

HAKMUN

'26

UNCSTD

UNDER SECRETARY GENERAL:

YIGIT CIRIM

ACADEMIC ASSISTANT:

ADA ÇAKMAK

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1. Welcoming Letters

1.1 Letter From the Secretaries-General

Official Letter from the Secretaries-General of HAKMUN'26
Honorable participants of HAKMUN'26

As the Secretaries-General of HAKMUN'26, which will take place from July 1st to July 3rd, we would like to extend our warmest welcome to all participants of this distinguished conference.

As this marks HAKMUN's first official edition and its first conference in Antalya, we aim to establish not only a conference, but a lasting tradition built upon vision, discipline, and excellence. HAKMUN'26 stands as a testament to what determined hard work and collective ambition can achieve when united under a single purpose. Our inspiration comes not only from our elders, but also from our younger selves, as we have held onto our ideals since the very beginning of our MUN journeys.

We believe that true greatness is not defined by titles, but by the ability to inspire, to take initiative, and to stand firm in the face of challenges. Throughout this conference, every delegate will be challenged to step beyond their limits, work diligently, and act with both confidence and integrity. HAKMUN'26 is designed to cultivate individuals who are not only participants of today, but also future leaders who will shape the world of tomorrow.

Our vision for HAKMUN'26 goes beyond just a three-day conference. We aspire to build a platform where diplomacy meets innovation, and where diverse perspectives come together to create stronger, more refined solutions. Each committee session, each debate, and each resolution represents a step toward fostering a generation that understands the value of cooperation, resilience, and strategic thinking. With this greater purpose in mind, we aim to contribute meaningfully to society.

As Secretaries-General, we have devoted ourselves to ensuring that every aspect of this conference reflects our commitment to quality and purposeful hard work. From our academic depth to our organizational structure, every aspect has been carefully planned and executed to provide you with an experience that is both intellectually stimulating and personally transformative, while also allowing you to socialize and enjoy the process.

Welcome to HAKMUN'26.

With our best regards,
Yağız Eren BAYBURTLU
Sacit Eren TUNCER
Secretaries-General

1.2 Letter From the Under-Secretary General

My Delegates,

I welcome all of you to HAKMUN'26. It's a big honour to serve as Under Secretary General of The United Nations Commission on Science and Technology for Development (UNCSTD).

My name is Yiğit Cirim and I am a student at Antalya Anatolian High School. I can not express my feelings for finding me in that amazing academic team. Dear executive team worked for you to have good memories and experience you can be sure of and also we worked hard at night and morning to make you enjoy with your dear Academic Assistant Ada Çakmak in order to make you experience a wonderful committee.

I highly recommend you to read the Study Guide which my dear Academic Assistant prepared for you by mixing her nights and mornings. It would provide you the best understanding for the topic and show you possible ways that you will follow. If you have any and any and any kind of questions about the committee or problems with the guide please do not hesitate to get contact with me via my number:

0542 180 48 70

Best regards,

Yigit CİRİM.

1.3 Letter From the Academic Assistant

Dear Delegates,

It is my pleasure to welcome you all to HAKMUN'26 and our committee. My name is Ada Çakmak and I am honored to serve as your Academic Assistant.

Firstly, I would like to thank the Secretariat for giving us the opportunity to form this committee and for making this conference possible. Me and my Under Secretary General Yiğit Cirim worked hard to present a wonderful committee to you and make your experience unforgettable. I would like to thank him for everything he has done for this committee.

I want you all to be aware of how important this committee and agenda item is in today's world. And I expect you all to do your work with seriousness and dedication. Please read this study

guide thoroughly, as it contains the information you will need throughout the committee. I highly encourage you to research upon your allocated country's policies and role upon the agenda item.

If you have any kind of questions about the committee please do not hesitate to reach me via my number.

0544 661 36 41

Sincerely,

Ada ÇAKMAK.

2. Introduction to the Committee

The United Nations Commission on Science and Technology for Development (UNCSTD) is the United Nations' body for discussions on science and technology. What is new, what matters, what is changing, what the impact is and how this affects development and a sustainable future for all is discussed here. UNCSTD is the forum that helps ask and frame the critical issues influencing the fields of science and technology today. It is also an open platform where proposals, ideas, experiences, cases, and intellectual thought can be channeled toward making a policy impact. It facilitates concrete collaborations between member states, NGOs and actors in the science, technology and development space.

In 1992 the General Assembly decided to transform the Committee into a functional commission of the Economic and Social Council (ECOSOC) and set up the CSTD. The CSTD was created to provide the UN with high-level advice through analysis and policy recommendations to:

- guide the future work of the United Nations
- develop common policies
- agree on appropriate actions

The world has changed radically since 1992. Even then, the seeds of scientific and technological discovery sown throughout the twentieth century were demonstrating exponential growth. Today it is unparalleled and the CSTD matters more than ever, as the opportunities and obstacles at the juncture of science, technology and innovation and the need for sustainable development become more complex, global and far-reaching.

3. Introduction to the Agenda Item

Artificial Intelligence (AI) is a technology that enables computers and machines to simulate human learning, comprehension, problem solving, decision making, creativity and autonomy. AI technology works by teaching computers how to think and learn like humans. AI systems analyze data, spot patterns and make decisions. Advanced AI systems work like simplified versions of the human brain, using artificial neural networks to process information. AI systems can teach themselves new skills without human guidance. AI combines computer science fields like machine learning (ML), natural language processing (NLP), computer vision, and robotics to create systems that can analyze information, make predictions, and learn from experience. Machine learning (ML) teaches computers to identify patterns in large amounts of data and make predictions without being explicitly programmed for each scenario.

