

**TURING TEST AND ITS APPLICATION**

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Annotation. *The article notes that today the Turing test has undergone several modifications and is used to evaluate many systems, including chatbots and virtual assistants. It is noted that the use of the Turing test in the development of artificial intelligence and its capabilities relative to humans is important not only in scientific research, but also in the field of information technology, in practical testing of artificial intelligence and the creation of real-life systems.*

Key words: *Turing test, system, chatbot, virtual assistant, evaluation, real-world thinking, mind capture, artificial intelligence, scientific research, information technology, testing.*

Аннотация. *В статье отмечается, что сегодня тест Тьюринга претерпел несколько модификаций и используется для оценки многих систем, включая чат-ботов и виртуальных помощников. Отмечается, что использование теста Тьюринга в разработке искусственного интеллекта и его возможностей относительно человека важно не только в научных исследованиях, но и в сфере информационных технологий, при практическом тестировании искусственного интеллекта и создании реальных систем.*

Ключевые слова: *Тест Тьюринга, система, чат-бот, виртуальный помощник, оценка, реальное мышление, захват сознания, искусственный интеллект, научные исследования, информационные технологии, тестирование.*

The Turing test is a method proposed by British mathematician and computer scientist Alan Turing in 1950, whose purpose is to assess the level of "intelligence" of a machine or computer system. The test is designed to determine whether a machine is capable of thinking like a human.



Turing discussed the possibility of the development of artificial intelligence and the possibility that such systems could possess true intelligence.

Alan Turing created the "Turing machine" in 1936, one of the key ideas that paved the way for artificial intelligence. In 1950, in his famous paper "Computing Machinery and Intelligence," he introduced a method for assessing artificial intelligence, which he called the Turing test.

In his paper on the Turing test, Turing proposed that a similar question-and-answer process should be established to determine the difference between computers and humans. This test is called the Imitation Game.

According to Turing's proposal, the test involves three participants: a human, a computer system, and an examiner. The examiner will only receive written answers to questions posed by the examiner. It is not clear to the examiner who is the computer and who is the human.

If the judge has difficulty distinguishing between a computer and a human, then the computer is considered capable of thinking like a human. In other words, if a computer can respond like a human, then it is considered to have "intelligence."

The Turing test is based on checking whether a computer system can produce human-like responses. This system must be natural and effective in communicating with humans. Otherwise, the judge will take the computer apart. The questions used in the test can only be verbal and abstract. For example, questions like "What makes you happy?" or "What book have you decided to read today?" help ensure that the computer gives answers that are similar to those of humans.

Although the Turing test is one of the most important criteria for evaluating artificial intelligence, it has been criticized. Some argue that the Turing test is not sufficient to fully understand humanity and is inadequate for evaluating other systems with intelligence.

The Turing Test is based solely on assessing the naturalness and effectiveness of a conversation between a computer and a human. However, some believe that it focuses only on "conversation" and "good communication". Therefore, many other aspects of assessing "intelligence" are not taken into account.



The Turing test sometimes highlights the fact that AI systems focus only on "natural" or "creative" communication rather than on true logical thinking. For example, conversations between "chatbots" often focus on engaging the user with beautiful and understandable responses rather than understanding the truth.

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Current AI systems, such as GPT-3 and other natural language processing systems, have shown some success in Turing-like tests. However, they are still limited in answering the question of whether these systems can actually "think."

New approaches have been developed based on the Turing test, such as tests that aim to measure practical or "affective" thinking, rather than purely "logical" thinking, in humans and computers. These systems attempt to take into account different aspects of human thinking.

Modern artificial intelligence systems are evolving using machine learning and deep learning. These systems are forcing us to rethink the Turing test itself.

The Turing test plays an important role in the development of artificial intelligence. The uniqueness of the test proposed by Alan Turing is that it has changed over time, and shows the importance of the need for updates. Today it remains not only a historical monument, but also one of the main criteria for intellectual development.

The Turing test helps to identify the limitations, challenges, and successes of artificial intelligence systems. Today, it raises questions about whether the test is truly useful in measuring "intelligence" or whether other, more advanced methods are needed.

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