INTERNATIONAL

JOURNAL OF ADMINISTRATION AND EDUCATION

Volume 3, Number 3, 2026

ASHA PUBLISHING

E-ISSN: 3046-7632
International Journal of Administration and Education (IJAE)
https://journal.ashapublishing.co.id/index.php/ijae/hm

Artificial Intelligence Literacy and Digital Competence as Predictors of Work Readiness among Office Administration Students

Muh. Riswan[1], Muallim[2*]
[1]Universitas Cenderawasih
[2]Universitas Negeri Makassar
Corresponding author's email muallim@unm.ac.id

ABSTRACT

Artificial intelligence is automating routine administrative tasks, so office professionals need digital competence, an understanding of artificial intelligence, and the ability to protect digital documents. Drawing on a competence framework for digital skills and on employability research that treats digital literacy as an enabler of work readiness, this study examined whether digital competence, artificial intelligence literacy, and data security awareness predict work readiness among office administration students and how much each domain contributes. A cross-sectional survey of 69 students used twenty statements rated on a five-point frequency scale. The data were analyzed with descriptive statistics, reliability coefficients, Pearson and Spearman correlations, and multiple regression with bootstrap confidence intervals, assumption checks, relative importance analysis, and sensitivity analyses. All four variables were high, with means from 4.11 to 4.27, and the three predictors together explained 56.8 percent of the variance in work readiness. Artificial intelligence literacy (standardized coefficient .50) and digital competence (.32) were significant unique predictors, whereas data security awareness, although correlated with work readiness, added nothing once the other two were controlled. Artificial intelligence literacy accounted for about half of the explained variance, and the results were robust to sensitivity checks. The study is novel in modelling the three competence domains together among office administration students and in showing that literacy about artificial intelligence adds to general digital skills. Curricula should therefore add prompting, output checking, and responsible use to office applications, but the findings remain indicative because the data are self-reported, cross-sectional, and only modestly reliable.

Keywords: artificial intelligence literacy, digital competence, data security awareness, work readiness, office administration

INTRODUCTION

Artificial intelligence (AI) is reshaping administrative and office work. It automates routine tasks such as scheduling, data entry, and communication, supports administrative decisions with real-time analysis, and shifts some coordination tasks from people to systems (Awaisheh et al., 2024; Al Jnainati et al., 2025; Waewchimplee, 2026). In university administration, generative AI assistants answer enrollment and certification queries and have reduced the number of email inquiries (Carreón & Bucio, 2026; López-Galisteo, 2026), and professionals and students already use generative AI to draft documents, summarize information, and handle data, although they worry about accuracy and ethics (Christian et al., 2026; Hershkovitz et al., 2025). The ideal office professional in this setting combines digital skills with adaptability, critical thinking, ethical awareness, and continuous learning (Bastos et al., 2024; Kaakandikar & Sinkar, 2026; Swami et al., 2024), and digital skills and experience drive the acceptance of AI at work (Piotrowski & Revtiuk, 2026).

Digital competence is commonly defined through the DigComp framework, which organizes digital competence into dimensions and proficiency levels and is widely used for

curriculum planning and assessment (Vuorikari, 2022); in higher education it is usually measured with self-assessment scales (Mieg et al., 2024; Schaal et al., 2025; Silva-Quiroz & Rioseco-Pais, 2025). For office administration, digital competence is regarded as a fundamental job competency (Choi et al., 2025), and a study of administrative sciences students found gaps between required and self-assessed competences that motivated curricular reshaping through micro-credentials (Iucu & Cărțiș, 2025). AI literacy extends this base. It covers technical understanding, prompting, critical evaluation of AI output, and ethical use (Walter, 2024; Annapureddy et al., 2025; Öner, 2025), and it is structurally related to AI ethics, problem solving, and self-regulated learning (Bećirović et al., 2026).

Digital literacy is closely related to the employability and job readiness of university students (Zhu et al., 2026; Morgan et al., 2022; Li et al., 2024). Recent work describes digital literacy as an upstream enabler of work readiness and technological adaptability as a more proximal driver (Dara et al., 2026). In Indonesia, soft skills, digital literacy, and self-efficacy shape the work readiness of vocational high school students (Arfandi et al., 2026), and competence in smart technology, AI, robotics, and algorithms is related to work readiness through self-efficacy (Lestari et al., 2026).

