



Artificial Intelligence has Its Flip Side Too?

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ABSTRACT

Artificial Intelligence or AI is a technology that leads computers and machines to mimic human intelligence. Thus, the computers and machines can learn from data, solve problems and make decisions. The objectives of the study are to identify the factors that optimise the performance of AI and ascertain from the perspective of the respondents if AI has its flip side too. The study is descriptive cum analytical in nature. Data has been collected by using interview schedules. The study reckons three categories of respondents namely Organisations (numbering 30), AI Experts (numbering 50) and Employees (numbering 50). The researcher used the Microsoft Excel spreadsheet package for data analysis, reporting and deployment. To collect primary data, she used a 4-point Likert scale to elicit the respondents' replies to the queries raised in the Interview Schedule. Her key findings revealed that AI is not about replacing employees; it is about raising the productivity of employees. AI-enabled organisations can move from a reactive stance to a proactive stance. AI can take over decision-making tasks; it can affect employees' solution space, in the process, though. Consequently, it can limit the employees' autonomy resulting in their frustration.

Keywords: autonomy; mimic; optimise; proactive; reactive

1.1 Introduction

Artificial Intelligence popularly known by its acronym AI, is a technology that leads computers and machines to mimic human intelligence. Resultantly, the computers and machines learn from data, solve problems and make decisions. AI systems analyse patterns in information so they can perform tasks like recognizing speech, identifying images, or driving cars. In other words, they do not follow strict, pre-programmed rules. In India, through the 1990s, AI research was pursued seriously in Indian universities. The Indian Association for Research in Computing Science (IARCS), founded in 1990, helped organise and promote computer science research, including AI. Conferences and workshops on machine learning, neural networks, and natural language processing drew participants from across

the country. Research papers from IIT Madras, IIT Delhi, and Jadavpur University gained recognition at international conferences. From the early academic explorations of the 1970s and 1980s, through the IT boom that built a world-class software industry, to the deep learning era that sparked a startup revolution and elevated Indian-origin scientists to the top of global AI, India has established itself as a serious player in the AI age. The 2020s mark a new chapter -- one in which India is no longer content to be a consumer or services provider in the global AI economy. It aspires to be a creator of foundational AI technologies. With the IndiaAI Mission, significant investment in multilingual AI, a vast and growing talent base, and an enormous domestic market that presents unique AI use cases, India has the ingredients to become one of the defining AI nations of the 21st century.

1.2 Review of literature

The following paragraphs review the literature on the subject:

1. *Kruthika* and *Vikrama* state that artificial intelligence (AI) is transforming the way organizations approach employee engagement (*Kruthika & Vikrama Dr, 2025*). It facilitates personalized experiences, improves communication, and delivers actionable insights. By analysing employee data, AI can provide solutions to the needs of individual employees. For example, it can recommend training programmes, wellness initiatives, and career development pathways. AI-powered tools can facilitate seamless communication and collaboration, thereby minimising reliance on physical presence and fostering teamwork. AI can warrant organizations to proactively identify and tackle workplace issues thanks to its data-driven insights. In the process, a supportive and responsive environment can be fostered at the workplace. To ensure effective implementation of AI-driven tools, employers should adequately train their employees in AI literacy, suggest the researchers. Further, the employers should enlighten the employees about the need to realise the potential of AI tools.

2. *Shukla, Sudha* asserts that businesses need to keep their employees engaged, to sustain productivity and raise workplace health (*Shukla, 2025*). Traditional tools like annual surveys and performance reviews cannot capture the feeling of people's dissatisfaction with the employer in real time, adds the researcher. The researcher looks at how AI-powered sentiment analysis changes HR practices. The analysis involves natural language processing (NLP) and machine learning to grasp unstructured data from emails, chats, surveys, and other forms of communication. Thanks to the analysis, the HR practices switch to the proactive mode. AI helps targeted interventions like pulse surveys, leadership check-ins, and wellness programs perform better and quicker by detecting early signs of disengagement, burnout, or dissatisfaction. Further, real-time sentiment scores promote personalised engagement strategies like customised recognition, adaptive learning, and personalised coaching. This creates a culture based on trust, responsiveness, and empathy. The research stresses the need for moral implementation that addresses issues like data privacy, openness, and algorithmic bias to build trust and gain acceptance from employees. The researcher suggests deployment of AI to

gain sentiment insights into HR processes to significantly improve the outcomes of engagement. Organisations must prioritise balanced data governance and constant testing of AI tools to ensure a lasting effect.

