# Assessing Accounting Students' Readiness for Sustainability Reporting in the Age of Artificial Intelligence: Evidence from Albania

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**Abstract:** Artificial intelligence (AI) and sustainability reporting are simultaneously reshaping the competencies expected from future accounting professionals. While existing research has examined these developments separately, evidence on accounting students' readiness to integrate AI with sustainability reporting remains limited, particularly in European Union candidate countries. This study assesses accounting students' readiness for sustainability reporting in the age of Artificial Intelligence, using Albania as an empirical setting. A quantitative cross-sectional survey was conducted with 108 accounting and related business students. The study assessed nine dimensions of readiness: AI literacy, AI-related competencies, sustainability reporting knowledge, perceived contribution of AI to sustainability reporting, current university preparation, need for curriculum integration, professional readiness, additional training needs and future employability. Data were analysed using descriptive statistics, Cronbach's Alpha reliability analysis, and independent-samples t-tests. The findings reveal an uneven readiness profile. Students reported relatively strong AI-related competencies (M=3.98) and AI literacy (M=3.84), while sustainability reporting knowledge was considerably lower (M=3.08). Current university preparation received the lowest assessment (M=2.72), whereas additional training needs (M=4.02) and the need for curriculum integration (M=3.87) were among the highest-rated dimensions. Students also recognised the potential contribution of AI to sustainability reporting (M=3.61). Differences between Bachelor's and Master's students were generally not statistically significant, except for AI-related competencies. The study concludes that accounting students are partially, but not yet fully, prepared for sustainability reporting in an AI-enabled professional

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environment. The findings suggest that digital readiness does not automatically translate into sustainability readiness and highlight the need for accounting education to integrate AI capabilities with sustainability reporting knowledge, particularly CSRD and ESRS-related competencies.

**Keywords:** Artificial intelligence; Sustainability Reporting; Accounting Education; AI literacy; ESRS

## 1. Introduction

Artificial Intelligence (AI) and sustainability reporting are simultaneously reshaping the competencies expected from future accounting professionals. As AI increasingly supports routine accounting activities, accountants are expected to assume more analytical, advisory and judgement–intensive roles (Kokina & Davenport, 2017; Moll & Yigitbasioglu, 2019; Zamain et al., 2024). At the same time, the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS) are broadening the scope of corporate reporting and increasing the demand for professionals who can work with both financial and sustainability–related information (European Parliament and Council of the European Union, 2022; European Commission, 2023). These developments imply that future accountants will need to combine traditional accounting expertise with digital capabilities, sustainability reporting knowledge and professional judgement (IFAC, 2024; Fota & Crăciun, 2024).

This transformation presents a particular challenge for accounting education. Universities are expected to prepare graduates for technological innovation while responding to new sustainability reporting requirements (Qasim & Kharbat, 2020; De Silva & Trireksani, 2025). Yet accounting programmes have traditionally concentrated on financial reporting, auditing and taxation, whereas AI applications and sustainability reporting have only recently gained greater prominence (Qasim & Kharbat, 2020; Cho & Costa, 2024). The extent to which students consider themselves prepared for these emerging professional expectations therefore warrants empirical examination.

Existing research has addressed AI in accounting education and the competencies associated with sustainability reporting (Barbosa et al., 2025; Fota & Crăciun, 2024), but considerably less is known about students' readiness to respond to both developments simultaneously. This gap is particularly relevant in emerging economies and European Union candidate countries, where technological changes coincide with progressive alignment with European regulatory requirements. Albania provides a relevant setting in this respect, as future accountants are being

educated in an environment characterised by increasing digitalisation and closer alignment with the European sustainability reporting framework (European Commission, 2025).

Against this background, this study assesses accounting students' readiness for sustainability reporting in the age of Artificial Intelligence. Based on evidence from 108 students in Albania, it examines AI literacy, AI-related competencies, sustainability reporting knowledge, perceptions of accounting education, professional readiness, training needs and future employability. By considering these dimensions together, the study provides evidence on whether students' current competencies and university preparation are keeping pace with the combined technological and sustainability–related changes affecting the accounting profession.

