

Opportunities for Application of Artificial Intelligence in Accounting Education

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Abstract. *In the context of accelerated digital transformation and the increasing penetration of artificial intelligence (AI) into business practice, the accounting profession is undergoing significant changes that require adapting educational models in accounting, auditing, and finance. This article explores the possibilities for integrating technologies based on artificial intelligence into accounting education to increase the effectiveness of the learning process and prepare specialists who meet the requirements of the future professional environment. An in-depth review of the contemporary scientific literature has been conducted, changes in the professional roles of accountants and auditors have been analysed, and the necessary knowledge and skills for working in conditions of joint activity with intelligent systems. An overview of the progress of the Republic of Bulgaria in the field of introducing AI into education is also presented. On this basis, an integrated accounting education model is proposed that combines traditional pedagogical approaches with AI-based tools, emphasising the development of analytical thinking, digital literacy, ethical responsibility, and lifelong learning skills.*

Keywords: accounting, education, artificial intelligence, university programs, skills.

Introduction

In the era of digital globalisation and the rapid development of technologies, including artificial intelligence (AI), professional accounting practices have changed radically. Automation on routine tasks, implementation of mechanical training, and intelligent software accounting solutions processes lead to an increase in efficiency and precision at compilation and analysis of financial data. These changes require relevant adaptation of the educational process and updating the curricula in the specialities preparing accounting professionals, so that the future accountants possess the necessary digital and analytical skills. The dynamics of the digital transformation in the environment put in front of the educational system, and in particular in front of accounting education, pose exceptional challenges. Traditional methods of training, focused on mechanical absorption of normative frames and manual execution of standard operations, are no longer adequate for the preparation of competitive specialists. Artificial intelligence (AI) has turned from a futuristic concept into reality, transforming the accounting profession. In this context is imposes rethinking on the objectives, content, and methodology of training by accounting disciplines. Integration of AI in the classroom process is not simply a technological upgrading of theoretical knowledge, and a strategic necessity for an increase in the quality of education, to achieve development in them in critical thinking and analytical skills, and better adaptation of future specialists to requirements on the market.

The object of this study is the process of training in accounting disciplines in universities. The subject of the study is the methodological approaches, tools, and pedagogical models that are applied, as well as the possibilities for effective integration of technologies based on artificial intelligence in accounting, finance and audit training, which would provide students with the necessary knowledge and skills to use these technologies in their future professional development.

The purpose of the study is to explore current trends and identify opportunities for integrating AI-based technologies into accounting education. This is to increase the effectiveness of the learning process, develop skills that meet future professional requirements, and produce adaptive, analytically-minded professionals. The following objectives have been set to achieve this:

- to conduct an in-depth theoretical review of the literature on the topic,
- to analyse the requirements for accountants, auditors, and financial analysts in the context of integrating AI into business processes,
- to analyse the progress of the Republic of Bulgaria in integrating AI into education,
- to propose a model of an accounting training process using AI-based tools.

The relevance of the topic is determined by the growing role of AI in accounting – both in practice and in education. Accountants, auditors, and financial analysts have been using technology for many years to improve their work and provide more value to the business. The advent of AI provides an opportunity to rethink and radically improve the quality of business and investment decisions, which is the ultimate goal of the profession (ICAEW, 2017). To realize these goals, accountants, auditors, and financial analysts need to focus on the business problems themselves and on how new technologies can transform the approach to them. According to Medyukha and Kovaleva (2023), machine learning, financial robots and adaptive intelligence are already part of everyday work in accounting and auditing. Therefore, education and professional training must be reformed quickly to meet these technological challenges. Despite the positive prospects, there are also warnings in scientific circles about potential dangers that may arise: for example, Ballantine et al. (2024) note the “uncritical” use of AI and call for an educational focus on the human and social aspects of the profession.

There are several limitations to this research that are important to note. The review is based primarily on peer-reviewed scientific articles. This ensures a higher quality of sources, but may result in missing new and applied results not yet reflected in scientific journals. The analysis does not examine in detail how different AI applications fit into specific pedagogical approaches. Constantly emerging generative and adaptive AI tools are changing teaching practices at a much higher rate than can be assessed in scientific studies.

