Available online at
https://jcrinn.com/
https://crinn.conferencehunter.com/

Journal of Computing Research and Innovation 10(2) 2025

Journal of Computing Research and Innovation

Navigating AI in Higher Education: Examining Over-Reliance and Plagiarism among UiTM Tapah Students

Nor Aslily Sarkam[1*], Nor Hazlina Mohammad[2], Nurizatie Farhanim Saiful Lizam[3], Nurul Ain Azmi[4], Nadhira Yasmin Mazli[5], Mizan Qamalia Mohd Dzahir[6], Ros Amira Arisha Md Isa[7]

[1,2,3,4,5,6,7]*Faculty of Computer and Mathematical Sciences, Universiti Teknologi MARA Perak Branch, Tapah Campus, 35400 Tapah Road, Perak, Malaysia.*

ARTICLE INFO

Article history:
Received 9 May 2025
Revised 6 August 2025
Accepted 15 August 2025
Online first
Published 1 September 2025

Keywords:
Artificial Intelligence (AI)
Higher Education
Digital Literacy
Academic Integrity
Technology Adoption

DOI:
10.24191/jcrinn.v10i2

ABSTRACT

The rapid advancement of Artificial Intelligence (AI) has transformed various sectors, including higher education. This study explores the challenges and opportunities of AI tool adoption in higher education, focusing on student learning experiences and ethical considerations. By employing correlation and regression analysis, this research analyzes data from 357 students to examine key factors influencing AI adoption, including effort expectancy, performance expectancy, digital literacy, and behavioural intention. The findings suggest that digital literacy significantly affects students' acceptance of AI tools, reinforcing the importance of targeted educational interventions. While AI integration enhances learning efficiency and accessibility, ethical concerns such as data privacy, algorithmic bias, and academic integrity remain critical challenges. The study provides insights for educators, policymakers, and institutions to develop strategies that balance technological advancements with ethical responsibility, ensuring an inclusive and effective AI-driven educational environment. Future research should explore longitudinal impacts and cross-cultural variations in AI adoption.

1. INTRODUCTION

Artificial intelligence (AI) has become an essential component of modern society, influencing fields such as medical, business, and education. AI-powered systems can execute activities that need human intellect, such as disease diagnosis, music composition, hyper-realistic image generation, and even customer service using chatbots (Kushmar et al., 2022). In education, AI has the potential to improve learning experiences by fostering student autonomy, increasing creativity, and reducing instructor workload. Furthermore, AI can provide personalised learning possibilities, allowing students to investigate topics relevant to their abilities and needs (Gocen & Aydemir, 2020). UNESCO emphasises that AI literacy is critical for the twenty-first century since it not only improves global economic competitiveness but also prepares students for future job markets (Yim, 2024).

[1*] Corresponding author. *E-mail address*: noraslilysarkam@uitm.edu.com
https://doi.org/10.24191/jcrinn.v10i2.529

The growing dependence on AI in education, while beneficial, raises concerns about its effects on students' cognitive development and academic integrity. AI-generated recommendations can exhibit bias, mislead users, or present inaccuracies, potentially resulting in unethical decision-making or academic dishonesty (Spatola, 2024). The accessibility of AI-generated content has raised concerns regarding plagiarism, as students may utilise such text without appropriate attribution, thereby compromising academic integrity. Large Language Models (LLMs) such as ChatGPT produce text that closely resembles human writing, complicating the differentiation between original content and that generated with AI assistance. Consequently, institutions face challenges in evaluating the authenticity of student assignments, and AI-detection tools like Turnitin frequently do not accurately identify content generated by AI (Hutson, 2024).

A report from Common Sense Media reveals that 70% of teenagers have used AI tools to assist with schoolwork, with 40% doing so without their teacher's knowledge. Additionally, 37% of students report that their schools lack clear AI-related guidelines, while 42% mention that their teachers prohibit AI use (Fisher, 2024). Malaysian Prime Minister Datuk Seri Anwar Ibrahim has acknowledged the importance of AI in education but warned that excessive dependence on AI-generated responses could hinder students' critical thinking skills (Latif, 2024). Furthermore, AI has contributed to a rise in academic misconduct, as students can easily manipulate AI-generated content, giving unfair advantages to those who do not adhere to academic honesty (Ahmad & Rahman, 2024).

Given these concerns, this study aims to investigate the impact of AI on education, focusing on two major challenges: over-reliance on AI tools and plagiarism. The objectives of this study are:

(i) To identify the factors influencing the impact of AI on education.

(ii) To determine the relationship between plagiarism and over-reliance on the impact of AI on education.

By examining these issues, this study aims to provide insights into the appropriate integration of AI in education, ensuring that students may effectively use AI tools while keeping academic integrity and independent critical thinking abilities.

