# Integrating Ethical Implications of AI Amidst Dynamic Learning Environment in Few Indian Private Sector Organisations

Kavita Shastri
Professor and Dean Academics
Arunachal University of Studies
kavita.s@arunachaluniversity.ac.in

R

Madhurima Bhowmick
Ex- Student
Globsyn Business School,Kolkata
madhurima.pmib8k@globsyn.edu
https://doi.org/10.5281/zenodo.17639877

#### **ABSTRACT**

The research aims to explore how artificial intelligence affects learning and professional growth within the Indian private sector. The advent of emerging technologies promises to transform the workplace, with AI leading the charge. AI is significantly transforming the business landscape. As a result, training exercises have a stronger impact on targeted growth. Additionally, AI facilitates the adoption of innovative learning styles. AI has the potential to improve interactivity and engagement in L&D by personalizing gamified learning sessions and simulations. Nevertheless, AI-driven L&D may present certain difficulties. Over-reliance on technology may undervalue the value of mentoring and interpersonal communication in the learning process. This paper examines how artificial intelligence (AI) is currently incorporated into Learning and Development (L&D) initiatives within the private sector. Also what are the pros and cons of incorporating AI into Learning and Development (L&D) initiatives, considering its implications for labour market inequality. The integrated analysis helped in providing a brief synopsis of the data for broad descriptive analysis after 100 of replies were obtained through survey technique using open ended questionnaire.

Keywords: Artificial Intelligence, Personalized learning, Learning and Development, Performance improvement, AI-driven L&D, Ethical data, Workforce adaptability,

### A. INTRODUCTION

Artificial intelligence (AI), has the power to fundamentally alter many aspects of both personal and professional life. By not only attempting to duplicate human-like thinking but also to create new types of intelligence, it expands upon humanity's long-standing search to understand cognition, perception, and prediction. AI has become a crucial component of technology as it has advanced, from basic database functions to thinking creatures. Multiple studies have shown how AI's arrival is changing the workplace as it will have a major impact on how businesses operate. The influx of tech-savvy younger generations into the workforce emphasizes this change, requiring firms to use technology

to increase productivity and engagement. For instance gamification, instantaneous feedback systems, and customized dashboards. By 2035, AI will have a significant impact on actual gross value across a range of industries. The competitive benefits of adopting AI have been highlighted by early investments made by major tech companies, but the technology's full potential is still mostly unrealized. The next major technological shift is being heralded by the wide-ranging effects of AI and allied technologies like 3D printing, AR/VR, IOT, and robotics. Even with the widespread integration of technology in company operations, certain departments, including HR, have taken a more measured approach to digital transformation. HR procedures have already been improved by the digital revolution, which has also changed the function of HR in businesses. As a result, HR is urged to take the lead in assisting in preparing the workforce for upcoming technology demands.

At the moment, applicant screening and basic data analytics are where AI is most commonly used in HR; its effects on other HR domains are still not well understood. Although there are few theoretical frameworks elucidating the relationship between AI and HR, AI has the ability to greatly improve HR administrative tasks, employee relations, and teamwork.

### **B.** OBJECTIVE OF THE STUDY

- i. To examine how artificial intelligence (AI) is currently incorporated into Learning and Development (L&D) initiatives within the private sector.
- ii. To examine the pros and cons of incorporating AI into Learning and Development (L&D) initiatives, considering its implications for labour market inequality.
- iii. To investigate ethical dilemmas arising from algorithmic biases, privacy concerns, consent issues, data security, and the use of AI for L&D.
- iv. To evaluate how prepared private sector companies are to implement and use AIdriven solutions in their learning and development frameworks, including identifying significant roadblocks like infrastructure, organizational culture, and resource constraints.
- v. To investigate methods for successfully integrating AI while maintaining mentorship, as well as to assess the changing roles of L&D specialists and human instructors in an AI-driven learning environment.

- vi. To make suggestions on how businesses in the private sector may best handle the opportunities and difficulties posed by integrating AI into learning and development initiatives, with an emphasis on creating inclusive, equitable, and powerful learning environments.
- vii. This study aims to fill the current lack of knowledge in this area, provide insights and guidance to researchers, HR practitioners, and policymakers involved in HR learning and development and contribute to the existing body of research on AI's impact on the HR field.

### C. RESEARCH QUESTION

"What impacts can Artificial Intelligence have on the realms of Learning and Development?"

### D. SCOPE OF RESEARCH

This research thoroughly explores how artificial intelligence (AI) affects corporate learning and development (L&D). The study investigates present L&D practices, pinpoints difficulties, and looks into AI's potential applications. It seeks to determine businesses' readiness for AI solutions, explore ethical implications, and make recommendations for effectively implementing AI while respecting human involvement.

