ARTIFICIAL INTELLIGENCE AS A WAY TO CREATE NEW CONTENT

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Abstract: Nowadays, artificial intelligence is becoming more widespread and significant in various spheres of human activity. In this regard, many questions arise about the impact of artificial intelligence on business processes, which areas of activity are most susceptible to change. The article considers a number of areas in which artificial intelligence is actively used, the tasks it can handle, as well as several neural networks that are widely used in 2025. The work conducted a sociological study to identify the distinctive features of work with content performed by neural networks and people.

Keywords: artificial intelligence, neural network, automation, content generation, optimization algorithms, automatic learning.

Introduction

The modern world is changing very quickly, and every year it becomes more complex. This is facilitated by both the aggravation of military, racial and ethnic conflicts, the fight for gender equality and universal tolerance, and technological phenomena: the introduction of high technologies into almost all spheres of human life, rapidly spreading robotics, work with big data, augmented and virtual reality and much more. Definitely, one of the main topics in the world of technology in 2022 was artificial intelligence and its application in our everyday and professional lives.

Analysis of literature on the topic

Artificial intelligence (AI) is revolutionizing content creation by leveraging neural networks, machine learning, and automation. The Encyclopedia Britannica provides foundational knowledge on AI technologies and their applications [1]. AI-driven solutions like ruDALL-E [4] and Midjourney [7] generate visual content, while ChatGPT [6] assists in text generation. AI-powered tools such as Yandex's Balaboba [3] and Alice [8] enhance natural language processing for interactive content. Moreover, AI is being integrated into branding and design, as seen in the Logomachine project [5]. These technologies demonstrate AI's role in streamlining creative processes and making content generation more efficient and accessible.

Research methodology

This study employs a mixed-methods approach, combining qualitative and quantitative analysis. A literature review was conducted using sources on AI-generated content, including

text, images, and design. A comparative analysis was performed to evaluate AI tools like ChatGPT, ruDALL-E, and Midjourney against human-created content. Additionally, a survey was conducted with 125 participants to assess their ability to distinguish between AI-generated and human-made works. Data analysis included statistical evaluation of responses and content analysis of participant feedback. Ethical considerations were maintained by ensuring anonymity and informed consent.

Analysis and results.

Artificial intelligence (hereinafter AI) is a set of technologies and methods that allow computers to perform tasks that usually require human intellectual abilities, such as pattern recognition, data classification, natural language processing, and many others [1]. One of the main technologies used in AI is neural networks, which imitate the work of neurons in the brain and allow computers to learn from experience.

The development of AI has a significant impact on various areas of life, including the labor market. Every year, more and more companies are implementing AI to optimize business processes, improve productivity, and reduce costs.

Improvements in technology and capabilities for collecting and processing data have allowed AI to be used in many industries, from medicine and finance to marketing and design. Among all the areas of activity that use AI, consider how it is used in the following areas:

– Marketing. AI allows you to collect and analyze a large amount of data, which makes it possible to optimize advertising campaigns and personalize communication with customers. Machine learning algorithms are used to predict customer behavior and determine the most effective channels for promoting goods and services. One example of such systems in Russia is Yandex.Market, which uses neural networks for personalized product and service recommendations. In 2022, at YaC 2022, a neural network named Ekaterina was announced, named after one of the stylists working on the project, which was trained using data from professional stylists. With its help, Market improved its search results for the clothing and footwear category. The new technology allows customers to see fashionable items, regardless of brand and price. Previously, due to the large number of products in the assortment, the service did not have enough data on how exactly customers search for clothes and shoes. Now Market will be able to improve its search results in other product categories as well.[2]

– Working with text. AI can process and analyze texts in natural language, which allows you to automatically generate product descriptions, create texts for websites and advertising materials, and analyze the sentiment of reviews and comments. For example, the service "Balaboba", created by Yandex, whichallows you to generate texts in Russian using AI. It was launched in 2017 and has since become popular among users looking for a simple and convenient way to generate texts. One of the main features of the service is its adaptability, it takes into account the context in which the request was made and provides the most relevant answer. [3]

– Design. AI can automate the design process. AI can also be used to analyze designs and identify the most effective elements that attract users' attention. In January 2021, OpenAI introduced the DALL-E neural network, created to generate an image based on a text query in English. In November of the same year, SberDevices and SberAI introduced the ruDALL-E neural network, capable of working with a text query in Russian. At the moment, the neural network has several generative models: ruDALL-E Kandinsky2.0 works in applications "Salut" and Discord and creates images using voice commands; ruDALL-E Malevich is similar to the

original DALL-E neural network, used by entering text queries in Russian; ruDALL-E Emojich creates new emoji based on text descriptions, which can be used as stickers, clip art and prototypes. [4]

– Project Management: AI can help plan and manage projects using algorithms for schedule optimization, risk forecasting, and budget management. AI can also help with automated data collection and reporting, simplifying the project management process.

