Artificial Intelligence and Fake News: Criminal Aspects in Pakistan and Saudi Arabia

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Abstract

This paper explores the criminal aspects of AI-generated fake news in Pakistan and Saudi Arabia, focusing on the challenges posed by the rapid spread of misinformation through social media platforms. The paper assesses the effectiveness of current legal and regulatory frameworks in these countries in deterring and punishing those who produce and disseminate fake news using AI-based technologies. By examining the existing legal provisions in both Pakistan and Saudi Arabia, the paper highlights the need for improvement in these frameworks to address the growing use of AI in generating fake news. The paper concludes that more specific and detailed legal definitions, stronger enforcement mechanisms, and greater collaboration between government agencies and civil society groups are required to combat AI-generated fake news effectively while protecting freedom of speech. Furthermore, raising public awareness through media literacy and critical thinking campaigns is crucial to building a more informed and resilient society.

Keywords: Artificial intelligence; Fake news; Cybercrime; Disinformation; Saudi Arabia; Pakistan; Freedom of Expression; Criminal law.

Introduction

1. Brief overview of the rise of artificial intelligence (AI) and fake news in recent years

The past few years have witnessed an unprecedented growth in the realm of artificial intelligence (AI) and the simultaneous surge in the proliferation of fake news, posing significant challenges to legal systems worldwide (Pantserev, 2020). The sophistication of AI-generated content has led to a spate of highly convincing fake news that can easily mislead the public. This has given rise to concerns over the negative impact of AI-generated fake news, including the potential to undermine democratic processes and spread false information that can cause harm (Peters, 2018).

The issue of AI-generated fake news is a global phenomenon, and Pakistan and Saudi Arabia are no exception. Both countries are struggling with the challenges posed by the rampant spread of AI-generated fake news, leading to severe legal, social, and political ramifications (Jones, 2019; Kanozia & Arya, 2021; Kareem & Awan, 2019). The widespread dissemination of fake news

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through social media and other online channels has made it difficult for governments to control the flow of information and to ensure the accuracy and reliability of news sources.

Thus, this paper aims to delve into the criminal aspects of AI-generated fake news in Pakistan and Saudi Arabia, while exploring the existing legal frameworks in both countries. The goal is to evaluate the efficacy of current legal approaches to tackling AI-generated fake news, and to suggest areas for improvement in the legal frameworks of both countries. By shedding light on this pressing issue, we hope to contribute to the ongoing debate on the challenges and opportunities presented by the rise of artificial intelligence and the proliferation of fake news in the modern era.

2. Explanation of the relevance of the topic in Pakistan and Saudi Arabia

The rise of artificial intelligence-generated fake news has had a profound impact on countries worldwide, including Pakistan and Saudi Arabia (Pantserev, 2020). The significance of this topic in these countries is underscored by their unique political, social, and cultural contexts, which have been shaped by religion, social traditions, and economic development.

In Pakistan, the government has struggled to regulate the flow of information and combat the spread of fake news through social media platforms. The use of AI-generated fake news has exacerbated these challenges, making it increasingly difficult to differentiate between genuine news and misinformation. As a result, this has led to serious consequences, including public protests and social unrest (Kenechi Okeleke, 2021).

Similarly, in Saudi Arabia, the use of AI-generated fake news poses a direct threat to national security due to the country's unique geopolitical situation. The Saudi government has responded by enacting strict laws and regulations to control the spread of fake news and misinformation (AL-KHUDAIR, 2020). However, the use of AI technology has made it more challenging to detect and combat these threats.

Given the challenges posed by AI-generated fake news in Pakistan and Saudi Arabia, it is imperative to examine their respective legal frameworks and assess their effectiveness in addressing this issue.

3. Thesis statement: The criminal aspects of AI-generated fake news in Pakistan and Saudi Arabia require attention and investigation.

