Forum: ECOSOC.

Issue: Addressing economic inequalities resulting from AI automation in global labour markets.

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Introduction

Throughout recent years, Artificial Intelligence (AI) has made significant advancements. These have drastically changed our world in numerous ways, and are projected to keep doing so. AI has been adopted rapidly in a variety of industries such as education, marketing, manufacturing, logistics, consumer service, and more. It's a tool that enables greater efficiency, and greater work capacities. AI has also been made available for public use by large companies such as Google, OpenAI and Anthropic, hence its world-wide recognition is indisputable.

However, this technological shift has exacerbated economic inequalities, disproportionately impacting low-skilled workers, marginalized communities, and developing nations. While AI has the potential to increase productivity and innovation, Its adoption in manufacturing industries has significantly impacted income distribution and job security. The benefits of AI-enabled processes such as automation in, for example, car manufacturing have been enjoyed by Multinational Corporations (MNCs) and not by the workers. According to a World Economic Forum report, AI automation is projected to disrupt more than 1.2 billion jobs worldwide by 2030. The upcoming challenges are most severe for industries that are heavily reliant on repetitive tasks such as manufacturing, retail, and logistics. Workers in these sectors are at risk of displacement as companies adopt AI-driven systems to cut costs and improve efficiency.

However, the adoption of AI is not without benefits. By reducing costs and enhancing efficiency, AI enables companies to allocate resources more effectively, which can create new opportunities in emerging industries. An example of this is Tesla, which has leveraged AI to develop self-driving cars. This has created new job opportunities in AI software engineering, sensor technology development, and safety control. Though AI could further greaten economic regional disparities. Highly developed nations have access to advanced

technologies and infrastructure to reap all the benefits of AI. While lesser developed countries are struggling to keep up. Silicon Valley in the United States for example, has become an AI powerhouse, but similar advancements have not reached economically disadvantaged areas or LEDCs.

Definition of Key Terms

Economic Inequalities

Economic Inequality is the unequal distribution of income, wealth, and resources among individuals or groups within a society or across the globe.

Artificial Intelligence (AI)

Artificial Intelligence is a field of computer science focused on creating systems, algorithms and machines capable of performing tasks that typically require human intelligence.

AI Automation

AI automation is using "AI techniques like machine learning algorithms, natural language processing (NLP)" to process and learn from data, which permits the automation of repetitive tasks through intelligent decision-making, that humans usually perform.

Labour Markets

A labor market, also commonly referred to as the job market, is the supply of people in a particular country or area who are able and willing to work.

Machine Learning

Machine learning is a branch of AI, it is predominantly focused on instructing computers/machines to learn from data and information and improve with experience to provide better outputs, which is a better alternative to being directly programmed to do so.

Large Language Models (LLM)

LLMs are types of artificial intelligence designed for natural language processing tasks, made to recognize and generate text, along with other tasks.

Background Information

Introduction

AI automation is the use of artificially intelligent technologies to perform tasks that usually require human intervention. These tasks can be found in a variety of industries like education, construction, healthcare, finance, marketing, manufacturing, logistics and consumer service. This has helped businesses to lower operational costs while increasing productivity, efficiency, and offer new services; however, its adoption has also generated concerns regarding economic inequalities, particularly in labor markets.

Economic inequality is the unequal; distribution of income, wealth and opportunities, and what AI has done, is that it has made this inequality larger, as those with access to advanced technology and the necessary skills can take advantage of AI and utilize it for their own benefit, while low-skilled workers are losing their jobs and their income is being reduced.

Historical Context

Automation by itself, or the replacement of human labor with machinery or technology is nothing new. Historical events in the past such as the Industrial Revolution in the 18th and 19th century, show us the economic and social consequences of automation; skilled artisans where replaced with mechanized textile production, hugely increasing productivity while at the same time, socially resulting in the Luddite movement, which was a movement of English textile workers who were against the use of certain types of automated machinery, and was responsible for organizing raids and destroying these machines, who's to say the same thing won't happen with AI?

In the mid-20th century, computers arrived, which led to another wave of automation. Things that once required human calculation and processing started to be done by machines, this transformation created new industries and employment opportunities, however, it also marginalized workers in industries that were unable to adapt.

While earlier technologies may have replaced humans with machines for more “mundane” or repetitive tasks, AI replaces them in many complex cognitive tasks such as data analysis, natural language processing, and decision making. This completely increases the impact of automation, but also amplifies the potential disruption in labor markets.

Current Trends

AI automations is already on their way to transforming global labor markets, according to a report by the International Monetary Fund, 40% of jobs worldwide are at risk of being significantly altered or entirely displaced by AI automation. Low and middle income countries such as Cambodia, Indonesia, the Philippines, Thailand, and Vietnam, which are dependent on labor intensive industries such as manufacturing and agriculture, are especially at risk. For example, garment factory workers in these countries are increasingly facing competition from AI-powered machines that can sew and assemble garments more efficiently.