The system learns through two main approaches: supervised learning (learning from examples with known answers) and unsupervised learning (finding hidden patterns in data without guidance). Natural language processing (NLP) teaches computers to understand and generate human language. NLP combines statistical methods, rule-based approaches, and machine learning to process text and speech. NLP enables tasks such as analyzing text sentiment, recognizing important information, and translating between languages. Another technology under AI, Generative AI creates new content(text, images, videos) based on patterns it learned from existing examples. Generative AI transforms content creation from a time-consuming chore into an automated process.

AI systems are examined in four main types of AI based on what they can do:

- Reactive AI: These systems do not learn from past experiences or remember previous interactions, they simply follow their programming.
- Limited Memory AI: This type of AI can use past information to make better decisions. Most AI tools people encounter everyday are in this category.
- Theory of Mind AI: Is a more advanced concept. It consists of systems that understand human emotions, beliefs, and mental states. This technology is still largely theoretical.
- Self-aware AI: It possesses consciousness and human-like reasoning abilities. This remains hypothetical.

In recent years AI models have been profoundly changing the generation, organization, and dissemination of knowledge. AI makes daily chores easier while developing industrial manufacturing, agricultural production, medical and healthcare systems and art. Despite the positive effects of AI in our lives, it also threatens our future. It carries the risks of increasing unemployment, income inequalities, devaluation of human skills, and excessive reliance on technology. AI also indicates ethical risks regarding privacy and data protection, transparency, security and misuse.

4. Artificial Intelligence Applications in Healthcare

Healthcare systems around the globe face challenges in achieving the ‘quadruple aim’ for healthcare: improve population health, improve the patient's experience of care, enhance caregiver experience and reduce the rising cost of care. In recent years ageing populations, growing rate of chronic diseases and rising healthcare costs aggravate healthcare services. The application of AI technologies in healthcare has the potential to address some of these challenges.

AI can be used in many ways in healthcare. AI can facilitate the efficient allocation of healthcare resources. Using predictive modelling, AI appliances can forecast patient admissions and ease the use of hospital beds, staff and equipment. By the help of AI, resources can be available at the time and place that is needed most, and enhance the quality of care given to the patient, and make the process easier also for the caregiver. AI can fulfill the demand for efficient, low-cost qualified care. AI can automate administrative tasks such as patient scheduling, billing and health records management, and can reduce the workload of healthcare workers. When the workload of healthcare workers is less, they can focus more on their patients which raises the quality of care given to the patient. For chronic care management, AI tools support risk stratification by identifying patients who are at a greater risk of complications or hospital admission, enabling proactive and more efficient care.

AI systems can form personalized treatment plans. These treatment plans can complement traditional approaches and provide more targeted and effective care, while reducing the financial burden on healthcare systems. AI can be used to predict how a patient might respond to a particular drug or therapy, advancing the prescription of more targeted medications while reducing adverse drug reactions.

AI can be used in diagnostics. It facilitates early diagnosis, which is vital for many health problems. AI-powered detection systems serve as diagnostic aids that help reduce error rates and prioritize urgent cases more effectively. Exemplify, AI systems can detect the onset of sepsis, which is the human body's extreme life-threatening reaction to an infection, hours before clinical symptoms appear enabling life-saving timely intervention. Another example is AI-powered breast cancer detection. Breast cancer is a disease where abnormal cells in the breast grow out of control, forming a tumor and can be treated with early diagnosis. AI systems used in mammography screening, an x-ray image of breasts, can identify early signs of breast cancer with remarkable accuracy. Early detection with the help of AI systems can stop metastasizing to other parts of the body, and save many lives.

AI does not only optimize the healthcare given in hospitals but also takes place in medicine discovery and development. AI accelerates the process by identifying targets, modelling complex biological systems, and optimising the design of medical products. AI enhances formulations and facilitates personalized medicine. AI determines optimal dosing, simulates drug interactions at scale, assists with patient stratification, helps reduce the time and financial resources used for medicine production and facilitates quality-control. AI streamlines medicine authorization by enabling digital submissions and analyzing real-world real-time data to detect safety signals earlier. During the COVID-19 pandemic, AI played a key role in identifying molecular structures

and simulating drug interactions at scale, thus reducing the time required for early-stage vaccine development.

AI assists people in their own healthcare management. AI-powered virtual health assistants are improving patient engagement by handling routine tasks such as symptom checking, post-surgical care and follow-up education. These tools can guide the patients and remind them to take medicines. This not only empowers patients to manage their health more effectively but also eases the administrative burden on providers.

Healthcare givers increasingly rely on AI for real-time monitoring and consultancy. Administrators use AI systems to streamline operations and upgrade resource allocation. In collaborations where AI acts as a clinical partner rather than a standalone solution, those systems upgrade the quality of healthcare in a significant amount. However, there are serious ethical and operational concerns.

The first and most important concern is data privacy. AI systems rely heavily on patient data to learn and make decisions. AI tools collect and keep patient information, summarize, transfer and use them when needed. AI systems often draw data from electronic health records, genetic information, and even real-time data from wearable devices. This increases the risk of unauthorized access. Privacy compliance and cybersecurity is significant.

