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Does Artificial Intelligence Represent a Threat to the Accounting Profession?

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Abstract

This paper investigates the impact of artificial intelligence (hereinafter AI) on the accounting profession, emphasizing the need to adapt educational programs and business practices due to the emergence and development of AI technologies. A qualitative method with the help of a semi-structured interview was used to collect primary data. The participants were professionals in the accounting and information technology field who have the relevant knowledge and experience to consider this topic.

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The research aimed to discover the main problems that may arise when implementing artificial intelligence in the accounting profession, to determine how AI technologies affect the quality of financial reports, and whether education reform in accounting is needed due to the emergence of AI technologies. The results of the conducted research showed that AI technology will find its application in the accounting profession, that the quality of the financial report generated based on AI technology depends on the quality of the entered data, i.e. that the control function of accountants is of crucial importance, and that it is necessary to reform curricula in the context of exploiting the benefits of AI technologies.

Keywords: *artificial intelligence (AI), the accounting profession, educational programs, business practices, Bosnia and Herzegovina*

1. Introduction

The emergence and development of AI is a key factor in changing society as we know it. The application of AI in the accounting profession brings with it advantages and opportunities. With the ever-faster advancement of technology, AI is expected to have a strong impact on each individual and all occupations, including the accounting profession. Namely, this profession is known for repetitive tasks and records, which is why it is subject to automation of data processing and report generation. If AI were to be included in automation, employees would have more time for analytical aspects of business, as well as developing and implementing business strategy. AI research in the field of accounting is understood in the context of global technological progress and represents the basis for strengthening efficiency, accuracy and strategic importance for performing accounting tasks. AI is a field of computer science that emphasizes the creation of intelligent machines that behave, act, think, and make rational decisions like human beings. The word AI consists of two parts, *artificial* which means man-made, and *intelligence* which implies making rational decisions based on observation and analysis of the situation. Thus, AI could be said to be a "man-made brain" (Karthikeyan, Hie, & Jin, 2021).

Kokina and Davenport (2017) provide an overview of the emergence of AI in accounting and auditing, discuss the current capabilities of cognitive technologies and the implications the technology will have for the accounting and auditing profession. In addition to the above, they also deal with potential prejudices related to the creation and use of AI. Chukwuani and Egiyi (2020) examine the impact of AI on the accounting industry and the degree to which the

accounting industry has progressed in automating accounting processes. Mohammad et al. (2020) assess the effects of the introduction of AI-based systems in the field of accounting and answer the question of how it has changed the world of accounting professionals, and make relevant suggestions for policy makers. Gulin, Hladika and Valenta (2019) believe that digitization and the development of information technologies represent a great opportunity for companies and state that accountants must take advantage of the great development of technology that improves their profession and facilitates accounting processes. Li and Zheng (2018) focus on the use of AI to prevent accounting fraud and create a positive impact on the quality of accounting information. They believe that the emergence of AI is not a challenge, but an opportunity for the accounting industry and profession. Stancheva-Todorova (2018) points out that AI will undoubtedly reshape the future of many professions and that the accounting profession is one of the most susceptible. If considered as a complement to human intelligence, AI will bring many opportunities for new jobs and important roles. Berdiyeva, Islam and Saeedi (2021) found a positive effect on accounting results with the use of AI and that in 10 years the accounting profession will look significantly different than it does now. Nayak and Sahoo (2021) claim that intelligent systems are an opportunity to rethink and fundamentally improve the quality of business and investment decisions, which is the main purpose of the accounting profession. The future of accounting and finance professions relies on AI, which is an important tool to offer these professionals the resources they need to improve productivity and work efficiency (Baldwin, Brown, & Trinkle, 2006).

