

The Impact of Artificial Intelligence and the ChatGPT Tool on Society. A Case Study on Employees Working in Corporations in Romania

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Abstract: *This paper aims to study the evolution of artificial intelligence, its impact on education and the job market, and the attitude of a sample of the population towards its potential effects. The study also focuses on the newly emerged chatbot, ChatGPT. For a full perspective on the topic, a survey was conducted to capture the perspective of Romanian employees in corporations regarding the impact of artificial intelligence.*

Keywords: Artificial Intelligence, ChatGPT, Education, Job Market, Corporate Environment

1 Introduction: Artificial intelligence, a highly popular and debated field that is constantly evolving and expanding, seems to be becoming a part of more and more people's lives, sometimes helping them without their conscious awareness. Concrete examples of artificial intelligence applications include virtual assistants, autonomous vehicles, recommendation systems, fraud detection, medical diagnosis, and video games. In this context, the recent emergence of the ChatGPT tool has further amplified the popularity of AI.

Being a highly debated topic, we have observed that there are both positive and negative opinions regarding the impact that artificial intelligence will have on society. Two of the most controversial areas where its presence is felt are education and the job market. While the benefits brought by AI may seem evident, there are also concerns about the consequences of its use in a less ethical manner.

The structure of the paper primarily consists of four parts: introductory aspects regarding artificial intelligence and the ChatGPT tool, their impact on education, their impact on the job market, and a case study. The study data was collected in March 2023, using an online survey with 12 questions, to which 326 individuals responded. The questions focused on both artificial intelligence in

general and the specific aspect of the new ChatGPT tool.

2 What is artificial intelligence?

Artificial intelligence is a field within science and technology that develops intelligent machines and computer programs capable of performing a wide range of tasks that typically require human intelligence. It is a system that mimics various functions that a human can perform. AI uses external data, such as big data, to achieve outstanding performance in the assigned tasks [1].

In his work, [17] provides an answer to the question "What is artificial intelligence?" stating that it is the science and engineering of making intelligent machines, particularly intelligent computer programs. It is related to the similar task of using computers to understand human intelligence, but AI is not confined to methods that are biologically observable.

3 Brief History of Artificial Intelligence

The history of Artificial Intelligence originates from fantasies crafted by philosophers and fiction writers. Philosophers introduced the concept of intelligent machines to help us understand the significance of being human. French philosopher René Descartes employed the

metaphor of a "mechanical man" to illustrate the potential of intelligent machines. Similarly, science fiction writers like Jules Verne (19th century) and Isaac Asimov (20th century) also utilized this possibility to bring fantasy into their works about intelligent non-human beings. Many AI researchers have drawn inspiration from the writings of these authors for their own research [1].

During World War II, English mathematician Alan Turing invented a machine for code-breaking called "The Bombe," which is considered the first functional electromechanical computer. He developed this machine for the British government to decrypt the Enigma code used by the German military during the war [1]. In 1950, Turing published a paper titled "Computing Machinery and Intelligence," in which he discusses the conditions for considering a machine as intelligent, later known as the Turing test. He argued that if a machine could successfully claim to be human to an informed observer, then it should undoubtedly be considered intelligent. The Turing test is a one-sided test. A machine that passes the test should certainly be regarded as intelligent, but a machine could still be considered intelligent without possessing sufficient knowledge about humans to imitate a human [17].

One of the early paradigms of artificial intelligence revolved around high-level thinking [7]. It did not prioritize the capacity to recognize concepts, perceive objects, or perform complex motor skills shared by most animals. Instead, it emphasized the potential to engage in multi-step reasoning, comprehend the meaning of natural language, generate new plans to achieve goals, and even evaluate its own reasoning. This human-like general intelligence was termed strong Artificial Intelligence. The main focus for strong Artificial Intelligence has been on symbolic reasoning, which emphasizes that computers are not just numerical calculators but rather general symbol manipulators. As observed by the authors [22] in their

hypothesis on the physical symbol system, intelligent behavior appears to require the ability to interpret and manipulate symbolic structures. Although this approach initially showed promise, many branches of artificial intelligence have moved away from this approach due to its difficulty and lack of progress in the 21st century. It remains uncertain when and if strong AI will become a reality.

4 Branches of Artificial Intelligence

In his work, [17] identifies some of the branches of Artificial Intelligence, namely:

- Logical AI - involves representing the knowledge about the world, specific situation, and goals of a program using mathematical logic statements. The program uses deduction to determine suitable actions for achieving its objectives.
- Search - AI programs extensively analyze numerous possibilities, whether it's moves in a chess game or inferences in theorem proving programs. Ongoing advancements are constantly being made to enhance the efficiency of these processes across different domains.
- Pattern recognition - When a program makes observations, it is commonly programmed to compare its findings with a predefined model. For instance, a visual recognition program may attempt to match a model of eyes and a nose in order to identify a face.
- Inference - Nonmonotonic inference methods were introduced to logic in the 1970s to handle situations where conclusions can be deduced implicitly but retracted if contradictory evidence arises. These methods allow for reasoning with uncertainty and provide flexibility in drawing conclusions from given facts.
- Common sense knowledge and reasoning - Despite being actively researched since the 1950s, AI still lags behind human-level capabilities in this particular aspect. Despite notable advancements in areas like non-monotonic reasoning systems and theories of action,

further innovative ideas are required to bridge the existing gap between AI and human-level intelligence.