Another challenge is algorithmic bias. AI tools gather information from current sources, and do not produce findings by conducting research or experiments. In cases where there is a lack of representation of diverse populations or the training data reflects historical inequities, AI systems may unintentionally reinforce disparities in care. This is especially concerning in diagnostic tools that may underperform for specific demographic groups. Equal representation and full transparency is necessary.

As AI is increasingly used in the healthcare sector, the demand for staff who can provide safe, secure and effective AI applications is growing. Professionals with a background in medicine, data science, or public health can meet the demand for emerging roles such as:

- Clinical Data Scientist: undertakes the job to analyze healthcare datasets to build predictive models and evidence-based decision making.
- Healthcare Machine Learning Engineer: designs AI models tailored to clinical environments and patient needs.
- Digital Health Product Manager: coordinates between engineers, clinicians and regulatory teams for the development of AI systems
- Medical Informatics Specialist: manages the integration of healthcare intelligence technology and AI systems into clinical practice
- Healthcare AI Ethicist: develops frameworks to guide responsible AI use with a focus on bias mitigation, privacy, equality and fairness.

5. Artificial Intelligence Applications in Agriculture

Conventional farming methods have faced significant challenges in the past three decades to respond to the increasing demand for food, rising labor costs, reducing carbon footprint, and

climate change. To respond to the needs of the new world order, digitalization of agriculture was inevitable.

Digitalization of agriculture is rapidly changing the business of farmers. With the integration of AI technologies, farmers are able to increase productivity, efficiency and precision in their operations. AI applications provide real-time monitoring and management of crop yields. The ultimate objective of digital agriculture is securing food production for the increasing world population. It contributes to replacing tedious manual operations with continuous automated processes. Improving long-term efficiency from AI systems and maintaining the viability of crop production requires adaptations of digital technologies to reduce input costs and increase profit margins. With wireless communication and high-performance data processing hardware, AI offers significant potential for innovative solutions towards automation and robotics. This frees human force from fieldwork and provides more productive business. AI applications in agriculture have widely supported farmers with solutions for a better understanding of different crop varieties and species that are more resistant to specific climate conditions or can be adapted to different soil conditions.

AI applications in agriculture are being practiced in many regions, and expected to be used globally in the upcoming years. AI applications offer a wide variety of techniques to eliminate uncertainties involved with farming and food production. Despite the many benefits of AI, there are still a number of challenges that need to be overcome, including high costs, reliability, and scalability.

Connected with AI, Internet of Things (IoT) is an important technology used in the field of agriculture. Internet of Things (IoT) refers to a network of physical devices, vehicles, appliances and other physical objects encased with sensors, software and network connectivity. The main objective of IoT is to collect and share data. The potential applications of IoT are varied and its impacts are already felt across a wide range of industries, including manufacturing, transportation, healthcare and agriculture. As the number of internet-connected devices grows, IoT is most likely to play an important role in the new world order.

As a conclusion, along with the proliferation of Artificial Intelligence technologies, AI is increasingly used in agriculture. Artificial Intelligence transforms agriculture into a precise, automated and data-driven industry. AI optimizes resource use, improves the productivity of crop yields, and combat labor shortages while minimizing the negative effects of agriculture on the environment. With the help of AI, the number of automated operators arises and the need for manual labour decreases.

6. The Role of Artificial Intelligence in Art

AI art is the enhancement of visual artwork using machine learning algorithms, primarily through text-to-image models. AI tools do not think, feel emotions or create something from

nothing. They are trained on human-made images to learn patterns, textures and styles. Users guide the AI by typing descriptive instructions, and the system creates an image following the instructions. The way AI creates images is similar to how a photographer positions the camera and captures the image. Similar to how photography revolutionized the role of painters, AI art is forcing the creative industry to evolve. Appliance of AI in art brings along ethical problems and raises the question whether it can be considered art.

Ethics in art involves the moral principles guiding the creation and presentation of artwork. Key ethical principles include:

- Informed Consent: Artists must obtain permission when depicting real people, particularly when addressing sensitive subjects.
- Cultural Representation: The unauthorized use of elements from a culture different from one's own, especially historically marginalized cultures, raises questions about respectful representation versus stereotyping and extraction.
- Aesthetic Value vs. Moral Harm: Ethical debates question whether ethically problematic AI can still be considered as aesthetically great.
- Intellectual Property and AI: The rise of generative AI has created ethical dilemmas regarding scraping of artists' copyrighted work to train machine learning models without compensation or attribution.

For thousands of years, art has been an endeavor of the human race and recognized as creative expressions of human intelligence. As AI became universally available, it started to evolve art. Artists and graphic designers began to discuss how AI applications in art can influence their professions. Some artists view AI as a tool to extend their creativity or the first step of their final work, while some others view it as an obstacle to human creativity. Many artists worry that AI art programmes might put them out of work in the same way that automated machinery shrunk the manufacturing workforce. The same way manufacturing companies defend the utility of automation, some artists argue that AI applications in art save money by allowing artists to do other works that can not be done by AI. On the other hand, some artists state that true art requires human intention, empathy, emotional soul and lived experience, meaning AI art can not be considered true art. A human artist spends days and nights creating ideas mixing lived experiences, observations and emotions, and finally expressing the ideas they created in physical forms, while AI produces something similar from a visual library consisting of billions of images that was scraped as data without consent, within seconds. As AI becomes increasingly used in art, worries about AI destroying “true art” created by the human brain are growing.

