WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

A Study on the Impact of AI on Job Markets and Human Creativity

Devika Dinesh

I MCOM, Department of Commerce (PG), Kristu Jayanti College (Autonomous)

DOI : https://doi.org/10.55248/gengpi.6.0325.11129

ABSTRACT

Artificial Intelligence (AI) is changing sectors at a rapid pace, having a big impact on human innovation and job markets. By examining job displacement, the creation of new roles, and the changing skill demands across multiple sectors, this study investigates the extent to which AI-driven automation is changing employment.

Beyond employment, the impact of AI on human creativity is examined, especially in domains like literature, design, music, and art. The study looks into whether AI can boost human creativity or if it could actually make things less creative and innovative. This research offers a fair assessment of AI's potential as a disruptor and an enabler by reviewing the body of existing literature, case studies, and expert opinions.

Introduction

Background of the Study

In many different industries, artificial intelligence (AI) is now a disruptive force that affects human innovation as well as employment markets. The ongoing development of AI-driven automation and machine learning has spurred debates on how these technologies will affect employment, skill needs, and the creative process. Although artificial intelligence (AI) increases production and efficiency, it also raises questions about job displacement, economic upheavals, and the evolving nature of employment.

Similar to this, AI has a significant influence on human creativity since it supports creative pursuits like content production, visual design, music composition, and even scientific study. AI-generated material can boost productivity and creativity, but it also calls into question authorship, originality, and the place of human intuition in creative processes.

Significance of the Study

Understanding the impact of artificial intelligence (AI), which is developing at a rapid pace, is essential since it is changing the nature of human creativity and job markets. This study is important because it sheds light on how AI, employment, and creativity are changing and aids in the adaptation of different stakeholders, including firms, workers, educators, and policymakers. All things considered, this research assists people and organizations in navigating the effects of AI, guaranteeing innovation and sustainable progress while resolving issues.

Literature Review

1. **Zhuohao Wu, Danwen Ji, Kaiwen Yu,(2021) : AI Creativity and the Human-AI Co-creation Model**

Artificial intelligence (AI) is opening up new professional prospects in a wide range of fields. There have been many talks on the development of AI technology and the issues they raise, such as job displacement and moral quandaries. However, merely discussing the ways in which AI might be creatively applied and how it can enhance human creativity is far from enough.

2. **Florent Vinchon, Todd Lubart, Sabrina Bartolotta (2023) : Artificial Intelligence & Creativity: A Manifesto for Collaboration**

The emergence of artificial intelligence (AI) has brought both new opportunities and problems to the creative industry. In order to support the ethical and responsible application of AI in the realm of creativity, this manifesto examines several situations in which humans and machines collaborate on creative work and suggests "fundamental laws of generative AI.

3. **Rebecca Marrone, Victoria Taddeo & Gillian Hill (2022): Creativity and Artificial Intelligence—A Student Perspective**

The global adoption of artificial intelligence (AI) in education raises questions about students' views on AI and creativity. After eight weeks of training, secondary school-aged students identified four main ideas: social, affective, technological, and learning components. Students with more knowledge expressed more favourable opinions about AI incorporating into lessons.

4. **Rajendra K. Bera (2024): Evolving AI Raises Human Creativity Concern**

The Patent Act of 1790 and its subsequent versions have been significantly impacted by the rapid growth of STEM fields since the 1900s. The definition of utility, novelty, and non-obviousness of inventions has evolved, and the disclosure process has changed. Socioeconomic and political institutions have also shifted, leading to significant progress in STEM fields.

5. **Anil R. Doshi, Oliver P. Hauser (2024): Generative artificial intelligence enhances creativity but reduces the diversity of novel content**

An online experimental study investigates the relationship between Generative Artificial Intelligence (GenAI) and creative output. Results show that authors with GenAI ideas are more creative and their works are considered better. However, GenAI stories are more similar to human-created ones. The findings have implications for fostering creativity.

6. **Hye-Kyung Lee (2022): Rethinking creativity: creative industries, AI and everyday creativity**

This commentary reflects on how creativity is dehumanised and how its labour aspects are hindered in the three recent developments in our understanding of arts, culture and creativity: the creative industries; AI creativity; and creativity in everyday life. The creative industries discourse instrumentalises and dehumanises creativity by hiding labour perspectives and treating creativity as human capital and a generator of IP.

