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ARTIFICIAL INTELLIGENCE IN EVERYDAY LIFE – PRACTICAL APPLICATIONS

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Purpose: Analysis of practical applications of artificial intelligence in the modern world and their impact on people's everyday functioning.

Design/methodology/approach: In order to implement the assumptions of the paper, an approach based on literature analysis and survey research was used. The main research methods include: Literature studies - analysis of existing scientific publications, industry reports and articles on practical applications of AI in everyday life. Thanks to this, the main areas in which AI is used were identified, and the key benefits and challenges related to its use were identified. Survey - conducting research among respondents to collect data on the level of awareness and experiences related to AI in everyday life. The survey allows to assess the extent to which users use technologies based on AI and what their attitudes are towards them. The theoretical scope includes the definition of artificial intelligence, its key technologies and a review of literature on its applications. The thematic scope of the work focuses on practical aspects of the use of AI in various areas of life. The approach combines the analysis of existing knowledge with empirical research, which allows for a more complete picture of the impact of artificial intelligence on everyday life.

Findings: During the work, it was found that artificial intelligence is playing an increasingly important role in everyday life, and its practical applications cover a wide range of fields. Based on the analysis of the literature and the survey results, it was found that AI is widely used and there are many benefits resulting from its use. However, despite many advantages, users also see potential risks. The analyses also show that many people use AI solutions.

Research limitations/implications: Despite the cognitive value of the article and the research conducted, there are some limitations that may affect their results and interpretation. The survey was conducted on a specific group of respondents, which may not fully reflect the global approach to AI. The results may be conditioned by the cultural context, level of technological knowledge or age group of participants. The study focuses on selected aspects of the practical use of AI. AI is a technology that is developing rapidly, which means that the conclusions formulated in the article may require updating over time due to the emergence of new trends, tools and legal regulations. Although the article addresses issues related to privacy and ethics, it does not constitute a complete analysis of these issues. Future research could more thoroughly examine the impact of AI on user rights, legal regulations and ethical challenges related to process automation. Suggestions for future research include: expanding the study to a larger

and more diverse group of respondents, which would allow for more representative results; analyzing the long-term impact of AI on everyday life, taking into account forecasts and future technology trends; more closely examining the ethical and legal issues related to the development of AI; and comparing the perception of AI across different social and professional groups to determine what factors influence the level of acceptance of this technology.

Practical implications: The research results and literature analysis indicate that artificial intelligence has a significant impact on everyday life, which carries significant consequences for business, economy and social practice. The main practical implications include optimization of business processes, personalization of services and products, increasing accessibility and convenience, changes in the labor market, impact on economies and trade.

Social implications: Research on artificial intelligence and its practical applications in everyday life has a wide impact on society, shaping both social attitudes and approaches to technology. Key social consequences resulting from the analysis of AI include: changes in social attitudes towards technology, impact on employment and the labor market, social and ethical responsibility, impact on public policy and regulations, quality of life and social well-being

Originality/value: The article makes a significant contribution to understanding the practical applications of AI in everyday life, highlighting both the benefits and challenges of its implementation. It highlights both the benefits and potential risks of the growing role of AI.

Keywords: Artificial intelligence, everyday life, AI applications, automation, personalization, technologies.

Category of the paper: Research paper.

1. Introduction

Currently, artificial intelligence is gaining huge popularity as a research direction and the subject of numerous publications. Information about it can be found both in specialist journals and increasingly in popular science materials. The growing interest in artificial intelligence leads to the emergence of a group of enthusiasts who often dream of how technologies based on it will soon change our lives.

In the world of science, the period of uncritical fascination with the potential of artificial intelligence seems to be over. Over the years, this field has experienced many ups and downs. Today, the influence of artificial intelligence can be seen almost everywhere. It is worth remembering, however, that artificial intelligence methods support people, but their knowledge and experience remain irreplaceable.

2. History and current level of development of artificial intelligence

Artificial intelligence (AI) is a field of computer science that focuses on creating computer programs that can perform tasks that require human intelligence. These tasks include pattern recognition, natural language understanding, decision-making, learning, planning, and many others. The main goal of AI is to create systems that are capable of thinking and making decisions in a way that resembles humans (Żybula, 2024, p. 7).

