



Exploring Ethical and Quality Dimensions of Artificial Intelligence Influence on Trust

Elfindah Princes

Faculty of Law, Tarumanaraga University, Jakarta, Indonesia

Wilma Silalahi

Faculty of Law, Tarumanaraga University, Jakarta, Indonesia

ABSTRACT

In the rapidly evolving landscape of digital transformation, the utilization of Artificial Intelligence (AI) plays a crucial role in shaping human interaction with technology. This research investigates the intricate dynamics influencing the level of trust in the context of AI use, with a focus on AI as an information/news medium. The study explores factors such as the quality of AI-generated output, user perceptions, and moderating variables including information accuracy, balance, and sources. By delving into the impact of model collapse and AI inbreeding on user trust, as well as ethical considerations, the research aims to provide valuable insights for the development of more trustworthy AI technology.

OBJECTIVE - The primary objective of this research is to explore the influence of using AI as an information/news medium on the level of user trust. Specific goals include understanding the relationship between AI use and user trust, identifying moderating factors, analyzing the impact of model collapse and AI inbreeding, and examining the role of ethical policies in shaping user trust.

METHODOLOGY - The research adopts a quantitative approach, treating the relationship between AI use and trust as a regression problem. The level of trust serves as the dependent variable (Y), while AI use is the independent variable (X). Survey items are designed to capture the conceptual variables, including three statements characterizing AI and three characterizing trust. Data collection involves online surveys and questionnaires targeting individuals who read information/news online. Structural Equation Modeling (SEM) is employed for data analysis, incorporating validity and reliability tests.

FINDINGS - The validity tests reveal that certain indicators meet convergent validity, while reliability tests indicate that the Trust variable satisfies reliability criteria. However, the Artificial Intelligence variable falls short of reliability standards. The model summary suggests that Artificial Intelligence explains 6.5% of the diversity in influencing Trust, and the hypothesis testing results indicate a positive but insignificant relationship between AI and Trust.

NOVELTY - This research contributes significantly by exploring the impact of AI on user trust in the information/news domain. Practical insights are provided for the development of trustworthy AI systems, addressing risks like model collapse and AI inbreeding. The study also contributes to ethical considerations, emphasizing the role of ethical policies in enhancing user trust. Developers, media industry players, and policymakers can benefit from the guidance offered in responding to challenges and opportunities in the evolving landscape of AI technology. In conclusion, while the impact of AI on user trust is positive, its significance is nuanced. The findings suggest avenues for optimization, improvements, and strategic planning to navigate the complexities of AI trends and their influence on user trust.

Keywords: *Artificial Intelligence; User Trust; Information Medium; Digital Transformation; Model Collapse; AI Inbreeding*

JEL Classification: O33, D83, M15, L86

Article Info: Received

Article Correspondence: elfindah.princes@binus.ac.id

Recommended Citation: Princes, E., & Silalahi, W. (2025). Exploring Ethical and Quality Dimensions of Artificial Intelligence Influence on Trust. *Journal of Multidisciplinary Issues (JMIS)*, 5(2), 28–35.

<https://doi.org/10.53748/jmis.v5i2.46>



I. INTRODUCTION

In the era of digital transformation, the use of Artificial Intelligence (AI) is increasingly pervading various aspects of life, including human interaction with technology (Arslan et al., 2022). In this regard, attention to the impact of AI on the level of trust is becoming increasingly important (Lukyanenko et al., 2022). This research aims to explore certain aspects that may influence the level of trust in the context of AI use, such as the quality of AI output, and user perception. With a deeper understanding of these dynamics, it is hoped that this research can provide valuable insight into the development of AI technology that is more trustworthy and acceptable to users.

This research focuses on the role of Artificial Intelligence (AI) as an information/news medium and seeks to understand the influence of the use of AI in presenting news on the level of user trust. The problem formulation includes an analysis of factors that can moderate the relationship between the use of AI and the level of trust, such as information accuracy, balance, and information sources. The research will also explore user perceptions of the reliability of information generated by AI in presenting news, as well as test the impact of model collapse and AI inbreeding on user trust in AI-generated news. Ethical aspects of using AI to present news will also be examined, with a focus on the extent to which ethical policies can influence the level of trust users have in the information provided by Artificial Intelligence technology.

The aim of this research is to explore the influence of using Artificial Intelligence (AI) as an information/news medium on the level of user trust. Through this research, we aim to understand the extent to which the use of AI in presenting news influences users' perceptions of trust, identify factors that can moderate this relationship, and analyze the impact of model collapse and AI inbreeding on users' trust in news produced by AI technology. The research will also explore the role of ethics in the use of AI to present news, with the aim of identifying the extent to which ethical policies can shape and increase users' trust in the information presented by AI. By focusing on these aspects, this research is expected to provide deep insight into the complexity of the dynamics between AI, information media, and user trust.

