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Understanding AI Stress Among Higher Education Students Through Validation of the AI Anxiety Scale

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ABSTRACT

The rapid integration of Artificial Intelligence (AI) into higher education has significantly transformed students' learning practices, particularly as AI tools become increasingly embedded in academic activities. While AI enhances efficiency and productivity, it also raises psychological concerns related to competence development, technical complexity, and future career uncertainty. This study aims to validate the AI Anxiety Scale (AIA Scale) within the Indonesian higher education context and to examine the determinants of AI anxiety among students. A quantitative approach was employed using survey data collected from 240 university students. The instrument demonstrated good validity and reliability, and the structural model met acceptable goodness-of-fit criteria using SEM-AMOS analysis. The model includes four antecedent variables, learning, AI configuration, job replacement, and sociotechnical blindness. The findings reveal that learning and AI configuration have positive and significant effects on AI anxiety, indicating that anxiety is primarily driven by challenges in acquiring AI-related competencies and dealing with technical aspects of AI systems. In contrast, job replacement does not significantly influence AI anxiety, suggesting that career-related concerns remain relatively abstract for students. Interestingly, sociotechnical blindness shows a negative and significant effect, implying that broader concerns about the social and ethical implications of AI do not necessarily increase personal anxiety. This study highlights that AI anxiety is more strongly influenced by immediate, experience-based factors rather than long-term career concerns. The findings contribute to the literature on technology-related anxiety and offer practical implications for designing supportive and adaptive AI-integrated learning environments in higher education.

Keywords: AI anxiety, Artificial intelligence, Higher education, Student, Technology adoption.

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INTRODUCTION

The development of artificial intelligence (AI) technology has shown significant acceleration in recent years (Chennupati, 2024; Zheng et al., 2023). Various alternatives from various providers, such as ChatGPT and Gemini, have transformed learning, work, and how humans interact with technology (Ahmad et al., 2023). Many technological applications in everyday life are beginning to integrate AI with the aim of user convenience (Zhu, 2025). In educational settings, the use of AI has become a daily part of

life, no longer merely experimental (Ahamed, 2025). Students use AI for learning, searching for references, summarizing literature, and even analyzing data (Ward et al., 2025).

The adoption of AI, which offers efficiency to its users, has raised a growing psychological concern: AI anxiety (Caporusso, 2023). This anxiety, also known as AI Anxiety (AIA), manifests itself as fear, worry, or threat due to the presence of AI in daily life (Batool et al., 2025; Coban et al., 2025; Y.-Y. Wang & Wang, 2022). This anxiety stems from the perception that AI is capable of replacing humans in various tasks and decision making (Li & Huang, 2020). For those who are used to using technology and facing technological transformation, AI can be a double-edged sword, acting as either a tool or a competitor in the job market (Liu, 2023; Su et al., 2021).

The issue of AI anxiety can be a strategic issue in education, where a person's anxiety can affect their performance (Zhou, 2024). This reality is ironic when considering how students often use AI in their learning process, which also causes anxiety about AI affecting their own learning development (Yavich, 2025; Zhou, 2024). Investigating student anxiety towards AI is necessary as a strategic step in learning, which can begin with developing an AI anxiety measurement tool within the student context.

The research problem in this study is how learning, AI configuration, job replacement, and sociotechnical blindness affects AI anxiety of university students. These four factors are crucial in shaping anxiety about AI in the process of its use in higher education learning process. This study uses the AIA Scale model to investigate and measure AI anxiety in the context of university students in Indonesia.

LITERATURE REVIEW

Anxiety in Technology and AI Adoption

Technology anxiety is not a new phenomenon in the study of human behavior toward technological innovation (Nestik et al., 2019). This phenomenon has been present since the era of the personal computer (PC), where fear, anxiety, or discomfort arise when interacting with computers (Khasawneh, 2018). This then became the background for the emergence of the Technology Acceptance Model (TAM), which emphasizes the factors of perceived ease of use and perceived usefulness that influence technology acceptance (Davis, 1993). The TAM model emphasizes the cognitive aspects of individuals in dealing with technological developments.