The changes brought about by technology, with an emphasis on AI, impose the question of reforming the education system. If there will be significant business changes, the education system should find the best way to prepare future employees for work in a new environment. Chassignol et al. (2018) deal with identifying the potential impacts of AI on the study process and try to predict possible changes in the basic environment. They also consider four categories: adapted educational content, innovative teaching methods, improved assessment with the help of technology, and communication between students and lecturers. Gulin et al. (2019) state that accountants in the future will need to have high-level IT, analytical, and tax knowledge and skills. Ultimately, these changes will require universities to adapt their educational programs to prepare accounting students to work in a modern environment filled with automation and digitization. Mohammad et al. (2020) predict that soon the accounting curriculum will include subjects related to programming and using AI for routine accounting functions. According to Chukwuana and Egiya (2020), some educational institutions are already integrating AI in the field of accounting education. This means that students who

graduate from such universities will become a workforce with the necessary skills to work in an automated accounting environment.

AI technology brings opportunities but also risks for the development of accounting, such as issues of security of accounting information (Brzezicki, Kobetić, & Neumann, 2017). The general conclusion is that the death of AI in accounting research and practice has been overstated (Sutton, Holt, & Arnold, 2016). However, accountants should have the ability to quickly learn and absorb new knowledge and fully utilize AI. They should understand that the development of science and technology is inevitable (Li and Zheng, 2018). Regardless of the security of the IT system, there is always a fear among the markets that in case of any disruption, the entire economic system could collapse. Due to the existence of such fears, experts advise that organizations do not rely exclusively on IT systems for all decisions (Mohammad et al., 2020). In the future, financial work will be further obscured. Financial personnel will transform into financial talents who integrate management, finance, and operations (Li, Haohao, & Ming, 2020).

In the future, more focus will be on analysis, in addition to the actual entry of financial data (Mohammad et al., 2020). Kokina and Davenport (2017) believe that it is important for future research to examine AI bias and whether humans using AI applications can engage in appropriate judgment and decision-making. Another line of future research could address the role of transparency, or lack of transparency, in AI-based accounting and auditing decisions. Gulin et al. (2019) recommend that future research should focus on primary research through surveys and in-depth interviews, to gain knowledge about the changes in the role of accountants in the environment of digitization and automation, and the use of AI in accounting jobs that are automated in companies of different sizes (micro, small, medium and large). Lee and Tajudeen (2020) imply that future studies can focus on other areas of accounting, such as accounts receivable, inventory, and accounting functions as a whole.

2. Methodology

The semi-structured interview method was used to collect the data needed for this research, which allowed flexibility in asking additional questions, as well as adjusting the conversation to the specific answers of the participants. The interviews were conducted as part of a qualitative research with the aim of gathering detailed information about the participants' perceptions regarding the impact of AI on the accounting profession. The participants were professionals in the field of accounting and information technology, and were selected using

the purposive sampling method to ensure that those who have relevant knowledge and experience in the field of this research were included. The table below shows the profile of the respondents. Years of experience were not included in this analysis due to the observation that younger professionals gain experience and knowledge faster than older colleagues. This phenomenon may be a consequence of faster adoption of new technologies and approaches, as well as greater engagement of younger generations in dynamic work environments. Therefore, a focus on the age of respondents can provide more relevant insight into the perspectives and attitudes of different groups within the research.

Table 1. Profile of respondents

No	Code	Profession	Age	Sex
1	H.L.	IT Engineer	35	M
2	E.K.	IT Engineer	36	M
3	A.K.	Accountant	38	F
4	D.L.	IT Engineer	54	M
5	Š.H.	Accountant	46	F
6	A.L.	Accountant	46	F
7	A.A.	Accountant	58	F
8	H.L.	IT Engineer	58	M
9	L.M.	Accountant	69	F

Source: Author's analysis

3. Results

This chapter presents the results of the research that resulted from the conducted interviews on the following topics:

- Getting to know the concept of AI and its implementation in accounting,
- Defining the main problems that the accounting profession could face in the implementation of AI,
- Discovering how AI affects the quality of financial reports,

- Discovering the knowledge of AI technologies by the population of Bosnia and Herzegovina, and the opinion about its application in modern business,
- Reform of education in the field of accounting.

3.1. Getting to know the concept of AI and its implementation in accounting

Seven out of nine respondents said they use AI daily for business purposes. One respondent stated that he once tried to test Chat GPT to solve problems when posting a certain business change, but he did not receive an adequate response. What can be concluded is that IT experts use AI technology every day and see it as an inexhaustible source of ideas that greatly speeds up and facilitates their daily business tasks.