The criminal aspects of AI-generated fake news have become a pressing concern in Pakistan and Saudi Arabia, where misinformation and rumors spread through social media platforms have led to social unrest and national security risks(Jones, 2019; Kanozia & Arya, 2021). In Pakistan, fake news about the suspension of payment of salaries and pensions circulated on social media,

causing alarm and public protests (Editor, 2023). Similarly, in Saudi Arabia, AI-generated fake news has been used to spread false information about public policies and reforms, with the aim of undermining their legitimacy and inciting dissent (ABBAS, 2023). As such, it is essential to investigate the criminal aspects of AI-generated fake news in these countries and assess the effectiveness of current legal and regulatory frameworks in deterring and punishing those who produce and disseminate fake news through AI-based technologies. Additionally, such frameworks must be in line with the broader regulation on freedom of expression and enhance the right to access information. This paper argues that exploring the criminal aspects of AI-generated fake news is crucial for protecting the rule of law, democracy, and human rights in Pakistan and Saudi Arabia.

Background Information

1. Definition of artificial intelligence and fake news

Artificial intelligence (AI) is a rapidly evolving technology that has advanced particularly in the realm of media and communication. It involves the use of machines to simulate human intelligence and decision-making processes, using techniques such as machine learning, natural language processing, and computer vision. These techniques enable machines to perform tasks such as language translation, image and speech recognition, and predictive analytics. However, the potential for AI to generate fake news has become a growing concern (Botha & Pieterse, 2020).

Fake news is deliberately false or misleading information spread through traditional and social media. It is intended to deceive or misinform the public and can have serious consequences on individuals and society as a whole (Gelfert, 2018). The advancement of AI has made it easier to generate fake news on a large scale and with greater accuracy, making it harder to detect and counter (Ranade, Joshi, & Finin, 2021).

The combination of AI and fake news poses a significant challenge to the legal systems in Pakistan and Saudi Arabia, where misinformation is already a prevalent issue (Mir & Siddiqui, 2022). Therefore, it is essential to understand the legal framework surrounding AI-generated fake news and its criminal aspects in these countries.

2. Discussion of the use of AI in generating fake news and the challenges of identifying it

Artificial intelligence has increasingly been utilized to generate fake news, posing significant challenges for identification and combatting. The Oxford Internet Institute conducted a study revealing that "the manipulation of public opinion over social media platforms has emerged as a critical threat to public

life"(Bradshaw, Bailey, & Howard, 2021). Malicious actors are attracted to AI-generated fake news due to its low cost and the ability to disseminate it quickly to manipulate public opinion or promote their own agenda. One of the main challenges of AI-generated fake news is its ability to appear credible and legitimate, making it difficult to distinguish between real and fake news (Kreps, McCain, & Brundage, 2022).

Traditional methods of detecting fake news, such as fact-checking and source verification, may not be effective against AI-generated content, presenting significant challenges in identifying AI-generated fake news (de Oliveira, Pisa, Lopez, de Medeiros, & Mattos, 2021). AI-generated content can exploit filter bubbles and confirmation bias, exacerbating the impact of fake news (Bontridder & Poullet, 2021). Additionally, the volume of AI-generated fake news can be overwhelming, rendering traditional detection methods ineffective and making it challenging for human moderators to keep pace (Khivasara, Khare, & Bhadane, 2020).

Therefore, AI-generated fake news is a pressing concern, especially in countries like Pakistan and Saudi Arabia, and requires policymakers and law enforcement agencies to develop effective strategies for combating this growing threat. Understanding the nature of AI-generated fake news and the challenges of identifying it is crucial for developing effective strategies to combat this threat.

AI-generated Fake News in Pakistan

1. Analysis of the prevalence and impact of AI-generated fake news in Pakistan

The emergence of AI has added a new level of concern regarding the prevalence and impact of fake news in Pakistan. AI-generated fake news is created using advanced algorithms that can mimic human writing styles and spread false information through social media platforms and other online channels. While the prevalence of AI-generated fake news in Pakistan is not extensively studied, researchers have focused on developing techniques to detect fake news in the country.

Kishwar and Zafar (Kishwar & Zafar, 2023) developed a comprehensive fake news detection dataset for Pakistani news and evaluated it using multiple state-of-the-art AI techniques. The study found that LSTM (long short-term memory network) initialized with GloVe embeddings performed best in detecting fake news. Similarly, other research on news identification in Urdu language reported that various count-based features and classifiers were used to identify fake news, and stochastic gradient descent (SGD) algorithm outperformed other classifiers (Amjad, Sidorov, Zhila, Gelbukh, & Rosso, 2020).

