa: Análisis de tuits con geolocalización]. Comunicar*, 71, 21-35. https://doi.org/10.3916/C71-2022-02

Arredondo P (2018) Latinx immigrants: transcending acculturation and xenophobia. Springer, Berlin

Arshad, N., Baber, M. U., & Ullah, A. (2024). Assessing the transformative influence of ChatGPT on research practices among scholars in Pakistan.

Mesopotamian Journal of Big Data, 2024, 1-10.

Awal MR, Cao R, Lee RK-W, Mitrovic S (2021) AngryBERT: joint learning target and emotion for hate speech detection. arXiv: 2103. 11800 [cs.CL]

Baha, O. A. (2022). Nurturing Communication through Social Online Platforms. International *Journal of Humanities and Education Development (IJHED)*, 4(1), 155-159. https://doi.org/10.22161/

Bowman G (2021) Xenophobia, fantasy and the nation: the logic of ethnic violence in former Yugoslavia. In: *The anthropology of Europe*. Routledge, pp 143–171

Broussard M. (2018), *Artificial Unintelligence: How Computers Misunderstand the World*. Cambridge: MIT Press.

Brown, M. A., Nagler, J., Bisbee, J., Lai, A., & Tucker, J. A. (2022). Echo chambers, rabbit holes, and ideological bias: How YouTube recommends content to real users. Brookings Institution. https://www.brookings.edu/research/echo-chambers-rabbit-holes-and-ideological-bias-how-youtube-recommends-content-to-real-users/

Cao R, Lee RK-W, Hoang T-A (2020) DeepHate: hate speech detection via multi-faceted text representations. In: 12th ACM conference on web science (Southampton, United Kingdom) (WebSci '20). *Association for Computing Machinery*, New York, NY, USA, pp 11–20. https://doi.org/10.1145/3394231.3397890 Chang, L., & Zhang, X. (2024). Introduction: *Platforms for social good*. Global Media and China, 9(3), 253 259. https://doi.org/10.1177 /20594364241241777

Chatterjee I (2021) Alt-right movement: dissecting racism, patriarchy and anti-immigrant xenophobia. Sage. https://books.google.co.uk/books?id = Uzd0z gEACAAJ

Chenzi, V. (2021). Fake news, social media and xenophobia in South Africa. *Journal of African Media Studies*, 13(2), 173–189.

Dutta, M. J. (2024). Digital platforms, Hindutva, and disinformation: Communicative strategies and the Leicester violence. *Communication Monographs*, 1–29. https://doi.org/10.1080/03637751.2024.2339799

Fortuna P, Nunes S (2018) A survey on automatic detection of hate speech in text. ACM ComputSurv 51(4):30. https://doi. org/10.1145/32326 76

Frankish K and Ramsey WM (2014), The Cambridge Handbook of Artificial Intelligence. Cambridge: Cambridge University Press.

Hagey, K., & Horwitz, J. (2021). Facebook Tried to Make Its Platform a Healthier Place. It Got Angrier Instead. Internal memos show how a big 2018 change rewarded outrage and that CEO Mark Zuckerberg resisted proposed fixes. *Wall Street Journal* (Online). https://www.proquest.com/docview/2572526410/citation/8ECA31679DEF4C74PQ/1

Hameleers, M., van der Meer, T. & Vliegenthart, R. (2022). Civilized truths, hateful lies? Incivility and hate speech in false information – evidence from fact-checked statements in the US. *Information, Communication & Society*, 25(11), 1596–1613. https://doi.org/10.1080/1369118X.2021.1874038

Hanna, K. T. (2025, January 23). What Is Social Media? (B. Lutkevich, Ed.). Techtarget; Techtarget. https://www.

techtarget.com/whatis/definition/social-media

Harris B., (2002): Xenophobia: A new pathology for a new South Africa?; in: D. Hook, G. Eagle (eds): *Psychopathology and social prejudice*. Cape Town: University of Cape Town Press; 34-46.

Hung, M., Lauren, E., Hon, E. S., Birmingham, W. C., Xu, J., Su, S. & Lipsky, M. S. (2020). Social network analysis of COVID-19 sentiments: Application of artificial intelligence. *Journal of medical Internet research*, 22(8), e22590.

Ibarra et al., (2018); Business model innovation through Indistry 4.0: A review: Procedia Manufacturing industry.

Ibert O, Oechslen A, Repenning A, Schmidt S. Platform ecology: a user-centric and relational conceptualization of online platforms. *Global Network*. 2022;22(3):564–79. https://doi.org/10.1111/glob.12355

Islam, T., Abdullah, J., Munna, M. M. H., Nahid, N. A. A. H., Tusar, M. I. H., &Sarder, M. D. (2026). Multi-objective optimization for transportation mode selection: A case study in logistics. *The Asian Journal of Shipping and Logistics*.