## 2. Literature Review

### 2.1. Artificial Intelligence and Emerging Accounting Competencies

Artificial Intelligence is changing both the nature of accounting work and the competencies required from accounting professionals. The automation of routine activities such as transaction processing, bookkeeping and elements of financial analysis is shifting professionals' attention towards tasks involving interpretation, judgement, problem-solving and strategic decision-making (Kokina & Davenport, 2017; Moll & Yigitbasioglu, 2019; Zamain et al., 2024). Generative AI has extended this transformation by enabling professionals to summarise information, analyse regulatory requirements, support reporting processes and communicate complex information more effectively (Barbosa et al., 2025; IFAC, 2022).

The growth of AI does not, however, reduce the importance of professionals' expertise. Accounting professionals must be able to assess the reliability of AI-generated information, recognise its limitations, identify potential errors and bias, and exercise professional scepticism and ethical judgement (IFAC, 2022; UNESCO, 2023). AI literacy therefore extends beyond the ability to operate technological tools. It involves understanding how AI can be used appropriately within professional contexts and knowing when human judgement remains necessary (Long & Magerko, 2020; Laupichler et al., 2022).

This distinction is particularly relevant for accounting students. Familiarity with widely accessible generative AI applications does not necessarily imply an ability to apply AI to accounting problems. Future accountants are increasingly expected to combine technical accounting knowledge with data interpretation, analytical

thinking, critical evaluation of AI-assisted outputs and ethical awareness (Qasim & Kharbat, 2020; Januszewski et al., 2024). Accordingly, accounting education faces the challenge of moving beyond simple exposure to AI tools towards developing profession-specific AI competencies (Barbosa et al., 2025; Qasim & Kharbat, 2020).

At the same time, the integration of AI into higher education creates both opportunities and risks. Generative AI may support personalised learning, student engagement and problem solving, but excessive reliance on AI-generated outputs may weaken independent reasoning and raise concerns regarding academic integrity (UNESCO, 2023; Zhou et al., 2025). For accounting education, the relevant question is therefore not simply whether students use AI, but whether they can use it critically and responsibly in situations requiring accounting knowledge and professional judgement.

### 2.2. Sustainability Reporting and Accounting Education

Sustainability reporting represents a second major development reshaping the competencies expected from future accountants. The expansion of environmental, social and governance (ESG) disclosure and the introduction of the Corporate Sustainability Reporting Directive (CSRD) and European Sustainability Reporting Standards (ESRS) have broadened corporate reporting beyond traditional financial information (European Parliament and Council of the European Union, 2022; European Commission, 2023). Accountants are increasingly expected to participate in collecting, measuring, analysing and communicating sustainability-related information and to understand how such information interacts with financial performance, risk and corporate decision-making (IFAC, 2024; Fota & Crăciun, 2024).

These responsibilities require knowledge that has not traditionally occupied a central position in accounting curricula. In addition to financial reporting standards, future accountants increasingly need familiarity with sustainability reporting frameworks, ESG concepts, materiality assessments, sustainability performance indicators and the integration of financial and non-financial information (Fota & Crăciun, 2024; Pargmann & Berding, 2024). Analytical thinking, interdisciplinary understanding and professional judgement are also important because sustainability reporting involves information that is often less standardised than conventional financial accounting information (IFAC, 2024; Cho & Costa, 2024).

These developments create a particular challenge for higher education. Traditional accounting programmes remain centred on areas such as financial accounting, auditing, taxation, and regulatory compliance. Although these subjects remain fundamental, technological change and sustainability reporting are broadening the competency profile expected by employers and professional organisations (Cho & Costa, 2024; De Silva & Trireksani, 2025). Accounting education must therefore determine how AI-related skills, sustainability knowledge, ethical reasoning and practical problem solving can be incorporated without weakening the technical foundations of the discipline (Qasim & Kharbat, 2020; IFAC, 2024).