However, preparedness for AI-driven automation is uneven. Vocational and business students show gaps in AI literacy, digital competence, and self-efficacy, together with anxiety about AI-infused workplaces (Hong, 2025; Duan & Ismail, 2026; Goh, 2026), and many feel that their institutions do not prepare them well (Abdelwahab et al., 2023; Jadjuli, 2026). Previous studies have related digital competence to attitudes toward AI and readiness for digital employment among e-commerce students (Tuan, 2026), modelled AI literacy competencies and career readiness among hospitality students (Leruksa et al., 2026), related AI literacy to employability readiness in technical higher education (Jadjuli et al., 2026), and used multiple regression to model the work readiness of informatics students (Sulistyohati et al., 2022). These studies concern engineering, hospitality, e-commerce, informatics, or health students, and few examine office administration students, whose own work is the work being automated. Most treat digital competence and AI literacy separately, and few include data security awareness, which is regarded as essential for office professionals who handle sensitive documents (Kurteva, 2023; Đukić, 2025; Srivastava et al., 2024), as a competing predictor. Evidence from Indonesian higher education is also scarce. The present study differs from and extends earlier work by estimating, in one model, the unique contribution of digital competence, AI literacy, and data security awareness to the work readiness of office administration students.

The study is grounded in the DigComp view of digital competence (Vuorikari, 2022) and in employability research in which digital literacy enables, and adaptability drives, readiness for work (Dara et al., 2026). Its novelty lies in testing whether literacy about AI adds to general digital competence and data security awareness in explaining work readiness, and in estimating how much of the explained variance each domain carries. The research is urgent because tasks such as scheduling, document drafting, and data handling are being automated, and curricula for office administration need evidence on which competences matter most. This study therefore aims to test whether digital competence, AI literacy, and data security awareness predict work readiness and to estimate the contribution of each. Three hypotheses were tested: digital competence positively predicts work readiness (H1), AI literacy positively predicts work readiness (H2), and data security awareness positively predicts work readiness (H3).

METHODS

This study used a quantitative cross-sectional survey with a predictive correlational design, which suits the aim of estimating the unique contribution of several predictors to one outcome (Sulistyohati et al., 2022). The research was conducted at the Office Administration Education Study Program, Universitas Negeri Makassar, Indonesia. The population was all 110 students of the 2024 cohort, and 69 students (62.7% of the population) were selected by random sampling. Data were collected in October 2026. With 69 participants, three predictors, $\alpha = .05$, and power of .80, the model could detect an effect of $f^2 \geq .17$, a medium to large effect.

Data were collected with a questionnaire of 20 first-person statements answered on a five-point frequency scale (1 = never, 5 = always) [source of the instrument to be stated if adopted or adapted]. In line with self-assessment practice in digital competence research (Mieg et al., 2024), the statements were grouped into four variables. Digital competence consisted of nine statements on office applications, confidence with digital technology, devices, digital documents, digital archives, cloud storage, digital communication, using technology to speed up work, and choosing suitable applications. AI literacy consisted of four statements on knowing that AI can support administrative work, understanding responsible use, checking AI output before use, and giving clear instructions to AI. Data security awareness consisted of two statements on understanding the security of digital data and documents and being careful when sharing office data. Work readiness, the outcome, consisted of five statements on adjusting from manual to digital work, adapting to technology change, willingness to learn new technology, feeling ready to work in a digital workplace, and readiness for changing administrative tasks. All statements were worded in the direction of their construct, so no item was reverse-scored. Scores are item means, and categories follow five intervals of the mean (1.00–1.80 very low; 1.81–2.60 low; 2.61–3.40 moderate; 3.41–4.20 high; 4.21–5.00 very high).

Validity was checked with corrected item–total correlations against the critical value of .237 ($n = 69$, $\alpha = .05$), and reliability with Cronbach's alpha, which was .84 for digital competence, .63 for AI literacy, .52 for data security awareness (two items), and .59 for work readiness. All corrected item–total correlations exceeded the critical value (range .25 to .65), so all items were retained, and the three scales with alpha below .70 are interpreted with caution.