2. LITERATURE REVIEW

AI has rapidly conquered almost every aspect of human life, starting from education to exploration into space. While AI offers a great potential revolution in teaching and learning, integration of AI at the higher education level raises concerns around academic integrity. Plagiarism and over-reliance on AI tools have emerged as major challenges that seriously threaten the authenticity of students' work. This section discusses some of the earlier research that was conducted on plagiarism and over-reliance, and the influence of AI on higher education

2.1 Plagiarism towards impact of AI on education

The rise of generative artificial intelligence (AI), particularly large language models (LLMs) like ChatGPT, has significantly transformed academic writing and raised concerns about plagiarism and intellectual property (Hutson, 2024). As AI becomes increasingly embedded in academia, it necessitates a re-evaluation of originality, research ethics, and the frameworks governing intellectual property and plagiarism. A report by Turnitin's Chief Product Officer, Chechitelli (2023) found that out of 38.5 million student submissions analyzed for AI-generated content, 9.6% contained over 20% AI-generated text, while 3.5% exhibited between 80% and 100% AI content. These findings highlight the growing concern over AI-assisted plagiarism, often termed "aigiarism."

https://doi.org/10.24191/jcrinn.v10i2.529

The unethical use of AI tools in academic writing has sparked debates regarding academic dishonesty. Khalaf (2025) identified a significant positive correlation between plagiarism and aigiarism, with linear regression analysis indicating that students' attitudes toward traditional plagiarism significantly predicted their acceptance of AI-assisted plagiarism. Furthermore, frequency analysis revealed that 27% of students had positive attitudes toward traditional plagiarism, while 57% viewed aigiarism favorably. These results suggest that while AI tools provide convenience, they also pose ethical dilemmas that need to be addressed.

Concerns about originality and academic integrity influence students' decisions regarding AI use. Malik et al. (2023) found that 86% of students refrained from using AI in essay writing due to fears of losing originality and critical thinking skills. Other concerns included misinformation and inaccuracies (70%) and the ethical implications of unintentional plagiarism (69%). These findings indicate that while AI can serve as a powerful aid in learning, students remain cautious about its potential drawbacks.

The rapid adoption of AI tools in academic settings has also raised alarms among educators. Gruenhagen et al. (2024) reported that over one-third of students have used AI chatbots for assessments, often without perceiving it as a violation of academic integrity. Similarly, Niloy et al. (2024) found a significant relationship between students' motivations for using AI chatbots and a decline in academic honesty, prompting ongoing debates within the scientific community regarding the ethical implications of AI-assisted writing.

Despite these concerns, AI remains a valuable tool for education and research. Livberber and Ayvaz (2023) highlight AI's ability to generate novel research ideas, simplify complex concepts, and improve the quality of academic work. However, ethical challenges such as plagiarism and misinformation must be carefully managed. Sozon et al. (2024) identified multiple factors contributing to plagiarism, including academic pressure, tight deadlines, peer influence, and low awareness of academic integrity.

Academic pressure significantly influences plagiarism tendencies. Atmini et al. (2024) found that students experiencing high academic stress were more likely to engage in plagiarism, driven by competition, language barriers, and fear of low grades. Luo and Kong (2024) examined AI's role in rewriting academic content and found that AI-assisted rewrites sometimes increased duplication rates rather than reducing them, raising concerns about the effectiveness of AI in maintaining originality.

In conclusion, while AI tools offer valuable support in academic writing, their misuse can lead to ethical concerns such as plagiarism and academic dishonesty. Educators and institutions must establish clear guidelines and emphasize ethical AI practices to ensure that AI enhances learning rather than compromises academic integrity.

2.2 Over-reliance toward impact of AI on education

The increasing integration of AI in education has raised concerns regarding students' over-reliance on AI-generated assistance and its implications for learning outcomes. Klingbeil et al. (2024) found that simply knowing advice is AI-generated increases users' trust in it, sometimes leading to poor decision-making and unintended consequences. Particularly in high-stakes situations, such as financial or ethical matters, individuals tend to rely on AI-generated recommendations even when they contradict other sources. The authors suggest designing AI systems that encourage balanced trust while educating users on AI's limitations to promote informed decision-making.

Similarly, Ahmad et al. (2023) examined AI's impact on students' decision-making, motivation, and privacy concerns in Pakistan and China. Their study of 285 university students revealed that increased AI usage was associated with a decline in decision-making skills, greater dependency on automation, and heightened privacy risks. Although AI enhances learning, excessive reliance may erode essential skills like critical thinking, prompting the need for responsible AI engagement.

https://doi.org/10.24191/jcrinn.v10i2.529

In Malaysia, Ismail (2024) investigated university students' use of AI tools for academic writing. Their study, based on surveys and interviews with 182 students, found that 42% preferred Google Translate, 32% used ChatGPT, 14% relied on Quillbot, and 10% used Grammarly for language correction. While these tools improve writing quality, the study warns that excessive dependence can compromise accuracy, privacy, and writing proficiency. The researchers emphasize that AI should be an aid rather than a replacement for learning, encouraging students and educators to adopt a mindful approach.

