

Forum: Economic and Social Council(ECOSOC)

Issue: Artificial Intelligence's impact on the future of work

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Introduction:

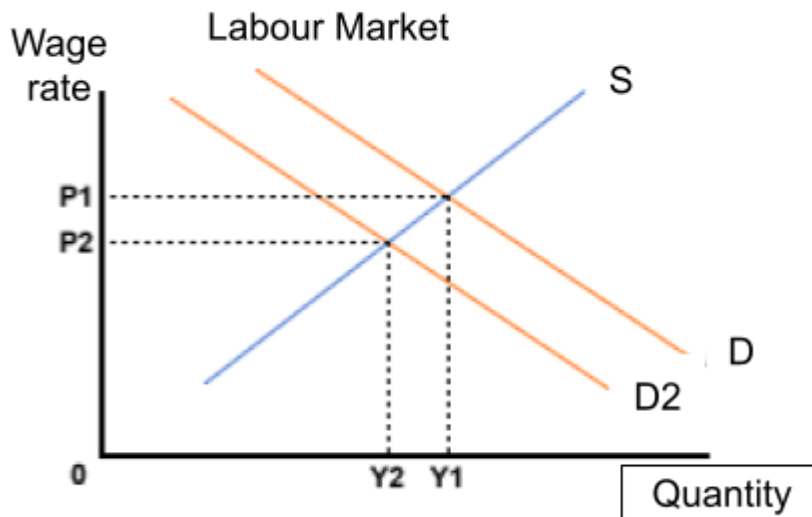
AI is experiencing rapid change at an unprecedented rate. Around 70% of companies may adopt at least one type of AI technology by 2030, but less than half will fully absorb all AI categories. Companies, with the help of AI, will be able to become much more effective as using AI reduces the probability of errors occurring to almost zero. This will save them a large amount of money which is usually the cost of human error, which will render these firms more productive.

The labour market is affected by a range of different factors. These include overall economic conditions, technological advancements, the level of education and skills possessed by the workforce, the composition of the population, such as age structure and population growth, social and cultural factors such as gender norms, globalisation and trade and government policies. The implementation of AI is going to greatly impact the demand for labour. The change brought to the unskilled labour market can be depicted using a simple supply and demand graph.

With AI predicted to replace a large number of jobsThe impact of AI largely falls under the category of technological advances, such as the automation of repetitive tasks that have significantly reduced the cost of production and increased the overall output of producers.

Job displacement is predicted to rise sharply with the implementation of AI technologies by various large corporations, such as Google, Amazon and Apple. Production automation has made the process of cost-cutting easier for companies as they continue to get rid of human labour and replace it with machinery and other forms of automation which is powered by AI. The chances of AI making mistakes are close to 0, which helps companies reduce the effects of human error which is quite

common in production. This reduces the additional costs that companies have to bear due to human error, and helps them become more productive, eventually yielding more profits.



Demand for labour would decrease due to large corporations replacing jobs with AI systems and programmes. This would cause the demand curve to shift towards the left, from D to D2. This would increase unemployment as there would be more people without jobs.

It can also be seen that the average wage rate would drop from P1 to P2. This shows that the implementation of AI systems would not only cause mass unemployment but will also cause many people to receive low salaries.

The replacement of human labour with systems powered by artificial intelligence could result in the mass restructuring of economies around the world. Some industries may even disappear altogether due to the fact that AI has made it much simpler to perform repetitive tasks that are usually performed by unskilled labourers.

Definition of Key Terms: W

1. Job Displacement:

Job displacement refers to involuntary job loss and not mutual or employee-instituted termination.

2. Structural Unemployment

A type of unemployment resulting from industrial reorganization, typically due to technological change, rather than fluctuations in supply or demand.

3. Labour Market

A labour market is a place where workers and employees interact with each other where labour is rewarded in the means of wages or salaries. In the labour market, employers look to hire the best suited worker, and the workers compete for the best satisfying job.

4. Job Automation

Using systems to perform predictable and repetitive tasks without direct human input.

