

# THE MAIN PURPOSE OF CREATING ARTIFICIAL INTELLIGENCE AND ITS ROLE IN SOCIETY

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## Abstract

This article provides a detailed exploration of the foundational objectives underlying the creation of artificial intelligence (AI), supported by scientific evidence. It examines the historical origins of AI, shedding light on the motivations of early innovators who sought to emulate human cognitive processes, including reasoning, learning, and decision-making. Their aim was to develop systems capable of efficiently executing complex tasks. Initially, AI technologies were conceived to automate repetitive and labor-intensive processes, thereby enhancing efficiency and reliability. Over time, the applications of AI broadened to address real-world challenges, such as advancing healthcare systems, facilitating global communication, and streamlining industrial operations.

The article further elaborates on the core scientific methodologies that shaped AI's development, including neural networks, machine learning techniques, and sophisticated data-processing frameworks. By simulating human brain functions, AI systems were engineered to process large datasets and deliver precise predictions and solutions.

**Keywords:** Artificial intelligence, cognitive processes, neural networks, machine learning, data processing, automation, efficiency, healthcare, communication, industrial optimization, technological innovation, societal impact, ethical considerations, transparency, equitable access.

## Introduction

Below, the main objectives of artificial intelligence and their significance in human life are discussed in detail.

Since ancient times, humans have tried to replicate their intellectual abilities through automated systems and use them to solve problems. Although the initial ideas about creating artificial intelligence (AI) emerged in the mid-20th century, even in ancient times, people dreamed of replicating human intellect through machines. These dreams were often reflected in mythology, fantasy, and scientific-philosophical concepts, such as the idea of creating beautiful and intelligent mechanical devices. The purpose of creating artificial intelligence was later aimed at replicating human intellect and teaching computers to think like humans. Its primary goal was to solve complex problems, develop automated systems, and efficiently address issues by



replicating human cognitive abilities through computers. Moreover, artificial intelligence created vast opportunities for advancing scientific research and technological achievements.

**Problem-solving ability:** Artificial intelligence technology is based on creating algorithms with high efficiency in solving complex problems. The primary function of these systems is to replicate human thought processes, make logical decisions, and manage complex situations. Furthermore, relying on probability theory, artificial intelligence helps humanity find clear solutions in uncertain situations or when information is incomplete, saving individuals from unnecessary searches and saving time and resources. For example, AI systems are successfully used to predict stock market fluctuations. The efficiency of AI technology in problem-solving significantly eases our daily lives. For instance, if you have already scheduled your meetings in the AI system, you no longer have to worry about forgetting them, as the system will remind you. Or, if you are planning a trip and specify the type of place, nature, and price range you prefer, the AI will present several options for you, simply fulfilling your desires. Now, by delegating complex and responsible tasks to reliable AI systems, it is possible to simplify important processes and increase efficiency.


**Expression of knowledge:** this is also another one of the fundamental principles of artificial intelligence, through which machines learn to acquire information about the real world like humans. In this process, machines understand objects, their interactions, and concepts, and use them effectively. For instance, in medicine, artificial intelligence simplifies diagnostic processes by studying a patient's symptoms and suggesting the most accurate diagnosis.

Moreover, knowledge representation plays a key role in understanding natural language. For example, through artificial intelligence virtual assistants, the system can identify user questions and provide accurate and precise answers. This, in turn, brings technology closer to humans. Artificial intelligence's ability to represent knowledge is also beneficial in financial sectors, accelerating decision-making processes in banking and insurance systems. Additionally, it develops strategies for complex games, further expanding the capabilities of artificial intelligence.

Another remarkable aspect of this approach is that it not only contains knowledge but also continuously develops and enriches itself with new information. Therefore, knowledge-based solutions in artificial intelligence will lay a solid foundation for the future development of technology.

**Facilitating planning** is also one of the core capabilities of artificial intelligence. Through AI, intelligent systems can foresee the future and set clear directions to achieve goals. AI systems ensure the effective use of resources by analyzing data, making predictions, and optimizing processes. In future planning, decisions made with the help of artificial intelligence allow the outcomes of the process to be anticipated. For example, in the field of robotics, AI is used to create systems capable of independently performing complex tasks, while cognitive assistants make users' daily activities easier. Additionally, in cybersecurity, AI enables the early detection of threats and the implementation of necessary measures.





