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*Election Engineering in Bangladesh: An Analysis of Voter Sentiment and the Role of Artificial Intelligence*

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# ELECTION ENGINEERING IN BANGLADESH: AN ANALYSIS OF VOTER SENTIMENT AND THE ROLE OF ARTIFICIAL INTELLIGENCE

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### Abstract:

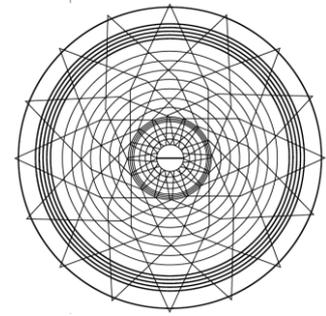
National elections in Bangladesh play a crucial role in determining the country's political environment. In recent years, there has been a significant change with the rise of electoral engineering, which utilizes advanced technology such as Artificial Intelligence (AI) to manipulate voter opinion. This research explores the relationship between voter emotion and artificial intelligence (AI) in the specific situation of national elections in Bangladesh. This study conducts an extensive investigation to examine the utilization of AI technologies in manipulating voter views, exerting impact on electoral results, and potentially subverting the democratic process. Using sentiment analysis and case studies from interviews, we investigated the complex dynamics behind the election engineering strategies implemented in Bangladesh. In addition, we explore the ethical ramifications and regulatory obstacles presented by incorporating artificial intelligence in election procedures. We seek to stimulate discussion on protecting voting integrity and upholding democratic norms in the context of technological progress by illuminating these processes. The findings of our study demonstrate a clear impact of AI algorithms on changing voters' opinions, as evidenced by identifiable patterns that suggest the use of targeted messaging and manipulation strategies. In addition, we examine the ethical ramifications and regulatory obstacles presented by incorporating artificial intelligence in election procedures. The methodology included taking semi-structured in-depth interviews of journalists, political analysts, professors and people related to the electoral process. From the interviews, we have collected information on the case-studies and real time experience that the people of Bangladesh have encountered. The respondents clarified that although it is quite hard to say with certainty as there is no concrete evidence, there was a certain amount of AI impact in manipulating the voters' sentiment. There was an impact of algorithmic bias in their social media accounts that led the voters to specific posts and contents that acted to shape their sentiment.

**Keywords:** artificial intelligence, social media, election engineering

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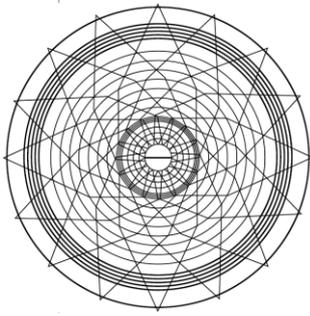


## 1.1. Introduction

Elections, which are fundamental to democratic societies, symbolize the shared desires of the people. Nevertheless, the fundamental importance of democracy can still be compromised by the manipulative tactics employed in election engineering. In Bangladesh, a country with a lively and ever-changing political environment, the issue of election engineering has emerged as an important concern that requires careful examination by scholars. This research paper aims to explore the complex process of election manipulation in Bangladesh. It focuses on two important aspects: the feelings of voters and the significant impact of artificial intelligence (AI) on shaping the election system. Bangladesh, a country with a complex political history, diverse culture, and a desire for democracy, is currently facing significant challenges in its electoral system. The deliberate manipulation of electoral processes, known as election engineering, has taken different forms and poses a significant risk to the fundamental principles of democratic governance. Given this context, the purpose of this study is to thoroughly examine and understand the past occurrences and changing patterns of election manipulation in Bangladesh.

The sentiment of the electorate, which is a combination of beliefs, attitudes, and perceptions, plays a central role in every election. It influences and shapes the democratic process (Birgit Schippers, 2020). The purpose of this study is to provide a better understanding of how voters feel about the political situation in Bangladesh. Through a careful examination of previous research on how voters behave, we aim to discover the various factors that impact the electorate and comprehend the consequences of manipulating elections on the overall expression of the public's opinions. In the 21st century, there has been a significant increase in the use of artificial intelligence in different aspects of human life, including the electoral process (Sharma et al., 2019). Bangladesh is currently facing the difficulties of election manipulation, and there is a growing interest in investigating the role of artificial intelligence (AI) in this context. This study aims to investigate the effects of artificial intelligence (AI) on election results, campaign tactics, and the overall democratic structure of the country.

This research paper aims to accomplish two goals. Firstly, it seeks to conduct a detailed analysis of election manipulation in Bangladesh, exploring its historical development and current forms. Secondly, it aims to examine the relationship between voter attitudes and the increasing influence of artificial intelligence in shaping electoral procedures. In this study, our goal is to provide valuable insights that will enhance academic discussions and offer practical knowledge for policymakers, electoral bodies, and civil society organizations working to strengthen democracy in Bangladesh.



### 1.2. Importance of research

The preservation of the integrity of elections is essential for the proper functioning of a democratic system. This research reveals fundamental weaknesses in the political process by analyzing how voter sentiment is influenced and possibly controlled, particularly with the growing utilization of artificial intelligence (AI). By comprehending this concept, it is possible to create strong measures to avoid election manipulation and fraud, so guaranteeing that electoral results accurately represent the genuine intentions of the populace. An essential element of democratic elections is the preservation of openness and accountability. Conducting research on election engineering reveals any unjust behaviors, prejudices, or systemic distortions present in the electoral system. These observations can support lobbying endeavors aimed at achieving increased transparency, resulting in a more dependable and inclusive election procedure. The heightened level of responsibility may also discourage any future attempts to manipulate elections.