3. *Shaista* argues that integration of artificial intelligence into human resource management transforms established practices in performance evaluation and employee training (*Shaista, 2025*). The researcher dismisses traditional performance appraisals outright because they have long been plagued by subjectivity, inconsistent feedback, and bias. Conventional training programmes default to generic, standardized approaches. They seldom cater to individual learning needs. AI, on the other hand, brings a data-driven, real-time edge to the table. By exploiting machine learning, natural language processing, and predictive analytics, organizations can now monitor employee activities, identify behavioural patterns, and promptly generate objective feedback. Thus, greater accountability and superior transparency are achieved at the workplace. AI renders personalized learning practical. By analysing skill gaps, and by learning preferences and performance data, intelligent systems deliver adaptive content. They support just-in-time learning and exploit tools like virtual simulations and chatbots to boost engagement and knowledge retention.

4. *Sharma, Sunita* analyse how AI integration affects employees' job satisfaction (*Sharma & Nimbria, 2025*). According to them, AI-driven tools can raise job satisfaction by automating mundane tasks, boosting efficiency, and facilitating more engaging and superior output. Many employees report increased workplace productivity and enjoyment when supported by AI.

5. *Flow, Bohl* reveals, quoting new research, a troubling paradox: Workflow optimization using AI is delivering immediate performance gains, while unobtrusively undermining long-term employee engagement (*Flow, 2025*). A study with over 3,500 participants showed what happened when professionals integrated AI into their daily work. The findings should give every product leader pause for thought. The benefits accruing from performance were undeniable. Participants using AI produced markedly superior quality outputs. Performance reviews that followed were more analytical and comprehensive; emails revealed greater empathy and warmth. AI had enhanced their workflow. However, the psychological cost was noteworthy. When participants transitioned from AI-assisted tasks back to independent work, they consistently reported an 11 percent decline in intrinsic motivation and a 20 percent rise in boredom. Those who worked sans AI maintained stable psychological states throughout. It led the researchers to identify the root cause: AI removed the cognitively demanding aspects of work -- the elements that created engagement and fulfilment, to be precise.

6. *Nishtha, Shalini, Arpan and Shivam* examine the positive and negative employee experiences arising from adoption of artificial intelligence (AI) and the emergence of technostress (*Nishtha, Shalini, Arpan, & Shivam, 2022*). They attempt to unravel the human resource development-related

challenges coinciding with the onset of Industry 4.0. They interviewed 32 professionals with average work experience of 7.6 years, working across nine industries. They analysed the transcripts using NVivo. Their findings unveiled adverse impacts of the adoption of AI. The adverse impacts concerned information security, data privacy and drastic changes resulting from digital transformation. Job risk and insecurity brewing in the employee psyche also came to the fore by way of adverse impact. Several positive impacts came to the fore too. They concerned work-related flexibility and autonomy, creativity and innovation and overall enhancement in job performance. The researchers also identified some factors that exposed employees to technostress. The factors were work overload, job insecurity and complexity.

1.3 Research gap

The need for convincing the employees that AI is just another tool an organisation requires to raise employee productivity has not been emphasised in the reviewed studies. Research that bridges this gap will be a valuable addition to the literature already obtaining on the topic, given that the findings of the research will help resolve the practical issues the organization may be confronted with, in the near or distant future. The employee-friendly aspect of AI is yet to register with the uninitiated, and the findings of the present research will go some way in achieving this too. Additionally, such aspects of AI that the respondents view with suspicion are also likely to come to the fore.

1.4 Objectives

The objectives of the study are to

1. Identify the factors that optimise the performance of AI
2. Ascertain such aspects of AI that the respondents view with suspicion

1.5 Hypotheses proposed to be tested

The study proposes to test the following hypotheses:

1. A reactive organisation transforming into a proactive organisation is not associated with the former's adoption of AI
2. AI spawning technostress and anxieties is not associated with employee job security and workload

1.6 Research design

The following paragraphs furnish the research methodology.

1.6.1 Research methodology

The study is descriptive cum analytical in nature. It is analytical to an extent since it tests hypotheses and specifies and interprets relationships. Unlike a descriptive study, it employs advanced statistical techniques like chi-squared test.