Anxiety about AI as cutting-edge technology is more complex than anxiety about technology in general (Gerlich, 2024). AI is often perceived as an entity capable of replacing humans, with implications for anxiety that arises in the economic, social, and even the very existence of the technology itself (Asio & Suero, 2024; Chan & Petrikat, 2022). For students, as individuals expected to navigate social life amid AI disruption, this anxiety becomes particularly relevant (Rasouli et al., 2022).

Anxiety about AI does not always correlate with usage. Frequent AI users may feel more confident because they perceive themselves to have better technological literacy, or their anxiety may intensify due to their understanding of AI's disruptive potential (Lund et al., 2024; Zhou, 2024). This perspective suggests that measuring AI anxiety in the student context is crucial to providing a foundation for preparing students for the era of artificial intelligence (Dai et al., 2020).

AI Anxiety and AI Anxiety Scale

AI anxiety is a feeling of worry, fear, and stress associated with interacting with AI (Batool et al., 2025). Anxiety about AI has occurred in educational and professional contexts and has been extensively researched and linked to a person's performance and self-efficacy (Özbay, 2026). The influence of anxiety about AI can impact a person's motivation, both intrinsic and extrinsic (Asio & Suero, 2024). To some extent, self-efficacy can also be influenced by changes in motivation, which affects a person's performance (Asio & Suero, 2024; Özbay, 2026). In the educational context, this is concerning because

high levels of AI anxiety can lead to a negative attitude toward AI, which will certainly affect the learning process if someone wants help learning using AI.

The AI Anxiety Scale was developed to measure a person's level of anxiety regarding the existence of AI, more specifically than general measures of technology anxiety (Coban et al., 2025; Y.-Y. Wang & Wang, 2022). This scale identifies four variables that influence a person's anxiety about AI: learning, AI configuration, job replacement, and sociotechnical blindness (Y.-Y. Wang & Wang, 2022).

Learning

Learning refers to the anxiety of acquiring AI-related skills, insights, and competencies when working with or alongside AI systems (Coban et al., 2025; Y.-Y. Wang & Wang, 2022). Artificial intelligence can be positioned as a cognitive aid in understanding something. This potential can be viewed as a dependency, which can decrease critical thinking skills or competency, triggering anxiety about AI. The need to learn AI can trigger anxiety about the competence of using AI, thereby increasing AI anxiety.

H1: *Learning has an effect on AI Anxiety in college students*

AI Configuration

AI Configuration is the anxiety surrounding the technical configuration, setup, or operation of AI systems (Coban et al., 2025; Y.-Y. Wang & Wang, 2022). Artificial intelligence on the current scale is new, and understanding how AI is trained, how output is generated, and its limitations can lead to an overestimation of AI's sophistication and authority. This gap creates anxiety, which then becomes a factor in the identification of AI anxiety in individuals.

H2: *AI configuration has an effect on AI Anxiety in college students*

Job Replacement

Job replacement is the anxiety about how AI will replace a person's current role or cause them to lose their job or career (Coban et al., 2025; Y.-Y. Wang & Wang, 2022). The perception of how AI could take over their tasks can raise concerns about the relevance of a person's developed competencies. This anxiety can be linked to concerns about career security and professional identity. Fear of the potential for AI to replace oneself or others in job requirement increases anxiety about AI

H3: *Job replacement has an effect on AI Anxiety in college students*

Sociotechnical Blindness

Sociotechnical blindness is related to the anxiety of not being able to recognize or anticipate the negative social, ethical, or systemic impacts caused by AI (Coban et al., 2025; Y.-Y. Wang & Wang, 2022). This anxiety can arise because someone perceives AI as capable of developing independently, beyond human control and social structures. The perspective of the absolute threat of AI is rooted in the anxiety about the loss of space for human intervention and adaptation.