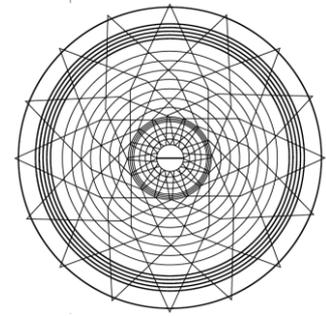
The knowledge acquired from this research has the potential to directly impact policy-making choices. Researchers may assist politicians in developing legislation and standards that promote fairness, security, and privacy inside electoral systems by identifying possible concerns related to AI's involvement in elections. The policy consequences may encompass domains such as AI supervision, defending voter rights, and implementing techniques to prevent manipulation, therefore ensuring the integrity of the political process. Increasing public consciousness is essential for a robust democracy. This project aims to inform voters about the influence of election engineering, including the potential utilization of AI and other technologies to alter voter mood. A well-informed voting population is more capable of carefully assessing the material offered in election campaigns, hence decreasing the chances of manipulation and disinformation influencing voter behavior.

While the primary focus of this research is on Bangladesh, its ramifications have a worldwide reach. By examining the practice of manipulating elections in a particular nation, academics might identify similarities with comparable difficulties encountered in other regions. By adopting a comparative approach, one may gain a more comprehensive knowledge of shared challenges and formulate effective policies to protect election integrity on a global scale. Additionally, it can facilitate cooperation across nations to advance democratic principles and safeguard against shared dangers. This study on election manipulation in Bangladesh, specifically examining voter attitudes and artificial intelligence, is crucial for strengthening democratic principles, improving transparency and responsibility, informing policy decisions, increasing public consciousness, and supporting international endeavors to safeguard electoral procedures. It enhances democracy in Bangladesh and offers significant insights to the global world.

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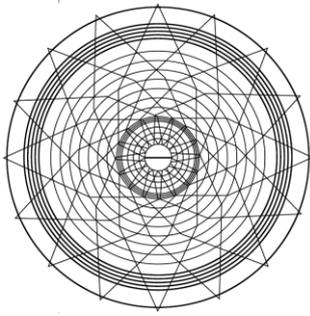


### 1.3. Objective of the research

The primary goal of this research is to examine the public's viewpoint, worries, and preferences about electoral procedures and candidates. This entails analyzing the voters' perception of elections, the key concerns they have, and how these variables impact their voting behavior. This research endeavors to discover patterns and changes in voter sentiment that might potentially influence election outcomes, utilizing surveys, focus groups, and social media analysis. Another aim is to examine the several elements that might undermine the equity and honesty of elections. This includes tactics such as gerrymandering, voter suppression, and the manipulation of election processes via technology methods. The research aims to comprehend how these elements might potentially modify election outcomes or erode public confidence in the democratic system by evaluating their influence. The main goal is to analyze the utilization of artificial intelligence (AI) technology in election processes. This encompasses the utilization of artificial intelligence in the fields of voter profiling, identification of misinformation, and forecasting voting patterns. The project seeks to ascertain the degree to which AI influences election results and its possible ramifications for voter independence and electoral integrity. The ultimate goal is to emphasize the possible hazards and advantages linked to the utilization of AI and other new technologies in electoral processes. The research aims to provide ways for improving openness, accountability, and confidence in the voting system by identifying these obstacles and possibilities. This purpose is to establish optimal strategies for minimizing risks and optimizing the beneficial effects of technology on democratic processes.

### 1.4. Research questions

The electoral history of Bangladesh has experienced periods of political instability, frequently accompanied by claims of election manipulation. The repetitive pattern of political unrest adds to an environment where the process of voting becomes a place where different groups with opposing goals fight against each other. The study conducted by Panch et al. (2019) investigates the relationship between political instability and election manipulation, uncovering recurring patterns that have endured throughout history. The integration of technology, including Artificial Intelligence (AI), has significantly transformed the electoral dynamics of Bangladesh. The study conducted by Levin et al. (2016) examines how technological advancements affect the way people vote, and the tactics used by politicians. This analysis explains how the integration of technology, including artificial intelligence (AI), has become a significant factor in shaping the electoral environment.



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This discussion takes us to the research questions on which this project stands on:

**RQ 1:** What is the influence of artificial intelligence in Bangladeshi elections?

**RQ 2:** What are the ethical implications of artificial intelligence in election engineering in Bangladesh?

### **Methodology**

For this study, we have used qualitative methods to identify the themes and find the answers to our questions. Here we have used content analysis and in-depth interviews with stakeholders to understand the mechanism from the inside. There were 15 participants from different professional fields including Journalists, Polling officers, Political activists, Think-tankers, Diplomats, Technology specialists, and Academicians etc. The participants were chosen by purposive and convenience sampling. The first concern was the participants must be related to the electoral process in one way or another and then they were chosen in terms of convenience to reach out.

#### **2.1. Content analysis**

Content analysis helps a study with context and direction to go. Here, we have analyzed more than 40 research papers, previous studies, articles, and news contents to give the current paper a structure. From the content analysis, we have looked for the answers to our first research question.