On the other hand, high-income countries are moving toward the knowledge-based economy in which artificial intelligence aids human work rather than substituting it. This shift is causing an uneven distribution of benefits to the highly skilled workers. The wage gap that has emerged between high-skilled and low-skilled workers is leading to more income inequality both within and between nations.

The impact of AI automation also varies significantly across industries. Manufacturing, retail and logistics are among the worst affected because of the repetitive nature of tasks in these industries, which can be very easily automated. In the field of logistics, companies like Amazon and FedEx are deploying AI-driven robots to perform tasks such as sorting packages to delivery, which has reduced the demand for human workers.

Likewise to industries, the impact of AI automation also varies geographically. Regions that are more technologically advanced like North America, Western Europe, and East Asia are better positioned to exploit the advantages of AI. While developing regions such as

Sub-Saharan Africa, and parts of South Asia, are less prone to these advantages and face job displacement.

International Efforts

The UN has already recognized the impact of AI automation and the way it can stress the potential economic gap it can create, enlarging economic inequalities. The Economic and Social Council (ECOSOC) has already made statements of this, focusing on leveraging AI as one of the technologies that has the capacity to help foster sustainable development, while mitigating its negative effects.

The International Labour Organization (ILO) has placed strong emphasis on addressing the labor market implications of AI automation. In fact, the ILOs Global Commission on the Future of Work has put into place policies that provide a fairer transition to workers that have lost their jobs due to automation. These include job programs, social programs, and workplace protection.

Likewise, the Organization for Economic Co-operation and Development (OECD) has encouraged the integration of AI-focused technology within organizations. In their policy statements, they state that fundamental principles like accountability, transparency, and fairness must be maintained during AI applications. Same goes for encouraging AI literacy, and equitable access to AI technologies.

Countries and Organizations Involved

United States

The United States is one of the global leaders in AI development and deployment. Companies in the US that include Microsoft, OpenAI, Amazon, and Google are the ones that advance AI technology for greater productivity. There are, however challenges associated with these developments; low-skilled workers in the retail, transport, or manufacturing sector are most likely to lose their jobs as AI starts taking over repetitive work. Still, the United States has addressed these inequalities by investing in workforce reskilling programs and implementing policies under the National AI Initiative Act to promote equity in advancing AI development.

China

China is one of the global leaders in AI innovation in terms of innovation as well as production, especially considering the “Made in China 2025” strategy. They have taken up the challenge of transforming many sectors such as manufacturing, logistics, and urbanization. However, the rural areas do not have access to these technologically driven advancements and training opportunities, and while AI has increased the level of output, it has increased inequalities between rural and urban areas. Furthermore, China has been the top producer in robotic and AI-based programs such as facial recognition software.

India

India is among the nations that seem to be more at risk when AI automation becomes a reality due to the huge uneducated and semi-educated workforce. As AI technology continues to evolve, industries such as customer service, textiles, and manufacturing are likely to take a big hit regarding employment. As a measure, Skill India and similar other programs have been launched to resolve these challenges, aimed at reskilling and upskilling the workforce. However, the digital disparity between urban and rural areas slows down the process.

Germany

Germany, considered to be a leader of industrialization, has revolutionized the old style manufacturing to modern automated intelligent factories with the advent of AI, following Germany's Industry 4.0 program. Undoubtedly, these advancements have created opportunities that require higher skills, but they have also rendered low-skilled workers redundant. Germany has tried to address their inequalities through improvement in vocational training and educational programs aimed at ensuring its workforce is ready for an economy where AI plays a major role in production and labour.

Japan

With Japan's "Society 5.0" program, they have focused on addressing their aging population, labor shortages, and creating a society which finds balance between economic advancement and societal problems that come with AI and other automation technologies. They are also implementing STEM and digital literacy in education, and encouraging reskilling and upskilling of the current workforce. Furthermore, they have supported the development of new industries in order to create more jobs.

WEF

The World Economic Forum plays an important role with the global policies pertaining to AI and the aspect of work. It hosts the annual gathering in Davos and invites world leaders for a meeting intending to understand AI's impact on work in the future. WEF also carries out research and offers publications that deal with the topic of artificial intelligence that has a direct effect on industries, hence, also on the job market. In addition, the organization also creates projects intended for reskilling and upskilling programs of workers in connection with AI-driven changes in the workplace.

Timeline of Events

1956 The Dartmouth conference	The Dartmouth conference was where the term “Artificial Intelligence” was coined, and began to be a field of study.
1961 Unimate	Unimate was the first industrial robot, which worked at the General Motors factory, it was the first to replace human labour in repetitive manufacturing tasks.
1990s Automation in the Automotive Industry	Around the 1990s, most factories in the automotive industry had automation robots which replaced human labor. These automation robots were things such as robotic arms, used for tasks such as welding, painting, and assembly, which led to major job losses among manual laborers in companies such as Ford and Toyota.
2008 Great Recession	The great recession and the global financial crisis forced many companies to cut costs, hence, automated systems were put into place in industries such as Finance, Retail, and Customer Service. Things like ATMs and self-checkout kiosks became more widespread, which led to the loss of middle-skilled positions such as bank tellers and cashiers.