This challenge is especially relevant in countries undergoing regulatory and technological transformation simultaneously. As an EU candidate country, Albania is progressively aligning its accounting and corporate reporting framework with the EU acquis, including the requirements related to corporate sustainability reporting (European Commission, 2025). Students currently entering the accounting profession may therefore encounter sustainability reporting expectations that were not prominent when existing curricula were designed. Assessing their knowledge of CSRD, ESRS and related sustainability concepts provides an indication of whether accounting education is keeping pace with this changing professional environment.

### 2.3. Integrating AI, Sustainability Reporting and Professional Readiness

Although AI and sustainability reporting have each attracted increasing academic attention, these two developments have largely been examined separately. Research on AI in accounting has primarily focused on automation, digital competencies, AI literacy, and changes in professional roles (Sutton et al., 2016; Moll & Yigitbasioglu, 2019; Januszewski et al., 2024, Barbosa et al., 2025) while sustainability reporting research has concentrated on ESG disclosure, regulatory frameworks and sustainability-related competencies (Cho & Costa, 2024; Fota & Crăciun, 2024; Pargmann & Berding, 2024). Comparatively less attention has been devoted to whether accounting students are prepared to integrate these two areas as part of their future professional practice.

This intersection is increasingly relevant for future accountants. AI-enabled tools may support the collection, processing and analysis of ESG data, and may improve the efficiency of sustainability reporting processes. However, effective application requires more than technological familiarity. Students must also understand sustainability concepts and reporting requirements and be able to evaluate AI-generated information through professional judgement (IFAC, 2024; UNESCO,

2023). Readiness for sustainability reporting in an AI-enabled environment therefore depends on a combination of technological competencies, sustainability reporting knowledge and appropriate educational preparation (Fota & Crăciun, 2024; De Silva & Trireksani, 2025).

Existing evidence on accounting students' readiness to integrate AI with sustainability reporting remains limited, particularly in EU candidate countries. This gap is especially relevant in Albania, where future accounting professionals are entering a labour market affected by increasing digitalisation while the country progressively aligns its reporting environment with European sustainability requirements (European Commission, 2025). Examining students' readiness in this context can therefore provide evidence on whether accounting education is keeping pace with these simultaneous professional developments.

Accordingly, the study addresses the following research question:

Are accounting students ready for sustainability reporting in the age of Artificial Intelligence?

To answer this question, the study examines students' AI literacy, AI-related competencies, sustainability reporting knowledge, perceptions of university preparation, professional readiness, additional training needs and future employability.

## 3. Methodology

### 3.1. Research Design and Instrument

This study employed a quantitative cross-sectional survey to assess accounting students' readiness for sustainability reporting in the age of Artificial Intelligence. The research design was intended to capture students' current perceptions, knowledge and self-assessed competencies in relation to the technological and sustainability-related changes affecting the accounting profession.

Data were collected through a structured questionnaire developed based on the literature on Artificial Intelligence, accounting education, sustainability reporting and professional competencies. The instrument comprised demographic and academic questions followed by statements covering nine dimensions of readiness: AI literacy, AI-related competencies, sustainability reporting knowledge, perceived contribution of AI to sustainability reporting, current university preparation, need for

curriculum integration, professional readiness, additional training needs, and future employability. Responses were measured using a five-point Likert scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree").

### 3.2. Participants and Data Collection

The target population comprised undergraduate and postgraduate students enrolled in accounting and related business programmes at higher education institutions in Albania. The questionnaire was administered online, through Google Forms, and distributed electronically to potential participants. Participation was voluntary and anonymous, and respondents were informed that the information collected would be used exclusively for academic research purposes.

Following data collection, 108 valid responses were retained for analysis. The sample consisted predominantly of students from the University of Tirana (95.4%), with respondents from other Albanian higher education institutions accounting for the remaining 4.6%. Master's students represented 75.9% of the sample, and bachelor's students 24.1%. Because of the strong concentration of respondents from the University of Tirana, the findings should primarily be interpreted as evidence from this sample rather than as statistically representative of all accounting students in Albania.