Zhai et al. (2024) further explored the cognitive impact of students' reliance on AI-powered dialogue systems. Their review highlighted that while AI streamlines task and enhances efficiency, over-reliance can weaken cognitive skills such as decision-making, critical thinking, and problem-solving. In educational settings, where these skills are fundamental to academic success, the authors advocate for teaching students how to critically evaluate AI-generated content to prevent misinformation and excessive dependency.

By surveying 597 college students and applying latent profile analysis (LPA), Stojanov et al. (2024) were able to determine five unique user profiles for ChatGPT's educational purposes. These profiles included students who seldom ever used AI and others who relied on ChatGPT for all of their schoolwork. The results highlight the different levels of AI dependence; some students use AI as a supplement, while others give it complete control over their work, which raises questions about academic honesty and the integrity of their learning.

Research by Gruenhagen et al. (2024) on AI chatbots in Australian universities found that 79% of students use AI for some aspect of their education, including homework and tests. This finding lends credence to these worries. Although AI tools improve information retrieval and comprehension, there are worries about academic integrity due to their ubiquitous use. To encourage safe and ethical use of AI, the researchers suggest having students help create usage guidelines.

Malik et al. (2023) investigated the influence of AI tools on academic writing among 245 undergraduate students across 25 Indonesian tertiary institutions. Their findings revealed that AI positively impacted writing skills, self-confidence, and academic integrity awareness. However, concerns arose regarding AI's potential to diminish creativity and critical thinking. The study suggests a balanced approach to AI adoption, integrating educator perspectives to refine AI's role in academic settings.

Finally, Darvishi et al. (2024) examined AI's influence on student agency in peer feedback through an eight-week experimental study involving 1,625 students across 10 courses. Results indicated that students often relied on AI-generated feedback rather than actively engaging with learning processes. When AI assistance was removed, self-regulated strategies partially compensated, but they remained less effective. The authors conclude that while AI improves task quality, excessive reliance may hinder self-regulated learning (SRL), a key component of lifelong learning.

In conclusion, while AI tools enhance efficiency and learning, excessive dependence on them poses risks to critical human skills such as decision-making, critical thinking, and self-regulation. The reviewed studies highlight that unchecked reliance on AI may lead to diminished originality, reduced motivation, and academic dishonesty. Therefore, fostering a balanced approach through AI literacy, ethical guidelines, and educator involvement is crucial to ensuring AI serves as an aid rather than a substitute for essential cognitive skills.

3. METHODOLOGY

3.1 Research design

This study employs a quantitative research approach with a cross-sectional design to examine the relationship between AI usage, over-reliance, and plagiarism among students in higher education. A cross-sectional design is appropriate for this study as data is collected at a single point in time from a sample of

https://doi.org/10.24191/jcrinn.v10i2.529

students to analyze existing patterns and relationships. This approach allows for an efficient assessment of students' perceptions and behaviors related to AI in education.

3.2 Population and sample size

The target population for this study consists of all 4,610 students enrolled at UiTM Perak Branch, Tapah. To determine an appropriate sample size, Cochran's formula (1977) was used to ensure a statistically reliable sample. The sample size was calculated as follows:

$$n = \frac{Z^2 pq}{d^2} \div \left(1 + \frac{Z^2 pq}{d^2 N} - 1\right) \quad (1)$$

where,

$n =$ required sample size
$N =$ population size (4610 students at UiTM Perak Branch, Tapah)
$Z = Z$ - score corresponding to the desired confidence level (1.96 for 95% confidence interval)
$p =$ Estimated proportion of the population with the characteristic of interest (used 0.5)
$q = 1 - p$ (the proportion of the population without the characteristics, Q=0.5)
$d = 0.05$ of the margin error

3.3 Sampling design

A probability sampling technique ensures a fair representation of students across different faculties. Specifically, stratified sampling is employed by dividing the population into three strata based on faculties and selecting a proportionate number of students from each group. The distribution is as follows:

Table 1. Sample distribution for each faculty

Faculties	Frequency	Sample
Faculty of Applied Science	1405	108
Faculty of Accountancy	1639	126
Faculty of Computer and Mathematical Sciences	1566	120
	4610	357

3.4 Data collection method

Theoretical Framework Data was collected using an online questionnaire and distributed via Google Forms**.** The survey link was shared through digital communication platforms such as WhatsApp and Telegram, specifically targeting students from the three faculties at UiTM Perak Branch, Tapah. The questionnaire was structured into six sections. The first section included an introduction to the study along with an informed consent. The second section gathered demographic information. The third section focused on the impacts of AI use in education and contained four questions. The fourth section addressed students' over-reliance on AI, comprising seven questions. The fifth section consisted of five questions that assessed students' understanding and concerns about plagiarism. The final section included an appreciation note for their participation.