5. Fourth Industrial Revolution

The current era of connectivity, advanced analytics, automation, and advanced manufacturing technology that has been transforming global business for years

Background Information

AI vs automation

In contrast to AI, automation has been around since the late 19th century, automation was the very start to machines carrying out human labour increasing efficiency of labour. However, automation can only carry out routine tasks or repetitive tasks that require a specific set of instructions and therefore is not categorized as artificial intelligence as it is only able to perform simple or menial tasks whereas AI can use the data given to it to make decisions as well as predictions. With AI in the workplace, an idea of smart manufacturing comes into place. This is an upgrade in the production process where companies are now able to forecast levels of demand, optimize logistics and transportation routes by coordinating suppliers and distributors. This creates a more efficient and resilient supply chain as well as help minimize risk allowing companies to operate better and capitalize on future opportunities.

Turing test

The invention of AI started in the 1950s, when computer scientist Alon Turing proposed a test for machine intelligence. He published a paper in 1950 called Computing Machinery and Intelligence where he discussed how to build intelligent machines and how to test it,

Unimate, the first industrial robot

In 1954, American engineer George Devol invented Unimate, the world's first industrial robot. It was used by [General Motors](#) to carry out metalworking and welding processes on the General Motors assembly line. The main purpose of this machine was to perform metal work and welding, which helped General Motors cut down on their production costs due to the lack of the need for human labour for such work.

The First AI Winter

Between 1970 and 1980, interest in the development and implementation of AI started was at its lowest, due to funding being cut drastically and a lack of computing power. This period was known as the First AI Winter. The term AI winter directly references a nuclear winter and suggests a period of chaos, similar to the events that would usually take place after a nuclear attack when no one can live in a certain area due to high radiation. It was a chaotic period for AI research with little interest and funding.

The implementation of neural networks into artificial intelligence.

Neural networks are a subset of machine learning and are at the heart of deep learning algorithms. Artificial neural networks are aimed at recreating the human brain and the way biological neurons send neural signals to one another helps AI learn from information and understand it in a deeper way, just like a human.

Current Situation

Another Industrial Revolution?

Creation of New Industries and Business Models

While AI will cause a large number of jobs to cease to exist, the right implementation of AI technology will create new industries and business models that

will in turn create more jobs. A study launched by consulting company Accenture covering 12 developed economies, forecasts that by 2035, AI could double annual global economic growth rates. It will lead to a strong increase in labour productivity enabling more efficient workforce-related time management.

As this new phase, also known as the Fourth Industrial Revolution(4IR), starts materialising, an increasing number of repetitive jobs usually performed by unskilled labourers will be necessary. However, these jobs can be replaced in large numbers through the creation of new industries with the help of AI.

Decreasing number of opportunities for unskilled labourers

The main aim of using AI is to cut production costs for big companies, which can be easily be done with the replacement of repetitive tasks with AI-powered machinery. Although a large number of jobs will be created to use and maintain these systems, working these jobs will require high skill and education levels. This shift in the economy will cause structural unemployment as many will not have the skill or education to perform such tasks. As the world moves further 4IR, the number of jobs involving unskilled labour will continue to decrease as AI become more capable of more complicated tasks.

Jobs opportunities will also be created, however, the unskilled labourers who previously lost jobs may not have the required skills to take up these new ones. This revolves around the concept of structural unemployment, as unemployment will continue to increase despite the fact that jobs will be created as a result of the implementation of AI systems.

Increased adoption of AI by industries

Retail

AI has boosted retail phenomenally, with an estimated 3 billion in additional revenue being generated by AI in retail within three years of it being introduced into the industry. AI helps retailers provide personalised shopping experiences to customers to captivate them and create exciting experiences, which would set them apart from other market leaders. This has also replaced many jobs such as that of a cashier or a salesperson. In this case, a company would not need a salesperson as costumers would be given product recommendations and guidance regarding their purchases through suggestions generated by AI algorithms.

