ST.TERESA'S COLLEGE, ERNAKULAM (AUTONOMOUS)

COLLEGE WITH POTENTIAL FOR EXCELLENCE

Nationally Re-Accredited at A++ Grade

CERTIFICATE

This is to certify that the project titled "A STUDY ON NAVIGATING CHANGE: EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE JOB MARKET " submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the award of Degree of Bachelor in Commerce is a record of the original work done by Ms.Aleina William, Ms.Ananya Suresh and Ms.Naomi Alwin Lopez, under my supervision and guidance during the academic year 2021-24.

Project Guide

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Smt. Jini Justin D'Costa

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Viva/Voice Examination held on.... 24/4/2024

24/4/2024

External Examiner(s)

A study on

NAVIGATING CHANGE: EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE JOB MARKET

Project Report Submitted by

NAOMI ALWIN LOPEZ: (SB21CCM014)

ALEINA WILLIAM: (S21CCM001)

ANANYA SURESH: (SB21CCM002)

Under the guidance of

MRS. LEKSHMI C

In partial fulfillment of the requirement for the Degree of

BACHELOR OF COMMERCE

ST.TERESA'S COLLEGE ENTD 1925

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DECLARATION

We, NAOMI ALWIN LOPEZ, ALEINA WILLIAM, ANANYA SURESH, final year B.Com students, Department of Commerce (SF), St Teresa's College Autonomous do hereby declare that the project report entitled A STUDY ON NAVIGATING CHANGE: EXPLORING THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE JOB MARKET

submitted to Mahatma Gandhi University is a bonafide record of the work done under the supervision and guidance of Mrs. Lekshmi C, Assistant Professor of Department of Commerce (SF), St. Teresa's College (Autonomous) and this work has not previously formed the basis for the award of any academic qualification, fellowship, or other similar title of any other university or board.

PLACE: ERNAKULAM

DATE:

NAOMI ALWIN LOPEZ

ALEINA WILLIAM

ANANYA SURESH

ACKNOWLEDGEMENT

First of all, we are graceful to God Almighty for his blessings showed upon us for the successful completion of our project.

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NAOMI ALWIN LOPEZ

ALEINA WILLIAM

ANANYA SURESH

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CHAPTER – I

INTRODUCTION

INTRODUCTION

According to John McCarthy, “Artificial Intelligence is the science and engineering of making intelligent machines, where intelligence is the computational part of the ability to achieve goals in the world”. Simply put, Artificial Intelligence is a software closest to replicating human intelligence, which can perform activities historically performed by human beings.

In an era defined by rapid technological advances, the integration of Artificial Intelligence (AI) into various facets of our daily lives has become more prevalent than ever before. The pervasive influence of AI technologies extends into the heart of our socio-economic structure, profoundly impacting the job market and the nature of work. One of the domains profoundly influenced by this technological revolution is the job market. As industries continue to embrace AI-driven solutions, a myriad of questions and concerns arise regarding the transformative effects on employment dynamics.

As we stand at the crossroads of innovation and disruption, the transformative potential of AI on the job market is a subject of intense scrutiny and debate. On one hand, proponents argue that the infusion of AI technologies holds the promise of enhanced productivity, increased efficiency, and the creation of novel job opportunities. On the other hand, sceptics express concerns about the potential displacement of traditional jobs, the widening gap in skills demand, and the ethical implications associated with the rise of intelligent machines in the workplace.

This research paper delves into the intricate interplay between AI and the job market, seeking to unravel the multifaceted impact of artificial intelligence on employment patterns, skills demand, and the socio-economic fabric. From the automation of routine tasks to the creation of novel job opportunities, this exploration aims to provide a comprehensive understanding of how AI shapes the workforce, the challenges it poses, and the potential pathways for navigating this era of profound change. Through an in-depth analysis of current trends, case studies, and critical assessments, this study seeks to contribute valuable insights to the ongoing discourse surrounding the consequences of AI integration into the job market.

SIGNIFICANCE OF THE STUDY

- **WORKFORCE ADAPTATION**: With rapidly changing technology, the skills required by the workforce change as a result. A comprehensive analysis of the impact of AI is required to identify skill demands and to equip and train employees to adapt to the changes brought about.

- **ECONOMIC IMPLICATION:** The job market is a key factor in determining economic prosperity and stability. Studying its impact will help in forecasting economic shifts and also help the policymakers and businesses in making an informed decision

- **JOB DISPLACEMENT AND CREATION:** AI excels in performing repetitive tasks, therefore a myriad of jobs are at risk of becoming obsolete. At the same time, new opportunities are created. Understanding this dynamic allows for strategic planning to mitigate potential unemployment challenges and capitalize on emerging job prospects.

- **SOCIETAL INEQUALITY:** The deployment of AI may have varying effects on different demographic groups and industries. A thorough study helps identify and address potential disparities, ensuring that the benefits and challenges associated with AI adoption are distributed equitably across society.

- **POLICY DEVELOPMENT:** Policymakers need a solid understanding of the impact of AI on the job market to create effective regulations and policies. Balancing innovation with worker protection, addressing ethical concerns, and fostering a supportive environment for businesses and workers require insights gained through research.

- **TECHNOLOGICAL ETHICAL CONSIDERATIONS:** The study of AI's impact on the job market sheds light on ethical considerations, such as bias in algorithms, privacy concerns, and the responsible use of AI in decision-making. This knowledge is essential for developing ethical guidelines and frameworks for AI deployment.

STATEMENT OF THE PROBLEM

In the era of rapid technological evolution, the integration of Artificial Intelligence (AI) has emerged as a transformative force, creating seismic shifts in the traditional structures of industries and economies. The research seeks not only to understand the immediate impact but also to project how AI will shape the future of employment. By analyzing the interplay between automation, emerging skill demands, and socio-economic consequences, the study aims to provide a roadmap for individuals, businesses, and policymakers. It explores strategies for workforce adaptation, balancing technological advancement with ethical considerations, and fostering an environment where AI and human labour coexist harmoniously. The goal is to equip stakeholders with the knowledge and foresight needed to navigate the evolving employment landscape in the age of AI.

OBJECTIVE OF THE STUDY

- **Tasks at Risk:** Which types of jobs are most susceptible to automation by AI due to their repetitive or data-driven nature.
- **Job Creation:** What new job opportunities are emerging as AI technologies are adopted by businesses?
- **Skill Shifts:** How are the skillsets needed to thrive in the workforce changing as AI becomes more integrated? By understanding these shifts, educational and training programs can be adapted to prepare individuals for the future job market.
- **Identifying in-demand skills**: Highlighting the skills and knowledge that will be valuable in the AI-powered workplace.
- **Promoting Reskilling and Upskilling**: Exploring effective ways for workers to acquire the new skillsets needed to stay competitive. This could involve educational programs, training initiatives, and career counseling.

SCOPE OF THE STUDY

The scope of study regarding AI's impact on the job market is broad and multidimensional, encompassing various aspects of employment dynamics, workforce composition, skills requirements, and labour market outcomes.

RESEARCH METHODOLGY

In this study we have gathered both primary data and secondary data in order to navigate change: exploring the impact of artificial intelligence on the job market. The target population is the youth generation among
the age of 18-30. The study was conducted amongst the working class people of Ernakulam City.

Primary Data

Primary data are those which are collected from recent time and for the first time.
Primary data was collected with the help of a questionnaire. The questionnaire was prepared and filled through the selected sample size from the selected field.

• Secondary Data

Secondary data is the data which is collected through the other's work. It is the type of information which always exist somewhere. Secondary data was collected from journals, websites etc.

KEYWORDS

1. Artificial Intelligence (AI): AI refers to the simulation of human intelligence in machines that are programmed to think, learn, and problem-solve like humans. In the context of the job market, AI technologies encompass a range of applications such as machine learning, natural language processing, robotics, and computer vision.

2. Automation: Automation involves the use of technology, including AI and robotics, to perform tasks and processes with minimal human intervention. In the job market, automation can lead to the displacement of certain jobs that involve routine, repetitive tasks that can be performed more efficiently by machines.

3. Job Displacement: Job displacement occurs when workers lose their jobs due to technological advancements, such as AI-driven automation, that make their roles obsolete or no longer necessary. Job displacement can result in unemployment and require workers to transition to new occupations or industries.

4. Job Polarization: Job polarization refers to the phenomenon where job growth occurs primarily in high-skill, high-wage occupations and low-skill, low-wage occupations, while employment opportunities in middle-skill occupations decline. AI's impact on the job market can contribute to job polarization through automation and changes in skill demands.

5. Technological Unemployment: Technological unemployment occurs when technological advancements, such as AI-driven automation, lead to a net loss of jobs in the economy. While new job opportunities may emerge as a result of technological innovation, technological unemployment can result in short-term job displacement and require workers to adapt to new skills and occupations.

6. Policy Responses: Policy responses refer to government actions and interventions aimed at addressing the challenges and opportunities arising from AI's impact on the job market. Policy responses may include investments in education and training programs, labour market interventions, and regulatory frameworks to promote inclusive and sustainable economic growth.

7. Future of Work: The future of work encompasses discussions and debates about how AI, automation, and other technological advancements will reshape the nature of work, employment relationships, and labour market dynamics. AI's impact on the future of work includes changes in job roles, skills requirements, and workforce development strategies to adapt to the evolving demands of the digital economy

LIMITATIONS OF THE STUDY

Data Availability and Quality: Access to comprehensive and reliable datasets on AI adoption, employment trends, and labour market outcomes can be limited, particularly in emerging economies or industries with less transparent data reporting practices.

Causal Inference: Establishing causal relationships between AI adoption and changes in the job market is complex. Correlation does not imply causation, and other factors may influence employment trends, such as economic conditions, industry dynamics, policy interventions, and technological advancements beyond AI.

