

Chapter 4

Ethical Considerations in the Educational Use of Generative AI Technologies

Burak Tomak

 <https://orcid.org/0000-0001-6678-431X>

Marmara University, Turkey

Ayşe Yılmaz Virlan

 <https://orcid.org/0000-0002-6839-5745>

Marmara University, Turkey

ABSTRACT

This chapter provides an overview of the ethical considerations that should be taken into account while using generative AI technologies, specifically in the field of education, as well as concrete suggestions for programmers and end-users. Therefore, students, researchers, and academics in a variety of fields who are interested in the ethical aspects of generative AI will find this chapter useful, as it will also provide an overview of the existing ethical frameworks in the field of education. In that sense, this chapter can be viewed as a concise introduction to the current state of the ethical issues being studied and a proposal for balancing risks and opportunities.

INTRODUCTION

A few years ago, the concept of a machine generating art, telling engaging stories, or digging into the complexities of medical and legal papers seemed like a science fiction fantasy—an almost unattainable ideal. However, the advent of the Generative AI age has profoundly changed our knowledge, bringing these seemingly insane ideas within reach. It is widely believed that the forthcoming significant digital revolution in several aspects of human existence, including lifestyle, communication, employment, commerce, and education, would be primarily driven by the advancements in AI (Zemel et. al., 2013). Yet, because of the increased employment of AI-powered ed-tech tools and the emphasis on distance

DOI: 10.4018/979-8-3693-1565-1.ch004

learning during the pandemic, the risks and ethical issues in AI has emerged as a significant concern for professionals and researchers (Chaudhry & Kazim, 2022).

According to Pecorari (2001), plagiarism is the act of taking content from a source without giving credit, either with or without the aim to deceive. Traniello and Bakker (2016) refer to it as “intellectual theft”. With the help of the Internet, the availability of lots of information and access to it have both made it possible for everyone to use it as their own. However, Li and Casanave (2012) warn that this “unconventional and interactive” source of information must be detected (p. 166). Therefore, as Davies and Howard (2016) state, there is a need for a reconceptualization of plagiarism and recommendations for coping strategies especially after the introduction of the artificial intelligence tools. This idea is also supported by carried on by Flowerdew and Li, (2007). However, in their study Gao et al., (2022) assert that certain artificial intelligence systems, such as ChatGPT and Quillbot, have already integrated a variety of strategies to avoid detection of plagiarism. Furthermore, Yan (2023) shows in his research that students are limiting the odds of being detected as “cheating or plagiarizing” using present means of detection, which poses a higher risk to academic integrity and educational fairness. This is highlighted in the context of the fact that students are minimizing the likelihood of getting caught (Haque et al., 2022) as the AI tools can help them to easily get away from the risk of being detected (Susnjak, 2022).

According to Bostrom (2014), the management of artificial intelligence systems has to be carried out by setting constraints on their utilization following our value systems. This would guarantee that we have control over these systems. Two distinct points of view are taken into consideration in Nyholm’s (2023) report on the subject. According to the author, when we consider human control over artificial intelligence to be a form of self-control, this might mean having control over AI is initially advantageous, as it has the ability to serve both as a means and possibly even as an end goal. The argument made here is that if control over artificial intelligence may be viewed as a type of “control over another person or a representation of a human”, then such control might be perceived as something that is negative or something that is in incorrect assessment (Nyholm, 2023, p. 1230). It is a dilemma for some people, as some of them support the use of it while others reject the idea of accepting it as a useful tool. However, there are a number of factors that influence this process, including technological, social, political, and economic aspects, each possessing the capacity to hinder the effective execution of policy and design-oriented computer ethics (Jacobs & Simon, 2023). As a result, this decision is not a simple one to make. In that sense, it crucially important to be knowledgeable about the principles and the frameworks that are set by the leading institutions and organizations and policy makers.

Current Ethical Frameworks

Several ethical and legal difficulties may be encountered while using the AI tools, including questions of responsibility and the risk of biased decision-making. For this reason, the European Union, UNESCO, and the World Economic Forum are just a few of the institutions and researchers that have carried out in-depth research on ethical implications of AI in our lives. Recently, there has been an obvious increase in the number of ethical projects that aim mainly at addressing concerns associated with data in AI (Huang, et. al., 2023). These efforts mainly focus on obtaining informed consent, protecting data privacy, and addressing biases that are present in datasets. What is more, these efforts try to point out different yet important concerns about the use of AI with regards to transparency, statistical pattern recognition, and the reduction of prejudiced assumptions (Huang, et. al., 2023). Although there has been such efforts made, AI technology and its tools have been implemented in many different fields without much concern. On

12 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/ethical-considerations-in-the-educational-use-of-generative-ai-technologies/343698

Related Content

Digital Privacy Across Borders: Canadian and American Perspectives

Lorayne P. Robertson, Heather Leatham, James Robertson and Bill Muirhead (2019). *Emerging Trends in Cyber Ethics and Education* (pp. 234-258).

www.irma-international.org/chapter/digital-privacy-across-borders/207669

Student Perceptions of Online vs. Face-to-Face Learning in Criminal Justice: Considering the Ethical Implications of Disparities

Alicia Marie Godoy and Rebecca Pfeffer (2019). *Emerging Trends in Cyber Ethics and Education* (pp. 164-182).

www.irma-international.org/chapter/student-perceptions-of-online-vs-face-to-face-learning-in-criminal-justice/207666

Improving the Security of Storage Systems: Bahrain Case Study

Wasan Awad and Hanin Mohammed Abdullah (2019). *Cyber Law, Privacy, and Security: Concepts, Methodologies, Tools, and Applications* (pp. 796-829).

www.irma-international.org/chapter/improving-the-security-of-storage-systems/228757

The Right to Privacy Is Dying: Technology Is Killing It and We Are Letting It Happen

Sam B. Edwards III (2019). *Cyber Law, Privacy, and Security: Concepts, Methodologies, Tools, and Applications* (pp. 830-853).

www.irma-international.org/chapter/the-right-to-privacy-is-dying/228758

Ethical Navigations: Adaptable Frameworks for Responsible AI Use in Higher Education

Allen Farina and Carolyn N. Stevenson (2024). *Exploring the Ethical Implications of Generative AI* (pp. 63-87).

www.irma-international.org/chapter/ethical-navigations/343699