
Digital Transformation for Accounting Students in Facing the Development of Artificial Intelligence (AI) in the World of Accounting

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Abstract: *The development of digital transformation and Artificial Intelligence (AI) technology has brought significant changes in the world of accounting, especially in the process of recording transactions, preparing financial statements, digital audits, and fraud detection. This research aims to analyze digital transformation for accounting students in facing the development of Artificial Intelligence (AI) in the world of accounting. The research method used is Systematic Literature Review (SLR) with a thematic synthesis approach to scientific articles obtained from Google Scholar, ScienceDirect, ResearchGate, and Scopus for the 2024–2026 period. Of the 80 articles found, 15 articles that met the inclusion criteria were obtained and analyzed further. The results of the study show that digital transformation has a major impact on the accounting profession with the increasing use of accounting software, cloud computing, blockchain, and AI in business processes. Accounting students are required not only to understand accounting theory, but also to have digital competencies such as mastery of accounting information systems, data analysis, and the use of AI-based technology. Factors that affect students' readiness to face AI include digital literacy, educational curriculum, technology access, and adaptability. In addition to presenting challenges in the form of increasing job competition and the need for technology skills, AI also opens up new opportunities in the accounting profession such as digital auditors, financial data analysts, and information systems consultants. Therefore, universities need to update the curriculum to be more relevant to technological developments and industrial needs in the digital era.*

Keywords: *Digital Transformation, Artificial Intelligence, Accounting Students, Digital Competence, World of Accounting.*

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Introduction

The rapid development of digital transformation, particularly Artificial Intelligence (AI), has become a major catalyst for change across many industrial sectors, including accounting. AI can simulate aspects of human reasoning to analyze information, support decision-making, and solve problems, particularly by automating structured and repetitive tasks. In accounting, digital transformation has improved the efficiency and effectiveness of activities such as transaction recording, financial reporting, auditing, and fraud detection. AI-based applications can reduce manual errors, accelerate data processing, and support real-time reporting (Salsa, 2025).

The growing potential of AI is expected to reshape how many professions, including accounting, are performed. Because accounting has traditionally involved a substantial number of routine and rule-based tasks, the adoption of AI creates both opportunities and new competency requirements for accounting professionals. Digitalization affects not only technical

accounting activities but also the way accounting professionals organize work, interpret information, and make decisions (Triatmaja et al., 2019). Consequently, accounting students need to prepare for an environment in which AI complements, rather than simply replaces, human expertise. In addition to mastering fundamental accounting knowledge, students need competencies in digital technologies, data analysis, accounting information systems, and the responsible use of AI. AI can automate activities such as data entry, bank reconciliation, and anomaly detection, while tasks requiring professional judgment, ethical consideration, contextual interpretation, and accountability continue to require human involvement.

The presence of AI in accounting should therefore be understood as a transformation that creates both challenges and opportunities rather than as a threat to the accounting profession. The key issue is whether accounting graduates are adequately prepared to work with AI-enabled systems. Universities can respond by strengthening students' information technology skills, data literacy, analytical abilities, and understanding of the ethical implications of AI. Such preparation can help graduates use AI effectively while retaining the professional judgment and accountability required in accounting practice.

In higher education, the accounting curriculum plays an important role in developing students' knowledge and professional competencies in accounting, auditing, taxation, and technology. The reviewed literature indicates that the readiness of students to adopt emerging technologies is associated with factors such as digital and information literacy, access to technology, curriculum relevance, and adaptability. This creates a need for closer alignment between accounting education and technological developments in industry. Accordingly, accounting curricula should provide opportunities for students to understand AI-enabled accounting applications, data analysis, digital accounting information systems, and the ethical use of technology.

Method

This study uses a systematic literature review (SLR) approach to identify, evaluate, and synthesize previous research on digital transformation for accounting students in responding to the development of Artificial Intelligence (AI) in accounting. The review is guided by three research questions: (RQ1) What forms of digital transformation and AI applications are discussed in relation to accounting education and the accounting profession? (RQ2) What digital competencies and readiness factors are identified as important for accounting students in the AI era? and (RQ3) What challenges, opportunities, and curriculum implications are reported in the reviewed literature? An SLR is appropriate because it provides a structured procedure for identifying relevant studies, applying explicit selection criteria, and synthesizing findings across studies, thereby reducing reliance on individual-study interpretation. The literature search covered four databases: Google Scholar, ScienceDirect, ResearchGate, and Scopus, with a publication range of 2024–2026.

The initial search identified 80 records. The studies were screened using the PRISMA framework through identification, duplicate removal, title and abstract screening, full-text eligibility assessment, and final inclusion. Fifteen studies that met the predetermined eligibility criteria were included in the synthesis. To improve transparency, the PRISMA flow should report the exact number of records at each stage and the reasons for exclusion at the screening and eligibility stages. Because the original screening log in the submitted manuscript does not

provide those stage-by-stage counts, the exact figures should be inserted from the authors' database and screening records rather than estimated.