CHAPTER - II

LITERATURE REVIEW

LITERATURE REVIEW

Eloundou et al. (2023)

Predicting high AI exposure for the US workforce, they estimate nearly 80% of tasks experiencing some level of AI influence (10% minimum), with 19% potentially seeing over 50% impact. This paints a potentially worrying picture of large-scale job displacement.

Agrawal et al. (2021)

Exploring the "task-based framework," they emphasise how automation replaces specific tasks within jobs, not necessarily entire occupations. This more nuanced perspective suggests both job losses and skill-shift opportunities.

Ernst et al. (2019)

Combining a historical and task-focused approach, they argue AI may differ from previous technological eras. They see potential for increased productivity and inclusive growth, emphasising the need for educational adaptations.

Bessen (2019)

Focusing on the US, he finds AI complements certain job roles, boosting productivity and creating new positions like data scientists and AI ethicists. This counters the narrative of solely negative job-market impacts.

Beede et al. (2019)

Highlighting the emergence of entirely new AI-driven job categories, they emphasise the need for education systems to prepare for these shifts. This suggests opportunities alongside potential displacement.

Duggan et al. (2020)

Raising concerns about AI-based management, they argue it removes the human element from decision-making, raising accountability and worker autonomy issues. This highlights the ethical and social considerations alongside technological advancements.

Polak et al. (2020)

Focusing on the finance sector, they view AI as a tool for innovation and competitive advantage. This reinforces the potential for AI to drive economic growth and create new opportunities.

Acemoglu et al. (2022)

They propose a "creative-destruction" dynamic, where AI eliminates some jobs while creating new ones requiring different skills. This emphasises the need for adaptation and continuous skill development.

Acemoglu and Restrepo (2019)

While acknowledging AI's potential to replace some tasks, they also highlight its ability to increase demand for complementary non-AI skills, potentially leading to net job growth.

Aghion et al. (2019)

They suggest AI could exacerbate income inequality, with higher-skilled workers benefiting more from its productivity gains. This emphasises the need for policies to address potential distributional consequences.

Bongaarts and Charles (2023)

They present a detailed historical analysis of automation and technological advancements, arguing past waves primarily affected routine manual tasks. This suggests AI may primarily impact specific aspects of jobs, leading to adjustments rather than mass displacement.

Autor et al. (2023)

They present a detailed historical analysis of automation and technological advancements, arguing past waves primarily affected routine manual tasks. This suggests AI may primarily impact specific aspects of jobs, leading to adjustments rather than mass displacement

CHAPTER – III

THEORETICAL FRAMEWORK

THEORETICAL FRAMEWORK

Various disciplines such as economics, sociology and computer science have a major influence on understanding the importance of Artificial Intelligence's impact on the job market. By drawing on insights from these diverse disciplines, the theoretical framework regarding AI's impact on the job market offers a comprehensive understanding of the multifaceted challenges and opportunities arising from AI adoption in the workplace and society.

Economics

Economics provides foundational theories and concepts for analyzing the impact of AI on the job market. Economic frameworks such as supply and demand, production theory, and labour economics are used to understand how AI affects employment levels, wages, and workforce composition.

The theory of comparative advantage helps explain how AI can influence the distribution of labour across different industries and occupations, as countries specialize in the production of goods and services where they have a comparative advantage.

Economic models of technological change, such as skill-biased technological change (SBTC) and the labour market effects of automation, offer insights into how AI innovation affects the

Sociology

Sociology contributes theoretical perspectives on how AI shapes social structures, institutions, and cultural norms related to work and employment. Sociological frameworks help analyze the social consequences of AI adoption, including changes in social stratification, identity formation, and power dynamics.

The sociology of work and occupations examines how AI influences job design, work organization, and occupational identities. This includes studying the implications of AI for job quality, job satisfaction, and worker well-being.

Sociological theories of technology and society explore how AI technologies interact with social systems and shape patterns of social interaction, communication, and collective action.

Political Science

Political science provides insights into the governance, regulation, and policy responses to AI's impact on the job market. Political frameworks help analyze the role of governments, policymakers, and regulatory institutions in shaping the development and deployment of AI technologies.

Theories of public policy and public administration inform discussions on how governments can address the social, economic, and ethical challenges posed by AI adoption. This includes designing policies to support displaced workers, regulate AI technologies, and promote inclusive economic growth.

Political economy perspectives highlight the distributional implications of AI adoption and the role of power dynamics in shaping policy outcomes. This includes examining the interests and influence of various stakeholders, such as corporations, labor unions, advocacy groups, and civil society organizations.

Computer Science and Engineering

Computer science and engineering disciplines provide technical insights into the capabilities, limitations, and development of AI technologies. These disciplines contribute expertise in machine learning, natural language processing, robotics, and other AI subfields. AI researchers and engineers develop the algorithms, models, and systems that power AI applications in the job market, including automation, decision support systems, and autonomous agents.

Computer science and engineering perspectives help assess the technical feasibility, scalability, and reliability of AI solutions for addressing workforce challenges and enhancing productivity in various industries.

Ethics and Philosophy

Ethics and philosophy contribute normative frameworks and ethical principles for guiding the responsible development and use of AI technologies. These disciplines address ethical questions related to AI's impact on human autonomy, dignity, fairness, and justice. Philosophical perspectives on technology and society explore fundamental questions about the nature of work, human flourishing, and the ethical implications of technological progress. This includes debates on the ethics of AI, AI's impact on human values, and the ethical responsibilities of AI developers and users.

Ethical theories such as utilitarianism, deontology, and virtue ethics inform discussions on how to balance competing values and interests in AI policymaking, regulation, and governance.

TECHNOLOGICAL DETERMINISM

Technological determinism posits that technology has an important effect on our lives. Technological determinism is a theory that states that technology is the main driving force of development in society. The term was conceived by Thorstein Veblen (1857-1929), a Norwegian-American sociologist and economist. Veblen studied the intertwining nature of society, culture, and the economy. Technological determinism is primarily concerned with the relationship between society and culture.

Technological determinism is a theory that suggests technology drives social, economic, and cultural change, shaping the way societies function and evolve. In the context of AI (artificial intelligence), technological determinism posits that advancements in AI will fundamentally alter various aspects of human society, including the economy, labour market, governance, and social interactions. Here's a detailed analysis of technological determinism concerning AI:

Impact on Employment and Labor Market: Technological determinism suggests that AI will lead to widespread automation, displacing many jobs that involve routine, repetitive tasks. AI technologies, such as machine learning algorithms and robotic process automation, can perform tasks more efficiently and accurately than humans in certain domains, leading to concerns about job loss and unemployment.

Proponents of technological determinism argue that AI will transform the nature of work, creating new job opportunities in areas such as data science, machine learning engineering, and AI development, while rendering some traditional jobs obsolete.

Critics of technological determinism caution that the impact of AI on the labour market is not predetermined and will depend on various factors, including the pace of technological adoption, societal values, regulatory frameworks, and the ability of workers to adapt and acquire new skills.

Economic Transformation: Technological determinism suggests that AI will drive economic transformation by increasing productivity, efficiency, and innovation across industries. AI-powered technologies have the potential to optimize processes, improve decision-making, and unlock new sources of value, leading to economic growth and prosperity.

However, technological determinism also raises concerns about income inequality and wealth concentration. The benefits of AI may accrue disproportionately to those who own or control AI technologies, exacerbating existing disparities in wealth and income distribution.

Social and Ethical Implications: Technological determinism highlights the broader social and ethical implications of AI adoption. AI technologies raise concerns about privacy, surveillance, algorithmic bias, and potential unintended consequences or misuse.

The deterministic view suggests that AI will reshape social norms, cultural practices, and human relationships, as people interact with AI systems in various contexts, such as healthcare, education, transportation, and entertainment.

Critics argue that technological determinism overlooks the role of human agency, values, and societal institutions in shaping the development and deployment of AI technologies. They emphasize the importance of ethical considerations, democratic governance, and public engagement in guiding the responsible use of AI.

Policy Responses: Policymakers are grappling with the challenges posed by technological determinism and AI adoption. Policy responses may include investments in education and training programs to equip workers with the skills needed for the AI-driven economy, initiatives to support displaced workers through retraining and job placement services, and regulations to address ethical and social concerns surrounding AI technologies. Effective policy responses require collaboration between governments, businesses, academia, and civil society to ensure that AI technologies are developed and deployed in ways that promote human welfare, social justice, and democratic value.

SKILL-BIASED TECHNOLOGICAL CHANGES

Skill-biased technological change is the shift in a production technology that favours skilled labour over unskilled labour. Skill-biased technological change (SBTC) is an economic theory that describes how technological advancements affect the demand for different types of labour based on skill levels. The central idea behind SBTC is that technological progress tends to complement and amplify certain types of skills while substituting for others. In other words, new technologies enhance the productivity and value of workers with specific skill sets, leading to increased demand and higher wages for those skills, while simultaneously reducing the demand and wages for skills that can be easily automated or replaced by technology.

Complementing and Augmenting Skills: SBTC theory suggests that certain technological innovations complement and augment the abilities of high-skilled workers, making them more productive and valuable in the workforce. For example, advances in information technology, automation, and artificial intelligence often require workers with advanced technical skills, problem-solving abilities, and creativity to design, develop, and manage these technologies effectively.

Substituting for Routine Tasks: At the same time, technology can substitute for routine, repetitive, and manual tasks that can be codified and automated. Tasks that involve predictable patterns and do not require complex decision-making are particularly susceptible to automation. As a result, low-

skilled workers who primarily perform routine tasks may experience job displacement or wage stagnation as their roles are replaced by machines or software.

Job Polarization: SBTC contributes to job polarization, a phenomenon where employment growth occurs primarily in high-skill, high-wage occupations and low-skill, low-wage occupations, while middle-skill jobs decline. This polarization of the job market is driven by the increasing demand for workers with cognitive, analytical, and interpersonal skills, as well as workers capable of operating and maintaining complex machinery and technologies.
Wage Inequality: SBTC is often associated with rising wage inequality, as the increasing demand for high-skilled workers leads to higher wages for those with specialized skills, while the wages of low-skilled workers stagnate or decline. This widening gap between high and low earners exacerbates socioeconomic inequality within society.