### 3.3. Data Analyses

The data were analysed using IBM SPSS Statistics. Descriptive statistics, including frequencies, percentages, means and standard deviations, were used to examine respondents' characteristics and their perceptions across the nine study constructs. Internal consistency was assessed using Cronbach's Alpha, with the resulting coefficients ranging from approximately 0.70 to 0.92 across the measurement scales.

Independent-samples t-tests were also conducted to examine whether the principal study constructs differed between bachelor's and master's students. Statistical significance was assessed at the 5% level. The analysis was designed primarily to identify students' readiness profile across the nine dimensions and to determine whether the pattern differed according to level of study.

## 4. Empirical Findings and Interpretation

This section presents the empirical findings from the survey of 108 accounting and related business students in Albania. The analysis first describes the sample and evaluates the reliability of the measurement constructs, before examining students' readiness across the nine dimensions of the study. Attention is given to the relationship between students' AI-related capabilities, sustainability reporting knowledge, university preparation and perceived professional readiness.

### 4.1. Profile of Respondents

The final sample consists of 108 respondents. Female students represented 75.0% of the sample and male students 24.1 %. Most respondents were between 20 and 25 years old. The sample was predominantly composed of students from the University of Tirana (95.4%), while 4.6% came from other higher education institutions. Finance (38.9%) and Accounting (35.2%) represented the two largest study programmes.

Master's students accounted for 75.9% of respondents and Bachelor's students for 24.1%. In addition, 80.6% of respondents reported being employed. The relatively high proportion of working students is relevant because their perceptions may reflect both academic exposure and some direct experience of changing professional expectations.

**Table 1. Demographic and Academic Profile of Respondents**

| Characteristic | Main Categories | Percentage |
|---|---|---|
| Gender | Female | 75.0% |
| | Male | 24.1% |
| | Prefer not to answer | 0.9% |
| Age | 20-22 | 54.6% |
| | 23-25 | 32.4% |
| University | University of Tirana | 95.4% |
| | Other | 4.6% |
| Study programme | Finance | 38.9% |
| | Accounting | 35.2% |
| Level of study | Bachelor | 24.1% |
| | Master | 75.9% |
| Employment status | Employed | 80.6% |
| | Not employed | 19.4% |

### 4.2. Reliability of the Measurement Constructs

The internal consistency of the measurement scales was assessed using Cronbach's Alpha. As shown in Table 2, all nine constructs demonstrated acceptable to excellent reliability, with coefficients ranging from 0.702 for Professional Readiness to 0.918 for Sustainability Reporting Knowledge. These results support the internal consistency of the measurement instrument and the use of composite scores for interpreting the study constructs.

**Table 2. Reliability and Descriptive Statistics of the Study Constructs**

| Construct | Cronbach's α | Mean | SD |
|---|---|---|---|
| AI literacy | 0.790 | 3.84 | 0.72 |
| AI-related Competencies | 0.834 | 3.98 | 0.68 |
| Sustainability Reporting Knowledge | 0.918 | 3.08 | 1.05 |
| AI Contribution to Sustainability Reporting | 0.914 | 3.61 | 0.83 |
| Current University Preparation | 0.770 | 2.72 | 1.06 |
| Need for Curriculum Integration | 0.854 | 3.87 | 0.91 |
| Professional Readiness | 0.702 | 3.33 | 0.81 |
| Additional Training Needs | 0.724 | 4.02 | 0.82 |
| Future Employability | 0.782 | 3.82 | 0.70 |

### 4.3. Readiness Profile of Accounting Students

The results reveal an uneven readiness profile. Students reported relatively strong AI-related competencies (M=3.98) and AI literacy (M=3.84), whereas sustainability reporting knowledge was considerably lower (M=3.08). Current university preparation recorded the lowest mean among all nine constructs (M=2.72). At the same time, respondents expressed a strong need for additional training (M=4.02) and greater curriculum integration (M=3.87).