Jörke D (2019) Routledge handbook of global populism. Carlos de la Torre ed. Routledge, London and New York. *Constellations* 26:655–658. https://doi.org/10.1111/1467-8675.12455

Kang H, Lou C. (2022). AI agency vs. human agency: understanding human–AI interactions on TikTok and their implications for user engagement. *J ComputMediatCommun*: zmac014. https://doi.org/10.1093/jcmc/zmac014

Kim HD, Ronald S (2014) Xenophobia and racism. *Crit Philos Race* 2:1

Kozyreva, A., Lewandowsky, S., &Hertwig, R. (2020). Citizens Versus the Internet: Confronting Digital Challenges with Cognitive Tools. *Psychological Science in the Public Interest*, 21(3), 103–156. https://doi.org/10.1177/1529100620946707

Mabera F., (2017) The impact of xenophobia and xenophobic violence on South Africa's developmental partnership agenda. *"Africa Review",* 9, 1, 28-42.

Manoharan S, Senthilkumar R., (2020). An intelligent fuzzy rule-based personalized news recommendation using social media mining. *ComputIntell Neurosci*.1–10. https://doi.org/10.1155/2020/3791541.

Matz, S. C., Kosinski, M., Nave, G., & Stillwell, D. J. (2017). Psychological targeting as an effective approach to digital mass persuasion. *Proceedings of the National Academy of Sciences*, 114(48), 12714–12719. https://doi.org/10.1073/pnas.1710966114

Mosseri, A. (2021). Shedding more light on how Instagram works. *Instagram Blog*. https://about.instagram.com/blog/announcements/shedding-more-light-on-how-instagram works

Mwai, P. (2020). Nigeria Sars protest: The misinformation circulating online. *BBC News Online*, October, 23. https://www.bbc.com/news/world-africa 54628292

Nahid, N. A. A. H., Islam, T., Rube, H. A., &Tusar, M. I. H. (2025). Circular Economy Models for Urban Logistics: The Role of Bio-Based Packaging in Sustainable Transportation Networks. In *IISE Annual Conference Proceedings* (pp. 1-6). Institute of Industrial and Systems Engineers (IISE). Engineers (IISE).

Pariser, E. (2011). The filter bubble: What the Internet is hiding from you. Penguin Press. https://doi.org/10.3139/9783446431164

Pawelec, M. (2022). Deepfakes and Democracy (Theory): How Synthetic Audio-Visual Media for Disinformation and Hate Speech Threaten Core Democratic Functions. *DISO* 1, 19 (2022). https://doi.org/10.1007/s44206-022 00010-6

Röttger P, Vidgen B, Nguyen D, Waseem Z, Margetts HZ, Pierre humbert JB (2020) HateCheck: functional tests for hate speech detection models. *CoRRarXiv*: 2012. 15606

Sanchez-Mazas M, Licata L (2015) Xenophobia: social psychological aspects. Int Encycl Soc Behav Sci 802

Sunstein, C. R. (2009). Republic.com 2.0. Princeton University Press.

Ullah, A., Islam, K., Ali, A., & Baber, M. (2024). Assessing the impact of social media addiction on reading patterns: A study of Riphah International University students. International *Journal of Human and Society*, 4(1), 1250-1262.

Vosoughi, S., Roy, D., & Aral, S. (2018). The spread of true and false news online. *Science*, 359(6380), 1146-1151. https://doi.org/10.1126/science.aap9559

Weber, I., Vandebosch, H., Poels, K., &Pabian, S. (2023). Features for hate? Using the Delphi method to explore digital determinants for online hate perpetration and possibilities for intervention. *Cyberpsychology Behavior*, https://doi.org/10.1089/cyber.2022.0195

Wimmer A (1997) Explaining xenophobia and racism: a critical review of current research approaches. *Ethn Racial Stud* 20(1):17–41. https://doi.org/10.1080/01419870.1997. 99939 46

Yakushko O (2009) Xenophobia: understanding the roots and consequences of negative attitudes toward immigrants. *Counsel Psychol* 37(1):36–66. https://doi.org/10.1177/0011000008316034

Yakushko O (2018) Modern-day xenophobia: critical historical and theoretical perspectives on the roots of anti-immigrant prejudice. Springer, Berlin

Zhai, Y., Yan, J., Zhang, H., & Lu, W. (2020). Tracing the evolution of AI: conceptualization of artificial intelligence in mass media discourse. *Information discovery and delivery*, 48(3), 137-149.

Zhang C, Lu Y. Study on artifcial intelligence: the state of the art and future prospects (2021). *J Ind Inf* Integr. 2021;23: 100224. https://doi.org/ 10.1016/j.jii.2021.100224.