This research provides significant benefits by exploring the impact of using Artificial Intelligence (AI) as an information/news medium on the level of user trust. Through in-depth analysis, this research can provide practical insights for the development of more trustworthy AI systems, guide better design, and identify potential risks such as model collapse and AI inbreeding. In addition, this research contributes to the ethical aspect by exploring the role of ethical policies in shaping users' trust in the information presented by AI technology, ensuring that the use of AI in presenting news complies with moral and ethical standards. Overall, this research provides valuable guidance for developers, media industry players, and policy makers in responding to the challenges and opportunities that arise as AI technology develops in the information and news realm.

The scope of this research includes an in-depth investigation of the impact of using Artificial Intelligence (AI) as an information/news medium on the level of user trust. This research will focus analysis on factors that moderate the relationship between AI use and user trust, including information accuracy, balance, and information source. In addition, this research will explore user perceptions of the reliability of information generated by AI in presenting news. Ethical aspects of AI use will also be part of the scope, with in-depth research into the role of ethical policies in shaping and enhancing user trust. By taking into account potential risks such as model collapse and AI inbreeding, this research will provide a comprehensive picture of the complexity of the relationship between AI, information media, and user trust.

II. LITERATURE REVIEW

The literature review will investigate recent developments in Artificial Intelligence (AI) technology focused on content generation, specifically involving models such as ChatGPT. Literature regarding the use of AI in the media and news industry will be explored to understand the impact of AI-generated content on the quality and reliability of information. Additionally, an analysis of the literature regarding AI content detection and algorithm weaknesses will provide insight into the methods and challenges faced in identifying such content. Controversial case studies such as CNET and Microsoft articles will also be examined to gain an in-depth understanding of how factual inaccuracies in AI content affect public trust. Other factors that will be examined include the role of human oversight in the development of AI models, ethical considerations regarding the use of AI content, and the impact on the media industry and public trust in online information. This literature review will provide a critical basis for formulating a comprehensive research framework and identifying areas requiring further research.

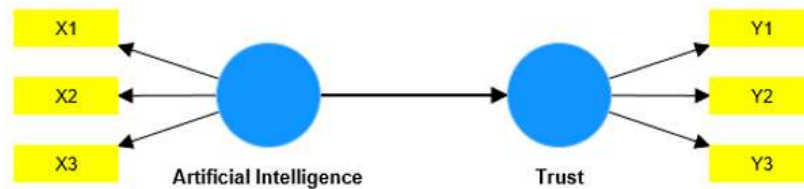


Figure 1. Proposed Framework Model

Hypothesis Development

The primary hypothesis in the formulation of theories on the relationship between artificial intelligence (AI) and trust is that user trust levels are positively impacted by the perceived efficacy, transparency, and dependability of AI systems (Sari, 2022; Wanner et al., 2022; Riedl, 2022). The theory contends that consumers are more inclined to trust and depend on AI technologies when they believe these systems to be precise, reliable, and able to accomplish their intended objectives (Teodorescu et al., 2023; Kuen et al., 2023; Shamim et al., 2023). Furthermore, trust is predicted to be impacted by the transparency of AI decision-making processes, with increased transparency leading to better user trust levels (Yu & Li, 2022). Furthermore, the hypothesis proposes that user familiarity and comprehension of AI features shape trust, assuming that users who are better informed about AI operations may demonstrate higher levels of trust (Horowitz et al., 2023). Therefore, based on the discussion, the hypothesis of this study is:

H1: Artificial intelligence positively influences trust.

From the conceptual model given in Figure 1, it can be seen that there is one hypothesis proposed.

III. METHODOLOGY

This research question essentially responds to the question of how far the use of Artificial Intelligence affects the level of trust. From a statistical analysis perspective, this problem can be interpreted as a regression problem, where the level of trust (Trust) acts as the dependent variable (Y), while the use of Artificial Intelligence (AI) is the independent variable (X). In this context, the research aims to understand and measure the conceptual relationship between the use of Artificial Intelligence and the level of trust.

Variable Measurement



Because Artificial Intelligence and Trust are conceptual (unobservable) variables, a set of three statements that characterize Artificial Intelligence (AI) and a statement that characterizes the level of trust (Trust) are needed as indicators or operational variables (see Table 1).

Table 1. Survey Items

Construct	Items	Survey Items
Artificial Intelligence	X1	Artificial Intelligence (AI) provides fairly accurate information/news.
	X2	Artificial Intelligence (AI) provides good quality information/news.
	X3	Information / news provided by Artificial Intelligence (AI) needs to be recommended to other people.
Trust	Y1	People believe that information/news obtained online is actual information.
	Y2	The public believes that the information/news obtained online is reliable.
	Y3	The public believes that the information/news obtained online is in accordance with the facts.