#### 4.3.1. AI Literacy and AI-related Competencies

Students demonstrated relatively strong familiarity with Artificial Intelligence. AI literacy recorded a mean of 3.84, while AI-related competencies achieved a mean of 3.98, the highest among the principal competency dimensions.

The strongest individual result concerned the ability to use ChatGPT or similar AI tools (M=4.35), with 84.3% of respondents agreeing or strongly agreeing that they

possessed this ability. Students also reported relatively high confidence in using AI ethically (M=4.18), formulating effective prompts (M=4.07), and checking the accuracy of AI-generated answers (M=4.02).

However, confidence declined when AI was considered in a more profession-specific context. The ability to use AI to solve practical accounting problems recorded a considerably lower mean of 3.53, with only 52.3% of respondents agreeing or strongly agreeing that they possessed this capability. This distinction suggests that familiarity with generative AI does not necessarily translate into the ability to apply AI effectively to professional accounting tasks.

#### 4.3.2. Sustainability Reporting Knowledge

Sustainability reporting emerged as a considerably weaker area of readiness. The construct mean was 3.08, substantially below both AI literacy and AI-related competencies.

Students demonstrated greater familiarity with general ESG and sustainability reporting concepts than with specific European reporting requirements. Knowledge of the basic requirements of the ESRS recorded the lowest mean within this construct (M=2.77), with only 26.2% of respondents agreeing or strongly agreeing that they possessed such knowledge. Similarly, only 29.0% reported adequate knowledge of the CSRD. Understanding of double materiality was also limited (M=3.16).

These results indicate that students' exposure to general sustainability concepts has not yet translated into strong knowledge of the regulatory frameworks and technical concepts increasingly relevant to European sustainability reporting.

### 4.4. AI and Sustainability Reporting

Students generally recognised the potential contribution of Artificial Intelligence to sustainability reporting, with an overall construct mean of 3.61. The strongest perceived benefit was AI's potential to reduce the time required to prepare sustainability reports (M=3.81). Respondents also recognised the relevance of AI for ESG data collection and sustainability reporting processes.

However, perceptions were weaker for more complex applications. The use of AI to support double materiality assessment recorded the lowest mean within the dimension (M=3.44). This finding is consistent with students 'comparatively limited knowledge of double materiality itself and suggests that respondents more readily

recognise AI's potential for operational efficiency than for complex sustainability reporting processes requiring regulatory understanding and professional judgement.

### 4.5. Accounting Education, Professional Readiness and Training Needs

One of the clearest findings concerns the perceived gap between university preparation and the competencies students believe should be incorporated into accounting education. Current university preparation recorded the lowest construct mean in the study (M=2.72), whereas the need for greater curriculum integration recorded a substantially higher mean (M=3.87).

Only 17.8% of respondents agreed or strongly agreed that their university education had prepared them to use AI, while 36.1% considered their programmes to include sufficient sustainability reporting content. In contrast, 70.1% supported greater integration of AI into accounting courses, and students similarly expresses strong support for incorporating sustainability reporting into accounting programmes.

This educational gap is reflected in students 'moderate professional readiness (M=3.33). Respondents felt more prepared to work in an AI-enabled environment (M=3.55) than to undertake sustainability reporting responsibilities (M=3.07). Only 28.0% agreed or strongly agreed that they felt prepared for sustainability reporting.

Consistent with these results, additional training needs recorded the highest overall construct mean (M=4.02). The perceived need for further training in sustainability reporting was particularly strong (M=4.12), with 74.1% of respondents agreeing or strongly agreeing that additional training was required.

### 4.6. Future Employability

Students generally recognised the labour-market relevance of combining AI and sustainability-related competencies. Future employability recorded a mean of 3.82, while motivation to further develop these competencies was particularly high (M=4.11). Respondents also believed that accountants combining AI and sustainability reporting competencies would be more attractive in the labour market (M=3.94).

Interestingly, students were less convinced that AI alone would increase their employment opportunities (M=3.21). This result suggests that respondents do not view familiarity with AI as sufficient. Rather, they appear to associate future

employability with a broader combination of technological, sustainability-related and professional competencies.

