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Research Paper in Artificial Intelligence

TITLE:

““The Impact of Artificial Intelligence on People’s Lives in Modern Society”

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ABSTRACT

This research paper explores the impact of artificial intelligence on people's lives in modern society. AI technologies are evolving at an incredible pace and are being actively integrated into various fields — from social media to education and healthcare. The aim of this study is to determine how AI is changing everyday life, what benefits it brings, and what risks it entails. The research is based on scientific literature, real-world case studies, and public opinion data collected through an online survey. Particular attention is given to issues of ethics, privacy, job displacement, and public trust in AI. The findings of this study aim to provide a deeper understanding of the role of artificial intelligence in today's society and its influence on shaping the future.

1.Introduction

1.1 What is Artificial Intelligence

Artificial Intelligence (AI) is a technology with human-like problem-solving abilities. It mimics human intelligence in action: it can recognize images, write poems, and make predictions based on data. AI systems are designed to perform tasks that typically require human cognitive functions such as learning, reasoning, and decision-making. In recent years, AI has become increasingly integrated into our daily lives through voice assistants, recommendation algorithms, autonomous vehicles, and medical diagnostics.

1.2 Why the topic is important

Artificial intelligence is becoming an ordinary part of modern society, gradually transforming the world around us. From social media recommendations to self-driving cars, AI is becoming increasingly integrated into our daily lives.

This raises important questions: What benefits does AI bring? What risks does it pose? Will it replace human jobs in the near future? Can we trust AI to make important decisions?

Understanding these processes is essential for helping society adapt to technological changes, minimize potential negative effects, and use AI's potential for the benefit of humanity.

1.3 Purpose of the Research

The goal of this research is to study the impact of artificial intelligence on everyday life in modern society.

I aim to understand how AI is changing people's lives, what fields it is already used in, what benefits it brings, and what challenges it creates.

To explore this, I analyzed scientific articles, real-world case studies, and conducted an online survey. This allowed me to gather relevant data and compare public opinion with real examples of AI implementation.

I hope that the results of my research will help better understand the role of artificial intelligence in society and its influence on the future.