Along with discussions on whether AI art can be considered real art, there are also discussions upon ownership: who should own the copyright of generated images? AI models scrape billions of images and artist styles from the internet without consent and create “art” according to their inferences, as AI can not think and create from nothing. Many artists argue that the usage of human-produced art is deeply unethical and many consider it as theft. There are also questions

on whether the person who prompted the AI system can be considered as the artist, or should the company behind the coding of the AI system own the copyright.

The next dilemma, as a consequence of AI coding and algorithms, stems from bias and stereotypes. As AI collects its data from existing conceptions, it supports society's general stereotypes. In a research project, different AI systems were asked to create an image of the “most beautiful woman on earth” and it was observed that they created images of white women in Western-style dresses. This raises the concern of biased art, underrepresentation of some cultures and disrespect to marginalized groups. In AI ethics, AI should be universal and for all, should not elevate one group and exclude another. To reach this principle AI should be coded in a way that is not affected by society's preconceptions.

AI art also brings cybersecurity risks. AI-created content may lead to false information on the internet. Falsified videos or images of public figures saying and doing outrageous things can erode trust in institutions among the people. AI-created content also constitutes a risk of deepfake. AI deepfakes mislead people and make them feel uncertain which reduces trust in news in social media. Even after the misinformation is corrected, it is a significant issue to make people believe after the false videos or images led to widespread circulation. The artificial pictures spread on the internet can cause reputational damage for professionals, celebrities and public figures, and it can present national security implications for politicians and leaders.

The debate on AI art is not only about technology but also how human creativity and labour is valued. Balancing innovation and ethics is a significant issue both for the artists and the society.

7. Economic Consequences of Artificial Intelligence Replacing Humans

The economic consequences that come from AI replacing humans presents a contradiction: while AI promises to boost the global income for companies and institutions by automating many tasks, if companies aggressively replace human force with AI they ultimately destroy the purchasing power needed for providing their essential goods and services. This may lead to pressure on wages and affect the whole economy. Also, as labor income drops, governments relying on income taxes may face significant economic destruction. We will be addressing two main issues: rising unemployment and income disparities between classes caused by AI applications.

7.1 Rising Unemployment

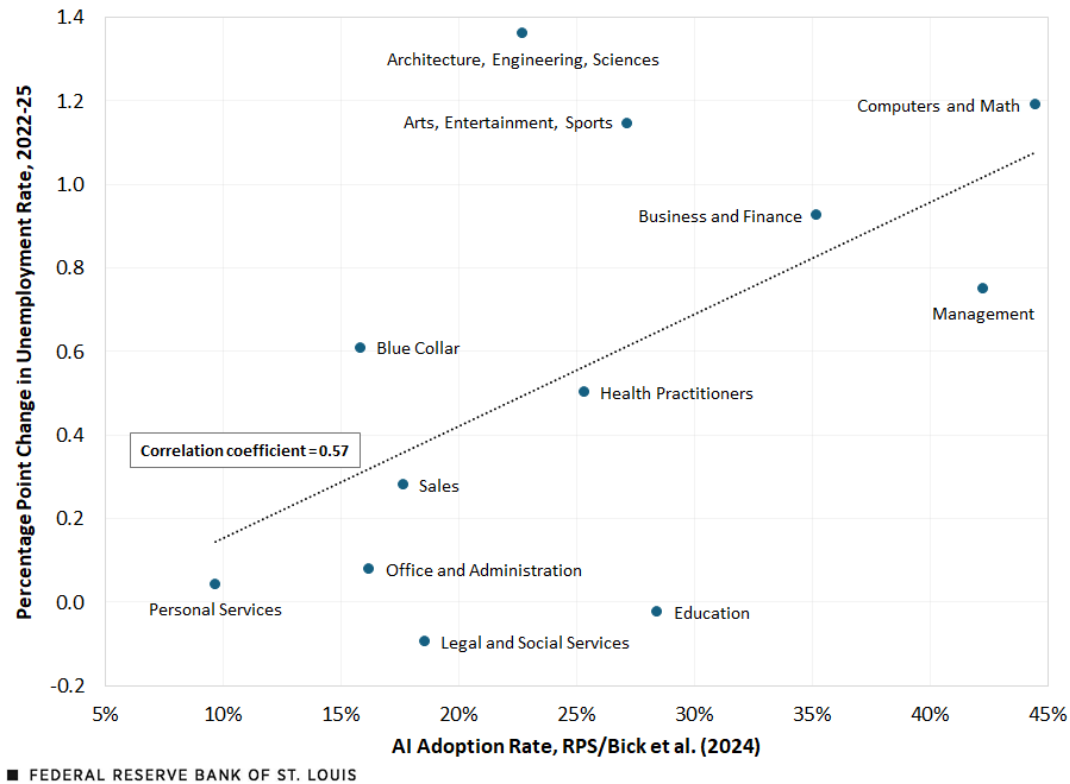
AI clearly displaces certain workers and routine jobs, hits some groups and sectors harder, and widen inequality. There are two ways in which AI could lead to an increase in unemployment: First is, if AI capabilities advance to a point where human input becomes redundant for many types of production, leading to persistent structural unemployment. Executives from the technology and finance sectors state that they see efficiency gains from generative AI that are enough to slow their hiring, especially in operational and back-office capacities. This can be seen as a financial gain to the executives of companies, while it means unemployment for those companies' staff. AI adoption remains relatively low, especially among

midsized and small enterprises. While adoption rates have accelerated recently, the vast majority of companies have not incorporated AI into regular workflows. But as AI gets more accessible and increasingly used, unemployment risks are growing. AI develops every day and becomes suitable for more jobs. As new jobs start to be conducted by AI tools, the demand for human force is reducing and this leads to significant unemployment rates in many sectors.