"Every day I use AI tools that make my business tasks much easier and faster."(D.L., 54)

Accountants, on the other hand, state that they use Chat GPT, Gemini, and Copilot as AI technologies. One respondent states that the biggest advantage for him is the AI technology in Excel, which makes his work easier every day. However, accountants use AI tools to a much lesser extent than IT professionals.

"I know there are companies that are already using AI technology, but I think that we in the accounting sector are still far from applying AI technology directly in accounting itself." (Š.H., 46)

Of all respondents, only one had the opportunity to encounter the implementation of AI technologies in the field of accounting. He explains how he worked with certain Microsoft off-the-shelf solutions specialized in accounting. He did not have the opportunity to implement AI technologies in the process of posting business changes, however, such an implementation could perform an analysis of the recognition of invoices and other accounting documents.

"I knew even then that AI would be part of the future of business." (A.A., 58)

We found out that currently in Bosnia and Herzegovina in one of the banks AI technology is used for certain routine tasks such as order processing and clearing.

"As an employee in the banking sector, I know that AI is being used for certain routine tasks that were done manually in the past, such as order processing and clearing."(E.K., 36)

We also learned that some companies in Bosnia and Herzegovina are already using AI technologies for certain jobs and are planning to invest in software that works on the principle of AI technology. Respondents believe that the accounting sector is still far from applying AI

technology. AI technologies can be implemented in accounting because of many repetitive tasks. It is necessary to keep in mind that the data set is very important. If the company were to train the model in such a way that all jobs and decisions are adequately entered into the system by all employees, then, in the event that a problem arises, it would be recorded in the archive, described in detail and remain recorded if someone needs again that experience. The model could independently propose decisions based on previous experiences.

"This would be beneficial for the company in the long run, because employees who leave the company would leave behind their knowledge and previously made decisions."(H.L., 35)

3.2. Defining the main problems that the accounting profession could face in the implementation of AI

When it comes to the implementation of AI technologies in accounting, respondents mostly cite advantages such as: speeding up the process, reducing the use of resources, precision, accuracy, shortening the time for repetitive tasks, reducing the possibility of errors, faster report generation, automation of VAT calculations, better presentation data, cancellation of documents in paper form, and detection of fraud attempts.

"Bookkeeping should be an elementary component of economic development, the analysis of economic events should be based on bookkeeping analyses. Finance directs development and is an important component. I think AI would help to make the right decisions about how to direct finances."(L.M., 69)

In addition to speeding up processes, as in any sector, the biggest advantage of AI is that it guarantees the correctness of the returned data, i.e. there is no factor of human error. The factor of human error is especially pronounced among employees who are just starting to work in the company. With the machine, the probability of making a mistake is less than 2%. All AI systems have 98-99% accuracy, but this should be compared to a benchmark, which is human accuracy. The more reliable AI systems are, the better they will be accepted. Accounting is at a very advanced level so far, so it is difficult for a mistake to occur in the system, it is the human who makes the mistakes. The probability of error in the system where the document is scanned and entered into the general ledger is minimal. What needs to be noted is that, when an error occurs, there are two possibilities, that an actual error is made or that it is a false error. There is a 1% probability of making a mistake, however, the system checks independently, especially because in bookkeeping if a mistake is made, the amounts in the report will not match.

By using AI technologies in accounting, continuous compliance with laws and rules could be ensured, the system could react independently and correct problems much faster than a human. AI could form a more human response and less expert accounting, which would make it easier for managers and other users of financial reports. AI would speed up all business processes, shorten the time of performing repetitive tasks, and generate reports faster. AI is much better at performing routine tasks than a human, which would lead to a reduction in the engagement of human resources. However, this does not mean that people would lose their jobs. In the past accounting was done manually, while today this is no longer the case, and people are still the ones doing the same work.