Neural networks have the ability to automatically learn and make decisions based on data, which allows them to significantly facilitate operations and processes in the areas under consideration, freeing people from certain tasks.

Since neural networks are actively used in the field of marketing. For creations individual offers and consumer demand analysis, they can   replace human routine   tasks related to providing recommendations, analysi sdata and forecasting the results of marketing campaigns based on data from previous campaigns. Neural networks used to work with text, including

myself automatic   content creation, language translation, sentiment analysisand keyword identification can easily replace a person in performing tasks such as writing news or technical texts, project descriptions, etc.

In design, neural networks can be used to create design layouts, generate ideas, and perform automatic editing. Some routine design tasks, such as creating templates for websites or logos, can be performed by neural networks with minimal human involvement. For example, Lebedev Design Studio presented a new logo that combined the work of Logomashina studio designers and neural networks. The idea is to create unique logos that can be generated automatically using neural networks and then edited by designers to achieve the desired result. This approach can significantly speed up the logo creation process and reduce the time and resources spent on development. [5]

A number of project management tasks such as creatingWork schedules, budget planning or risk assessment can also be performed without human intervention by neural networks based on data analysis. In general, neural networks can replace human work in tasks that are structured and repetitive in nature.

The history of machine learning development began in the middle of the last century, but one of the main stages in the development of neural networks occurred in the mid-2000s, when Geoffrey Hinton created new learning algorithms that allow efficient processing of large amounts of data and training of deep neural networks with many layers. One of the main reasons for the growing interest in neural networks was the improvement of computing power of computers and the availability of large amounts of data. In addition, new tools for creating, training and deploying neural networks have emerged, which have made this technology more accessible to a wide range of people. Today, neural networks are widely used in various fields, such as speech recognition, photo and video processing, and many others. Let's consider several of the most popular neural networks in Russia in 2023.

ChatGPT is a powerful neural network model based on the GPT (Generative Pre-trained Transformer) architecture that is trained on huge amounts of text data. It can generate texts in more than 90 languages, answer questions, translate texts into other languages, create image descriptions, and perform many other natural language tasks. ChatGPT works on the principle of automatic learning, the model does not require pre-training for a specific task. Instead, it is trained on a large amount of texts available in the public domain, after which it can be applied to

solve various natural language problems.

One of the features of ChatGPT is that it capable process longtext sequences using technology transformers, which allows the model to effectivelyanalyze and remember the relationships between words in a sentence. Overall, ChatGPT is a natural language processing tool that can be applied in many areas related to text processing.[6]

Midjourney is an AI-powered platform that was created to explore new means of thought and expand the power of people's imagination. The platform's main feature is an interactive bot in the Discord app that uses machine learning to generate images based on text entered by the user in English.

This AI system uses deep neural networks to process text information and transform it into visual images. A user can enter a text phrase into the bot that they want to illustrate, and Midjourney will generate an image that displays the idea presented in the text. The Midjourney neural network uses generative adversarial networks, which consist of two parts: a generator and a discriminator. The generator creates an image, and the discriminator determines how realistic it is. These two parts of the neural network are trained to interact with each other and improve their results over time. One of the main advantages of Midjourney is that it can be used to create unique, creative images that can help visualize ideas and concepts. This neural network can be useful in various fields, including design, art, advertising, science, and technology [7].

Voice assistant Alice is a voice assistant developed by Yandex. Alice is powered by AI, which allows her to recognize natural speech, answer questions, and perform various tasks using voice commands. She is available on various devices, including smartphones, tablets, computers, and cars.

The main functions of the voice assistant include: searching for information on the Internet; reading weather forecasts and exchange rates; reading the main news; recognizing images in photos; recognizing songs by short passages; ordering food; the ability to play games; ordering a taxi; managing a smart home; plotting a route in the navigator; opening applications and much more.