Literature review

A literature review on the topic reveals a variety of studies related to the impact of AI on the accounting profession and accounting education. As early as 1995, Baldwin presented the need to integrate AI into accounting curricula. Baldwin et al. noted that historically accounting students have had little training related to the use of AI, although similar technologies are used in auditing, financial and management accounting. It is recommended to introduce topics on expert systems, neural networks and other AI tools into the curriculum to prepare students for the real job market.

A review of the recent literature highlights the following areas of research on the implementation of AI in accounting education:

Methodological Aspects of the Use of AI in Education

The first group of studies focuses on the possibilities and effects of incorporating technology into teaching and assessment methodologies. Luckin et al. (2016), also Baker & Inventado (2014) consider AI as a catalyst for personalized learning. It is pointed out that adaptive learning systems (Intelligent Tutoring Systems - ITS) can diagnose each student's individual difficulties and offer personalized paths, tasks and feedback in real time. In the context of accounting, this means the system can identify

whether a student has a problem understanding, for example, the fair value method or the consolidation of financial statements and automatically direct them to additional materials and exercises. Luckin et al. (2016) point out the role of AI in creating "intelligent partnerships" in learning, where technology augments the capabilities of the teacher, rather than replacing him.

Another key area of research is focused on the possibilities of using Learning Analytics and Educational Data Mining. In this regard, the work of Siemens & Baker (2012) presents the possibilities for successful collaboration between the two approaches. These possibilities could have a good application in a university accounting course by using them to analyze the actions in the e-learning platform in order to identify moments when a large number of students stop or return to a particular video lecture or other learning resource, which signals a difficult topic to understand. Data analysis of student interactions with e-learning platforms can assess the effectiveness of learning resources, predict the risk of dropout, and allow the instructor to intervene on time.

From a pedagogical perspective, the positive effects of using AI in the learning process are illustrated by studies of work with interactive learning systems. Johnson et al. (2009) describe an intelligent accounting lesson system in which students receive personalised work guidance and feedback on their progress in real time. In controlled experiments, the group using an AI teacher showed significantly greater progress (an increase of ~27 percentage points in test scores) compared to a group using only a textbook (8 points). The authors emphasise that the main advantage of the AI teacher is precisely the dynamic, adaptive feedback that is created individually for each student's mistakes and difficulties. This result demonstrates that algorithmic learning systems can surpass traditional methods in terms of learning effectiveness. Popenici & Kerr (2017) emphasise that the teacher is transformed from a source of information into a facilitator, mentor, and designer of learning experiences. His expertise is measured in the ability to lead debates, analyze complex cases, and guide the use of technology.

Along with the aforementioned studies that establish positive results, there are also authors with an opposing position. Ballantine et al. (2024) warn that the implementation of AI can significantly narrow educational goals only to the acquisition of technical skills. According to them, students need to develop critical and ethical skills, and the education system should not be driven entirely by market demands for technology. Similarly, some authors emphasize the importance of the overall educational experience. For example, Rodríguez et al. (2025) find that even when students recognize the benefits of AI, their expectations may differ from the available functions, which requires pedagogical strategies that combine technological usefulness with adequate personal development and training.

The Impact of AI on the Accounting and Auditing Profession

The second group of studies focuses on the labour market requirements from the perspective of the development of the profession of accountant, auditor and financial analyst. This group of studies directly justifies the need for a change in accounting education towards the integration of modules related to the development of knowledge and skills for the use of AI. Kokina et al. (2017) point out that since the tasks performed by entry-level accountants are relatively structured, they are most likely to be automated, which will make it difficult to start a professional career, as the basic level of training that young professionals have immediately after university will be of limited interest to the market. In addition, studies such as Cooper's et al. (2019) document the mass adoption of Robotic Process Automation (RPA) for tasks like invoice processing, payment processing, and

bank reconciliation. This draws a clear line: the skills to perform these operations manually now have limited added value.