Data were screened for missing values, out-of-range values, and duplicated or uniform response patterns; there were no missing values, all responses fell between 2 and 5, and there were 5 duplicated patterns and 4 uniform responders. The analysis comprised descriptive statistics with the Shapiro–Wilk test, Pearson correlations with Fisher confidence intervals supplemented by Spearman correlations, and multiple regression of work readiness on the three predictors by ordinary least squares, reported with standardized coefficients, percentile bootstrap intervals (5,000 resamples), and heteroscedasticity-robust (HC3) p values. Assumptions were checked with variance inflation factors, the Shapiro–Wilk test of residuals, the Breusch–Pagan test, and Cook's distance. Hierarchical steps showed the change in explained variance, and relative importance was computed by averaging each predictor's contribution over all orderings of entry. Sensitivity analyses repeated the regression without duplicated and uniform patterns and on ranks. Tests were two-tailed at $\alpha = .05$ in Python 3 (pandas, SciPy, and stats models).

RESULT AND DISCUSSION

Descriptive Results and Reliability

All four variables were high to very high (Table 1). Digital competence (M = 4.15, SD = .44) and work readiness (M = 4.11, SD = .41) were in the high category, and AI literacy (M = 4.21) and data security awareness (M = 4.27) were very high; between 83.2% and 88.4% of responses were often or always. Figure 1 shows that item means were uniformly high, from 3.90 for using various devices to 4.33 for checking AI output before use, so the variables differ little in level. Scores on AI literacy, data security awareness, and work readiness were not normally distributed (Shapiro–Wilk p = .011, p < .001, and p = .016), which is why rank-based checks accompany the parametric analyses.

Table 1: Descriptive Statistics and Reliability of the Variables (n = 69)

Variable	Items	M	SD	95% CI	Category	α
Digital competence	9	4.15	.44	[4.04, 4.26]	High	.84
Artificial intelligence literacy	4	4.21	.46	[4.10, 4.32]	Very high	.63
Data security awareness	2	4.27	.56	[4.13, 4.40]	Very high	.52
Work readiness	5	4.11	.41	[4.02, 4.21]	High	.59

Source: authors' survey data (2026). Scale 1–5; CI = confidence interval; a = Cronbach's alpha.

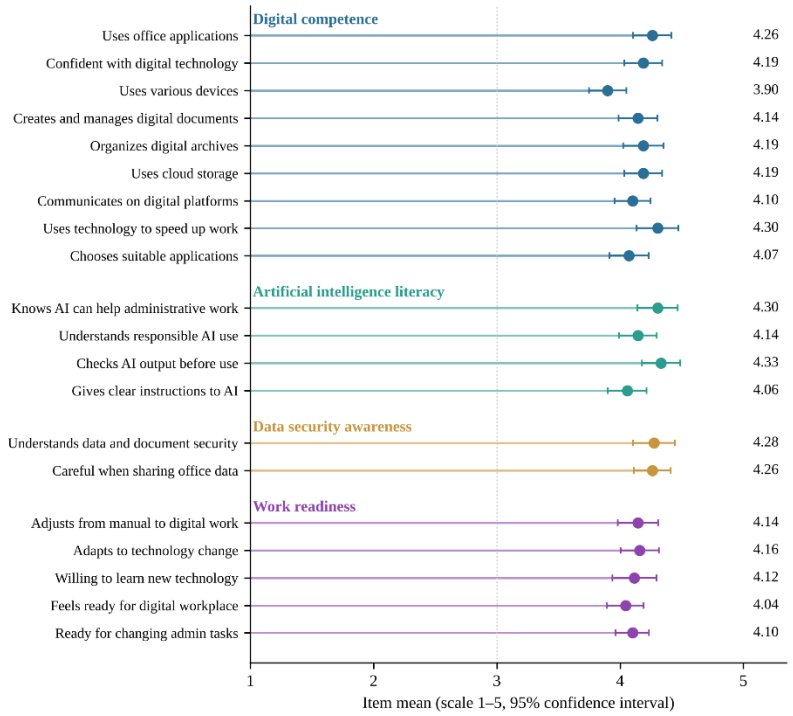


Figure 1. Item means with 95% confidence intervals by variable

Source: authors' survey data (2026)

Relationships among the Variables

Work readiness correlated positively and significantly with AI literacy (r = .71), digital competence (r = .65), and data security awareness (r = .50), and the three predictors were also correlated with one another (r = .55 to .64; Table 2). Spearman correlations gave the same ordering (ρ = .69, .58, and .48). These overlaps mean that a bivariate association does not establish a unique contribution, which the regression addresses.