The history of artificial intelligence is a process of moving from theoretical concepts to advanced technological solutions that have significantly influenced the shape of the modern world and our lifestyle. The development of AI has significant consequences, affecting various areas of social and economic life and everyday experiences. It enables the creation of innovative technologies and tools that change the way we work and our daily activities. Artificial intelligence enables innovative solutions in areas such as medicine, transport, education, industry and agriculture, as well as in many other areas, transforming the way entire industries and societies function.

The current state of AI shows significant advances in technology, especially in the area of generative models such as those developed by OpenAI. AI has reached a level where it can perform tasks on par with humans in many domains, such as generating text, images, and interacting with robots. For example, language models such as GPT-4 have achieved 86% accuracy in multi-task tests, which is significantly higher than the results of non-experts (around 34.5%) (Measuring trends in AL, 2024).

In terms of practical applications, AI is being implemented in various sectors, including education, finance, and healthcare, where algorithms make critical decisions. The challenges associated with responsible use of AI technologies are also significant, leading to increased interest in issues such as privacy, security, and model transparency (Measuring trends in AL, 2024).

In summary, AI shows great potential to transform various aspects of everyday life and business, but also poses significant challenges that must be addressed appropriately. For more details, it is worth reading the full reports available from sources such as McKinsey, AI Index or Our World in Data.

Artificial intelligence is being defined as a field of knowledge that includes, among others, neural networks, robotics and the creation of models of intelligent behavior and computer programs simulating these behaviors, including machine learning, deep learning and reinforced learning (Czym jest sztuczna inteligencja, 2024).

With the development of artificial intelligence, new concepts and techniques have emerged that have significantly expanded its scope and capabilities. The most important of them include: machine learning (ML), deep learning (DL) and artificial neural networks. These terms refer to advanced methods of data analysis and decision-making that have become the foundation of

modern AI solutions. For example, deep learning, which is based on multi-layer neural networks, allows systems to recognize patterns in data such as images or sounds. An example of a practical application is the voice or image recognition algorithm used by platforms such as Facebook. Thanks to the use of DL, these systems are able to understand and interpret data at a level close to human perception, which makes them key in the development of technologies such as autonomous vehicles, voice assistants (e.g. Alexa, Siri) or recommendation systems in e-commerce.

Modern artificial intelligence technologies enable the automation of processes that would have required human involvement just a few years ago, making them a central element of digital transformation in many sectors of the economy (Haenlein, Kaplan, 2019, pp. 5-14).

Table 1.

Tools	Application	Examples
Voice	Voice analysis and solution delivery.	Siri as a personal assistant to get things done.
recognition		
Text	Analysis of the source text and its basis	Shaping, tomorrow.com – analysis and selection
recognition	the result is provided.	of valuable online content.
Image	Image analysis and comparison with	Microsoft and Tate Museum connect current
recognition	available material to deliver the desired	events with museum collections.
	result.	
Decision	Based on the information provided,	IBM Elements – an educational version of
making	the AI presents available solutions.	Watson that recommends student development
		paths.
Autonomous	Carrying out defined tasks by robots or	Amazon KIVA - a system that automates order
robots and	vehicles.	picking in warehouses.
vehicles		

Artificial Intelligence Tools and Their Practical Application

Source: Jarek, Mazurek, Hałas-Dej, 2019, pp. 191-206.

Table 1 explains the use of AI tools and presents examples of their applications. AI technologies encompass a wide range of tools and methods that are used to create systems that can process data, learn, make decisions, and solve problems.

In summary, artificial intelligence is a breakthrough in internet communication and the economy in general. Described as the leading technology of the new digital era, AI is compared to the role of steam and electricity, which started the industrial era (Sztuczna inteligencja..., 2024).

3. Application of artificial intelligence systems with examples of their practical applications

The future of artificial intelligence is very promising for every industry. Currently, it is not just a concept, but a real support for modern companies. AI uses a number of technologies (Jak wykorzystać sztuczną inteligencję..., 2023). Semantic AI helps machines understand the

nuances of human language and can make interactions with technology smoother and more intuitive.

For several years now, there has been an increase in the number of programs and solutions based on artificial intelligence. Companies are seeing the benefits of AI resulting from, among other things, speed and continuity of operation and minimizing the risk of irregularities. Systems based on artificial intelligence learn from their mistakes, so they do not make the same mistake twice. The potential of this technology is seen not only by entrepreneurs, but also by government and non-governmental organizations. The European Union has increased the amount of grants for researchers and scientists working on solutions related to AI by 70% (Zastosowania sztucznej inteligencji, 2021).