### 4.7. Differences by Level of Study

Independent-samples t-tests indicated that Bachelor's and master's students reported broadly similar perceptions across most study constructs. No statistically significant differences were identified for AI literacy, sustainability reporting knowledge, perceived contribution of AI to sustainability reporting, university preparation, professional readiness, training needs or future employability.

The only statistically significant difference concerned AI-related competencies. Bachelor's students reported a higher mean (M=4.27) than master's students (M=3.89), with the difference statistically significant at p=0.007. This finding should be interpreted cautiously because bachelor's students represented a considerably smaller proportion of the sample.

Overall, the absence of significant differences across most constructs suggests that the identified sustainability reporting readiness gap is not restricted to a particular level of study.

### 4.8. Overall Interpretation

Taken together, the findings indicate that accounting students in Albania are partially, but unevenly, prepared for sustainability reporting in the age of Artificial Intelligence. Their strongest capabilities relate to general AI literacy and the use of accessible generative AI tools, while their principal weaknesses concern specialised sustainability reporting knowledge and the application of AI within professional accounting contexts.

The contrast between relatively high AI-related competencies (M=3.98) and lower sustainability reporting knowledge (M=3.08) is particularly important. It indicates that digital readiness does not automatically translate into sustainability readiness. Similarly, the low assessment of current university preparation (M=2.72), combined with strong demand for curriculum integration (M=3.87) and additional training (M=4.02), suggests that students recognise the changing demands of the profession but do not consider their current preparation sufficient.

The findings therefore provide a direct answer to the research question. Accounting students demonstrate an important foundation of AI awareness and digital confidence, but they are not yet fully prepared to integrate these capabilities with the specialised knowledge required for sustainability reporting.

## 5. Conclusions and Implications

This study examined accounting students' readiness for sustainability reporting in the age of Artificial Intelligence, based on evidence from 108 students in Albania. The findings reveal an uneven readiness profile. Students demonstrate relatively strong AI literacy and AI-related competencies, but their knowledge of sustainability reporting remains considerably weaker. Familiarity with the CSRD, ESRS and double materiality is limited, indicating that general digital confidence does not automatically translate into readiness for sustainability reporting.

A second important finding concerns the role of accounting education. Current university preparation received the lowest assessment among the study constructs, while students expressed strong demand for greater curriculum integration and additional training. These results suggest a gap between the competencies increasingly required by the accounting profession and students' perceptions of their current academic preparation. Professional readiness therefore appears to depend not simply on familiarity with AI tools, but on the ability to combine technological capabilities with sustainability reporting knowledge and professional judgement.

The findings have direct implications for accounting education. Universities should integrate AI and sustainability reporting more systematically into accounting curricula, with particular attention to the practical application of AI to ESG information, CSRD and ESRS requirements, and sustainability reporting processes. Professional accounting bodies can complement university education through specialised training and continuing professional development. Such initiatives would help future accountants develop an integrated competency profile that better reflects the changing demands of the profession.

This study is subject to limitations. The sample is predominantly drawn from the University of Tirana and relies on students' self-assessed competencies; therefore, the findings should not be generalised to all accounting students in Albania. Future research could use larger and more diverse samples and complement self-assessment with objective measures of AI and sustainability reporting competence.

Overall, accounting students in Albania appear partially prepared, but not yet fully ready, for sustainability reporting in AI-enabled professional environment. The central implication is that future accountants do not need AI capabilities in isolation; they need the ability to apply those capabilities within sustainability reporting while exercising professional judgement and responsibility.

## References

Barbosa, N. M., Maruyama, V. S. T., Vilefort, W., & Nasu, V. H. (2025). Artificial intelligence (AI) in accounting education: A scientometric assessment. *Journal of Information Systems and Technology Management*, 22, e202522014.

Cho, C. H., & Costa, E. (2024). Sustainability accounting education: Challenges and outlook. *International Journal of Sustainability in Higher Education, 25*(7), 1412–1425.