Transportation

The adoption of AI into transportation will make travelling significantly safer due to the accuracy and the tiny margin-for-error that AI has. Autonomous vehicles are an area where AI has had the most impact although there are still many concerns around the technology and its ability to safeguard passengers from harm. AI is also being used for traffic management, predict delays within the aviation industry and manage large fleets of vehicles. Autonomous vehicles will cause mass lay-offs in the this sector, as the jobs of thousands of drivers will quickly be replaced by autonomous vehicles, which would save transport companies a lot of money in wages.

Entertainment

Content creation is one of the biggest ways that AI is being implemented in the entertainment industry. AI can be used to predict what audiences will enjoy, and it has the capability to use this information to produce scripts that will be tailored to specific audiences. Game design has also greatly benefited from the use of AI, with various algorithms being used to control non-player characters(NPCs) to make them more realistic and difficult to defeat.

Ethical Considerations

Many different perspectives have to be taken into account when deciding whether an AI program is ethical or not. AI programs are trained by developers, and the decisions they make can be driven by the subconscious biases that developers may have.

Some people believe that AI systems do not have the emotional intelligence that humans possess and therefore, cannot be implemented in areas such as judiciary systems as the decisions they make may not take into account the human side of court cases. Others believe that AI systems would be great in the judiciary system, as they would make decisions based solely on facts and not driven by any other factors, which they deem is the most fair.

It is also a given fact that AI-systems deliver biased results. Search engine technology is not neutral as it processes large amounts of data and prioritises the results that have the most clicks, relying on both user preferences and location. An echo chamber can be created as a result of this system further encouraging stereotypes that plague our world and act as a threat to already marginalised groups as it doesn't have the potential to fairly judge everything that it processes and uses as an information source. For example, when a person

searches up for the best product in a certain product category, the results AI provides may be based on what it's trained to believe is the best. This can be driven by the ideals that its developers had when developing it, which would affect the way other people think as well.

Major Parties Involved and Their Views

International Labour Organisation(ILO)

The International Labour Organisation is a UN agency to advocate social and economic justice by settling international labour standards. It believes that the world should focus on how institutions and legal frameworks around the world are affecting the way these tools are adopted, which can change the impact that these tools have on work and on workers.

The United States of America

The US is making significant progress in developing domestic AI regulation. The United States government has already produced the Blueprint for an AI Bill of Rights, and it already has some laws in place such as scrutiny by the Federal Trade Commission. President Joe Biden has also signed an executive order directing federal agencies to root out bias in artificial technologies used by the federal government and combat algorithmic discrimination and the administration announced \$140 million to launch new AI research institutes. Because of its robust innovation environment, America has long been the world leader in this new era of AI and is confident it will continue to remain so in the future. At the NSCAI global technology summit, Washington DC, Antony.J.Blinken, the US secretary of state remarked that, *"A global technology revolution is now underway. The world's leading powers are racing to develop and deploy new technologies like artificial intelligence and quantum computing that could shape everything about our lives – from where we get energy, to how we do our jobs, to how wars are fought. We want America to maintain our scientific and technological edge, because it's critical to us thriving in the 21st century economy."*

China

The Chinese government has produced a series of policies to govern AI within the country. The Cyberspace Administration of China(CAC) has released a draft set of 30 rules

for regulating internet recommendation algorithms. They also have a track record for using AI for surveillance, and many say that the Chinese government will in fact use AI technology to provide increased surveillance over the Chinese population.

European Union(EU)

The EU plans to put requirements on high-risk AI in socioeconomic processes and government use of AI. It is encouraging that AI be adopted through methods that increase the productivity of and support workers. Although certain jobs are expected to be lost, others can be transformed with the help of AI to produce more output, and this does not necessarily require the complete replacement of workers with AI.

OECD

The organization for economic cooperation and development works with governments, citizens and policy makers to help find a solution to economical challenges as well as helps with the implementation of better policies to tackle these issues. The OECD promote the innovation of AI, recognising its significance in responding to key global challenges by contributing to the wellbeing of society and positive global economical activity. The OECD encourages stakeholders to help foster AI in society that is trustworthy and build up AI into a competitive asset in the global marketplace.

