Study On The Effects Of Increasing Use Of Ai On People Working In The Technology Sector

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Abstract

Artificial intelligence is a fairly new and transformative technology. There are a lot of mixed opinions in the general public around this technology. This study was conducted to analyze the effects of increasing use of AI on people working in the technology industry. Preliminary findings suggest that AI has significantly impacted the sector, enhancing efficiency, automating repetitive tasks, and generating new job roles. However, concerns related to job security, skill requirements, and ethical implications of AI are also highlighted. This study adds to the previous research on the impact of AI by concentrating especially on the technology industry, offering useful insights into professional experiences, perspectives, and concerns. The findings have implications for workforce planning, training, and policymaking in order to assure effective AI integration while avoiding negative outcomes. To acquire a thorough grasp of AI's influence on professional positions, future study may investigate longitudinal studies and dive into various sub-sectors within technology. Overall, this study provides light on the complex relationships that exist between AI and the technology industry, alerting stakeholders about the potential and problems that AI deployment presents.

I.   Introduction

Advancements in machine learning and deep learning are creating a paradigm shift in virtually every sector of the tech industry, making artificial intelligence (AI) an extensive field within computer science. AI focuses on building smart machines capable of performing tasks that typically require human intelligence.

Companies across every industry are investing in AI as it becomes increasingly integrated into everyday life, from self-driving cars to generative AI tools like ChatGPT and Google's Bard. AI allows machines to model or even surpass human capabilities, representing a significant area of growth and innovation. The global AI market is expected to grow at a compound annual growth rate (CAGR) of 37.3% from 2023 to 2030. [1]

Artificial intelligence (AI) is rapidly advancing and has the potential to replace humans in various sectors, raising concerns among many individuals about the future of their jobs. There is a fear that AI might substitute human workers, leading to unemployment or reduced wages. However, others believe that AI can enhance productivity and lead to better earning opportunities.

In light of these concerns and possibilities, this research study aims to explore how AI is currently being utilized by individuals working in the technology sector. The study seeks to understand the extent of AI integration in different job roles and industries within the technology sector. By examining real-world experiences and perspectives, the study intends to shed light on the benefits, challenges, and overall impact of AI on working individuals.

Furthermore, this research also aims to investigate the general attitude of both individuals and corporations towards AI. It seeks to uncover people's perceptions, beliefs, and expectations regarding AI technologies. By surveying a diverse group of participants, including employees, employers, and industry professionals, the study aims to capture a comprehensive snapshot of the prevailing sentiments towards AI in the workplace.

This study hopes to provide valuable insights into the current state of AI adoption, its impact on job roles, and the prevailing attitudes towards AI among individuals in the technology sector. The findings will contribute to a better understanding of the potential opportunities and challenges associated with AI integration, helping individuals, organizations, and policymakers make informed decisions regarding AI adoption and workforce strategies.

II.   Methodology

The primary data for the research study was collected through an extensive online survey, which served as a crucial source of information and insights. To facilitate the data collection process, an online questionnaire tool known as Google Forms was utilized. Google Forms provided a user-friendly and efficient platform for designing and administering the survey. The survey instrument was carefully crafted to capture relevant data

points and gather comprehensive responses from a diverse range of participants. The online nature of the survey allowed for widespread reach and accessibility, enabling the inclusion of a larger and more diverse sample size. Additionally, the use of Google Forms offered several advantages, including automated data capturing, real-time response tracking, and customizable survey design options. This ensured streamlined data collection, enhanced data quality, and improved research efficiency.

 The questionnaire consisted of a total of 3 sections. The first section presented the participant with a consent to participate in the study. The second section asked the participant for personal details to ensure authenticity of the data collected. Third section contained a total of ten questions related to the research subject. Out of the ten questions presented nine were multiple choice questions while one was a free response question.

The questions were multifaceted and very carefully designed to cover various aspects of the subject matter. They were intended to collect data in a way that could be represented statistically with ease. In the other words, quantitative means were used to collect the data.

The hyperlink for the questionnaire was extensively shared online to help gather participants for the study. This included posting of hyperlink on various online forums relating to technology and artificial intelligence.

III.   Results

First the participants were asked whether they actively use AI at work or not. The results are indicated in figure 1 below .The figure depicts that 80% of the respondents were actively using AI for their work which is inline with the popular notion that use of AI is now omnipresent. The finding shows that AI is widely used in the workplace, with 80% of participants actively using it. This conclusion supports the widely held assumption that AI is becoming more prevalent across a wide range of businesses. The high proportion indicates that businesses recognise the potential benefits and value that AI may bring to their operations.
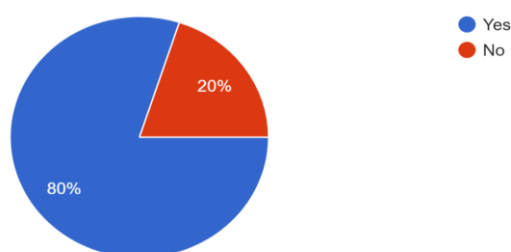

Figure 1

Out of the 3 options (1. Yes 2.No 3.Maybe) provided , 90% percent of the participants chose "yes" , 6% chose "maybe" and 4% chose "no" when asked about if being well versed with using AI gives you edge in your career. Such a high percentage of participants opting for yes as their answer truly demonstrates the wide acceptance AI is getting in the ever evolving job landscape.The results are indicative of professionals recognizing the value of incorporating AI in their work skill set. However the small percentage of people who chose "maybe" or "no" as their option are representative of a certain degree of uncertainty or hesitancy among this subset of professionals regarding the impact of AI proficiency on their careers. It could reflect a need for further understanding or clarification on how AI knowledge translates into a competitive advantage within their specific domains or job roles.