Unemployment rates caused by AI are higher in some industries such as marketing consulting, graphic design, office administration, and telephone call centers. Employment growth in technology-sector occupations such as computer systems design, software publishing, and web search portals has slowed sharply. Younger tech workers appear to be disproportionately affected. Unemployment among 20- to 30-year-olds in tech-exposed occupations has risen by almost 3 percentage points since the start of 2025. This confirms that generative AI is contributing to hiring headwinds facing recent college graduates in technology. Computer programmers, accountants and auditors, legal and administrative assistants, customer service representatives, telemarketers, proofreaders and copy editors, and credit analysts are some of the occupations that are at the highest risk of being displaced by AI. Air traffic controllers, chief executives, radiologists, pharmacists, residential advisors, photographers, and members of the clergy are at the lowest risk. The AI impact on jobs will largely depend on how employers put the technology to the best use. AI can be efficient when it's used correctly, but also may harm many industries when it's not used in the correct way.

It must be noted that AI technologies not only cause the reduction of employment but also create new career options. With the development of artificial intelligence, new professional fields are emerging, such as software development specialist, data analyst, AI trainer, and technology manager.

Below is a graph showing the relation between AI adoption and change in unemployment rates across occupations.



NOTES: This figure plots occupations' 2022-25 change in unemployment rate versus their AI adoption rate. AI adoption rate is derived from the RPS. The unemployment rates are the three-month averages for May through July in 2022 and 2025.

7.2 Income Disparities Between the Upper-Class and the Working-Class

AI is exacerbating income disparities primarily by shifting economic value from labour to capital. Capital-owners and high-skilled professionals gain massive productivity with the help of AI systems while the working-class is face-to-face with increased risk of displacement and wage reductions especially in automatable and manual roles. AI not only raises efficiency but also reallocates the gains from innovation, amplifying the share of income accruing to capital. AI acts as a capital-biased innovation, shifting the profits of technological progress increasingly towards the capital. The economic rewards of AI heavily favor capital owners such as technology investors, corporate shareholders and company executives rather than wage earners. For

example, the wealth share of the top 1% of households rose from 32% in 2006 to 37% in 2021, while the bottom 50% saw a decrease from 2.5% to 2% during the same period. Research reveals a robust and statistically significant negative association between AI intensity and the labour income share. Among industries with higher AI adoption such as software development and digital services, greater wealth disparities are observed compared to sectors with lower AI adoption such as agriculture. As AI technology rapidly progresses, more jobs and fields will be affected. As the question of what will happen to those who lost their jobs because of AI arise, some have suggested that service industries such as hospitality will become a popular safe haven. But there is a limit on how many of these jobs can exist and how many people those industries can sustain. Some others have suggested that our communities will need to become increasingly welfare driven with the incorporation of volunteer work, a working welfare type model.

Historically, technological developments often complemented skilled labour while replacing routine, low-skill tasks. AI is reshaping the labour market not only between labour and capital, but also within labor, by redistributing returns across skill groups. High-skilled professionals that are harder to be displaced by AI technologies - such as software engineers, elite analysts, executives - can use AI efficiently in a way that upgrades their work and raises their income. On the other hand, the demand for lower-skilled workers whose jobs can be automated by AI easily are displaced, lost their jobs entirely or had to work with lower salaries. This means the rich get richer and the poor get poorer with AI applications. As AI is increasingly used, wealth disparities grow and class division widens.

In addition to the inequalities between working-class and upper-class, and the high-skilled workers and low-skilled workers, there are also inequalities between developed and underdeveloped or developing countries. Catch-up growth has become stronger since the late 1980s and has led to convergence between nations since 2000. But this situation is under risk because of the recent erosion of democratic governance and the uneven impact of climate change. AI deployment is a third risk that may increase disparities between nations. The ability to harness AI's benefits or mitigate its disruptions varies widely across nations. Some countries use AI as a booster of their economy while some others don't have the essential opportunities to use AI efficiently and are crushed under the inequalities between nations. Without correct policies, AI may deepen the divisions between countries advancing richer nations and leaving the poorer ones further behind. With AI, the world may get in a situation that is similar to the Industrial Revolution: leading to deep and persistent income inequality benefiting wealthy nations much more than others. High-income countries hold a distinct advantage in capturing economic value from AI thanks to their superior digital infrastructure, AI development resources and advanced data systems. Internet access is just 27 percent in low-income countries and 52 percent in lower-middle-income countries, compared to 80 percent and 93 percent in upper-middle and high-income nations. That means low-income countries can't even get in the AI race with high-income countries. As richer countries use AI to enhance productivity and innovation, it becomes harder for poorer countries to penetrate in some markets such as finance, pharmaceuticals, advanced manufacturing, and defense. Automation in manufacturing, logistics,

and quality control would enable wealthier nations to produce goods more efficiently, reducing the need for low-wage foreign workers, undermining lower-cost labor. Developed-countries' better social safety nets and active labor market policies can cushion the blow, retrain displaced workers, and stimulate new job creation, which is entirely impossible for underdeveloped countries. Limited resources and underdeveloped social protection systems mean they are less prepared for the economic and social shocks caused by AI-driven disruptions. Many low-income countries already struggle with high rates of unemployment and fragile labor markets, leaving their workers vulnerable to sudden economic shifts. If AI were to undermine labor-intensive service industries, developing countries may find it harder to identify viable pathways for growth, posing a significant challenge to long-term development and dampening the prospects of convergence.

