CHAPTER I
INTRODUCTION

This chapter discusses the ethical dilemmas and risks in the impact of Artificial Intelligence language on student writing. The study of artificial intelligence is an exciting and rapidly growing field. This chapter provide an overview of the current state of affairs related to this topic.

1.1 Backgrounds

According to Munoko *et al.,* (2020), the advancement of artificial intelligence technology causes us to consider its limitations, particularly in terms of the ramifications of applying tools obtained from this field of research to ethical but serious legal challenges. Based to the research by Guan *et al.,* (2022), artificial intelligence was first proposed by McCarthy first suggested artificial intelligence in 1956, to characterize the intelligence behavior of man-made objects. In today's world, AI is increasingly significant in assisting people in making decisions and is viewed as a process that can increase human decision-making efficiency. Based on the study of Grace *et al.,* (2018), artificial intelligence (AI) is the study and development of intelligent systems that can perform tasks that usually require human intelligence, such as visual perception, speech recognition, decision-making, and natural language processing.

These intelligence systems are designed to learn from experience, improve themselves over time, and adapt to changing circumstances, much like humans do. In recent years, AI has become an increasingly important field of research and development with applications in many areas, including medicine, transportation, finance, and entertainment. The results of the study by Ansari *et al.,* (2022), show that as human activity's pressures on the biosphere and climate

system intensify, so does the expectation that artificial intelligence (AI) and related technologies such as robotics and the Internet of Things (IoT) will improve society's ability to detect, adapt to, and respond to climate and environmental change. Based on the study of Khan *et al.,* (2022), the application of artificial intelligence, or machine intelligence, is causing a technological revolution that is revolutionizing science and society. The shift from human work to machines has caused crucial issues concerning the ethics and policies that govern the usage and deployment of AI systems. Efforts to design AI ethics decide not just the need for rules, tools, and processes, but also the organizations' desire to manage ethics in a manner that reflects their respective values.

Artificial intelligence (AI) is a previously unknown challenge to humans. In a world where humans and artificial intelligence are fusing, AI's developing autonomy holds the unique promise of immortal life. AI language models possess the potential to bring about significant improvements in student writing, they also raise several ethical issues and dilemmas. According to Taylor & Francis (2022), many ethical standards have been established in response, but critics argue that they are insufficient to assure ethical practice and call for further reflection on the underlying concerns. AI is anticipated to have an impact on almost every aspect of life and work, including several applications relevant to information professionals. So, it is critical for information workers to consider how existing ethics and values might be applied to new technology. This thesis seeks to unpack and analyze these ethical concerns in the context of AI and student writing, including their implications for students and educators, in order to ensure a safe and beneficial use of AI. AI systems have quickly spread into a variety of human activities, including transportation, industry, healthcare, learning and teaching, arts, finance and insurance, military, and law enforcement.

The research state by Bengio *et al.,* (2021), claims that comparing the learning and writing capacities of humans with modern

AI points to many areas for development. First, too much labelled data is needed for supervised learning, and an excessive number of trials are needed for model-free reinforcement learning. People with significantly less experience seem to be good generalizers. Second, humans can swiftly adjust to such changes with relatively few examples, whereas current systems are less resilient to shifts in distribution. Third, perceptual tasks and other so-called system 1 tasks are where current deep learning excels the greatest.

Based on research by Puaschunder (2018), the use of Artificial Intelligence language models in student writing has become increasingly common in recent years, with the potential to improve students' writing skills and address grammatical errors. However, the ethical implications and risks associated with AI language models have not been fully explored and addressed, meaning that students' originality and creativity may be affected, their privacy and data protection may be vulnerable, and they may fail to develop their self-improvement abilities. Based on the study of Nassar., & Kamal., (2021), the ethical risks of AI decision-making include ethical and moral difficulties for humans and society that arise as a result of data or algorithm failures, and the negative consequences of these risks must be addressed during the development of artificial intelligence. Commercial use of AI may potentially result in automation bias, which may decrease the possibility of healthcare personnel challenging inaccurate results due to an over-reliance on automated technologies, which are often supposed to reduce human error and increase patient safety. Based on the study of Siau & Wang (2020), the separation of Machine Ethics and Safety Engineering demonstrates that there are still many technical issues to be solved in the topic of AI ethics. Uncontrolled or poorly controlled use of AI that have led to negative consequences.