#### **2.2. In-Depth interviews**

We have identified key stakeholders, election experts, policymakers, and technology specialists who have relevant knowledge and expertise in election engineering and/or artificial intelligence. In-depth interviews have been conducted with selected participants to gain qualitative insights into their perspectives, experiences, and opinions. The interview questions have been semi-structured and open-ended. Recorded interviews (with participants' consent) were transcribed and analyzed. Information from different data sources has been analyzed for convergence or divergence of themes and perspectives. The findings provided a comprehensive understanding of voter sentiment, opinions, and experiences related to election engineering and the role of artificial intelligence.

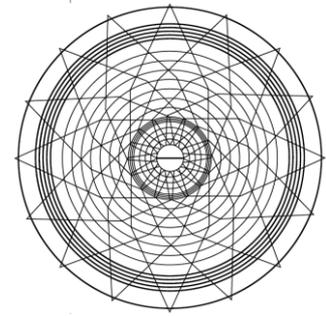
#### **2.3. Limitations**

Just like every other research or study, this one has some unavoidable limitations as well. There could be a quantitative part as well where there were voters' sentiments more thoroughly analyzed. For next research regarding this area, the researchers can keep these factors in mind.

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### **Content analysis**

#### **3.1. Election engineering**

The concept of election engineering has had a significant impact on democratic processes worldwide. Academic studies on past cases of election manipulation provide useful knowledge about how tactics to influence election results have changed over time. Important studies conducted by Kimber (1991) & Tang et al., (2010) offer a fundamental comprehension of the different types of manipulation that have taken place globally. Throughout history, there have been various examples of election engineering, which can range from subtle interference to more blatant manipulation. These instances have been documented in different parts of the world and within various political contexts. From thorough examination by BARON P. DAVID (1994), for example, uncovers the complex characteristics of electoral manipulation, which includes strategies like intimidating voters, engaging in fraudulent activities, and strategically redrawing electoral boundaries.

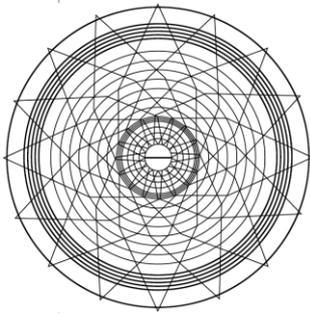
#### **3.2. Voter sentiment in elections**

##### **3.2.1. Socioeconomic factors**

The important study conducted by Duberry et al., (2021) is a fundamental investigation into how socioeconomic factors influence voter opinions. The research highlights the importance of economic status, education, and occupational background as key factors that shape voter attitudes. Research has shown that people's political preferences are closely connected to their economic well-being. Voters tend to support candidates or policies that they believe will benefit their financial well-being. Researchers can analyze voting behavior by considering the economic context in which voters operate. This understanding is important for gaining insight into how voters make their decisions. Duberry et al., (2021) place significant importance on education's influence on voter attitudes. There is often a connection between how much education someone has and how aware they are of politics. People who have more education are usually better at thinking critically about political information. Obtaining higher levels of education has the potential to enhance one's ability to make well-informed decisions and develop more sophisticated political viewpoints.

##### **3.2.2. The political context**

The research conducted by Rotenberg (2021) greatly enhances our understanding of how the larger political context influences the opinions of voters. Downs examines how political parties, candidate images, and prevailing ideologies interact to shape voter attitudes. Downs emphasizes the significant influence of political parties in shaping the choices made by voters. Voters frequently associate themselves with a specific political



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party due to shared values, policy preferences, or ideological leanings. The party system offers an organized structure for individuals to express their political identity (König & Wenzelburger, 2020). The way political candidates present themselves greatly impacts how voters perceive them. Downs' research acknowledges that when voters assess candidates, they consider not only their policy stances but also their personal attributes, charm, and perceived honesty.

### **3.2.3. The Impact of media on society**

In today's time, where there is a lot of information available, the influence of mass media on how people feel about voting has become more important. The research conducted by Levin et al., (2016) provides important knowledge about how media can impact people's attitudes and behaviors. The mass media plays a crucial role in distributing political information. Levin's (2016) research emphasizes the role of the media in shaping public opinion through techniques such as framing issues, selectively presenting information, and influencing the importance of political events. The ability for media platforms to be easily accessed and widely used increases their influence on shaping how voters perceive things. McGuire's research was conducted before the digital age, but the ongoing interaction between traditional and digital media platforms continues to be a significant factor in modern elections. When examining identity politics, Wig et al. (1989) social identity theory provides a framework to comprehend how group associations impact voter sentiment.

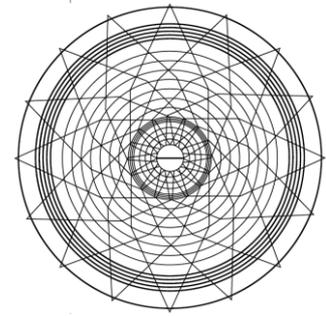
### **Artificial Intelligence in electoral processes**

The use of artificial intelligence (AI) in electoral processes has become a powerful force that can bring about significant changes. It provides new and exciting possibilities but also comes with complex difficulties. This literature review explores how AI is currently being used in elections around the world. It discusses the advantages and difficulties that come with incorporating AI into the electoral process. In recent times, there has been a significant change in the way elections are conducted due to the growing use of artificial intelligence. The role of AI algorithms in predicting voter turnout is important (Calo, 2017). Machine learning models are used to examine past information, population characteristics, and patterns on social media to offer valuable knowledge that guides specific campaign plans. The ability of AI to adapt enables campaigns to flexibly modify their outreach efforts in response to up-to-date information. The use of artificial intelligence (AI) has been employed to identify and minimize cybersecurity risks, thus addressing concerns related to election security. The study conducted by Panch et al. (2019) investigates how artificial intelligence (AI) can be used to detect and prevent cyber-attacks, thus protecting the fairness of elections.

