



**THE ROLE AND FUTURE OF ARTIFICIAL INTELLIGENCE IN  
SOCIETY**

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**ARTICLE**

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**Abstract:** *Artificial intelligence (AI) has become one of the most influential technologies of the 21st century. It is rapidly transforming the way people live, work, communicate, and solve problems. As AI continues to develop, its role in society is expected to grow even more, offering both great opportunities and significant challenges.*

**Keywords:** *Artificial Intelligence (AI), Automation, Robotics, Algorithm, Machine Learning (ML), Big Data*

**INTRODUCTION**

To begin with, AI already plays a major role in various fields. In healthcare, it helps doctors detect diseases earlier and with greater accuracy. For example, AI-powered tools can analyze medical images and identify signs of cancer or heart disease faster than humans. In education, AI-based learning platforms provide personalized lessons that adapt to each student's needs. In business, companies use AI to improve customer service, predict market trends, and automate repetitive tasks. These examples show that AI is not just a futuristic idea—it is actively shaping daily life. However, the expanding use of AI also raises important concerns. One of the main issues is job displacement. As machines and algorithms become more capable, some traditional jobs may disappear. Workers in manufacturing, transportation, and



even office jobs may face competition from AI systems. Therefore, societies must prepare by creating new opportunities for reskilling and by promoting jobs that require creativity, critical thinking, and emotional intelligence—skills that AI cannot easily replace.

## **The Current Role of Artificial Intelligence**

AI is already playing a critical role in our society. Its impact is clearly evident in the following key sectors:

**Healthcare:** AI accelerates diagnosis (e.g., analyzing medical images), creates personalized treatment plans, and speeds up drug discovery.

**Economy and Manufacturing:** Production efficiency is increasing through the use of robotics and automation. In finance, AI is used to detect fraud and optimize trading strategies.

**Education:** Personalized learning platforms adapt to the needs of each student, making educational resources more accessible.

**Transportation:** Self-driving vehicle technology aims to enhance road safety and reduce traffic congestion.

**Daily Life:** Recommendation systems (Netflix, YouTube), smart assistants (Siri, Google Assistant), and search engines have become an indispensable part of our everyday lives.

The primary function of AI is to ease human labor and increase accuracy by analyzing data, identifying patterns, and making automatic decisions based on that analysis.

Another concern is privacy and security. AI systems often rely on large amounts of data to function effectively. If this data is not protected, people's personal information can be misused or stolen. Additionally, biased or poorly designed AI algorithms can lead to unfair outcomes in areas such as hiring, law enforcement, and financial services. To prevent this, strong regulations, ethical guidelines, and transparency are essential.

Looking toward the future, AI is likely to become even more integrated into everyday life. Smart cities powered by AI may reduce traffic, save energy, and



improve public safety. AI assistants could help people manage their daily tasks, offering support in education, health, and personal productivity. In scientific research, AI will accelerate discoveries in medicine, environmental protection, and space exploration. If used responsibly, AI has the potential to solve some of humanity's biggest challenges.

In the future, the role of AI is expected to expand even further. Experts are focusing heavily on the following directions:

### **1. The Labor Market and Automation**

In the future, many routine and repetitive jobs will be automated by AI and robots. This will necessitate guiding people towards new professions that require creative thinking, problem-solving, and interpersonal communication. Educational systems will need to adapt to these new demands.

### **2. Artificial General Intelligence (AGI) and Superintelligence**

Current AI systems are specialized in performing narrow tasks. Artificial General Intelligence (AGI), however, will be capable of performing any intellectual task a human can. Beyond AGI, there is the potential for Artificial Superintelligence, which would surpass human capabilities. This presents humanity with immense opportunities (eradicating diseases, solving climate issues) as well as serious risks (loss of control).

### **3. Ethical and Social Challenges**

The widespread adoption of AI raises a number of ethical and social questions:

**Bias and Discrimination:** If AI systems are trained on biased (discriminatory) data, they can make unfair decisions.

**Privacy and Surveillance:** The collection and analysis of massive amounts of data endanger personal privacy.

**Accountability:** When automated systems make errors, where does the responsibility lie?

To address these issues, it is essential to develop AI ethics, standards, and legislation at an international level.



## **The Future: A Shift in Human Capability**

The future of AI involves two major trajectories: job market restructuring and the pursuit of advanced intelligence.

### **1. Job Market Restructuring**

Global research projects a net transformation of the workforce. While AI is expected to automate up to 300 million repetitive jobs globally, it will simultaneously spur the creation of new, high-value roles that focus on critical thinking, creativity, and human-centric skills (e.g., AI ethicists, Data Scientists).

### **2. General AI and Superintelligence**

The long-term goal is Artificial General Intelligence (AGI)—AI capable of performing any intellectual task a human can. The subsequent hypothetical development of Artificial Superintelligence (surpassing human cognitive ability) presents humanity with enormous potential to solve global crises (like climate change and disease) but also raises profound questions about control and safety.

#### **Problems and Challenges: Navigating the AI Age**

The rapid advancement of AI creates critical societal and ethical dilemmas that must be addressed through deliberate policy and technological solutions.

#### **Problem Description**

**Algorithmic Bias** AI models trained on historically biased data perpetuate unfair and discriminatory outcomes in hiring, lending, and justice systems.

**Data Privacy Erosion** The insatiable need for vast amounts of personal data to train large models threatens individual privacy and security, necessitating stronger protective measures.

**Lack of Accountability** In the event of an error by an autonomous system (e.g., a self-driving vehicle), legal and ethical responsibility is unclear, creating liability gaps.

**Safety and Control** The increasing complexity of advanced AI systems raises concerns about unintended consequences or the inability to control truly powerful, autonomous entities.

#### **Solutions: Governance and Technological Interventions**



Addressing these issues requires a multi-faceted approach involving technology, regulation, and education:

Problem Addressed Key Solution Mechanism

Algorithmic Bias Explainable AI (XAI) & Mandatory Audits Requires AI models to be interpretable (not 'black boxes') and subjects them to independent audits to detect and eliminate systemic bias before deployment.

Job Displacement Mass Retraining & Social Safety Nets Governments must invest heavily in upskilling programs focused on human-centric skills and provide robust social safety nets to support workers during career transitions.

Data Privacy Erosion Privacy-Preserving AI & Strong Regulation Utilizing methods like Federated Learning (training models locally without sharing raw data) and enforcing strict data privacy laws (like GDPR) to protect user information.

Accountability & Safety Clear Legal Frameworks and Governance

## Conclusion

In conclusion, artificial intelligence plays a crucial role in society today and will continue to do so in the future. While it offers enormous benefits—from improved healthcare to smarter cities—it also requires careful management to avoid negative consequences like job loss, inequality, and privacy issues. The future of AI depends on how societies choose to develop and regulate it. With the right balance of innovation and responsibility, AI can become a powerful force for positive change in the world.

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