Section three to five were validated using a 7-point Likert scale, ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The questionnaire items were adapted from previous studies on technology acceptance and academic integrity by Davis (1989), Ajzen (1991), and Teo (2010), and were reviewed by experts for

https://doi.org/10.24191/jcrinn.v10i2.529

content validity. The data collection process was conducted over a 14-day period from November 26, 2024, to December 9, 2024**.** The demographics information of the respondents is presented in Table 2.

Table 2. The students' demographics information

	Frequency (N)	**Percentage (%)**
Gender		
Male	171	47.9
Female	186	52.1
Age		
17-18	83	23.2
19-20	210	58.8
21-22	27	7.6
23-24	11	3.1
25 and above	26	7.3
Faculty		
Faculty of Applied Science	109	30.5
Faculty of Accountancy	128	35.9
College of Computing, Informatic & Mathematics	120	33.6
Semester		
1	30	8.4
2	20	5.6
3	79	22.1
4	53	14.8
5	150	42.0
6	7	2.0
7	18	5.0

3.5 Theoretical framework

Based on Fig. 1, it shows that the dependent variable was the impact of AI while the independent variables were plagiarism and over-reliance.

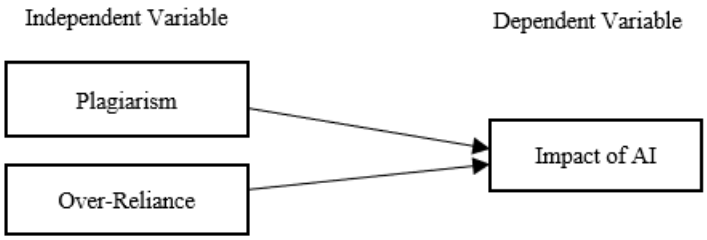

Fig. 1. Theoretical framework

3.6 Data preparation and analysis

Once data collection was completed, responses were compiled and transferred to Microsoft Excel for initial cleaning, where incomplete or inconsistent responses were checked and removed if necessary. The cleaned dataset was then imported into IBM SPSS Statistics 29 for further analysis.

The study employs descriptive analysis to summarize key demographics. Additionally, correlation and regression analyses were conducted to examine the relationship between students' over-reliance on AI and their engagement in plagiarism. Correlation analysis helps determine the strength and direction of

https://doi.org/10.24191/jcrinn.v10i2.529

relationships between variables, while regression analysis provides insight into the predictive effects of AI dependence on plagiarism tendencies.

3.6.1 Correlation and regression analysis

To examine the relationship between over-reliance on AI and plagiarism among students, this study employs correlation and regression analysis. Correlation analysis measures the strength and direction of the relationship between two variables, while regression analysis determines the extent to which one variable influence another (Field, 2018).

Before conducting these analyses, several key assumptions must be met, including linearity, normality of residuals, homoscedasticity, and absence of multicollinearity (Tabachnick & Fidell, 2019). Linearity assumes a straight-line relationship between the independent and dependent variables. A violation of this assumption can lead to misleading conclusions, which can be assessed using scatter plots or Pearson correlation coefficients (Pallant, 2020). Normality of residuals requires that the residuals in the regression model follow a normal distribution. This assumption is critical for hypothesis testing and can be evaluated using histograms, P-P plots, or statistical tests such as the Shapiro-Wilk test (Hair et al., 2018). Homoscedasticity ensures that residuals exhibit constant variance across all levels of the independent variable, which can be tested using residual plots or the Breusch-Pagan test. A violation of homoscedasticity may result in inefficient estimates (Kline, 2016). Absence of multicollinearity is necessary to avoid highly correlated independent variables, which can distort regression estimates. Variance Inflation Factor (VIF) values exceeding 10 indicate severe multicollinearity, and corrective measures such as variable removal or Principal Component Analysis (PCA) can be applied (Gujarati et al., 2019).

The Pearson correlation coefficient (r) was used to quantify the strength of the relationship, where values closer to +1 or -1 indicate strong positive or negative correlations, respectively. For regression analysis, a multiple linear regression model was applied to assess how over-reliance on AI predicts plagiarism tendencies. The regression equation is:

$$Y = \beta_o + \beta_1 X_1 + \beta_1 X_2 + \varepsilon \quad (2)$$

where Y represents plagiarism, X represents over-reliance on AI, β_o is the intercept, β_1 is the regression coefficient, and ε is the error term. By analyzing these relationships, this study provides empirical evidence on whether excessive AI usage significantly contributes to academic dishonesty, informing policies on AI integration in education.

4. RESULTS AND DISCUSSION

4.1 Reliability analysis

The reliability of the study's constructs was assessed using Cronbach's alpha. According to Nunnally (1978), a Cronbach's alpha value of 0.70 or higher indicates acceptable internal consistency, while values between 0.60 and 0.70 are considered moderate but acceptable in exploratory research. The results show that Over-Reliance (0.786) and Plagiarism (0.733) demonstrate good reliability, while Impact of AI (0.624) falls within the acceptable range (Taber, 2018). These findings suggest that the measurement scales used in this study are reliable for further analysis.

https://doi.org/10.24191/jcrinn.v10i2.529

Table 3. Reliability analysis

Variables	Cronbach's Alpha
Impact of AI	0.624
Plagiarism	0.733
Over-Reliance	0.786

4.2 Correlation

Regression Analysis A Pearson correlation analysis was conducted to examine the relationships between over-reliance, plagiarism, and the impact of AI in higher education. The results, as shown in Table 4, indicate significant positive correlations among all variables at the 0.01 significance level (2-tailed).