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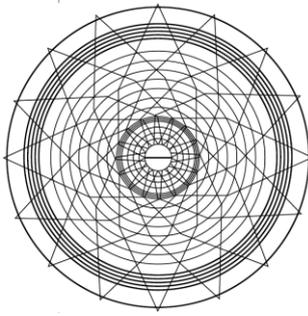


### **4.1. Potential benefits of AI in the electoral process**

The incorporation of artificial intelligence (AI) into the electoral process brings forth various advantages, fundamentally transforming the effectiveness, precision, and safety of democratic procedures. AI applications play a crucial role in improving different aspects of the electoral process, bringing about efficiencies that go beyond traditional methods. Automating tasks, such as registering voters, counting ballots, and tabulating results, greatly decrease the need for manual labor. This not only speeds up the electoral process but also reduces the chances of errors that can occur when entering or calculating data manually (Akbar et al., 2021). Artificial Intelligence (AI) has made significant advancements in the field of voter registration, which are worth mentioning. Artificial intelligence (AI) possesses data analytics capabilities that go beyond campaign strategies and can also be applied to the allocation of resources. AI systems can analyze voter sentiment and turnout in real-time, which helps identify the areas where campaign efforts or electoral resources can make the most difference. This optimization guarantees that resources are distributed effectively, maximizing the extent and efficiency of electoral campaigns. The use of AI strengthens the security of electoral systems by addressing concerns about cybersecurity threats and fraud. Sophisticated algorithms can identify unusual occurrences and recognize questionable trends in real-time, serving as a proactive safeguard against cyber threats (Howard et al., 2018). The increased security measures help reduce the chances of interference and fraud, which in turn increases people's trust in the fairness of the voting system. The capability of artificial intelligence to analyze large amounts of data allows for the detection of abnormalities and inconsistencies in electoral information. The use of AI algorithms can enhance the efficiency of identifying patterns that may suggest fraud or manipulation. This system of early detection enables quick intervention, ensuring the integrity of the electoral process.

### **4.2. Challenges of AI in the electoral process**

The inherent biases within AI algorithms, as highlighted in *Artificial Intelligence and International Politics* (1993) pose a significant challenge. If not addressed meticulously, these biases can perpetuate and amplify existing inequalities, leading to unfair outcomes in voter targeting and decision-making processes. AI applications often involve the processing of vast amounts of personal data. The potential for privacy breaches and unauthorized use of sensitive information raises ethical concerns. Safeguarding voter privacy becomes a paramount challenge in the age of AI-driven electoral processes. The adaptability of AI algorithms, while advantageous, also renders them susceptible to manipulation. Malicious actors can exploit vulnerabilities in AI systems, compromising the integrity of electoral processes, as discussed by (Faliszewski & Procaccia, 2010).



### **4.2.1. AI in campaigns and voting procedure**

The integration of artificial intelligence (AI) into election campaigns and voting procedures has introduced a fresh era of technological impact in democratic processes. This section examines previous research that investigates the use of AI in election campaigns and the voting process. It identifies the main areas where AI is typically used and assesses how it could potentially affect the electoral system. The study conducted by Emami & Derakhshan (2015) examines how artificial intelligence is employed to customize political advertisements and campaign messages. Artificial intelligence algorithms are used to examine large amounts of data, such as social media interactions and demographic details, to recognize and focus on particular groups of voters.

Emami & Derakhshan (2015) examine the integration of artificial intelligence (AI) into electronic voting systems. This study examines the potential benefits of using AI-powered voting machines, including better accessibility, quicker ballot processing, and more accurate tabulation of results. The authors Barredo-Ibáñez et al. (2021) discuss how artificial intelligence (AI) can help strengthen voter authentication procedures. The research focuses on how biometric identification and facial recognition technologies can be used to improve the security and reliability of the voting process, reducing the chances of fraudulent behavior. The study conducted by Savaget et al. (2019) examines the role of artificial intelligence (AI) in the process of allocating resources dynamically during elections. Artificial intelligence algorithms are used to examine the current voter turnout, detect crowded polling locations, and improve the distribution of resources like voting machines and staff. This guarantees that the voting process is both effective and fair for all participants.