7. **Nisreen Ameen, Gagan Deep Sharma, Shlomo Tarba (2022): Toward advancing theory on creativity in marketing and artificial intelligence**

This study aims to develop theories on creativity in AI and marketing, addressing the insufficient literature on its impact on marketing innovation. This study provides a comprehensive understanding of how AI can be integrated into marketing innovation, offering a solid foundation for future research.

Research Objectives

1. To analyse the impact of AI on job markets
2. To explore AI's influence on human creativity
3. To identify emerging job opportunities and skill demands

Statement of the problem

AI's rapid development raises concerns about job displacement, skill shifts, and potential loss of creative human functions, with some arguing it encourages innovation, while others fear it could replace human creativity. This study explores the impact of AI on human creativity and employment markets, identifying its advantages and potential drawbacks, and guiding strategies to maximize its benefits.

Hypothesis for the study

Null Hypothesis (H_0): AI has no significant impact on job markets and human creativity.

Alternative Hypotheses (H_1 & H_2):

H_1: AI has a significant impact on job markets, leading to job displacement and/or the creation of new job opportunities.

Scope of the study

This study investigates how artificial intelligence (AI) is affecting human creativity and employment markets. It looks at how automation powered by AI is changing the nature of work, highlighting the sectors that are most impacted by job displacement and those that stand to gain from AI-driven job growth. The report also looks into how skill demands have changed, emphasizing the necessity of worker flexibility and reskilling.

Research Methodology

This section outlines the research methods used to study the impact of AI on job markets and human creativity. The study is based on primary data collection and analysed using descriptive statistics.

Data Collection Method

- Primary Data: Data is collected through questionnaires.
- Sampling Method: A random sampling technique is used to ensure diverse respondent representation.
- Sample Size: 75 individuals
- Data Collection Tools: Google forms

Data Analysis Method

Descriptive Statistics: Used to summarize and interpret the data effectively.

- Frequency Distribution & Percentage Analysis
- Visualization Tools: Charts, graphs, and tables to present findings.

Regression Analysis: to determine the relationship between independent and dependent variables.

Limitations of the study

- AI is Changing Fast – AI technology keeps evolving, meaning that new developments could change the job market and creative industries in ways we cannot fully predict.

- Not Enough Long-Term Data – AI is still relatively new, so there isn't much long-term data available to fully understand its long-lasting effects on jobs and creativity.