Implications for Education and Training: Given the changing demands of the labour market due to SBTC, there is a growing need for education and training programs that equip individuals with the skills necessary to thrive in a technology-driven economy. This includes an emphasis on STEM (science, technology, engineering, and mathematics) education, digital literacy, critical thinking, problem-solving, and adaptability.

LABOUR MARKET DYNAMICS

Labour market dynamics refer to the patterns of change and movement within the labour market, including shifts in employment levels, job creation and destruction, changes in wages, and fluctuations in workforce participation. These dynamics are influenced by a variety of factors, including economic conditions, technological advancements, demographic trends, government policies, and labour market institutions

Labour market dynamics in the context of AI refer to the patterns of employment, wages, and skill demand that arise as a result of the adoption and integration of artificial intelligence technologies in the workplace. These dynamics are influenced by a variety of factors, including technological advancements, organizational changes, worker skills, and government policies. Here's a detailed explanation of labour market dynamics concerning AI:

Job Displacement and Creation: The introduction of AI technologies can lead to the displacement of certain jobs that involve routine, repetitive tasks that can be automated. For example, AI-powered algorithms can automate data entry, customer service, and some administrative functions. As a result, workers in these roles may face job losses or shifts in their job responsibilities. However, AI also creates new job opportunities in areas such as data science, machine learning, software engineering, and AI development. These jobs require specialized skills in technology, data analysis, and programming.

Skill Demands: AI technologies typically increase the demand for workers with advanced technical skills, such as computer programming, data analysis, and machine learning expertise. These skills are essential for developing, implementing, and maintaining AI systems. Additionally, AI often complements human intelligence, requiring workers with strong cognitive abilities, problem-solving skills, and creativity to collaborate effectively with AI technologies. On the other hand, AI can reduce the demand for workers in occupations that involve routine, manual tasks that can be automated, leading to skill mismatches and potential unemployment for workers lacking the necessary skills.

Occupational Shifts: The integration of AI can lead to shifts in the composition of occupations within industries. Some occupations may experience growth as AI increases productivity and creates new opportunities for value-added tasks that require human input. Other occupations may decline as AI automates routine tasks and reduces the need for human labour in those roles. This can result in occupational polarization, with growth in high-skill, high-wage jobs and low-skill, low-wage jobs, and a decline in middle-skill occupations.

Income Inequality: The impact of AI on income inequality depends on how it affects wages and employment opportunities for different segments of the workforce. High-skilled workers who possess the technical skills necessary to work with AI technologies may see their wages increase as demand for their skills grows. Meanwhile, low-skilled workers in routine occupations may experience stagnant or declining wages as AI automation reduces the demand for their labour. This can exacerbate income inequality within society, widening the gap between high and low earners.

Policy Responses: Labor market dynamics related to AI present challenges for policymakers seeking to mitigate potential negative consequences such as job displacement and income inequality. Policy responses may include investments in education and training programs to develop the skills needed for the AI-driven economy, initiatives to support displaced workers through retraining and job placement services, and measures to ensure equitable access to the benefits of AI. Additionally, policymakers may implement regulations and labour market policies to address concerns about job quality, worker rights, and ethical considerations surrounding AI technologies.

POLICY CONSIDERATION

Policy considerations refer to the various factors, issues, and concerns that policymakers take into account when developing, evaluating, and implementing policies. These considerations encompass a wide range of dimensions, including economic, social, political, ethical, and environmental factors. Policy considerations are critical for ensuring that policies are effective, equitable, and responsive to the needs and interests of society.

Policy considerations related to AI encompass a wide range of measures aimed at maximizing the benefits of AI technologies while mitigating potential risks and challenges. These policies are designed to address various aspects of AI development, deployment, regulation, and governance. Here are some key policy considerations:

Ethical Guidelines and Standards: Governments and international organizations can develop ethical guidelines and standards to ensure the responsible and ethical development and use of AI technologies. These guidelines may cover issues such as transparency, accountability, fairness, privacy, and safety in AI systems.

Ethical guidelines can help guide AI developers, researchers, and practitioners in adhering to ethical principles and best practices, fostering trust and confidence in AI technologies among users and the public.

Regulatory Frameworks: Governments can establish regulatory frameworks to address the risks and challenges associated with AI technologies, including data privacy, algorithmic bias, cybersecurity, and safety standards.

Regulatory frameworks may include laws, regulations, and guidelines that govern the collection, use, and sharing of data; the development and deployment of AI systems; and the accountability of AI developers and users.

Education and Workforce Development: Policymakers can invest in education and workforce development programs to equip workers with the skills needed for the AI-driven economy. This may include initiatives to promote STEM (science, technology, engineering, and mathematics) education, digital literacy, critical thinking, problem-solving, and lifelong learning.

Workforce development programs can help workers adapt to changing labour market dynamics and acquire new skills to remain competitive in the workforce.

Research and Innovation: Governments can support research and innovation in AI technologies through funding, grants, and incentives for research institutions, universities, and private companies. This can help advance the state-of-the-art in AI, drive technological breakthroughs, and spur economic growth and competitiveness.

Policies that promote collaboration and knowledge sharing among researchers, industry stakeholders, and government agencies can facilitate innovation and accelerate the development and adoption of AI technologies.

Data Governance and Privacy Protection: Policymakers can establish data governance frameworks and privacy regulations to ensure the responsible and ethical use of data in AI systems. This may include laws and regulations that govern data collection, processing, storage, and sharing, as well as mechanisms for obtaining informed consent from individuals.

Data governance policies can help protect individuals' privacy rights, prevent unauthorized access to sensitive data, and mitigate the risks of data misuse and abuse in AI applications.

International Cooperation and Collaboration: Given the global nature of AI technologies, international cooperation and collaboration are essential for addressing common challenges and fostering responsible AI development and deployment.

Policymakers can engage in multilateral forums, partnerships, and agreements to promote international cooperation on AI governance, standards, and norms, and to address issues such as data sharing, interoperability, and cross-border data flows.

Inclusive and Ethical AI: Policymakers can promote the development and adoption of inclusive and ethical AI technologies that benefit society as a whole. This may include measures to ensure that AI systems are designed and deployed in ways that are fair, transparent, and accountable and that they address the needs and interests of diverse stakeholders, including marginalized and vulnerable communities.

CHAPTER – IV

DATA ANALYSIS AND INTERPRETATION

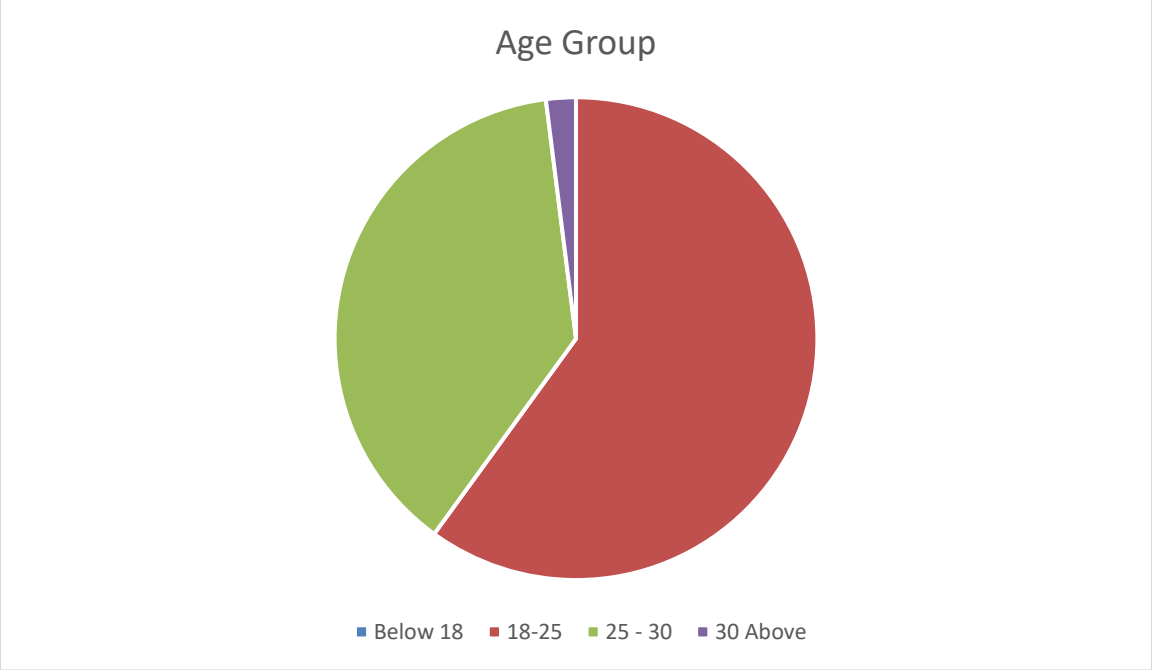
4.1 CLASSIFICATION OF THE TARGET GROUP (TG) AGE

TABLE 4.1 Age of Respondents

AGE	NUMBER OF RESPONDENTS	% OF RESPONSES
Below 18	0	0
18-25	30	60
25-30	19	38
Above 30	1	2
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.1



INTERPRETATION:

On a sample size of 50 respondents, a huge majority of the 47 respondents are between the age group of 18-30 that is a clear majority of 94% and most active of the total respondents. The remaining respondents under the other age groups are very marginal in comparison and with a very negligible single digit percentage recorded by each group This clearly interprets or indicates that the 18-30 age group is the relevant age group in this case based on their response levels.