1.6.2 Sources of data

The study uses primary as well as secondary data. Primary data has been collected from three categories of respondents, namely, 30 organisations, 50 AI experts and 50 employees.

1.6.3 Sampling plan

Organisations: Given the limited number of organisations which have implemented AI in the area under study, purposive or judgement sampling under the non-probability method was employed. The researcher selected 30 organisations operating in Bangalore (urban) and Bangalore (rural) districts. This criterion, according to the researcher, is the most appropriate one for the present study. What is important is the typicality and the relevance of the sampling units to the study and not the overall representativeness to the population. Thus, it will guarantee inclusion of the relevant elements in the sample. Probability sampling plans cannot give such a guarantee.

Employees: Given the limited number of employees with workplace exposure to AI in the area under study, purposive or judgement sampling under the non-probability method was employed. The researcher selected 50 such employees domiciled in Bangalore (urban) and Bangalore (rural) districts. This criterion, according to the researcher, is the most appropriate one for the present study. What is important is the typicality and the relevance of the sampling units to the study and not the overall representativeness to the population. Thus, it will guarantee inclusion of the relevant elements in the sample. Probability sampling plans cannot give such a guarantee.

AI experts: Given the limited number of AI experts available in the area under study, purposive or judgement sampling under the non-probability method was employed. The researcher selected 50 such experts domiciled in Bangalore (urban) and Bangalore (rural) districts. This criterion, according to the researcher, is the most appropriate one for the present study. What is important is the typicality and the relevance of the sampling units to the study and not the overall representativeness to the population. Thus, it will guarantee inclusion of the relevant elements in the sample. Probability sampling plans cannot give such a guarantee.

1.6.4 Data collection instruments

Data has been collected by using interview schedules.

1.6.5 Data processing and analysis plan

The researcher used manual and mechanical methods for data processing. He used the Microsoft Excel spreadsheet package for data analysis, reporting and deployment. To collect primary data, he used a 4-point Likert scale to elicit the respondents' replies to the queries raised in the Interview Schedule. The researcher used the 4-point Likert scale to ensure that the respondents were obliged to express their views.

1.6.6 Limitations of the study

The findings of this study have to be viewed in the backdrop of some limitations. With fewer organisations readily coming forward to share information on the various aspects of their AI-enabled operations, the researcher had to make do with a smaller sample size. A more representative sample will undoubtedly impart superior accuracy to the findings. The possible bias in the self-reported data can also be minimised, in such an event.

1.7 Analysis of primary data collected from 30 organisation respondents

In the following paragraphs, the primary data collected from the 30 organisation respondents are analysed.

1.7.1 With AI, reactive organisations turn proactive

It is believed in informed circles that with AI, reactive organisations turn proactive. Hence the researcher sought to know from the respondents if they would agree with the statement that with AI, reactive organisations turn proactive. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.1**With AI, reactive organisations turn proactive.**

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	17	57
Agree (2)	7	23
Disagree (3)	4	13
Strongly Disagree (4)	2	7
Total	30	100

57 percent of the respondents strongly agree with the statement that with AI, reactive organisations turn proactive. 23 percent of the respondents agree with the statement that with AI, reactive organisations turn proactive. 13 percent disagree with the statement that with AI, reactive organisations turn proactive. Seven percent strongly disagree with the statement that with AI, reactive organisations turn proactive.

80 percent agree with the statement that with AI reactive organisations turn proactive.

1.7.2 AI spawns technostress and anxieties about employees' job security and workload

One view making the rounds has it that AI spawns technostress and anxieties about employees' job security and workload. Hence the researcher sought to know from the respondents if they would agree with the statement that AI spawns technostress and anxieties about employees' job security and workload. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.2**AI spawns technostress and anxieties about employees' job security and workload.**

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	5	17
Agree (2)	3	10
Disagree (3)	13	43
Strongly Disagree (4)	9	30
Total	30	100

17 percent of the respondents strongly agree with the statement that AI spawns technostress and anxieties about employees' job security and workload. 10 percent of the respondents agree with the statement that AI spawns technostress and anxieties about employees' job security and workload. 43 percent disagree with the statement that AI spawns technostress and anxieties about employees' job security and workload. 30 percent strongly disagree with the statement that AI spawns technostress and anxieties about employees' job security and workload.