H4: *Sociotechnical blindness has an effect on AI Anxiety in college students*

METHOD

This study uses a quantitative approach to answer the research hypothesis. Data were obtained using a snowballing sampling technique, which involved administering a research questionnaire to active students as part of the population, which was then distributed to fellow active students. This technique is expected to provide the target sample size by utilizing their existing networks. Through this technique, the research sample consisted of active students currently studying at a university. Testing was carried

out using validity and reliability test, followed by a model-fit test before testing the hypotheses using SEM-AMOS. The framework of this research can be seen in Figure 1.

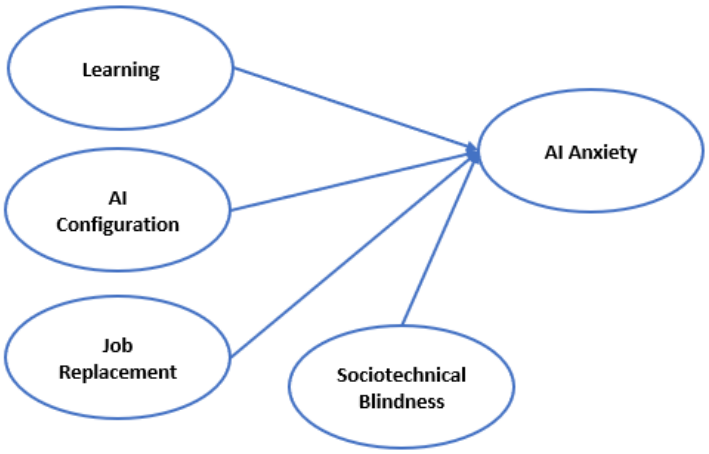


Figure 1. Research Framework

Data were collected from university students from various semesters. Research objectives were communicated to the participants, who served as the sample, so completion was voluntary. The research questionnaire was created online using Google Forms and distributed through various social media platforms, including WhatsApp, Facebook, Instagram, and Telegram. The questionnaire obtains 240 responses from respondents.

The research questionnaire was adapted from previous research, using 21 items representing four variables: learning, job replacement, sociotechnical blindness, and AI configuration (Y.-Y. Wang & Wang, 2022), with AI anxiety adapted from Wilson et al. (2022). Previous research often uses the AI Anxiety Scale, or AIAS, as a measurement tool (Alshaibani et al., 2025; Terzi, 2020; Y.-Y. Wang & Wang, 2022). The questionnaire items included in the questionnaire are shown in Table 1. As the purpose of this study is to adapt it to the context of Indonesian university students, the questionnaire items were contextualized with students as the object of measurement. The data collection results were then analyzed using SPSS and SEM-AMOS.

Table 1. Research Questionnaire Items

Variable	Code	Item
Learning	L1	Learning to understand all of the special functions associated with and AI application for my study in college makes me anxious
	L2	Leaning to use AI application for my study in college makes me anxious
	L3	Learning to use specific functions of an AI application for my study in college makes me anxious
	L4	Learning how an AI application works for my study in college makes me anxious
	L5	Learning to interact with an AI application for my study in college makes me anxious
	L6	Taking a class about the development of AI application makes me anxious
	L7	Reading an AI application manual for my study in college makes me anxious
	L8	Being unable to keep up with the advances associated with AI application for my study in college makes me anxious
Job Replacement	J1	I am afraid that an AI application I use in my study may make me dependent

Variable	Code	Item
	J2	I am afraid that an AI application I use in my study may make me even lazier
	J3	I am afraid that an AI application I use in my study may replace me
	J4	I am afraid that widespread use of AI application will take jobs away from me
	J5	I am afraid that if I begin to use AI applications in my study, I will become dependent upon them and lose some of my reasoning skills
	J6	I am afraid that AI application will replace someone's job
Sociotechnical Blindness	S1	I am afraid that an AI application may be misused
	S2	I am afraid of various problems potentially associated with an AI application
	S3	I am afraid that an AI application may get out of control and malfunction
	S4	I am afraid that an AI application may lead to AI autonomy
AI Configuration	C1	I find AI applications scary
	C2	I find AI applications intimidating
	C3	I don't know why, but AI applications scare me
AI Anxiety	A1	I am not an AI person
	A2	I am reluctant to learn new features of AI
	A3	I am uncomfortable using AI
	A4	AI does not improve my quality of life
	A5	I feel out of control using AI
	A6	I feel uneasy using AI
	A7	Keeping up with newest AI is impossible
	A8	I am inefficient with AI
	A9	Using AI makes me nervous
	A10	I feel AI complicates simple task

RESULTS

The characteristics of respondents in this study provide an overview of the profile of the students involved, particularly in relation to their use of and perceptions toward AI technology. The data presented in Table 2 are important for understanding the context of further analysis, as respondents' backgrounds may influence the level of AI anxiety they experience.