Information:

STS = Strongly Disagree

TS = Disagree

N = Neutral

S = Agree

SS = Strongly Agree

Data collection in this research can be carried out through various methods including online surveys or distributing questionnaires in the form of Google Forms for quantitative aspects such as user trust and public acceptance of AI content, content analysis to understand the narrative and impact of AI content through a qualitative approach. Respondents to this questionnaire are people who read information/news online. According to Taherdoost (2021), a questionnaire is a data collection technique that is carried out by giving several questions or written statements related to the research to the respondent's object which is intended to be answered.

Respondents' Demographic Profile

Respondents in the 16–30-year age group were 48 or 71.6%. The second largest group of respondents aged 31–50 was 16 or 23.9%, respondents in the 0–15-year age group were 2 or 3%, respondents in the 51–80-year age group were 1 or 1.5%. The data results show that the number of respondents who usually read information/news online is dominated by the age range of 21–25 years.

The results of data collection based on gender showed that there were more respondents who were male with a total of 36 respondents or 53.7%, while the other 31 respondents were female or 46.3%. The data results show that there are more male readers of online information/news than female in this study.

In this study, 32 respondents (47.8%) tended to occasionally read information/news online, while 18 respondents (26.9%) often read information/news online. Meanwhile, 17 respondents (25.4%) rarely read information/news online.

In this study, the highest number of respondents read information/news online via social media with a total of 42 respondents or 62.7%, while the second highest number of respondents were those who read information/news online via websites with a total of 19 or 28.4%. Lastly, there were 6 respondents who read information/news online via chatGPT or 9%.

The method used in this research is the Structural Equation Modeling (SEM) analysis method. There are two evaluation stages in this method, namely measurement model evaluation and structural model evaluation. Evaluate the measurement model to determine the relationship between latent variables and the indicators in them. The measurement model was tested by carrying out validity tests and reliability tests. The validity of the test is determined by convergent and discriminant validity of the indicators, and the reliability of the test can be determined by composite reliability and Cronbach's alpha.



The method used in this research is the Structural Equation Modeling (SEM) analysis method. The SEM analysis method is divided into two stages, namely evaluation of the measurement model and evaluation of the structural model.

IV. RESULTS AND DISCUSSION

Validity Test

The loading factor value of indicators X3, Y1, Y2 is greater than 0.7 so it can be concluded that these indicators have met convergent validity. For indicators X1, X2, and Y3 are less than 0.7, so it can be concluded that the Accuracy (X1), Quality (X2), and Fact (X3) indicators still do not meet convergent validity (see Table 2).

Table 2. Cross Loadings

Items	Artificial Intelligence	Trust
X1	0.139	-0.022
X2	-0.487	-0.127
X3	0.784	0.183
Y1	0.226	0.874
Y2	0.217	0.811
Y3	0.112	0.655

The results in Table 3 show that the Square Roots of Average Variances Extracted in the diagonal column are greater than the relationship between latent variables in columns other than the diagonal. This shows discriminant validity so that further processes can be continued. Discriminant validity can be said to be good if the root of the AVE in the construct is higher than the correlation of the construct with other latent variables, whereas in the cross-loading test it must show a higher indicator value for each construct compared to the indicators for other constructs (Sekaran & Bougie, 2016).

Table 3. Fornell-Larcker Criterion

Construct	Artificial Intelligence	Trust
Artificial Intelligence	0.539	
Trust	0.248	0.785

Reliability Test

It can be seen from the Trust variable that it has an AVE value greater than 0.5, which means that reliability has been met. It can be seen in Table 4 that the CR value of the Trust variable is greater than 0.7, which means the reliability test can be fulfilled. However, the CA value of the Trust variable has a value of less than 0.7, which means the reliability test is still not fulfilled. It can be seen that the CR and CA values of the Artificial Intelligence variable are less than 0.7, where the reliability test is still not fulfilled. And an AVE value of less than 0.5 still does not meet the reliability test.

Table 4. Alpha and AVE test

	Cronbach's Alpha	Composite Reliability (rho _a)	Average Variance Extracted (AVE)
Artificial Intelligence	0.282	-0.498	0.290
Trust	0.697	0.750	0.616

From Table 5, we can see that R-Squared for the Trust variable is low. This means that there is 6.5% diversity in Artificial Intelligence influencing Trust.

Table 5. Model Summary



Construct	R^2	Adjusted R^2
Trust	0.062	0.047

From the results of research conducted, it is proven that the relationship between Artificial Intelligence does not affect Trust because it has a p value > 0.05 , which means the relationship is not significant, and a path coefficient of 0.248, which means it has a positive relationship (Hair et al., 2019). But because the results are positive, the relationship is unidirectional, so when Artificial Intelligence rises, Trust also rises. Conversely, when Artificial Intelligence goes down, Trust also goes down. Framework model with the hypothesis testing results can be seen in Figure 1.

