UDC 004.8:82-1-048.62

CAN ARTIFICIAL INTELLIGENCE REPLACE POETS?

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Annotation. The development of artificial intelligence is arousing increasing interest in its role in creative fields. Many people believe that machines will never be able to imitate the very essence of humanity, such as creativity and emotionality. Among the areas which have not yet been dominated by AI is poetry. This article is devoted to the question: "Will artificial intelligence replace poets?" To answer this question, we conducted an experiment inspired by the Turing test, in which a person needed to distinguish the work of a poet from the work of a machine. Based on the results of the experiment, we concluded that in the coming years artificial intelligence will not be able to replace poets, since it is still not able to understand the context and be creative in the same way as we do.

Keywords: artificial intelligence (AI), machine learning (ML), large language models (LLM)

Introduction. The rise of generative artificial intelligence (AI) and machine learning (ML) has sparked a profound examination of what it means to be human. AI has shown a capacity for types of creativity and artistic expression with the rise of generative AI for text-based and image-based content creation. Given these qualities have been traditionally held to be uniquely human, an existential crisis among creative communities have been generated, and a reconsideration of human cognitive and creative abilities is underway [2].

The creator of the world's first computer program Ada Lovelace said that «An analytical machine does not pretend to create anything. It can do anything we can prescribe to it. Its job is to help us make accessible what we are already familiar with» [1]. Her words are still relevant because generative AI is algorithms trained on huge amounts of data. At first, a neural network can't do anything, but the more examples you show it, the better it starts to get at the task you're teaching it. Any result of its work is a consequence of analyzing the information. All modern GPT-like models are designed to mimic someone else's style, and they are best at systematizing vast amounts of information. For example, they are good at writing news, reviews, and other types of texts that are required to conform to templates. But the further AI develops, the more companies expect something creative from it. It seems that creating poems is not such a difficult task for generative artificial intelligence — you need to write all the same standard texts according to a certain template, but add rhyme. Besides, there has long been «found poetry» — a genre when a work is created using borrowed passages from other texts. Cognitive psychology researcher and UCLA professor Keith Holyoak writes in his column that AI won't be able to be as authentic as a real poet. The machine lacks what humans have - personal experience and accumulated memories. However, a program can be productive in generating something. The professor compares this process to the infinite monkey theorem. It states, «If you put an infinite number of monkeys at typewriters, one of them will sooner or later type some work by William Shakespeare». Artificial intelligence works faster than a monkey and can come up with a semblance of meaningful text faster. It remains to wait for artificial intelligence to write a poem that the international expert community will recognize as a masterpiece. [3].

One of the common complaints about LLM (Large language models) is that the machine does not understand what it is writing about, but simply predicts every next word. Sometimes the resulting text even has some meaning or storyline, but in fact it is just the result of analyzing hundreds of thousands of similar texts. Sometimes the fantasy of a neural network has nothing to do with reality, then it "hallucinates" — generates unreliable information, for example, reports that the Statue of Liberty is in Los Angeles. But in case we want to get unusual ideas from the machine rather than reliable facts, these "fantasies" can even be usefuls [5]. «Sometimes hallucinations are a necessary characteristic, it's called creativity. And sometimes it's a bug. We're all trying to get better at learning how to use it» — Microsoft CEO Satya Nadella said recently [4]. However,

current researchers of the creative capabilities of generative models are not yet satisfied with the result, so tech companies continue to hire poets to training AI.

Main part. To conduct the research, an experiment inspired by the Turing test was designed and conducted. Its essence is that 32 respondents from different specialties of Belarusian universities were offered a 12-question survey. In the first 11 questions it was necessary to determine whether the poem was written by a living person or by an artificial intelligence, and in the last question it was necessary to indicate what the respondent was guided by when choosing an answer. For the survey we chose 6 poems in English, which were written by live people (the poems were taken from amateur poetry sites), and 5 poems were also written in English by the artificial intelligence of a large language model OpenAI ChatGPT 3.5 turbo on the request "Write a poem on a given topic".

According to the results of the experiment, Artificial Intelligence was able to deceive humans in 77 responses, and a total of 352 responses were collected. 164 responses were incorrect (46.6% of the total number of responses). The respondents' answers to the question about the method they used to determine the "authorship" of a text can be clearly divided into two categories: intuition (62.5%) and the application of basic lexical, hermeneutic and grammatical analysis (37.5%).

Moreover, during the experiment, we noticed that ChatGPT struggled to imitate the structure and rhythm of famous English poets, even after a clear instruction that explicitly forbade it. Scientists encountered the same problem when they tried to teach artificial intelligence to write in the style of the classic American poet Walt Whitman. Whitman's style is characterised by flowing and unstructured verse, but ChatGPT often mistakenly adhered to the rigid norm of four-line stanzas. We also tried using in our experiment artificial intelligence to write poems in different styles in other languages such as Russian, Polish, Tamil, Japanese, etc. But at this stage, our experiment failed because machine could not repeat the required styles, for example Japanese haiku, moreover AI's poems turned out to be completely meaningless. Therefore, it was decided to conduct the experiment in English only. So, according to the results of the experiment, people can still easily distinguish where the poet wrote and where the artificial intelligence wrote, and nowadays poets can breathe a sigh of relief.

Conclusion. To summarise our study, it should be mentioned that artificial intelligence will not be able to fully replace poets. Contrary to its capabilities in generating texts, unique human qualities such as originality, emotional depth and intuition remain unattainable for AI. The work of poets has always been closely related to their own experiences, emotions and inner world, which makes their work unique and unrepeatable. Humans can be bypassed where there are mathematical rules, such as chess, but in creativity neural networks can be used so far only as a virtual assistant or source of inspiration. One of the latest examples of such co-operation is the victory of Japanese writer Rie Qudan in the prestigious Akutagawa Ryunosuke Literary Competition. She believes that the neural network has helped her unlock her writing potential. «This is a novel written by making full use of a generative AI». Kudan said in her acceptance speech, according to the Japan Times *Thu-Huong Ha*. «Probably about 5 percent of the whole text is written directly from the generative AI. I would like to work well with them to express my creativity». Thus, artificial intelligence does not replace humans, but expands their capabilities. Whereas it used to take hours to form ideas, machines will reduce this time to a few seconds.

But artificial intelligence should not be underestimated, as it learns very quickly. Training data companies are grabbing writers of fiction, drama, poetry, and also general humanities experts to improve AI creative writing. Therefore, authors who adapt faster to work together with artificial intelligence will become more in demand in the future.

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