Artificial intelligence is playing an increasingly important role in shaping modern marketing strategies. Thanks to advanced algorithms and the ability to analyze huge data sets in real time, AI allows companies to better understand customer needs, precisely target advertising campaigns and optimize sales processes. Table 2 presents examples of the use of artificial intelligence technology.

Table 2.

Artificial	Marketing Application Examples
Intelligence Tool	
Voice processing	Place orders by voice via your device or the Amazon Alexa app.
technologies	Virtual assistants supporting task completion (Siri, Google Home, Cortana).
Text processing	Alpine.AI – a virtual assistant as a guide through the shopping center.
technologies	ING Bank Sląski – an assistant in the banking application serving customers and
	navigating to branches, Naver – GPS suggesting interesting places along the route,
	Touchpoint – analysis of customer feedback to eliminate irritating situations,
	IntelligentX Brew – a chatbot that collects data to create new beer recipes, Toyota,
	Saatchi & Saatchi – Al creating an advertising campaign for the Toyota Mirai,
	1 VN – a chatbot promoting "Millionaire" on Facebook in the style of the program.
Image recognition	Shiseido – skin condition analysis and cream selection based on photo and weather
and processing	conditions, eBay – photo as a tool for searching for identical or similar items, Amazon
technology	– an unattended store with automatic payment that analyzes selected products,
	FashionAI – electronic mirrors in clothing stores that match the collection to the
	customer, eBay – selecting the best gift based on facial recognition and emotion
	analysis, BBVA – client identification before video consultation by comparing a photo,
	Adobe Sensei – automatically crop images according to brand requirements,
Desision mating	Everypixel – an image search engine that rates the attractiveness of photographs.
Decision making	Spotify, Emirates – matching travel destinations based on music style and user
	preferences, iperfume.pi, Konugo.pi – dynamic price adjustment to the user based on nurchase history. ING Bank Ślaski – matching advertisements to the user based on their
	internet history Amazon Netflix – new product recommendations based on user
	hetawior Jaguar I-PACE – analysis of driving style and efficiency of using an electric
	car, Start Today, StretchSense – ZozoSuit helps you order clothes that fit your body
	perfectly, Albert AI, Harley Davidson - a marketing campaign management platform
	that creates strategy recommendations.
Autonomous robots	Ford & Alibaba, Amazon Go, Zaitt Brasil – unmanned stores, Schnuck – a robot that
and vehicles	checks shelf stock and reports shortages or irregularities, Moby Mart - an autonomous
	replenishment store being tested in Shanghai.

Examples of the use of artificial intelligence technologies

Source: Jarek, Mazurek, Hałas-Dej, 2019, pp. 191-206.

Artificial intelligence offers a number of benefits for companies that want to revolutionize their strategies. The key advantages of its use are primarily (AI w marketingu..., 2024):

1. Personalization of customer communication and shopping experiences

The effects of these actions are:

- increased customer engagement,
- greater likelihood of purchase,
- better adaptation of the product to customer needs.

2. Automation and optimization of advertising campaigns

The effects of these actions are:

- reducing campaign costs,
- increasing return on investment (ROI),
- better use of your advertising budget.

3. Better understanding and segmenting your audience

The effects of these actions are:

- accurate recipient profiles,
- accurate campaign targeting,
- better adjustment of the offer to the customer's needs.

4. Predicting trends and consumer behavior

The effects of these actions are:

- the ability to respond to trends earlier,
- developing more relevant marketing strategies,
- increasing competitive advantage.

It should also be noted that artificial intelligence has an impact on the consumer. The Internet has introduced many beneficial solutions from the consumer's point of view, including: automatic recommendations, product matching (Grewal et al., 2017, pp. 1-6), shorter shopping times (Moncrief, 2017, pp. 201-279), and personalization of service (Jordan, Mitchell, 2015, pp. 255-260). Artificial intelligence goes a step further, opening up new perspectives in almost every aspect of marketing activities. An analysis of examples of its applications shows a wide range of benefits that AI brings to consumers, as presented in Table 3.

Table 3.

Benefits for the	Areas	
consumer		
More	- Streamlining the purchasing process and increasing convenience by shortening selected	
convenience and	processes (payment, logging in).	
speed of purchase	- 24/7 customer service.	
	- Product experience when shopping online.	
	- New sales channels emerging thanks to unmanned stores.	
New experiences	- Hyper-personalization on a mass scale.	
in contact with	- Democratization of consulting, previously reserved for brands from the premium	
the brand	segment (the so-called democratization of consulting).	
	- AI as a way to provide after-sales service and create additional value beyond the basic	
	product.	