The impact of AI-generated fake news in Pakistan can be significant, particularly in a country where misinformation and conspiracy theories can have a

profound effect on people's perceptions and behaviors. False and misleading information related to COVID-19 vaccines was being spread on social media platforms, leading to vaccine hesitancy in India, Pakistan, and Bangladesh (Kanozia & Arya, 2021). Anti-vaccine groups were spreading far-fetched conspiracy theories, and political figures were claiming that the coronavirus was a conspiracy against Muslim countries, supporting vaccine hesitancy. False information about major side effects of vaccines caused fear and hesitation among people, leading to a greater risk of not getting vaccinated.

Moreover, the perception of social media as a credible source of news among Pakistani journalists could contribute to the spread of AI-generated fake news. Pakistani journalists were using social media for news updates and sharing breaking news, depending on it for their professional needs (Malik & Latif, 2022). The study identified a significant association between the usage of social media and the perceptions of its credibility. However, the invincible expansion of fake news and disinformation was undermining the credibility of social media as a news source.

In conclusion, the impact of AI-generated fake news in Pakistan is significant, particularly in a country where misinformation and conspiracy theories can have a profound impact on people's perceptions and behaviors. Techniques to detect fake news are being developed, but awareness about the dangers of fake news and disinformation must be raised among the public. Thus the government must take steps to regulate the spread of false information online.

2. Examination of the existing legal provisions and their effectiveness in dealing with the issue

The following section elucidates the extant legal provisions and their effectiveness in curbing the spread of AI-generated fake news. The proliferation of such news has engendered numerous challenges for governments worldwide in devising appropriate legal frameworks to combat this menace. Pakistan, much like other nations, has not been immune to this problem. Therefore, this segment shall assess the current legal provisions in Pakistan and their efficacy in dealing with the issue.

The primary legal instrument for addressing the dissemination of false information in Pakistan is the Prevention of Electronic Crimes Act (PECA), which became law in 2016(Pakistan, 2016). The PECA includes provisions criminalizing various cybercrimes, such as unauthorized access to information systems, cyberstalking, and cyberterrorism. The law's Section 9 concerns the offense of "glorification of an offense," while Section 18 addresses the offense of "offenses against the dignity of a natural person." These provisions can be deployed to prosecute individuals responsible for the creation and dissemination of AI-generated fake news if the news incites violence or hatred.

Nevertheless, the PECA has been subject to criticism, particularly concerning freedom of expression, due to its overreaching and ambiguous nature (Ali, 2023; Jamil, 2021). The broad definitions of crimes, such as "cyberstalking" and "hate speech," within the law may potentially be utilized to silence legitimate dissent and criticism. Moreover, the lack of clear-cut guidelines regarding the admissibility of electronic evidence in court has hampered the successful prosecution of cybercrimes in Pakistan (Hameed, Qaiser, & Qaiser, 2021).

Another relevant law is the Pakistan Penal Code (PPC), which includes provisions criminalizing offenses such as defamation, criminal intimidation, and promoting enmity between different groups. Section 499 of the PPC concerns the offense of defamation, which could be invoked to prosecute individuals responsible for creating or distributing AI-generated fake news that defames a person or entity. Nonetheless, the high burden of proof required in defamation cases and the difficulty in identifying the perpetrators of AI-generated fake news pose significant challenges to successful prosecution.

Moreover, the Code of Conduct for Electronic Media and the Pakistan Electronic Media Regulatory Authority (PEMRA) Rules are applicable to electronic media outlets in Pakistan. These rules regulate the content of television, radio, and online media and prohibit the dissemination of false information that could incite violence or promote hate speech (Sajjad & Jalil, 2018). However, these regulations do not extend to social media platforms, which are often the primary channels for the spread of AI-generated fake news.