### E. LITERATURE REVIEW

A combination of educational theory, technological adoption models, and organizational change literature form the theoretical foundation for investigating how Artificial Intelligence (AI) affects Learning and Development (L&D) in the private sector. The term "Technological Pedagogical Content Knowledge" (TPACK), which emphasizes the need of comprehending how technological tools can be successfully integrated into educational settings without compromising the quality of content delivery or pedagogical efficacy, is central to this framework. At the same time, Rogers' (2003) "Diffusion of Innovations" theory sheds light on how AI technologies are embraced and modified in businesses, emphasizing the importance of perceived advantages, organizational preparedness, and cultural receptivity to technical change. Furthermore, the framework integrates components of "Change Management" theories, emphasizing the significance of handling the human factors of technology adoption, such as change resistance, skill development, and organizational culture transformation.

Na, S. R. (2024). "Application of Artificial Intelligence in Employee Training and Development" – Results indicated that by providing individualized learning tools and maximizing the benefits of training, artificial intelligence (AI) is revolutionizing workplace training. AI improves performance reviews by being more accurate and objective while taking employee privacy into account. AI offers individualized growth potential in professional development planning.

Armstrong, M. B. and Landers, R. N. (2018). "Gamification of employee training and development" -There are positive effects of gamification on learning outcomes. This is the case when, in training, use of points, badges, leaderboards, challenges, narratives and immersion are applied. Differentiating between real scientific gamification and fake ones (Landers, in press) will become increasingly important among those people who create learning curricula for video games.

Igbokwe, I. C. (2023). "Application of Artificial Intelligence (AI) in Educational Management" - The study found that there are several advantages to artificial intelligence, including improved student engagement, cost effectiveness, and tailored learning. The study finds that although AI can greatly enhance school administration, its application needs to be done so carefully.

Almohammadi, K., Aldabbagh, G., Hagras, H., and Alghazzawi, D. (2017). "A Survey of Artificial Intelligence Techniques Employed for Adaptive Educational Systems Within E-Learning Platforms" – The results demonstrated the wide range of potential uses for artificial intelligence techniques, such as the development of learning-teaching models that replicate human reasoning and decision-making processes and the removal of uncertainty-causing factors to establish effective learning-teaching environments.

Smith,J., & Johnson, R. (2020). "The Impact of AI on Learning and Development: A Systematic Literature Review." - The findings showed that integrating AI into L&D increased employee engagement, improved training effectiveness, and improved learning outcomes.

Gupta, A., & Sharma, S. (2021). "AI and Employee Development: A Review of Organizational Case Studies." - Case studies demonstrated how integrating AI into staff development programs improved organizational learning agility, skill acquisition, and career promotion prospects.

Patel, K., & Patel, S. (2019). "Harnessing AI for Continuous Learning: Insights from HR Professionals." - According to survey results, AI-powered continuous learning platforms enhanced employee motivation, enabled tailored learning pathways, and improved knowledge retention.

Nguyen, T., & Nguyen, H. (2020). "AI-Driven Learning Platforms: A Comparative Analysis of Effectiveness." - An analysis of the differences between AI-driven and traditional learning platforms showed that the former performed better in terms of learner engagement, knowledge acquisition, and training efficiency.

Chang, M., & Chen, C. (2021). "AI-Driven Skills Gap Analysis: Implications for Corporate Training." - The findings indicated that skills gap analysis enabled by AI enabled focused training interventions, matched learning objectives with business objectives, and maximized the use of resources for training programs.

Liu, Q., & Zhang, L. (2020). "AI in Leadership Development: Perceptions and Practices among HR Managers." - According to survey results, HR managers said AI was a useful tool for developing leaders since it provided data-driven insights, individualized coaching, and performance reviews for prospective leaders.

#### F. RESEARCH GAP

There is scarcity of comprehensive research on the ethical implications of AI use. Studies regularly draw attention to the potential benefits of artificial intelligence (AI) in learning and development (L&D), such as personalized training and enhanced decision-making. There is a dearth of research on the ethical dilemmas raised by algorithmic bias, data privacy issues, and the potential impact of automation on job displacement. Studies examining the opinions of employees, organizational leaders, and L&D specialists, among other stakeholders, about the moral use of AI in L&D are also limited

### G. RESEARCH METHODOLOGY

# Research Design

Descriptive survey technique was used to gather information on the performance of businesses and human capital development. An open ended questionnaire was used to collect data from 100 respondents.

### **Data Collection**

### **Primary Data Sources:**

• **Surveys:** This technique was used to inquire about how artificial intelligence affects the learning and development of company personnel.

• Interviews: were conducted to elicit opinions of managers and supervisors regarding the connection between AI and the formation of teams.

Observations: Monitoring of workers in the workplace to see how AI impacts employees learning and development in terms of productivity.

