PRACTICAL EXPERIENCES WITH THE USE OF AI IN THE YOUNG GENERATION

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Abstract

With the rapid development of digital technologies and their implementation in everyday life, the topic of artificial intelligence (AI) is increasingly being discussed. This new to many technologies is constantly surprising with its capabilities, for example in the field of creation. Generative models, which are already capable of creating quite original visual, textual or musical content, are rapidly gaining attention and finding applications in a few sectors. The use of generative AI is also expanding significantly among students, for whom it promotes learning and creativity. However, this may pose a global problem in terms of ethics and copyright protection.
The aim of this paper is to assess whether there is sufficient awareness of this topic at different school levels and what the practical experience of using AI among the younger generation is, based on an analysis of students' perceptions of AI.

Key words:
artificial intelligence (AI), generative artificial intelligence, copyright, generative models, technology

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INTRODUCTION

In today's world of digital technologies, we are witnessing rapid growth that constantly brings new opportunities and challenges. Nowadays, it is almost impossible to avoid mentioning the rapidly developing technology, artificial intelligence, which has been attracting huge interest in recent years. This complex technology increasingly intervenes in our daily lives, often so subtly that most people do not notice its presence. It opens new possibilities, and many see a great benefit in it, especially in the form of generative artificial intelligence. In 2023, generative artificial intelligence has become a significant phenomenon in everyday life, especially in the field of education, but also in other sectors thanks to the ability to generate text, images, music and other content. However, new technologies often bring a wave of criticism and sceptical opinions, and for many artificial intelligences is still an unexplored mystery. Artificial intelligence is based on the idea that computers and machines can be designed to think and learn like humans. This idea dates to the 1950s, when the first AI programs began to be created. Nowadays, AI is already an integral part of our daily lives. AI tools have become an effective aid in information retrieval, complex problem solving, planning, data analysis, and other important activities (Honavar, 2016).

Artificial intelligence is the ability of a device to exhibit human-like abilities such as reasoning, learning, planning and creativity. Thanks to artificial intelligence, technical systems are able to distinguish the environment they are in and solve what they recognise as a problem, acting to achieve a specific goal. The computer receives data prepared or collected by its sensors (e.g. cameras), processes it and reacts. AI systems are able to operate autonomously and adapt their behaviour to some extent based on the analysis of previous actions. As AI continues to develop, it will be able to handle increasingly complex tasks, opening new possibilities for its application in a variety of fields. However, with these advances come many challenges and the need for regulation, which require appropriate attention. The field of AI is constantly demonstrating high potential for development and application in various sectors. Discoveries and innovations in this field make many people excited about progress, but, as with any change, technological advances evoke a variety of emotions and opinions (Bartošová, 2020).
However, the rise of AI-generated content also raises concerns about the need to distinguish

between human-generated and AI-generated content. The ability to detect AI-generated content has become a critical issue in a variety of fields, including journalism, social media, the arts and education. For example, in journalism, the spread of fake news generated by AI systems can cause significant damage to society, while in the arts, AI-generated artworks can raise questions about the authenticity and authorship of artworks. In the field of education, the use of AI-generated content by students can lead to issues of academic integrity and plagiarism (Cotton et al., 2023). As the use of AI-generated content continues to grow, it is essential to develop and improve tools to detect such content. This will ensure that the authenticity and credibility of the content is maintained, and that issues of plagiarism and academic integrity are addressed (Uzun, 2023).

LITERATURE OVERVIEW

Intelligence is a trait acquired by some living organisms in evolutionary development. We also talk about intelligence in the context of machines (artificial intelligence). What is intelligence? Intelligence is the mental capacity of higher organisms and their cognitive abilities that enable them to creatively solve complex and difficult tasks, to remember and use the knowledge they have gained to find and create new and better solutions (learning). Closely related to intelligence is the ability to think abstractly, logical reasoning, consciousness and self-awareness (Gregor, Gregor, 2014). Artificial intelligence as a scientific discipline relies mainly on the vast field of information sciences (Myška, Zibner, 2019).