4.2 CURRENT OCCUPATION SATUS OF RESPONDENTS

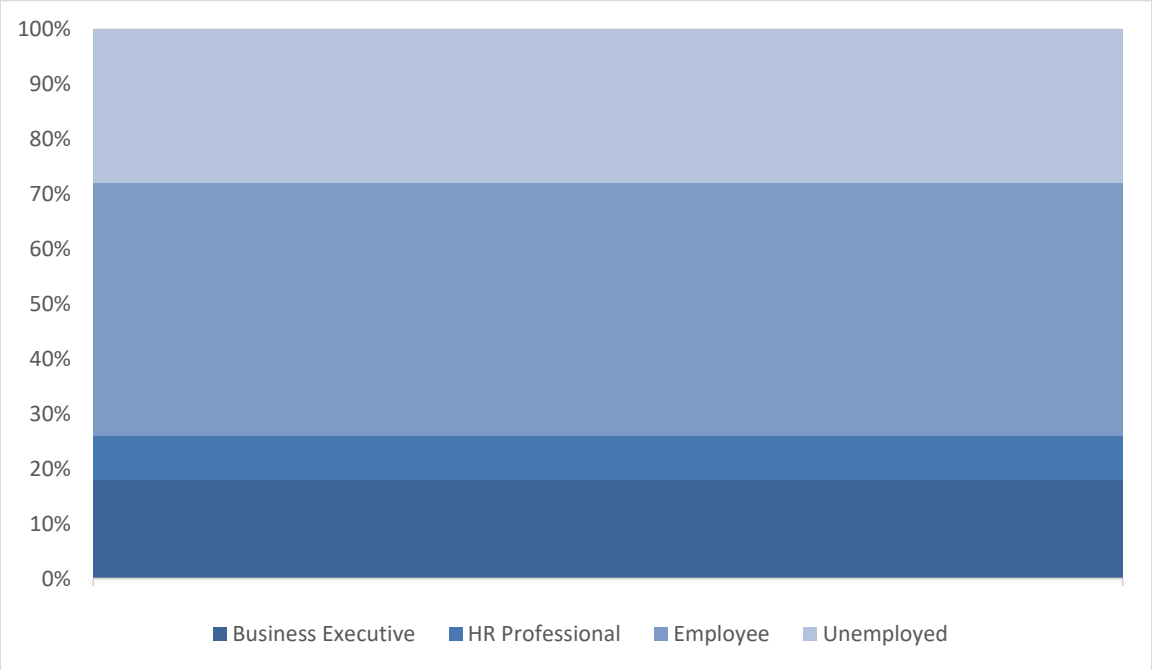
TABLE 4.2 Occupation Status

SECTORS	NUMBER OF RESPONDENTS	% of Responses
Business Executive	9	18
HR Professional	4	8
Employed	23	46
Unemployed	14	28
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.2

Occupation Status % Rate of Respondents



INTERPRETATION:

This graph shows the occupation status of respondents. It includes sectors such as business executive, HR Professional, Employed and Unemployed. Based on the data collected the most responsive sector is Employed with a 46% and the least is HR Professional with an 8%.

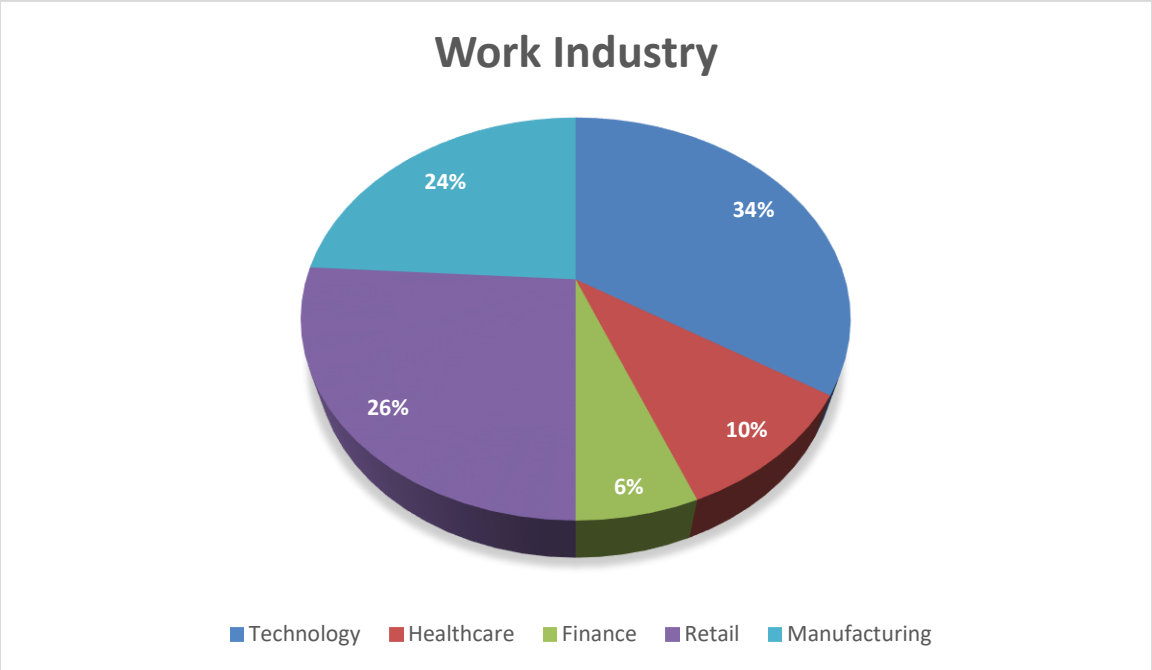
4.3 RESPONDENTS WORK INDUSTRY

TABLE 4.3 Industry of work

INDUSTRY	NUMBER OF RESPONDENTS	% OF RESPONSES
Technology	17	34
Healthcare	5	10
Finance	3	6
Retail	13	26
Manufacturing	12	24
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.3



INTERPRETATION:

This graph depicts respondent's job industry, showing that people from technology industry responded the most with 34% of total. This indicates the technology-based employees have the most to say about the AI impact on their jobs

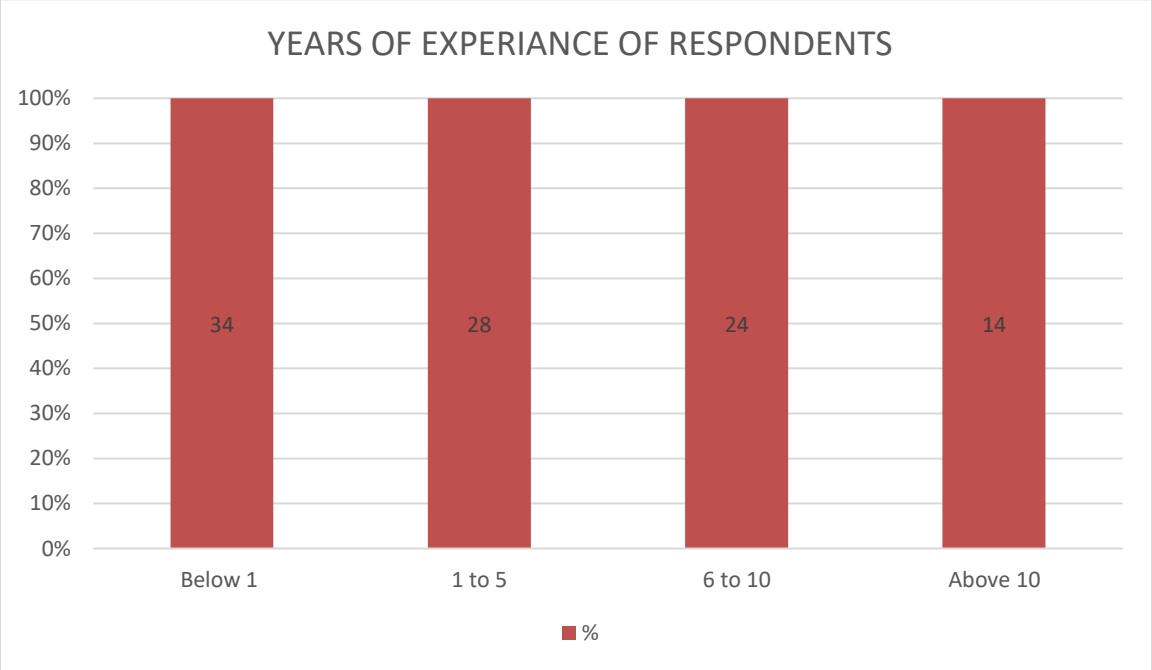
4.4RESPONDENT'S EXPERIENCE PERIOD

TABLE 4.4 Experience of the respondents

YEARS	NUMBER OF RESPONDENTS	% OF RESPONSES
Less than 1 year	17	34
1-5 Years	14	28
6-10 years	12	24
10 Above	7	14
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.4



INTERPRETATION:

This graph shows that majority of respondents are of the below one-year work experience with a 34%, closely followed by 1 to 5 years experienced workers. With the least response from above 10 years experience with a 14%.