- **Learning from experience:** Programs accomplish this task. AI approaches based on connectionism and neural networks excel in this area. Additionally, there is the learning of laws expressed in logic. However, it is important to note that programs can only learn what facts or behaviors can be represented within their formalisms. Unfortunately, learning systems often have limited abilities to represent information, which poses a challenge in their overall learning capabilities.
- **Planning -** Planning programs utilize general knowledge about the world, specifically the effects of actions, along with situational facts and a defined goal to generate a strategy for achieving that goal. In typical scenarios, the strategy consists of a sequence of actions.
- **Epistemology -** This field of study focuses on understanding the types of knowledge necessary for problem-solving in various real-world scenarios.
- **Ontology -** Ontology involves examining the nature of existence and the different types of entities that exist. In the context of AI, programs and statements deal with various objects, and the field explores the classification and fundamental properties of these object types.
- **Heuristics -** A heuristic is a method or technique used within a program to uncover information or generate ideas. In the field of AI, the term is employed in different contexts. Heuristic functions are utilized in certain search approaches to evaluate the distance between a node in a search tree and the desired goal.
- **Genetic programming -** Genetic programming is a methodology that involves mating random Lisp programs and iteratively selecting the fittest programs over millions of generations in order to solve a given task.

5 Applications of Artificial Intelligence

Artificial intelligence, in the form of neural networks and expert systems, finds applications across various human activities. The combination of high precision and reduced computation time makes AI a cutting-edge technology. It is already transforming industries by replacing humans in workshop-level jobs, allowing them to take on supervisory roles instead. Additionally, brokerage firms now rely on AI to analyze data, perform market analyses, and execute stock transactions without human interference. According to [4], some of the applications of artificial intelligence include: gaming industry, heavy industry, weather forecasts, expert systems, and data mining.

6 ChatGPT – a chatbot based on Artificial Intelligence

ChatGPT, launched in November 2022 by the OpenAI research institute, is a language model that utilizes artificial intelligence to engage in conversational interactions. It is capable of answering questions, acknowledging errors, and challenging incorrect assumptions. The model gained rapid popularity, offering a free version during the research preview that is accessible to everyone. ChatGPT is an AI-powered chatbot platform that utilizes OpenAI's powerful GPT-3 language model. It is highly advanced, capable of generating human-like conversations, and offers a high level of customization. The AI behind ChatGPT is reliable, secure, and ensures context-aware and trustworthy interactions. It is considered one of the most advanced and engaging AI chatbot platforms available [24].

To make this study more interesting, we decided to ask ChatGPT about the algorithms and techniques it uses. The response received was satisfactory, providing clear explanations that are accessible to everyone. The answer can be seen in the following paragraph:

"I have been built based on the GPT-3.5 architecture, which is an enhanced version of the GPT-3 architecture developed by OpenAI. This architecture relies on a combination of several artificial intelligence algorithms and techniques, such as:

- Attention mechanism: This is an algorithm used to understand the relationships between words in a text and identify key words that are relevant for understanding the content.
- Deep learning: This is an algorithm that involves training a model with a large dataset to learn patterns and make predictions.
- Supervised learning: This is an algorithm that involves training a model with a set of input and output data to learn how to make accurate predictions for new input data.
- Unsupervised learning: This is an algorithm that involves training a model without a specific set of input and output data. Instead, it seeks to identify patterns and structures within the input data.
- Transfer learning: This is an algorithm that involves using knowledge learned from one dataset to aid in training a model for another dataset.

In general, multiple artificial intelligence algorithms and techniques are used to create large language models like mine, and they are continuously optimized to enhance the performance and accuracy of the model. ” (ChatGPT, 2023)