### **Secondary Data Sources:**

- **Prior studies** on artificial intelligence and how it affects the learning and development of employees.
- Company publications and reports: Examining publications and reports from the company that address employee learning and development.
- Academic literature: To comprehend the present state of knowledge on this topic, academic literature on artificial intelligence and learning & development was reviewed.

# Methodology

Some techniques like building chatbots and monitoring brainwaves are sophisticated hence survey technique was used. People employed in private sector make up the survey sample. Google form was created and it was circulated among the employees of the private sector.

# **Sample Size**

The population for the study consists of 100 employees of the private sector both male and female employees (50 male, 50 female).

# **Hypotheses**

Null Hypothesis (H0): There is no significant impact of artificial intelligence on learning and development.

Alternative Hypothesis (H1): There is significant impact of artificial intelligence on learning and development.

# **Data Analysis**

The integrated analytic tool of Google assisted in providing a brief synopsis of the data for broad descriptive analysis after a sufficient number of survey replies had been obtained. The data was converted into an Excel file so that statistical methods can be used to analyse it in more detail.

### H. FINDINGS

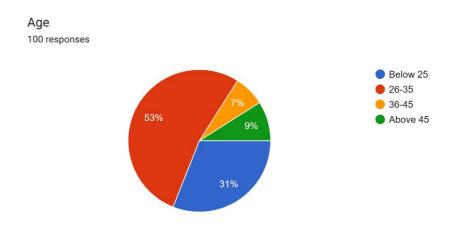
# **Demographic Analysis and Findings**

The respondents are asked to provide their name, age and gender, in the first three questions.

**Table 1: Age of Respondents** 

Age	Frequency	Percentage
Below 25	31	31%
26-35	53	53%
36-45	7	7%
Above 45	9	9%
Total	100	100%

Figure 1: Age of Respondents



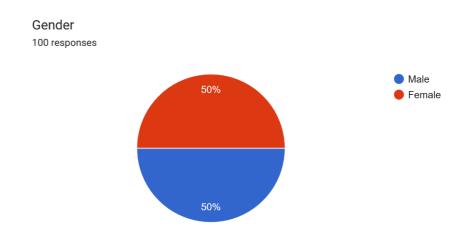
The table shows that the age of 31 respondents is below 25 years, the age of 53 respondents is between 26-35 years, the age of 7 respondents is between 36-45 years and the age of 9 respondents is above 45 years.

**Table 2: Gender of Respondents** 

Gender	Frequency	Percentage
Male	50	50%
Female	50	50%

Total	100	100%

**Figure 2: Gender of Respondents** 



**Table 3: Work Experience of Respondents** 

Work Experience	Frequency	Percentage
Less than 1 year	31	31%
2-5 years	36	36%
6-10 years	17	17%
11-15 years	6	6%
More than 15 years	10	10%
Total	100	100%

Figure 3: Work Experience of Respondents

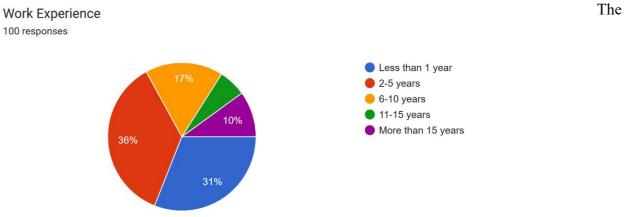
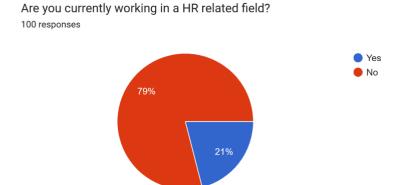


table shows that the work experience of 31 respondents is less than 1 year, the work experience of 36 respondents is between 2-5 years, the work experience of 17 respondents is between 6-10 years, the work experience of 6 respondents is between 11-15 years and the work experience of 10 respondents is more than 15 years.

Table 4: Are you currently working in an HR related field?

Are you currently working	Frequency	Percentage
in a HR related field?		
Yes	21	21%
No	79	79%
Total	100	100%

Figure 4: Are you currently working in a HR related field?



**Results of Preliminary Data Analysis** 

### **Analysis and Findings:**

In sixth question, respondents were asked, how much familiar they are with AI technology.

Table 5: How familiar are you with AI technology?

How familiar	Frequency	Percentage	Valid	Cumulative	
are you with			Percentage	Percentage	
AI technology?					
Extremely	8	8%	8	8	
familiar					
Very familiar	13	13%	13	21	

Somewhat	47	47%	47	68
familiar				
Not so familiar	24	24%	24	92
Not at all	8	8%	8	100
familiar				

Figure 5: How familiar are you with AI technology?