When asked about improvement in productivity because of using AI , almost all participants reported a favorable effect on productivity. AI adoption has had a positive impact on respondents' productivity, with a notable proportion experiencing a 30% improvement. However, individual experiences may vary, with some participants experiencing higher or lower productivity gains depending on their specific use cases of AI technologies. As a whole, findings depict that incorporating AI into one's workflow may result in significant improvements in productivity. Which implies that AI has the ability to empower individuals to complete tasks more efficiently , resulting in increased output and performance.

In the survey 40% of the participants believed that their peers who are working in sectors deeply related to AI were getting better compensation than them. This shows that people working explicitly in AI-related positions have a perceived pay advantage.An equal number of participants opted for "maybe" option , indicating a lack of knowledge and uncertainty regarding compensation disparity. A relatively small fraction of participants chose "no" with surety , this subset of participants believes that there is parity, or at least an equitable playing field, in terms of compensation. The results are represented by figure 2 below.
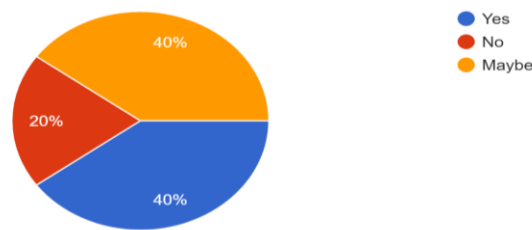
Figure 2

Around 80% of the participants were keen on learning more about AI in hopes of earning better .With the rest 20% being a bit skeptical and uncertain regarding the same. Almost no participant was absolutely against the idea of learning out more about AI. This revealed an interesting trend amongst participants expressing a strong interest in acquiring additional knowledge about AI, driven by the belief that it could potentially lead to better financial prospects. It demonstrates an understanding of the rising significance and need for AI capabilities in the current employment environment. The enthusiasm of the participants to learn more about AI suggests a proactive approach and a readiness to make an investment in their professional growth.

In addition to this, participants were also asked about their company's policy regarding AI. 40% of the people said that their company was pro-AI and the other 35% said that their company had no policy in place for AI. This 35% representing no policy suggests a certain degree of ambiguity or uncertainty regarding how AI fits into the overall business strategy of the companies. Further , 20% belived that their company had neutral views on AI. Surprisingly only a small number of participants reported their company to have a policy against AI. These findings suggest that Such a proactive stance can be attributed to the recognition of the potential benefits and competitive advantages that AI offers in various business domains.

A majority of participants (50%) also believed that AI as a technology should be properly analyzed , assessed and duly regulated by the companies. While 30% of them believed that there is no need for companies to keep a check on and regulate AI. However 20% of participants were confused and not sure of whether use of AI should be controlled by firms or not. This point of view implies a degree of trust in the safe usage of AI technology inside organizations without the need for strict control or laws.

50% of the participants were absolutely sure that their job role was not going to be replaced by AI in the coming years , while 20% feared that their livelihood will indeed be in danger in the future because of AI. However , more than fearing AI people were unclear about its future implications on their career as about 30% of the participants selected "maybe" when asked if they believed that AI can be a replacement for them in their job role in the time ahead. This may be due to their lack of awareness regarding the capabilities of AI.

Surprisingly a whopping 80% of the participants were of the opinion that artificial intelligence will have a positive impact on the job market .There are a number of causes for individuals to feel optimistic about AI. In the first place, AI has the potential to replace boring and repetitive duties, freeing up employees to focus on more creative and strategic elements of their work. This change may lead to greater work satisfaction and the chance to use distinctively human abilities that are difficult for AI to replicate. Participants may also have recognised AI's potential to create new businesses and career possibilities. The demand for specialists who can design, implement, and manage AI systems is rising as AI technology develops. This expanding need creates opportunities for experts with specialized AI expertise to prosper in a variety of industries. However, it is noteworthy that 20% of participants held opposing views regarding the impact of AI on the job market. Their concerns or reservations might stem from apprehensions about job displacement or the potential for AI to replace certain job roles entirely. It is crucial to consider these dissenting opinions and address the challenges associated with AI implementation to ensure a balanced and inclusive approach to its integration in the workplace.

IV.   Conclusion

In conclusion the results of the study depict that overall there has been a positive impact of artificial intelligence on the work lives of participants. A majority of them were using AI in their daily work lives and reported that it increased productivity by significant percentages.They also expressed a positive outlook on artificial intelligence's influence on the future of the job market and truly belived in its potential benefits. Although there were fears about job loss, it was gratifying to find that the vast majority of participants were genuinely interested in learning more about artificial intelligence (AI). They understood the need of remaining educated and up to date on industry trends in order to effectively navigate a dynamic and developing business. This drive to learn demonstrates a proactive approach and a readiness to adapt to the evolving AI landscape, which is quite promising.Overall, the survey shows that AI has become an integral part of the workplace, and people are

generally optimistic about its impact on the job market. It's clear that ongoing education and thoughtful implementation are key to fully harnessing the potential of AI while addressing any challenges that may arise.

Appendix A

Online Survey Questions - June 2023
1. Do you work in the tech industry ?
2. Do you actively use AI at work ?
3.Do you think knowing how to use AI gives you an edge in your career ?
4.Your productivity has improved by approximately what percentage since you started using AI ?
5.Do you believe that your peers who are working in the AI sector currently are paid more than you ?
6.Do you wish to learn more about AI in hopes of a better pay grade ?
7.What is your company's policy regarding AI ?
8.Do you think the use of AI should be regulated in offices ?
9.Do you believe AI can replace your job in the coming years ?
10.How do you perceive the impact of AI on the Job Market in the future ?