Table 4. The correlation result

	Impact of AI	Plagiarism	Over Reliance
Impact of AI	1.00	0.502**	0.599**
Plagiarism		1.00	0.608**
Over Reliance			1.00

The correlation between over-reliance on AI and its impact is $r = .599$, $p < .001$, suggesting a moderate positive association. This indicates that students who exhibit a greater dependence on AI tend to perceive a higher impact of AI on their education. Similarly, plagiarism is significantly correlated with the impact of AI ($r = .502$, $p < .001$), demonstrating that higher levels of AI-assisted academic dishonesty are associated with a stronger perceived impact of AI in learning environments.

Additionally, there is a moderate correlation between over-reliance on AI and plagiarism ($r = .608$, $p < .001$), highlighting that students who excessively depend on AI tools are more likely to engage in academic dishonesty. These findings align with previous studies suggesting that the accessibility of AI-driven tools may lead to ethical challenges in academic settings (Çela et al. 2024).

The results suggest that AI reliance and plagiarism are interrelated factors influencing students' academic behavior and the perceived role of AI in education. Future research should explore strategies to mitigate these negative consequences while leveraging AI's benefits in learning.

4.3 Assumptions of the regression analysis

Multicollinearity was assessed using tolerance and variance inflation factor (VIF) values. According to Hair et al. (2018), tolerance values below 0.10 and VIF values above 10 indicate severe multicollinearity. In this study, both Plagiarism and Over-Reliance have tolerance values of 0.630 and VIF values of 1.588, suggesting no significant multicollinearity issues.

4.3.1 Multicollinearity

Multicollinearity was assessed using tolerance and variance inflation factor (VIF) values. According to Hair et al. (2018), tolerance values below 0.10 and VIF values above 10 indicate severe multicollinearity. In this study, both Plagiarism and Over-Reliance have tolerance values of 0.630 and VIF values of 1.588, suggesting no significant multicollinearity issues.

https://doi.org/10.24191/jcrinn.v10i2.529

Table 5. Multicollinearity

Variables	Collinearity Statistics	
	Tolerance	VIF
Plagiarism	0.630	1.588
Over-Reliance	0.630	1.588

4.3.2 Normality

The normality of the data was assessed using both graphical and numerical methods. The q-q plot for the impact of AI variable indicates that data points closely follow the diagonal reference line, suggesting approximate normality. Additionally, skewness and kurtosis values were examined to support this assumption. According to Hair et al. (2018), skewness values between -1 and 1 and kurtosis values within ±1 indicate an approximately normal distribution. the results show that impact of AI (-0.644, -0.113), plagiarism (-0.061, -0.061), and over-reliance (-0.532, -0.135) all fall within acceptable ranges, confirming normality (Tabachnick & Fidell, 2019). Since no severe deviations were observed, the normality assumption is satisfied, making the dataset suitable for parametric analyses such as correlation and regression.

Table 6. The normality result

Variables	Skewness	Kurtosis	Interpretation
Impact of AI	-0.644	-0.113	Approximate normal
Plagiarism	-0.061	-0.061	Approximate normal
Over Reliance	-0.532	-0.135	Approximate normal

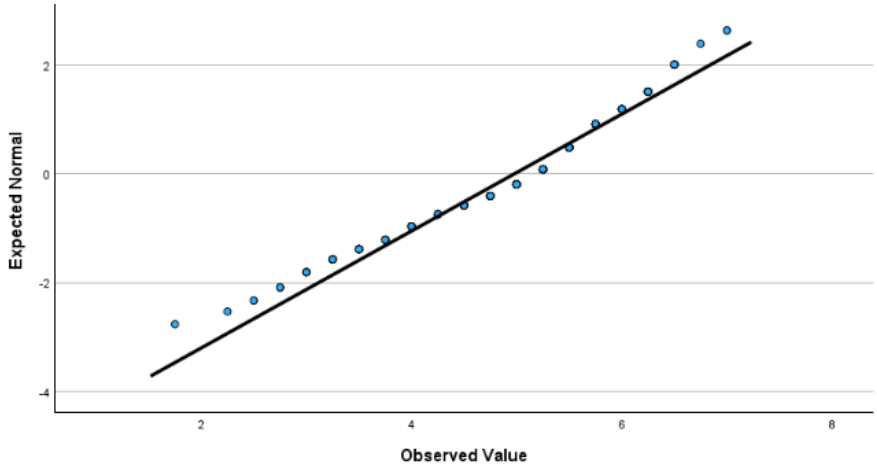

Fig. 2. Normal Q-Q plot

4.3.3 Homogeneity of variance

The scatterplot of standardized residuals versus standardized predicted values in Fig. 3 indicates no clear pattern, suggesting homoscedasticity, meaning the variance of errors remains constant across

https://doi.org/10.24191/jcrinn.v10i2.529

predictions (Field, 2018). The residuals appear randomly dispersed, fulfilling the assumption of homogeneity of variance, which is essential for reliable regression analysis (Tabachnick & Fidell, 2019).