AI technologies have significant potential for detecting fraud attempts. Considering that AI can process large amounts of data faster and more accurately than traditional methods, it can enable more efficient recognition of patterns that indicate potential fraud. Models based on AI technologies can detect transactions that deviate from standard business activities such as unusually high amounts, transactions outside working hours and with unknown partners, or changes in the pattern of daily activities of employees. AI automatically monitors compliance with laws and internal company policies, and can automatically recognize and warn of non-compliant transactions. They have real-time monitoring capabilities, as well as access to non-financial data such as email or other informal communications, through which they can detect signs of fraud. If fraud occurs, AI can contribute to forensic analysis to assess the source of the fraud and the amount of damage caused.

Regardless of the many advantages of using AI technologies in accounting, we cannot help but highlight the problems that the accounting profession could face in the implementation of AI. What was emphasized a lot during all the interviews was the need for training to interact with AI technologies before the actual implementation.

"One should first be trained to interact with AI technologies, not only its implementation, but general knowledge about AI technologies, what they can do, and the use of AI in accounting itself could very well increase."(Š.H., 46)

In order for AI technologies to be implemented, people will need to expand knowledge in the field of information technology so that they can continue to practice their professions. The problem lies in the fact that if someone wants to do accounting, he did not have to have much knowledge about computer work until now. It was enough for him/her to familiarize himself with some accounting software, but now he needs to have a broader knowledge of how AI

technologies work and how he/she can use them. Furthermore, as knowledge expands, a greater spectrum of what a person could do is provided. If someone expands its knowledge about machine learning and AI, the question arises whether he/she will still want to do accounting or will there be a desire for further research and learning. If knowledge is expanded to the extent that a person understands how to provide data for the drainage process, he/she can develop his/hers new model. Therefore, the problem could be that people no longer want to do accounting due to the spread of knowledge about other fields, and that accountants become a deficient profession.

"AI could be implemented mostly for better information retrieval. From my personal experience, I can see that the big problem at the moment is that in accounting, there are employees who make postings based on a few clicks and have no knowledge at all of why a business change is posted in a certain way. This is where I see an area where AI could be useful for acquiring the necessary knowledge. Complex situations require a special approach, it is necessary to take time and think about the correct way to book them so that AI would not be able to solve these problems independently."(D.L., 54)

Defining the responsible person, i.e. the one who bears responsibility for financial reports, can also be considered a disadvantage of using AI in accounting.

"AI must be constantly monitored, there must always be a human factor to review the data provided by the AI. Essentially AI is used as a tool that speeds up processes, but as of now, there must be checks and hierarchy in the company. Although there are still people working today, someone in the hierarchy above them does the checking."(E.K., 36)

Other respondents believe that automation to such a large extent could lead to a large number of errors, which should not happen in the financial report due to the owner of the capital, the users of the financial reports, or the valuation of the company.

"International companies operating in Bosnia and Herzegovina, in addition to the local one, also use their own chart of accounts because they want to read the report as it is read in all branches in the rest of the world. In this context, mapping is done in which each account is locally mapped to an account in the internal account framework. There is a possibility that problems may arise during mapping that require the opening of a new account. This requires accurate knowledge of the accounts and the entire business so that there is no misrepresentation of business changes. Errors can be material and immaterial, but verification is extremely important." (A.L., 46)

„I can't state this as a problem, but I must emphasize that in the future, cooperation between accountants and IT experts will have to happen on a daily basis in order to be able to create the highest quality algorithms." (E.K., 36)

Collaboration between accountants and IT professionals will no longer be just useful, but will become necessary for success and survival in the modern business environment. Cooperation with IT experts can ensure that accounting companies remain competitive on the market and adequately respond to new challenges and opportunities that the future brings. For companies that have their own accounting departments, cooperation with IT experts can help in improving the efficiency and security of their financial and other data, but also in creating specialized technological solutions in the field of accounting.