27 percent agree with the statement that AI spawns technostress and anxieties about employees' job security and workload.

1.8 Analysis of primary data collected from 50 expert respondents

In the following paragraphs, the primary data collected from the 50 expert respondents are analysed.

1.8.1 With AI, reactive organisations will turn proactive

It is believed in informed circles that with AI, reactive organisations will turn proactive. Hence the researcher sought to know from the respondents if they would agree with the statement that with AI, reactive organisations will turn proactive. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.3

With AI, reactive organisations will turn proactive.

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	22	44
Agree (2)	17	34
Disagree (3)	8	16
Strongly Disagree (4)	3	6
Total	50	100

44 percent of the respondents strongly agree with the statement that with AI, reactive organisations will turn proactive. 34 percent of the respondents agree with the statement that with AI, reactive organisations will turn proactive. 16 percent disagree with the statement that with AI, reactive organisations will turn proactive. Six percent strongly disagree with the statement that with AI, reactive organisations will turn proactive.

78 percent agree with the statement that with AI, reactive organisations will turn proactive.

1.8.2 AI can spawn technostress and anxieties about employees' job security and workload

One view making the rounds has it that AI can spawn technostress and anxieties about employees' job security and workload. Hence the researcher sought to know from the respondents if they would agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.4**AI can spawn technostress and anxieties about employees' job security and workload.**

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	11	22
Agree (2)	12	24
Disagree (3)	15	30
Strongly Disagree (4)	12	24
Total	50	100

22 percent of the respondents strongly agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. 24 percent of the respondents agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. 30 percent disagree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. 24 percent strongly disagree with the statement that AI can spawn technostress and anxieties about employees' job security and workload.

46 percent agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload.

1.9 Analysis of primary data collected from 50 employee respondents

In the following paragraphs, the primary data collected from the 50 employee respondents are analysed.

1.9.1 With AI, reactive organisations will turn proactive

It is believed in informed circles that with AI, reactive organisations will turn proactive. Hence the researcher sought to know from the respondents if they would agree with the statement that with AI, reactive organisations will turn proactive. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.5

With AI, reactive organisations will turn proactive.

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	9	18
Agree (2)	13	26
Disagree (3)	19	38
Strongly Disagree (4)	9	18
Total	50	100

18 percent of the respondents strongly agree with the statement that with AI, reactive organisations will turn proactive. 26 percent of the respondents agree with the statement that with AI, reactive organisations will turn proactive. 38 percent disagree with the statement that with AI, reactive organisations will turn proactive. 18 percent strongly disagree with the statement that with AI, reactive organisations will turn proactive.

44 percent agree with the statement that with AI, reactive organisations will turn proactive.

1.9.2 AI can spawn technostress and anxieties about employees' job security and workload

One view making the rounds has it that AI can spawn technostress and anxieties about employees' job security and workload. Hence the researcher sought to know from the respondents if they would agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. The respondents' agreement / otherwise with the statement is expressed at four levels, namely, Strongly Agree, Agree, Disagree and Strongly Disagree. These variates are assigned the values 1, 2, 3 and 4 respectively. Their levels of agreement with the statement are reflected in the following Table.

Table-1.6

AI can spawn technostress and anxieties about employees' job security and workload.

<i>Levels of Agreement (Values)</i>	<i>Frequency</i>	<i>Percentage</i>
Strongly Agree (1)	17	34
Agree (2)	24	48
Disagree (3)	6	12
Strongly Disagree (4)	3	6
Total	50	100

34 percent of the respondents strongly agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. 48 percent of the respondents agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. 12 percent disagree with the statement that AI can spawn technostress and anxieties about employees' job security and workload. Six percent strongly disagree with the statement that AI can spawn technostress and anxieties about employees' job security and workload.

82 percent agree with the statement that AI can spawn technostress and anxieties about employees' job security and workload.

1.10 Testing of hypotheses

Conclusions are inferences / generalisations drawn from the findings and relate to hypotheses. They are answers to the research questions or the statements of rejection or otherwise of hypotheses. In the following paragraphs, the hypotheses are tested.