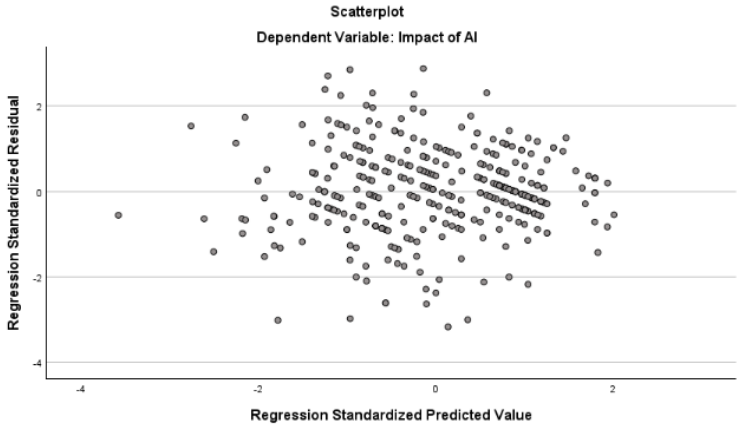

Fig. 3. Scatterplot of residual versus predicted

4.3.4 Linearity and normality of residuals

The assumptions of linearity were evaluated using a scatter plot of the observed versus predicted values. The plot revealed a reasonably straight-line pattern without notable curvilinear trends, indicating that the relationship between the independent variables (over-reliance on AI and plagiarism) and the dependent variable (the impact of AI) is approximately linear. This validates the appropriateness of applying linear regression to the data (Pallant, 2020).

Based on Fig. 2, the residuals are closely on the diagonal line, indicating that they are approximately normally distributed. This satisfies the normality assumption of regression, which is crucial for accurate p-values and confidence intervals in the model (Hair et al., 2018).

The Durbin Watson statistic, which was 1.958, further confirmed the independence of residuals, as values close to 2 suggest no autocorrelation (Field, 2018). Therefore, the assumptions of linearity, normality of residuals, and independence of errors were all sufficiently met.

4.4 Regression analysis

A multiple regression analysis was conducted to examine the influence of over-reliance on AI and plagiarism on the impact of AI in higher education. The model summary (Table 7) shows that the regression model is statistically significant, $R = .624$, $R^2 = .389$, Adjusted $R^2 = .386$, indicating that 38.9% of the variance in AI's impact is explained by the predictors ($F(2,354) = 112.740$, $p < .001$).

Table 7. Test of Significant of Coefficient

Variables	Unstandardized Coefficient Value	t-statistics	p-value
Constant	2.011	9.827	0.000
Plagiarism	0.435	8.925	0.000
Over - Reliance	0.210	4.152	0.000

https://doi.org/10.24191/jcrinn.v10i2.529

The regression analysis reveals that both over-reliance on AI and plagiarism significantly predict the impact of AI in higher education. The regression equation is:

$$\text{Impact of AI} = 2.011 + 0.435\ \text{Plagiarism} + 0.210\ \text{Over} - \text{Reliance} \quad (3)$$

Both predictors show statistically significant relationships with the dependent variable, as indicated by their p-values (<0.001). Over-reliance on AI (b=0.435, t = 8.925, p-value <0.001) has a stronger influence compared to plagiarism (b=0.210, t = 4.152, p-value <0.001). These findings suggest that excessive dependence on AI and academic dishonesty contribute to its overall impact, supporting the need for policy interventions (Field, 2018).

5. CONCLUSION

The integration of AI tools in higher education presents both promising opportunities and notable challenges. This study highlights the significant role of digital literacy in shaping students' acceptance of AI-driven learning environments. Through the application of correlation and regression analysis, the research demonstrates that factors such as effort expectancy and performance expectancy directly impact students' behavioral intention to adopt AI tools. These findings align with existing literature, suggesting that technological competency and perceived usefulness are crucial determinants of AI acceptance (Venkatesh et al., 2003).

Despite the benefits of AI-enhanced learning, ethical concerns remain a major challenge. Issues such as data privacy, algorithmic bias, and the potential for academic dishonesty necessitate a balanced approach to AI implementation in educational settings. Institutions must establish clear guidelines to address these concerns, ensuring that AI tools are used responsibly and inclusively (Vieriu & Petrea, 2025).

