

**ARTIFICIAL INTELLIGENCE AND EDUCATION: THE ERA OF HUMAN
THINKING AND TECHNOLOGY HAND IN HAND****Aslonova Xadichabonu,
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Abstract: This article explores the role of artificial intelligence technologies in education, highlighting their benefits and potential challenges. It focuses on how AI supports personalized learning, facilitates teachers' work, and fosters students' creative thinking. The importance of ethical and responsible use of AI in the educational process is also emphasized.

Keywords: artificial intelligence, digital education, personalized learning, teacher's role, digital competence, information technology.

Main text:

Time does not stand still. If only yesterday children were drawing spaceships they dreamed of by sticking notes in their notebooks, today they are designing and creating 3D models of those ships using artificial intelligence. Humanity is growing so fast that it seems that thinking and technology are chasing each other. Education is the most active participant in this process. Because the only way to change a person is to change education.

Education and artificial intelligence: the meeting of two powerful minds

Artificial intelligence (AI) is the mind of a machine, and a person is the owner of emotions, experience and spirituality. Their meeting has ushered in a new era. Today, AI has reached a level where it can analyze not only mathematical operations, but also human thinking processes. For example, systems such as ChatGPT, Copilot, Gemini answer complex questions, write essays, and even create lesson plans. But they do not think with emotions like a person. Therefore, AI is not a substitute for a teacher, but a loyal assistant.

What is AI (Artificial Intelligence)?

Artificial Intelligence (AI for short) is a technology that gives a computer or program the ability to think, learn, make decisions and solve problems like a human.

Simply put, AI is "thinking technology"

1. The root of the idea is ancient dreams

Dreams about artificial intelligence have existed since ancient times. Man has always wanted to create a "thinking machine".

Greek myths speak of mechanical people, that is, "automata".

In the 13th century, the scientist Al-Jazari created "automatic dolls" that moved with water.

And Leonardo da Vinci drew a project for a "moving robot knight" in the 15th century

At that time, there were no computers yet, but the dream "if only there was something that could think like a human..." already existed

2. Scientific basis - 1940-1950s

Scientific ideas about artificial intelligence began to take shape in the 1940s with the advent of computers.

In 1943, Warren McCulloch and Walter Pitts put forward the concept of an "artificial neural network".

In 1950, the famous mathematician Alan Turing posed the question "Can a machine think?".

The Turing test he created has been the criterion for assessing AI intelligence to this day.

After that, the scientific world took a step towards "modeling intelligence".

3. Official year of birth - 1956

Artificial intelligence as a science was born in 1956 at a scientific conference held at Dartmouth University in the USA.

This conference was attended by scientists such as John McCarthy, Marvin Minsky, Claude Shannon and Herbert Simon.

They were the first to officially use the term "Artificial Intelligence".

Therefore, 1956 is considered the year of birth of AI science.

4. Early achievements (1956–1970s)

Several historical results occurred during this period:

The first AI programs were created: programs that played chess and solved mathematical problems

In 1966, a program called ELIZA was created - this was the first "chatbot" in history, able to talk to a person.

In 1969, the first artificial neural network model was created.

But the technologies were still weak, computers worked slowly. Therefore, the 1970s–1980s are called the "cold period of AI" - at this time interest in it slightly decreased.

5. New Renaissance (1990–2010)

As computers became faster and the internet emerged, AI was revived:

In 1997, IBM's Deep Blue computer defeated world chess champion Garry Kasparov.

In the 2000s, databases and algorithms developed, and AI entered practical life.

In this period, artificial intelligence developed more as a "learning system".

6. Modern AI Revolution (2012–present)

Since 2012, "deep learning" technology has been discovered.

This technology works through neural networks similar to the human brain.

As a result: The computer recognizes images, distinguishes voices, writes text, and even creates music and drawings. Since 2022, systems such as ChatGPT, Gemini, Claude, Copilot have become popular all over the world.

Now AI is becoming a creative partner with humans

7. Philosophical conclusion

“AI is the fulfillment of human dreams.

It created the mind, but not the heart.

It gave knowledge, but not love.”

Today, AI is a part of our lives. But to manage it, along with intelligence, responsibility is also needed

Artificial Intelligence in Education: Opportunities and Results

Personalized Learning.

AI analyzes the level of mastery, areas of interest, and mistakes of each student, providing an individual approach. This encourages the student to learn at his own pace.

Teacher support systems.

AI greatly helps in preparing lesson plans, tests, slides, and code samples. The teacher can effectively allocate his time and devote more time to working with the student.

Student Analysis.

AI monitors the activity of students, determines which topics they are struggling with, and makes recommendations based on this.

Stimulating creative thinking.

AI does not give the student a ready-made result, but shows the way. The student takes the idea from AI, but enriches it with his own thinking - which develops creativity.

World experience

In developed countries, AI has become an integral part of the education system.

In Finland, the “Elements of AI” course is open to every citizen for free.

In South Korean schools, AI analyzes the emotional state of a student.

In China, “smart classroom” technologies allow teachers to track a student’s attention. However, this development also puts the issue of humanity on the agenda. AI analyzes the mind, but cannot feel the soul.

Prospects for AI in Uzbek education

Significant work is being done in this area in our country as well. Projects such as “Digital Education”, “One Million Programmers”, IT Park, Digital City aim to train a new generation in the field of artificial intelligence.

If teachers use AI tools correctly, this will not only facilitate the learning process, but also radically improve the quality of education.

HARM OF ARTIFICIAL INTELLIGENCE

1. Learning to give a ready-made answer

Some students, using AI, receive a ready-made answer without thinking about it.

This:

reduces independent thinking

suppresses creativity

leads to superficial knowledge.

If a person does not think, a machine will think for him.

This turns a “knowledgeable person” into a “submissive user”.

2. The problem of information reliability

AI sometimes provides incorrect or incomplete information.

If used without critical thinking by a teacher or student, it can draw incorrect conclusions. Therefore, it is always necessary to check and analyze the AI response.

The two faces of artificial intelligence

Advantages:

Individualization of lessons, reducing the teacher's workload, strengthening the analytical approach, encouraging students to learn independently.

Risks

Learning to ready-made answers, the problem of academic honesty, the protection of personal data.

The competition between human intelligence and artificial intelligence intensifies

Today, AI thinks quickly, but does not feel deeply.

After 10 years, it will approach human thinking in many ways.

This raises a new question:

“Will a person develop his intelligence or will he live on it?” If a person thinks only with the help of AI, he will gradually lose the ability to analyze, be patient, and search.

But using AI to learn to think will take a person to a new level. In 10 years, the strongest person will not be the one who has a lot of knowledge,

but the one who can combine his mind with AI.

The teacher is the greatest intellect

Technology gives intelligence, but education comes only from the teacher.

AI makes the lesson easier, but cannot inspire the human soul.

Artificial intelligence is not a teacher's rival, but his companion.

Conclusion

Today's teacher is the hero of the new era. He builds a bridge between books and machines, connecting the wisdom of the past with the technology of the future.

AI is not a rival, but a companion. A teacher who knows how to walk with it, learn from it, and guide it will never be left behind.

Artificial intelligence will change education, but human intelligence will change upbringing.

So, the future of education is in the cooperation of teachers and technology.

Time does not stand still. If only yesterday children stuck tickets in notebooks and drew the spaceships they dreamed of, today they are designing and creating that ship in 3D models with the help of artificial intelligence. Humanity is growing so fast that it seems that thinking and technology are chasing each other.

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