To conclude, while Pakistan has various legal provisions that could be employed to prosecute individuals responsible for the creation and dissemination of AI-generated fake news, the effectiveness of these laws remains limited. The ambiguity of the legal provisions and the challenges in identifying perpetrators and presenting electronic evidence in court have impeded successful prosecution (Jamil, 2021). Therefore, it is incumbent upon the government of Pakistan to take concrete steps towards addressing these challenges and formulating a legal framework that balances freedom of expression with the need to combat the dissemination of false information.

3. Discussion of the challenges in investigating and prosecuting cases related to AI-generated fake news

The proliferation of AI-generated fake news in Pakistan has posed several challenges in the investigation and prosecution of cases related to this issue. The utilization of cutting-edge technology and the anonymity of those responsible has rendered it arduous for law enforcement agencies to pinpoint and apprehend perpetrators disseminating false information. Additionally, the existing legal provisions in Pakistan are insufficient to address this nascent form of crime (AKHLAQ, 2021).

One of the primary obstacles in investigating AI-generated fake news cases is the difficulty in determining the origin of misinformation. With AI algorithms capable of generating content that emulates the style and language of authentic news sources, discerning between genuine and false news can prove challenging (Hirlekar & Kumar, 2020). Frequently, authorities become cognizant of the false information only after the harm has been done. Even if the source of the misinformation is identified, tracing it back to the actual perpetrator can be an arduous task due to the anonymity of the internet (Colomina, Margalef, Youngs, & Jones, 2021).

Moreover, a lack of technical expertise and resources within law enforcement agencies presents another major impediment. In Pakistan, as well as in other jurisdictions, appropriate training for police officers and prosecutors is essential to understand the intricacies of AI technology and the techniques used to generate fake news (Dauer, 2022). The absence of technical expertise can impede the investigation and prosecution of cases related to AI-generated fake news, making imperative for the government to provide sufficient training to law enforcement officials on how to identify and investigate AI-generated fake news.

Furthermore, the current legal framework in Pakistan also poses challenges in prosecuting AI-generated fake news cases. The existing laws concerning defamation and hate speech were drafted before the recent surge of AI technology. The Pakistan Penal Code (PPC) outlaws defamation under sections 499 to 502, but these provisions do not account for the use of AI technology to generate false information ("Pakistan Penal Code," 1860). Similarly, the Pakistan Electronic Crimes Act (PECA) of 2016 criminalizes cybercrime and hate speech, but it does not specifically address the issue of AI-generated fake news (see also (Islam, Khan, & Zubair, 2019).

Additionally, the burden of proof required in criminal cases is often difficult to meet in AI-generated fake news cases. To prove the accused's guilt beyond a reasonable doubt, the prosecution must establish that the accused knew that the information they disseminated was false and intended to cause harm. However, in cases involving AI-generated fake news, proving the accused's intent and knowledge can be challenging as the content is often generated by algorithms, not human beings (Begishev et al., 2023).

To conclude, the prevalence of AI-generated fake news in Pakistan presents several challenges in investigating and prosecuting cases related to this issue. The anonymity of the internet, the difficulty in identifying the source of misinformation, the lack of technical expertise among law enforcement agencies, and the inadequacy of the legal framework are all significant obstacles that must be addressed. The government must provide specialized training to law enforcement officials, update the legal framework to account for AI-generated

fake news, and allocate sufficient resources to combat this issue effectively. Only through these measures can Pakistan effectively combat the spread of AI-generated fake news and safeguard the public's right to accurate and reliable information.

AI-generated Fake News in Saudi Arabia

1. Analysis of the prevalence and impact of AI-generated fake news in Saudi Arabia

The exponential growth of fake news in Saudi Arabia, propelled by the rise of social media platforms and increasing availability of AI technologies, poses a significant challenge to the country's political stability, social cohesion, and economic development(ABBAS, 2023; AL-KHUDAIR, 2020). The challenge lies in identifying, investigating, and prosecuting cases of AI-generated fake news, which are designed to sow discord, mislead the public, and manipulate public opinion.

During the COVID-19 pandemic, social media usage across all platforms increased in the Middle East and North Africa (MENA) region, and in Saudi Arabia, social media platforms such as Twitter, WhatsApp, and Instagram are widely used for news sharing, discussion, and debate (Langendorf, 2022). Simultaneously, the Saudi government has been investing heavily in digital media infrastructure and content production to promote economic diversification, cultural modernization, and international engagement (ALSHAMMARI, 2023).