Table 2: Correlations among the Variables (n = 69)

Pair	Pearson r	95% CI	p	Spearman ρ
AI literacy – Work readiness	.71	[.57, .81]	< .001	.69
Digital competence – Work readiness	.65	[.48, .77]	< .001	.58
Data security awareness – Work readiness	.50	[.30, .66]	< .001	.48
Digital competence – AI literacy	.64	[.48, .76]	< .001	.63
AI literacy – Data security awareness	.64	[.48, .76]	< .001	.59
Digital competence – Data security awareness	.55	[.36, .69]	< .001	.48

Source: authors' survey data (2026).

Multiple Regression of Work Readiness

The model with the three predictors was significant and explained 56.8% of the variance in work readiness (R^2 = .568, adjusted R^2 = .548, F (3, 65) = 28.48, $p < .001$, f^2 = 1.31, a large effect; Table 3). AI literacy had the largest unique effect (B = .447, β = .50, bootstrap 95% CI [.21, .70], $p < .001$), followed by digital competence (B = .299, β = .32, 95% CI [.10, .48], $p = .004$), so H1 and H2 were supported. Data security awareness had no unique effect (B = .002, 95% CI [-.15, .17], $p = .981$), so H3 was not supported despite its bivariate correlation of .50. Digital competence alone explained 41.7% of the variance, adding AI literacy raised this by 15.1 percentage points, and adding data security awareness changed it by less than 0.1 percentage points. Relative importance (Figure 2) assigned 48.6% of the explained variance to AI literacy, 35.5% to digital competence, and 15.9% to data security awareness, the last being shared variance with the other two rather than unique variance.

Table 3: Multiple Regression of Work Readiness on the Three Predictors (n = 69)

Predictor	B	SE	β	Bootstrap 95% CI for B	p	p (HC3)
Constant	.982	.346	–	[.34, 1.67]	.006	.007
Digital competence	.299	.101	.32	[.10, .48]	.004	.006
AI literacy	.447	.106	.50	[.21, .70]	< .001	.001
Data security awareness	.002	.080	.00	[-.15, .17]	.981	.982

Source: authors' survey data (2026). R^2 = .568; F (3, 65) = 28.48, p < .001; SE = standard error; HC3 = heteroscedasticity-robust.

The assumptions were met. Variance inflation factors were at most 2.14, residuals were normal (Shapiro–Wilk p = .857), the Breusch–Pagan test showed no heteroscedasticity (p = .936), and no case was influential (maximum Cook's distance = .14). The results were robust: without the 5 duplicated patterns and 4 uniform responders (n = 62), the model explained 54.2% of the variance with the same pattern (AI literacy B = .401, p < .001; digital competence B = .325, p = .003; data security awareness p = .964), and a rank-based regression gave a comparable result (R^2 = .519; AI literacy p < .001, digital competence p = .050, data security awareness p = .518), although the digital competence effect was only borderline on ranks.

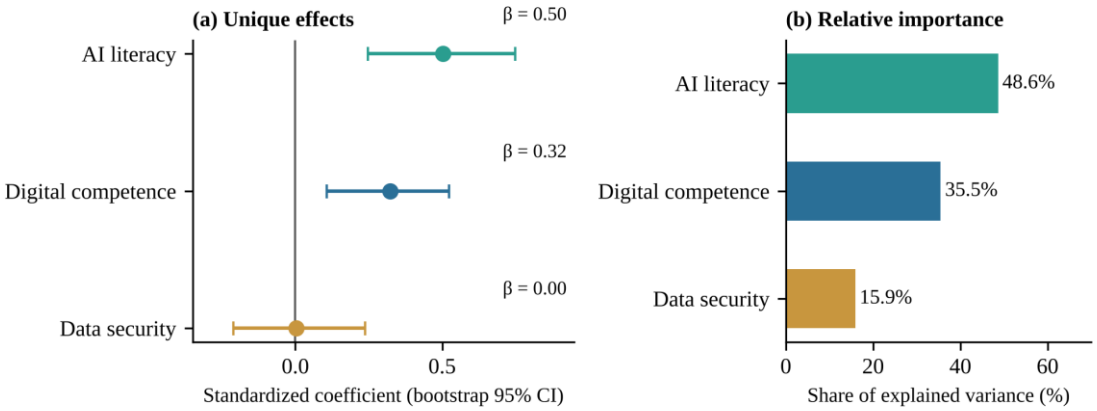


Figure 2. Unique effects and relative importance of the predictors of work readiness
Source: authors' survey data (2026)