1.10.1 First hypothesis

Research / Null hypothesis (H₀): "A reactive organisation transforming into a proactive organisation is not associated with the former's adoption of AI"

Based on the primary data collected from the respondents, vide Tables: 4.1, 4.5 and 4.9, a chi-square test was applied to test the hypothesis. The following Table reveals the computation made using MS-Excel:

	Category	Observed Values		
		Agree	Disagree	Total
	Organisations	24	6	30
	Experts	39	11	50
	Employees	22	28	50
	Total	85	45	130
Expected Values				
	Category	Agree	Disagree	Total
	Organisations	19.61538462	10.38461538	30
	Experts	32.69230769	17.30769231	50
	Employees	32.69230769	17.30769231	50
	Total	85	45	130
2		Agree	Disagree	
	o-e	4.3846	-4.3846	
		6.3077	-6.3077	
		-10.69230769	10.69230769	
	(o-e)^2	19.2249	19.2249	
		39.7870	39.7870	
		114.3254	114.3254	
	((o-e)^2)/e	0.9801	1.8513	
		1.2170	2.2988	
		3.497013575	6.605470085	
	CV	5.6941	10.7556	6.3472
	TV			5.9915
	p			0.0003

The calculated value of χ^2 is 6.3472, higher than the Table value of 5.9915 for an alpha of 0.05 at two degrees of freedom. $p=0.0003$ is the inverse of the one-tailed probability of the chi-squared distribution and < 0.05 . Hence the null hypothesis is rejected.

1.10.2 Second hypothesis

Research / Null hypothesis (H₀): “AI spawning technostress and anxieties is not associated with employee job security and workload ”

Based on the primary data collected from the respondents, vide Tables: 4.4, 4.8 and 4.1, a chi-square test was applied to test the hypothesis. The following Table reveals the computation made using MS-Excel:

	Category	Observed Values		
		Agree	Disagree	Total
	Organisations	8	22	30
	Experts	23	27	50
	Employees	41	9	50
	Total	72	58	130
		Expected Values		
	Category	Agree	Disagree	Total
	Organisations	16.61538462	13.38461538	30
	Experts	27.69230769	22.30769231	50
	Employees	27.69230769	22.30769231	50
	Total	72	58	130
2		Agree	Disagree	
	o-e	-8.6154	8.6154	
		-4.6923	4.6923	
		13.30769231	-13.30769231	
	(o-e)^2	74.2249	74.2249	
		22.0178	22.0178	
		177.0947	177.0947	
	((o-e)^2)/e	4.4672	5.5455	
		0.7951	0.9870	
		6.39508547	7.93872679	
	CV	11.6574	14.4713	11.7949
	TV			5.9915
	p			0.0000

The calculated value of χ^2 is 11.7949, higher than the Table value of 5.9915 for an alpha of 0.05 at two degrees of freedom. $p=0.0000$ is the inverse of the one-tailed probability of the chi-squared distribution and < 0.05 . Hence the null hypothesis is rejected.

1.11 Conclusions

The following paragraphs reflect the conclusions arrived at by the researcher:

- ✓ AI is not about replacing employees; it is about raising the productivity of employees
- ✓ AI-enabled organisations can move from a reactive stance to a proactive stance
- ✓ AI can take over decision-making tasks; it can affect employees' solution space, in the process, though. Consequently, it can limit the employees' autonomy resulting in their frustration.
- ✓ A hybrid of AI technologies and human judgment will help sustain ethical and context-sensitive HR practices
- ✓ AI can spawn a new stress, namely, technostress and anxieties about job security and workload
- ✓ Whether AI elevates or erodes job satisfaction, largely depends on how organizations implement it.
- ✓ Supportive integration strategies (like training, transparency, and human-centric design) tend to raise satisfaction, while perfunctory implementations can engender fear and burnout .
- ✓ AI's effect on job satisfaction can swing either way – it can be a force for greater fulfilment or for frustration, depending on how businesses and policymakers navigate the technological transition.
- ✓ The question is whether an organisation can harness AI's benefits without sacrificing the intellectual engagement that makes work meaningful.
- ✓ Organizations that successfully implement digital engagement strategies witness higher employee satisfaction, enhanced productivity, and lower turnover rates.
- ✓ By embracing AI technologies, organizations can cultivate a culture of engagement, empower their workforce, and achieve sustainable growth.

1.12References

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