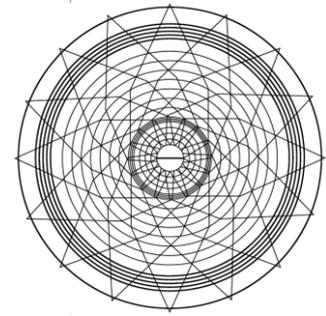
### **4.2.2. AI in the election in Bangladesh**

The combination of artificial intelligence (AI) and the electoral situation in Bangladesh is a complicated subject influenced by past instances of election manipulation and the changing role of technology. This section explores the particular circumstances in Bangladesh, examining the connection between election manipulation, artificial intelligence, and the distinct difficulties observed in the country's past elections. Bangladesh, similar to numerous countries, has faced the issue of election engineering, which refers to the intentional manipulation of the electoral process. Throughout the history of the country, there have been documented cases of election engineering. These cases involve allegations that vary from voter intimidation to tampering with ballot boxes. Jesus & Holanda (2020) conducted a study on election engineering in Bangladesh. This study helps us better understand the historical events and how they have affected democratic practices. It provides detailed information on the methods used in election

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engineering and their consequences. Bangladesh's encounter with election engineering is marked by distinctive patterns and trends. The fluctuation between times of political stability and unrest has led to a situation where accusations of manipulation and irregularities are frequently brought to light. The study conducted by Barredo-Ibáñez et al. (2021); Emami & Derakhshan (2015) investigates current patterns in election engineering, focusing on trends that have developed in recent election cycles. This analysis of the context helps us understand the difficulties that threaten the honesty of Bangladesh's electoral procedures.

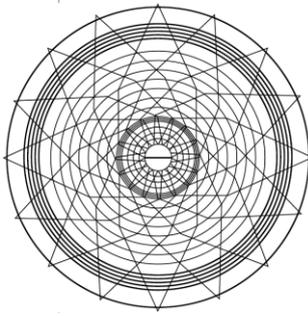
The use of artificial intelligence in the electoral context of Bangladesh aligns with the worldwide trend of incorporating technology into democratic processes. The emergence of AI technologies has brought about new opportunities, ranging from voter registration to improving campaign strategies. However, as pointed out by Faliszewski & Procaccia (2010) the use of AI in elections requires a careful analysis considering the specific socio-political situation in Bangladesh. The integration of artificial intelligence in the electoral process presents various obstacles. The lack of trust resulting from past cases of election manipulation affects how people in Bangladesh view artificial intelligence. It is essential to comprehend the perspectives and worries of voters regarding the implementation of artificial intelligence (AI) in electoral processes. The study conducted by Howard et al. (2018) investigates the feelings and levels of trust that the general public has towards electoral processes driven by artificial intelligence. The researchers aim to understand the factors that play a role in determining whether people accept or doubt these processes.

### **Findings**

Analyzing the interview scripts of 15 participants, we have divided the findings into five thematic areas. They include, AI Influencing Voter Sentiment, Presence of Algorithmic Bias, Manipulation strategies in social media, Ethical and Regulatory Challenges, and Public Awareness and Perception. These five themes clearly discuss the answers to the research questions.

#### **5.1 AI Influencing voter sentiment**

The respondents suggested that AI was used to manipulate voter sentiment by shaping the content that voters saw on social media. This impact was observed through algorithmic biases that steered users toward specific posts and narratives, potentially altering their perceptions of political issues and candidates. Artificial intelligence (AI) has a huge impact on voter sentiment by changing the information seen on social media, which is powered by AI algorithms designed to increase user engagement. These algorithms frequently create echo chambers by presenting users with content that reinforces their pre-existing ideas, resulting in polarization and a distorted view of politics and candidates.



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AI can manage content distribution by prioritizing certain postings, pushing specific ideologies, and amplifying emotionally charged content in order to direct viewers to specific narratives. This effect extends to political campaigns, where artificial intelligence is used to customize messaging to certain voter demographics, resulting in micro-targeting and potentially fragmented understandings of political topics<sup>1</sup>.

Furthermore, AI-generated deepfakes and misinformation pose a serious concern since they might disseminate misleading information about political candidates or events, affecting voter perception. To address AI's influence on voter sentiment, a multifaceted approach is required, including enhanced transparency in algorithmic design, comprehensive content moderation and fact-checking, and increasing media literacy to assist people recognize and navigate possible manipulation. This integrated strategy attempts to create a more balanced and fairer political climate while reducing the potential of AI-driven voter manipulation.<sup>2</sup>

### **5.2. Presence of Algorithmic Bias**

The findings indicated that social media algorithms had inherent biases that could influence election outcomes. These biases determined which content was prioritized in users' feeds, leading to an echo chamber effect where voters were exposed to a narrow range of viewpoints that aligned with a particular political agenda. The study found that social media algorithms have intrinsic biases that might dramatically influence election outcomes by altering the information highlighted in users' feeds. This prejudice frequently leads in an echo chamber effect, in which users are offered a limited range of opinions that align with a specific political<sup>3</sup>. As a result, voters may form distorted perceptions of political topics and candidates, reinforcing preexisting opinions while limiting exposure to different viewpoints. The algorithmic bias may result in a more polarized electorate because the content users receive is personalized to their tastes, reducing cross-political communication and leading to fragmented political discourse. Addressing these biases necessitates increasing algorithmic transparency, broadening content distribution, and encouraging platforms to lessen the echo chamber effect by supporting broader, more inclusive perspectives.