Within AI, different approaches are emerging from authors. Some show interest and curiosity towards this technology and consider it as a tool for innovation and the development of art. They perceive the wide range of possibilities that experimentation with AI can offer. Other authors, however, prefer traditional approaches and often criticize AI because of concerns about the erosion of their authenticity. There are also authors with pragmatic views who seek a balance between the use of AI in creation and the maintenance of ethical values (Roose, 2022). AI models can serve a variety of purposes in the design field. Its application can be found at various stages of the production of films, music, literature and other forms of art. Their primary benefit is the automation of routine activities such as image editing, sound optimization, or video post-production. The ability to analyse data and identify trends in the industry is also an advantage, allowing authors to better tailor their works to current audience preferences. In addition, thanks to generative AI, authors can discover new forms of inspiration and expand their horizons (Bordas Vives, 2023). There are a number of threats and challenges associated with the use of AI, which have raised concerns among authors. One of these is the aforementioned issue of ownership and copyright, which has arisen in relation to AI's ability to mimic the artistic styles and techniques of existing authors. In addition, there is discussion of the problems associated with technological development, such as unemployment and the replacement of humans in production by machines, the loss of authorial authenticity and personal experience, or the risk of mass manipulation through fake content (Démuth, 2020).

In the context of artificial intelligence, we are already talking about a rapidly developing and innovative technology from the world of IT. (Richter, 2023).

We can clarify this broad and rather vague concept from at least the following three perspectives:

- artificial intelligence as an activity,
- artificial intelligence as a scientific discipline,
- artificial intelligence as software (Myška, Zibner, 2019).

The perception of AI as an activity can be understood as the ability of a machine to be "intelligent". This definition compares the cognitive characteristics of AI with those of humans, i.e. how a machine can "think and react" compared to a human (Myška, Zibner, 2019). Artificial intelligence as a scientific discipline relies mainly on the vast field of information sciences. It deals with systems and machines that use methods and procedures considered to be a manifestation of intelligence in the case of humans to solve tasks. The third approach is artificial intelligence as software. This approach treats artificial intelligence as an element of the machine and characterises it as part of the software. (Myška, Zibner, 2019).

Artificial Intelligence works on the principle of a set of algorithms or computer formulas by which a computer system is programmed. An AI algorithm is a set of well-defined steps, instructions, or rules that enable AI to efficiently solve problems, identify patterns, and adapt to new situations (Štalmachová, Strenitzerová, 2020). Artificial intelligence has become a common topic of discussion in many scientific fields, including legislation, especially in the context of copyright law. The ability to create and perceive art has long been regarded as a uniquely human characteristic, distinguishing us from other living beings or technologies (Démuth, 2020). Today, AI algorithms already excel in image recognition, text analysis, and the processing of large volumes of structured and unstructured data, suggesting the wide possibilities of AI applications in a variety of spheres. In particular, the use of generative AI for content creation, especially in the form of text or visual material, has become a big trend recently (Trenkler, 2019). Generative AI is gaining popularity due to its innovative capabilities. On the one hand, it provides a number of benefits that enrich different areas of our lives. But on the other hand, it also creates potential threats and raises ethical questions. The field of AI is continuously demonstrating high potential for development and application in various sectors. Discoveries and innovations in this field have many people excited about progress, but as with any change, technological advances evoke a variety of emotions and opinions (Bartošová, 2020). Some people fear and criticise the rapid development of AI, and various conspiracy theories arise, mainly due to a lack of awareness.

GOAL AND METHODOLOGY

The aim of this paper is to assess the level of influence, context and diversity of perceptions of AI among respondents based on the results obtained from the questionnaire survey. We analyse the perception of AI by students who are learning in an era of emerging technologies where AI is gaining importance. We evaluate whether there is sufficient awareness of the topic at different school levels and what are the practical experiences of using AI among the younger generation.

Based on the results from a questionnaire survey and using statistical methods, we will evaluate two research questions:

RQ1: We hypothesize that age has an impact on some of the students' attitudes regarding the perception of AI.

RQ2: We hypothesize that there is a difference in the perception of AI between elementary school, high school, and college age.

The questionnaire survey focused on a target group of students at three levels of education: primary, secondary and tertiary. The selected group of respondents was chosen on the basis of specific criteria, which means that the findings are relevant for this sample but may not be representative of the whole population. The sample consisted of 243 respondents aged between 11 and 38 years, 135 females, 103 males and 5 respondents who did not indicate their gender.

The formulation of the individual items of the questionnaire was partly based on the research on the topic of the Influence of Generative Artificial Intelligence on the Perception of Content by the Czech author Martin Richter (2023) and was based on a detailed theoretical study of the analysed topic. Statistical methods used in the evaluation are Spearman's correlation coefficient, Bonferroni's Post hoc test, one-factor ANOVA. Statistical significance (significance) was assessed at 0.05 level of significance.

FINDINGS AND DISCUSSION

Respondents were classified according to gender, age, type of school attended, and area of their expected future employment. We classified students by age into three groups:

- primary school age: 15 years and below - 14% of respondents,
- secondary school age: 16-19 years - 53% of respondents,
- college age: 20 years and over - 33% of respondents.