7 The Impact of Artificial Intelligence in Education

The Impact of Artificial Intelligence in Education Artificial Intelligence (AI) is the advancement of technology to take over human functions such as the ability to make rational choices, learn, plan and be creative. In the 21st century, technological systems are ubiquitous in social life and society, and its integration in the field of education becomes essential. In recent years, there have been many written studies debating the

impact that artificial intelligence will have in the field of education. The role that ChatGPT can have in adapting the learning system to the individual student, the level of efficiency and the assessment process in higher education [8]. For example, ChatGPT can be integrated into building custom quizzes and assessments, or be useful in grading papers. Using interactivity and capturing students' attention, ChatGPT can create game-based assessments, providing a more engaging way to identify the level of knowledge gained throughout the learning process. The software can be used to streamline the process of grading essays or written assignments. These are just a few examples of how software can be used in the evaluation process, according to the study [8]. Also in this article, the authors also mention a number of methods by which the possible plagiarism generated by the help provided by artificial intelligence can be kept under control. From the article, we can understand on the one hand, the systems that can detect the presence of artificial intelligence within any product, and on the other hand, a series of steps are promoted on how to teach young people to use these tools only as ways of quick access to information, not to plagiarize. According to Study.com's January 2023 study, over 89% of students use the ChatGPT tool for homework, 48% for a test or homework, and 52% of students use it to write essays. The study shows us the positive impact ChatGPT has on feedback on the paper he writes. But all this partner can also be analyzed under the aspect of a negative influence by diminishing or even eliminating the originality or his contribution to the composition of the work [5]. According to the study [30] who mentions the research done by Study.com, ChatGPT should not be used excessively comparing it to different activities where the technology has been introduced and which have not completely replaced the activity, such as : the car and the subway did not and should not replace walking in the park, because physical activity helps our health, just as the electric

bicycle should not be used excessively [30]. [5] presents how teachers can combat artificial intelligence, using the AICheatCheck software, which indicates with 99.7% accuracy the authenticity of the work created by students.

AICheatCheck is a tool built from a model trained on approximately 50,000 human-authored papers spanning multiple domains. The data was divided into a training set consisting of 70% of the respondents, a test set with 20% percentages and a validation set of 10% by which human text was compared with that processed by artificial intelligence. The model at that time had certain limitations, but nowadays this software is constantly being worked on to show as much accuracy as possible and to be a help to the teaching staff [5]. Through the study [2] we understand from the beginning the digital age and the need of the society we live in to align with technology. In the first part, it illustrates the help that society receives through the integration of technology in daily activities. In support of this statement, the author gives examples of smart applications on the market that facilitate the development and performance of actions, such as programs that analyze images, automatic translation programs, voice and facial recognition programs; the artificial intelligence that is incorporated in different products: robots, cars, drones, homes, etc. Also in this article, we are presented with the daily evolution of information technology. Thus, says the author, the rate of evolution of technology must also be in the field of education and the economy, so that young people can have access to them. Moreover, the daily and professional life of man cannot be imagined without this technical-scientific process. Technologies have been around for more than 50 years, and the innovation, updates that are made daily are major advancements for various fields. Artificial intelligence can be considered a central element of the digital age. Artificial intelligence "is seen as a basic element of the digital transformation

of society with a strategic value for education and as a priority" claims the European Union [29].

AI can be used in different stages of the learning process:

- Adapting the learning system to each student - the use of artificial intelligence in the education system could help the student by offering him a way of working that matches his learning model learning. An AI system may be able to identify the student's gaps and adapt to his learning need.
- The level of efficiency of the learning process - the delivery of the learning process can be improved by reducing the time spent analyzing the learning data to identify trends, patterns and adaptation of the learning content of each student.
- Easier access to education - the introduction of artificial intelligence within platforms within learning units in areas where resources are limited.
- Evaluation process - integrating AI into the evaluation process helps reduce costs and time. The integration of AI and related technologies must be done with a focus on people and anchored in human rights, ethics, so that this tool becomes a service, a common good and satisfies a general interest. The implementation in the system of education, culture and in the media sector should follow the fundamental norms and values for a private life, for data protection, intellectual property rights and expression. Exploiting artificial intelligence to an exaggerated extent could influence the cornerstones of social values and fundamental rights, thus the algorithms that will be used, the technologies in which ChatGPT will integrate will have to guarantee maximum protection and a general lack of impartiality [11].

According to various publications, the use of artificial intelligence, since ChatGPT has taken off, entails different aspects of how artificial intelligence can be used, such as:

- Equity - in Romania there are still households that do not have access to the Internet, according to the National Institute of Statistics, in 2021, the access threshold to this resource is below 85% of the population, which generates a digital divide between students who have access and those who do not [9].
- Over technology – over using this tool can lead to misinformation as some of the information they find may not exist. On the "Common Sense Media" website, which is a website that provides resources and advice for parents, the possibility of such a situation is indicated and it is suggested to remove its access to campuses [16].
- Ethics - occurs when users act without filtering the information that the ChatGPT tool. For example, when a company uses artificial intelligence in the selection of candidates, the tool can make decisions that cannot be justified and through which some of the candidates can be discriminated.
- Data Processing and Security – sensitive information about teachers and students may be stored. Information about minor students is stored without parental permission, and in this regard, Italy has blocked access to ChatGPT at present and launched a lawsuit for non-compliance with personal data legislation [12].