However, the proliferation of AI-generated fake news on social media undermines the credibility of official information sources, creates confusion and mistrust among the public, and fosters polarization and radicalization (Westerlund, 2019).

To combat the problem, the Saudi authorities have relied on ad hoc measures such as blocking websites, arresting individuals suspected of spreading fake news, and issuing warnings and guidelines for social media users (AL-KHUDAIR, 2020). However, the lack of a comprehensive legal framework that addresses the specificities of digital media and AI technologies is a key challenge. While Saudi Arabia has enacted several laws and regulations related to cybercrime, data protection, and media regulation, these laws do not specifically target AI-generated fake news.

The prevalence and impact of AI-generated fake news in Saudi Arabia requires attention as it has the potential to create significant harm to individuals and society as a whole, including inciting violence, spreading hatred, and eroding trust in institutions. All stakeholders, including governments, media companies, and individuals, must take proactive steps to combat this problem, such as promoting media literacy, investing in fact-checking tools, and implementing stricter regulations.

2. Examination of the existing legal provisions and their effectiveness in dealing with the issue

Saudi Arabia, as nation committed to safeguarding user rights, public interests, and privacy, has implemented rigorous measures to counteract cybercrimes. The Saudi Anti-Cyber Crime Law serves as a powerful legal framework for prosecuting cybercriminals. The comprehensive law defines cybercrime as any criminal act committed using a computer or the internet and lists associated penalties for such activities (Law, 2007).

Social media-related cybercrimes are categorized into three groups based on their severity. The first group includes transgressions such as defamation, privacy violations, and illegal access, which can lead to imprisonment for up to one year and/or fines up to SAR 500,000. Should a victim seek to file a complaint, they may do so at their nearest police station, which forwards the report to the Bureau of Investigation and Public Prosecution (BIPP) for further investigation. After identifying the suspect, the BIPP prepares a charge sheet and submits the case to the Criminal Court.

The second group encompasses more severe cybercrimes, such as the unauthorized access of social media accounts, which can lead to imprisonment for up to four years and/or fines up to SAR 3,000,000. In addition, the Kingdom of Saudi Arabia prohibits the production, preparation, sending, or saving of any unauthorized content or rumors. Individuals who violate these regulations can face a maximum jail sentence of five years and fines of SAR 3 million, as well as the confiscation of any device(s) used in the commission of the crime.

The final group of cybercrimes pertains to the transmission, publication, or storage of material that violates public order, morality, religion, or privacy. The penalties for such transgressions may involve imprisonment and/or fines (Alqahtani, 2016; Law, 2007).

Despite the existence of stringent laws and penalties for cybercrimes, the emergence of AI-generated fake news remains a significant challenge in Saudi Arabia. The difficulty of identifying and verifying information disseminated via social media platforms has facilitated the spread of such misinformation. Furthermore, the challenge of tracing the originator and source of AI-generated fake news presents a significant hurdle in prosecuting such cases.

3. Discussion of the challenges in investigating and prosecuting cases related to AI-generated fake news

The propagation of fake news generated by artificial intelligence (AI) is an important concern in Saudi Arabia. The dissemination of false news or information on social media platforms is considered a cyber-crime and is punishable by imprisonment for up to five years and fines up to SR3 million under the Saudi Anti-Cyber Crime Law(Law, 2007).

However, AI-generated fake news presents unique challenges in Saudi Arabia, particularly in identifying and verifying information on social media platforms. Traditional approaches to investigating and prosecuting cyber-crimes necessitate the identification of the suspect, which is complicated in the case of AI-generated fake news. In fact, AI-generated fake news can emerge from any corner of the globe, and identifying its source can be a formidable task (Harris, 2023). The use of anonymity tools, such as proxies and virtual private networks (VPNs), can further complicate the identification of the source of the news.

The use of AI-generated fake news can also result in the manipulation of public opinion and the creation of social unrest, which can have significant political and social consequences (ABBAS, 2023). The absence of regulations and guidelines for identifying and verifying information on social media platforms makes it easier for AI-generated fake news to spread rapidly and cause damages (Figueira & Oliveira, 2017).