India

India is becoming a bustling hub for AI, establishing itself as an AI innovation powerhouse. Its market for AI is valued at 6.4 billion dollars. In 2020, Prime minister Narendra Modi highlighted India's interest in becoming a global leader for responsible and safe AI, "for social empowerment and inclusion". Many entrepreneurs across industries in India have started to successfully employ AI technologies in their start ups, a few examples include: [Niramai](#), [CropIn](#), [Aquaconnect](#) and [Gnani](#). As a founding member of [The Global Partnership on Artificial intelligence](#), India looks to collaborate with member states to develop a framework on the responsible adoption of AI technologies ensuring that there are adequate guidelines to prevent misuse of AI and the harm of society members.

UN Involvement, Relevant Resolutions, Treaties and Events

The United Nations has taken certain measures to address this issue. This includes actions taken by relevant agencies such as the ILO and resolutions being passed.

The ILO came up with the Future of Work Initiative in 2015. It was a four-year plan to address the issue regarding the future of work by publishing in-depth studies about topics ranging from explorations of artificial intelligence and the platform economy to lifelong learning and universal social protection.

The UNCTAD publishes annual reports where it discusses countries' preparedness for frontier technologies. The report published in 2023 discusses the market size of 17 green frontier technologies, such as artificial intelligence, the Internet of Things and electric vehicles, and their potential to create jobs. AI's impact on jobs has also been discussed throughout the report, alongside the effects that other technologies can have on jobs

Since this is quite a new issue, many UN resolutions with direct with the purpose to address this issue have not been published. However, there are a few resolutions that discuss the issue but do not go in depth into it.

- The Impact of Rapid Technological Change on Sustainable Development, December 2018 (**A/RES/73/27**)
 - This issue has not directly discussed AI however, it recognises the transformative impact that technology can have on society. It also talks about inclusivity is key to sustainability in the digital era.
- Science, Technology, and Innovation for Development, December 2019 (**A/RES/74/28**)
 - Although this resolution has specifically mentioned AI, it talks about the importance of technology and innovation in the process of job creation, which can be extremely helpful when discussing the affect AI will have on the labour market.

The UNESCO, the United Nations Educational, Scientific and Cultural organization's human sciences centre leads an international effort to ensure the development of science and technology follow ethical regulations and don't threaten the goodwill of society. Recognising the ethical ramifications of AI, the organisation submitted the first ever global standard on AI ethics;

- 'Recommendation on the Ethics of Artificial Intelligence' (hereafter "the Recommendation"), November 2021, (**SHS/BIO/REC-AIETHICS/2021**)

Possible Solutions

Government subsidised retraining programs can be a great way to address this issue. Unskilled workers are replaced by AI at the greatest, and therefore it is harder for them to find other jobs that require higher skill and education levels. Retraining programs can provide these workers with the necessary skills to find other jobs which have not already been automated and taken over by AI or other forms of technology.

Providing career counselling and job placement services can be extremely helpful to unskilled workers who do not know where to go next after being replaced. With the right guidance and support, they will be able to transition from doing unskilled jobs to jobs which involve slightly more skill, which can protect them from being replaced by AI.

Wage insurance can help workers find new jobs with lower pay by compensating them for a portion of the difference between their previous and current wages for a limited time. This will help give them the confidence to find new jobs, knowing that even if they are paid less, they will still receive the same amount they would have received from the previous company they were working for.

Regulating AI is also a great way to combat the issue. With strict regulations put into place, the use of AI can be controlled and kept within certain limits. This will help protect jobs and also ensure that the use of AI does not go further than it should.

AI can also be used to combat cyber attacks. Personal AI guardians can help protect individuals from cyber threats, and spot weak points in a cyber spaces that humans may not have been able to find.

AI can and should also be used to counter a very relevant issue. Deepfakes. AI has the potential to analyse many different sets of data at once, which will help social media moderators keep misinformation in check and provide its users with factual information.

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