Another disadvantage can be the severity of the error that can be caused by AI. A mistake is not desirable anywhere, however in certain industries it would leave fatal consequences. While in accounting, in addition to the high cost of AI technology, there is the possibility that a mistake it makes has far-reaching consequences. So, although the possibility of an error is percentageally small, its consequences can have a very negative impact on various aspects. In general, anything that goes unchecked by human intelligence can have a negative effect. Let's take for example an explosive as a good trigger, but if it gets out of human control it can be a means of destroying people. It is the same with artificial technology, if it hurts an individual, the damage is small, but if it affects a system where a person only has a button to act on, then it can have much wider negative effects. There is also possibility of manipulation, both by the AI itself, and misuse by IT experts.

3.3. Discovering how AI affects the quality of financial reports

It is already possible to predict that AI technologies will find their application in the accounting profession. AI transforms traditional methods of accounting, data entry and processing, and decision-making, providing companies with the opportunity for faster and more efficient analysis of financial data. When we talk about financial reporting, it is necessary to investigate how the application of AI technologies affects the quality, accuracy, precision, and other characteristics of financial reports. We must not forget that the users of financial reports are managers, investors, state authorities, the public, and others and that they also influence their decisions. Therefore, it is necessary to pay attention to this topic. The quality of the financial report generated based on AI technologies depends on the quality of the entered data. If the model is provided with the correct data and if the model is adequately taught how to process the given data, the feedback in the form of a financial report would be perfect. Let's make a comparison with the calculator, if we use the correct calculator, and correctly enter the

values to add two numbers, the result will certainly be correct, that is, the calculator can never make a mistake.

Although it was previously stated by one interviewee that there will always have to be a hierarchy, we had the opportunity to hear other views as well. The opposing view was that at some point the hierarchy would be lost and only one person would be enough to approve the report. That one person would be responsible for using the program and generating reports, and any changes that may be needed. If hierarchy was lost, far fewer people would be needed to generate reports. Also, the creation of reports could be much more frequent compared to today. With the help of AI technologies, reports could be generated daily, and perhaps there would be a change in the legal regulation of submitting reports once a year. Of course, this process would be very expensive. First of all, it is necessary to train people, the data should be digitized if it has not been previously done. It is important how the selection of data will be done, or which data is important and which is irrelevant. It is necessary to pay great attention to this because if the drainage model receives all this data, and the data is not meaningfully structured, it will never be 99.98% correct and that automatically creates a problem. Learning and the process of training people to properly enter and sort data would be a very expensive and laborious process, but such a process would later bring many savings and become profitable for companies. On the other hand, it is important to note that people who are not ready to spread existing knowledge would very quickly lose their jobs. Therefore, from the aspect of the organization, such systems are profitable, while they will lead the workforce to a crossroads where they have to decide whether to continue acquiring knowledge or decide to pursue another occupation.

"Financial reports could be generated by AI, however, there would be no difference in quality, only in the speed of report generation." (Š.H., 46)

The application of AI technologies in financial reporting would shorten the preparation time, whether we are talking about mandatory reports or internal financial reports. Many respondents state that they use Excel in their daily business and that such documents have countless columns and rows. If Excel is used, which is based on AI, the generation of reports could be much faster. Another idea that was mentioned is the automation of the payment of bills, taxes, and other obligations, which would ultimately lead to easier inspection controls by the state because in this way it would enable a better insight into the financial data of organizations. Already today, there are protocols and procedures in the world for exchanging data in digital form. If a machine could communicate with another machine, it would be possible to bypass standard jobs that are formal in organizations, that is, a legal obligation. Financial reports are submitted to the state

authority, later these reports are processed by the Bureau of Statistics and submitted to the Central Bank, while the Central Bank further submits these reports to the World Bank. The point of managing the world is that there is data that is exchanged at the level of central banks. That is why there is an elaboration of certain accounts in the account framework, e.g. account for situations when a domestic investor invests in foreign capital markets or when a foreign investor invests in the domestic capital market. If the generation and submission of statements were to be automated on the basis of AI technologies, the system in the company would independently know how often and what kind of data should be sent to the state authority. These statements may no longer be in PDF format, but in some format that the other machine will recognize.

"Everything that is repetitive in accounting should be automated. AI technology offers incredible speed and more frequent generation of reports, but I'm not sure how good the quality of the data it provides can be. I'm sure it will change the way reports are generated, however, the quality will not be improved over the current way." (Š.H., 46)

"When we talk only about data entry, it would be of good quality, but the quality of more complex presentations for decision-making is questionable." (A.K., 38).

