THE RESISTANCE TO ARTIFICIAL INTELLIGENCE IN EDUCATION: STUDENT PERSPECTIVES AND ETHICAL IMPLICATIONS

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ABSTRACT

The study will also investigate the reasons students would resist the adoption of AI in education and ethical issues arising from it. The research was carried out with the use of a survey methodology, whereby purposive sampling was used to administer questionnaires to respondents; 30 university students not applying AI in their learning process were sampled. Data analysis was done using descriptive statistics. The reasons for resistance, as suggested by the questionnaire, included reasons such as not feeling creative with AI, limitations on device support, aversion to change, plagiarism concerns, ethical and moral impact, and issues regarding data privacy. The results showed that most of the students felt more comfortable and more effective in learning with the lecturers than AI; a great number strongly agreed that lecturers can never be replaced by AI. Data privacy and over-dependency on AI were highlighted with major concerns, while data privacy concerns and fears over over-dependency on AI were considerably high. The ethical use of AI in education also formed one of the key concerns for the respondents. This present study, therefore, highlights the need for a more reflective and ethical approach towards integrating AI into education. Overcoming technological limitations and psychological barriers is important to further increase the adoption of AI by students. Therefore, it is important that education and ethics frameworks are developed continuously to ensure responsible and beneficial use of AI in educational settings. These findings suggest that while AI holds great potential, care about student concerns and ethical implications must be considered for its integration to be successful in the educational process.

Keywords: Artificial Intelligence, Student Resistance, Ethical Implications, Privacy, Plagiarism.

INTRODUCTION

Artificial Intelligence (AI) in other terms is referred to as instant knowledge is rapidly developing in all aspects of human life (Holmes, Bialik and Fadel, 2019). In the context of education, AI is used for various applications, such as adaptive learning, predictive analytics, and managing education administration (Baker and Smith, 2019). These technologies can improve the efficiency of the learning process, provide personalised learning experiences, and assist educators in identifying student needs more effectively (Zawacki-Richter *et al.*, 2019). However, despite the significant benefits, the adoption of AI in education is not without challenges. Concerns related to data privacy, ethical and moral repercussions, and over-reliance on technology are some of the issues that serve as major barriers (Selwyn, 2019). Therefore, it is important to further explore how AI can be ethically and effectively integrated in the education system to maximise its benefits without compromising other important aspects.

The Indonesia AI Survey 2024 report illustrates the high level of understanding of AI among Indonesians, combined with great optimism and hope for the potential impact of AI. Many see AI as something that can improve efficiency, increase productivity, and inspire innovation in education, healthcare, and industry (Carmichael, 2024). For example, AI is considered capable of providing smarter medical diagnoses, improving the quality of education through adaptive learning, and optimising business processes due to more accurate data analysis. This optimism captures the belief that AI will soon become one of the key drivers of Indonesia's sustainable digital transformation, enabling new opportunities and driving more inclusive and sustainable economic growth (Yang and Zhang, 2019).

However, behind this optimism, there are concerns about the impact of AI on jobs, privacy and security (Zainuddin, 2024). Many fear that the rapid adoption of AI could threaten employment, especially in sectors that rely heavily on routine and repetitive tasks. Data privacy is also a major concern, as AI often requires access to personal data to function optimally (Gluoksnyte, White and Žitkus, 2024). These concerns are further compounded by the potential for data misuse and privacy breaches that can occur if proper ethical and regulatory frameworks are not in place. Therefore, public education on AI should be increased and ethical and responsible frameworks established.

The resistance to artificial intelligence (AI) in education stems from various student perspectives and ethical implications. Students' express concerns about AI's impact on their autonomy, privacy, and the integrity of educational processes. Many students recognize the potential benefits of AI, such as personalized learning experiences, but also highlight ethical concerns regarding data privacy and algorithmic bias (Gluoksnyte, White and Žitkus, 2024).

Ethical risks include the potential for biased algorithms that could perpetuate inequalities, particularly affecting marginalized groups (Zainuddin, 2024). Students also worry about the erosion of learner autonomy and the changing dynamics of teacher-student relationships due to AI's pervasive role in education (Famaye *et al.*, 2024). While students acknowledge the transformative potential of AI, their concerns highlight the need for careful consideration of ethical frameworks and governance to ensure that AI serves educational goals without compromising student rights.

Resistance to AI in education is not only a technical issue, but also involves complex social, psychological, and ethical aspects (Zainuddin, 2024). College students, as a generation that grew up in the digital age, have a unique perspective towards the integration of technology in their learning. On the one hand, they are familiar with technology, but on the other hand, they also have concerns about the impact of AI on education quality, data privacy, and human interaction in the teaching-learning process (Zawacki-Richter *et al.*, 2019). The ethical implications of AI implementation are also an important concern in education. Issues of algorithmic fairness, transparency of AI system decision-making, and potential bias in AI-based assessments have been significantly debated (Chaudhary, 2024). In addition, the

dehumanisation of education and the loss of socio-emotional aspects in the learning process are also part of the AI resistance discourse.

Understanding students' perspectives and analysing the ethical implications of AI resistance in education is crucial to developing and implementing more responsible and inclusive AI technologies. The purpose of this study is to delve deeper into the factors that influence student resistance to AI in education and explore the ethical implications arising from this phenomenon. This will ensure that AI is applied in such a way as to protect individual rights and maximise benefits for the greater good. Continued education and strict regulation are necessary to maintain a balance between innovation and social responsibility in the use of AI.