All of these insights indicate that we must seriously begin to consider the structure of our future economy and begin to develop approaches to address the challenges that will arise from the deepening of the divide between the rich and the poor. AI must be balanced with the society's economic structure. Sustainable development is also essential from an AI perspective.

8. Social Consequences of Artificial Intelligence Replacing Humans

AI replacing humans causes massive social effects. Because of long lasting job displacements, evolution of work values and changes in the society; various mental health issues such as isolation from people, depression, feelings of meaningless etc. can be seen. We examined the social consequences under two headings: devaluation of human labour and skills, and rising anxiety about the future as AI is taking more and more place in our everyday lives.

8.1 Devaluation of Human Labour and Skills

Devaluation of human labour and skills refers to the process of human capital losing its economic value over time. Traditional models conceptualized this devaluation in two mechanisms: 1) where skills lose value due to changes in production processes and technologies and 2) where skills deteriorate from lack of use. The devaluation of human labour and skills is one of the main issues in today's world with the increasing appliance of AI technologies in the workforce, and can be conceptualized in both of the aforementioned mechanisms. The technological developments restates production processes and displaces workers with AI. When the workers displaced by AI don't use their skills, they deteriorate. After these processes it is highly possible for the workers with these skills to entirely disappear in the future.

AI heavily devalues specific skills by commoditizing complex tasks. Modern AI systems demonstrate unprecedented capabilities to perform complex tasks across multiple domains simultaneously. Historically, technological developments impacted human skills devaluation, mostly in a negative way. But as the past developments were slower than today's AI technologies, the timelines of skill depreciation compresses from decades to months.

AI now excels at tasks like analyzing unstructured data, extracting key information from extensive documents, translating languages and generating code. Its capabilities have limitations,

however, AI seems to take control of these baseline skills. Before AI technologies became commonly used in the workforce, people who mastered those baseline skills would have a high market value, as not many people had these specific technical proficiencies. To significantly reduce employment for a specific role, the technological innovation of AI would need to replace or make redundant nearly every task a worker performs. This does not seem to happen today or any time soon, but if AI continues its development at this speed, this concern will become a serious problem. Today, AI doesn't entirely displace many jobs but devalues many skills and reduces the income of human workers.

As AI takes control of execution and production sectors, human value is shifting towards oversight, jobs that require emotional intelligence and complex applications. The market increasingly devalues technical jobs while increasingly valuing skills such as judgment, mental and physical healthcare, relationship management, complex question framing etc. The ability to make ethical decisions, supervising AI-generated outputs in terms of transparency and impartiality, asking the right questions besides finding the answers, deep interpersonal skills such as empathy and cultural awareness and much more are the tasks that can't be done by AI. In the future, as AI takes control of more sectors every day, these social and psychological skills will become more and more important. This may pose a risk of aggregation in sectors which need human interaction and may result in high unemployment rates once again.

It is significant to integrate AI into the workforce without devaluating human skills as it is a serious socio-economic risk. Human welfare and mental health must be the primary concern, state and company policies must be done in this regard and AI technologies' development must be controlled and supervised according to human needs.

8.2 Rising Anxiety About the Future

AI anxiety is a rising psychological and social reality that contains feelings of worry, dread and uncertainty about the changes in the world that AI brought. Some of the reasons for AI anxiety are concerns about job displacement, loss of human purpose, data privacy, loss of human control over AI and the potential of AI-generated misinformations and bias. While AI Anxiety involves general worries and stress related to advancements of AI technologies, it does not refer to anxiety disorders that come along with severe clinical symptoms that may require therapeutic interventions, hospitalization, or medication. Instead, AI Anxiety represents a non-clinical, collective psychological response driven by the social and economic changes and the potential risks associated with AI's role in our lives. The nature of AI, its pervasive integration into daily life, and the profound implications for the future form a source of stress. The complexity of AI can be overwhelming for many, fostering a heightened sense of vulnerability and a perceived loss of control.

Concerns regarding the rapid advancement of disruptive technologies dates to the earlier periods of Industrial Revolution, wherein manual labor was gradually replaced by machinery,

generating a fear known as automation anxiety. AI anxiety might be seen as the continuation of automation anxiety but there are several differences:

- 1) Definition: Automation anxiety is the fear stemming from machines replacing human jobs, particularly in manual and routine tasks, while AI anxiety is defined as the concern caused by the rise of artificial intelligence and their impact on everyday life and society.
- 2) History: Automation anxiety dates back to the Industrial Revolution. It continued through the digital age within developments in robotics and automation. AI anxiety emerged primarily in the 21st century with developments in machine learning, deep learning and general AI.
- 3) Impacted Sectors: Automation anxiety mainly impacted manufacturing and routine jobs while AI anxiety impacts almost every sector including creative jobs, decision making roles and many more.
- 4) Primary Concerns: People with automation anxiety were primarily concerned about job displacement, skill devaluation and economic shifts. People with AI anxiety are concerned about more comprehensive job displacement including high-skilled roles, ethical dilemmas and AI exceeding human intelligence and human control, in addition to concerns coming along with automation anxiety.

Concerns about AI anxiety are not only limited with job displacement but it also includes ethical concerns such as decision-making transparency, bias in AI algorithms, loss of privacy and the lack of human oversight on AI systems.