The benefits of AI for consumers

A new dimension	- Creating solutions that go beyond the category or manufacturer's domain.
of relationships	- Delivering exceptional brand experiences.
consumer with the	- Minimizing regret after making a purchase that does not meet expectations, thanks to
brand	the possibility of virtual product testing.
	- Brands provide additional impressions by building a zone of positive surprises.
	- The process of learning categories is eliminated and the possibility of creating
	benchmarking against other users increases motivation to change consumer behavior.
	- Introducing new products or modifying existing ones thanks to collected and analyzed
	information left on the Internet.

Cont. table 3.

Source: Jarek, Mazurek, Hałas-Dej, 2019, pp. 191-206.

Artificial intelligence systems play a key role in enabling better understanding of user intent and tailoring content to their needs. With advanced technologies such as natural language processing, companies are able to analyze huge amounts of data and transform it into valuable insights.

4. Legal and ethical dilemmas of using artificial intelligence in practice

The outlook for AI usage today and in the future is quite positive. Its impact is visible not only in the personal sector, but also in business functionality and the way companies interact with their customers and employees. The basis of the AI discourse in the business sphere is the extent to which companies can rely on AI as the main decision-maker and whether some judgments should be made exclusively by human employees (Haenlein, Kaplan, 2019, pp. 5-14). This issue is addressed by (Arrieta et al., 2020, pp. 82-115) recalling the principles that should be followed when implementing AI in the enterprise:

- Fair AI AI results should not discriminate against any individuals or groups (based on religion, race, disability, etc.). This should be done at a fundamental level, at the level of making improvements to how AI perceives these groups.
- Transparent and explainable AI Users should be aware and informed if they are interacting with AI and what data is being collected and used; in this case, personalized user accounts should be taken into account when generating results.
- Human-centric AI Work performed by AI should benefit people and society as a whole, in line with the United Nations Sustainable Development Goals.
- Privacy and security by design privacy and security of personal data should always be maintained; this is considered to be one of the biggest obstacles we face when using intelligent IT systems.
- All third parties should always be treated with the same standards.

Although the growth that AI is undergoing is enormous, its intelligence level is still far from the brainpower of humans. This includes skills such as language acquisition, creativity, visual identification, and intuition. In addition, humans naturally acquire primitive abilities to understand space, numbers, time, where AI requires appropriate coding and mechanical implementation to acquire this knowledge (Hagendorff, Wezel, 2017, pp. 355-365). This position of AI is perceived positively by some researchers, but they are hesitant that their great expectations will not be fulfilled in the next 20 years of AI evolution. This is due to the fact that AI development is mainly based on Deep Learning and imitation of the learning process of young children, as opposed to specific guidelines of specially designed programs, logic, and decision trees (Makridakis, 2017, pp. 46-60).

Many scientists and politicians draw attention to the potential threats associated with artificial intelligence. They point to possible violations of freedom and human rights (Sypniewska, Gołębiowski, 2023, pp. 249).

Artificial intelligence is revolutionizing many fields. It offers virtually unlimited possibilities for increasing business efficiency. Artificial intelligence ethics is a set of principles and values that are the basis for designing and using modern technology systems. It aims to ensure that artificial intelligence is created and used in a way that is: ethical, transparent, responsible, and brings social benefits (Sztuczna inteligencja bez tajemnic..., 2024).

When implementing AI solutions, one should be aware of the applicable legal regulations related to the use of artificial intelligence. The most important of them are: copyright law, personal data protection law, laws regarding liability for the functioning of artificial intelligence used by companies. Work is currently underway on new regulations that are to facilitate the pursuit of claims for damages caused by AI systems. The key issue here is the issue of civil liability - whether the manufacturer, user or the system itself is responsible for the actions of AI.

The expected legal regulations may introduce solutions such as: mandatory insurance for AI producers or special compensation funds. Therefore, it is important for entrepreneurs to closely follow these changes and prepare for new requirements and obligations (Sztuczna inteligencja regulacje prawne, 2025).

In summary, the use of AI requires balancing innovation with legal and ethical responsibility. Companies must take steps to ensure compliance with regulations, transparency of algorithms, and protection of consumer interests. Legal regulations and ethical guidelines will be play a key role in the sustainable development of this area.