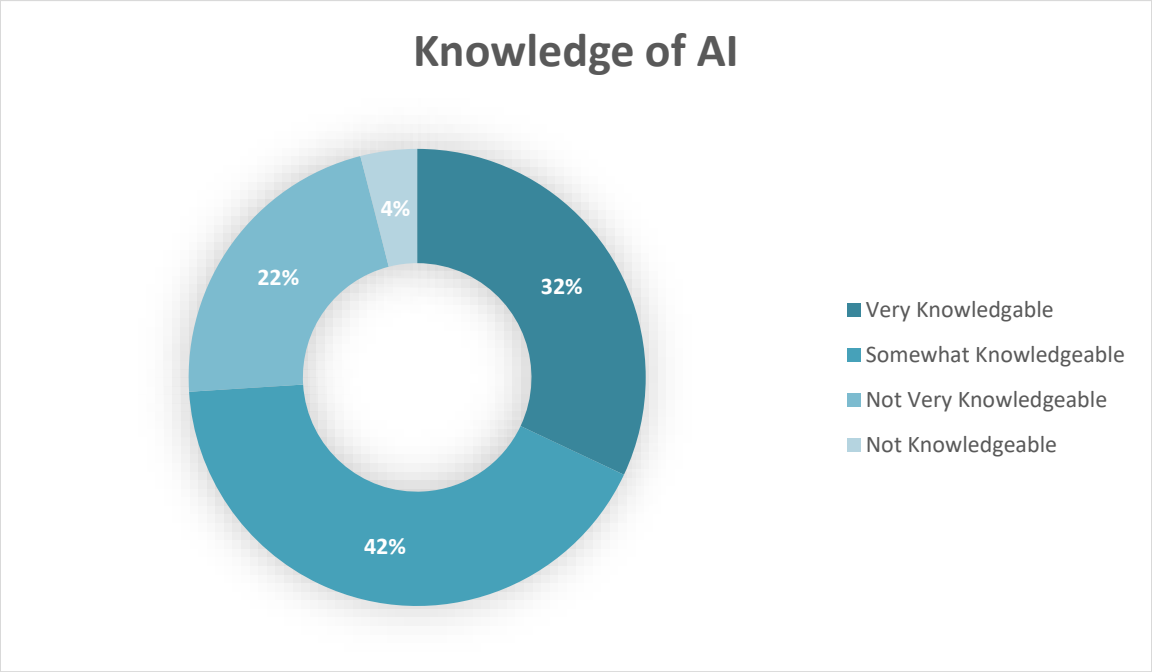
4.5RESPONDENT'S KNOWLEDGE OF AI & ITS IMPACT TO THEIR INDUSTRY

TABLE 4.5 RESPONDENTS KNOWLEDGE

SECTORS	NUMBER OF RESPONDENTS	% OF RESPONSES
Very Knowledgeable	16	32
Somewhat Knowledgeable	21	42
Not very Knowledgeable	11	22
Not Knowledgeable at all	2	4
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.5



INTERPRETATION:

This graph shows respondents' knowledge of AI and its impact on their industry. It shows level of awareness, understanding, or expertise regarding AI technology among individuals surveyed, along with their perceptions of how AI is affecting their respective industries. Depending on the data presented, 42% is somewhat knowledgeable and 32 % is very knowledgeable, which concludes the majority.

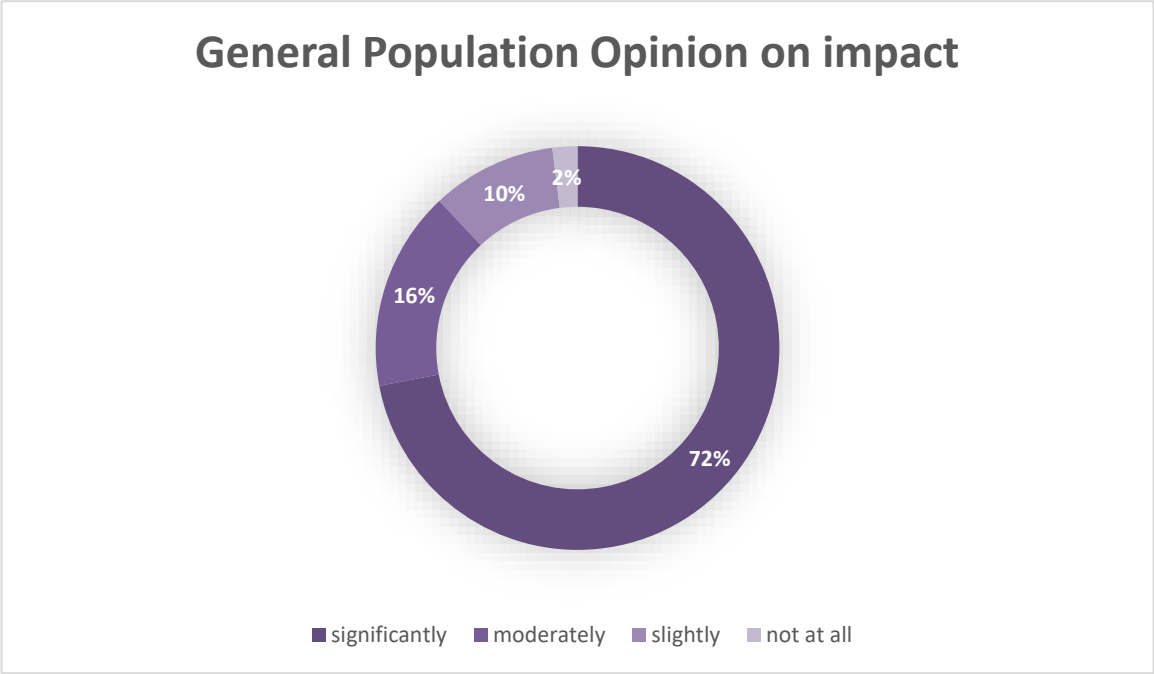
4.6 EXTENT OF AI IMPACT ON JOB MARKET IN THE INDUSTRY

TABLE 4.6: Data on impact of AI

RESPONSE	NUMBER OF RESPONDENTS	% OF RESPONSES
Significantly	36	72
Moderately	8	16
Slightly	5	10
Not at all	1	2
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.6



INTERPRETATION:

This graph depicts the general population and their opinion on the impact of AI and how it affected their lives. 72% of the responders suggested AI advancement has impacted their lives, 16% - 10% was undecided.1% said it had no effect.

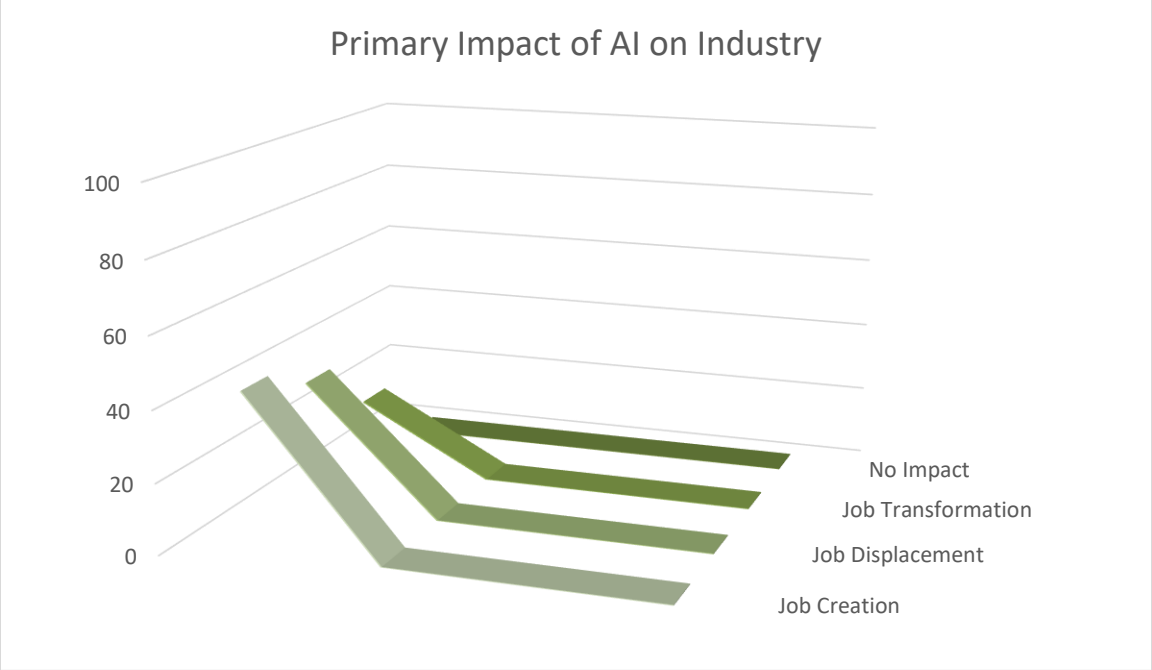
4.7 PRIMARY IMPACT OF AI ON JOBS IN THE INDUSTRY

TABLE 4.7 Primary impact of AI %

SECTORS	NUMBER OF RESPONDENTS	% OF RESPONSES
Job Creation	22	44
Job Displacement	18	36
Job Transformation	10	20
No Significant Impact	0	0
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.7



INTERPRETATION:

This graph shows a significant impact in job creation, alongside a notable rise in job displacement. This suggests a transformative shift in the industry's workforce, emphasizing the need for upskilling and adaptation to AI technologies.