De Silva, T. A., & Trireksani, T. (2025). *Is the accounting curriculum keeping up with sustainability reporting developments?* Accounting Education. https://doi.org/10.1080/09639284.2024.2351951

European Commission. (2023). *Commission Delegated Regulation (EU) 2023/2772 of 31 July 2023 supplementing Directive 2013/34/EU as regards sustainability reporting standards*. Official Journal of the European Union.

European Commission. (2025). *Albania Report 2025*. Directorate-General for Enlargement and Eastern Neighbourhood, European Commission.

European Financial Reporting Advisory Group. (2023a). *European Sustainability Reporting Standards: ESRS 1—General requirements*.

European Financial Reporting Advisory Group. (2023b). *European Sustainability Reporting Standards: ESRS 2—General disclosures*.

European Parliament and Council of the European Union. (2022). Directive (EU) 2022/2464 of 14 December 2022 amending Regulation (EU) No 537/2014 and Directives 2004/109/EC, 2006/43/EC, and 2013/34/EU as regards corporate sustainability reporting. Official Journal of the European Union, L 322, 15–80.

Fota, M. S., & Crăciun, D. (2024). Accountants' competencies for sustainability reporting: Perceptions of students, academics and professionals. *Accounting and Management Information Systems, 23*(2), 446–460.

International Federation of Accountants. (2022). *Digital transformation and the role of accounting and finance professionals in this new era*.

International Federation of Accountants. (2024). *Educating accountants for a sustainable future: A literature review of competencies, educational strategies, and challenges for sustainability reporting and assurance*.

Januszewski, A., Kujawski, J., Buchalska-Sugajska, N., & Śpiewak, J. (2024). Digital competencies of finance and accounting students. *Procedia Computer Science*, 246, 4481–4491.

Kokina, J., & Davenport, T. H. (2017). The emergence of artificial intelligence: How automation is changing auditing. *Journal of Emerging Technologies in Accounting, 14*(1), 115–122. https://doi.org/10.2308/jeta-51730

Laupichler, M. C., Aster, A., Schirch, J., & Raupach, T. (2022). Artificial intelligence literacy in higher and adult education: A scoping literature review. *Computers and Education: Artificial Intelligence, 3*, 100101. https://doi.org/10.1016/j.caeai.2022.100101

Long, D., & Magerko, B. (2020). What is AI literacy? Competencies and design considerations. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems* (pp. 1–16). Association for Computing Machinery. https://doi.org/10.1145/3313831.3376727

Moll, J., & Yigitbasioglu, O. (2019). The role of internet-related technologies in shaping the work of accountants: New directions for accounting research. *The British Accounting Review, 51*(6), 100833. https://doi.org/10.1016/j.bar.2019.04.002

Pargmann, J., & Berding, F. (2024). Integrating sustainability in controlling and accounting practices: A critical review and implications for competences in vocational business education. *Journal of Vocational Education and Training*.

Qasim, A., & Kharbat, F. F. (2020). Blockchain technology, business data analytics, and artificial intelligence: Use in the accounting profession and ideas for inclusion into the accounting curriculum. *Journal of Emerging Technologies in Accounting, 17*(1), 107–117. https://doi.org/10.2308/jeta-52649

Sutton, S. G., Holt, M., & Arnold, V. (2016). "The reports of my death are greatly exaggerated"—Artificial intelligence research in accounting. *International Journal of Accounting Information Systems, 22*, 60–73. https://doi.org/10.1016/j.accinf.2016.07.005

UNESCO. (2023). *Guidance for generative AI in education and research*. United Nations Educational, Scientific and Cultural Organization.

Zamain, N. S. A., Kamarudin, K. A., & Mohamad, M. H. S. (2024). The impact of artificial intelligence on the accounting profession. *Procedia Computer Science*, 238, 849-856.

Zhou, A., Fei, L., & Wang, T. (2025). Exploring the impact of generative AI on student learning in accounting education. *Journal of Accounting Education, 72*, 100963.