2. Foundation of Artificial Intelligence in society

2.1 **A brief history of AI**

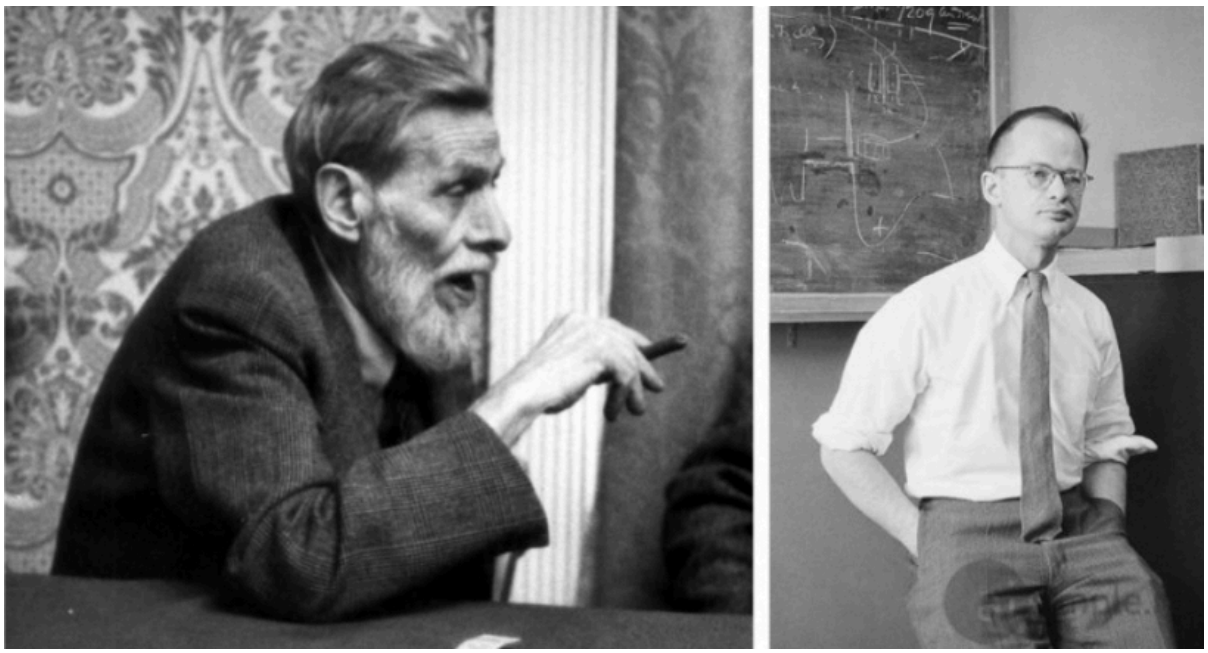

Figure 1. Warren McCulloch and Walter Pitts — pioneers of artificial neural network

In 1943, **Warren McCulloch and Walter Pitts** proposed a model of artificial neurons, laying the foundation for neural networks — a core technology of modern AI.
Shortly after, in
1950, Alan Turing published his paper “Computing Machinery and Intelligence”, in which he introduced the concept of the Turing Test to evaluate machine intelligence.
This sparked further innovation: graduate students Marvin Minsky and Dean Edmonds created the first neural network machine known as SNARC; Frank Rosenblatt developed the Perceptron, one of the earliest neural network models; and Joseph Weizenbaum created ELIZA, one of the first chatbot programs, simulating a conversation with a psychotherapist based on Carl Rogers’ method (developed between
1951 and 1969).
From
1969 to 1979, Marvin Minsky highlighted the limitations of neural networks, which led to a temporary decline in AI research. The first so-called AI Winter occurred due to funding cuts and limitations in computing power and hardware.

2.2 Types of Artificial Intelligence

According to technological classification, artificial intelligence is divided into two categories — based on capabilities and functionality.

Each of these types is further divided into subcategories depending on their specialization.

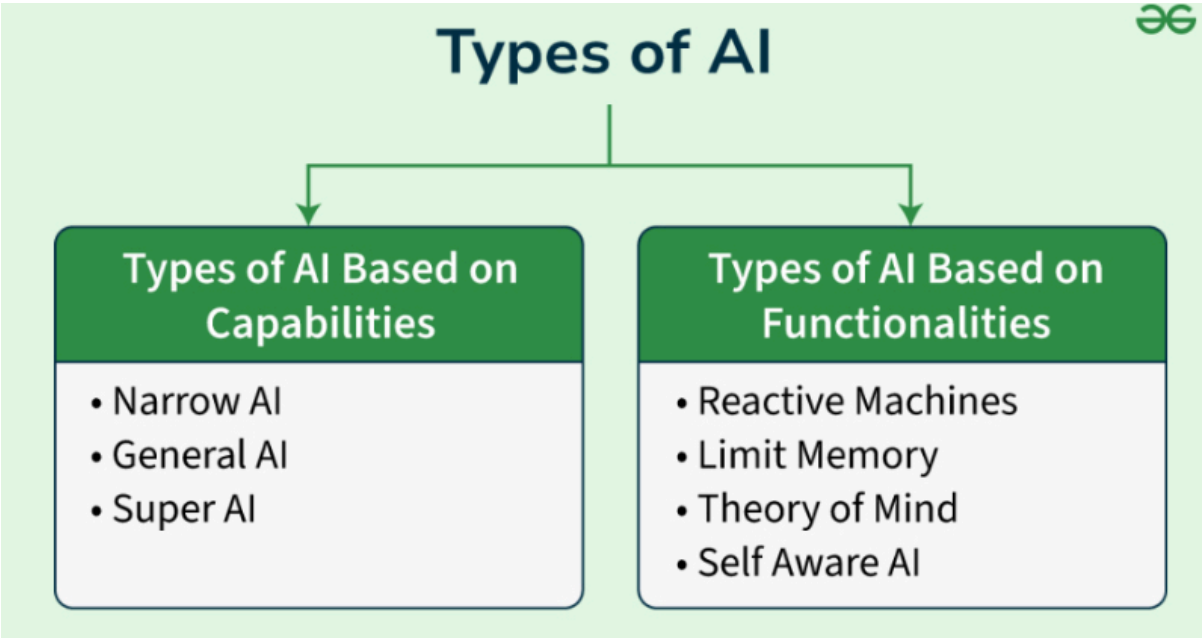

Figure 2. Classification of Artificial Intelligence by Capabilities and Functionality