Interpretation of the Main Findings

The study aimed to test whether digital competence, AI literacy, and data security awareness predict work readiness among office administration students and how much each contributes. The main finding is that AI literacy and digital competence jointly explain more than half of the variance in work readiness, with AI literacy carrying the larger share, whereas data security awareness adds nothing unique. The pattern agrees with research that links digital literacy to job readiness (Zhu et al., 2026; Morgan et al., 2022; Li et al., 2024) and with work in which digital competence influences attitudes toward AI and readiness for digital employment (Tuan, 2026) and soft skills, digital literacy, and self-efficacy shape work readiness (Arfandi et al., 2026). The larger weight of AI literacy fits evidence that AI literacy

competencies support self-efficacy and career readiness (Leruksa et al., 2026) and employability readiness (Jadjuli et al., 2026). A plausible explanation is that AI literacy as measured here, which includes judging when AI helps, giving clear instructions, and checking output, is closer to the adaptive behavior that employers expect when administrative tasks change (Dara et al., 2026), while general digital competence is the foundation on which it rests, as AI acceptance depends on digital skills (Piotrowski & Revtiuk, 2026) and technical understanding underlies critical evaluation of AI output (Öner, 2025).

The absence of a unique effect for data security awareness is the unexpected result. Data security awareness is regarded as essential for office professionals (Kurteva, 2023; Đukić, 2025; Srivastava et al., 2024), yet here it correlated with work readiness only through its overlap with the other two domains ($r = .64$ with AI literacy). Two explanations are consistent with the data. First, ethical use, including privacy, is part of the definition of AI literacy (Annapureddy et al., 2025; Bećirović et al., 2026), so the two security statements may overlap conceptually with responsible AI use. Second, the two-item scale had low reliability ($\alpha = .52$) and high scores with little spread, which limits its ability to discriminate. This explanation cannot be tested with the present data.

The very high self-reported levels contrast with studies in which students show gaps in digital competence, AI literacy, and self-efficacy and feel unprepared (Iucu & Cărțiş, 2025; Hong, 2025; Duan & Ismail, 2026; Goh, 2026; Abdelwahab et al., 2023). Self-assessment can differ from reported or demonstrated competence (Schaal et al., 2025), so the high means may reflect confidence rather than proficiency, and the ceiling reduces the variance available to detect relationships. The regression results should therefore be read as relationships among self-perceived competences, not as effects of measured skills on employment outcomes.

Implications, Limitations, and Future Research

Theoretically, the findings support treating AI literacy as a distinct domain that adds to digital competence in explaining work readiness, which refines the view of digital literacy as an upstream enabler and adaptability as a proximal driver (Dara et al., 2026). Practically, office administration curricula should teach prompting, output checking, and responsible use of AI together with office applications, cloud storage, and digital archiving, because cloud-based document management brings both efficiency and risks to security and compliance (Azmir & Wijayanti, 2022). Micro-credentials can close gaps between required and perceived competences (Iucu & Cărțiş, 2025), and internships strengthen digital competence and soft skills (Musa et al., 2025; Hynes et al., 2025). For policy, institutions in technical and vocational higher education need to align AI adoption with employability goals (Jadjuli, 2026).

The study has limitations. The sample is small (69 students) and its profile is not described, the design is cross-sectional and based on self-reports, all statements are worded in one direction, and three of the four scales have modest reliability (α between .52 and .63). Means close to the top of the scale and 5 duplicated patterns and 4 uniform responders may reflect response style, although the results held without them. Other determinants of readiness, such as internship experience, access to technology, prior training, and learning motivation (Musa et al., 2025; Kumar et al., 2025; Muharini et al., 2025), were not measured. Future research should include these variables, test the mediating role of self-efficacy (Lestari et al., 2026; Leruksa et al., 2026) with structural equation modelling, use validated multi-item scales based on DigComp (Mieg et al., 2024) and performance-based tests, and recruit larger samples from several institutions.

CONCLUSION

Digital competence and AI literacy are significant unique predictors of work readiness among office administration students; together with data security awareness they explain 56.8% of its variance, and AI literacy carries the larger share (β = .50 against .32 for digital competence). Data security awareness, although correlated with work readiness, adds no unique prediction once the other two domains are controlled. The study contributes a model that separates the three competence domains in a group whose own tasks are being automated, and it shows that literacy about AI adds to general digital skills. Office administration programs should therefore integrate AI literacy, including prompting, output checking, and responsible use, with digital competence in their curricula. Because the data are self-reported, cross-sectional, and drawn from a small sample with modest scale reliability, future research should replicate the model with validated instruments, additional determinants, and performance-based measures.