AI-based planning provides flexibility across various sectors, helping to anticipate future challenges and prepare for them. This technology not only ensures efficient use of resources but also plays a crucial role in making many strategic decisions. Ensuring continuous learning is one of the most fundamental and essential aspects of artificial intelligence solutions. Theoretically, learning refers to the ability of computer algorithms to improve the knowledge of an AI program through observations and past experiences. Technically, AI programs process a set of input-output pairs to perform a specific function, and use these results to make predictions based on new data. Artificial intelligence primarily relies on two types of learning models: supervised learning, where predefined data is used, and unsupervised learning, where the program organizes, classifies, and generates new knowledge from data on its own. This process takes place with minimal or no human intervention. For example, machine learning technology autonomously forms new knowledge in an automated manner. The significance of continuous learning is that it makes AI systems more adaptable and efficient. Each time new data is processed, AI systems evolve, broadening their application possibilities across various fields, including healthcare, finance, and manufacturing. Continuous learning is one of the key principles of artificial intelligence systems. Learning refers to the ability of artificial intelligence algorithms to expand and improve their knowledge based on observations and previous experiences. In practical terms, AI programs analyze the relationship between input and output data and, based on this knowledge, generate accurate results for new data.

**The development of social intelligence** is one of the most important areas in the field of artificial intelligence. Through "affective computing" or "emotion processing" technology, computers gain the ability to recognize and interact effectively with human emotions, feelings, and experiences. This technology is based on analyzing facial expressions, body movements, and vocal tones, enabling AI systems to communicate with humans in a natural and socially interactive manner.

Research in this area aims to enhance the social capabilities of machines, providing them with the ability to interact effectively with people. For example, in the future, virtual assistants and robots will become more efficient in communicating with humans in complex situations, understanding emotions, and responding accordingly.

This development can be seen as a significant and beneficial innovation. For instance, if AI could sense human emotions and respond appropriately, it could prevent numerous cases of suicide. Artificial intelligence could provide psychological assistance and support by identifying psychological issues in individuals. AI's ability to diagnose and help with psychological problems could potentially save many lives and make a positive impact on individuals' well-being. However, if artificial intelligence is capable of sensing and responding to human emotions, it may bring about many beneficial opportunities, along with certain risks. Below, the benefits and harms will be analyzed based on a scientific approach.

When artificial intelligence senses human emotions, what beneficial elements arise for humanity:

1. Psychological help and support: Artificial intelligence could assist people struggling with psychological problems. For example, by analyzing emotions, it could provide



personalized advice or comforting responses, potentially improving mental health. American computer scientist, futurist, writer, and entrepreneur Ray Kurzweil has shared the following opinion on this: "The development of artificial intelligence could help human psychology, as it assists in expanding our knowledge, understanding our minds, and creating new cognitive possibilities. In the future, the integration of artificial intelligence and human consciousness could open up new ways of thinking and accelerate our psychological development." Kurzweil's views on the impact of artificial intelligence on human psychology are often found in his books and articles. For example, in his book *The Singularity is Near* (2005), he extensively discussed the development of artificial intelligence and the evolution of the human mind. In this book, he expressed positive views on the possibility of integrating artificial intelligence and biological consciousness. Moreover, he has raised this topic in many interviews and other works. However, *The Singularity is Near*, published in 2005, is his most famous work, where his thoughts on the impact of artificial intelligence on psychology and consciousness are outlined.

**Helping people with disabilities:** Artificial intelligence can serve as an emotional communication tool when interacting with people with disabilities, improving their quality of life. Artificial intelligence (AI) can be an important tool in providing psychological support to individuals with disabilities. Below are several ways in which AI can assist people with disabilities and how it can help these individuals in society: continuous communication and support, individual psychological counseling, self-awareness and development, free communication opportunity. **Mental health issues identification:** AI-based programs can monitor emotional states and detect problems such as anxiety, depression, or stress at an early stage, offering assistance. These technologies not only assist individuals but also contribute to expanding their opportunities in society, enabling them to lead an active life. In this regard, Hudoykul Hafizov, a representative of the UN Development Programme (UNDP), emphasized that artificial intelligence creates great opportunities for individuals with disabilities: "The development of AI is closely linked to fields such as big data, cloud computing services, new algorithms, distributed intelligence, and robotics. AI integrates digital technologies with human intelligence, enabling tools to operate in complex environments, extract knowledge from databases, and make decisions"(UNDP July 18,2024 Hudoykul Hafizov)

### **Conclusion**

It can be concluded that the ability of artificial intelligence to understand and respond to emotions could lead to revolutionary changes in many areas of life. However, the risks associated with this technology, including privacy, ethical issues, and the potential for manipulation, require serious attention. Therefore, strict regulations and ethical guidelines must be implemented in the development and application of these technologies.



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