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USING ARTIFICIAL INTELLIGENCE IN BUSINESS

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Abstract
Still in its infancy, artificial intelligence (AI) can become a good ally in our business, especially in these times. But using AI requires education, first digital and then entrepreneurial because when we talk about using AI in business, we must consider the potential risks, especially in terms of cyber security, but also the fact that an economically judicious use of AI in our business can certainly help improve productivity in the workplace, without the need for aggressive human replacement. Based on these premises, the aim of this paper is to answer the following questions: What is artificial intelligence? Who can use it? What are the risks of using artificial intelligence in business? What jobs may disappear as AI develops and matures? The methodology used to answer these questions is based on the literature, official documents published by European Commission offices and statistics issued by specialized bodies. The conclusion that emerges is that the use of artificial intelligence is an advantage in the creation of new products and services.
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1. INTRODUCTION

It is well known that not everyone is able to own a business and achieve economic performance without knowing the business very well. Equally, we can say that not every person using artificial intelligence with advanced digital knowledge can start a pattern-breaking business economic activity. But, of course, if we are talking about an entrepreneur who has economic knowledge as well and advanced digital knowledge, surely the use of artificial intelligence will be successful when applied to business.

A good entrepreneur already knows that the new economy will change the way people work, communicate and live in society. He knows and is aware of the reality that artificial intelligence, as a part of digitization, will bring significant business benefits such as streamlining processes, increasing access to information and services, innovation and economic growth. But digitization and artificial intelligence, as part of it, needs digital education and this has must start, with all the risks, from primary school level, because from primary school,

today`s pupils are growing up in a digital age, which brings new challenges (Rad and Egerău, 2020).

In the absence of digital literacy as early as primary school, in the two years it takes to complete a full cycle of education, employers will face difficulties in recruiting highly skilled employees in many sectors of the economy, as too few adults will upgrade their digital skills or retrain to fill these vacancies after leaving school (European Commission, 2020). In 2023 McKinsey Global Institute estimates that globally between 400 and 800 million jobs will be lost to digitization by 2030, with only five per cent of current occupations being digitized (McKinsey Global Institute, 2023). According to a Goldman Sachs Research artificial intelligence systems could have a major impact on labor markets around the world. Analyzing databases of more than 900 occupations, it is estimated that about two-thirds of US occupations are exposed to some degree of automation by AI (Goldman Sachs Research, 2023). Also, of those occupations that are exposed, about a quarter to half of the workload could be replaced. But not all this automated work will automatically translate into layoffs; rather, most jobs and industries are only partially exposed to automation and therefore more likely to be filled than replaced by AI. So, used by a good entrepreneur, AI will help business.

2. DEFINITION OF ARTIFICIAL INTELLIGENCE

On May 15, 2024, a SCOPUS search was performed for the term *artificial intelligence* (Scopus, 2024). The initial search revealed 4.023.724 documents, of which 1.951.949 use in conference paper, 1.763.671 in article and only 116.822 in book chapter. 3.905.899 documents are in English and 81.525 in Chinese. 2.825.877 are in computer science subject area. Based on these many results, we wanted to find out what is the definition that artificial intelligence, gives to the term artificial intelligence.

We consider ChatGPT a primitive AI; it is an AI language model developed by OpenAI and is part of the broader GPT (Generative Pre-trained Transformer) family, based on the GPT-3.5 architecture. It is designed to understand and generate human-like text based on the data it receives. It can participate in conversations, answer questions, generate text based on prompts and perform a variety of language-related tasks. But we don't trust it. The information it provides is not always truthful.

The inquiry to ChatGPT made on May 15, 2024, ChatGPT 3.5 said *artificial intelligence is a branch of computer science that deals with creating systems that can perform tasks that typically require human intelligence. These tasks include learning, reasoning, problem solving, perception and language understanding. Artificial intelligence technologies aim to replicate or enhance human cognitive abilities, allowing machines to process data, make decisions*

and adapt to new situations autonomously (ChatGPT, 2024). This is a summarized explanation of artificial intelligence offered by ChatGPT.

Since 1955 to the present day, the term *artificial intelligence* has taken on new meanings. So, in 1955 John McCarthy, one of the pioneers in the field, Marvin Minsky, Nathaniel Rochester, and Claude Shannon define artificial intelligence as „the science and engineering of making intelligent machines" (McCarthy *et al.,* 2006). Alan Turing, known for the Turing test, understood artificial intelligence as a machine capable of human-like thinking and behavior (Turing, 1950).