Based on Capabilities

According to their capabilities, AI can be divided into the following types:

1. Narrow AI (Weak AI)

This is a narrowly focused system designed to solve a specific task and deliver certain results.

It operates within strict boundaries, using a limited set of languages and contexts.

For example, if the system is designed to detect spam, it will not be able to sort emails — it can only do what it was trained for.

2. General AI (Strong AI)

This type of AI is not limited in the range of operations it can perform.

It is designed to solve complex intellectual tasks.

The goal of this type is to create a system capable of thinking independently — like a human.

Today, general AI is still in the development stage.

One of the goals is to make such AI able to work in collaboration with others.

3. Superintelligent AI

This form of machine intelligence would surpass the human mind and be able to solve any task better than a human.

Machines with this level of intelligence would be able to:

- think
- reason
- solve puzzles
- make judgments
- communicate
- learn

Based on Functionality

Artificial intelligence can also be classified by its functionality into the following types:

1. Reactive Machines

This is the most basic type of AI system. It cannot store past experiences or learn from them — it has no memory.

Reactive machines focus only on solving current tasks.

This type of AI is useful in business environments where quick decisions are needed and past experience is irrelevant.

Example: A reactive system defeated world chess champion Garry Kasparov in 1997.

2. Limited Memory AI

This type of AI can store and use past experiences.

It improves performance by analyzing previous data.

Example: A robot vacuum cleaner uses a sensor map to navigate and clean a room.

Another example is self-driving vehicles that collect and store information about nearby cars — such as speed and distance.

3. Theory of Mind AI

This is a more advanced form of AI.

It includes systems that can understand human emotions and interact with people socially.

Such AI is still under development.

Example: Social robots designed to interact with humans in a natural and understandable way.

4. Self-Aware AI

This is a hypothetical type of AI that possesses consciousness, emotions, and self-awareness.

It is believed to be far beyond human intelligence and can potentially outperform humans in every task.

Self-aware AI is still in the research stage, and its development raises many ethical and societal questions.

2.3 Applications of AI in modern society

Today, many tasks are performed automatically using artificial intelligence (including forms of superintelligence) — that is, programs embedded in machines.

Technology is constantly evolving, and AI is progressing rapidly, although it is still capable of making mistakes.

The main goal of artificial intelligence is to simplify the solution of complex problems that are difficult or impossible to handle manually.

That is why scientists predict a great future for AI.

Its mission is to automate manual labor by simulating human reasoning and decision-making.

AI affects the following industries:

- Healthcare — AI is used in ultrasound machines, X-ray systems, and other medical equipment.
- E-commerce — targeted ads remind us of products we previously searched for online.
- Politics — data collection and large-scale analysis for campaigns or public opinion.
- Industry — AI can collect and analyze production data to properly distribute workloads.
- Education — the integration of AI improves teaching and learning experiences.

2.4 Social perception and ethical concerns

As artificial intelligence becomes increasingly present in everyday life, society begins to question how this technology affects our values, security, and future. People have different opinions — some welcome the convenience AI brings, while others are concerned about its risks.

Job Displacement

Many fear that automation and AI could replace millions of human workers, especially in manufacturing, logistics, and even creative industries.

Although new professions may appear, the transition may be painful for large groups of people.

Privacy and Surveillance

AI systems often rely on large datasets that may include sensitive personal information.

Facial recognition, data tracking, and algorithmic profiling raise serious privacy concerns.

Bias in Algorithms

If AI systems are trained on biased or unbalanced data, they can reinforce stereotypes or discriminate against certain groups.