We reaffirm that the development of applications that have an AI component should be used in the context of deepening information, because otherwise it will be a risk factor with discriminatory practices, committing crimes or other aspects of a criminal nature. Currently, ChatGPT collects a lot of data, which is a risk factor if that data reaches malicious people. At the educational level, another negative aspect that ChatGPT presents, in addition to the actions that students use for the purpose of discrimination, are those that concern the carrying out of disinformation activities or the promotion of erroneous information by

creating sites in this direction or fake publications.

One of the main advantages of implementing artificial intelligence in schools is that it can help improve the teaching and learning process. For example, artificial intelligence can be used to create personalized learning materials tailored to the individual needs of each student. In addition, artificial intelligence can be used to assess the performance of students and provide them with immediate feedback, which can help improve their performance.

8 The impact of artificial intelligence on the labor market

Artificial intelligence has emerged as a significant catalyst for innovation, permeating various service sectors and delivering distinctive customer experiences through its algorithms [15]. As AI technology continues to proliferate, the apprehension surrounding its potential to supplant human workers has grown substantially. This phenomenon necessitates careful examination, as the ramifications of such a scenario would include widespread job displacement, leaving many individuals without income and necessitating their reskilling to pursue alternative occupations that remain unaffected by technology.

Job insecurity stands as the primary stress factor in the workplace [21], which can even lead to burnout, as there is a positive correlation between the fear of job replacement by artificial intelligence (AI) and burnout. People worry not only about their positions vanishing completely but also about a potential decrease in the overall number of jobs due to AI implementation. Employees who have job security are more committed and capable of providing a positive customer experience. However, those who anticipate future unemployment experience anxiety and frustration, leading to decreased performance [14] and a lack of motivation to continue working in the same position or industry. Additionally, job

insecurity can contribute to various medical complications, both physical and mental, such as heart conditions, insomnia, and general unease [28].

Individuals experience fear when new technologies are introduced within companies, as they perceive that employees with limited technical skills will be replaced [28]. Nevertheless, if they have supportive measures in place, such as employee unions and fair employment contracts, their fear diminishes.

To stay relevant in their respective fields, individuals need to acquire the skills to effectively utilize the new technologies employed in the workplace and be adept at adapting to changes as they occur. Employees are expected to demonstrate high levels of innovation and proactively identify opportunities to generate solutions [23].

Even though artificial intelligence and other new technologies are increasingly utilized and have the potential of partially or fully replace employees in certain professions, they cannot completely replace human creativity in problem-solving. Individuals with this capacity are necessary for revolutionizing other industries and addressing challenges related to food and water, the environment, energy, and security. Innovation involves adapting existing solutions [23]. Another essential attribute for employees is strong communication skills, which are limited when relying solely on artificial intelligence. Moreover, the same studies [23] assert that teamwork is still highly valued in the job market.

The adoption of AI should be considered from the standpoint of service consumers as well, as some people may not prefer to be assisted by a robot [19]. In such cases, technological innovation could have an adverse effect, leading to a reduction in customers or the loss of certain demographics, such as the elderly. It is also highlighted the difficulty of replacing employees with robots in settings like nurseries, healthcare, and education, where

human interaction holds significant importance [19].

Based on a survey conducted in Japan with 10,000 randomly selected respondents, it was found that men have a lower level of fear regarding job loss to artificial intelligence compared to women and younger respondents [19]. Furthermore, respondents who have attended vocational schools and those with higher education working in science and engineering do not perceive AI as a threat to their jobs. They recognize the significance of human interaction in their respective fields.

From the consumers' perspective, 58.6% of them would like artificial intelligence to replace general household chores, while 47.1% would desire robots for the care of the elderly and the sick.

Due to their lack of emotions, empathy, and personal needs, robots may be preferred by companies over human workforce. They do not experience fatigue, require wages, can work beyond regular hours, do not get sick, take leave, or have familial responsibilities. Furthermore, they can operate in hazardous environments that could jeopardize the health of human workers. If robots are able to learn and mimic human emotions, it is expected that vocational jobs will also be replaced for future generations. It is projected that around 3.5 million jobs will be replaced by robots by 2025 [13].

According to researchers [27], the fourth industrial revolution characterized by robots poses a particular threat to women's jobs. In the United States, it is predicted that within the next 20 years, 47% of jobs will be at risk of disappearing due to artificial intelligence [27]. Additionally, studies indicate that in the next 25 years, 10% of driving jobs in the same country will be replaced by self-driving cars [27]. In Japan, significant savings of approximately \$21 billion in elderly healthcare insurance are expected through the replacement of caregivers with robots, while in Australia, miners will be substituted with robotic systems [13]. To address the imbalance caused by job replacement, studies [25]

recommend employers to create more job opportunities that require human skills such as creativity, imagination, and passion.