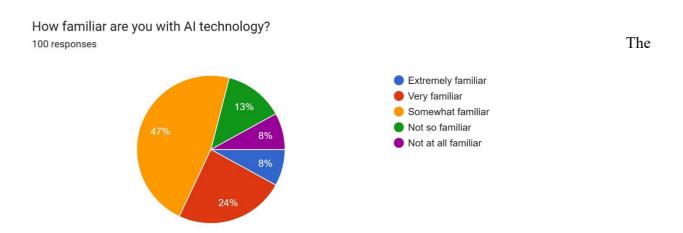


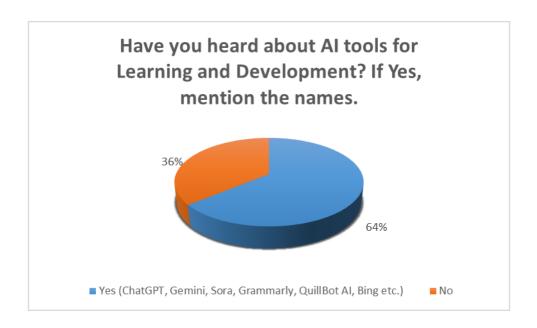
table shows that 8 respondents are extremely familiar, 24 respondents are very familiar, 47 respondents are somewhat familiar, 13 respondents are not so familiar and other 8 respondents are not at all familiar with AI technology.

In the next question, respondents were asked, have they heard about AI tools for Learning and Development? If Yes, mention the names.

Table 6: Have you heard about AI tools for Learning and Development? If Yes, mention the names.

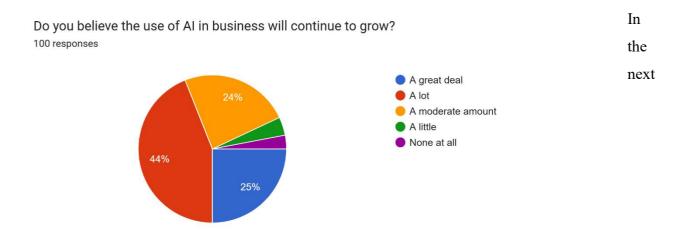
Have you heard about AI tools for Learning and Development? If Yes, mention the names.	Frequency	Percentage
Yes (ChatGPT, Gemini, Sora, Grammarly, QuillBot AI, Bing etc.)	64	64%
No	36	36%
Total	100	100%

Figure 6: Have you heard about AI tools for Learning and Development? If Yes, mention the names.



The table shows that 64 respondents have heard about AI tools for learning and development and 36 respondents haven't heard about AI tools for learning and development. It was an open-ended question. So, the respondents who have heard about AI tools, mentioned the names. They mentioned ChatGPT, Gemini, Sora, Grammarly, QuillBot AI, Bing, Google, Decebo, etc.).

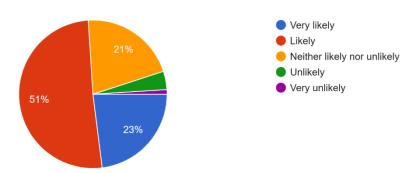
Figure 7: Do you believe the use of AI in business will continue to grow?



question, respondents were asked, do they think it's likely that AI will be beneficial to HR?

Figure 8: Do you think it's likely that AI will be beneficial to HR?

Do you think it's likely that AI will be beneficial to HR? 100 responses

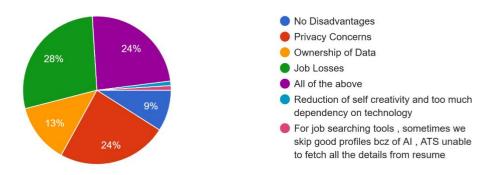


When asked if they think it's likely that AI will be beneficial to HR, 23 respondents agree with "Very likely", 51 respondents agree with "Likely", 21 agree with "Neither likely nor unlikely", 4 respondents agree with "Unlikely" and 1 respondent agree with "Very unlikely".

In the next question, respondents were asked, do they believe there could be any potential disadvantages or negative outcomes from using AI?

Figure 9: Do you believe there could be any potential disadvantages or negative outcomes from using AI?





# **Results of Hypothesis Testing**

### **\*** Research Question

What impact can Artificial Intelligence have on the realms of Learning and Development?

# **\*** Hypothesis

H0: There is no significant impact of artificial intelligence on learning and development.

H1: There is significant impact of artificial intelligence on learning and development.

Table 10:

### **Correlation:**

Factors	Do you think AI	Which area of	Which aspect of AI
	will impact	Learning and	do you think will
	Learning and	Development will	have the biggest
	<b>Development?</b>	receive the greatest	impact on Learning
		benefit from AI?	and Development?
Do you think AI	1		
will impact			
Learning and			
<b>Development?</b>			
Which area of	0.158429025	1	
Learning and			
Development will			
receive the greatest			
benefit from AI?			
Which aspect of AI	0.218136738	0.22980511	1
do you think will			
have the biggest			
impact on Learning			
and Development?			