We also looked in more detail at what school respondents attend. Most respondents attend gymnasium (40% of respondents) and college (35% of respondents). These two categories are approximately equal in terms of numbers. Percentagewise, they differ by about 5%. The least numerous categories appear to be Primary

School. So, the issue of artificial intelligence is being addressed more by students already at a higher level of education.

Students were then asked how often they use AI tools. 45% indicated that they use the tools only occasionally and 7% indicated that they do not use the tools at all. The responses indicate that a relatively large group of students are unaware of the implementation of AI features in various common online tools and applications that are in most cases part of their daily lives.

In the following question, respondents wrote to us about what activities AI capabilities help them the most. Most often, respondents mentioned help with school assignments, term papers, information retrieval, or programming.

One question focused on whether students thought AI could generate original artistic content. The largest proportion of respondents (34%) placed themselves in the neutral position, and another 31% indicated moderate agreement with the statement.

In the questionnaire, we asked students for the 3 words that first come to mind when they hear the word "artificial intelligence". Words like "robot", "uncertainty", "help", "ChatGPT" or "future" came up most often. These labels represent students who see potential in AI, but also those who see it as a threat. Many associate AI with the science fiction genre or robots, indicating this group's lack of awareness of the use of AI in everyday life.

We followed up on the previous questions by asking respondents how they perceived their level of awareness. 44% of respondents indicated that their awareness was average, and only 4% indicated that they understood the topic of AI very well. It is clear from the results that with the growing importance of AI, there is a growing need for increased education on the topic.

Evaluation of research question 1: We hypothesize that age has an impact on some of the students' attitudes regarding the perception of AI.

In evaluating the results obtained by the questionnaire survey, we are further interested in the association between the variables, between the factors, which variables influence each other, and whether there is a statistically significant difference in the perception of AI between the categories under consideration.

The association between variables was evaluated based on a correlation matrix. The degree of intensity of the relationship was assessed by the value of Spearman's correlation coefficient. Interpretation of the observed associations was carried out according to Vaus' suggestion.

Tab. 1: Interpretation of Spearman's correlation coefficient

Correlation value	Interpretation of the context
0.01 - 0.09	trivial, none
0.10 - 0.29	low to medium
0.30 - 0.49	medium to substantial
0.50 - 0.69	substantial to very strong
0.70 - 0.89	very strong
0.90 - 0.99	almost perfect

Source: Own elaboration by the author David de Vaus (2014)

From the correlation matrix we selected pairs of items. between which a high degree of correlation was identified. The results are in the table 2.

In the first case, we were interested in whether and how strong the relationship between student interest in AI and the frequency of use of AI tools. In the second case, we were interested in the relationship between the ability to understand the topic of AI and the frequency of use of AI tools.

We tested the null hypothesis H0: The correlation between the items is insignificant. In both cases, the p-value is already significant at the 0.01 level. hence, we can conclude. that we reject the null hypothesis. In the case of the association between the items student's interest in AI and the frequency of using AI tools, the strength of association is 0.526. According to Vaus, this association is significant to very strong.

Tab. 2: Level of correlation between selected survey items

		How often I use AI tools:
On the scale, indicate how interested you are in AI:	Correlation Coefficient	**,526****
	Sig. (2-tailed)	,000
Estimate how well you understand the topic of AI:	Correlation Coefficient	**,321****
	Sig. (2-tailed)	,000

** Significant at the p<0.01 significance level.

Source: own elaboration from the results IBM SPSS Statistics

The conclusions are:
- the higher the interest, the higher the use of AI tools and vice versa,
- the higher the awareness, the higher the use of AI tools.

In Table 3 below, we evaluate whether age influences some of the students' attitudes regarding their perceptions of AI.

Tab. 3: Level of correlation between selected survey items

		Age categories
AI is sufficiently taught in school:	Correlation Coefficient	**,238****
	Sig. (2-tailed)	,000
AI is relevant to my future career:	Correlation Coefficient	**,315****
	Sig. (2-tailed)	,000

** Significant at the p<0.01 significance level.

Source: own elaboration from the results IBM SPSS Statistics

From the correlation matrix, we identified two statistically significant relationships. Both items represent the factor Awareness of AI. In them, the respondent expressed the level of agreement with the statement. According to the calculated value of Spearman's correlation coefficient, we can interpret the strength of the relationship between the respondent's age and the opinion on the sufficiency of teaching about AI in school as low to medium. This implies: the lower the age, the more the respondent agrees with the sufficiency of teaching about AI in school.