METHOD, DATA, AND ANALYSIS

This study used a cross-sectional survey design with a quantitative approach to explore resistance to AI in education from the perspective of university students. The main research instrument was a structured questionnaire designed to measure the level of resistance, identify the factors that influence it, and explore students' views on the ethical implications of using AI in education. This research involved 251 active student respondents who were divided into 221 AI users and 30 non-users. The sample of this article is students who were selected using a purposive sampling technique, to find out the reasons why students do not use AI in the learning process. Data were analysed using descriptive statistics to provide a comprehensive picture.

RESULT AND DISCUSSION

Respondents

This research involved 251 active student respondents who were divided into 221 AI users and 30 non-users. Furthermore, this article discusses resistance for students who do not use AI. This research involved 30 active student respondents, both undergraduate and postgraduate. The following is the profile data of the research respondents:

Table 1. Characteristic of Respondents

No	Characteristic	Frequency	Percentage
User AI			
1	Yes	221	88
2	No	30	12
Age			
1	<20	15	50
2	20-24	13	44
3	25-30	1	3
4	>30	1	3
Location of Residence			
1	Boarding House	13	44
2	Brother's house	4	12
3	Own House/Parents	13	44
	Jumlah	30	100.0

The demographic characteristics of the respondents of this study include age and place of residence. Respondents who were less than 20 years old totalled 15 people with a frequency of 50%. Then the age between 20-24 years is 44% or 13 people, while at the age of 25-30 years and more than 30 years there is only 1 person each or 3%. For residence, respondents were evenly divided between living in boarding houses/contracts and their own

homes/parents. Each has a frequency of 13 people or 44%. A small proportion, namely 12% or 4 people, lived at a relative's house. Overall, the respondents of this study were 30 students, so it was representative enough to be able to provide an overview of the age and residence of the students involved in this study.

Student Resistance to Artificial Intelligence (AI)

Students have various reactions to the development of AI in education, from resistance to adoption. This study attempts to explore students' perspectives on AI in education and its ethical implications. Building on previous research that indicated concerns about the role of AI in learning, the current survey uncovered several factors that contribute to resistance among students. Here are the data on the reasons for students' resistance to AI in education:

Tabel 2. Student resistance to AI

Reasons of student	Strongly Agree	Agree	Netral	Disagree	Strongly Disagree
Lecturers are not replaced by AI	33%	43%	23%	0%	0%
Learn more with humans	30%	43%	23%	3%	0%
Worried about relying on AI	43%	47%	7%	3%	0%
Worried about data privacy	37%	50%	13%	0%	0%
Using AI is limited and costly	13%	40%	37%	7%	3%
Concerned about ethical and moral impact	23%	37%	27%	13%	0%
Concerned about plagiarism due to AI	33%	50%	17%	0%	0%
Difficulty with change	3%	3%	50%	43%	0%
My device does not support	0%	13%	30%	50%	7%
Feel uncreative with AI	20%	37%	33%	10%	0%

Based on the survey, most students still believe in the role of lecturers as the providers of learning materials, which is indicated by 76% of respondents agreeing or strongly agreeing that lecturers are not replaced by AI. The result supports the key arguments of De Felice et al. (2023), social and cognitive mechanisms enhance learning in an interactive context. This argument is enhanced, as 73% of the total respondents prefer interacting with humans during learning, which is an indication of the value of social interaction in education as suggested. Concern over AI dependency is very high with 90% of respondents expressing concern. This is in reflection of Chaudhary (2024) where students fear losing critical thinking skills. Data privacy is also a major issue for most of the respondents at 87%, which is in tandem with the ethical issues on data as brought up by Zawacki-Richter et al. (2019).

Interestingly, only 53% of the respondents agreed that the use of AI is limited and paid, indicating a growing awareness of AI accessibility. However, 60% of respondents were concerned about the ethical and moral impact of AI use, reflecting the growing ethical discussion in the literature (Luckin *et al.*, 2016). Plagiarism was a significant concern, with 83% of respondents expressing concern. This is in line with the debate on academic integrity in the AI era (Slimi and Villarejo-Carballido, 2024). Most respondents (57%) felt the use of AI could reduce their creativity, despite recent research showing the potential for AI to enhance creativity if used appropriately (Gluoksnyte, White and Žitkus, 2024). While Resistance to change and device limitations were not significant factors, only 6% of respondents disliked change and 13% with device limitations. That suggests that resistance is based more on substantive concerns than external factors.

CONCLUSION

This research reveals some important findings regarding students' resistance to AI in education and its ethical implications. Most students still highly value the role of lecturers and human interaction in the learning process. Students are very concerned about the impact of ethical and moral consequences of using AI in education. There are significant concerns among students about AI dependency and data privacy issues. The state of plagiarism associated with the use of AI is alarming. There is a need to review academic integrity policies and develop ways of evaluation in accordance with the A1 era. Concerns that AI reduces creativity point to learning strategies that integrate AI while still nurturing students' critical thinking skills and creativity. Resistance to AI is based on substantive issues rather than accessibility or technological readiness.

While AI offers great potential to improve learning, there is a clear need for a balanced and ethical approach to its implementation. Educational institutions need to develop strategies that integrate the benefits of AI while addressing student concerns, ensuring academic integrity, and maintaining the core values of humanist education. Future research needs to comprehensively engage policymakers, educators, and students in shaping the future of AI-enabled education. By understanding and overcoming resistance, educational institutions can create more inclusive, ethical, and effective learning environments in the digital age.

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