Artificial intelligence has already been integrated into more than 30 hotels in the United States, including major chains like Sheraton and Hilton. Customer inquiries are handled by chatbots through text or audio, and robots are even providing services such as room service and assistance. The Covid pandemic has accelerated the adoption of contactless services in the hotel industry, aiming to minimize human interaction [15]. AI can analyze customer data derived from their vacation planning activities, such as hotel reservations, payment transactions, and satisfaction surveys, to identify their needs [20]. It is expected that in the hotel industry, jobs involving repetitive tasks and lower skill levels, such as room maintenance, will be automated and replaced by robots. This enables businesses to reduce costs and enhance customer satisfaction. However, in areas where human skills and emotional connection are still essential, AI is projected to serve as a complementary tool. Moreover, this complementarity is more prominent in cases where employees possess higher education qualifications [19].

It is important to highlight that in the case of a mistake made by a human, the blame falls on them, whereas if the mistake is made by a robot, the company for which it works is held responsible [3].

Artificial intelligence also presents some benefits. It can create new jobs [18] and can assist employees in heavily burdened sectors such as the healthcare system to offload some of their tasks.

Recently, the OpenAI-developed ChatGPT has gained popularity, raising concerns about its potential impact on jobs due to its impressive accuracy in responding to questions. What sets ChatGPT apart from other robots is its ability to comprehend contextual information in conversations, enabling more precise solutions. It can be utilized by non-technical individuals through natural language communication in

various languages. Despite the real risk of job displacement, some researchers [10] hold an optimistic perspective on the presence of ChatGPT in people's lives.

An illustrative example of the benefits of ChatGPT can be observed in the field of e-commerce, where this tool has the potential to replace call center staff, leading to cost reductions while assisting customers by streamlining the communication process and replacing traditional methods such as email or phone calls. Customers can receive quick responses, and companies can have better control over the way information is conveyed, which may not be fully achievable in human interactions. Furthermore, an important advantage is the ability of ChatGPT to communicate in multiple languages, surpassing the capabilities of a human employee.

In the field of medicine, patients could utilize systems integrated with ChatGPT to receive medical advice on symptoms and treatment, reducing the wait time for a doctor's response. Artificial intelligence has the potential to analyze medical imaging, diagnose illnesses, and provide specialized treatment recommendations to patients. This would allow doctors to concentrate on more critical cases that require human attention, while routine cases could be efficiently addressed by AI. This approach, as suggested by the authors [10], aims to optimize the allocation of medical resources and improve patient care.

In the field of education, teachers could utilize ChatGPT to provide students with personalized learning plans based on their interests and abilities. Additionally, it could facilitate the workload of teachers by expediting the grading process.

In the banking industry, ChatGPT has the potential to answer customer queries regarding the bank's products, offer personalized solutions based on their needs, and identify potential fraud by recognizing patterns in customer behavior. It can automate various banking processes, predict a customer's loan repayment ability, and analyze transactions and market

conditions to aid in financial decision-making.

Another example highlighted by the authors [10] is the application of ChatGPT in the IT field. They argue that this tool can aid programmers in IT companies by identifying code errors, enabling them to dedicate more attention to developing desired functionalities. Furthermore, it can even locate code snippets in the necessary programming language to resolve specific computer issues.

However, it is important to note that ChatGPT has its limitations, as researchers have pointed out. For instance, it struggles with complex mathematical problems [10]. Additionally, the current interface lacks the ability to upload images or audio files, and there is a tendency for ChatGPT to provide overly detailed responses even when the user requests a simpler answer [26].

9 Case study on the attitude of Romanian corporatists towards artificial intelligence

In order to identify the impact Artificial Intelligence has on Romanians, we made a case study that highlights the attitude of corporate employees towards Artificial Intelligence, focusing on the chatbot recently launched by OpenAI.

Research methodology

Research purpose: Identifying the attitude of Romanian corporate employees regarding the use of artificial intelligence and ChatGPT chatbot.

Research objectives

1. Determining the percentage in which Romanian corporatists know the field of artificial intelligence.
2. Determining the percentage in which the respondents consider beneficial the use of artificial intelligence for everyday activities.

However, the researchers acknowledge that ChatGPT also has limitations, some of which are the inability to correctly execute complex math problems [10] the inability of

the current interface to upload images or audio files, and creating responses much too detailed, although the user mentions at the start of the conversation that he wants an answer as simple as possible [26].

3. Determining the percentage in which the respondents believe that the use of artificial intelligence will facilitate their activities in the workplace.
4. Identifying the percentage of respondents who believe that there will be drastic changes in the labor market, determined by the emergence of artificial intelligence.
5. Identifying ChatGPT chatbot notoriety.
6. Determining the percentage of respondents who rate the ChatGPT chatbot as useful.
7. Determining the level at which the studied population perceives the use of the ChatGPT chatbot as having negative effects on the educational process.