We also rejected the null hypothesis for the relationship between age and students' attitudes towards the relevance of AI for their future employment. The value shows a moderate to significant dependence of opinion on age.

Evaluation of research question 2: We hypothesize that there is a difference in the perception of AI between elementary school, high school, and college age.

One of the other objectives of the analysis was to determine whether the perception of AI across all factors considered was the same in terms of age, reflecting the formulation of the VO2 research question. We hypothesized that there is a difference in the perception of AI between primary, secondary and university age. We used a one-factor ANOVA method, with the classification factor being the three age categories. The dependent variables are our factors, and age is the independent variable.

We tested the null hypothesis H0: All means across the age categories of AI Awareness, AI Skills Awareness, and AI-generated content discrimination are the same. The results from the SPSS output are shown in Table 4.

Tab. 4: Results of one-factor ANOVA

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Awareness average	Between Groups	8,660	2	4,330	14,160	**,000**
	Within Groups	73,393	240	,306		
	Total	82,054	242			
Abilities average	Between Groups	2,790	2	1,395	2,366	,096
	Within Groups	141,507	240	,590		
	Total	144,296	242			
Distinction average	Between Groups	,480	2	,240	,894	,410
	Within Groups	64,366	240	,268		
	Total	64,846	242			

Source: own elaboration from the results IBM SPSS Statistics

We found out. that there is no significant difference between the values of the factor Discrimination of AI-generated content by students and the awareness of the abilities of AI in context by the students. However, the AI Awareness factor is significantly different from the other two. Furthermore, we performed an analysis in which we identified statistically significant differences in the perception of AI in individual factors between age categories. Bonferroni's Post hoc test for multiple comparisons was used. The results can be found in the following table.

Tab.5: Results of the Bonferroni Post hoc test

Dependent Variable			**Mean Difference**	**Sig.**
Awareness average	primary school age	secondary school age	**-.33995***	**.005**
		college age	**-.59065***	**.000**
	secondary school age	college age	**-.25071***	**.005**
Abilities average	primary school age	secondary school age	-.04343	1.000
		college age	-.26029	.297
	secondary school age	college age	-.21686	.145
Distinction average	primary school age	secondary school age	-.03025	1.000
		college age	.06814	1.000
	secondary school age	college age	.09839	.549

* Significant at the p<0.05 significance level.

Source: own elaboration from the results IBM SPSS Statistics

The null hypothesis of equality of means was rejected only in the AI Awareness factor. We found a significant difference between all pairs of age categories. We can see the biggest

difference between Primary and High school age. It follows that the lower the level of education, the less the student thinks he is informed about AI. Elementary level students rated their awareness on average by 0.34 points lower than secondary level students and 0.59 points lower than university students. University students rated their awareness by an average of 0.25 points more than students at secondary school age.

CONCLUSION

Technological advancements, especially in the field of AI, are leading to increasing automation in various industries. This trend may have a significant impact on employees in the future. This raises a bit of a concern, especially because of the potential savings in labour costs that automation brings to companies. However, with the development of AI, there are also views about the creation of new jobs. For example, such an AI specialist could be in high demand as a result of the widespread implementation of AI and could become an essential part of many firms.

Although AI may be perceived as a threat by employees, AI represents a significant opportunity for business management. Introducing it into business processes can contribute to significant modernisation and enhance competitiveness in the marketplace.

The use of generative AI in education poses a challenge that requires attention in the area of legislative protection of authors. With the increasing trend of students incorporating generative AI tools into the creation of texts, the potential for copyright infringement opens up. AI-generated content can sometimes be misidentified as plagiarism, raising questions regarding compliance with citation and copyright rules. In order to prevent such abuse, it is imperative that schools and legislatures actively respond to the ever-evolving technological trends and protect authors even in the digital environment.

AI can be a truly fascinating topic that brings enormous potential for progress, particularly in the field of business, but perhaps in the future also in the quality of people's everyday lives. However, it is essential to raise awareness of its aspects, so that the public gains a basic understanding and people have a better understanding of its nature.

In this paper, we explored and analysed the practical experience of using AI with the young generation. An interesting finding was that respondents' attitudes towards AI are significantly influenced by factors such as age and school type. We found different levels of understanding of AI between different ages and levels of education. It showed that as the education of the respondents increases, the level of understanding of AI and its capabilities increases. In this paper, we have tried to contribute to a deeper understanding of the topic of AI and its generative abilities. We point out the importance of classifying AI-generated content and emphasize the need to raise awareness on this topic. At the same time, we open the door for further discussion and research on the awareness, classification, ethics and regulation of AI, which is essential for the responsible incorporation of this technology and its tools into our lives

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