The inclusion criteria were: (1) studies directly addressing digital transformation, AI, or technology adoption in accounting education, with accounting students as the primary population; (2) studies examining students' digital competencies, readiness, perceptions, or learning needs in relation to AI and digital accounting; (3) studies published in scientific journals during 2024–2026; (4) studies available in full text; and (5) studies written in Indonesian or English. Studies focusing exclusively on practicing accountants without a substantive connection to accounting students were excluded, as were duplicate records, non-scientific publications, studies without accessible full text, and articles that did not clearly report their research methods or findings. This scope keeps the review focused specifically on accounting students while allowing relevant evidence about the changing accounting profession to be discussed as contextual implications for education.

The database searches were designed to be reproducible. The core search string was: ("digital transformation" OR digitalization OR digitalisation) AND ("artificial intelligence" OR AI) AND ("accounting students" OR "accounting education" OR "accounting curriculum"). Where supported by the database, the search was adapted to the database's field syntax while retaining the same conceptual terms. The searches covered publications from 2024 to 2026. The exact search date for each database should be reported as recorded in the authors' search log. The screening process followed the PRISMA stages, and methodological quality was assessed by checking whether each study clearly stated its research design, participants or data sources, analytical procedures, and main findings. Studies with insufficient methodological information were excluded. The final 15 studies were then analyzed using thematic synthesis to identify recurring themes concerning digital transformation, AI adoption, student readiness, competencies, challenges, opportunities, and curriculum implications.

PREVIOUS RESEARCH STUDIES

No.	Researcher and Year	Research Title	Research Methods/Types	Key Results/Findings
1	Dini Nur Cahyani & Dwi Ermayanti Susilo (2024)	The Influence of Artificial Intelligence (AI) and Digitalization on Accounting Students' Understanding of Financial Statements	Quantitative	Artificial Intelligence (X1) has a significance value of 0.726 (> 0.05), indicating that Artificial Intelligence does not have a partial significant influence on accounting students' understanding of financial statements. In contrast, the digitization variable (X2) had a significance value of 0.000 (< 0.05), indicating that digitization has a significant influence on students' understanding of financial statements.

No.	Researcher and Year	Research Title	Research Methods/Types	Key Results/Findings
2	Rakeen Krishna Putra Rasmanjaya (2026)	Analysis of the Utilization of Digital Technology in Student Accounting Work in the Era of Educational Transformation	Qualitative	Students have a high awareness of the importance of digital literacy, but there is still a gap between perception and technical skills. Educational institutions need to update the accounting curriculum to be more responsive to the needs of the digital industry.
3	Chelsya & Natasya Cindy (2025)	Students' Perceptions of the Role and Practice of Artificial Intelligence Accounting in Indonesia	Quantitative	Students already know that AI technology has been widely applied in the company's accounting system. Students also understand that the application of AI technology will have both positive and negative impacts on the accounting profession both in Indonesia and around the world. The positive impact is to increase the efficiency and effectiveness of performance and time, as well as reduce errors in output processing.
4	Ahmad Mohamad Abdo Salloum & Hasan Yousef Al-Mousawi (2025)	Technology Readiness, Perception, and Digital Competence of Accounting Students Towards the Adoption of Artificial Intelligence in the Accounting Curriculum	Quantitative	Accounting students are generally more likely to adopt AI in their future careers and have basic digital skills. The study found that perceptions of ease of use and perceptions of usability mediated the relationship between technology readiness and AI adoption. ¹ In addition, information literacy was found to predict AI adoption, while digital literacy showed no significant effect. These findings emphasize the importance of

No.	Researcher and Year	Research Title	Research Methods/Types	Key Results/Findings
				integrating AI-based accounting courses into traditional curricula to better prepare students for the ever-evolving demands of the profession.
5	Muqhitarahima (2026)	Digital Transformation of Accountants in the Face of Technological Disruption in the Financial Industry	Literature	Forms of technological disruption that can affect the financial industry are the shift in the role of accountants and process automation and the loss of manual work, while the transformation of the role of accountants in the digital era is by increasing skills. Skills that accountants can have to stay relevant in their field through investment in the development of <i>digital skills</i> , responsive to changes in industry, business, and technology.