This is a major ethical issue being studied by experts such as Timnit Gebru and Joy Buolamwini.

Trust and Transparency

AI decisions are not always explainable, especially in complex models like deep learning.

The so-called “black box” problem makes it hard to trust AI, especially in critical areas like healthcare or criminal justice.

AI in Warfare and Politics

The use of AI in autonomous weapons or political manipulation (e.g., deepfakes, fake news) raises moral questions about control and accountability.

Despite these risks, many researchers believe that with the right regulations and ethical principles, AI can be used to benefit humanity.

Initiatives like the OECD AI Principles and the European AI Act aim to make AI safer and more transparent.

Figure 3. Policy areas related to the ethical development and application of artificial intelligence

3. Methodology

3.1 Research methods

In this research, I used several methods to understand how artificial intelligence affects our everyday life:

- Reading articles and sources
  I read many scientific articles, news, and online materials about how AI is used and in which fields — such as healthcare, education, and social services.
- Studying real-life examples
  I looked at and analyzed real examples of how AI works in daily life and at work, such as autopilot systems, voice assistants, chatbots, and more.

- Online survey
  I created a short online survey to learn what people think about AI. The questions included:
  “Do you trust AI?”, “Where do you see AI in everyday life?”,
  “Are you afraid that AI might replace human jobs in the future?”
  I received answers from people of different ages, which helped me compare scientific sources with real public opinion.
- Comparison and analysis
  I compared the advantages and disadvantages of AI and thought about how it affects different areas of life.

These methods helped me better understand the influence of AI on people’s everyday lives.

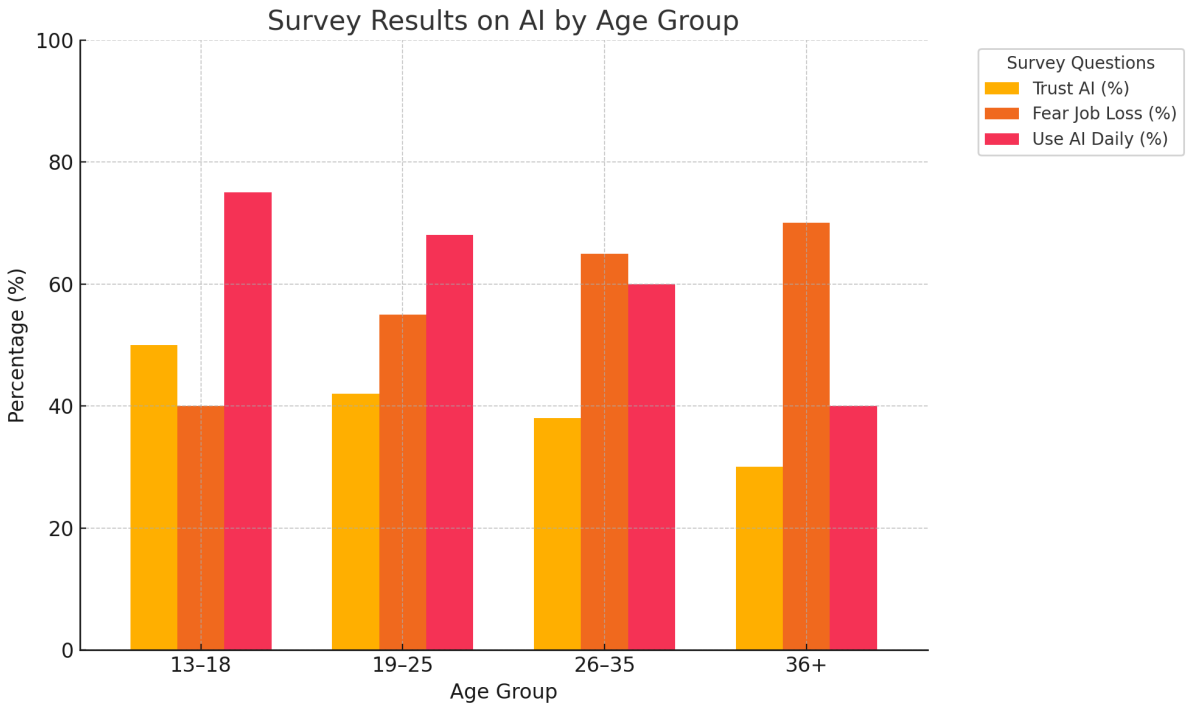

Figure 4. Survey results on AI trust, fear of job loss, and daily usage by age group