Table 2. Respondent Characteristic

Criteria		Freq	%
Gender	Men	115	48%
	Women	125	52%
Age	18-21 y/o	215	89%
	22-29 y/o	25	11%
Current job (or planned career after graduation) may be replaced by AI	Yes	130	54%
	No	110	46%
Have used AI-based products	Yes	195	81%
	No	45	19%

Criteria		Freq	%
Have used AI applications in the learning process	Yes	240	100%
	No	0	0%
Have utilized AI in completing academic assignments	Yes	233	97%
	No	7	3%

Based on the data collected, the total number of respondents in this study was 240 students. In terms of gender, the composition was relatively balanced, consisting of 115 male students (48%) and 125 female students (52%). Regarding age, the majority of respondents were in the 18–21 age range, accounting for 215 individuals (89%), while the remaining 25 respondents (11%) were aged between 22–29 years. This indicates that the respondents were predominantly early-year university students who are actively adapting to the academic environment and ongoing technological developments.

In terms of perceptions of AI within a career context, 130 respondents (54%) indicated that their current or future jobs have the potential to be replaced by AI, while 110 respondents (46%) did not share this view. This finding suggests a relatively significant level of concern regarding the impact of AI on students' future careers, which will be further examined through hypothesis testing in the subsequent stage of the study.

From the perspective of AI usage experience, the majority of respondents demonstrated a high level of exposure to this technology. A total of 195 respondents (81%) reported having used AI-based products, while 45 respondents (19%) had no such experience. In the context of completing academic assignments, 233 respondents (97%) stated that they had utilized AI, with only 7 respondents (3%) indicating that they had not. Furthermore, all respondents (100%) reported having used AI applications in their learning processes, indicating that AI has become an integral part of students' academic activities.

Validity and Reliability Test

The results of the validity test indicate that the majority of items in the research instrument have significance values (Sig. 2-tailed) below 0.05, therefore considered valid. However, several items were found to have significance values above 0.05, specifically items S3, S4, J3, J4, J5, and J6, indicating that these items are not valid and should be considered for elimination or revision in subsequent measurements. Based on these findings, the invalid items will be removed in the hypothesis testing process, and only the valid items will be retained for further analysis.

Regarding the reliability test, the Cronbach's Alpha value was 0.92, which exceeds the minimum threshold of 0.70. This indicates that the research instrument has excellent internal consistency and is reliable for measuring AI anxiety among the respondents.

Model Fit Test

This study employed SEM-AMOS to develop the research model and to examine the influence of exogenous variables on the endogenous variable, as illustrated in Figure 2.

Table 3. Model Fit Test

Parameter	Results	Conclusion
CMIN/DF	2.195	Acceptable Fit
GFI	0.842	Acceptable Fit
AGFI	0.826	Acceptable Fit
CFI	0.922	Acceptable Fit
RMSEA	0.071	Acceptable Fit

The results of the model fit test, presented in Table 3, indicate that the proposed research model meets acceptable fit criteria. The CMIN/DF value of 2.195 falls within the acceptable range, suggesting a good fit between the model and the data. Additionally, other fit indices such as GFI (0.842) and AGFI (0.826) are also categorized as acceptable fit. The CFI value of 0.922 indicates a good level of model fit, as it exceeds the recommended minimum threshold. Furthermore, the RMSEA value of 0.071 suggests that the model falls within the acceptable fit category, indicating that the approximation error remains within an acceptable range. Overall, these results demonstrate that the structural model used in this study is sufficiently adequate for further analysis.