The result of the study by Robert *et al.,* (2018), show that AI is useful for handling specific issues, such as image identification, but it is

still constrained by a lack of knowledge of human mind and generalizable methods for learning. The damage may not be significant while the AI is playing the game, but it will be terrible if there is an addiction or if the AI cannot be avoided. As a result, one key future goal is to build more robust and potentially domain-dependent AI methodologies, as well as techniques to make AI models understandable to human users. Based on the study of Coeckelbergh, (2019), the usage of AI for automation has an impact on jobs and the future of civilization. Many authors warn about unemployment and question whether a redesign of social institutions is required to address some of these issues. It also makes us consider the political issues that will shape the future of technology.

According to Goldfarb & Lindsay (2022), the growing importance of human work brings into question the emerging knowledge regarding AI and warfare. Many evaluations predict that AI will replace soldiers for important military functions or that battles would be waged at machine speed, resulting in a first-mover advantage that fuels aggression and destroys deterrence. Based on the study of Perry *et al.,* (2023) show that AI assistants frequently do not choose safe libraries, use libraries correctly, grasp edge cases when communicating with external entities such as file systems or databases, or properly sanitize user input. In comparison to the control group, AI helpers were significantly more likely to write incorrect and dangerous solutions. The result of the study by Miao *et al.,* (2024), say that the ethical problems surrounding this matter are multifaceted and highly worrisome. First, it undermines academic credibility and the long-standing peer review process. Academics' willingness to offer machine-generated writings as their own work calls into question the authenticity and quality of contemporary academic activity. Second, it undermines the credibility of trusted co-authors, editors, and reviewers. There is evidence that even grant proposals, which are critical for obtaining research funding, have

been corrupted by AI-generated content. These ambiguous disclosures raise serious concerns regarding the allocation of research funds and the overall integrity of academic research.

Based to the research by Strümke *et al.,* (2022), AI technology has the potential for significant growth, but it also has detrimental effects on society, requiring provide of ethical development. However, despite widespread interest and effort, applying ethical norms in AI development remains an unresolved task, and current ethical approaches to AI development cannot provide such assurance. The key to ethical AI development at this level is to answer the social problem for AI developers, which can be achieved by combining AI development into a single profession. Based on the study of Nakazawa *et al.,* (2022), the ethical implications of AI-assisted authoring include the possibility that AI breakthroughs could revive researchers' creativity. While AI will advance and improve research, it may diminish the relevance of the author. Even when confronted with such problems of ethics, researchers must display a bit of originality. Based on the research by Ashok *et al.,* (2022), says that AI-driven applications are now widespread in human life, and the concept of machine general intelligence capable of passing the Turing Test appears to be approaching in the coming decades, if not years. At the same time, various errors in AI propagating bias, stereotyping and unexplained autonomous actions have underlined the urgent need for the global community to monitor the development of AI ethics in existing and future technologies. Industry and governments have agreed on the key AI concepts, but there is still a lack of clarity and variation in their application.

The result of the study by Tafani (2022), show that as the "AI ethics" narrative becomes more unclear, the costs of intellectual monopoly capitalism emerge as a political issue, involving legal intervention and potentially triggering social conflict. A true AI ethic is political, which means calling things by their proper names, rewarding

hard work, recognizing environmental costs, not over-collecting individual data based on extorted consent, not treating humans as supplies, and thus not making life decisions based on vague automated statistics. Ethical dilemmas in the use of AI for academic writing in narrative review, has been proven through the research of Miao *et al.,* (2023), therefore, it is necessary to conduct research related to uncovering ethical dilemmas and risks: the impact of artificial intelligence language on student writing.

This study is required due to the lack of a comprehensive and in-depth investigation of the ethical dilemmas and risks related with AI language models in student writing. This topic is fast evolving and has the potential to affect the future of student writing, thus it is critical to investigate further. This research may also cast insight into the ethical implications of technology and its use in education. Furthermore, this study is worth discussing since it highlights the ethical dilemmas and risks related with AI language models in student writing.

Based on several research, it is known that the state of art of Artificial Intelligence, Dilemma, and Risk in artificial intelligence in student writing. For the first, several researchers discussed Artificial Intelligence researched by several researchers, then based on the results of some research on Artificial Intelligence, there are by Mhlanga (2020), Ansari *et al.,* (2022), Bernert *et al.,* (2020); Malinka *et al.,* (2023); Miao *et al.,* (2023), there are limitless uses of AI that can be discussed. Efforts to secure available data and information have led in an increase in cybersecurity, and AI is expected to have a significant impact on cybersecurity on a global scale. This element has resulted in machine learning being widely used to modern technology, where it can be used as a tool (helper) to discuss problems faced while completing a task or to enhance the learning process. However, it cannot be denied that suicide is an important cause of death, presenting a challenge to global prevention efforts as artificial intelligence (AI) and machine learning

(ML) have developed as tools for probing big data sets to better risk detection.