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<sup>1</sup> The Daily Star. (2023, December 14). AI disinformation disrupting Bangladesh's election: report. <https://www.thedailystar.net/news/bangladesh/elections/news/ai-disinformation-disrupting-bangladeshs-election-report-3494641>

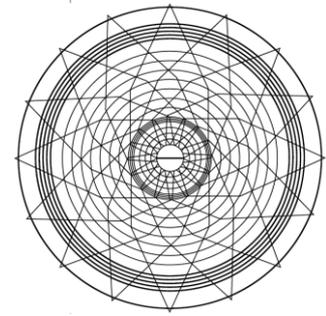
<sup>2</sup> Patel, M. (2024, March 2). How big is the threat of artificial intelligence over elections. The Indian Express. <https://indianexpress.com/article/research/how-big-is-the-threat-of-artificial-intelligence-over-elections-9188317/>

<sup>3</sup> The Daily Star. (2023, December 14). AI disinformation disrupting Bangladesh's election: report. <https://www.thedailystar.net/news/bangladesh/elections/news/ai-disinformation-disrupting-bangladeshs-election-report-3494641>

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### 5.3. Manipulation Strategies in social media

Interview data highlighted instances where AI and other advanced technologies were used to create targeted messaging campaigns. This tactic aims to influence voter opinions by promoting specific content while downplaying or obscuring opposing views, thereby manipulating voter sentiment ahead of elections. Interviews revealed that AI and other advanced technologies were used to create targeted messaging campaigns on social media, with the goal of altering voter sentiment ahead of elections.<sup>4</sup> These techniques entailed promoting specific content that was consistent with certain political goals while downplaying or hiding competing viewpoints. These campaigns have the potential to impact voter opinions by selectively amplifying specific messages, directing them towards desired outcomes. This manipulation strategy frequently depends on AI's capacity to evaluate user data and forecast which content will resonate with different voter categories, allowing for more exact.<sup>5</sup> Such selective content promotion risks altering the political environment by misleading voters and reducing the diversity of perspectives encountered. To resist these manipulation schemes, increased transparency in political advertising is required, as are strong laws on targeted campaigns and robust procedures for detecting and mitigating AI-driven social media manipulation.

### 5.4. Ethical and Regulatory Challenges

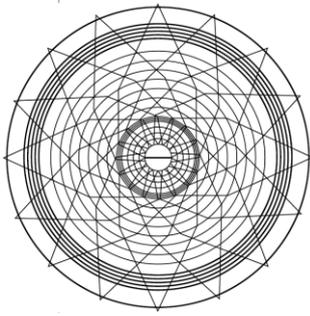
Interviewees noted that the lack of concrete evidence made it challenging to quantify the impact of AI on elections. This uncertainty raises significant ethical concerns about transparency and accountability in electoral processes. Additionally, the use of AI for election engineering underscores the need for regulatory measures to ensure fair and unbiased elections. Interviewees pointed out that the difficulty in obtaining concrete evidence makes it challenging to quantify AI's impact on elections, posing significant ethical and regulatory challenges. This uncertainty complicates efforts to ensure transparency and accountability in electoral processes. As AI and advanced technologies are used for election engineering, they can alter the democratic landscape in ways that are hard to track or measure, increasing the risk of unethical practices. This underscores the need for robust regulatory frameworks to govern the use of AI in elections and safeguard against potential abuses.<sup>6</sup> Regulatory measures could include stricter rules for

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<sup>4</sup> New Age. (2024, April 23). Disinformation driven by AI rampant ahead of election: report. [https://www.newagebd.net/article/220167/disinformation-driven-by-ai-rampant-ahead-of-election-report#google\\_vignette](https://www.newagebd.net/article/220167/disinformation-driven-by-ai-rampant-ahead-of-election-report#google_vignette)

<sup>5</sup> Hasan, M. (2023, December 29). Deep fakes and disinformation in Bangladesh. The Diplomat. <https://thediplomat.com/2023/12/deep-fakes-and-disinformation-in-bangladesh/>

<sup>6</sup> Riaz, A. (2023, December 11). Bangladesh's blueprint for engineering an election. The Diplomat. <https://thediplomat.com/2023/12/bangladeshs-blueprint-for-engineering-an-election/>



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algorithmic transparency, mandatory disclosures for AI-driven political advertising, and comprehensive oversight to ensure fair and unbiased electoral processes. Addressing these challenges requires collaboration among policymakers, technology companies, and civil society to establish clear ethical guidelines and enforceable regulations that promote integrity and trust in democratic systems.

### **5.5. Public awareness and perception**

The interviews also suggested a level of awareness among the public regarding AI's potential role in manipulating voter sentiment. However, respondents indicated that many voters might not fully understand the mechanisms of AI or the extent to which it influences their opinions, pointing to a need for greater public education and transparency in election processes. The interviews found that, while the public is aware of AI's possible involvement in altering voter sentiment, many voters may not completely understand the mechanisms behind AI or the extent to which it can impact their attitudes. This disparity in understanding highlights the crucial need for increased public education and transparency in election processes. Without a better understanding of how AI algorithms filter content and potentially impact political opinions, voters are at a disadvantage when evaluating information on social media and other platforms.<sup>7</sup> To remedy this, efforts should be taken to raise public awareness of AI's participation in elections through educational initiatives, media literacy programs, and open disclosure procedures. By providing voters with the tools and information they need to comprehend AI's influence, we can cultivate a more informed electorate while reducing the risks of AI-driven voter manipulation.