REFERENCES

Abdelwahab, H. R., Rauf, A., & Chen, D. (2023). Business students' perceptions of Dutch higher educational institutions in preparing them for artificial intelligence work environments. *Industry and Higher Education*.

Al Jnainati, M., Jnainati, J. A., Rath, S., … Semy, M. (2025). Transforming paperwork with AI: Applications across healthcare and other industries. *AI and Society*.

Annapureddy, R., Fornaroli, A., & Gatica-Perez, D. (2025). Generative AI literacy: Twelve defining competencies. *Digital Government: Research and Practice*.

Arfandi, A., Musdalifah, M., Sudjani, S., & Setiawan, A. H. (2026). The interplay of soft skills, digital literacy, and self-efficacy in shaping work readiness: A structural equation modeling study of vocational high school students. *International Journal of Environment, Engineering and Education*.

Awaisheh, S. M., Alkhamaiseh, M. A., Al-Maagbeh, M. M., … Alatiyat, M. (2024). Artificial intelligence and its impact on administrative decision-making. *Journal of Human Security*.

Azmir, A. F., & Wijayanti, L. (2022). Cloud computing opportunities and challenges in electronic document management. *Record and Library Journal*.

Bastos, L., Amorim, M., & Rodrigues, M. J. F. (2024). Professional revolution in the age of artificial intelligence: Key skills for success. *International Scientific-Business Conference LIMEN Leadership, Innovation, Management and Economics: Integrated Politics of Research*.

Bećirović, S., Augustín, M., Mattoš, B., & Dančo, J. (2026). Uncovering structural relationships between AI literacy, AI ethics, AI problem-solving, and self-regulated learning. *Discover Computing*.

Carreón, G. G., & Bucio, P. M. (2026). A generative AI-based chatbot for administrative student services in higher education: Design, implementation, and usability evaluation. *Communications in Computer and Information Science*.

Choi, S., Jang, Y., & Kim, H. (2025). Exploring digital competency as a fundamental job competency in higher education. *International Journal on Informatics Visualization*.

Christian, E. N., Jia, X., Van Dellen, S. A., … Dehr, K. (2026). Learning from practice: How professionals use AI and what it means for higher education. *Industry and Higher Education*.

Dara, D., Nguyen, T. T., & Putra, D. M. (2026). Beyond digital skills: Work-integrated learning, adaptability, and the thresholds for graduate work readiness. *Higher Education, Skills and Work-based Learning*.

Đukić, S. (2025). Cyber security and data protection. *Moderna Arhivistika*.

Duan, X., & Ismail, M. N. (2026). Status, influencing factors, and career impact of digital competence and AI literacy among vocational undergraduate students: A mixed-methods study in vocational education. *Communications in Computer and Information Science*.

Goh, A. P. I. (2026). Forging future-ready business leaders: Interplay between self-efficacy, AI anxiety, and self-perceived employability. In *Digital technology in management education: Asian approaches to building employable skills*.

Hershkovitz, A., Tabach, M., & Lurie, L. (2025). Task-centered analysis of higher education students' uses of generative artificial intelligence. *Education Sciences*.

Hong, L. (2025). Development and validation of a competency-based ladder pathway for AI literacy enhancement among higher vocational students. *Scientific Reports*.

Hynes, J., Koç, H., & Wagner, E. (2025). Enhancing workplace readiness of interns: A case study at a university in Germany. *European Education*.

Iucu, O., & Cărțiş, A. (2025). Competency profiles in administrative sciences: An analysis of the students' perceptions and possible curricular reshapes through micro-credentials. *Transylvanian Review of Administrative Sciences*.

Jadjuli, A.-F. E. (2026). Artificial intelligence adoption in technical-vocational higher education: Employability and workforce policy implications. *Education and Training*.

Jadjuli, A.-F. E., Lukman, R. G., Asibih, K. J., … Cuaresma, J.-A. G. (2026). Preparing students for a global workforce: Artificial intelligence literacy, employability readiness, and learning experiences in technical higher education. *Journal of Interdisciplinary Studies in Education*.

Kaakandikar, R., & Sinkar, S. V. (2026). Key skills for AI-era professionals. In *Upskilling for the age of AI automation*.