Analysis & interpretation

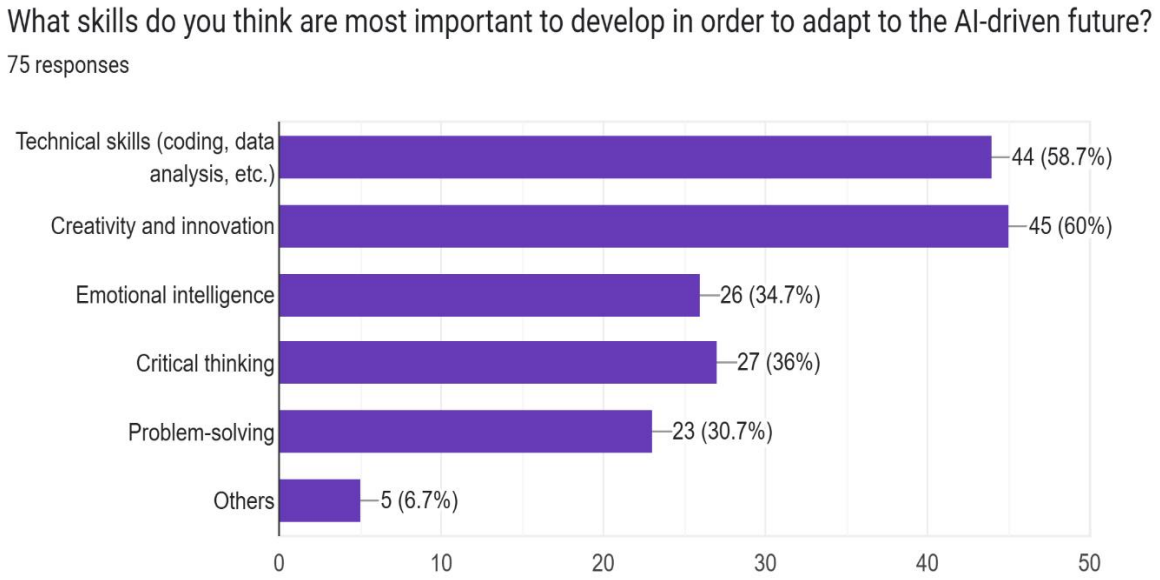
1. Demographic Analysis

Demographic Variable	**Category**	**Frequency**	**Percentage**
Age	18-25	64	85.33%
	26-35	7	9.33%
	36-45	1	1.33%
	Above 45	3	4.00%
Gender	Female	42	56.00%
	Male	33	44.00%
Occupation	Student	57	76.00%
	Employed	15	20.00%
	Self-employed	3	4.00%
Highest Level of Education	Bachelor's degree	50	66.67%
	Master's degree	16	21.33%
	High school or equivalent	7	9.33%
	Others	2	2.67%

2. Frequency table on the skills required to adapt to AI driven future

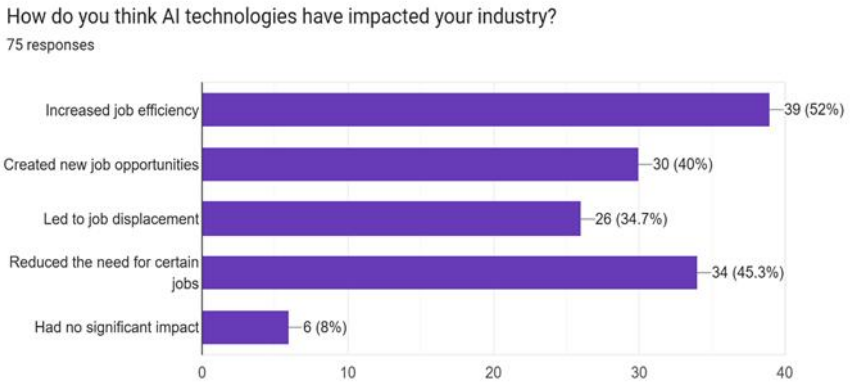
Skill	**Frequency**	**Percentage (%)**
Creativity and innovation	45	60.00%
Technical skills (coding, data analysis, etc.)	44	58.70%

Critical thinking	27	36.00%
Emotional intelligence	26	34.70%
Problem-solving	23	30.70%
Others	5	6.70%



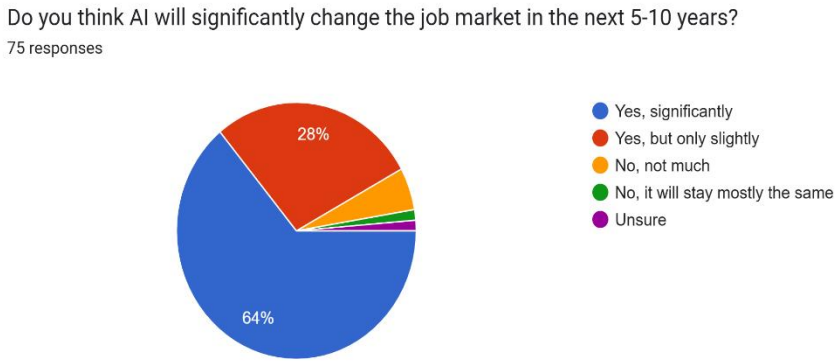
3. Frequency table on the impact of AI on industries

Impact of AI on Industry	**Frequency**	**Percentage (%)**
Increased job efficiency	39	52.00%
Created new job opportunities	30	40.00%
Led to job displacement	26	34.70%
Reduced the need for certain jobs	34	45.30%
Had no significant impact	6	8.00%



Interpretation - The data suggests that AI technologies have primarily increased job efficiency -(52%) and reduced the need for certain jobs (45.3%), while also creating new job opportunities (40%) and leading to some job displacement (34.7%), with only 8% reporting no significant impact.

4. Significance of AI in the next 5-10 years



Interpretation : The majority (64%) believe AI will significantly change the job market in the next 5-10 years, while 28% think the change will be slight. Only a small percentage believe AI will have little to no impact or are unsure.