### **Conclusion**

An examination of interview transcripts from 15 participants has yielded valuable observations regarding the mechanics of election manipulation in Bangladesh. Specifically, the study focuses on the impact of artificial intelligence on voter sentiment, the existence of algorithmic bias, strategies for manipulating social media, ethical and regulatory obstacles, and public awareness and perception. These topics provide light on the intricate interaction between technology and election processes, revealing both potential dangers and advantages. The evidence suggests that AI has a significant influence on voter sentiment by curating the material that users are exposed to on social media, frequently resulting in the formation of echo chambers and polarization. The impact of this influence can manipulate public perception of political matters and candidates, indicating the need for more openness and regulation of AI-generated information in order

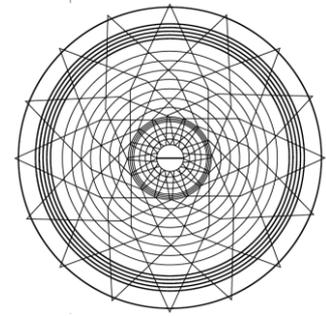
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<sup>7</sup> Financial Times (December 14, 2023), Deepfakes for \$24 a month: how AI is disrupting Bangladesh's election. <https://www.ft.com/content/bd1bc5b4-f540-48f8-9cda-75c19e5ac69c>

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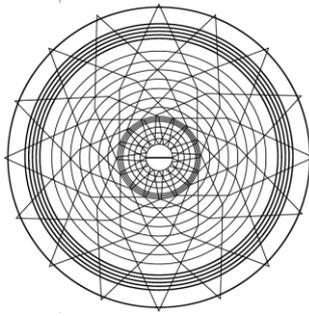
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to uphold the integrity of elections. Algorithmic bias worsens this problem by limiting the variety of perspectives, strengthening preexisting convictions, and contributing to a more divided voting population.

Furthermore, the interviews uncovered manipulation tactics that exploit AI and other sophisticated technology to develop focused message campaigns aimed at influencing voter perspectives. These tactics frequently advocate for certain information while concealing opposing perspectives, underscoring the necessity for more openness and regulation to thwart unethical manipulation. The study also highlighted notable ethical and legal obstacles arising from the issue of measuring the influence of AI on elections, underscoring the necessity for well-defined legislative frameworks to guarantee equitable and impartial voting procedures. These frameworks may encompass regulations on the openness of algorithms, requirements for disclosing AI-driven political advertising, and the implementation of thorough oversight procedures. Ultimately, the research highlights a significant deficiency in the general public's knowledge and comprehension of the role that AI plays in elections. Although there is a certain level of awareness regarding the impact of AI, a significant number of voters lack a profound comprehension of the fundamental mechanics involved. This highlights the necessity for improved public education and more openness in election procedures.

To summarize, this research highlights the intricate and difficult issues that arise when technology, namely artificial intelligence (AI), is used with political procedures in Bangladesh. The research has identified five subject areas that provide a full understanding of the current situation and highlight the necessity for action in several domains. AI's impact on voter sentiment is evident since it has the ability to control public opinion by molding social media material, resulting in the formation of echo chambers and increased polarization. This necessitates a focused endeavor to guarantee openness in the creation of algorithms and foster a fair and equitable political environment. Algorithmic prejudice is present when algorithms reinforce current beliefs and limit political speech, leading to an echo chamber effect. To overcome this prejudice, it is essential to increase openness and implement initiatives to expand the circulation of material. utilization of artificial intelligence for focused message campaigns exposes a concerning pattern of manipulation and biased content promotion. Effective regulatory frameworks and rigorous content monitoring are crucial in addressing and countering these unethical behaviors. Ethical and regulatory issues arise because of the intricate nature of measuring the influence of AI on elections. Establishing precise guidelines for algorithmic openness and thorough supervision is crucial for upholding the integrity of elections.



Our research emphasizes the immediate requirement for comprehensive methods to guarantee the integrity of election processes in Bangladesh. To preserve the democratic process and ensure fair and trustworthy elections, it is crucial to address the influence of AI, reduce algorithmic bias, restrict manipulation methods, overcome ethical and legal hurdles, and promote public awareness. These findings not only enhance the national discussion but also provide a detailed plan for tackling comparable difficulties in other democratic regimes globally.

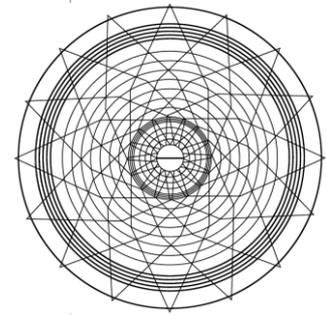
### REFERENCES

- Akbar, P., Loilatu, M. J., Pribadi, U. & Sudiar, S. (2021). Implementation of Artificial Intelligence by the General Elections Commission in Creating a Credible Voter List. IOP Conference Series: Earth and Environmental Science, 717(1). <https://doi.org/10.1088/1755-1315/717/1/012017>
- Artificial Intelligence and International Politics (Vol. 14). (1993). Political Psychology. <http://www.jstor.org/stable/3791400>
- Baron, P. D. (1994). Electoral Competition with Informed and Uninformed Voters. *American Political Science Review*, 88(1), 33–47.
- Barredo-Ibáñez, D., De-La-garza-montemayor, D. J., Torres-Toukoumidis, Á. & López-López, P. C. (2021). Artificial intelligence, communication, and democracy in Latin America: a review of the cases of Colombia, Ecuador, and Mexico. *Profesional de La Informacion*, 30(6). <https://doi.org/10.3145/epi.2021.nov.16>
- Birgit Schippers. (2020). Artificial Intelligence and Democratic Politics. *Political Insight*, 32–35.
- Calo, R. (2017). Artificial Intelligence Policy: A Primer and Roadmap. <https://ssrn.com/abstract=3015350>
- Duberry, J., Dormeier Freire, A., Hanifa, V., Verma, H., Kosmerlj, A. & Hamidi, S. (2021). Artificial intelligence and civil society participation in policy-making processes: Thinking about AI and participation. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3817666>
- Emami, H. & Derakhshan, F. (2015). Election algorithm: A new socio-politically inspired strategy. *AI Communications*, 28(3), 591–603. <https://doi.org/10.3233/AIC-140652>
- Faliszewski, P. & Procaccia, A. D. (2010). AI's War on Manipulation: Are We Winning? *Association for the Advancement of Artificial Intelligence*. All Rights Reserved, 53–64.
- Howard, P. N., Woolley, S. & Calo, R. (2018). Algorithms, bots, and political communication in the US 2016 election: The challenge of automated political communication for election law and administration. *Journal of Information Technology and Politics*, 15(2), 81–93. <https://doi.org/10.1080/19331681.2018.1448735>