Kumar, M. N., Suresh, N., & Khan, S. A. (2025). Impact of digital technology on digital economy: A study on student preparedness to face challenges. In *Fostering economic diversification and sustainable business through digital intelligence*.

Kurteva, K. (2023). Compliance and data security in document management systems. *2023 32nd International Scientific Conference Electronics, ET 2023 – Proceedings*.

Lestari, N. S., Pratiwi, Gunawan, A., … Triana, I. (2026). Learning experience, smart technology, artificial intelligence, robotics and algorithms (STARA) competency, and work readiness in the AI era: The moderating role of self-efficacy. *Proceedings of the 2026 International Conference on Current Research in Artificial Intelligence and Data Science*.

Leruksa, C., Worrachananun, M., & Fakfare, P. (2026). What makes hospitality and tourism students AI-ready? Must-have and should-have AI literacy competencies for self-efficacy and future career readiness. *Journal of Teaching in Travel and Tourism*.

Li, Y., Anuar, N. A. B., Mansor, A. Z. B., & Xing, J. (2024). Predicting digital literacy in higher education: The role of personal factors. *Eurasian Journal of Educational Research*.

López-Galisteo, A. J. (2026). Optimizing university administrative services with generative AI: Evidence from email inquiry reduction and assistant performance. *Information*.

Mieg, H. A., Klieme, K. E., Barker, E., … Unterpertinger, E. (2024). Short digital-competence test based on DigComp2.1: Does digital competence support research competence in undergraduate students? *Education and Information Technologies*.

Morgan, A., Sibson, R., & Jackson, D. (2022). Digital demand and digital deficit: Conceptualising digital literacy and gauging proficiency among higher education students. *Journal of Higher Education Policy and Management*.

Muharini, H. J. M., Rahmasari, I., Suhartoyo, J., & Maharani, A. (2025). Finding digital readiness: How motivation drives bank employees in Indonesia to thrive? *Foundations of Management*.

Musa, S., Nurhayati, S., & Boriboon, G. (2025). The effect of internships on graduates' employability, soft skills, and digital competence. *Educational Process: International Journal*.

Öner, D. (2025). Building artificial intelligence literacy for research: Technical understanding as the foundation for critical evaluation. *IAFOR Journal of Education*.

Piotrowski, B., & Revtiuk, Y. (2026). Digital skills and experience as drivers of AI acceptance: Evidence from the Eurobarometer 2024. *Central European Journal of Operations Research*.

Schaal, T., Tischendorf, T., Sydorenko, O., … Brauweiler, H.-C. (2025). Self-assessed vs. reported digital competence among health students in Germany, Ukraine and Kazakhstan: A DigComp 2.2-based cross-sectional study. *Frontiers in Health Services*.

Silva-Quiroz, J., & Rioseco-Pais, M. (2025). Key digital competences for academic training in university students according to the DigComp model: A study based on expert judgement. *Edutec*.

Srivastava, N., Sharma, H., Maliyal, A., … Sinha, K. (2024). Fortifying data security in the evolving digital landscape: Challenges and solutions. In *Handbook of research on innovative approaches to information technology in library and information science*.

Sulistyohati, A., Susanti, L., Ridwan, R., … Nastiti, T. I. (2022). Development and validation of the work readiness model of informatics students using multiple regression. *2022 IEEE 8th International Conference on Computing, Engineering and Design*.

Swami, N. K., Sharma, A., & Mittal, R. (2024). Role of AI in skilling, upskilling, and reskilling the workforce. In *Integrating generative AI in education to achieve sustainable development goals*.

Tuan, L. T. (2026). The influence of digital competence on attitudes toward artificial intelligence and its impact on the readiness for digital employment among e-commerce students: A case study at the Thai Nguyen University of Information and Communication Technology. *Lecture Notes in Networks and Systems*.

Vuorikari, R. (2022). DigComp helping shape the education ecosystem in Europe. *Communications in Computer and Information Science*.

Waewchimplee, W. (2026). AI for administrative efficiency. In *Artificial intelligence and the metaverse in education*.

Walter, Y. (2024). Embracing the future of artificial intelligence in the classroom: The relevance of AI literacy, prompt engineering, and critical thinking in modern education. *International Journal of Educational Technology in Higher Education*.

Zhu, G., Pan, F., Fu, M., & Ni, J. (2026). From "scenario" to "situation": How digital situational perception influence digital literacy of university students. *Innovations in Education and Teaching International*.