Moreover, the study emphasizes the need for comprehensive digital literacy programs to bridge the gap between technological advancements and students' capabilities. Educators should be equipped with AI related training to facilitate effective implementation while mitigating ethical risks. Future research should explore the long-term effects of AI adoption on student learning outcomes and investigate cross-cultural perspectives on AI acceptance.

In conclusion, AI holds immense potential to revolutionize higher education, but its success depends on a well-structured framework that prioritizes ethical considerations and digital literacy. By fostering an inclusive AI-driven learning environment, higher education institutions can harness the full potential of AI while ensuring fairness, transparency, and accessibility for all students.

6. ACKNOWLEDGMENTS/FUNDING

The authors would like to acknowledge the support of Universiti Teknologi Mara (UiTM), Perak Branch, Tapah Campus for the support of the research support on this research.

7. CONFLICT OF INTEREST STATEMENT

The authors agree that this research was conducted in the absence of any self-benefits, commercial or financial conflicts and declare the absence of conflicting interests with the funders.

https://doi.org/10.24191/jcrinn.v10i2.529

8. AUTHORS' CONTRIBUTIONS

Nor Aslily Sarkam reviewed the interpretation of the results and supervised the overall writing of the article. **Nor Hazlina Mohammad** thoroughly proofreads the article and provided suggestions for improvement. **Nurizatie Farhanim Saiful Lizam**, **Nurul Ain Azmi**, and **Nadhira Yasmin Mazli** conducted the fieldwork, prepared the literature review and methodology. **Mizan Qamalia Mohd Dzahir** and **Ros Amira Arisha Md Isa** were responsible for instrument and data validation, reviewed the interpretation of the results, and contributed to refining the article.

9. REFERENCES

Ahmad, N. A., & Rahman, D. (17 April, 2024). *AI dorong siswa ciplak tugasan, gugat etika akademik*. Berita Harian. https://www.bharian.com.my/rencana/komentar/2024/04/1235730/ai-dorong-siswa-ciplak-tugasan-gugat-etika-akademik

Ahmad, S. F., Han, H., Alam, M. M., Rehmat, M. K., Irshad, M., Arraño-Muñoz, M., & Ariza-Montes, A. (2023). Impact of artificial intelligence on human loss in decision making, laziness and safety in education. *Humanities and Social Sciences Communications, 10*, 311. https://doi.org/10.1057/s41599-023-01787-8

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Atmini, S., Jusoh, R., Prastiwi, A., Wahyudi, S. T., Hardanti, K. N., & Widiarti, N. N. (2024). Plagiarism among accounting and business postgraduate students: A fraud diamond framework moderated by understanding of artificial intelligence. *Cogent Education, 11*(1), 2375077. https://doi.org/10.1080/2331186X.2024.2375077

Çela, E., Fonkam, M. M., & Potluri, R. M. (2024). Risks of AI-assisted learning on student critical thinking: A case study of Albania. *International Journal of Risk and Contingency Management, 12*(1), 19. https://doi.org/10.4018/IJRCM.350185

Chechitelli, A. (2023, May 30). *AI writing detection update from Turnitin's Chief Product Officer*. Turnitin. https://www.turnitin.co.uk/blog/ai-writing-detection-update-from-turnitins-chief-product-officer

Darvishi, A., Khosravi, H., Sadiq, S., Gašević, D., & Siemens, G. (2024). Impact of AI assistance on student agency. *Computers and Education, 210*, 104967. https://doi.org/10.1016/j.compedu.2023.104967

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340. https://doi.org/10.2307/249008

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). University of Sussex, UK, SAGE Publications Ltd.

Fisher, J. (19 September 2024). *Parents, here's what you need to know about your teen's use of AI.* Lifewire. https://www.lifewire.com/teen-ai-use-8715109?utm_source=chatgpt.com

Gocen, A., & Aydemir, F. (2020). Artificial intelligence in education and schools. *Research on Education and Media, 12*(1), 13–21. https://doi.org/10.2478/rem-2020-0003

Gruenhagen, J. H., Sinclair, P. M., Carroll, J. A., Baker, P. R. A., Wilson, A., & Demant, D. (2024). The rapid rise of generative AI and its implications for academic integrity: Students' perceptions and use of chatbots for assistance with assessments. *Computers and Education: Artificial Intelligence, 7*,

100273. https://doi.org/10.1016/j.caeai.2024.100273

Gujarati, D. N., Porter, D. C., & Pal, M. (2019). *Basic Econometrics* (6th ed.). MC Graw Hill India.

Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2018). *Multivariate data analysis* (8th ed.). Cengage.

Hutson, J. (2024). Rethinking plagiarism in the era of generative AI. *Journal of Intelligent Communication, 3*(2), 20-31. https://doi.org/10.54963/jic.v3i2.220

Ismail, A. A. (2024). Over-reliance of AI tools in academic writing tasks: The Malaysian tertiary level context. In *E-Prosiding Persidangan Antarabangsa Sains Sosial & Kemanusiaan kali ke-9 (PASAK9 2024)* (pp. 218-224).