Alles & Gray (2020) examine the "continuous audit" paradigm, where AI monitors transactions in real time. Ade and Andrew (2024) demonstrate how anomaly detection algorithms can identify potential fraud across the entire data set. Kokina (2017) emphasises that the role of the auditor will consist of monitoring the work of intelligent accounting machines with the improvement of their productivity and results; supervising the use of intelligent machines in internal and external audit processes and determining the need to introduce additional process automation; and interpreting financial and audit results for senior managers. The focus on the competencies of future accountants and auditors is shifting towards analytical and predictive functions. Issa et al. (2016) analyze the work of audit firms from the Big 4 in developing and implementing technologies and artificial intelligence in audit activities and conclude that AI will potentially replace auditors in various automated tasks and is capable of automatically designing the entire audit plan based on the client's situation and existing evidence, self-correcting for errors, and continuously improving the audit process. In this regard, the study by Dyball & Seethamraju (2021) analysed the benefits of clients' use of blockchain technology on audit risk and audit approach. The conclusion is that the implementation of AI-based tools will require the auditor to develop new skills in test design, model tuning, and interpretation of results.

The role of AI in financial analysis is also a subject of research. For example, Richins et al. (2017) show how machine learning models predict financial performance, bankruptcy risk, or working capital needs. Thanks to these capabilities, the role of the financial analyst is shifting from retrospective to predictive (Vasarhelyi, 2015).

Specific Applications of AI in Accounting Education

The third group of studies that stands out in the scientific space includes publications aimed at investigating the application of AI specifically in accounting education. This is the newest but rapidly developing area of research. A systematic literature review by Tandiono (2022) that interest in AI in accounting education is growing steadily. The author analyses 20 empirical studies that examine the application of AI in accounting education, from analysis of learning software to proposals for curriculum reform. The overall conclusion is that universities need to review teaching methods and course content to prepare students for the "changing landscape of the industry." A similar conclusion is made by Zhang and Zhao (2024), who recommend that educators incorporate AI, Robotic Process Automation (RPA) and data analysis tools in the curricula of students in accounting majors, as well as continuous professional development and interdisciplinary training combining knowledge and skills in accounting, information technology, and the development of critical thinking and analytical skills.

One part of the publications is aimed at presenting the effect of using AI-based tools for simulations of workflows in a learning environment, as well as the effectiveness of various electronic learning resources. In another group of studies, the emphasis is on the need to develop "soft" skills and ethics. Brougham & Haar (2018) emphasize the critical need to integrate ethical dilemmas related to AI into the curriculum. This includes discussions on liability for algorithmic errors, transparency (black box problem), and privacy protection. In support of the thesis of the need for continuous professional development and soft skills development, Imjai et al. (2025) introduce the concept of AI Mindset. It is defined as the ability to creatively solve problems with the help of AI, which is key for future accountants. They show that the formation of an AI mindset

directly affects students' readiness for work and that soft skills (communication, teamwork, critical thinking) play a critical mediating role. The combination of AI mindset, practical experience and soft skills significantly improves students' preparation for the digital work environment. The cited studies lead to the conclusion that the combination of technical, digital and social competencies is necessary in the training of future accountants.

Some authors focus on the effect of specific AI tools on accounting learning. For example, Cheng et al. (2024) evaluate the performance of ChatGPT in solving accounting problems. They found that ChatGPT performed better on tasks requiring explanation, rule application, or ethical judgment, but performed poorly on tasks involving financial statement generation or accounting transaction recording. In response, the authors suggest that educators structure their tasks to reduce the opportunities for “blackmail” through generative text models and find ways to incorporate such systems into teaching exercises, as they can help achieve desired educational outcomes. In parallel, He and Li (2026) distinguish between two types of accounting modules - those for financial statement generation and those for using accounting information in decisions - and analyze the application of ChatGPT and its implications for learning. Their approach illustrates how advanced AI technologies are already changing the future of accounting education.

