

Economic and Social Council

Mitigating unemployment caused by digital transformation and AI



Forum	Economic and social council
Issue:	Mitigating unemployment caused by digital transformation and AI
Student Officer:	Johan Häusler
Position:	President

Introduction

The rapid advancement of digital technologies and artificial intelligence (AI) is transforming industries and economies worldwide. While these innovations drive efficiency, productivity, and new business opportunities, they also pose significant challenges, particularly regarding employment. The automation of routine tasks and the emergence of AI-driven solutions can lead to job displacement, raising concerns about unemployment and economic inequality. This research report explores the impact of digital transformation and AI on employment, evaluates previous attempts to address the resulting unemployment, and proposes possible solutions to mitigate these challenges.

Definition of Key Terms

Digital Transformation

The integration of digital technology into all areas of a business, fundamentally changing how businesses operate and deliver value to customers. It often involves a cultural change that requires organizations to continually challenge the status quo, experiment, and get comfortable with failure.

Artificial Intelligence (AI)

The simulation of human intelligence processes by machines, especially computer systems. These processes include learning (the acquisition of information and rules for using the information), reasoning (using rules to reach approximate or definite conclusions), and self-correction.

Automation

The use of technology to perform tasks that were previously done by humans. This can range from simple mechanical processes to complex AI-driven operations.



Unemployment

The situation where individuals who are capable and willing to work are unable to find employment. This can be caused by various factors, including economic downturns, technological changes, and shifts in consumer demand.

Reskilling

Training individuals in new skills so they can perform a different job or adapt to new technologies and methods within their current role.

General Overview

The advent of digital transformation and AI has ushered in a new era of economic development, characterized by unprecedented levels of automation and innovation. These technological advancements promise significant economic benefits, including increased productivity, lower operational costs, and the creation of new markets and industries. However, they also present substantial challenges, particularly concerning employment.

AI and automation technologies are capable of performing a wide range of tasks that were traditionally done by humans, from simple repetitive tasks to complex decision-making processes. This can lead to job displacement, especially in sectors that are highly susceptible to automation, such as manufacturing, retail, and transportation. While new jobs are being created in tech-driven fields, there is often a mismatch between the skills required for these new roles and the skills possessed by the displaced workers.

Major Parties Involved

United States

As a leading economy with a significant tech industry, the U.S. is deeply affected by digital transformation and AI. The federal and state governments, along with private sector initiatives, play a critical role in addressing unemployment caused by these changes. Federal agencies like the



Department of Labour are working on reskilling initiatives, while states like California and New York are investing in tech education and worker retraining initiatives.

European Union

The EU has been proactive in formulating policies to manage the impact of digital transformation on employment. Various member states and EU-wide bodies are involved in creating strategies for workforce adaptation. Initiatives such as the European Skills Agenda aim to equip workers with the necessary skills to compete in the digital age.

China

As a major global tech hub, China is rapidly advancing in AI and automation. The Chinese government has implemented several initiatives to mitigate the impact on employment. Programs like the Made in China 2025 initiative aim to improve the country's manufacturing sector while providing training programs to transition workers into roles in a new more digital economy.

International Labour Organization (ILO)

A UN agency that brings together governments, employers, and workers of 187 member states to set labor standards, develop policies, and devise programs promoting decent work for all.

Timeline of Key Events

Date	Description of event
2011	IBM's Watson won Jeopardy, demonstrating AI's potential to perform complex tasks previously thought to require human intelligence.
2014	Amazon introduced the first commercial delivery drone, highlighting the potential for automation in logistics and delivery services.
2016	The World Economic Forum published "The Future of Jobs" report, predicting significant job displacement due to AI and automation.
2017	McKinsey Global Institute released a report estimating that up to 800 million jobs could be lost to automation by 2030.
2018	The European Union introduces the Digital Europe Programme to enhance digital skills and infrastructure across member states.



2019	The U.S. government launches the American AI Initiative to promote AI research and workforce development.
2020	COVID-19 pandemic accelerates digital transformation, with remote work and automation becoming more prevalent.
2021	China unveils its five-year plan, emphasizing AI development and the need for workforce reskilling.
2023	The International Labour Organization publishes guidelines for managing the transition to automation, emphasizing social protection and job creation.

UN involvement, Relevant Resolutions, Treaties and Events

- Seizing the opportunities of safe, secure and trustworthy artificial intelligence systems for sustainable development, 11 March 2024 (A/78/L.49)

Previous Attempts to solve the Issue

United States

American AI Initiative (2019): This initiative focused on investing in AI research, increasing access to AI resources, and promoting workforce development. While it highlighted the importance of AI, critics argue that it lacked sufficient funding and comprehensive strategies to address job displacement.