Khalaf, M. A. (2025). Does attitude towards plagiarism predict aigiarism using ChatGPT? *AI and Ethics, 5*, 677-688. https://doi.org/10.1007/s43681-024-00426-5

Kline, R. B. (2016). *Principles and practice of structural equation modeling* (4th ed.). The Guilford Press.

Klingbeil, A., Grützner, C., & Schreck, P. (2024). Trust and reliance on AI — An experimental study on the extent and costs of overreliance on AI. *Computers in Human Behavior, 160*, 108352. https://doi.org/10.1016/j.chb.2024.108352

Kushmar, L. V., Vornachev, A. O., Korobova, I. O., & Kaida, N. O. (2022). Artificial Intelligence in Language Learning: What Are We Afraid of. *Arab World English Journal (AWEJ) Special Issue on CALL*(8). 262-273. https://dx.doi.org/10.24093/awej/call8.18

Latif, F. (1 November 2024). *Rely too much on AI and we risk becoming powerless, PM Anwar warns students*. Malaymail. https://www.malaymail.com/news/malaysia/2024/11/01/rely-too-much-on-ai-and-we-risk-becoming-powerless-pm-anwar-warns-students/155502

Livberber, T., & Ayvaz, S. (2023). The impact of Artificial Intelligence in academia: Views of Turkish academics on ChatGPT. *Heliyon, 9*(9), e19688. https://doi.org/10.1016/j.heliyon.2023.e19688

Luo, H., & Kong, H. (2024). ChatGPT plagiarism in the academic field: Exploration and analysis of plagiarism effects. In *2024 International Conference on Machine Learning and Intelligent Computing,* (Vol. 245, pp. 1-11). Proceedings of Machine Learning Research.

Malik, A. R., Pratiwi, Y., Andajani, K., Numertayasa, I. W., Suharti, S., Darwis, A., & Marzuki. (2023). Exploring artificial intelligence in academic essay: Higher education student's perspective. *International Journal of Educational Research Open, 5*, 100296. https://doi.org/10.1016/j.ijedro.2023.100296

Niloy, A. C., Hafiz, R., Md, B., Hossain, B. M. T., Gulmeher, F., Sultana, N., Islam, K. F., Bushra, F., Islam, S., Hoque, S. I., Rahman, M. A., & Kabir, S. (2024). AI chatbots: A disguised enemy for academic integrity? *International Journal of Educational research Open, 7*, 100396. https://doi.org/10.1016/j.ijedro.2024.100396

Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.), McGraw Hill.

Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS* (7th ed.), Routledge. https://doi.org/10.4324/9781003117452

Sozon, M., Pok, W. F., Sia, B. C., & Alkharabsheh, O. H. M. (2024). Cheating and plagiarism in higher education: a systematic literature review from a global perspective, 2016–2024. J*ournal of Applied*

Research in Higher Education. https://doi.org/10.1108/JARHE-12-2023-0558

Spatola, N. (2024). The efficiency-accountability tradeoff in AI integration: Effects on human performance and over-reliance. *Computers in Human Behavior: Artificial Humans, 2*(2), 100099. https://doi.org/10.1016/j.chbah.2024.100099

Stojanov, A., Liu, Q., & Koh, J. H. L. (2024). University students' self-reported reliance on ChatGPT for learning: A latent profile analysis. *Computers and Education: Artificial Intelligence, 6*, 100243. https://doi.org/10.1016/j.caeai.2024.100243

Tabachnick, B. G., & Fidell, L. S. (2019). *Using multivariate statistics* (7th ed.). Pearson.

Taber, K. S. (2018). The use of Cronbach's Alpha when developing and reporting research instruments in science education. *Research in Science Education, 48*, 1273-1296. https://doi.org/10.1007/s11165-016-9602-2

Teo, T. (2010). Validation of the technology acceptance measure for pre-service teachers (TAMPST) on a Malaysian sample: A cross-cultural study. *Multicultural Education & Technology Journal*, *4*(3), 163-172. http://doi.org/10.1108/17504971011075165

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). *MIS Quarterly, 27*(3), 425-478. https://doi.org/10.2307/30036540

Vieriu, A. M., & Petrea, G. (2025). The Impact of Artificial Intelligence (AI) on Students' Academic Development. *Education Sciences, 15*(3), 343. https://doi.org/10.3390/educsci15030343

Yim, I. H. Y. (2024). A critical review of teaching and learning artificial intelligence (AI) literacy: Developing an intelligence-based AI literacy framework for primary school education. *Computers and Education: Artificial Intelligence, 7*, 100319. https://doi.org/10.1016/j.caeai.2024.100319

Zhai, C., Wibowo, S., & Li, L. D. (2024). The effects of over-reliance on AI dialogue systems on students' cognitive abilities: A systematic review. *Smart Learning Environments, 11*, 28. https://doi.org/10.1186/s40561-024-00316-7

https://doi.org/10.24191/jcrinn.v10i2.529