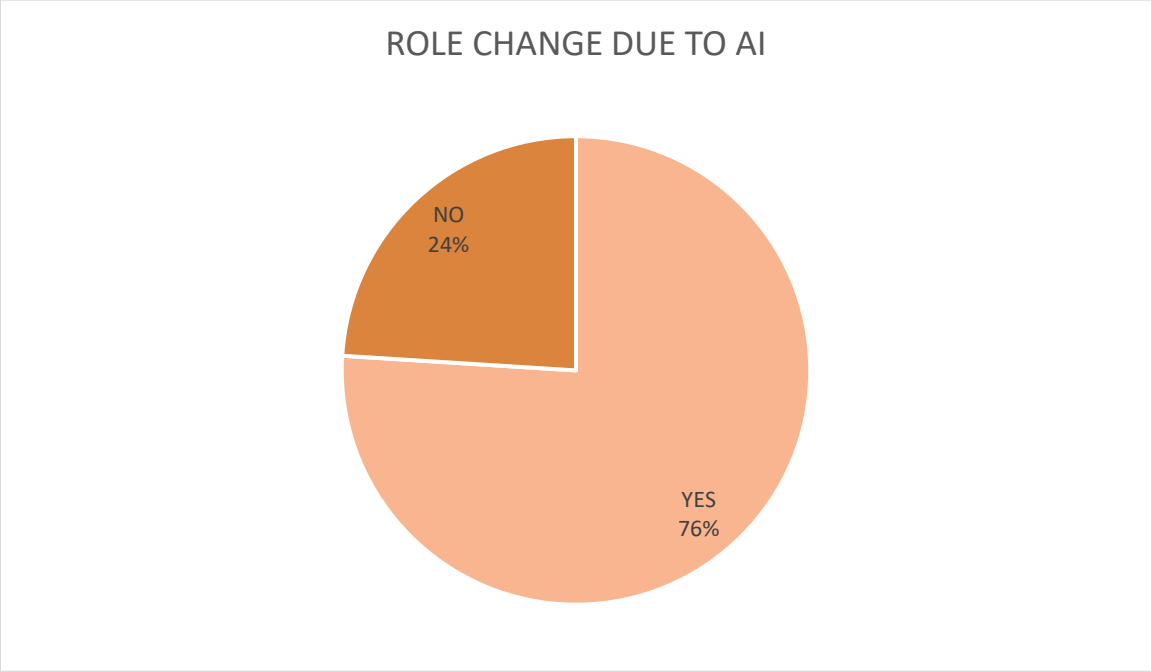
4.8 ROLE CHANGE DUE TO AI TECHNOLOGIES

TABLE 4.8 Rate of Role Change due to AI

RESPONSE	NUMBER OF RESPONDENTS	% OF RESPONSES
Yes	38	76
No	12	24
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.8



INTERPRETATION:

This graph provides a snapshot of how AI technologies are reshaping roles within industries, including automation impacts, growth in specialized roles, skill shifts, the emergence of hybrid roles, and accompanying training initiatives. The significant response was yes with 76%.

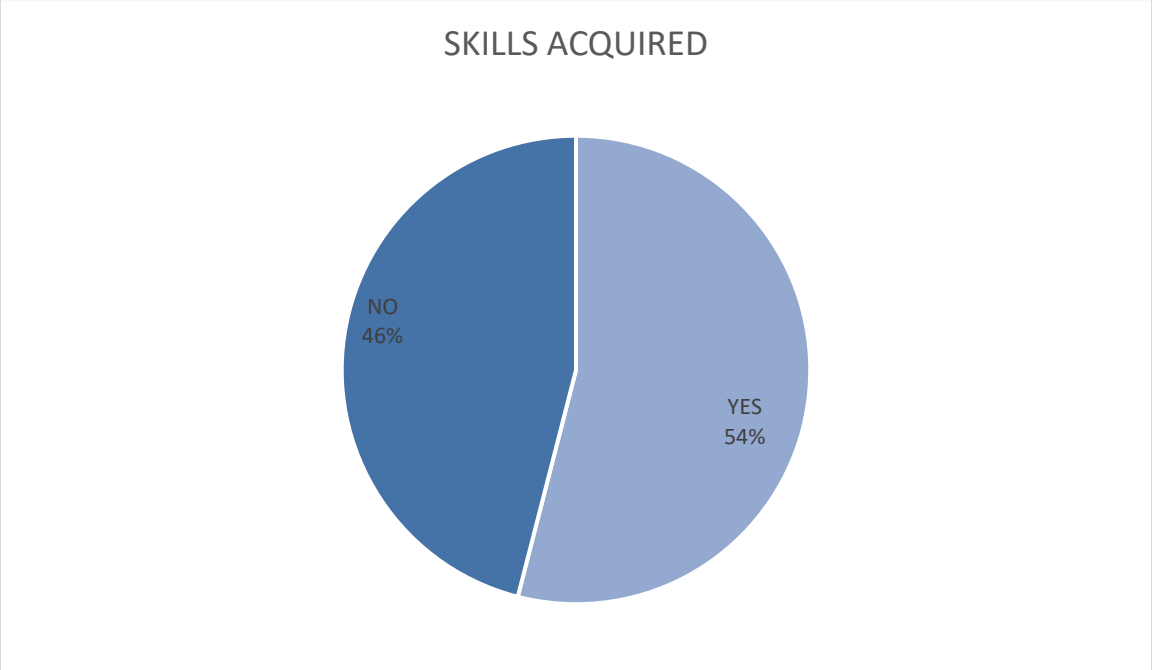
4.9 ANY SKILLS DUE TO THE INTRODUCTION OF AI

TABLE 4.9 Skill development due to AI introduction

RESPONSE	NUMBER OF RESPONDENTS	% OF RESPONSES
Yes	27	54
No	23	46
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.9



INTERPRETATION:

This graph depicts skill development due to AI introduction might show a notable shift towards respondents who said yes. The chart reflects a dynamic workforce responding to the integration of AI technologies, with implications for education and training programs.

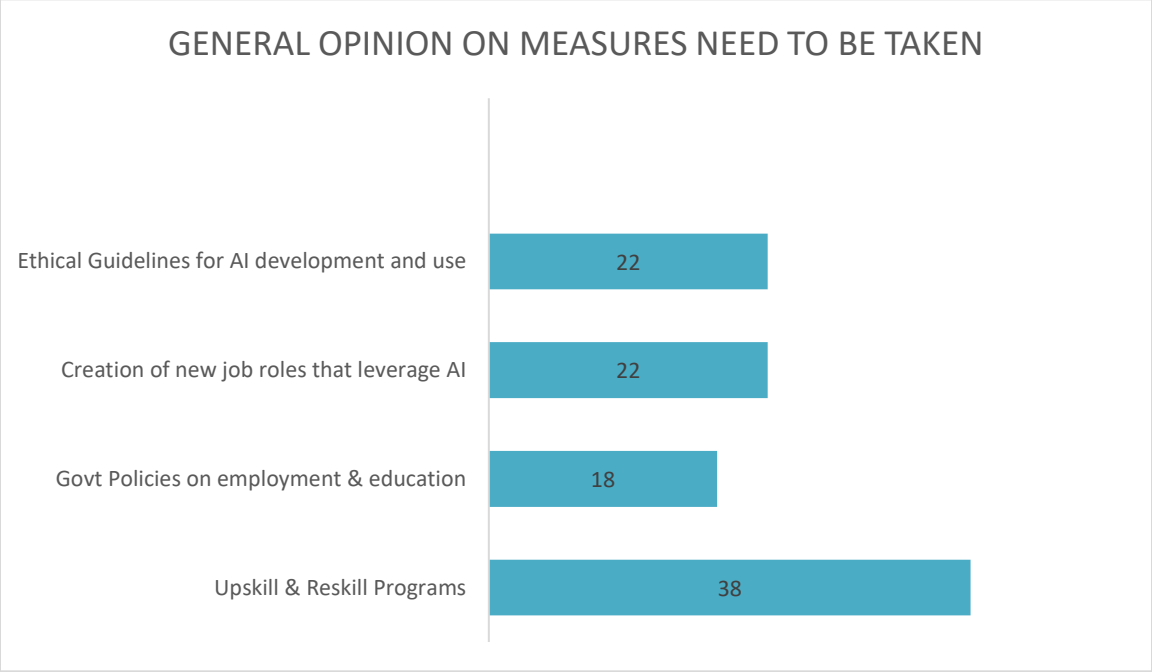
4.10 MEASURES TAKEN TO PREPARE WORKFORCE FOR AI IMPACT

TABLE 4.12 OPINIONS ON MEASURES

SECTORS	NUMBER OF RESPONDENTS	% OF EMPLOYMENT RATE INCREASE
Upskill & Reskill Programs	19	38
Govt Policies on employment & education	9	18
Creation of new job roles that leverage AI	11	22
Ethical Guidelines for AI development and use	11	22
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.12



INTERPRETATION:

The graph illustrates a range of measures implemented to ready the workforce for AI's influence. It likely indicates an upward trend in upskilling efforts. This suggests a proactive response to the challenges and opportunities posed by AI, emphasizing the importance of preparing individuals for the evolving demands of the digital economy.

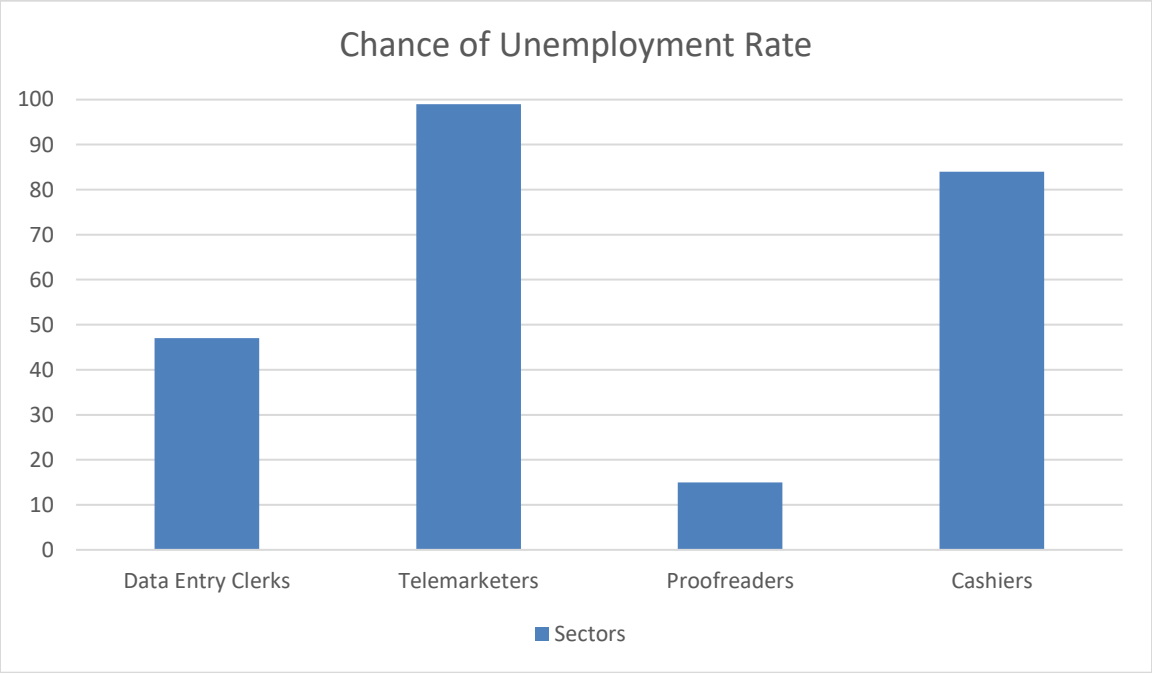
4.11 JOBS THAT ARE LIKELY TO BE REPLACED DUE TO AI