Systematising the theoretical review, it can be concluded that there is a consensus on the need to integrate AI into accounting education, although approaches to how to do this differ. The literature calls for updating curricula, including AI case studies, developing new teaching practices and training teachers. At the same time, there is a strong emphasis on developing critical thinking, ethics and collaboration skills in the digital environment, so as not to lose the human element in the educational process.

Methodology

In accordance with the results of the literature review, the thesis of this research is that the curriculum in the Accounting programs needs updating in order to acquire knowledge and skills for using artificial intelligence. To this end, the research aims to answer the following two research questions:

R.Q.1.: What is the implementation of AI in the accounting profession, and what are the key knowledge and skills needed by accounting professionals in the AI era?

R.Q.2.: What is the implementation of AI in education in the Republic of Bulgaria at present?

The main research method is content analysis. Tables and figures are used for the visualisation and systematisation of data.

For the first question, accounting information processing software has been studied, and on this basis, the requirements for accountants regarding their professional training. The information was used from the official websites of four Bulgarian companies that offer AI-based accounting software.

For the second question, official Bulgarian government sources of information on the inclusion of AI in education in Bulgaria are analysed.

The results of these two research questions served to discuss proposals for updating the curricula in university accounting programs.

Results and discussions

Performance analysis

The business environment is rapidly transforming, requiring new competencies for accountants. Starting from the research question R.Q.1. *What is the implementation of AI in the accounting*

profession? We found that the accounting profession is now moving beyond the traditional framework of reporting and auditing. Instead, accountants are being asked to take on analytical and strategic roles – for example, processing large volumes of data, modeling financial forecasts and advising businesses on technology and risk issues (Tudor et al., 2025). This is also confirmed by features of applicable accounting software, based on AI in Bulgaria. The results are systematised in the following table:

Table 1. Main features of Bulgarian Accounting software with AI

Accounting software with AI	Main features
AIConto	The first Bulgarian AI accountant, trained on local accounting standards and documents, understands the content and extracts information automatically. Thinking AI agent for automatic invoice accounting
AI-Accounting	A system that automatically recognizes invoices and generates accounting records, learning from the entered examples.
NULA / AI Accounting	Cloud accounting software with AI for OCR, automatic categorization, bank reconciliations and AI bill suggestions.
Ajur L	Reducing manual actions, predicting anomalies.

Source: Authors' own research.

These software programs use a combination of optical text recognition, machine learning, and generative AI models, which facilitate the automatic entry, classification, analysis, and forecasting of financial data. So key features of an accountant are moving from recording data to providing strategic advice, managing risk, and implementing innovation; deep use of AI, blockchain, data analytics, and robotic process automation (RPA) for efficiency; providing up-to-date financial reporting, analysis, and decision-making; valuing ethics, judgment, leadership, and adaptability, alongside technical skills.

The Association of Certified Public Accountants, as well as academic research, highlight that future accountants will work “largely in collaboration with AI systems”, using data analysis and programming skills. This requires significant digital competencies that have not been the focus of education until now. A recent study on AI in the accounting profession and education systematises around 20 areas of impact (Kinay, Cığır, 2025). The implementation of AI leads to increased productivity and rewards, while freeing up accountants' time to analyze and control processes and results, so as to maximize management benefits. The implementation of artificial intelligence ensures the performance of repetitive, routine operations, which brings to the fore the consulting and expert role of accountants. Cost optimization can be expected in the long term. AI provides the ability to perform data checks in real time.

Exploring the future of the accounting profession, Salsabila (2023) and Ahmed (2025) introduce the concept “Accountant 5.0.” It refers to the evolution of the accounting profession in the era of Industry 5.0, moving beyond traditional data-driven accounting to strategic, technology-driven roles that leverage artificial intelligence, big data, and automation for real-time analytics, risk management, and sustainable business strategy, transforming accountants into “Architects of Core Value” (Ahmed, 2025), who combine technical skills with ethics and leadership. This vision emphasizes innovation, data analytics, and new competencies needed to address complex digital transformations.