We emphasize that there is a possibility that AI technology will make a mistake when creating a financial report. For comparison, we can cite the example of a car. One small problem on the vehicle can affect the entire system to be out of order and the car cannot be started. A similar situation can occur in accounting. The possibility of error is minimal, but the effects and consequences can be very negative. In addition to error, there is a danger that AI knowledge will surpass human knowledge. Furthermore, a mistake need not be a mistake in the true sense of the word. An error can occur as an inability to process correct data due to insufficiently good input information. It is the lack of data selection with which quality feedback can be obtained. Regardless of the high percentage of accuracy, a person will always have to be present in accounting. It will be necessary to form a team that supervises the processes and can recognize potential problems in time. AI will never be able to be responsible for the information it provides or the actions it performs, so a person will always take responsibility for the company's operations and irregularities that may occur.

3.4. Discovering the knowledge of AI technologies by the population of Bosnia and Herzegovina, and the opinion about its application in modern business

When talking about this topic, it is possible to conclude that younger experts (35-45 years old) in Bosnia and Herzegovina do not see AI technologies as a threat and that the time will come when AI technologies will be implemented in various sectors and modern business.

"Most of my colleagues have a very positive attitude, it helps most of them a lot and provides us with opportunities to learn faster and frees us from performing repetitive and boring actions, it makes it easier for us to search for answers on the Internet. We can constantly talk to the AI and get an answer to make it easier to complete tasks. The most important thing is that the time for creating tasks has decreased significantly." (H.L., 35)

Respondents state that there are people who do not even want to try using AI because they believe that it is a technology that will lead people to a state where they will no longer acquire knowledge, but will only develop the skill of talking with AI and get the necessary information that way. Others believe that it represents a threat and that AI could replace all of today's jobs.

"I think people are not informed enough. That they are not aware of what AI technology is, nor are they very interested." (D.L., 54)

The general view is that the younger generations use AI technology more than the older generation and accept it very well, but that most do not see AI as a future. A lot of people are indifferent, they don't see AI as a threat to their jobs, but the question arises whether the reason is that they are not knowledgeable enough or haven't tried some of the AI tools to get an impression of what it's like to use it. Humans start from occupations that AI cannot replace. All that AI will bring is change, it will change the occupations that people do, and it will change the way jobs are done. At the end of 1800, the entire industry that took care of horses died out in America in less than ten years. Considering that before you traveled on horses when you arrived in a city, there were designated places for horses. Some people took care of the horses, groomed them, provided them with water, shooed them, and the like. This industry had enormous value because almost everyone owned horses. Twenty years after the appearance of the car, the entire industry collapsed, because everything became subordinate to the car. New occupations such as car mechanics or new jobs such as parking have appeared. Today, things move much faster than they did back then. It used to take 20 years for an industry to die out, now it's 5 or 10 years.

We believe that people in Bosnia and Herzegovina should adapt AI as quickly as possible, they can do the same occupations, only become more productive, but certainly some occupations will change completely. The radiologist profession will change completely because all doctors will get access to systems based on AI technologies that can more accurately detect changes in the image compared to people and identify the diagnosis in question. There will simply no longer be a need for a human to analyze and write a long report, an automated system will do that.

"I didn't get the impression that people view AI as a threat." (A.K., 38)

Several interviewees state that the population of Bosnia and Herzegovina is engaged in their current occupations, but they are thinking about other professions that they could pursue if the emergence of AI threatens their current occupations. IT experts explain that people with whom they had the opportunity to exchange experiences see AI technologies as a positive thing that brings many benefits. AI should be seen as a benefit, not a threat, as long as we understand that it serves us. Many point out that there are many jobs in Bosnia and Herzegovina that AI technology will not be able to replace. If we take into account that the city of Sarajevo or the city of Mostar earns most of its income from tourism, AI will hardly be able to compete with a waiter or an owner who rents real estate. The structure of jobs in Bosnia and Herzegovina is mostly such that it would require a combination of robotics and AI. Some of the respondents point out that the rate of educated population in Bosnia and Herzegovina is low, and that there are no discussions in society in which topics about AI technologies are present. They state that education reform is needed to encourage people to think about this technology. Just as students in educational institutions learn foreign languages or the multiplication table, they need to learn about AI technologies, because every scientific solution has positive effects, but education about the dangers of negative effects is also needed.

