ARTIFICIAL INTELEKT AND IT TECHNOLOGIES

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Annotation:
Intelligence is the general ability to study and solve problems that embody all the cognitive abilities of a person: to feel, perceive, remember, describe, think, imagine. Artificial intelligence is a separate field of Informatics, usually concerned with the possibilities associated with the human mind: understanding the language, teaching, discussing, solving the issue, translating and creating computer systems with similar capabilities. Artificial intelligence (SI) allows computers to learn about their experiences, adapt to the parameters given, and perform tasks that were previously only possible for humans. In this article, opinions and reflections on artificial intelligence and it technologies will be discussed.

Keywords: artificial intelligence, it technologies, computer system, innovative technologies, intelligence, data, digital technologies, development.

INTRODUCTION

In many cases of implementation of SI, the possibility of in - depth learning and processing of natural languages is very important, from computer chess players to unmanned vehicles. Thanks to these technologies, computers can be "taught" to perform certain tasks by processing large amounts of data and identifying patterns in them. The result of research on "artificial intelligence" is the problem of striving to understand the work of the brain, revealing the secrets of the human mind and creating machines with a certain level of human intelligence. The main possibility of modeling intellectual processes arises from the fact that any brain function, any mental activity described in a language with strict unambiguous semantics using a limited number of words, can in principle be transferred to an electronic digital computer.

"Artificial intelligence is the field of Informatics, which is concerned with the development of intelligent computer systems, that is, systems with capabilities that we traditionally associate with the human mind, as well as the ability to understand language, learn, think, solve problems and other problems". Subsequently, a number of algorithms and software systems began to be called artificial intelligence, the distinguishing feature of which is that they can solve some problems like a person who is thinking about solving them.

Artificial intelligence has completely changed the way we live with innovative technologies. Artificial intelligence has entered human life as a storm and has made incredible changes, taking its toll on every area of society. The term artificial intelligence was first introduced at a conference in 1956. The discussion of the conference led to the natural language generation of interdisciplinary information technology. The emergence of the internet contributed to

the rapid development of technology. Artificial intelligence technology has been an independent technology for thirty years, but now these technology applications have become widespread in all areas of life.

Methods

Artificial intelligence is known by the acronym AI and is the process of recreating human intelligence in machines. According to the Gartner report, AI adoption increased from 4% to 15% in 2021-2022. Many new and emerging technologies are integrated into artificial intelligence. Startups of giant organizations are engaged in major races to increase productivity, the introduction of artificial intelligence for the intellectual analysis of data.

Machines process and communicate differently from the human brain. Natural language generation is a modern technology that converts structured data into a native language. The machines are programmed with algorithms to convert the data to the format the user needs. Natural language is a subset of artificial intelligence that helps content developers automate content and deliver it in the desired format. Content developers can use automated content to advertise on various social media platforms and other media platforms to reach the target audience.

Human interference is significantly reduced as the data is converted to the desired formats. Data can be displayed in the form of diagrams, graphs, etc. Speech recognition is another important set of artificial intelligence that transforms human speech into a useful and understandable format by computers. Speech recognition is a bridge between human and computer interaction. Technology recognizes and alters human speech in several languages. iPhone is a classic example of speech recognition.

Virtual agents have become valuable tools for training designers. A Virtual agent is a computer application that interacts with people. Web applications and mobile applications provide chat bots to customers as service agents to collaborate with them and answer their questions. For example, Google Assistant helps organize meetings, while Alexia from Amazon makes it convenient for purchases to be made. The Virtual assistant also works like a language assistant that selects tips on your choice and desire. IBM Watson understands typical customer service requests that are requested in several ways. Virtual agents also serve as applications.

Result

Modern organizations are implementing decision management systems to transform and interpret data into predictive models. Enterprise-level applications implement decision management systems with the aim of obtaining up-to-date information in the analysis of business data to assist in organizational decision making. Decision management helps you make quick decisions, avoid risks, and automate the process. The decision management system is widely used in the financial sector, health sector, trade, insurance sector, e-commerce, etc.

Another area of artificial intelligence that works based on artificial neural networks is deep learning. This technique teaches you to learn computers and machines just like people do. The term "Deep" was coined because it has hidden layers in neural networks. Typically, a neural network has 2-3 latent layers and can have a maximum of 150 latent layers. Deep learning is effective in large data for teaching the model and graphic processing block. Algorithms work in a hierarchy of predictive analysis automation. In-depth study is successfully applied to detect objects from satellites in many areas, such as ayerocosmic and military, helping to improve the safety of workers by detecting dangerous phenomena when approaching a working machine, helping to identify cancer cells.

Artificial intelligence software is in high demand in the business world. With the increased attention to software, the need for hardware that supports software also arises. The traditional chip does not support artificial intelligence models. A new generation of artificial intelligence chips is being developed for neural networks, deep learning, and computer vision. AI hardware includes processors to control extensible workloads, custom-purpose embedded silicon for neural networks, neuromorphic chips, and more. Large organizations such as Nvidia, Qualcomm and AMD are creating chips that can handle complex artificial intelligence accounts. Health and the automotive industry can be areas that benefit from these chips.

In turn, the introduction of artificial intelligence into science requires an increase in the number of qualified personnel. It is precisely specialists who are masters of their profession who will be the main factor in the penetration of artificial intelligence into all aspects. Currently, in this direction in our country, the specialty "digital technologies and artificial intelligence" has been included in the nomenclature of scientific and scientific and pedagogical specialties of highly qualified personnel, and its passport has been created. The Tashkent University of Information Technology named after Muhammad al-Khwarazmi and the Research Institute for the development of digital technologies and artificial intelligence opened the Institute of higher education in the "specialty of digital technology and artificial intelligence".

Discussion

In the field of artificial intelligence, a total of 28 target quotas were allocated to the base doctoral and trainee-research. From this, 14 admission quotas were allocated to the base doctoral and 14 to the trainee-research. Also, 10 young scientists, sorted by the direction of digital technologies and artificial intelligence, will be sent for short-term scientific internships to leading foreign scientific organizations in 2021-2022. In the framework of scientific and Technical Research and support of innovative developments in the field of artificial intelligence, the total cost is 15.1 billion. there are 9 projects in progress, with a duration of 2021 - 2024.

Artificial intelligence is a system or technology capable of imitating human behavior when performing certain tasks, gradually perfecting using the information obtained. Artificial

intelligence in general is not a format or a function, but a process that includes data collection, analysis, etc.

Speaking about artificial intelligence, it is necessary to analyze its place in business and Information Technology. The slow penetration of artificial intelligence into these directions ensures that the number of AI tools increases. "Artificial intelligence" means that most robots are attracted to different areas. But the term artificial intelligence does not mean that robots exchange places with a person. Its main goal is to expand the boundaries of human abilities and capabilities. Therefore, technologies like this are a valuable business resource.

Conclusion

Artificial intelligence is enough to reflect computational models of intelligence. Intelligence can be defined as structures, models, and operational functions that can be programmed to solve problems, draw conclusions, process language, etc. The benefits of using artificial intelligence have already been obtained in many areas. Organizations that apply artificial intelligence must perform tests before the release to eliminate errors and errors. Design, models should be solid. After the release of artificial systems, enterprises must constantly monitor in different scenarios. Organizations must create and support standards and hire professionals from different disciplines to make better decisions. Objective and future goals of artificial intelligence are to eliminate mistakes and prejudices by automating all complex human activities.

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