Chapter 9
Harnessing AI and Big Data for Ethical and Efficient Decisions: Making in the Political Sector

Akash Bag
https://orcid.org/0000-0001-8820-171X
Adamas University, India

Souvik Roy
Adamas University, India

ABSTRACT

Smart technologies like AI and big data have transformed decision-making. These tools are becoming increasingly popular in various businesses, but India's political sector has not used them. The previous two years have seen a pandemic that has impacted society. The chapter investigated whether AI and big data can be used in politics to make faster, more efficient, and morally acceptable decisions, and how politicians can ensure ethical use. Question: How can big data and AI help politicians make ethical decisions? Using relevant literature, the qualitative investigation found utilization, problems, ethical issues, and hazards. Semi-structured interviews with politicians and AI experts were also done to determine if the technologies may be used in politics. Before AI can support decision-making, much political data must be digitized. In conclusion, AI and big data can streamline Indian decision-making through document reading and analysis. There is no ethical framework for AI and big data utilization today, making ethical decisions impossible.

1. INTRODUCTION

A pandemic has been going on for the past two years. According to estimates, the virus has spread to 213 countries, resulting in more than five million deaths (Hiscott et al., 2020). Authorities have urged people to keep their distance, quarantine, and get vaccinated to stop the virus's spread. The pandemic has made it more difficult for organizations and companies to conduct their activities, leading to increased

DOI: 10.4018/979-8-3693-0074-9.ch009

unemployment (Galea & Abdalla, 2020). It has been required that politicians make decisions faster and more effectively to manage the pandemic and its negative effects on society (Starke & Lünich, 2020). In parallel with the pandemic, new innovative technical solutions have been developed to reduce the spread of infection. The technology giants Apple and Google have jointly developed an application that uses Artificial Intelligence (AI) and Big data, enabling mobile users to find out if they have been near someone infected with COVID-19 (Alghamdi & Alghamdi, 2022). The application uses Bluetooth contact tracing that connects to nearby Wi-Fi hubs. The application conveys information to the user that can be used to get people to reduce the spread of infection. The information can also give authorities and politicians a better basis for decision-making because it can identify where the spread of infection is greatest and develop measures and restrictions. According to Abueg et al. (2021), the application can be more effective than traditional manual infection tracing and reduce deaths, hospital visits, and infections because it increases awareness.

According to Reim et al. (2020), AI is an approach to support decision-making as it can analyze large amounts of data autonomously, faster, and more efficiently than a human. AI can also generate quantifiable information and then make recommendations, reducing uncertainty in decision-making (Giger, 2018). AI is used, for example, in healthcare to obtain diagnoses faster and more accurately and act as decision support (Socialstyrelsen, 2019). AI algorithms have become increasingly common in healthcare, and nowadays, advanced hospitals want to invest in AI solutions to increase precision and cost efficiency (Srinath P, 2022). Large amounts of unstructured data are produced and stored continuously, greatly impacting science and technology. Today's society can be seen as a Big data era because more data is available than ever. The massive amount of data brings new challenges and problems for data analysis (Fan et al., 2014). AI can be seen as a tool to facilitate the process, as it can process large amounts of data and carry out specified tasks quickly and efficiently (Jarota, 2021).

If large amounts of data are analyzed in real time, it can result in a better basis for decision-making (Raghupathi & Raghupathi, 2014). According to Jarota (2021), AI is a tool that can quickly process large amounts of data, contributing to more efficient work. There are ethical principles when implementing AI technology in the public sector, especially in decision-making. The decision-making process must also be reviewed and managed locally and internationally (Ireni-Saban & Sherman, 2021). Ireni Saban and Sherman (2022) write that there is a lack of framework for the ethical principles in AI that is flexible due to technological development. Right now, there are only legal principles that Russell (2019) has developed. There are three principles to ensure AI doesn't take over humanity. The first principle is about not allowing AI machines to be able to achieve human goals (Russell, 2019). The second principle is to program the AI not to understand what human preference means. The third and final principle is about programming AI so that what the AI thinks it is doing is human behavior (Russell, 2019).

Hauer (2022) writes that there are versions of AI ethical principles today but that it is unclear how they should be interpreted depending on the type of AI. It will thus require a complete document in which many bodies collaborate to decide how AI ethics should work (Hauer, 2022). The chapter investigated whether AI and Big data can be used in the political sector as decision support to make faster, more efficient, and ethically correct decisions and how politicians should ensure that AI and Big data are used ethically. The chapter will use relevant literature and semi-structured interviews with politicians and AI specialists to answer the following research question:

RQ 1: How can AI and Big Data be effectively utilized in the political sector for decision-making while addressing ethical considerations and ensuring ethical use?