3.5. Reform of education in the field of accounting

All respondents believe that the reform of the entire educational system is needed, and therefore the reform of accounting education. Education is crucial for the development of the country. If there was a better education for pupils and students, there could be a faster selection of students who have an affinity for AI technologies. Such students could be directed to further education in this field, which would ultimately lead to the creation of experts who would work in Bosnia and Herzegovina in the future. By introducing higher quality education in schools

and universities, the number of opportunities for hiring companies would significantly increase. The introduction of AI technologies as a compulsory subject in all faculties could contribute to the improvement of every sector.

"Adults will independently find information of their interest, but it is important to systematically introduce learning about AI technologies in schools for the youngest students up to the 8th grade." (H.L., 58)

Educating the younger generations about AI technologies is more important than the existing ones. The existing generations will independently go into these technologies, each within their interests and occupations. Some will decide to use AI for betting, while others will use it as a hobby or in everyday business. Today, people are determined by what they have learned and are not able to predict the occupations that will exist in 15 or 20 years, while the new generations will then be on the labor market. The introduction of education about AI technologies should be based on learning about what it is based on and educating pupils and students on how to use it properly in a way that we still do not see. In this way, a quality generation that can improve the environment and improve the state of society would be created.

One of the interviewees from the IT sector explains how current AI tools are based on LLM (Large Language Model), which are language models competent to communicate at the level of an adult, they cannot bind or form knowledge and information, but only offer it in the form of which they were taught from sources such as documents, websites, etc. On the other hand, LNM (Large Knowledge Model) provides specific domain knowledge that can check the answers before the AI gives them to a human, thus obtaining an AI tool at a highly developed level.

"Accounting education reform is necessary because accounting is social ballast, there is a lot of work, and the meaning and purpose of that work is set. At the moment, we are working according to certain schemes and legal decisions that have been overcome, so the question is how much sense it makes to record changes that do not have effects in the future." (L.M., 69)

Respondents believe that reform is needed, both in the field of information technology and in the field of accounting. First, it is necessary to introduce professors in more detail to this topic and for professors to become aware of how important AI technologies are. Professors are transmitters of knowledge and if they are well educated, the effect of teaching will be good. Curricula should be created in such a way that, in addition to accounting, they include more IT education and much more than basic computer knowledge. Therefore, the knowledge of

computers for students should be at a level to understand what happens during machine learning and how data sets are created. If there was such an education reform and if it lasted six months to a year, students would acquire a wide range of knowledge. In particular, it should be taken into account that economics students, through mathematics subjects, understand the equations based on which certain programming processes function. This would ultimately lead to young people who find employment after obtaining higher education being able to respond to all challenges. Later, they could upgrade their knowledge, but they need to have basic knowledge about machine learning and AI. It is necessary to educate new generations about the ethical principles of using AI tools. To train young people to understand and correctly use AI technologies, and to be able to independently analyze the obtained results. Also, the use of professional literature should be preserved instead of relying completely on the knowledge and information provided by AI technologies.

Several respondents believe that professors are already facing a problem when it comes to AI tools. Until now, the essence was that the professor has all the facts and information, but today students have access to various AI tools and ask questions that professors cannot answer. More focus should be placed on the acceptance of AI technologies and their practical application, because it will be impossible to stay out of these events. The general view is that higher education institutions will change. Even now, world universities offer the possibility of online courses and education with which you can choose a list of subjects in three years and form the necessary knowledge through independent selection. The only thing missing in this way of education is the certification in which this kind of diploma would become recognized.