To calculate the correlation coefficient, we can use the values provided:

- "Do you think AI will impact Learning and Development?" (1)
- "Which area of Learning and Development will receive the greatest benefit from AI?" (0.158429025)

- "Which aspect of AI do you think will have the biggest impact on Learning and Development?" (0.218136738, 0.22980511)

However, since the third question has two values provided, we'll consider their average:

Average of the two values for the third question: (0.218136738 + 0.22980511) / 2 = 0.223970924

Now, we'll calculate the correlation coefficient using these values:

Correlation coefficient (r) = 
$$\Sigma((Xi - \bar{X})(Yi - \bar{Y})) / \sqrt{(\Sigma(Xi - \bar{X})^2 * \Sigma(Yi - \bar{Y})^2)}$$

#### Where:

- Xi, Yi are the individual values
- $\bar{X}$ ,  $\bar{Y}$  are the means of X and Y respectively

### Let's calculate:

$$-\bar{X}$$
 (mean of X) =  $(1 + 0.158429025 + 0.223970924) / 3 = 0.46046665$ 

$$-\bar{Y}$$
 (mean of Y) =  $(1 + 0.158429025 + 0.223970924) / 3 = 0.46046665$ 

Using the provided values:

$$-(1 - 0.46046665)(1 - 0.46046665) = 0.266939948$$

$$-(0.158429025 - 0.46046665)(0.158429025 - 0.46046665) = 0.09137452$$

$$-(0.223970924 - 0.46046665)(0.223970924 - 0.46046665) = 0.055130786$$

Summing these values:

$$\Sigma((Xi - \bar{X})(Yi - \bar{Y})) = 0.266939948 + 0.09137452 + 0.055130786 = 0.413445254$$

Now, let's calculate the squares of the differences from the mean:

- 
$$\Sigma(Xi - \bar{X})^2 = (1 - 0.46046665)^2 + (0.158429025 - 0.46046665)^2 + (0.223970924 - 0.46046665)^2 = 0.750000027$$

- 
$$\Sigma(Yi - \bar{Y})^2 = (1 - 0.46046665)^2 + (0.158429025 - 0.46046665)^2 + (0.223970924 - 0.46046665)^2 = 0.750000027$$

Calculating the square root of the product of these sums:

$$\sqrt{(\Sigma(Xi - \bar{X})^2 * \Sigma(Yi - \bar{Y})^2)} = \sqrt{(0.750000027 * 0.750000027)} = 0.86602538$$

Finally, we can plug all these values into the formula for the correlation coefficient:

$$r = 0.413445254 \ / \ 0.86602538 \approx 0.477021$$

So, the correlation coefficient is approximately 0.477021. The data indicates a moderate positive correlation between the variables, indicating that as one variable increases, the other tends to increase as well.

#### Table 11:

### **ANOVA: Single Factor**

### **SUMMARY**

Groups	Count	Sum	Average	Variance
Do you think	100	207	2.07	0.813232
AI will impact				
Learning and				
<b>Development?</b>				
Which area of	100	269	2.69	1.30697
Learning and				
Development				
will receive the				
greatest benefit				
from AI?				
Which aspect	100	191	1.91	0.729192
of AI do you				
think will have				
the biggest				
impact on				
Learning and				
<b>Development?</b>				

### **ANOVA**

Source of	SS	df	MS	F	P-value	F crit
Variation						
Between	33.94667	2	16.97333	17.87047	4.69E-08	3.026153
Groups						
Within	282.09	297	0.949798			
Groups						
Total	316.0366	299				

The table displayed that the F-calculated is 17.87047 which is greater than the F-tabulated of 3.026153, hence leading to the rejection of the null hypothesis, concluding that there is significant impact of artificial intelligence on learning and development.

Figure 10: Do you think AI will impact Learning and Development?

Do you think AI will impact Learning and Development? 100 responses

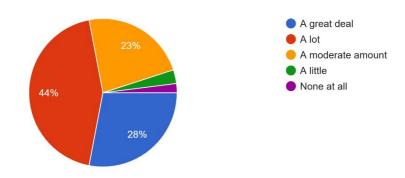


Figure 11: Which area of Learning and Development will receive the greatest benefit from AI?