Workforce Innovation and Opportunity Act (WIOA): Aimed at improving job training and employment services, WIOA has had mixed success. While it provides valuable resources for reskilling, it often falls short in addressing the specific needs of workers displaced by digital transformation.



European Union

Digital Europe Programme (2018): This program seeks to strengthen digital skills and infrastructure across the EU. It has been praised for its comprehensive approach but has faced challenges in implementation and coordination among member states.

European Social Fund (ESF): The ESF has been instrumental in funding reskilling and upskilling programs. However, its impact is often limited by bureaucratic inefficiencies and varying levels of commitment from member states.

China

Made in China 2025: This strategic plan aims to enhance China's manufacturing capabilities through advanced technologies, including AI. The plan includes provisions for workforce training, but the scale of displacement has made it difficult to keep pace with reskilling needs.

AI Development Plan (2017): China's AI strategy emphasizes the importance of education and training. Despite significant investments, the rapid pace of automation has led to gaps in workforce readiness.

International Labour Organization (ILO)

Future of Work Initiative: The ILO has been actively promoting policies and frameworks to manage the transition to a digital economy. Their guidelines emphasize social protection, job creation, and reskilling. However, implementation varies significantly across countries, limiting its overall effectiveness.



Possible Solutions

Comprehensive Reskilling Programs

Governments and private sector organizations should invest heavily in comprehensive reskilling programs. These programs should focus on equipping workers with the skills needed for emerging jobs in the digital economy. Key elements include:

Targeted Training: Developing specific training programs that align with the needs of the labor market.

Public-Private Partnerships: Collaborating with tech companies to provide up-to-date training and resources.

Lifelong Learning: Encouraging a culture of continuous learning to help workers adapt to changing job requirements.

Social Protection Measures

Strengthening social protection measures can help mitigate the negative impacts of unemployment caused by digital transformation. Key elements include:

Unemployment Benefits: Expanding and enhancing unemployment benefits to provide a safety net for displaced workers.

Universal Basic Income (UBI): Considering the implementation of UBI to ensure a basic level of income security for all citizens.

Healthcare and Pensions: Ensuring access to healthcare and pension benefits regardless of employment status.

Promotion of New Job Creation

Encouraging the creation of new jobs in emerging industries can offset job losses due to automation. Key elements include:



Innovation Hubs: Establishing innovation hubs and incubators to support startups and new business ventures.

Incentives for Green Jobs: Promoting jobs in the renewable energy sector and other sustainable industries.

Support for SMEs: Providing financial and regulatory support for small and medium-sized enterprises (SMEs) to stimulate job creation.

Policy and Regulatory Frameworks

Developing robust policy and regulatory frameworks can help manage the transition to a digital economy. Key elements include:

Labor Market Regulations: Updating labor laws to protect gig and freelance workers who are increasingly prevalent in the digital economy.

Data Privacy and Security: Implementing strong data protection regulations to build trust and ensure the ethical use of AI.

AI Governance: Establishing guidelines and oversight mechanisms to ensure the responsible development and deployment of AI technologies.

Educational System Reforms

Reforming the educational system to better prepare future generations for the digital economy is crucial. Key elements include:

STEM Education: Emphasizing science, technology, engineering, and mathematics (STEM) education from an early age.

Digital Literacy: Integrating digital literacy and computational thinking into the curriculum.

Collaboration with Industry: Partnering with industries to ensure that educational programs are aligned with current and future job market needs.

International Cooperation

Promoting international cooperation can enhance the effectiveness of strategies to address unemployment caused by digital transformation. Key elements include



Global Standards: Developing global standards for AI and automation to ensure consistency and fairness.

Cross-Border Collaboration: Sharing best practices and resources across countries to tackle common challenges.

Support for Developing Countries: Providing support to developing countries to help them manage the transition and avoid widening economic disparities

Bibliography

Felipe, Loey. "General Assembly adopts landmark resolution on artificial intelligence." UN News, 21 March 2024, <https://news.un.org/en/story/2024/03/1147831>. Accessed 25 June 2024.

Georgieva, Kristalina. "AI Will Transform the Global Economy. Let's Make Sure It Benefits Humanity." International Monetary Fund (IMF), 14 January 2024, <https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>. Accessed 25 June 2024.

Talmage, Mark. "How Will Artificial Intelligence Affect Jobs 2024-2030." Nexford University, 9 January 2024, <https://www.nexford.edu/insights/how-will-ai-affect-jobs>. Accessed 25 June 2024.