One of Alice's main advantages is that it is trained to work with natural speech, so users can ask questions in natural language without using special commands or phrases. In addition, it has the ability to understand context and take into account previous conversations with the user, which makes it more intuitive and easy to use.

Overall, Alice is a convenient and innovative tool that helps users in their daily tasks and provides ease of use in various areas of life.[8]

Many people believe that neural networks cannot yet replace humans in certain areas of professional activity, especially when it comes to creative processes. Based on the material we studied, we formulated a hypothesis: "Despite the development and adaptability of neural networks, they can easily replace humans when performing structured work, but they cannot replace the creative component of work. The use of such concepts as humor, complex metaphors and allegories is not yet available to neural networks. A person can easily distinguish the work of artificial intelligence from the results of human intellectual activity."

In order to test this hypothesis, as well as to identify specific distinguishing features that a person relies on when working with this or that type of content, we conducted an online survey in which respondents had to choose from two texts and two images, which of them were

generated by neural networks and which were made by a person. The survey involved 125 respondents aged 18 to 50.

The survey itself consisted of:

Text No.1 – generated by a neural network on request
"Write 5 sentences in a fictional style about how the feeling of love is born."

"In the depths of the soul, as in the most mysterious and dark corner, an extraordinary feeling awakens, which smoothly flows into life energy, leading to a wonderful feeling - love. It begins to grow and develop, like a tiny flower bud that penetrates into the very depths of the heart and fills it with warmth and tenderness. Every day, every moment of life, this bud blossoms more and more, filling the soul with light and spiritual well-being. And finally, when it reaches its peak, the most beautiful flower appears in it - love, which gives happiness and joy to everyone around."

Text No. 2 – an excerpt from the book "Genius and the Goddess" by O. Huxley.

"There is a saturated solution of feelings, and the reason for its crystallization can arise both inside and outside. Words and events fall into this psychophysical chatter, and in it clots of emotions and experiences are formed, calling for action. Then the glands develop, which leads to the appearance of those very charming little animals of which the child is so proud and which embarrass him so much. The solution of feelings is enriched with a new type of sensations, they penetrate from the nipples, through the skin and nerve endings into the soul, into the subconscious, into the superconscious, into the realm of the spirit. And these new centers of mental tension of the personality seem to impart movement to the solution of feeling, make it flow in a certain direction - to the absolutely unknown, full of mysteries sphere of love."

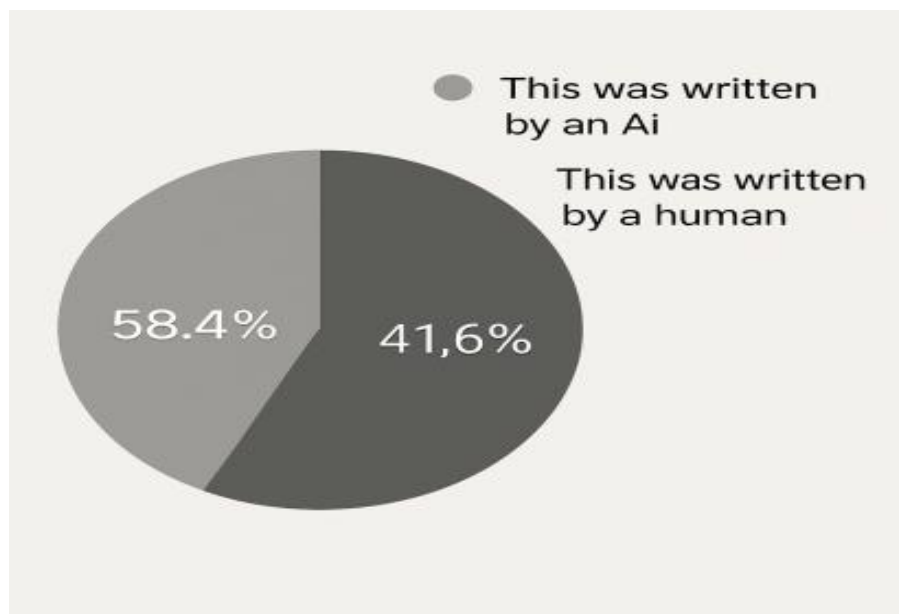Image No. 1 – drawn by artist Maria Vyshinskaya. (Fig 1.)