Results and Discussion

a. Digitalization transformation

Digital transformation has changed accounting activities and increased the importance of competencies beyond conventional accounting knowledge. The reviewed studies do not, however, support a blanket conclusion that AI has a uniformly significant influence on all aspects of accounting education or practice. For example, Cahyani and Susilo (2024) reported that AI was not statistically significant in explaining accounting students' understanding of financial statements ($p = 0.726$), whereas digitalization was significant ($p < 0.001$). Other reviewed studies emphasize students' awareness of digital literacy, technology readiness, information literacy, and the need for curriculum adaptation (Rasmanjaya, 2026; Salloum & Al-Mousawi, 2025). Thus, the evidence is better interpreted as showing that AI and broader digital transformation are reshaping competency requirements, while the magnitude and nature of their effects vary across contexts and outcomes.

b. The Influence of Digital Transformation on the World of Accounting

The reviewed literature indicates that digital technologies can increase the speed and efficiency of several accounting processes, particularly structured and repetitive activities. AI-enabled tools may support transaction processing, reconciliation, anomaly detection,

and aspects of financial analysis. However, the literature reviewed in this study does not justify the claim that these activities can be fully automated in every accounting context. Tasks involving complex interpretation, professional judgment, ethical decisions, communication with stakeholders, and accountability remain dependent on human expertise. Therefore, AI is more appropriately viewed as a tool that augments accountants' capabilities and shifts attention toward higher-value analytical and advisory activities rather than as a complete substitute for professional judgment.

Accounting students today are not only required to understand accounting theory, but also must be able to operate digital technology and understand accounting information systems. The ability to use accounting applications, understand data analysis, and use AI is an added value in facing job competition in the industrial era 4.0.

c. Accounting Students' Readiness to Face Artificial Intelligence (AI)

The results of the discussion showed that some accounting students have begun to recognize the use of digital technology in learning, but there are still limitations in mastering AI-based technology. Some of the factors that affect student readiness include:

1. level of digital literacy,
2. access to technology,
3. learning curriculum,
4. and adaptability to technological changes.

The reviewed studies consistently emphasize the importance of digital and information technology competencies for accounting students' readiness for the changing world of work. In particular, Rasmanjaya (2026) highlights the gap between students' awareness of digital literacy and their technical skills, while Salloum and Al-Mousawi (2025) identify technology readiness, perceptions of usability, and information literacy as relevant to AI adoption. These findings support the need for universities to strengthen curricula through AI-related accounting applications, data analysis, digital accounting information systems, and responsible technology use. The comparison between accounting activities before and after AI should therefore be interpreted as a synthesis of changes reported in the reviewed literature, rather than as a universal replacement of all traditional accounting tasks.

d. Challenges and Opportunities for Accounting Students in the Era of Artificial Intelligence

The development of AI presents challenges as well as opportunities for accounting students. The main challenge is the increasing need for digital competencies and the increasingly fierce labor competition. Students who are unable to adapt to technological developments are at risk of falling behind in the world of work.

However, AI also opens up new opportunities in the accounting profession, such as the profession of financial data analyst, accounting information system consultant, digital auditor, and financial technology specialist. By making the right use of AI technology, accounting students can improve productivity and quality of work in the future.

e. The Benefits of Artificial Intelligence in the Digital Accounting Era

Key Benefits

Explanation

Efficiency & Automation

AI reduces the burden of manual work such as data entry and reconciliation.

Key Benefits	Explanation
Accuracy & Error Reduction	AI can process large volumes of data consistently and may help reduce processing errors.
Data Analytics & Insights	AI provides in-depth and predictive insights, improving the quality of decisions.
Real-Time Auditing	Continuous or near-real-time analysis can support earlier identification of anomalies and potential problems.
Productivity & Strategic Focus	Automation can reduce routine workload and allow accountants to focus more on analytical and strategic activities.
Faster Fraud Detection	AI is effective in recognizing fraud patterns through big data.

f. Comparison of Accounting Developments Before vs After Artificial Intelligence

Accounting Activities Before Widespread AI Adoption	Accounting Activities with AI-Enabled Systems
Greater reliance on manual transaction recording	Greater use of automated transaction processing and AI/RPA-supported workflows
Report preparation relied more heavily on manual processing	Digital systems can support faster and near-real-time reporting
Audits relied more heavily on sampling and manual procedures	Data analytics and technology-supported audit procedures can expand the scope of analysis
More emphasis on administrative and recording functions	Greater opportunity for analytical, advisory, and strategic functions, while professional judgment remains essential

Conclusion

This literature review shows that the development of accountants has undergone a fundamental shift along with the presence of AI. If previously accountants focused on technical tasks such as manual recording and reporting, now their role has shifted to be more strategic with the support of digital technology. AI requires accountants to master new skills, especially data analysis, digital ethics, and information security. The implication of this study is the need to adjust the accounting education curriculum and competency development so that accountants remain relevant in the AI era.

Digital transformation and the development of Artificial Intelligence have brought great changes to the world of accounting. Accounting students are required to have technological skills, data analysis, and adaptation to digital developments in order to be able to compete in the world of work. AI is not only a challenge, but also an opportunity for accounting students to develop new competencies that are relevant to the needs of modern industries.

The development of *Artificial Intelligence* (AI) has shifted the role of accountants from technical functions such as recording transactions and preparing manual reports to a strategic role as a data analyst, business advisor, and technology-based auditor. Routine job automation increases efficiency, but also requires accountants to master digital, analytical, and professional ethics skills. With the adjustment of accounting education competencies and curricula, the accounting profession can transform into a strategic partner in supporting business decision-making in the digital era and Society 5.0.

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