TABLE 4.13: Chance of unemployment due to AI

SECTORS	% OF CHANCE TO BE REPLACED
Data Entry Clerks	47
Telemarketers	99
Proofreaders	15
Cashiers	84
TOTAL	

SOURCE: SECONDARY DATA

FIGURE 4.13



INTERPRETATION:

This graph shows the chances of unemployment due to the impact of AI. Based on the data of responses collected, the most chances of replacement is the Telemarketer sector with 98% closely followed by Cashier Sector with 84%

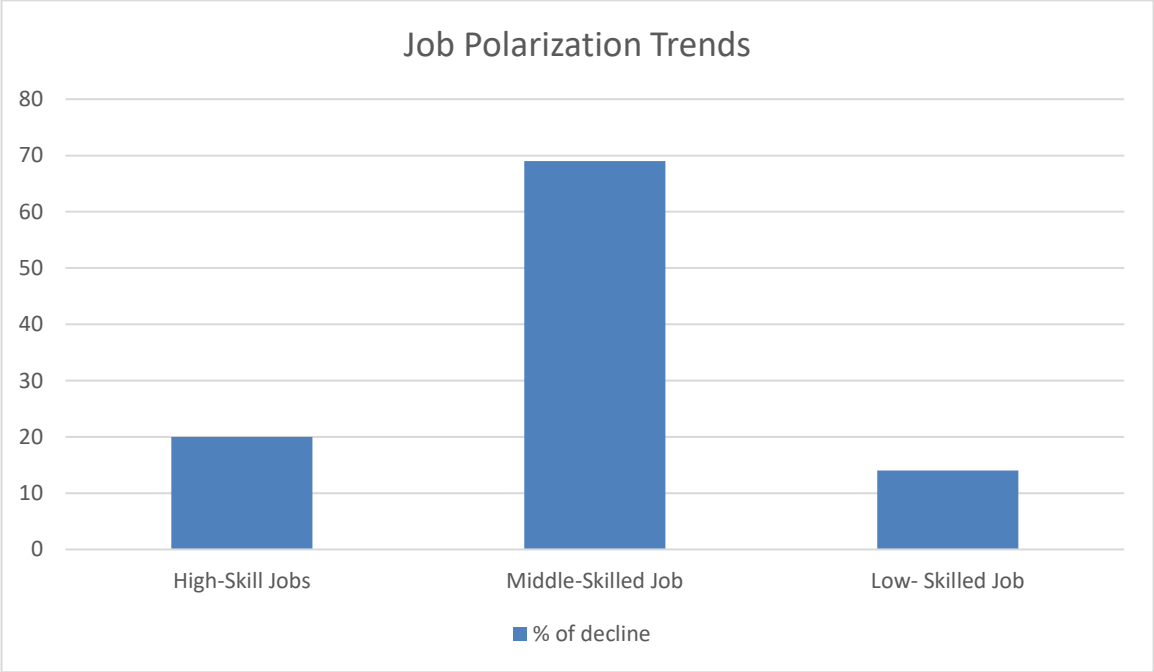
4.12 JOB POLARIZATION TRENDS OVER TIME

TABLE 4.14: Data of Job Polarization Trends

SKILL LEVEL	% OF DECLINE
High-Skilled Job	20
Middle-Skilled Job	69
Low-Skilled Job	14

SOURCE: SECONDARY DATA

FIGURE 4.14



INTERPRETATION:

This graph depicts job polarization trends over time, showing the share of employment in high-skill, middle-skill, and low-skill occupations. A widening gap between high-skill and low-skill employment, with a decline in middle-skill jobs, indicates labor market polarization. AI and automation often contribute to this trend by automating routine tasks in middle-skill occupations while creating new opportunities at the high-skill and low-skill ends of the spectrum.

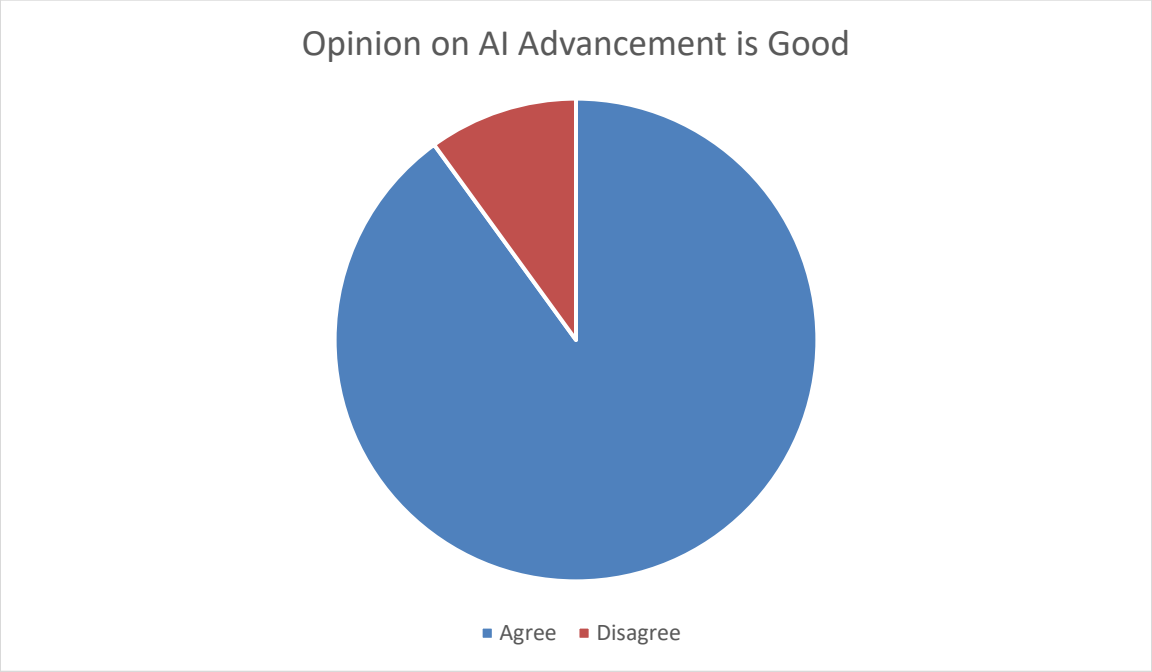
4.13OPINION ON WHETHER AI ADVANCEMENT HELPS THE SOCIETY

TABLE 4.15: Data on AI Advancements benefits the Society

RESPONSE	NUMBER OF RESPONSES	% OF RESPONSES
Agree	45	90
Disagree	5	10
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.15



INTERPRETATION:

This graph highlights regional disparities in AI adoption rates. It may show the percentage of businesses in different regions that have adopted AI technologies. Disparities in AI adoption can impact regional economies, affecting job creation, productivity, and economic growth. Policymakers and business leaders can use this data to identify regions that may benefit from targeted investments in AI infrastructure and skills development.

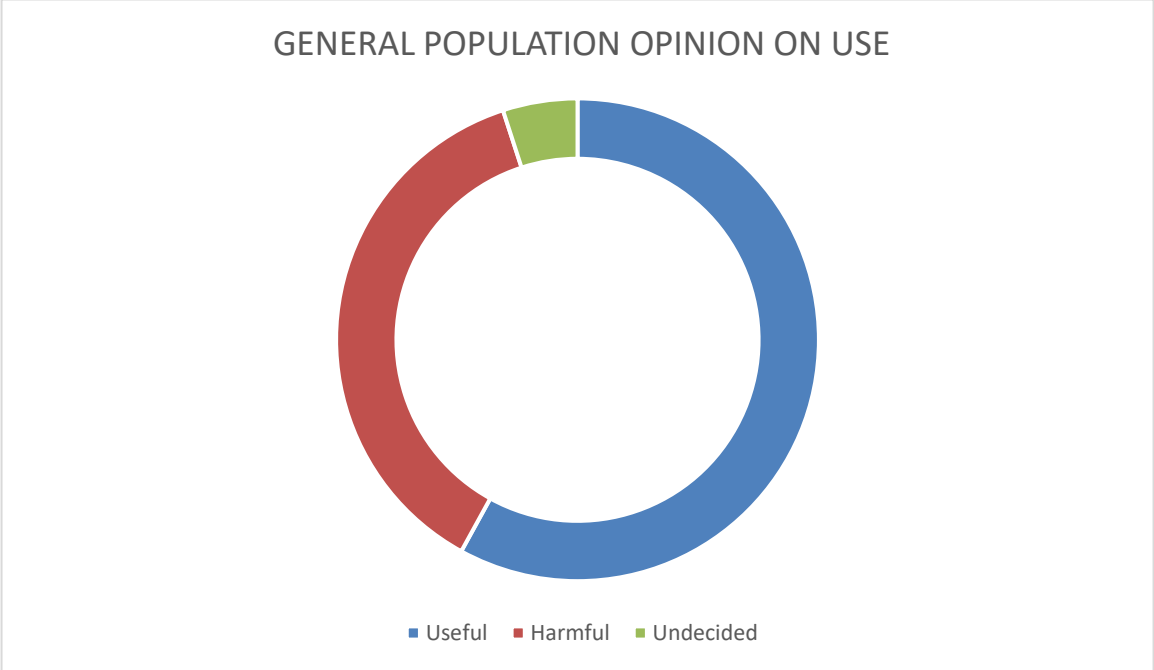
4.14 USEFULLNESS OF AI ADVANCEMNT

TABLE 4.16: Data on use of AI

RESPONSE	NUMBER OF RESPONDENTS	% OF RESPONSES
Yes, they are useful	29	58
No, they rid us of our jobs	18	37
Sometimes	3	5
TOTAL	**50**	**100**

SOURCE: PRIMARY DATA

FIGURE 4.16



INTERPRETATION:

This graph depicts the general population and their opinion on the use of AI and how it affected their lives. 58% of the responders suggested AI advancement is of use to the society, 37% decided it only takes jobs and leave people unemployed. The 5% was undecided.