Essentially, “Accountant 5.0” is a concept that sees accountants as experts who are evolving as technologically literate, strategic partners who use advanced digital tools to generate added value for the business and deal with future complex situations, focusing on both technology

and the critical human element. To achieve this professional vision, educational transformation and resources to implement new technological solutions are needed. The goal is to develop a new mindset based on artificial intelligence and includes adapting and proactively using artificial intelligence in work processes, adapting to the changing environment, and possessing great analytical skills (Rashid et al., 2024).

Some of the key knowledge and skills needed by accounting professionals in the AI era are shown in Figure 1:



Figure 1. Skills of an accountant in the AI era

Source: Own elaboration, using Diagrams: Flowcharts & Mindmaps.

The future accountants need to master these skills to manage and monitor AI tools in accountancy (Tiron-Tudor et al., 2023). Future accountants will be involved in processes such as auditing algorithms, validating data, and adapting AI models to specific business needs (Veysel, 2023). Although AI provides accurate solutions, the person must know the strengths and weaknesses of the technology. Accountants will need to apply professional scepticism and judgment when analyzing the information provided by AI tools. Studies show that developing an “AI mindset” also requires a strong focus on interpersonal competencies. Particular attention is paid to continuous lifelong learning – new technologies are developing rapidly, so professional development and flexibility in learning become mandatory. AI also brings ethical dilemmas (e.g., model bias, privacy issues), so future accountants must be familiar with regulations and responsible use of AI. Legislation and standards around the world (IFAC, IASB, etc.) are already developing guidelines for AI in accounting, which also requires new knowledge and adaptation on the part of specialists.

Educational programs must respond to these needs. To build on traditional training, universities and professional schools of accounting should include modules on data analysis, programming, use of accounting software with AI functionalities, as well as develop courses on professional behaviour in the digital environment. It is also recommended that educators actively develop their skills and create didactic methods that encourage creativity and critical thinking, along with technological preparation. Under the new educational framework, the accountant of the future will be a “partner in business” – an expert in data and analytics, and not just a recorder of transactions.

Considering the research questions R.Q.2. *What is the implementation of AI in education in the Republic of Bulgaria at present?* It can establish progress on synchronising learning with contemporary trends (fig.2):

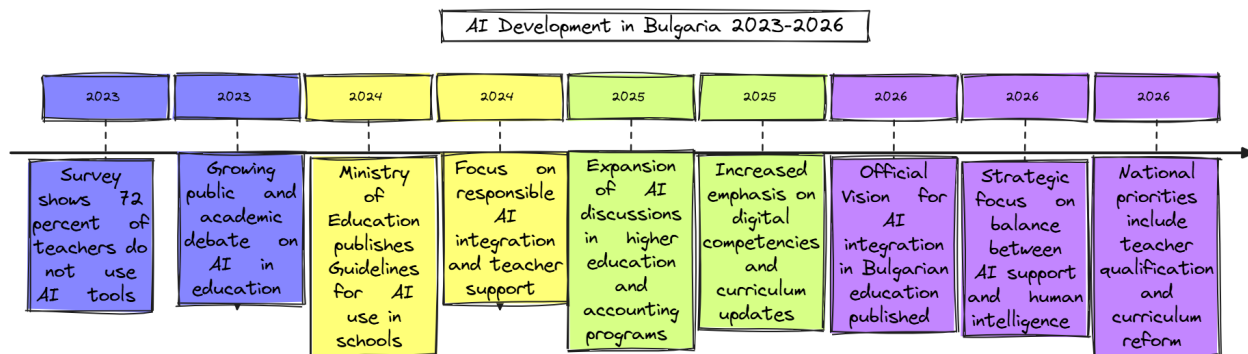


Figure 2. AI Development in Education in the Republic of Bulgaria

Source: Own elaboration, using Diagrams: Flowcharts & Mindmaps.

At the end of 2023, a Bulgarian non-profit organisation, “Education without Backpacks”, surveyed the use of AI by Bulgarian teachers. The results showed that 72% of teachers in Bulgaria are not yet using artificial intelligence (OBR, 2024). Teachers are more sceptical about the potential benefits of artificial intelligence. 21% of them rate the benefits of AI with the lowest grades 1 and 2. 63% of those who use AI tools use them to create tasks, tests and other educational resources for students.