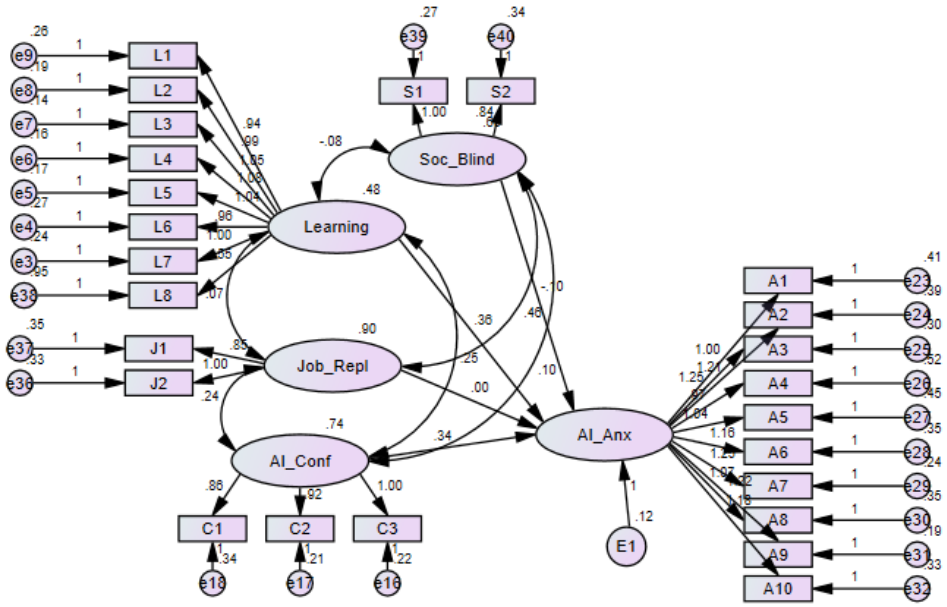


Figure 2. SEM-AMOS Test Framework

Hypotheses Test

The results of hypothesis testing were evaluated based on the critical ratio (C.R.) and significance (p-value) for each relationship between variables. A hypothesis is considered accepted if the p-value is less than 0.05. The results of the analysis are presented in Table 4.

Table 4. Hypotheses Test

Hypotheses	Estimate	S.E.	C.R.	P
Learning --> AI Anxiety	0.36	0.054	6.633	0.000
Job Replacement --> AI Anxiety	0.005	0.044	0.106	0.916
Sociotechnical Blindness --> AI Anxiety	— 0.1	0.051	-1.978	0.048
AI Configuration --> AI Anxiety	0.342	0.047	7.318	0.000

Based on the findings, the learning variable has a positive and significant effect on AI anxiety, with an estimated value of 0.36, a C.R. of 6.633, and a p-value of 0.000, therefore, H1 is accepted. Similarly, AI configuration also demonstrates a positive and significant effect on AI anxiety, with an estimated value of 0.342, a C.R. of 7.318, and a p-value of 0.000, leading to the acceptance of H2. In contrast, job replacement does not have a significant effect on AI anxiety, as indicated by an estimated value of 0.005, a C.R. of 0.106, and a p-value of 0.916. Thus, H3 is rejected. Meanwhile, sociotechnical blindness shows a negative and significant effect on AI anxiety, with an estimated value of -0.1, a C.R. of -1.978, and a p-value of 0.048, therefore, H4 is accepted.

Discussion

Based on the results obtained from the hypothesis testing process, the most influential factors affecting AI anxiety are those directly related to students' experience and understanding of AI (learning and AI configuration), rather than more abstract concerns such as job replacement. AI anxiety among students is a complex phenomenon influenced by multiple dimensions of anxiety, not only related to future career concerns but also to the technical experiences and learning processes they undergo when interacting with AI (Y.-M. Wang et al., 2022).

The learning variable, which in this study refers to anxiety in acquiring AI-related skills, insights, and competencies, has a positive and significant effect on AI anxiety. Students face challenges not only in using AI but also in understanding and mastering the technology. This anxiety may arise from the pressure to continuously keep up with the rapid development of AI, leading students to feel left behind or insufficiently competent (Chen et al., 2025).

