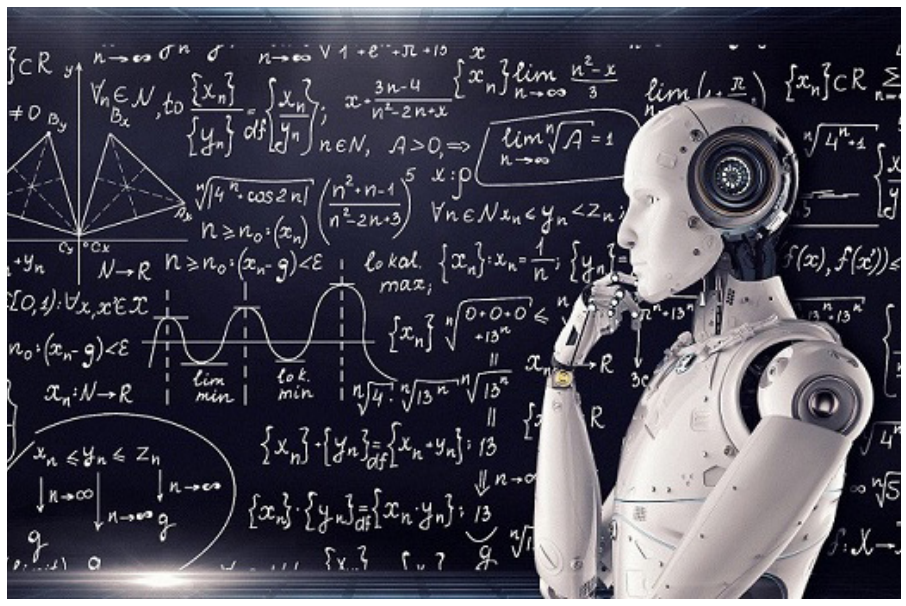
BY AN EXPERT AT THE JAHAN NEWS GROUP

THE FUTURE OF ARTIFICIAL INTELLIGENCE AND ITS IMPACT ON SOCIETY

By Mehdi Mohammadzadeh, Senior Business Analyst and Contributor to Jahane Akhbar Global Insights



Artificial Intelligence has become one of the most transformative technologies of the modern era. Over the past decade, rapid advancements in computing power, data availability, and machine learning algorithms have enabled AI systems to perform tasks that were once considered uniquely human. From voice assistants and recommendation systems to autonomous vehicles and advanced medical diagnostics, AI is reshaping nearly every aspect of modern life.At its core, artificial intelligence refers to computer systems designed to simulate aspects of human intelligence. These systems can analyze data, recognize patterns, make predictions, and even learn from experience. Machine learning, a subset of AI, has been particularly influential because it allows algorithms to improve their performance as they process more information.One of the most significant areas where AI is making an impact is in healthcare. Advanced algorithms can analyze medical images, detect diseases earlier than traditional methods, and assist doctors in making more accurate diagnoses. In some cases, AI systems are already being used to identify certain cancers, predict patient outcomes, and recommend treatment plans.Another important sector experiencing rapid transformation is transportation. Self-driving technology, powered by artificial intelligence, has the potential to revolutionize how people and goods move around the world. Autonomous vehicles could reduce traffic accidents, improve traffic flow, and increase mobility for people who are unable to drive.The financial industry is also heavily influenced by AI. Banks and financial institutions use intelligent algorithms to detect fraudulent transactions, assess credit risks, and automate customer service through chatbots. These technologies improve efficiency while reducing operational costs.In the business world, companies are increasingly relying on AI-driven data analysis to understand consumer behavior and make strategic decisions. By processing massive datasets, AI systems can identify trends and insights that would be difficult or impossible for humans to detect manually.Education is another field that is beginning to benefit from artificial intelligence. AI-powered learning platforms can adapt educational content to the needs of individual students. This personalized learning approach helps students progress at their own pace and receive targeted support where needed.Despite its many advantages, the rapid expansion of artificial intelligence raises several important challenges. One of the most frequently discussed concerns is the potential impact of automation on employment.