In response to the need for support for participants in the education system in integrating AI into the education process in early 2024, the Ministry of Education and Science of the Republic of Bulgaria published a document, “Guidelines for the Use of Artificial Intelligence in the Education System” (MES, 2024). The text aims to provide a comprehensive framework for understanding, implementing, and responsibly using artificial intelligence in the school environment. It examines the main concepts related to artificial intelligence, including what AI is, how it works, what it is not, and common myths. Special attention is paid to generative artificial intelligence, large language models and practical ways to work with them. The document analyzes the role of AI in school, outlining the principles for its use, the potential benefits for learning and management, as well as the risks, dangers and cases of prohibited or unethical use. The issue of the institutional readiness of schools for working with AI is also considered and guidelines and strategies are offered to school principals for successful implementation. A special place is given to the role of the teacher – the use of AI in lesson preparation, personalisation of work with students and assessment processes. Pedagogical approaches for introducing students to the topic of AI are

presented, as well as specific tools with integrated artificial intelligence. The final part includes examples of good practices – the use of AI by teachers and students, as well as a practical presentation of ChatGPT and its capabilities in the work of the Bulgarian teacher, supplemented by used sources and applications.

At the beginning of 2026, the Ministry of Education and Science of the Republic of Bulgaria published another official document "Vision for the Introduction and Use of Artificial Intelligence in Bulgarian School Education" (MES, 2026), according to which AI should be introduced as an element in a new educational environment, in which the guiding principle is the balance between the use of AI to support the learning process and the preservation of the abilities inherent in natural intelligence - to perceive, understand and transform information into lasting knowledge and personal experience. The document presents the vision of the Ministry of Education and Science for a phased, balanced and responsible introduction of artificial intelligence in Bulgarian education. The main idea is for AI to be a supporting tool, not a substitute for human thinking, memory and critical judgment, with the teacher retaining his leading role in the educational process.

Five leading directions have been identified to achieve this vision:

First: Knowledge "about" AI - understanding what AI is, how it works, what its risks are (hallucinations, biases, manipulations), as well as ethical and legal aspects.

Second: Knowledge "from" AI - using AI as a source of information and a mediator in learning in all academic subjects.

Third: AI in support of students – personalised learning, support for students with difficulties and SEN, with a clear understanding that AI is not a "friend" or a substitute for human relationships.

Fourth: AI to support teachers – helping with lesson planning, adapting content, reducing administrative burden, and improving teaching quality.

Fifth: AI skills as skills of the future – critical thinking, digital and AI literacy, ethical awareness and social responsibility.

The key objectives, the achievement of which is a top priority, are aimed at updating curricula with AI integration; introduction of a National Teacher Qualification Program; creation of methodological guidelines and an educational AI hub to support teachers, and also the use and development of international and Bulgarian AI platforms.

Discussion about the Application of Artificial Intelligence in Accounting Education

In light of the conclusions, it is appropriate to consider an integrated learning model that combines traditional teaching methods (lectures, discussions) and interactive methods (case studies, debates, projects) with AI -based technologies. The main elements of this model could be:

- Curriculum with an AI component – incorporating specialised AI topics into accounting courses. This can be done in several directions:

- training for productive interaction with AI – the so-called prompt engineering, i.e., the formulation of precise and meaningful tasks to obtain reliable and useful answers, including for recognising errors, hallucinations, algorithmic biases, social engineering, and misleading suggestions in AI responses.

- adding additional topics on digital systems, machine learning and algorithms to traditional accounting disciplines,

➤ adding separate disciplines such as "AI in accounting". For this purpose, it is appropriate to use case studies and assignments in which students apply AI tools (e.g., chatbots, simulations) to solve real accounting problems.