Regression Analysis

Coefficients [a]						
Model				Standardized Coefficients	t	Sig.
				Beta		
1	(Constant)	3.123	0.604		5.170	0.000
	Have you or anyone you know experienced job displacement due to AI or automation?	-0.230	0.102	-0.281	-2.252	0.028
	In your opinion, can AI be truly creative in the same way humans are?	0.110	0.089	0.145	1.235	0.221
	How do you see the relationship between AI and human creativity in the future?	0.207	0.109	0.250	1.899	0.062
	Do you think AI will ultimately create more opportunities or more challenges for workers?	-0.014	0.116	-0.015	-0.123	0.903
	In your opinion, how important is it for workers to learn about AI and automation in today €™s job market?	0.214	0.135	0.177	1.580	0.119
	Do you believe the education system is adequately preparing students for an AI-driven workforce?	-0.023	0.114	-0.024	-0.205	0.838
	How much of your own work involves creativity that AI could potentially assist with?	0.169	0.116	0.178	1.458	0.149
	a. Dependent Variable: Do you think AI will significantly change the job market in the next 5-10 years?					

Interpretations - Losing a job as a result of AI is the only significant predictor.

The difference between human and AI creativity is barely noticeable.

AI's impact on the labour market is not significantly predicted by any of the other elements.

The best predictor of conviction in AI's effect on the labour market, according to the overall model, appears to be personal experience with AI-related job loss.

Conclusion

AI has a huge impact on human creativity and employment markets, bringing with it both opportunities and concerns. While certain repetitive and ordinary tasks may be replaced by AI-driven automation, this study shows that it also creates jobs in technology-driven industries, especially in data science, cybersecurity, and AI development. People must constantly reskill and adapt to the changing nature of the workforce in order to stay competitive in an AI-augmented economy.

AI plays an equally fundamental role in human creation. With the use of AI-powered technologies, creative expression, music composition, and content creation have all improved, enabling greater productivity and creativity. Concerns about AI's capacity to accurately mimic human creativity and intuition still exist, nevertheless. Ensuring that AI enhances human creativity rather than replacing it requires addressing ethical issues such as authorship, intellectual property rights, and the possible over-reliance on AI-generated content.

All things considered, balanced policies that support ethical AI practices, workforce reskilling, and responsible AI adoption should direct the integration of AI into labour markets and creative industries. In order to ensure that technological improvements meet societal and economic objectives while maintaining human inventiveness, future research should concentrate on creating frameworks for human-AI collaboration.

References

1. Wu, Z., Ji, D., Yu, K., Zeng, X., Wu, D., & Shidujaman, M. (2021). AI creativity and the human-AI co-creation model. In *Human-computer interaction. theory, methods and tools: thematic area, HCI 2021, held as part of the 23rd HCI international conference, hCII 2021, virtual event, July 24–29, 2021, proceedings, part i 23* (pp. 171-190). Springer International Publishing.
2. Vinchon, F., Lubart, T., Bartolotta, S., Gironnay, V., Botella, M., Bourgeois-Bougrine, S., ... & Gaggioli, A. (2023). Artificial intelligence & creativity: A manifesto for collaboration. *The Journal of Creative Behaviour*, *57*(4), 472-484.
3. Marrone, R., Taddeo, V., & Hill, G. (2022). Creativity and artificial intelligence—A student perspective. *Journal of Intelligence*, *10*(3), 65.
4. Bera, R. K. (2024). Evolving AI Raises Human Creativity Concern. In *The Evolution of Knowledge: Scientific Theories for a Sustainable Society* (pp. 109-124). Singapore: Springer Nature Singapore.
5. Doshi, A. R., & Hauser, O. P. (2023). Generative artificial intelligence enhances creativity but reduces the diversity of novel content. *arXiv preprint arXiv:2312.00506*.
6. Lee, H. K. (2022). Rethinking creativity: creative industries, AI and everyday creativity. *Media, Culture & Society*, *44*(3), 601-612.
7. Ameen, N., Sharma, G. D., Tarba, S., Rao, A., & Chopra, R. (2022). Toward advancing theory on creativity in marketing and artificial intelligence. *Psychology & marketing*, *39*(9), 1802-1825.
8. Acemoglu, D., & Restrepo, P. (2021). *Automation and new tasks: How technology displaces and reinstates labour.* Journal of Economic Perspectives, **35**(1), 3-30. https://doi.org/10.1257/jep.35.1.3
9. Boden, M. A. (2018). *Artificial intelligence and human creativity: Can computers be creative?* AI & Society, **33**(1), 27-34. https://doi.org/10.1007/s00146-017-0791-7
10. World Economic Forum. (2020). *The future of jobs report 2020.* Retrieved from https://www.weforum.org