Through the interviews, it was emphasized a lot how important it is to improve the practical part of teaching, both through practical exams and through work in a real business environment. The practical part of the exam could take place in such a way that the students receive hypothetical data in the field of business, and that they independently try to book and compile a financial report with the help of AI. Also, the importance of incorporating students into companies to gain practical experience and better education is emphasized. In this way, it would be easier for employers to find a quality workforce and they would not have to invest time in training new employees.

Respondents state that it is necessary to allow students to get an impression of how much AI technologies can provide. AI should be demystified, and new generations should be taught the limits of AI technology, but one should not go too deep into such education. Let's take for example the online payment that we all use even though we are not programmers. We don't need to know what's going on behind the scenes, we just need to learn how to use mobile and

internet banking applications. On the other hand, some respondents point out that Bosnia and Herzegovina is a poor country for investments in AI technologies, but that this should not be an excuse to remain uninformed about this area. It should not happen that an economist or a lawyer get into a situation where they do not know in their daily business that they can use some of the AI tools to compare laws from different periods.

4. Conclusion

The premise is that AI can not only partially or completely replace human resources, but can also increase efficiency beyond the thresholds of human capabilities (Berdiyeva et al., 2021). Accountants need to keep up to date with the latest accounting trends, industry news, and new technologies. This allows them not only to keep their jobs but also to provide better services to their clients. Instead of worrying about AI taking over their positions and jobs, accountants should learn to embrace this technology as an important tool to improve customer service. With the right training and skills, accountants are assured of a lucrative and sustainable career that will last long into the future (Chukwuani and Egiyi, 2020). Although digital tools can perform better analysis, such analysis is useless without human interpretation and creativity. Human creativity and imagination cannot be replaced by any program or robot based on artificial intelligence (Mohammad et al., 2020). Despite the wide range of accounting actions and tasks that can be automated, human intelligence will always outperform machine learning (Gulin et al., 2019).

Although there is daily progress in the field of AI and its more frequent integration into various business aspects, there are still significant dilemmas about the various challenges and opportunities that AI brings to the accounting profession. The adoption of AI applications such as audit and tax expert systems, intelligent customer service agents, machine learning for decision-making, etc., can lead to great benefits by reducing errors and increasing the efficiency of accounting and financial processes (Berdiyeva et al., 2021). The use of AI technology cannot be avoided by companies, especially if they want to remain relevant in business shortly Chukwuani and Egiyi (2020). Machine learning and deep learning neural networks are often "black boxes" that are difficult or impossible to understand and interpret, even for technical experts (Kokina and Davenport, 2017). Adequate AI research will enable accounting professionals to be at the forefront of digital transformation and provide the tools to improve work in the future, ultimately resulting in more successful businesses.

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Sažetak

Ovaj rad istražuje uticaj veštačke inteligencije (u daljem tekstu AI) na računovodstvenu profesiju, naglašavajući potrebu prilagođavanja obrazovnih programa i poslovne prakse zbog pojave i razvoja AI tehnologija. Za prikupljanje primarnih podataka korištena je kvalitativna metoda uz pomoć polustrukturiranog intervjua. Učesnici su bili profesionalci iz oblasti računovodstva i informacionih tehnologija koji imaju relevantno znanje i iskustvo za razmatranje ove teme. Istraživanje je imalo za cilj da otkrije glavne probleme koji se mogu javiti prilikom implementacije vještačke inteligencije u računovodstvenu profesiju, utvrditi kako AI tehnologije utiču na kvalitet finansijskih izvještaja, te da li je potrebna reforma obrazovanja u računovodstvu zbog pojave AI tehnologija. Rezultati provedenog istraživanja pokazali su da će AI tehnologija naći svoju primjenu u računovodstvenoj profesiji, da kvalitet finansijskog izvještaja generiranog na bazi AI tehnologije zavisi od kvaliteta unesenih podataka, odnosno da je kontrolna funkcija računovođa od presudne važnosti, te da je neophodno reformisati nastavne planove i programe u kontekstu iskorištavanja prednosti AI tehnologija.

Ključne riječi: *vještačka inteligencija, računovodstvena profesija, obrazovni programi, poslovna praksa, Bosna I Hercegovina*