AI configuration, which represents anxiety related to the technical aspects of setting up, using, and operating AI systems, also shows a positive and significant effect on AI anxiety. This finding indicates that the technical dimension of AI remains a source of discomfort for students. Although most students have experience using AI, not all possess a deep understanding of how these systems function or are configured, which may lead to a lack of confidence or fear of making mistakes (Chai & Sha, 2025; Rajbanshi et al., 2024). This suggests that anxiety arises not only from "what AI does," but also from "how AI works and is operated." (Chai & Sha, 2025; Chen et al., 2025)

In contrast, job replacement, defined as anxiety regarding the potential loss of employment due to AI, does not have a significant effect on AI anxiety. The findings suggest that although some students are aware of the possibility of job displacement, it has not yet become a primary source of anxiety. This may be due to the fact that students are not yet fully engaged in the workforce, especially that the majority of respondents to this study were students who were still at the beginning of their studies, making such concerns more abstract and not directly experienced (Y.-M. Wang et al., 2022).

Meanwhile, sociotechnical blindness, defined as anxiety stemming from the inability to recognize the broader social, ethical, and systemic impacts of AI, shows a negative and significant effect on AI anxiety. This finding is particularly interesting, as it indicates that students who feel more anxious about not understanding the broader implications of AI tend to exhibit lower overall AI anxiety (Christian et al., 2024; Rajbanshi et al., 2024). This may suggest a difference in the focus of anxiety, where individuals are more concerned with macro-level issues (social and ethical impacts) rather than immediate personal threats (Chen et al., 2025; Christian et al., 2024). Thus, reflective anxiety about the societal impact of AI does not necessarily increase personal anxiety toward AI itself (Chen et al., 2025; Y.-M. Wang et al., 2022).

Overall, the findings indicate that AI anxiety among students is more strongly influenced by immediate and personal concerns, particularly those related to self-competence and technical interaction with AI, rather than by abstract or long-term concerns. This highlights that the primary source of AI anxiety lies in individuals' readiness to meet new competency demands, rather than solely in external threats such as job displacement (Asio & Suero, 2024; Batool et al., 2025; Chen et al., 2025; Zhou, 2024).

CONCLUSION

This study aims to validate the AI Anxiety Scale instrument and to analyze the factors influencing AI anxiety among students in Indonesia. The results indicate that the instrument demonstrates good validity and reliability, making it suitable for measuring AI anxiety in the context of higher education. Additionally, the research model meets acceptable goodness-of-fit criteria, supporting the appropriateness of analyzing relationships among variables.

Empirically, the findings reveal that the learning and AI configuration variables have a positive and significant effect on AI anxiety. This suggests that students' anxiety is primarily driven by the demands of understanding and mastering AI, as well as the technical aspects involved in its use. In

contrast, the job replacement variable does not show a significant effect, indicating that concerns about job loss have not yet become a primary factor shaping students' anxiety. Meanwhile, sociotechnical blindness exhibits a negative and significant effect on AI anxiety, suggesting a distinct dynamic between anxiety related to the broader social impact of AI and personal anxiety toward the technology itself.

Recommendations

This study has several limitations that should be considered for the future study regarding AI anxiety in the higher education students. First, the majority of respondents fall within the 18–21 age range, indicating that the findings primarily represent early-stage university students and may not fully reflect the perspectives of individuals with work experience. Second, the study focuses on four main variables and does not account for other potential factors influencing AI anxiety, such as individual personality traits, digital readiness, or the level of support within the learning environment. Third, the high level of AI usage among respondents may result in findings that predominantly reflect individuals with strong exposure to the technology. It is possible that groups of students with limited or minimal exposure to AI are not significantly represented in this study.