2010 Rise of E-Commerce	When companies like Amazon began to expand, they also began to rely on automated tasks in warehouses, in fact, they introduced Kiva robots, which ended up displacing thousands of warehouse workers.
2013 Oxford Study Predicts Automation leading to job losses	A study from Oxford University on behalf of Carl Benedikt Frey and Michael Osborne predicted that 47% of jobs in the United States were at risk of automation due to AI advancements.
2015 China Robot Revolution	In 2015, a robot revolution swept China's factories, and China became the largest market for industrial robots. These robots were used in manufacturing sectors like electronics and assembly, which led to millions of workers losing their jobs in factories where repetitive tasks could be easily automated.
2020 Covid-19 Automation	Throughout the Covid-19 pandemic, the implementation of automation services was accelerated to reduce the risks of contamination, with robots and AI taking over tasks in food services and logistics. Human workers were replaced in order to maintain social distance and reduce the spread of the virus which disproportionately affected low-skilled workers.
2030 Future Projections	A McKinsey & Company study estimated that between 400 to 800 million individuals could be displaced by automation.

Relevant UN Treaties and Resolutions

General Assembly Resolution "Seizing the opportunities of safe, secure and trustworthy artificial intelligence systems for sustainable development" 11 March 2024

This resolution was adopted on the 11th of March 2024, and it is focused on taking advantage of the benefits of AI while ensuring its risks are addressed, it does this through ways such as encouraging cooperation to mitigate the negative impact on labor markets, especially in developing countries. What this resolution is ultimately doing, is addressing the fact that AI is a tool that comes with numerous benefits, however, it has to be used in a way that respects human rights and that promotes its equity, while also addressing the potential for job displacement.

ILO Centenary Declaration for the Future of Work

The ILOs Centenary Declaration for the Future of Work is a human-centered approach on the development of new technologies such as AI, and how they should be implemented in a way that promotes job opportunity rather than displacement. It also declares the need for policies that promote social protection, skills development and inclusive labor markets to prevent widening inequalities as automation progresses.

UNESCO Recommendation on the Ethics of Artificial Intelligence

The UNESCO recommendation outlines ethical policies for the development of AI technologies and how they should be implemented in a way that doesn't widen pre-existing disparities or discrimination, focusing on their impact in labour markets. It also encourages member states to provide education on the ethical aspects of AI, and to promote fair access to it.

Report of the Secretary-General Roadmap for Digital Cooperation

This roadmap outlines strategies for enhancing international cooperation in digital technologies including AI so that it doesn't increase current disparities that may worsen economic inequalities, and calls for collaborative efforts on ensuring equal access to digital resources; it further emphasizes the need for policies that protect vulnerable populations from the side effects of these technological advancements.

Previous Attempts to solve the issue

Trade Adjusted Assistance

Trade adjusted assistance (TAA) is a program by the US Department of Labor, and although it does not address job displacement specifically due to AI automation, it addresses job displacement due to trade related job losses by providing financial aid, training opportunities and other forms of assistance.

Canada's Employment Insurance Program

Canada's Employment Insurance Program is a program aimed to help those who have lost their jobs due to technological advancements, which includes AI automation; this program is key for workers who are transitioning between jobs, as they face displacement due to technological advancements like automation.

European Globalization Adjustment Fund for Displaced Workers (EGF)

The European Union established the European Globalization Adjustment Fund to express solidarity to the workers that have lost their jobs. This is also provided to those who have been displaced for many reasons, including automation, but also Covid-19, transition to a low-carbon economy, or any other reason.

Universal Basic Income

Universal basic income is a government program where every adult citizen receives a set amount of money, its purpose is to reduce poverty, and it's also useful for workers who have lost their jobs due to automation. While not every country has implemented this, it's a potential solution that can provide security to workers at risk of displacement from automation.

Possible Solutions

Global AI Induced Labor Opportunities Exchange Platform

AI automation is getting rid of many jobs, however, it is also creating many new job opportunities. By creating an exchange platform that connects displaced workers to these new job opportunities, we can offer a safety net to vulnerable low and middle skill worker populations. These jobs being provided are also likely to require some degree of education, which can be provided prior to receiving the job.

Upskilling and Reskilling Facilities

UN Funded facilities around multiple different countries in the world, which provide education for all those displaced by AI Automation, as well as financial support for them and their family members for some time. The education programs taught in these facilities aim to teach financial literacy, digital literacy, STEM, and the skills required to find a job in current and upcoming industries.

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