5. Practical approach to AI – own research results

The aim of the survey was to collect opinions from respondents on the role of artificial intelligence in personal life. The study involved 92 respondents who had the opportunity to respond in a Google form. The study involved 71% of women, 27% of men, and 2.2% of people who declared another gender. In terms of age, the group of 18-25 years old made up 85% of

participants, 10% were aged 26-35, and 3.3% were aged 46-55. On the other hand, people from the age groups 36-45 and 66 and over made up only 1%.

Figure 1 presents respondents' answers regarding their first association with the concept of artificial intelligence.



Figure 1. Respondents' answers regarding their first association with artificial intelligence. Source: own study.

The distribution of answers clearly shows that respondents consider artificial intelligence as the technology of the future (59.8%), which may also suggest that they perceive it as something that is related to future technologies or modern solutions that can change human life. 19.6% identify artificial intelligence with robots and their work in factories. 12% of people associate AI with voice assistants such as Siri, Alexa or Google Assistant, which help manage everyday tasks and provide necessary information. Less numerous but significant associations included categories such as automation (12%) and content generation (1.1%), which shows that respondents also perceive AI in the context of its ability to automate tasks and generate various forms of content. Respondents, having the opportunity to provide their own answer to this question, answered that they associate artificial intelligence with "ChatGPT".

Figure 2 presents responses regarding the use of artificial intelligence in everyday life. The largest share, 44.6%, fell on the category of transport (e.g. maps, navigation), but equally frequent were responses related to online shopping (29.3%) and various applications related to health issues (6.5%). In their responses, respondents also indicated issues such as (1.1%): generating texts or sounds, assistance with learning, smart household appliances, or obtaining information.



Figure 2. Application of artificial intelligence in everyday life areas. Source: own study.

In the next question (figure 3), respondents assessed the impact of artificial intelligence on the efficiency of work performed. The responses show that a large proportion of people have a very positive (17.4%) and positive (42.4%) assessment of artificial intelligence. Their responses may suggest that they probably notice significant benefits resulting from its use in everyday life, such as time savings, increased efficiency or better organization of tasks. 34.8% assessed the impact of AI neutrally, which may indicate that they do not notice significant changes in their work, and 5.4% of respondents expressed negative and very negative opinions.





Figure 4 shows the respondents' position on replacing human work with artificial intelligence. For example:

- 46.7% of respondents are in favor of replacing human work with artificial intelligence, but they have some concerns.
- 29.3% are against it because they believe it could lead to social problems.
- 15.2% of people is in favor, considering it as technological progress.
- 5.4% has no opinion on this matter.
- 3.3% of people are strongly against it.

These results show that most respondents have some concerns about AI replacing human labor, even though they consider it a technological advance. A significant portion of respondents also fear potential social problems that may result from this process.



Figure 4. Position on replacing human work with artificial intelligence. Source: own study.

Figure 5 presents the concerns of respondents related to the development of artificial intelligence in the future. 73.9% of people expressed concerns related to the replacement of jobs by artificial intelligence, 60.9% fear loss of privacy, and 48.9% worry about addiction to technology. Meanwhile, 47.8% of people are concerned about both the takeover of control by artificial intelligence and social manipulation. The fewest people, 27.2%, fear the use of artificial intelligence for military and armament purposes.



Figure 5. Respondents' concerns about the development of artificial intelligence. Source: own study.

The survey results indicate the main concerns of the public related to the development of AI, especially in the context of the impact on the job market and privacy. It can be concluded that further research and action are needed to understand and mitigate these concerns.

6. Summary

The use of artificial intelligence is a breakthrough in many areas of life and business. AI enables more precise prediction of needs, personalization of experiences and automation of processes, which leads to increased efficiency of operations and better understanding of users or customers. Tools based on artificial intelligence, such as chatbots, predictive analytics or recommendation systems, are used in areas such as customer service, logistics, education or healthcare, allowing for more effective management of resources and building lasting relationships with recipients. At the same time, the development of AI is associated with legal and ethical challenges, such as protection of personal data, transparency of algorithms or potential risk of manipulation. Maintaining a balance between innovation and social responsibility, by complying with regulations and building user trust, is becoming crucial.

In summary, artificial intelligence is revolutionizing many areas of human activity, transforming them into more dynamic, precise and effective processes. However, its full use requires a conscious approach that takes into account both technological potential and ethical and social issues.

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