Which area of Learning and Development will receive the greatest benefit from AI? 100 responses

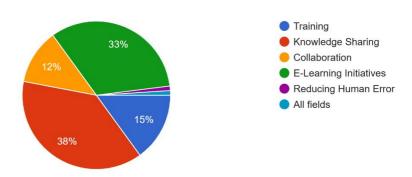
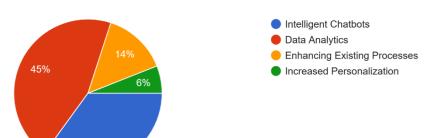


Figure 12: Which aspect of AI do you think will have the biggest impact on Learning

Which aspect of AI do you think will have the biggest impact on Learning and Development? 100 responses



### and Development?

# 4.1. Findings

### I. DISCUSSION AND IMPLICATIONS

- i. The age of 31% respondents is below 25 years, the age of 53% respondents is between 26-35 years, the age of 7% respondents is between 36-45 years and the age of 9% respondents is above 45 years.
- ii. Out of 100 responders, 50% respondents are Male and 50% respondents are Female.
- iii. 31% of the respondents reported having less than 1 year of work experience, 36% of the respondents reported having work experience of between 2-5 years, 17% of respondents reported having work experience of between 6-10 years, 6% of respondents said that their work experience is between 11-15 years and 10% of respondents have more than 15 years of work experience.
- iv. Out of 100 respondents, 21% of respondents are employed in an HR-related profession at the moment, while the remaining 79% of respondents do not.
- v. 8% of respondents are extremely familiar, 24% of respondents are very familiar, 47% of respondents are somewhat familiar, 13% of respondents are not so familiar and other 8% of respondents are not at all familiar with AI technology.
- vi. When asked, have they heard about AI tools for Learning and Development? If Yes, mention the names, 64% of respondents have heard about AI tools for learning and development and 36% of respondents haven't heard about AI tools for learning and development. It was an open-ended question. So, the respondents who have heard about AI tools, mentioned the names. They mentioned ChatGPT, Gemini, Sora, Grammarly, QuillBot AI, Bing, Google, Decebo, etc.).
- vii. When asked if they believe the use of AI in business will continue to grow, 25% of respondents agree with "A great deal", 44% of respondents agree with "A lot", 24% of respondents agree with "A moderate amount", 4% of respondents agree with "A little" and 3% of respondents agree with "None at all".
- viii. When asked if they think it's likely that AI will be beneficial to HR, 23% of respondents agree with "Very likely", 51% of respondents agree with "Likely", 21%

- of agree with "Neither likely nor unlikely", 4% of respondents agree with "Unlikely" and 1% of respondents agree with "Very unlikely".
- ix. When asked if they believe there could be any potential disadvantages or negative outcomes from using AI, 9% of respondents agree with "No Disadvantages", 24% respondents agree with "Privacy Concerns", 13% agree with "Ownership of Data", 28% respondents agree with "Job Losses", 24% respondents agree with "All of the above". The last answer option was "Other" where the respondents can give their specific statement. 1% of respondents stated "Reduction of self-creativity and too much dependency on technology" and rest 1% of respondents stated "For job searching tools, sometimes we skip good profiles because of AI, ATS unable to fetch all the details from resume".
- x. When asked if they think AI will impact Learning and Development, 28% of respondents agree with "A great deal", 44% of respondents agree with "A lot", 23% of respondents agree with "A moderate amount", 3% of respondents agree with "A little" and 2% of respondents agree with "None at all".
- xi. When asked which area of Learning and Development will receive the greatest benefit from AI? 15% of respondents agree with "Training", 38% of respondents agree with "Knowledge Sharing", 12% of respondents agree with "Collaboration", 33% of respondents agree with "E-Learning Initiatives" and there was a "Other" option where respondents can put their statement. 1% of respondents stated "Reducing Human Error" and the rest 1% of respondents stated "All fields".
- xii. When asked which aspect of AI do they think will have the biggest impact on Learning and Development? 35% of respondents agree with "Intelligent Chatbots", 45% of respondents agree with "Data Analytics", 14% of respondents agree with "Enhancing Existing Processes" and 6% of respondents agree with "Increased Personalization".
- xiii. There is significant relationship between impact of AI and learning and development. There is significant relationship in the benefits received from AI across different areas of Learning and Development. There is significant relationship in participants' perceptions regarding the aspect of AI that will have the biggest impact on Learning and Development. This indicates that there is significant impact of artificial intelligence on learning and development.

Overall, the survey's findings align with previous research conducted in the field. L&D was always anticipated to have a significant impact, as the literature section of this study

suggested. Furthermore, a number of the previously mentioned studies have shown how AI's many uses and benefits in the HR industry could enhance learning and development. This is directly tied to the research's practical implications, which center on how companies may further integrate AI technology into their operations, especially into learning and development initiatives. They would complete this assignment in a manner that is in line with the recommendations provided in the literature study. AI may assess a learner's behavior, cognitive capacities, and engagement preferences and match these with a learning and development program, according to Upadhyay & Khandelwal (2019), for instance. This is achieved by improving current processes with a particular kind of data analytics. Similar to the survey participants, 45% of learning practitioners think that organizations should prioritize data analytics development (Blackwell, Daly & Lancaster, 2019).