Based on the results of various studies, that conducted by Mhlanga (2020), Ansari *et al.,* (2022), Bernert *et al.,* (2020); Malinka *et al.,* (2023); Miao *et al.,* (2023), artificial intelligence has a significant impact, including both its benefits and limitations. Given the above discussion, it is evident that AI has shown to offer more benefits than disadvantages in terms of cybersecurity. Without improvements to the educational model, plagiarism and cheating will produce lower-quality graduates. It is foreseeable that restrictions alone will not be sufficient or reasonable, not only due to a lack of detection tools and thus the inability to punish abuse. As a result, millions of previously marginalized and underserved poor communities are migrating from cash-based transactions to formal financial services, which offer them a variety of services such as payments, transfers, credit, insurance, securities and savings. This circumstance creates a variety of ethical dilemmas that call into challenge not only the authenticity of modern academic activities, but also the credibility of the peer-review process and editorial control. The emergence of artificial intelligence (AI) has resulted in significant improvements in a variety of fields, including nephrology academia, and has envisioned a harmonious environment that utilizes AI capabilities while maintaining to high academic standards.

Then based on the results of some research there are by Cox *et al.,* (2022), Guan *et al.,* (2022), Wach *et al.,* (2023), Yigitcanlar *et al.,* (2020), all of the studies about risks. They argue that Interest in the use of AI for urban innovation is growing because it can improve social well-being and progress by allowing people, technology, and policies to deliver productivity, innovation, livability, well-being, sustainability, accessibility, good governance, and good planning, which has increased demand for AI-powered innovation.

Based on the result of several journals by Cox *et al.,* (2022), Guan *et al.,* (2022), Wach *et al.,* (2023), Yigitcanlar *et al.,* (2020), some of the ethical risks include: no regulation of the AI market and the urgent need for regulation, poor quality, a lack of quality control, disinformation, fake content, algorithmic bias, job losses caused by automation, personal data breaches, social surveillance, and privacy violations, social manipulation, a weakening of ethics and goodwill, widespread socioeconomic inequality, and AI technology pressure. According to some experts, AI promises to significantly increase access to knowledge, but it also introduces complex ethical challenges. To reduce the risks associated with personal data breaches, social surveillance, and privacy violations, GAI developers must prioritize ethical considerations and work to develop systems that prioritize user privacy and security.

While several studies related about Dilemmas, there are several researchers discussed there are by Nassar & Kamal, (2021), Niforatos *et al.,* (2020), Chan (2023), Doris & Brennan (2018), Hadar & Sarel (2023), according to the researchers, these problems include paradoxical decision-making in which there is no obviously acceptable or better option. Diverse ethical dilemmas in AI-powered decision-making, with a particular focus on ethical considerations related to the decision-making process, keep affecting various sectors, not least the education landscape, but there are many dilemmas that develop, including potential losses such as job displacement and misinformation.

Based on the results of several studies by Nassar & Kamal, (2021), Niforatos *et al.,* (2020), Chan (2023), Doris & Brennan (2018), Hadar & Sarel (2023), while AI education policy can educate students and readers with the essential knowledge and abilities, incorporating AI into education raises a number of ethical dilemmas. Failures to resolve these challenges can lead to discriminatory decision-making, abuses of privacy, and a lack of accountability in fields ranging from health care,

education, and economics, as well as the authenticity of crucial relationships that are critical for emotional and social development. It can also influence student decisions of what makes meaningful communication, because ethical dilemmas generate strong emotions. Raises ethical dilemmas about evaluation, bias, and the possibility of AI systems being utilized for wickedness ends. For example, the use of AI for facial recognition in policing has been criticized for having the potential to break individuals' privacy rights and unfairly harm specific racial and ethnic groups. The ethical dilemmas raised by the use of artificial intelligence (AI) can be resolved by a combination of technical solutions, governmental measures, and public participation. On the technological side, AI researchers and developers can collaborate to create transparent, accountable, and correctly systems that include tools for discovering and minimizing any bias, discrimination, and other ethical dilemmas.

Based on previous research, there is a research gap that allows this study to be carried out. According to Yigitcanlar *et al.,* (2020), the use of artificial intelligence (AI) has the potential to deliver numerous benefits to society, but it also has a number of risks and difficulties. Uncontrolled AI use can lead to bias, a lack of transparency, unemployment, malicious use, high dependency, and other negative consequences. Found that these dangers can have significant consequences for society and individuals, including increased inequality and loss of privacy. this is evidenced by research conducted by Božić (2023).