## [Scientific Articles]

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J. J. B., Tovey, C. A. & Trick, M. A. (1989). Social Choice Welfare the Computational Difficulty of Manipulating an Election\*. In Soc Choice Welfare (Vol. 6).

Jesus, D. S. V. de & Holanda, A. F. B. de. (2020). Artificial Intelligence and the 2020 Municipal Elections in Brazil. *International Journal of Business Administration*, 11(5), 1. <https://doi.org/10.5430/ijba.v11n5p1>

Kimber, R. (1991). Artificial Intelligence and the Study of Democracy. *Social Science Computer Review*, 381–398.

König, P. D. & Wenzelburger, G. (2020). Opportunity for renewal or disruptive force? How artificial intelligence alters democratic politics. *Government Information Quarterly*, 37(3). <https://doi.org/10.1016/j.giq.2020.101489>

Levin, I., Pomares, J. & Alvarez, R. M. (2016). Using Machine Learning Algorithms to Detect Election Fraud. In *Computational Social Science* (pp. 266–294). Cambridge University Press. <https://doi.org/10.1017/cbo9781316257340.012>

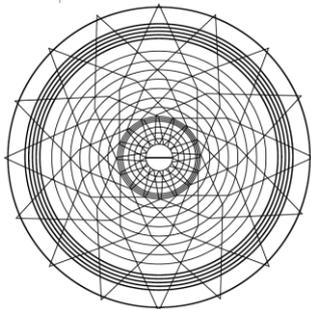
Xie, Q., Tang, P., Zhang, X., Luo, S. & Cheng, S. (2010). An experimental study of benchmarking functions for election campaign algorithm. 2010 International Conference on Measuring Technology and Mechatronics Automation, ICMTMA 2010, 1, 468–474. <https://doi.org/10.1109/ICMTMA.2010.585>

Panch, T., Mattie, H. & Atun, R. (2019). Artificial intelligence and algorithmic bias: Implications for health systems. *Journal of Global Health*, 9(2). <https://doi.org/10.7189/jogh.09.020318>

Rotenberg, M. (2021). Artificial Intelligence and Democratic Values: The Role of Data Protection. *European Data Protection Law Review*, 7(4), 496–501. <https://doi.org/10.21552/edpl/2021/4/6>

Savaget, P., Chiarini, T. & Evans, S. (2019). Empowering political participation through artificial intelligence. *Science and Public Policy*, 46(3), 369–380. <https://doi.org/10.1093/scipol/scy064>

Sharma, N., Chakrabarti, A. & Balas, V. E. (2019). *Advances in Intelligent Systems and Computing* 1016 (Vol. 1016). Springer. <https://doi.org/10.1007/978-981-13-9364-8>



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# ОРГАНИЗАЦИЯ ВЫБОРОВ В БАНГЛАДЕШ: АНАЛИЗ НАСТРОЕНИЙ ИЗБИРАТЕЛЕЙ И РОЛЬ ИСКУССТВЕННОГО ИНТЕЛЛЕКТА

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### Аннотация:

Национальные выборы в Бангладеш являются ключевым фактором, определяющим политическую обстановку в стране. В последние годы произошли значительные изменения в избирательном процессе, обусловленные внедрением передовых технологий, включая искусственный интеллект (ИИ). Данное исследование направлено на анализ взаимосвязи между эмоциональным состоянием избирателей и использованием ИИ в контексте национальных выборов в Бангладеш. Целью исследования является комплексное изучение применения технологий искусственного интеллекта для манипулирования общественным мнением, влияния на результаты выборов и возможного подрыва демократического процесса. Методология исследования включает анализ настроений и проведение тематических интервью с журналистами, политологами, профессорами и другими экспертами, связанными с избирательным процессом. В рамках исследования были выявлены закономерности, свидетельствующие о целенаправленном использовании ИИ для формирования общественного мнения. Респонденты отметили наличие алгоритмической предвзятости в социальных сетях, которая направляла избирателей к определенному контенту, влияя на их эмоциональное состояние и, как следствие, на их выбор. Также были рассмотрены этические аспекты и нормативные барьеры, возникающие в связи с внедрением ИИ в избирательные процедуры. Результаты исследования подчеркивают необходимость разработки и внедрения мер по защите честности голосования и соблюдению демократических норм в условиях технологического прогресса. Таким образом, данное исследование вносит вклад в понимание влияния современных технологий на избирательные процессы и подчеркивает важность обеспечения прозрачности и справедливости выборов в условиях цифровой трансформации.

**Ключевые слова:** искусственный интеллект, социальные сети, организация выборов