Fig. 1 "Drawing by Maria Vyshinskaya"

Image #2 – generated by a neural network based on the query "Night, cartoonish good mythical creatures dancing in a circle around a fire." (Fig. 2)

Fig. 2 "Image generated by a neural network"

25.6% of respondents completely correctly identified the work of neural networks and humans. The main difficulty in the survey for respondents was identifying the texts, 21.6% noted that both texts were written by a neural network, which in the first case was the correct answer (Fig. 3), and in the second - not (Fig. 4).

Fig. 3 "Result of the survey on the selection of text written by a neural network"

Fig. 4 "Result of the survey on the selection of text written by a person"

At the same time, respondents who correctly marked both texts identified a number of features that helped them in their choice:

– regarding the text written by the neural network, 8% noted that the narrative was too simple, 6.4% noted that it lacked humor, 5.6% noted tautology in the text, 4.8% identified speech, logical and punctuation errors, 1.6% did not see individuality in the text and noted the feeling that the text was composed of works by other authors, and finally, 4% noted that the text was "soulless";

– relative to human-written text 19.2

% highlighted the complexity of the narrative, 39.2% noted the use of literary devices, while 20.8% drew attention to the non-standard nature of the text, 6.4% mentioned the presence of humor.

Based on the results of the survey on texts, it can be concluded that the non-standard nature of the author's text, on the one hand, helped people distinguish it from the text written by the neural network, but on the other hand, it greatly confused the respondents. At the same time, regardless of the correctness of the answer, 13.6% noted the absence of humor in the text written by the neural network, and 9.6% the presence of humor in the author's text.

64% of respondents successfully managed to select images. 92 respondents managed to correctly identify the author's image, which amounted to 73.6% of the total number (Fig. 5), while 44% of respondents singled out the author's style, and 32.8% noted that the human hand is clearly visible.

Fig. 5 "Result of the survey on the choice of the author

images»

91 people coped with the image generated by the neural network – 72.8% (Fig. 6), 35.2% of them noted that it was clearly noticeable that the image was generated by the neural network, 4% paid attention to

inaccuracies in the image that allowed them to give the correct answer. Only 8.8% of respondents decided that both images were generated by neural networks, and 9.6% thought that both images were drawn by a person.

Fig. 6 "Result of the survey on the choice of an image generated by a neural network"

The results of the study show that modern neural networks are already developed enough to create high-quality images and texts that are difficult to distinguish from human-created drawings and texts. However, most people are able to understand that the generated images and texts belong to neural networks due to the primitiveness of the created objects, errors and inaccuracies. Writing text remains a difficult task for artificial intelligence, since human language is a more complex area for modeling, since it has a higher level of abstraction and contextuality than images.

Conclusions and suggestions.

In conclusion, it can be added that the survey results highlight the importance of a harmonious combination of human creativity and artificial intelligence in the modern world. Despite the fact that neural networks can perform many tasks, in creative processes where individuality, originality and creativity are important, humans are still irreplaceable.

The use of hybrid systems in which technical possibilities artificial-intelligence is used to create an initial template, and then the person refines it and supplements it with their own ideas and creativity, can be very effective, as it can help speed up and improve the creative process, without replacing human creativity, but only complementing it and expanding its capabilities.

References:

1. YaC, 2022. How to make the purchasing process predictable and teach algorithms to understand   fashion Electronic resource]https://yandex.ru/yac (date accessed: 17.03.2023)
2. Neural network "Balaboba". [Electronic resource]https://yandex.ru/lab/yalm?style=0 (date accessed: 17.03.2023)
3. Neural network ruDALL-E. [Electronic resource]

   https://rudalle.ru/ (date accessed: 17.03.2023)
4. Logo for Lebedev Studio: joint concept of Logomachine and neural network. [Electronic resource]https://vc.ru/design (date accessed: 21.03.2023)
5. Neural network ChatGPT. [Electronic resource]Ihttps://openai.com/blog/chatgpt (date accessed: 21.03.2023)
6. Midjorney neural network. [Electronic resource]https://www.midjourney.com/ (date accessed: 21.03.2023)
7. Voice assistant "Alice" from Yandex. [Electronic resource]https://yandex.ru/alice (date accessed: 21.03.2023)