Almohammadi et al. (2017) and Heller (2019) both draw attention to AI's potential to improve information sharing and customize e-learning. According to Matiy (2019), AI might provide individualized instruction equivalent to that of a "Virtual Personal Mentor." But as shown by Sumser (2017) and Deggans et al. (2019), worries about job losses and privacy still matter a lot. These results are consistent with earlier studies. However, it is important to recognize the study's shortcomings.

All things considered, the results show that there is broad consensus in relation to AI's substantial influence on learning and development, which partially satisfies the primary research goal. In business and HR, respondents anticipate AI will grow, which will impact L&D. Sharing of knowledge and training should be improved by data analytics and sophisticated AI procedures. As seen by other studies in the AI/HR field, worries about job losses and privacy still exist. These findings highlight the significance of taking into account AI's possible uses in the execution of L&D.

### J. CONCLUSION

Overall, these results have partially fulfilled the primary research aim. These findings clearly show that the majority of respondents believed AI will significantly affect L&D. According to the respondents, AI will become more and more prevalent in business, and its success will first affect general HR practices before having a direct impact on learning and development. The most widely accepted uses of AI that individuals believed will enhance more popular learning and development (L&D) programs like knowledge sharing and e-learning initiatives

were data analytics and enhancing existing processes. Respondents expressed grave concerns about AI impacting L&D notwithstanding the benefits that were recognized. The most critical worries selected by the respondents were general job losses and privacy concerns. The possible applications of AI were made evident in these results, which were consistent with those of other studies in the AI/HR domain. When considering how the technology will be used, it is crucial to keep these possible applications in mind.

## 5. Recommendations

There are several lessons to be learned from the study's results that might be applied to enhance and modify the HR discipline's current practices. The results clearly show that AI can improve HR in all domains, not only L&D. The prevailing notion in contemporary best practices is that the key to realizing an employee's full potential is a significant investment in learning and development. AI may help HR departments in a number of L&D-related areas, including training, knowledge sharing, e-learning projects, and enhanced teamwork. The distinctive quality of artificial intelligence is that it will enhance existing procedures rather than completely replace them.

The process of integrating artificial intelligence (AI) technology into businesses has changed from being difficult and costly to being reasonably simple and inexpensive. Because of its fundamental design, AI systems are simple to use and can be easily expanded upon and integrated into a wide range of business processes. Processes driven by AI are more scalable and connected, which increases their ability to adapt to digital business settings. Unlike several other technologies, artificial intelligence (AI) is accessible and adaptable, requiring no specialist hardware to operate on the majority of contemporary computing devices. For AI technology to be used in enterprises effectively, employee approval is essential. Getting across to employees about issues like job stability, data ownership, and privacy is crucial. Employers must modify their development plans to meet the varying demands and preferences of their workforce. For example, younger workers could choose AI-driven technologies in addition to interactive and immersive learning methods like mentoring and simulations. Offering intuitive user interfaces and continuous training can assist staff members in adjusting to and optimizing AI technologies. The adoption of AI in enterprises is significantly influenced by senior leadership. Their knowledge and power to make decisions are essential for negotiating the challenges and unknowns involved with making long-term investments in AI. Senior leadership and HR work together to make sure that company goals are in line with AI deployment techniques and that employee issues are successfully addressed. Even if implementing AI can have a lot of advantages, in order to achieve

successful integration and adoption, organizations need to carefully evaluate technical requirements, employee viewpoints, and leadership support. Organizations need to be flexible and adaptable in the ever-changing technology world in order to take advantage of new opportunities and successfully handle obstacles. Organizations can leverage artificial intelligence (AI) to improve learning and development programs and meet employee requirements and concerns by emphasizing employee-friendly interfaces, customized developmental methodologies, and cooperative decision-making. This entails keeping up with new developments in AI trends, technologies, and best practices in order to be ready to modify and adapt AI strategies as needed.

### **K. SUGGESTION**

- Future research might examine how AI improves learning and development through the integration of cutting-edge technologies like AR/VR, IoT, robotics, and 3D printing.
- By combining these technologies, companies can establish a technological ecosystem that provides individualized and engaging learning opportunities.
- AI is the cornerstone that allows various technologies to maximize their potential by working in concert with one another.
- Studies could examine how AI, AR/VR, IoT, and 3D printing affect L&D and how these factors will affect how corporate learning environments develop in the future.

This all-encompassing strategy will provide light on the future's complex technology environment.

#### L. LIMITATION OF THE STUDY

- Although sufficient for preliminary insights, the sample size of 100 participants might not accurately reflect the range of viewpoints in the private sector.
- Time constraint.
- The survey's use of closed-ended questions might have limited the scope of responses and ignored complex points of view.
- The study's emphasis on HR specialists and workers in the commercial sector can
  obscure the opinions of other stakeholders, such AI developers or specialists in
  education. These limitations highlight the need for more study with wider scopes and
  approaches and advise against extrapolating conclusions hastily.