The use of artificial intelligence throughout the learning process or in student writing can only be perfected if it is done appropriately and correctly, such as through a balanced collaboration between artificial intelligence. Because there are numerous demands from various parties to ensure that the learning process is carried out creatively and that students play an active role, it is necessary to investigate ethical

dilemmas and risks in the student environment. This is done by identifying the ethical dilemmas and risks that exist in the language of artificial intelligence in student writing. There is a lack of deep and in-depth investigations on the dilemmas of ethics and risks related with AI language models in student writing. This gap is crucial to investigate because it has the potential to influence the success and fairness of AI language models for student writing. This is a new and fast evolving topic, thus more research and analysis are required.

The novelty of the title comes from the fact that it discusses the ethical dilemmas and risks of using AI language models in student writing, which is a relatively new topic that has not been explored in the current literature. By focusing on the ethical aspects and potential problems of the impact of AI language models on student writing, this research provides a fresh perspective and new insights into the issues surrounding their use in learning environments. It is a new contribution to the field and an important discussion on artificial intelligence and its applications.

1.2 Research Questions

The research questions of the research conducted is as follows:

1. What are the ethical dilemmas and risks that students may face from the use of AI language models for writing?
2. What are students' perceptions on AI language tools?

1.3 Objectives of the Research

Based on the research questions of the problem above, the objectives of this study are:

1. To identify ethical dilemmas and risks associated with using AI language models for student writing.
2. To find out the perceptions of AI language tools from students.

1.4 Scope of The Research

1. Ethical Dilemmas and Risks of using AI

Explore and find out about Ethical Dilemmas and Risks of using

AI and Ethics is an important aspect of any research study, as it involves the consideration of ethical and social principles and the potential impact of a decision or action on individuals and society, and to ensure that the ethical issues of AI in student papers are properly addressed.

2. Writing Scope

Provides a comprehensive analysis of the ethics involved in AI language models and their impact on student writing, including issues of accuracy, creativity and originality, plagiarism and copyright, privacy and data protection, and lack of self-learning capabilities. The ability to automatically learn advanced features will become increasingly important as the amount of data and range of applications for machine learning methods continues to grow but can get worse with addiction.

1.5 Significance of the Research

Due to the research objectives above, hopefully this research has benefits for those who are interested in topic.

Theoretically, this study supposed to help reader to know about Ethical Dilemmas and Risks on AI on students writing.

Practically, to help readers, educators, curriculum designers, and policymakers develop AI language models for student writing in a more ethical and responsible manner.

1.6 Clarification of Key Terms

1.6.1 Artificial Intelligence

Artificial intelligence was explained by Yigitcanlar *et al.,* (2020), as the state that artificial intelligence (AI) is one of modern most disruptive technologies. Interest in using artificial intelligence for urban innovation is increasing. The development of smart cities, which combine people, technology, and policies to bring productivity, innovation, livability, well-being, sustainability, accessibility, good governance, and excellent planning, has raised demand for AI-

powered innovation.

1.6.2 Ethical Risk

Based on Nalini (2019), ethical risk is a challenging and complicated concept. Ethics are defined as moral standards that guide a person's or group's behavior or actions. In other words, ethics is a set of principles, rules, or guidelines that help us choose what is good and right. Ethics, broadly defined, is a discipline that discusses right and wrong, as well as an entity's moral obligations and duties, such as people, intelligent robots, and so on. Many researchers across fields have researched ethics. Most people have understood virtue ethics since childhood since it is a behavioral guide that educators and parents share in their children to help them practice good behavior.

1.6.3 Ethical Dilemma

According to Sun and Medaglia (2019), the fast development of AI and robot technology has produced a number of difficult moral and ethical dilemmas. including unemployment, inequality, humanity, artificial stupidity, racism, security, evil genies, singularity, and robot rights. Ethical Dilemmas are situations in which two or more ethical or moral principles conflict with each other, and there is no clear or easy solution. Ethical dilemmas arise when people or organizations are faced with difficult decisions involving conflicting values, duties or commitments. These dilemmas often require careful consideration of the consequences of various choices and their impact on the affected individuals or society as a whole. Ethical dilemmas can arise in a variety of contexts, ranging from personal decisions to public policy. In the field of AI, ethical dilemmas arise in the development and use of AI technologies, including questions of transparency, privacy, fairness, and accountability.