Similarly, Gilreath et al. (2025) recommend a balanced training with technical and creative activities and the inclusion of AI application cases. Cao (2021) emphasizes on choosing a suitable AI environment, starting from accounting as the center, focusing on information technology courses such as big data, blockchain, deep learning, etc., business management courses including enterprise value chain management, financial platform sharing and life cycle management, specialized courses related to AI in finance, including introduction to AI, principles of big data analysis and technical applications, basic structure of intelligent finance, big data analysis for business and big data, etc., increasing the proportion of information technology courses and focusing on the development of Internet thinking and AI concepts.

- Intelligent training system – use of AI-based web-based platforms or software for individualised training. There is an emphasis on personalised education, which may include the use of technology to individualise learning, the creation of diverse learning environments, and methods that strive to satisfy different learning styles and student interests (Staribratov, Glushkova, 2024). An example of effective practice is the AI-school on the accounting cycle described by Johnson et al. (2009). It is appropriate to use an AI tool in training, through which each student receives personalised feedback during exercises (e.g., automatically generated accounting examples with error analysis, return to learning resources on topics where students have gaps). This allows continuous access to learning material, which will lead to more effective absorption of new theoretical knowledge and acquisition of key skills.

- Project-based learning and simulations – integration of interactive methods in which students individually or in groups work with real or simulated data using AI tools (e.g., RPA processes, machine learning analysis, chatbots for accounting consultations, etc.). Such activities develop not only technical skills, but also analytical thinking. Projects can be group, stimulating communication and teamwork, or individual, with the opportunity for creative solutions. Such interactive approaches allow the application of theoretical material in practice. For example, virtual case studies can be used with business data, where students apply AI tools for analysis.

- Adaptive assessment and feedback – using AI to dynamically assess knowledge. For example, chatbots or interactive systems can ask control questions during classes and adapt the complexity of tasks. This process is based on the step-by-step learning scheme, which is recommended for structuring courses with AI. Adaptive feedback reinforces key concepts and provides timely corrections to the learning.

- Training for teachers – the teachers must be prepared to use and manage AI tools. This includes courses for digital competencies, AI basics, and working with AI systems. They organise seminars and workshops for sharing good practices and the joint creation of educational materials. Similar training guarantees that technological innovation is applied meaningfully and effectively. Basically, the goal is to increase the quality of pedagogical teaching activity through enrichment of approaches and content, stimulation of creativity through construction of interdisciplinary connections and vision for the practical applicability of knowledge and skills, expansion of the possibilities for training tailored to individual needs, and reduction of the administrative load.

- Continuously learning – mechanisms should be envisaged for updating on content and methods (e.g. annual revisions on educational plans), as well as systematically training students

and professionals through the whole life. This reflects the conclusions of Weiss (2023) that in the future will is emphasizes on learning through the whole life and the development of flexible skills.

It can be summarised that a model is based on the hybrid concept of training (Figure 3). It is a combination of the best of traditional methods (classical lectures, exercises with accounting software, case studies) with the innovations offered by AI technologies (intelligent simulations, chatbots, data analysts) that would be more effective in preparing future specialists in the fields of accounting, auditing, finance and analysis. Such integration is supported by a number of authors, and theoretical and empirical studies show that the combination of interactive AI solutions and teachers gives the best results. AI takes on the role of a mentor who is available to students continuously, while the teacher focuses on guidance, critical discussion and evaluation of complex issues (Johnson et al., 2009).

The advantages of such a model are that blended learning, combining traditional methods and AI, provides flexibility, increases students' interest in the learning material, provides a higher level of preparation in relation to the needs and expectations of the business, and allows for an individual learning experience for each student according to their personal progress in mastering the learning material. In this way, the students will acquire simultaneously stable professional knowledge and skills for working with innovative tools, and will be competitive accounting specialists who can work together with intelligent systems and contribute to sustainable development in companies.

Some of the limitations of the model come down to the need to change the curriculum, which can be a long process, the need to train teachers, and the commitment of additional financial resources to provide the relevant digital technologies and appropriate infrastructure - available computer labs, software, and access to cloud AI services. AI-assisted systems can lead to students becoming overly dependent on automated solutions. If learners rely on generated answers, their personal engagement and cognitive participation may weaken. Some ethical and social risks should be considered. Data privacy, algorithmic bias, and the risk of academic dishonesty are among the most commonly cited limitations of AI in education.