The rapid advancements of AI technologies and their potential to replace human roles started a wave of insecurity among people. The relentless pace of AI development raises significant concerns about preparedness of the workforce. As workers acquire new skills to find a place for themselves in the workforce, the advancement in AI capabilities can quickly displace those skills. There is an immense pressure on the current workforce to continuously learn and adapt to remain relevant in an era increasingly dominated by AI technologies.

Employment instability resulting from AI causes psychological distress. The uncertainty of what jobs and skills will remain in demand causes serious anxiety about the future, especially among the youth. Young people who are at the time of their lives to choose their jobs, have a hard time deciding which job will bring them long-term economic value and welfare. The concern of choosing a job that may be displaced by AI affects their lives and the anxiety of the future may even impact their productivity. The generation growing up and will be growing older with developing AI technologies face job insecurity, many of them are under risk of economic difficulties. No sector is guaranteed to be dominated by human force and not AI. But some sectors are under less risk, this causes clustering in those sectors. The capabilities of these sectors are also limited, and this can be listed as one of the concerns AI brought to our lives.

Moreover, many individuals experience a diminished sense of self-worth. Work often serves a socializing role in addition to its economic roles. Work, increase self-esteem and personal fulfillment. When people are excluded from their work because of AI, it also affects their social

life and causes isolation. Isolation from social life may cause more distress and may lead to serious mental health issues such as depression. People's achievements in their jobs and the feeling of productivity they earn with their jobs are important for their self-esteem and feelings of self-worth. Automating their jobs and excluding them from the workforce can cause significant psychological challenges.

As AI models become more sophisticated, concerns emerge about their ability to make independent or unpredictable decisions, including the risk of deviating from their programmed functions or developing harmful behaviors. "AI taking control of the world and defeating humanity" seems like an impossible and extreme scenario but AI taking control of many fields is highly possible and may cause real serious issues. Many people experience this fear. From a psychological perspective, this fear reflects deeper anxieties about autonomy, agency, and humanity's role in an increasingly automated world. The lack of human oversight and the unpredictability of AI systems can undermine individuals' sense of security and control over their environment, leading to heightened stress.

9. The Reliability of Artificial Intelligence

The reliability of AI is a serious concern among many people and authorities. AI models are highly effective in many terms but not 100% accurate and secure. Data dependency, misinformations, lack of transparency and bias are some of the main concerns about AI reliability. Today AI does not satisfy full reliability, needs to be improved in this regard and requires independent verification.

9.1 Data Exclusivity

As the digital age progresses, the integration of AI into various digital services raises significant concerns about the erosion of personal privacy. While AI offers unparalleled innovations, its capacity to process vast amounts of personal data challenges user confidentiality. AI systems largely rely on datasets with continuous and extensive collection of massive personal information. Data collection mostly requires clear user consent, but is not 100% safe. The data AI systems use is gathered from diverse sources such as social media, browsing histories, smartphone sensors and Internet of Things (IoT) devices. The various data collected pose a risk

of capturing sensitive information including location data, personal preferences, behavioral patterns, health conditions, financial status and personal relations. AI systems use these deeply personal data to make predictions and automate decisions. This data is usually collected without the user's awareness, people usually don't realize what they give permission to. Concerns about data exclusivity revolve around big technology monopolization, intellectual property disputes and the unethical use of unconsented personal information or copyrights. Many individuals perceive that their personal data is being exploited or mishandled, eroding trust in AI systems and institutions deploying them.

AI systems profile users based on their data, leading to targeted advertisement, personalized content and automated decision-making processes. These profiles may reveal intimate details and connections which individuals may prefer to keep private. Many individuals state that they feel their decisions are being manipulated by AI systems.

The interconnectivity of AI systems often requires data sharing between multiple platforms and third-party services to enhance functionality. This increases the risk of unauthorized access, as data may be transferred across or stored by insecure channels. The potential for data misuse by third parties can result in identity theft, financial loss, and exposure of sensitive personal data. Persistent data retention means personal information remains accessible over extended periods, increasing the risk of misuse and unauthorized access.

To minimize data exclusivity risks, individuals must be careful giving consent for the usage of their personal data. Companies and institutions must take security precautions, encrypt data and comply with privacy policies. Also, legal regulations can be made regarding the matter. Ensuring data exclusivity is important for the secure development and integration of AI technologies.

9.2 Transparency and Objectivity of Artificial Intelligence

Transparency and objectivity of AI is significant to establish secure, equal and impartial AI adoption. It is a commonly discussed issue as many AI tools do not reach full transparency and objectivity.

AI transparency is the ability to understand how AI systems work, encompassing concepts such as AI explainability, governance and accountability. A transparent AI system is able to explain its methods to reach a decision, the source of the data it uses, and its limitations. This visibility into AI systems ideally is built into every facet of AI development and deployment,

from understanding the machine learning model and the data it is trained on, to understanding how data is categorized and the frequency of errors and biases, to the communications among developers, users, stakeholders and regulators. Transparency should include clear documentation of the data used, the model's behavior in different contexts and the potential biases that could affect outcomes. Transparency is essential to securing trust from users, regulators and those affected by algorithmic decision-making. AI transparency is about clearly explaining the reasoning behind the output, making the decision-making process accessible and comprehensible. The need for AI trust, auditability, compliance and explainability are some of the reasons transparency is an important discipline all AI systems must embrace. Without transparency, AI systems could perpetuate harmful biases, and make inscrutable decisions. The rise of generative AI models made AI transparency more important and has put pressure on companies and institutions that plan to use AI in their business operations to establish transparency.