As machines become capable of performing more tasks, certain jobs may disappear while new types of jobs emerge.Ethical considerations are also central to the discussion about AI. Questions related to data privacy, algorithmic bias, and decision transparency are becoming increasingly important. Ensuring that AI systems operate fairly and responsibly requires careful regulation and oversight.Another challenge lies in ensuring that artificial intelligence benefits society as a whole rather than concentrating power in the hands of a few technology companies. Governments and international organizations are working to develop policies that encourage innovation while protecting public interests.At the same time, global competition in artificial intelligence is intensifying. Many countries are investing heavily in research, infrastructure, and talent development to strengthen their position in the AI economy. Nations that successfully integrate AI into their industries are likely to gain significant economic advantages. Research institutions and universities are playing a critical role in advancing AI technologies. Through collaboration with industry partners, researchers are developing new algorithms, improving computational efficiency, and exploring innovative applications for artificial intelligence.Looking ahead, the future of AI will likely include deeper integration into everyday life. Smart cities, intelligent transportation systems, and automated industries may become more common as technology continues to evolve. These developments could significantly improve efficiency and quality of life.However, achieving these benefits requires thoughtful planning and responsible development. Policymakers, technologists, and communities must work together to address the risks while maximizing the positive potential of artificial intelligence.In conclusion, artificial intelligence represents one of the most powerful technological forces shaping the 21st century. Its influence is expanding across industries and societies, offering both remarkable opportunities and complex challenges.How the world manages this transformation will play a major role in determining the economic and social landscape of the future.

The Rise of Renewable Energy and the Global Energy Transition

By Mehdi Mohammadzadeh, Senior Business Analyst and Contributor to Jahane Akhbar Global Insights

The global energy landscape is undergoing one of the most significant transformations in modern history. As concerns about climate change, environmental degradation, and energy security continue to grow, countries around the world are accelerating their shift toward renewable energy sources. This transition represents not only an environmental necessity but also a profound economic and technological opportunity.

For more than a century, the global economy has relied heavily on fossil fuels such as coal, oil, and natural gas. These energy sources fueled industrial growth, powered transportation systems, and enabled rapid economic development. However, their extensive use has also contributed to rising greenhouse gas emissions and increasing global temperatures.

Renewable energy offers an alternative path. Unlike fossil fuels, renewable energy sources such as solar, wind, hydroelectric, and geothermal power are naturally replenished and produce significantly fewer emissions. As technology improves and costs decline, these energy sources are becoming increasingly competitive with traditional energy systems.

Solar power has emerged as one of the fastest-growing sources of renewable energy worldwide. Advances in photovoltaic technology have dramatically reduced the cost of solar panels, making solar energy accessible to households, businesses, and large-scale power plants. In many regions, solar energy is now among the most affordable sources of electricity.

Wind energy has also experienced remarkable growth. Large wind farms located on land and offshore are generating substantial amounts of electricity in many countries. Offshore wind projects, in particular, have gained attention due to their ability to harness stronger and more consistent winds over the ocean.

Hydropower remains one of the oldest and most established forms of renewable energy. By harnessing the power of flowing water, hydroelectric dams can generate large amounts of electricity with relatively low emissions. However, environmental concerns related to ecosystem disruption and water management continue to influence new project development.

In addition to these traditional renewable sources, emerging technologies are expanding the possibilities of clean energy. Green hydrogen, produced using renewable electricity, is being explored as a potential fuel for industries that are difficult to decarbonize, such as steel manufacturing, aviation, and heavy transportation.

Energy storage technology is another crucial component of the renewable energy transition. Because solar and wind power depend on weather conditions, energy storage systems—especially advanced batteries—are essential for maintaining reliable electricity supply. Improvements in battery technology are helping address this challenge.