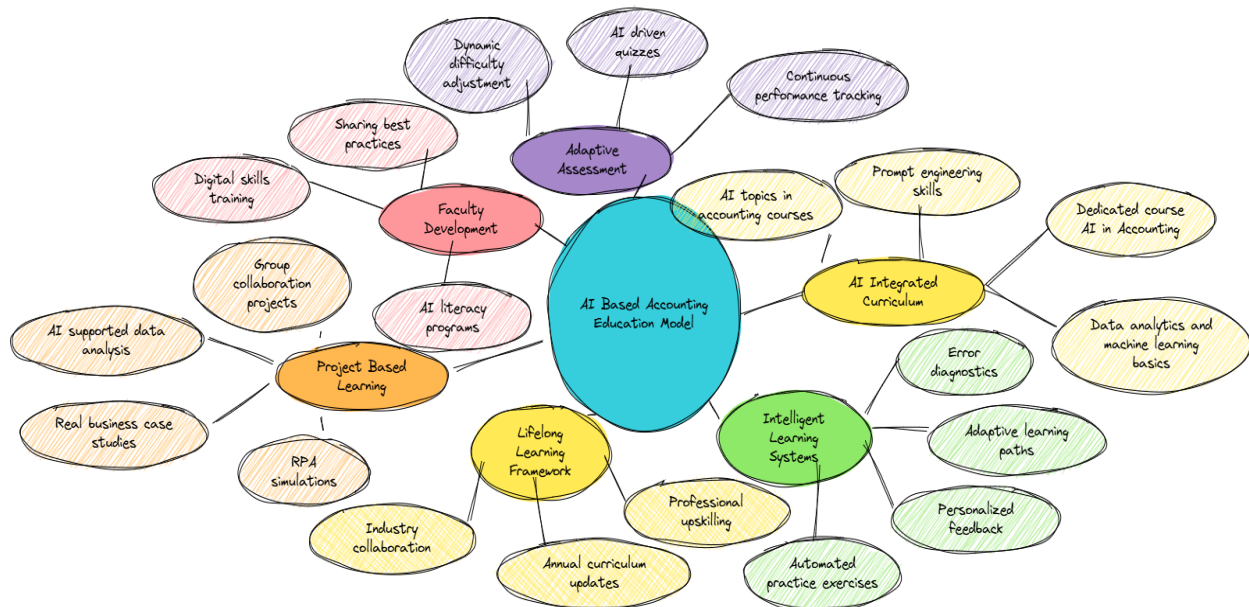


Figure 3. AI-based Accounting Education Model

Source: Own elaboration, using Diagrams: Flowcharts & Mindmaps.

Conclusion

AI is an inevitable part of the modern world, and delaying its integration into education would deprive students of adequate preparation. If schools do not integrate AI, students will use it anyway, but without an ethical framework and targeted pedagogical guidance. The introduction must be based on a balance between technology and natural intelligence, so as not to replace cognitive effort.

Analysis of available research and trends shows that AI-enhanced accounting education can offer significant benefits, from personalised learning to preparing accountants for new business realities. At the same time, this requires careful rethinking of curricula and the formation of new pedagogical approaches that combine technical literacy with critical thinking and ethics.

The formation of an attitude of accountants, auditors, and financial analysts towards the fulfilment of professional commitments based on artificial intelligence is a concept that arouses considerable interest in the Digital Era 5.0, especially in the educational and professional context. It refers to a cognitive and behavioural orientation that encompasses technological advances, especially the integration of artificial intelligence in problem-solving and skill development. This process requires awareness and adaptability that allow people to respond effectively to the digital transformation.

Improving the educational framework by combining traditional and interactive teaching methods with the capabilities of AI-based tools is one possible path for adaptation. It is based on maintaining traditional theoretical accounting knowledge while developing the necessary digital and social skills. With the implementation of such a model, Bulgarian and international accounting education would respond to the challenges of Industry 5.0 and provide students with preparation for a successful career in the era of artificial intelligence.

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