CHAPTER – V

FINDINGS, SUGGESTIONS AND CONCLUSION

FINDINGS

- From the above study, we can see that 34% of the respondents work in the tech industry, 26% in the retail sector, 24% in the manufacturing industry, 10% in the healthcare industry and 6% in the finance industry.

- 38% of the respondents have over 6 years of work experience. While 28% have 1-5 years of work experience and 34% have less than 1 year of work experience.

- The analysis of the respondents' knowledge of AI and its impact on their industry shows that a significant portion of the respondents have at least some knowledge about AI and its impact on their industry. 74% of the respondents fall into the categories of either “very knowledgeable” or “somewhat knowledgeable”, indicating a certain level of awareness and understanding. However, there are still some respondents who indicate lower levels of knowledge.

- From these results, it's evident that 72% of respondents believe that AI has a significant impact on the job market within their industry. Only a small percentage of respondents perceive either a moderate or slight impact, and there's only one respondent who believes that AI has no impact on the job market.

- The research shows that there are diverse perspectives on the primary impact of AI on jobs within the industry surveyed. 44% of respondents perceive AI as contributing to job creation, while 36% believe it leads to job displacement. Additionally, a smaller percentage see AI primarily driving job transformation.

- A majority of 76% of respondents perceive that AI technologies have led to a change in roles within their industry. This indicates that AI is likely influencing job responsibilities, tasks, or skill requirements, leading to adjustments in the roles of individuals within the workforce.

- The respondents recognise the importance of various measures taken to prepare the workforce for the impact of AI. These measures encompass initiatives focused on skill development, government intervention, job creation, and ethical considerations, highlighting the multifaceted nature of addressing the challenges and opportunities posed by AI technologies in the workplace.

- Certain job roles are perceived as being at higher risk of unemployment due to the adoption of AI technologies. Roles such as cashiers, data entry clerks and telemarketers typically involve routine, repetitive tasks that can be automated or streamlined by AI systems, leading to concerns about displacement in the workforce.

- Job polarization trends over time have resulted in varying degrees of decline across different skill levels. Middle-skilled jobs have been particularly affected, experiencing a substantial decrease of 69%, while high-skilled and low-skilled jobs have also seen declines, albeit to a lesser extent.

- 90% of the respondents believe that AI advancements benefit the society. This indicates a widespread belief among the respondents that AI technologies have a positive impact on various aspects of society, such as efficiency, productivity, innovation, and quality of life.
- 58% of the total responses believe that AI advancements are useful. 37% of the total responses, disagree with the usefulness of AI advancements, believing that they lead to job displacement.

CONCLUSION

AI and the Job Market: A Complex Landscape with Both Challenges and Opportunities
The impact of AI on the job market is a complex and much-debated topic. Studies offer a range of perspectives, from concerns about widespread job displacement to optimism about new opportunities. Here's a summary of the key points:

AI's Impact on Jobs: AI may significantly influence tasks within jobs, potentially leading to job transformation rather than complete elimination. The extent of impact will vary across sectors and occupations.

Skill Shifts and Upskilling: The need for continuous learning and adaptation will be crucial. Educational systems may need to adjust to equip workers with the skills needed to thrive alongside AI (e.g., data analysis, critical thinking, collaboration).

New Job Opportunities: AI may create entirely new job categories, particularly in fields like data science, AI development, and AI ethics.

Ethical Considerations: As AI plays a larger role in the workplace, ethical questions around bias, transparency, and worker rights need to be addressed.

The Human Element: AI is unlikely to fully replace human workers. Skills like creativity, emotional intelligence, and social interaction will remain valuable.

Policy Implications: Governments may need to adapt policies to address potential issues like job displacement, income inequality, and the changing nature of work.

The Future of Work: The future of work in the age of AI is likely to be one of collaboration between humans and machines. The key will be to leverage the strengths of both to create a more productive, inclusive, and fulfilling work environment.

SUGGESTIONS

1. Promote lifelong learning initiatives and invest in education and training programs to equip individuals with the skills needed to thrive in an AI-driven economy. Focus on developing digital literacy, critical thinking, problem-solving, and adaptability skills.

2. Provide opportunities for workers to upskill and reskill to meet the evolving demands of the job market. Offer training programs tailored to emerging industries, technologies, and job roles that are in demand

3. Implement support programs to assist workers transitioning from industries or roles that are heavily impacted by AI to those with better prospects. This could include career counselling, job placement services, and financial assistance for retraining.

4. Continuously monitor and evaluate the impact of AI on the job market to identify emerging trends, challenges, and opportunities. Use data-driven insights to inform policy decisions and interventions aimed at mitigating negative consequences and maximizing positive outcomes.

5. Foster a culture of lifelong learning and adaptability within organizations and society as a whole. Encourage individuals to embrace continuous learning and skill development to remain competitive in a rapidly changing job market.

6. Advocate for the responsible and ethical development and deployment of AI technologies. Establish guidelines and regulations to mitigate potential risks such as bias, discrimination, and privacy violations.

BIBLIOGRAPHY

- Autor, D. (2015). Why are there still so many jobs? The history and future of workplace automation. Journal of Economic Perspectives, 29(3), 3-30. https://www.aeaweb.org/articles?id=10.1257/jep.29.3.3
- Frey, C. B., & Osborne, M. A. (2017). The future of employment: How susceptible are jobs to computerization? Technological Forecasting and Social Change, 114, 254-280. https://www.sciencedirect.com/science/article/pii/S0040162516302244
- World Economic Forum. (2020). The future of jobs report 2020. World Economic Forum. https://www.weforum.org/reports/the-future-of-jobs-report-2020
- Brynjolfsson, E., & McAfee, A. (2014). The second machine age: Work, progress, and Prosperity in a time of brilliant technologies. W.W. Norton & Company. https://www.secondmachineage.com/
- Ford, M. (2015). Rise of the robots: Technology and the threat of a jobless future. BasicBooks.
- Davenport, T. H., & Kirby, J. (2016). Only humans need to apply: Winners and losers in the age of smart machines. Harper Business.
- Bessen, J. E. (2016). How computer automation affects occupations: Technology, jobs, and skills. Law and Economics Working Paper Series, Paper No. 16-17.
- Acemoglu, D., & Restrepo, P. (2019). Automation and new tasks: How technology displaces and reinstates labor. Journal of Economic Perspectives, 33(2), 3-30.
- Manyika, J., Lund, S., Chui, M., Bughin, J., Woetzel, J., Batra, P., ... & Sanghvi, S. (2017). Jobs lost, jobs gained: Workforce transitions in a time of automation. McKinsey Global Institute.
- Arntz, M., Gregory, T., & Zierahn, U. (2016). The risk of automation for jobs in OECD countries: A comparative analysis. OECD Social, Employment and Migration Working Papers, No. 189, OECD Publishing, Paris. https://www.oecd-ilibrary.org/social-issues-migration-health/the-risk-of-automation-for-jobs-in-oecd-countries_5jlz9h56dvq7-en

APPENDIX

QUESTIONNAIRE

Name

Phone or Email Id

1. Please mention your age

   - Below 18
   - 18-25
   - 25-30
   - 30 and above

Section 1: Respondent Background Information

2. What is your current occupation?
   [ ] Business leader/Executive
   [ ] HR professional
   [ ] Employee (please specify department):
   [ ] Job seeker
   [ ] Other (please specify):

3. Which industry do you currently work in?
   [ ] Technology
   [ ] Healthcare
   [ ] Finance
   [ ] Manufacturing
   [ ] Retail
   [ ] Other (please specify):

4. How many years of professional experience do you have?
   [ ] Less than 1 year
   [ ] 1-5 years
   [ ] 6-10 years
   [ ] Above 10 years

Section 2: Perception of AI Impact

5. How knowledgeable are you about AI and its applications in your industry?
   [ ] Very knowledgeable
   [ ] Somewhat knowledgeable
   [ ] Not very knowledgeable
   [ ] Not knowledgeable at all

6. To what extent do you believe AI is currently impacting the job market in your industry?

[ ] Significantly
[ ] Moderately
[ ] Slightly
[ ] Not at all

7. In your opinion, what is the primary impact of AI on jobs in your industry? (Check all that apply)
   [ ] Job creation
   [ ] Job displacement
   [ ] Job transformation
   [ ] No significant impact

Section 3: Experience with AI in the Workplace

8. Has your job role changed due to AI technologies?
   [ ] Yes
   [ ] No
   If yes, please describe how:

9. Have you had to learn new skills because of the introduction of AI in your workplace?
   [ ] Yes
   [ ] No
   If yes, what kind of skills?

Section 4: Future Expectations

10. Do you believe AI will create more jobs than it will replace in the next 10 years in your industry?
    [ ] Yes
    [ ] No
    [ ] Unsure

11. What types of job roles do you think will be most affected by AI in the future?

12. What measures do you think should be taken to prepare the workforce for the impact of AI? (Check all that apply)
    [ ] Upskilling and reskilling programs
    [ ] Government policies on employment and education
    [ ] Creation of new job roles that leverage AI
    [ ] Ethical guidelines for AI development and use
    [ ] Other (please specify):

Section 5: Open-Ended Questions

13. What are your greatest concerns regarding AI and employment?

14. What potential benefits do you see in the integration of AI in the job market?

15. Any additional comments or observations about AI and its impact on jobs in your industry?