This chart shows how people from different age groups perceive artificial intelligence. It includes the percentage of people who trust AI, fear losing their jobs to AI, and use AI in their daily life.

3.2 AI in the Research process

During this research, I also used artificial intelligence as a tool to support and improve my work. For example, I used ChatGPT to help with:

- translating text between Russian and English,
- checking grammar and improving writing,
- summarizing complex ideas,
- organizing thoughts and structure.

Using AI helped me work faster and understand things more clearly. It also made me realize how powerful AI tools can be when used for education and learning. This experience is a good example of how AI is not just a topic of research — it can also become a co-author, assistant, and tutor at the same time.

4. Results and Discussion

4.1 Survey analysis

The online survey helped me understand what people really think about artificial intelligence. The questions focused on three main topics: trust in AI, fear of job replacement, and how often people use AI in daily life.

Here are some key results:

- Most teenagers (13–18) said they use AI daily and have a positive attitude toward it. Many mentioned using voice assistants, chatbots, and recommendation systems.
- People aged 19–25 were more careful. Some trust AI, but many are also worried about losing jobs in the future.
- Adults over 35 were more skeptical, with less daily use and more fear of AI replacing human roles.

These results are shown in Figure 4 (see diagram), where we compare responses across age groups.

This part of the research shows that opinions about AI strongly depend on age, experience, and how people use technology in everyday life.

4.2 Comparison with Sources

While working on this project, I read many articles about artificial intelligence and also collected real opinions through my online survey.

I noticed several matches between what the experts say and what people think.

For example, many articles talk about how AI is already used in healthcare, education, and business. In my survey, people also said they often see AI in everyday life — in social media, voice assistants, or smart apps. This shows that the public is aware of how AI is becoming a part of daily life.

Also, both in articles and in my survey, people are worried about similar things — like losing jobs or not trusting machines. Especially older people in the survey were more afraid of AI.

At the same time, I saw some differences. Experts often focus on big, future goals like creating super-intelligent AI or solving global problems. But most people in my survey just talked about simple tools they use every day.

In short, I noticed some strong connections between expert ideas and public opinion, but also differences in how they see AI — big future vs. daily reality.

4.3 Interpretation and Meaning

This research helped me understand how artificial intelligence is changing our society. AI is already part of our daily lives — even if we don't always notice it. From simple tools like voice assistants to more advanced systems in healthcare or education, AI is growing fast.

The survey showed that different age groups think about AI differently. Teenagers and young people use it more and trust it more. Older people are more careful or afraid. This means age, experience, and technology skills affect how people see AI.

AI brings many benefits, but also risks. That's why it's important to keep talking about ethics, job safety, and privacy. People need to understand AI better — not just how it works, but how it affects our lives.

In the future, AI will grow even more. So it's important for people to learn how to use it wisely, not fear it. The main message of this research is simple: AI is already here, and we must be ready for it.

5. Conclusion

In this research, I explored how artificial intelligence affects our daily life and society. I learned that AI is already used in many areas like education, healthcare, business, and social media. It helps people solve problems faster and live more comfortably.

Through reading articles, real-life examples, and doing a survey, I found that people have different opinions about AI. Some trust it and use it every day. Others are more afraid — especially older people who worry about jobs and privacy.

This research showed me that AI is not just a future idea — it is already here. We use it when we talk to voice assistants, watch YouTube, or drive modern cars. But we also need to think about ethics, fairness, and human control.

I believe that learning more about AI is very important for young people like me. We are the generation that will live and work with AI, and we must be ready to use it wisely.

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