In attempting to define artificial intelligence, Stuart Russell and Peter Norvig have noted that, over time, researchers have defined artificial intelligence in terms of fidelity to human performance, while others prefer an abstract, formal definition of intelligence called rationality - broadly defined as doing the right thing (Russell and Norvig, 2020). Likewise, some consider intelligence to be a property of internal thinking and reasoning processes, while others focus on intelligent behavior, an external characterization. From these two dimensions - human vs. rational and thinking vs. behavior - four possible combinations emerge (Russell and Norvig, 2020).

In 2020 European Parliament defined AI as the ability of a machine to display human-like capabilities such as reasoning, learning, planning and creativity (European Parliament, 2020).

Sam Altman, known for his views on technology, in particular in artificial intelligence, described the *artificial intelligence* as a super-competent colleague that knows absolutely everything about my whole life, every email, every conversation I've ever had, but doesn't feel like an extension (O'Donnell, 2024). Altman's perspective reflects broader discussions within the tech community about the implications of AI on privacy, ethics, and the future of work (O'Donnell, 2024). As AI continues to advance, it's important to consider these perspectives and engage in ongoing dialogue about how to ensure that AI technologies are developed and deployed responsibly, with consideration for their potential impact on society.

3. WHO CAN USE ARTIFICIAL INTELLIGENCE

It's easy to say that everyone can use artificial intelligence because it's a versatile and lightweight technology. But the truth is that not everyone can use artificial intelligence. To use AI, we must know how artificial intelligence works, we need to have knowledge of the field you're working in and minimal programming skills. Using artificial intelligence isn't just about asking a ChatGPT questions and getting answers. ChatGPT can replace the simple human work of searching for information, but this does not mean it will be able to provide 100 percent accurate information. On the contrary, it will force the user to explore and engage in more creative work to give the right question with a view to getting the right answer. Essentially, ChatGPT is just a good assistant and a powerful text analyzer. That's all (Leng, 2024).

In general AI technology can be used by a wide range of people, from simple users to researchers, scientists and academics. But in our opinion, if you want to use artificial intelligence in your business successfully, you must know:

- programming;
- understanding of mathematics and statistics;
- machine learning and artificial intelligence techniques;
- data processing and analysis;
- practical experience and experimentation;
- communication and collaboration;
- ethics and transparency.

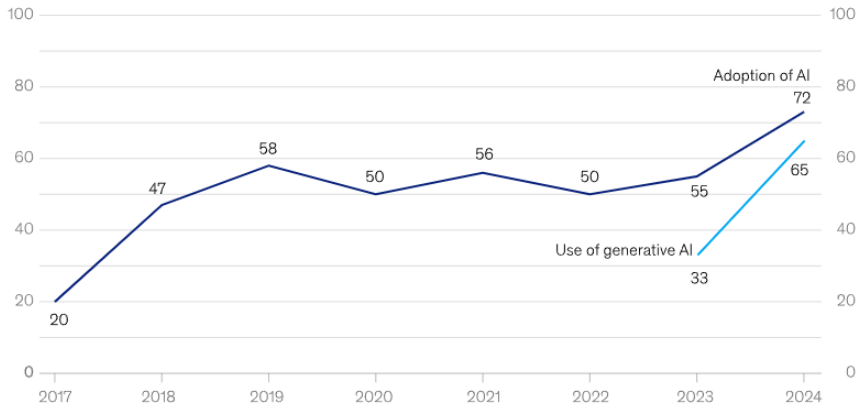
4. AREAS THAT USE AI

Artificial intelligence can be applied in a wide range of domains. In our opinion the main area of application must be education followed by healthcare. Other application areas can be finance, retail and e-commerce, manufacturing, transportation and logistics, human resources.

In education, AI solutions such as Personalized Learning, Administrative Automation, Intelligent Tutoring Systems can provide students and teachers with additional support that is tailored to their needs (Johnson *et al.,* 2016). In healthcare, medical imaging and diagnostics, personalized medicine, predictive analytics, robotics can be AI-based solutions (Topol, 2019). In finance, AI solutions like Fraud Detection, Algorithmic Trading, and Risk Management enable better decision-making (Lu and Tsui, 2021). In retail and e-commerce, AI algorithms can suggest products to customers based on their browsing and purchasing history. Also, AI can predict demand and optimize stock levels, reducing overstock and stockouts or can offered customer service (Agrawal, Gans and Goldfarb, 2018). In manufacturing, AI can offer solutions for predictive maintenance, quality control, supply chain optimization. So, AI can optimize logistics, reducing costs, and increasing delivery speed (Hosseini and Ivanov, 2019).

