



The Advancement of Technology and its Impact on the Workforce
Agneya Rai Gupta

In this paper, there will be an explanation of the advantages, disadvantages, and potential scenarios that can take place as a result of advancing technology. There will also be an analysis of what would be likely to happen. This paper defines “advancing technology” as innovation in terms of equipment pertaining to economic production, with the ability to take on existing roles with a higher productive potential; and “unemployable” is defined as not having the level of skill required to be employed in a job. The main stakeholders identified in this paper are the government, the firms, the workers and the consumers.

Advancing technology has the ability to make people unemployable since firms rely on equipment and software so heavily, meaning employees without the knowledge or skill to use it are likely to be pushed out, especially in capital or software intense firms.

Starting with the disadvantages; advancing technology has the capability to trigger an economic crisis in the short run; specifically, the mass redundancy of a high number of workers, causing a fall in overall household spending and aggregate demand, as these workers will have a lower disposable income. In order to overcome this, governments and authorities globally should focus on education and training, particularly in order to empower workers with skills and qualifications to work in jobs that cannot be replaced by technology for a certain while, as well as in jobs that are relied upon by technology, such as repair staff, equipment operation staff, and so on. However, as technology progresses at an increasingly fast rate, most would likely not be able to keep up and update their awareness of technology as quick, possibly resulting in further unemployability- a person can't be hired if they do not have the relevant skills. Technology may advance at such a fast rate, with innovation occurring so often that individuals do not have time to adjust. To further resolve this and ensure people can have jobs without technical knowledge, advancements in technology should be focused primarily on the areas of production and labour, rather than those of creativity and strategy. While such technology would be helpful, and will exist in these areas, they should be used for support rather than as the primary source to come up with strategy and planning, as humans would be able to bring a more contextual understanding, creativity, and moral judgement to the table. However this may not be the case as private firms which develop such technology would not necessarily focus their innovation in only areas of production and labour, since they would likely not take into account the external ramifications such as potential unemployment.

This approach would enable an increase in the aggregate supply of the global economy, as the world would be able to apply more human resources into strategy and ideation jobs, while also

having the technological means to produce at a much larger scale thanks to advancing technology.

Another disadvantage about the advancement of technology is that it widens the disparity between economically poor and rich countries, as rich countries will have the resources and money to pay for and support more advanced technology and artificial intelligence, whereas poorer countries would be spending whatever little resources they have on elementary public services such as healthcare, and trying to support their economy;. In the initial stages of implementation of game changing technology, such nations would not be able to invest and enjoy the benefits of technology at the same pace as more well-off nations. However this may be overcome by private firms in such countries investing in such technology. While government funds may be preoccupied in underdeveloped countries, private investment may be able to bring in such technology for use in the private sector, which could benefit the domestic economy, even if government services may not benefit from using this technology. However, this is only true if the economy of such a country is stable enough to attract investment.

Now, moving to the advantages; advancing technology is likely to be precise, efficient, time saving. This allows it to produce high quality products, at a low cost, spending the least time it can. Such technology playing a larger role in the economy offers a multitude of advantages. Firstly, advancing technology is likely to be preferred by rational employers and firms over humans as it can work more efficiently, at a higher quality, and usually for cheaper than a human can, since a private firm cares most about reducing costs, increasing productivity since it is incentivised to earn profit. Firms likely find technology cheaper in comparison to human workers, as firms pay for employee retention and welfare schemes, alongside salaries. With reduced employees and higher technology dependency, firms pay for less retention schemes and salaries, alongside acquisition and maintenance of technology which may pay off in the long run due to the added efficiency. Technology may also be preferred by firms when it becomes capable of performing dangerous tasks, as this limits the risk to human life, for example, jobs having to do nuclear waste management, or even bomb defusing- as seen today. Furthermore, consumers benefit due to the higher quality products produced by technology intensive firms. Such products last longer, may be more effective

Consumers are likely to benefit from such technology. Since a company would have lower operating costs due to the efficiency of advancing technology, it would be able to lower prices for its consumers, likely in an attempt to gain higher market share by tempting consumers with lower prices. Additionally, due to the precision of technology, it is likely to produce higher quality products, as mentioned previously. This further benefits consumers as they get to enjoy these higher quality products, giving them a higher level of satisfaction. In fact, if such products are built to last longer due to the use of technology, consumers get to enjoy such products for a longer period of time before needing to replace them.



When work is done more efficiently by technology, time and money is saved for the company. Companies enjoy lower costs as they pay less in salaries, benefits, employee retention and welfare programs, and so on. Machinery also likely produces higher quality products, further benefiting a company as this improves public perception and branding. Consumers will be more satisfied with the product.

Governments are also affected by the advancement of technology and its increased use. Governments worldwide would also likely make use of new technologies to increase the quality of life and economic prosperity of citizens. Additionally, they would also likely create new policies to regulate technology, its economic and environmental impact, as well as potential impacts on the job market, attempting to limit such harms, including the risk of mass redundancy of workers. Furthermore, due to the potential mass redundancy, it is possible that governments would need to spend more on public welfare programs such as unemployment or social security benefits, or even healthcare schemes. Spending on education and retraining schemes (whether to make it cheaper or to increase its capacity to educate more people) will be crucial to keep the work force updated with the skills to work with quickly advancing technology, which is why governments will likely spend in this area. Moreover, governments would likely take advantage of the increased productive potential of the economy through the provision of grants, subsidies, tax breaks to firms, and so on.

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