Moreover, preventing the spread of AI-generated fake news is also challenging. Although, some social media platforms have implemented measures to combat the spread of fake news, it remains difficult to identify and remove all instances of AI-generated fake news (Allcott & Gentzkow, 2017, pp. 231, 232).

To tackle these challenges, it is necessary to establish stricter regulations and guidelines for identifying and verifying information on social media platforms. This can involve the implementation of AI-based tools to detect and eliminate false news, as well as the imposition of penalties for individuals or groups found to be producing or disseminating such news (Al-Asadi & Tasdemir, 2022; Law, 2007).

In addition, public awareness must be raised about the dangers of AI-generated fake news and the importance of verifying information before sharing it on social media platforms. Public campaigns can be launched to educate users on the perils of spreading false news and the significance of responsible information sharing (Report, 2021).

In conclusion, while Saudi Arabia has taken stringent measures to combat cyber-crimes, the challenges in investigating and prosecuting AI-generated fake news persist. To effectively address the spread of AI-generated fake news, stricter regulations and guidelines, as well as increased public awareness about the risks of fake news and the significance of responsible information sharing, are required.

Comparison of Legal Approaches
The issue of fake news has raised concern among governments worldwide, prompting many to enact laws to regulate it(Helm & Nasu, 2021).

Pakistan and Saudi Arabia are no exceptions, and both countries have taken measures to address the issue of fake news.

Pakistan's legal framework includes the Prevention of Electronic Crimes Act (PECA) of 2016, which criminalizes several activities related to fake news, including the dissemination of false information, unauthorized access to data, and cyberstalking. A significant strength of Pakistan's legal framework is that it also criminalizes hate speech, which is often used as a tool to spread fake news (Ghosh, 2017). This provision can help prevent the spread of fake news that targets minority groups, as hate speech can incite violence and create a hostile environment for such groups. However, a potential weakness of Pakistan's legal framework is that it grants broad powers to the Pakistan Telecommunication Authority (PTA) to block access to websites that are found to be spreading fake news. This provision can lead to censorship and restrict freedom of expression, a fundamental right that should be protected (Dad & Durrani, 2021).

Saudi Arabia's legal framework includes the Anti-Cybercrime Law of 2007, which criminalizes the dissemination of false information, defamation, and cyberstalking related to fake news (Alqahtani, 2016). Additionally, the law criminalizes the use of the internet to incite public disorder or threaten national security, which is crucial as fake news can be used to spread rumors and incite violence that may threaten national security. Although Saudi Arabia's legal framework may face the same issue as Pakistan's framework regarding broad powers granted to the Saudi Arabian Communication and Information Technology Commission (CITC) to block access to websites spreading fake news, the practical implementation does not show any sign of such misuse.

Furthermore, both Pakistan and Saudi Arabia's legal frameworks need to address the growing use of AI to spread fake news. AI can create realistic fake videos and images that can be used to spread false information, posing a significant challenge for authorities in detecting and preventing the spread of fake news (Westerlund, 2019). Both countries need to develop laws and regulations to address this issue effectively and prevent the use of AI in spreading fake news.

Conclusion

In conclusion, while both Pakistan and Saudi Arabia have taken steps to address the issue of fake news and AI through their respective legal frameworks, there is still room for improvement in order to ensure more effective regulation. The challenge of AI-generated fake news requires specific attention and effective legal measures to combat its spread. Another potential area for improvement is the clarity of definitions within the legal frameworks, which could benefit from more specificity and detail to avoid confusion and ensure consistent enforcement.

Additionally, the enforcement mechanisms in place could be strengthened, requiring specific resources and expertise to carry out investigations and prosecutions effectively. Greater collaboration and coordination between government agencies and civil society groups is also necessary to address the issue of fake news and AI, and to protect the freedom of speech in the process.

Furthermore, it is crucial to raise public awareness about the dangers of fake news and AI through media literacy and critical thinking campaigns. By empowering citizens to identify and combat fake news and AI, both Pakistan and Saudi Arabia could help build a more informed and resilient society, better equipped to face the challenges of the digital age.

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