Governments around the world are introducing policies and incentives to accelerate the adoption of renewable energy. These measures include subsidies, tax incentives, carbon pricing mechanisms, and long-term climate strategies aimed at reducing emissions and encouraging investment in clean energy infrastructure.

The private sector is also playing a major role in driving the transition. Many corporations are committing to ambitious sustainability goals, including pledges to operate using 100 percent renewable electricity. These commitments are increasing demand for renewable power projects and stimulating innovation in the energy sector. The shift toward renewable energy is also creating significant economic opportunities. The renewable energy industry is generating millions of jobs globally in manufacturing, installation, maintenance, and research. Countries that invest early in clean energy technologies may gain a competitive advantage in emerging global markets.

However, the transition is not without challenges. Building new energy infrastructure requires substantial investment, long-term planning, and coordination among governments, businesses, and communities. Some regions remain heavily dependent on fossil fuel industries, making the transition economically and socially complex. Energy equity is another important consideration. Ensuring that the benefits of clean energy are accessible to all communities—including those in developing countries—is essential for building a fair and inclusive energy system. Technological innovation will continue to shape the future of energy. Advances in smart grids, artificial intelligence for energy management, and decentralized energy systems are helping improve efficiency and resilience across electricity networks.

Global Water Scarcity and the Future of Water Security

By an Expert at the Jahan News Group

Water is one of the most essential resources for life, economic development, and environmental stability. Yet, despite its fundamental importance, the world is facing an escalating crisis: water scarcity. This challenge, driven by population growth, climate change, pollution, and inefficient water management, is rapidly becoming one of the most urgent global issues of the 21st century.Today, more than two billion people live in regions experiencing high water stress. Projections suggest that this number will continue to rise as demand for water increases while supplies diminish. The consequences of water scarcity are far-reaching, affecting agriculture, industry, health systems, and even geopolitical stability.The agricultural sector is the largest consumer of freshwater globally, accounting for nearly 70 percent of total usage. As the world's population continues to expand, the demand for food is expected to rise significantly, putting additional pressure on already strained water resources.

Many countries are struggling to balance the need for irrigation with the need to preserve water for household and industrial use.Climate change is one of the primary drivers of worsening water scarcity. Higher global temperatures lead to increased evaporation, prolonged droughts, unpredictable rainfall patterns, and the shrinking of major rivers, lakes, and aquifers. Regions already vulnerable to water shortages—such as Sub-Saharan Africa, the Middle East, and South Asia—are projected to face even more severe conditions.Urbanization presents another major challenge. As cities grow rapidly, the demand for clean water and sanitation services rises. Many urban areas lack the infrastructure needed to deliver safe water to all residents, leading to health risks and social inequality. In some megacities, water shortages have become so severe that authorities have implemented strict water rationing policies.Water pollution further reduces the availability of safe freshwater. Industrial waste, agricultural runoff, and improper disposal of chemicals and plastics contaminate rivers and groundwater. This contamination not only threatens ecosystems but also increases the cost of water treatment for human consumption.In response to these challenges, governments and international organizations are working to enhance water security through a combination of technological innovation, policy reform, and sustainable management strategies.

One major area of focus is improving water efficiency in agriculture. Technologies such as drip irrigation, soil moisture sensors, and drought-resistant crops are helping farmers reduce water consumption while maintaining productivity.Desalination has become an increasingly important solution for water-scarce regions, particularly in the Middle East and parts of North Africa. Modern desalination plants use advanced filtration methods to convert seawater into drinking water. Although energy-intensive, new technological advancements are helping reduce the environmental and financial costs of desalination.Water recycling and reuse are also gaining traction. Many cities are investing in wastewater treatment facilities that can convert used water into safe, high-quality water for irrigation, industrial processes, or even drinking. This approach helps conserve freshwater supplies and reduces environmental pollution.On the policy level, many countries are adopting integrated water resource management (IWRM), which promotes the coordinated development of water, land, and related resources. This holistic approach helps ensure that water allocation decisions consider environmental, social, and economic factors.