Sample

We chose to study the Romanian population who work in a corporation, because they are more likely to use artificial intelligence in the workplace, and most of the activities carried out involve the use of technology.

To calculate the sample size, the formula was used [6]:

$$n = \frac{t^2 \cdot p(1-p)}{\Delta_{\omega}^2} = \frac{1,96^2 \cdot 0,28(1-0,28)}{0,05^2} = 309,65$$

There must be a minimum of 310 participants in the sample for it to be representative.

We consider:

t - statistical coefficient corresponding to the probability of guaranteeing the research results

p - the non-percentage share of the sample components possessing the investigated characteristic

Δ_{ω}^2 - standard deviation

We consider p=0.28 because in Romania, in 2019, a percentage of 28.1% of the total number of employees worked in companies that are part of multinational groups

controlled from abroad, according to the National Institute of Statistics.

We consider standard deviation to be 5%, therefore $t=1.96$.

The data collection tool

For this descriptive quantitative research, the use of the survey method was chosen. The tool used to collect data within this method is represented by the questionnaire.

Questionnaire:

1. Do you work in a corporation? (Yes/No)
2. What age category do you belong to? (Under 20 years, 20-30 years, 30-40 years, 40-50 years, Over 50 years)
3. On a scale of 1 to 5 (where 1 is not at all familiar and 5 is very familiar), how familiar are you with the field of artificial intelligence?
4. On a scale of 1 to 5, (where 1 is not at all beneficial and 5 is very beneficial), how beneficial do you think artificial intelligence is to your activities?
5. On a scale of 1 to 5 (where 1 is strongly disagree and 5 is strongly agreed), how strongly do you agree with the following statement? "Artificial intelligence will replace a big part of current jobs in the coming years."
6. On a scale of 1 to 5 (1 being strongly disagree and 5 being strongly agree), how strongly do you agree with the following statement? "Artificial intelligence will make my everyday activities easier and easier."
7. On a scale of 1 to 5 (where 1 is strongly disagree and 5 is strongly agree), how strongly do you agree with the following statement? "In the future I will use Artificial Intelligence as a complementary tool for workplace activities."
8. Are you familiar with ChatGPT chatbot launched by OpenAI?
9. Have you used ChatGPT ?
10. On a scale of 1 to 5 (where 1 is not at all and 5 is very often), how often do you use ChatGPT?

11. On a scale of 1 to 5 (where 1 is not at all useful and 5 is very useful), how useful do you think ChatGPT is?
12. On a scale of 1 to 5 (where 1 is not at all concerned and 5 is very concerned), how concerned are you that ChatGPT will negatively affect the educational process?