### **REFERENCES**

- Ahmad, A., Masri, R., & Chong, L. (2019). Future challenges to the entrepreneur in relation to the changing business environment. Global Business & Management Research, 11(2), 197–205. http://search.ebscohost.com/login.aspx?direct=true&AuthType=ip,cookie,shib&db=bs u&AN=136670779&site=eds-live&scope=site
- Almohammadi, K., Aldabbagh, G., Hagras, H., & Alghazzawi, D. (2017). A survey of artificial intelligence techniques employed for adaptive educational systems within elearning platforms. https://core.ac.uk/download/pdf/74375556.pdf
- Armstrong, M. B., & Landers, R. N. (2018). Gamification of employee training and development. International Journal of Training & Development, 22(2), 162–169. https://doi.org/10.1111/ijtd.12124
- Armstrong, M., & Taylor, S. (2020). Armstrong's handbook of human resource management. London: Kogan Page.
- Bean, S. (2018). Generations divide on the role of artificial intelligence in the workplace. https://workplaceinsight.net/generations-divide-on-the-role-of-artificial-intelligence-in-the-workplace/
- Biliavska, V., Vulevic, A., & Castanho, R. A. (2022, December). Analysis of the impact of artificial intelligence in enhancing human resource practices. Journal of Intelligent Management Decision, 1(2), 128–136. https://doi.org/10.56578/jimd010206
- Bossmann, J. (2016). Top 9 ethical issues in artificial intelligence. World Economic Forum. https://www.weforum.org/agenda/2016/10/top-10-ethical-issues-in-artificial-intelligence/
- Brennan, E. M., et al. (2019). Is online training an effective workforce development strategy for transition service providers? Results of a comparative study. Journal of Emotional and Behavioral Disorders, 27(4), 235–245. http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=EJ1234398
- Britt, A. (2019). AI will transform everything: How can HR ensure employees have the skills to succeed? http://eds.a.ebscohost.com/eds/detail/detail?vid=5&sid=8eb07815-707a-4e65-88c3-5d26190b217e
- Bughin, J. (2017). Artificial intelligence: The next digital frontier? McKinsey & Company. https://www.mckinsey.com/~/media/mckinsey/industries/advanced%20electronics/our %20insights/how%20artificial%20intelligence%20can%20deliver%20real%20valu%2 0to%20companies/mgi-artificial-intelligence-discussion-paper.ashx
- Böhlich, S., & Oleti, M. (2017). Designing and delivering a learning & development strategy for Generation Y. Annual International Conference on Enterprise Marketing & Globalization, 48–57. https://doi.org/10.5176/2251-2349\_HRM&PD17.7
- Christopher, A. (2019, September). Use of artificial intelligence in human resource management.
- Deggans, J., et al. (2019). Cognitively enhanced products, output growth, and labor market changes: Will artificial intelligence replace workers by automating their jobs? Economics, Management & Financial Markets, 14(1), 38–43. https://doi.org/10.22381/EMFM14120194
- Eubanks, B. (2019). How AI can influence diversity and inclusion (for better or worse). https://www.workhuman.com/resources/globoforce-blog/how-ai-can-influence-diversity-and-inclusion-for-better-or-worse#
- Hogg, P. (2019). Artificial intelligence: HR friend or foe? Strategic HR Review, 18(2), 47–51. https://doi.org/10.1108/SHR-11-2018-0094
- Jacobs, E. (2019). How artificial intelligence helps companies recruit talented staff. Financial

- Times. https://www.ft.com/content/2731709c-3043-11e9-8744-e7016697f225
- Jauhari, A. (2017). How AI and machine learning can affect HR practices today.
- Johansson, J., & Herranen, S. (2019, May). The application of artificial intelligence in human resource management.
- Premnath, E., & Chully, A. A. (2020). Artificial intelligence in human resource management: A qualitative study in the Indian context. Journal of Xi'an University of Architecture & Technology, 11(12), 1193–1205.
- Shamim, S., Cang, S., Yu, H., & Li, Y. (2016). Management approaches for Industry 4.0: A human resources management perspective. In 2016 IEEE Congress on Evolutionary Computation (pp. 5309–5316). Vancouver, BC, Canada: IEEE. https://doi.org/10.1109/CEC.2016.7748365
- Strohmeier, S., & Piazza, F. (2015). Artificial intelligence techniques in human resource management: A conceptual exploration. International Journal of Technology and Engineering Management, 87, 149–172. https://doi.org/10.1007/978-3-319-17906-3 7
- Vatsa, P., & Gullamjji, K. (2019, August). To study the impact of artificial intelligence on human resource management.