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REFERENCES

Ahamed, I. (2025). The transformative role of Artificial Intelligence in modern education. World Journal of Advanced Research and Reviews, 26(1), 3239–3247. https://doi.org/10.30574/wjarr.2025.26.1.1453

Ahmad, N., Murugesan, S., & Kshetri, N. (2023). Generative Artificial Intelligence and the Education Sector. Computer, 56(6), 72–76. https://doi.org/10.1109/MC.2023.3263576

Alshaibani, M. H., Al-Rahmi, W. M., & Tawafak, R. M. (2025). Psychometric validation of the artificial intelligence anxiety scale: A confirmatory factor analysis for academic research. Contemporary Educational Technology, 17(4), ep595. https://doi.org/10.30935/cedtech/17309

Asio, J. M. R., & Suero, A. N. (2024). Artificial Intelligence Anxiety, Self-Efficacy, and Self-Competence among Students: Implications to Higher Education Institutions. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4973726

Batool, K., Noreen, H. R., Akram, S., Naseem, A., Zenab, S., Mehboob, I., & Javed, R. (2025). Artificial intelligence anxiety, self-efficacy and academic performance among university students. International Journal of Social Sciences Bulletin, 3(5), 490–494.

Caporusso, N. (2023). Generative Artificial Intelligence and the Emergence of Creative Displacement Anxiety. Research Directs in Psychology and Behavior, 3(1). https://doi.org/10.53520/rdpb2023.10795

Chai, T., & Sha, C. (2025). Prevention of AI learning anxiety: The chain mediation role of technophilia and AI self-efficacy under the context of teacher support. Acta Psychologica, 261, 105979. https://doi.org/10.1016/j.actpsy.2025.105979

Chan, C., & Petrikat, D. (2022). Impact of Artificial Intelligence on Business and Society. Journal of Business and Management Studies, 4(4), 01–06. https://doi.org/10.32996/jbms.2022.4.4.1

Chen, C., Hu, W., & Wei, X. (2025). From anxiety to action: exploring the impact of artificial intelligence anxiety and artificial intelligence self-efficacy on motivated learning of undergraduate students. Interactive Learning Environments, 33(4), 3162–3177. https://doi.org/10.1080/10494820.2024.2440877

Chennupati, A. (2024). The evolution of AI: What does the future hold in the next two years. World Journal of Advanced Engineering Technology and Sciences, 12(1), 022–028. https://doi.org/10.30574/wjaets.2024.12.1.0176

Christian, M., Pardede, R., Gularso, K., Wibowo, S., Muzammil, O. M., & Sunarno. (2024). Evaluating AI-Induced Anxiety and Technical Blindness in Healthcare Professionals. 2024 3rd International Conference on Creative Communication and Innovative Technology (ICCIT), 1–6. https://doi.org/10.1109/ICCIT62134.2024.10701255

Coban, N., Kar, D., & Berk, Ş. N. (2025). Artificial Intelligence Anxiety Levels of Faculty of Health Sciences Students and Affecting Factors. Archives of Health Science and Research, 12(1), 1–8. https://doi.org/10.5152/ArcHealthSciRes.2025.24147

Dai, Y., Chai, C.-S., Lin, P.-Y., Jong, M. S.-Y., Guo, Y., & Qin, J. (2020). Promoting Students' Well-Being by Developing Their Readiness for the Artificial Intelligence Age. Sustainability, 12(16), 6597. https://doi.org/10.3390/su12166597

Davis, F. D. (1993). User acceptance of information technology: system characteristics, user perceptions and behavioral impacts. International Journal of Man-Machine Studies, 38(3), 475–487. https://doi.org/10.1006/imms.1993.1022

Gerlich, M. (2024). Public Anxieties About AI: Implications for Corporate Strategy and Societal Impact. Administrative Sciences, 14(11), 288. https://doi.org/10.3390/admsci14110288

Khasawneh, O. Y. (2018). Technophobia: Examining its hidden factors and defining it. Technology in Society, 54, 93–100. https://doi.org/10.1016/j.techsoc.2018.03.008

Li, J., & Huang, J.-S. (2020). Dimensions of artificial intelligence anxiety based on the integrated fear acquisition theory. Technology in Society, 63, 101410. https://doi.org/10.1016/j.techsoc.2020.101410

Liu, J. (2023). From the Perspective of the Labor Market, The Opportunities and Challenges Brought by the New Generation of Artificial Intelligence Technologies such as ChatGPT are Analyzed. Scientific Journal of Technology, 5(5), 6–17. https://doi.org/10.54691/sjt.v5i5.4997