Table 6. Hypothesis Testing

Path	β	Sample Mean	STDEV	t Statistics	P Value
Artificial Intelligence $\rightarrow$ Trust	0.248	0.025	0.362	0.684	0.494

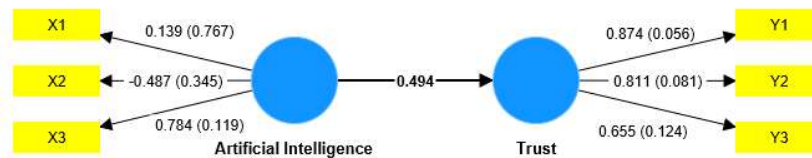


Figure 1. Framework Model with the Hypothesis Testing Results

V. CONCLUSION

In hypothesis testing, the results show that there is a positive and insignificant influence between Artificial Intelligence and Trust. Based on the results of hypothesis testing, the following are several managerial implications that can be considered. Even if the impact is not significant, management can still optimize the use of AI in activities that require trust, such as customer service or content personalization. Continuous improvements and adjustments to AI algorithms can help increase their impact. In response to concerns that AI content may be of poor quality, management can focus on improving the reliability and relevance of AI-generated content. Continuous research and improvements to AI models can help reduce the risk of the negative effects of “model collapse.” Human guidance is still considered important. Management may consider increasing human oversight in the AI model training and development process to ensure higher quality and reliability. Transparency in the use of AI and the data sources used is key. Management can improve communication to users and stakeholders about how AI is used, ethics in development, and steps taken to maintain quality. Given the potential difficulty of determining the original source of information used by an AI model, management may need to consider policies regarding content uploaded online. This could include more rigorous evaluation of published information. Management can educate users about the use of AI, understanding them about the limitations and strengths of this technology. This can help manage user expectations for AI-generated content. Given the development of AI technology, management can make long-term plans to deal with potential changes in AI trends and their impact on user trust.

REFERENCES

- Arslan, A., Cooper, C., Khan, Z., Golgeci, I., & Ali, I. (2022). Artificial intelligence and human workers interaction at team level: A conceptual assessment of the challenges and potential HRM strategies. *International Journal of Manpower*, 43(1), 75-88.



- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 13(1), 2-24.
- Horowitz, M. C., Kahn, L., Schneider, J., & Macdonald, J. (2023). Adopting AI: How familiarity breeds trust and contempt. *AI & Society*, <https://doi.org/10.1007/s00146-023-01666-5>
- Lukyanenko, R., Maass, W. & Storey, V.C. (2022). Trust in artificial intelligence: From a Foundational Trust Framework to emerging research opportunities. *Electronic Markets*, 32, 1993–2020.
- Kuen, L., Westmattmann, D., Bruckes, M., & Schewe, G. (2023). Who earns trust in online environments? A meta-analysis of trust in technology and trust in provider for technology acceptance. *Electronic Markets*, 33, 61. <https://doi.org/10.1007/s12525-023-00672-1>
- Riedl, R. (2022). Is trust in artificial intelligence systems related to user personality? Review of empirical evidence and future research directions. *Electronic Markets*, 32, 2021–2051.
- Sari, H. C. (2022). The impact of perceived risk, perceived benefit, and trust on customer intention to use Tokopedia apps. *Jurnal Bisnis Strategi*, 31(2), 145-159.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill-building approach*. 7th Edition. Wiley & Sons.
- Shamim, S., Yang, Y., Ul Zia, N., Khan, Z., & Shariq, S. M. (2023). Mechanisms of cognitive trust development in artificial intelligence among front line employees: An empirical examination from a developing economy. *Journal of Business Research*, 167, 114168.
- Taherdoost, H. (2021). Data collection method and tools for research: A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management*, 10(1), 10-38.
- Teodorescu, D., Aivaz, K-A., Vancea, D. P. C., Condrea, E., Dragan, C., & Olteanu, A. C. (2023). Consumer Trust in AI Algorithms Used in E-Commerce: A Case Study of College Students at a Romanian Public University. *Sustainability*, 15(15), 11925.
- Wanner, J., Herm, L. V., Heinrich, K. & Janiesch, C. (2022). The effect of transparency and trust on intelligent system acceptance: Evidence from a user-based study. *Electronic Markets*, 32, 2079–2102.
- Yu, L., & Li, Y. (2022). Artificial intelligence decision-making transparency and employees' trust: The parallel multiple mediating effect of effectiveness and discomfort. *Behavioral Sciences*, 12(5), 127.