Research results

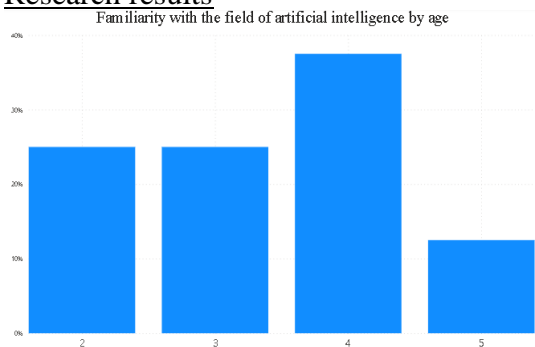


Fig. 1. Familiarity with AI for responses in the under 20 category

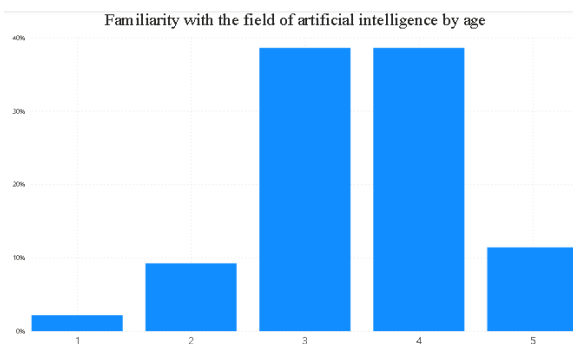


Fig. 2. Familiarity with AI for respondents in the 20-30 years category

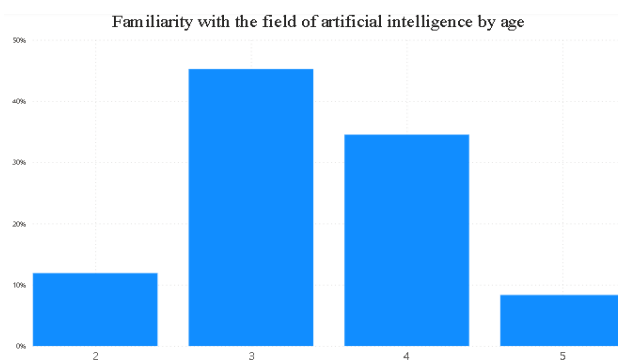


Fig. 3. Familiarity with AI for respondents in the 30-40 years category

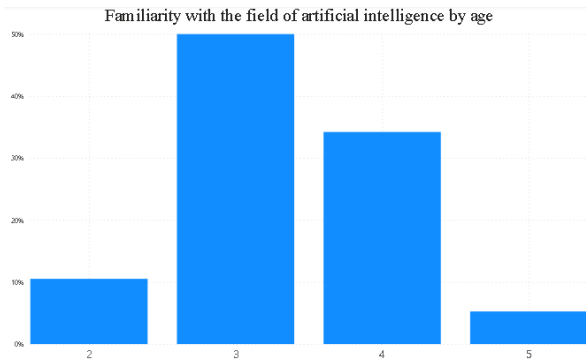


Fig. 4. Familiarity with AI for respondents in the 40-50 years category

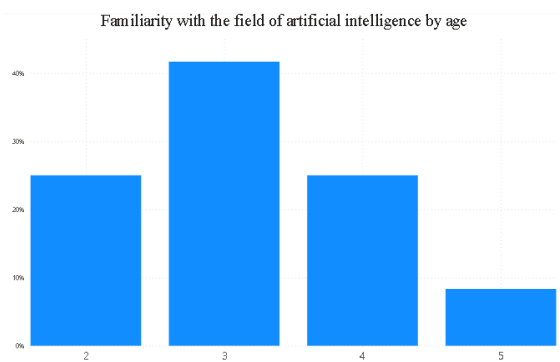


Fig. 5. Familiarity with AI for respondents in the over 50 category

From the graphs presented, it is noted that 37% of young people under the age of 20 say they are familiar with the field of artificial intelligence. Respondents who are in the age category of 20-30 years claim 39% that they are familiar with the field of artificial intelligence. On the other hand, they have a neutral attitude in the same proportion, in addition, 2.17% of people in this category claim that they are not at all familiar with this field. Regarding the age categories 30-40 years and 40 -50 years, they are neutral in the proportion of 45% and 50% respectively. The category of respondents over 50 years old is also 41% neutral.

It can be seen that people in the category under 20 are the most familiar with the field of artificial intelligence. The only category in which a percentage of 2% chose the "not at all familiar" option is the 20-30 year old category. The largest number of people (25%) who chose the option "a little familiar" are in the over 50 age category.

The percentage of respondents who believe that artificial intelligence is beneficial

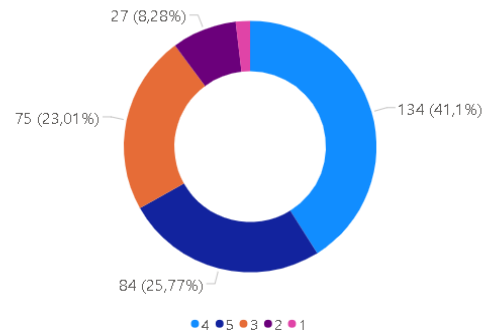


Fig. 6. The percentage of respondents who believe that artificial intelligence is beneficial

It can be seen that a large percentage of respondents believe that artificial intelligence is beneficial (41%) and very beneficial (25.77%).

Replacing current jobs with artificial intelligence

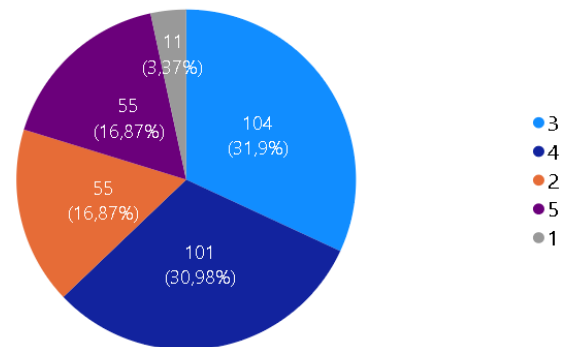


Fig. 7. Replacing current jobs with artificial intelligence

There is a tendency to say that artificial intelligence will take over some of the current jobs. Only 3.37% of respondents disagree with the statement "Artificial intelligence will replace a big part of current jobs in the coming years."

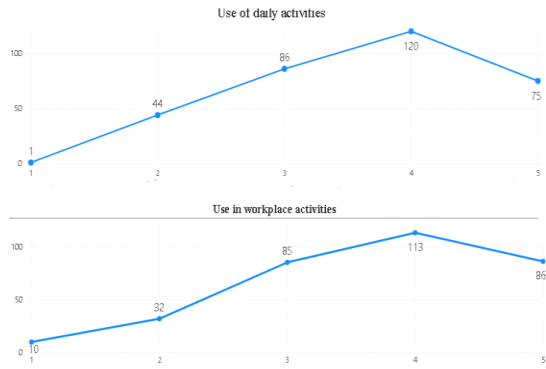


Fig. 8. AI in daily activities and at work

It can be seen that the graph of the efficiency of daily activities using artificial intelligence has the same evolution as the graph of the use of artificial intelligence at work. It can be concluded that the respondents consider artificial intelligence useful both in terms of the workplace and

other daily activities.