Lund, B. D., Mannuru, N. R., & Agbaji, D. (2024). AI anxiety and fear: A look at perspectives of information science students and professionals towards artificial intelligence. Journal of Information Science. https://doi.org/10.1177/01655515241282001

Nestik, T., Zhuravlev, A., Patrakov, E., Marianna, S. C., Lioudmila, B., Piurcosky, F. P., & Ferreira, J. V. (2019). Technophobia as A Cultural and Psychological Phenomenon. Interação - Revista de Ensino, Pesquisa e Extensão, 20(1), 266–281. https://doi.org/10.33836/interacao.v20i1.178

Özbay, Ö. (2026). Exploring the Relationship between Fear of Being without Artificial Intelligence, AI Addiction, and Academic Self-Efficacy among University Students. Osmangazi Journal of Educational Research, 12((Special Issue)), 23–40. https://doi.org/10.59409/ojer.1755463

Rajbanshi, S., Anthony, M., & J., G. K. (2024). Exploring the Role of AI Attitude and AI Perception on AI Anxiety Among Indian Students (pp. 91–106). https://doi.org/10.4018/979-8-3693-6366-9.ch005

Rasouli, S., Ghafurian, M., & Dautenhahn, K. (2022). Students' Views on Intelligent Agents as Assistive Tools for Dealing with Stress and Anxiety in Social Situations. Proceedings of the 10th

International Conference on Human-Agent Interaction, 23–31. https://doi.org/10.1145/3527188.3561932

Su, Z., Togay, G., & Côté, A.-M. (2021). Artificial intelligence: a destructive and yet creative force in the skilled labour market. Human Resource Development International, 24(3), 341–352. https://doi.org/10.1080/13678868.2020.1818513

Terzi, R. (2020). An Adaptation Of Artificial Intelligence Anxiety Scale Into Turkish: Reliability And Validity Study. International Online Journal of Education and Teaching (IOJET), 7(4), 1501–1515.

Wang, Y.-M., Wei, C.-L., Lin, H.-H., Wang, S.-C., & Wang, Y.-S. (2022). What drives students' AI learning behavior: a perspective of AI anxiety. Interactive Learning Environments, 1–17. https://doi.org/10.1080/10494820.2022.2153147

Wang, Y.-Y., & Wang, Y.-S. (2022). Development and validation of an artificial intelligence anxiety scale: an initial application in predicting motivated learning behavior. Interactive Learning Environments, 30(4), 619–634. https://doi.org/10.1080/10494820.2019.1674887

Ward, B., Bhati, D., Neha, F., & Guercio, A. (2025). Analyzing the Impact of AI Tools on Student Study Habits and Academic Performance. 025 IEEE 15th Annual Computing and Communication Workshop and Conference (CCWC), 434–440.

Wilson, M. L., Huggins-Manley, A. C., Ritzhaupt, A. D., & Ruggles, K. (2022). Development of the Abbreviated Technology Anxiety Scale (ATAS). Behavior Research Methods, 55(1), 185–199. https://doi.org/10.3758/s13428-022-01820-9

Yavich, R. (2025). Will the Use of AI Undermine Students Independent Thinking? Education Sciences, 15(6), 669. https://doi.org/10.3390/educsci15060669

Zheng, W., Liu, C., Yang, B., & Yang, Y. (2023). Advances in Artificial Intelligence for Perception Augmentation and Reasoning. Applied Sciences, 13(7), 4227. https://doi.org/10.3390/app13074227

Zhou, J. (2024). The Impact of AI Use on College Students' Academic Self-efficacy: Exploring the Mediating Role of Anxiety. Lecture Notes in Education Psychology and Public Media, 75(1), 139–146. https://doi.org/10.54254/2753-7048/2024.17925

Zhu, C. (2025). Artificial Intelligence Applications in Everyday Life. Applied and Computational Engineering, 121(1), 191–197. https://doi.org/10.54254/2755-2721/2025.20074