The following are some important aspects of transparent AI:

- Explainability: is the ability to describe how the model's algorithm reached its decisions in a way that is comprehensible to non-experts.
- Interpretability: focuses on the model's inner workings, with the goal of understanding how its specific inputs led to the model's outputs.
- Data governance: provides insight into the quality and suitability of data used for training and inference in algorithmic decision-making.

An AI system must satisfy all three aspects to be considered fully transparent.

Transparency of AI systems also pose several risks such as hacking, governance and reliability. AI models that show how and why a decision was made could empower bad actors. Attackers could use this information to take advantage of weaknesses and hack into systems. Increased AI transparency can sometimes increase the risk of compromising personal information. Also transparent algorithms can be harder to design, it might be necessary to use less sophisticated algorithms. Efforts to increase AI transparency can sometimes generate different results each time they are performed which may reduce trust and hinder transparency efforts.

AI objectivity is the concept of AI making decisions or generating information without being affected by human bias, prejudice, or subjective approaches. Because AI models learn from massive datasets of human-generated text and history, true objectivity is difficult to achieve. Bias in AI is a significant discussion topic. At the core of many AI systems, particularly machine learning models, lies the data used for their training. When this data contains biases, the AI system can learn and propagate these biases in its algorithms. Historically, machine learning models have unintentionally perpetuated societal stereotypes and discrimination against specific groups based on gender, race, age, or other demographic factors. Such biases lead to flawed decision-making in real-world applications. An impersonal algorithm's biased decisions might affect one's opportunities. This is also a mental health treat for those who are already vulnerable due to systemic inequalities.

10. Questions to Be Addressed

- 1. What measures can be taken to integrate AI systems into healthcare without threatening patient security?*
- 2. How should the classification of “true art” and AI-generated art be done?*
- 3. What measures can be taken to minimize the negative effects of AI on unemployment rates?*

4. *What precautions must member states implement to stop the oppression of the working class under the capital?*
5. *What policies could help reduce job displacements and mental health issues resulting from AI anxiety?*
6. *How can developers make AI systems more transparent, objective and reliable? What roles should member states adopt in this regard?*

11. Bibliography

<https://www.ffa.org/technology/how-ai-can-impact-agriculture/>
<https://www.syngenta.com/agriculture/agricultural-technology/artificial-intelligence>
<https://www.sciencedirect.com/science/article/pii/S2666154323002831>
<https://www.ibm.com/think/topics/internet-of-things>

<https://www.frontiersin.org/journals/environmental-science/articles/10.3389/fenvs.2024.1375193/full>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7445351/>

<https://www.sciencedirect.com/science/article/abs/pii/S0160791X25000107>

<https://www.tandfonline.com/doi/full/10.1080/23738871.2025.2597192#abstract>

<https://www.techtarget.com/searchcio/tip/AI-transparency-What-is-it-and-why-do-we-need-it>

https://www.researchgate.net/profile/Jeff-Kim-13/publication/374092896_AI_Anxiety_A_Comprehensive_Analysis_of_Psychological_Factors_and_Interventions/links/67081345ffe5

<https://kenaninstitute.unc.edu/kenan-insight/artificial-intelligence-and-the-skills-gap/>

<https://insights.som.yale.edu/insights/the-real-job-destruction-from-ai-is-hitting-before-careers-can-start>

<https://www.oecd.org/en/topics/ai-and-work.html>

https://www.researchgate.net/profile/Uchechukwu-Ajuzieogu/publication/391523173_Skill_Depreciation_Rates_in_Labor_Markets_Following_AI_Adoption/links/681b8a87b

https://wjarr.com/sites/default/files/fulltext_pdf/WJARR-2023-1385.pdf

<https://thinkers50.com/blog/artificial-intelligence-making-rich-richer-poor-poorer/>

<https://www.cgdev.org/blog/three-reasons-why-ai-may-widen-global-inequality>

<https://cepr.org/voxeu/columns/ai-and-distribution-income-between-capital-and-labour>

<https://www.stlouisfed.org/on-the-economy/2025/aug/is-ai-contributing-unemployment-evidence-occupational-variation>

<https://www.goldmansachs.com/insights/articles/how-will-ai-affect-the-global-workforce>

<https://craigboehman.com/blog/in-defense-of-ai-art>

<https://courier.unesco.org/en/articles/artificial-intelligence-and-art-decisive-moment>

<https://montreal.ethics.ai/the-impact-of-ai-art-on-the-creative-industry/>

<https://mediaengagement.org/research/the-ethics-of-ai-art/>

<https://ep.jhu.edu/news/ai-in-healthcare-applications-and-impact/>

<https://piecode.pl/en/articles/healthcare-ai-gdpr-purpose-limitation>

https://health.ec.europa.eu/ehealth-digital-health-and-care/artificial-intelligence-healthcare_en

<https://pmc.ncbi.nlm.nih.gov/articles/PMC8285156/>

https://www.shopify.com/blog/what-is-ai?term=&adid=803763478796&campaignid=21270911697&utm_medium=cpc&utm_source=google&matchtype=&network=g&gad_source=1&gad_campaignid=21270911697&gclid=Cj0KCQjwlqTRBh

[CBARIsANrkrxgK1yeaKpay-taghN41M1vHI7QuyZ89tKoPBS_dvt4SZ2nCj1Bjn
GgaAtmlEALw_wcB
https://www.ibm.com/think/topics/artificial-intelligence](https://www.ibm.com/think/topics/artificial-intelligence)