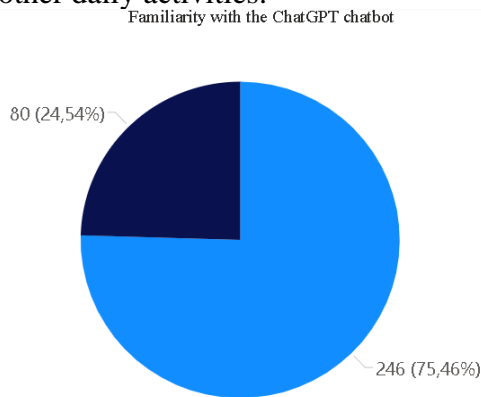


Fig. 9. Familiarity with the ChatGPT chatbot

75.46% of the respondents declare that they are familiar with Chat GPT.

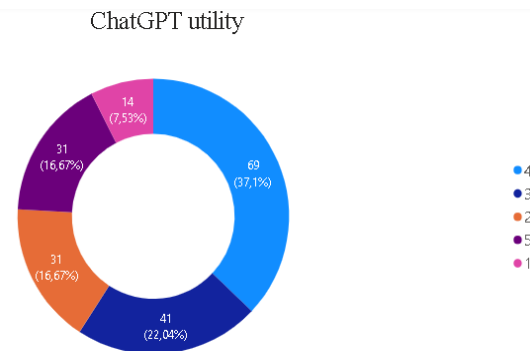


Fig. 10. ChatGPT utility

It can be seen that a percentage of 37% of people who are familiar with the ChatGPT chatbot declare that they find it useful.

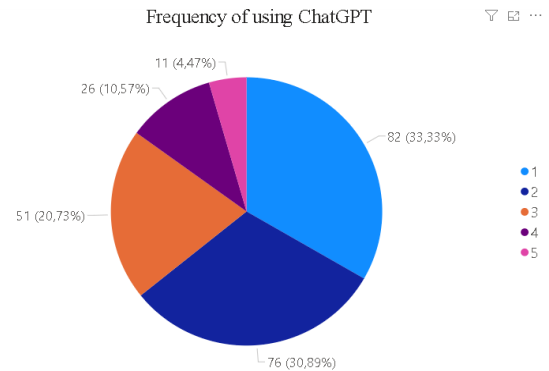


Fig. 11. Frequency of using ChatGPT

It is observed that a percentage of 33% of the respondents say that they did not use Chat GPT frequently.

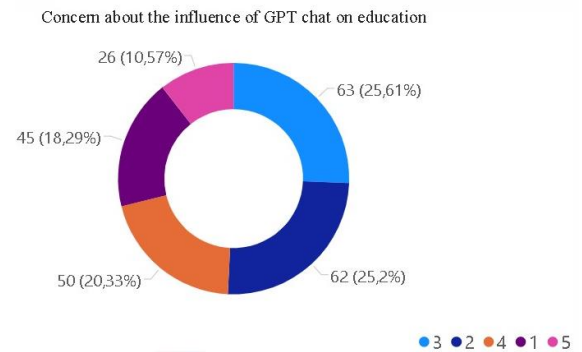


Fig. 12. Concern about the influence of ChatGPT on education

About half of the respondents declare themselves slightly worried or neutral about the influence of Chat GPT in education. On the other hand, 10% of respondents are very worried and 18% are not worried at all about this.

10 Conclusions and future research

Artificial intelligence is a vast field that has been in continuous development over the last century and will be increasingly present in people's lives.

At first mentioned only in fiction books and presented as an abstract subject, it has nowadays materialized in robots and technologies capable of imitating human behavior. The fact that it has applicability in

many fields, it could become a threat to people's jobs. Some countries have already started creating tools to replace human, from self-driving cars to hotel assistance. The popularity of artificial intelligence is a source of stress especially for women and young people.

In addition, its use in education calls into question academic ethics and integrity by facilitating fraudulent answers to assignments and exams. The information transmitted by tools such as ChatGPT is not always completely correct and is for informational purposes only.

In Romania, the population least familiar with artificial intelligence is made up of the over 50s category. Respondents are aware of the benefits of AI, but at the same time they also fear the changes that will occur in the labor market, with 16.87% of the sample believing that artificial intelligence will certainly replace their jobs in the future. Of the people who have heard of ChatGPT, 4.47% already use it very frequently, and 10.57% are very worried about the negative impact it will have on education.

A possible future direction of research in this field could be represented by the study of several categories of the population, to see the impact of artificial intelligence in other fields as well, such as vocational ones.

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