5. ARTIFICIAL INTELLIGENCE IS GAINING MOMENTUM

The McKinsey Global Institute conducted a survey to see what the level of adoption of artificial intelligence is in a business. The survey was conducted from February 22 to March 5, 2024, and drew responses from 1,363 participants representing the full range of regions, industries, company sizes, functional specializations, and mandates. Of these respondents, 981 said their organizations have adopted AI in at least one business function, and 878 said their organizations regularly use AI in at least one function.



Source: McKinsey and Company (2024)

Figure 1. AI adoption

Based on The McKinsey Global Institute survey we can state that:

- AI adoption percentage: Approximately 71.97% of organizations surveyed have adopted AI in at least one business function. This high adoption rate suggests that a significant majority of businesses are recognizing the value of AI and integrating it into their operations. This can reflect a growing trend in the business world towards embracing advanced technologies for efficiency, innovation, and competitiveness.

- Percent Regular Use of AI: Approximately 64.42% of organizations surveyed regularly use AI in at least one business function. This indicates that not only are businesses adopting AI, but a substantial portion of them are also integrating AI into their regular workflows. This suggests that AI applications are becoming more entrenched in day-to-day operations, moving beyond experimental or pilot phases.

These insights can help businesses, policymakers and researchers understand the current state of AI adoption and usage and identify areas where support or further development might be needed to enhance AI.

6. THE RISKS OF USING AI IN BUSINESS

While AI offers numerous benefits for businesses, it also poses several risks that organizations need to consider, as these risks can affect various aspects of operations, compliance, reputation, and overall business sustainability.

The first risk associated with the use of AI in our business relates to data privacy and security risks, such as data breaches and GDPR-like regulatory compliance (Harvard Business Review, 2020). Another risk is bias and

discrimination, because AI systems can perpetuate and even exacerbate biases present in the training data. This can lead to discriminatory practices in hiring, lending, law enforcement, and other areas (O'Neil, 2016). Also, AI can put us in a operational risks when AI systems make errors, particularly if they encounter data or situations that are significantly different from what they were trained on. These errors can have significant operational consequences (Daugherty and Wilson, 2018). AI dependency can be another risk factor. When our businesses become overly dependent on AI systems, we are likely to lose critical human expertise and judgment, and in the event of an AI failure, this over-reliance can lead to significant disruption (Harvard Business Review, 2020). Another AI risks can be associated with ethical and social risks, when the automation of tasks through AI can lead to job losses and significant changes in the workforce (Lee, 2018).

All these risks must be considered when we want our business to thrive and have a competitive advantage over the competition.

7. JOBS THAT WILL DISAPPEAR BECAUSE OF AI

Over time AI technology will develop and many jobs will risk disappearing. Also, new jobs will appear. So, in less than 10 years, jobs held by data entry clerks, receptionists and administrative assistants are at great risk because of AI's ability to automate routine tasks such as scheduling, data processing and customer service via chatbots (Daugherty and Wilson, 2018). Already robotic automation and machines driven by artificial intelligence can perform repetitive tasks more efficiently and without the need for breaks, reducing the need for human workers on assembly lines. But this also happened when FORD moved to the factory line, which gave FORD a huge advantage (Brynjolfsson and McAfee, 2014).

But AI can create and transform various jobs across different industries, leveraging its capabilities to enhance productivity, decision-making, and innovation. Here's a list of jobs that AI can create:

1. AI Engineer/Developer;
2. Data Scientist;
3. AI Ethicist;
4. AI Product Manager;
5. Robotics Engineer;
6. AI Research Scientist;
7. Virtual Reality (VR)/Augmented Reality (AR) Developer;
8. Cybersecurity Analyst specializing in AI;
9. AI Business Consultant;
10. Healthcare AI Specialist.

Of course, many jobs can be created with the help of artificial intelligence, if we want it and if we trust artificial intelligence.

8. CONCLUSIONS

Artificial intelligence can be used by anyone who has access to the data and resources needed to develop and implement AI-based solutions in various fields and industries. However, currently, the recommendation is that AI should only be used by specialists, those who have the skills to find the best solution, because ultimately AI does not decide, it only proposes a solution.

Also, educating the workforce from an early age in digital literacy is essential to harnessing AI's potential effectively. Businesses that strategically integrate AI, while addressing its ethical, operational, and societal implications, are poised to gain a competitive edge in the evolving digital landscape.

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