

A STUDY ON THE INFLUENCE OF ARTIFICIAL INTELLIGENCE (AI) LITERACY ON CAREER READINESS AMONG YOUNG ADULTS IN CHENNAI

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Abstract

The study "A Study on the Influence of Artificial Intelligence (AI) Literacy on Career Readiness Among Young Adults in Chennai" aims to establish a connection between the level of awareness about AI and career readiness. The influence of artificial intelligence is increasing in all fields of activity, especially in the educational and professional spheres. Therefore, understanding the characteristics of this technology is becoming a vital skill for achieving employability in the future. The study uses a descriptive research design, with a primary data collection method. The data was gathered by distributing questionnaires among one hundred respondents who were selected using a convenience sampling technique. The data analysis involved the percentage analysis of the results, the weighted average of the responses, multiple linear regression, and Pearson's correlation. The analysis focused on investigating the level of AI literacy, the factors that contribute to it, and the relationship between AI literacy and career readiness.

The results of the study showed that the mean score for AI literacy is 3.61, while that of career readiness is 3.33. According to multiple regression analysis, such variables as peer, social, and professional interaction, and personal curiosity and self-learning were statistically significant predictors of AI literacy, with a score of approximately 66%. The results also showed that AI literacy and career readiness were positively correlated ($r = 0.819$, $p < 0.001$). The study established the significance of improving the level of knowledge and skills about artificial intelligence among young adults, which will increase their chances of being employed. This information can be useful for academic organizations and young people who intend to gain knowledge about AI to enhance their employability.

Keywords: Artificial Intelligence, AI Literacy, Career Readiness, Young Adults, Self-directed Learning, Employability, Chennai.

1. INTRODUCTION

Artificial Intelligence has become increasingly visible in education, recruitment, communication, data analysis, and workplace activities. AI-enabled applications can support users in generating ideas, summarising information, analysing data, and completing tasks. As these tools become more common, young adults need more than basic access to technology; they also need to understand AI capabilities and limitations, use AI tools effectively, assess outputs critically, and recognise ethical concerns such as bias, privacy, and responsible use.

AI literacy refers broadly to the knowledge and competencies that help people understand, use, evaluate, and interact with AI systems. Career readiness concerns the knowledge, skills,

confidence, adaptability, and preparation required to respond to employment expectations. For students, job seekers, and young professionals, the ability to engage thoughtfully with AI may be relevant to learning, workplace adaptation, and the presentation of digital skills to employers.

This study focuses on young adults in Chennai, including respondents who are studying, seeking employment, working, or combining study and employment. It examines AI literacy, factors associated with AI literacy, and the relationship between AI literacy and career readiness.

2. OBJECTIVES OF THE STUDY

Primary Objective

To study the influence of AI literacy on career readiness among young adults in Chennai.

Secondary Objective

1. To assess AI literacy among young adults in Chennai.
2. To identify factors contributing to AI literacy.
3. To analyse the relationship between AI literacy and career readiness.

3. Need for the Study

The rapid development of artificial intelligence has influenced education, recruitment, and workplace practices, making AI literacy increasingly important for young adults preparing for their careers. Understanding AI concepts, using AI tools effectively, evaluating AI-generated information, and recognising ethical issues such as privacy and bias are essential competencies in an AI-driven environment. However, young adults may differ in their knowledge, awareness, practical usage skills, and understanding of the responsible use of AI. These differences may influence their confidence and preparedness for employment. Therefore, there is a need to assess AI literacy among young adults in Chennai, identify the factors contributing to AI literacy, and examine its relationship with career readiness. The findings may help educational institutions and young adults identify areas for improvement and develop relevant competencies for future employment opportunities.

4. Scope of the Study

This study aims to establish the effect of Artificial Intelligence (AI) literacy on the career readiness of young adults. The study includes undergraduate and postgraduate students, job seekers, employed individuals, and the self-employed. Thus, the study will focus on young people in Chennai. The four aspects of AI literacy that will be studied are AI knowledge, AI awareness, AI usage skills, and AI ethical awareness. The study will also focus on the attributes of "AI literacy, which include training, access to technology, interaction with others, and individual curiosity and self-learning". The research question will be addressed by analyzing the data collected from the participants using a questionnaire. The data collected will be analyzed using the "percentage analysis, the weighted average, multiple linear regression, and Pearson

correlation". This study will be limited to young people in Chennai due to the convenience sampling strategy. The findings of this study will contribute to understanding how AI literacy affects career readiness and provide insight that can help organizations and young people prepare for the future by valuing AI-related skills.

5. Review Of Literature

Artificial intelligence (AI) literacy has become an important area of research as AI technologies increasingly influence education, employment, and professional activities. Long and Magerko (2020) conceptualised AI literacy as a set of competencies that enables individuals to understand, evaluate, and interact effectively with AI systems. Their study highlighted the importance of understanding AI capabilities, limitations, and ethical implications. Similarly, Ng, Leung, Chu, and Qiao (2021) explored the concept of AI literacy and identified key dimensions related to understanding, applying, evaluating, and ethically using AI. These studies provide a conceptual foundation for examining how AI literacy can help young adults prepare for an increasingly technology-driven workplace.

Further extending the understanding of AI literacy, Laupichler, Aster, Schirch, and Raupach (2022) conducted a scoping literature review of AI literacy in higher and adult education. Their work highlighted the growing importance of AI-related knowledge and competencies in educational settings. Southworth et al. (2023) examined the development of AI across the curriculum and emphasised the importance of integrating AI literacy into higher education. Their study provides a basis for understanding how educational institutions can prepare students to use AI technologies in academic and professional contexts. Together, these studies highlight the role of education in developing the knowledge and competencies required to engage with AI.

Addressing the need for clearer approaches to measuring AI literacy, Almatrafi, Johri, and Lee (2024) systematically reviewed research on AI literacy conceptualisation, assessment, and implementation. Their review of existing studies helped organise the different constructs and approaches used to understand AI literacy. Similarly, Chiu, Ahmad, Ismailov, and Sanusi (2024) proposed a comprehensive framework for AI literacy and competency. Their work

emphasised the importance of understanding AI literacy through multiple dimensions rather than limiting it to technical knowledge alone. These studies are relevant to the present research because AI literacy includes knowledge, awareness, practical usage skills, and ethical considerations. In relation to employability, Wut, Chan, Wong, and Chan (2025) examined perceived AI literacy and the employability of university students. Their research is relevant to understanding how AI-related competencies may connect with students' perceptions of their employment prospects. Nirosha, Ramaprasad Reddy, and Vijaya Bharathi (2026) investigated AI literacy and career readiness among commerce students, with special reference to Kadapa. This study is particularly relevant to the present research because it considers the relationship between AI literacy and career preparation within an Indian educational context. It also provides a useful reference point for examining the same broad topic among young adults in Chennai.

Recent research has also considered the broader capabilities needed to prepare individuals for AI-influenced careers. Testa, Apuzzo, and Pittaway (2026) examined AI readiness and career adaptability in business and management education, highlighting the relevance of preparing students for changing workplace expectations. Ho and Le (2026) explored the relationship between AI literacy, self-efficacy, and career expectations. Their research provides a basis for considering the role of confidence and career expectations when examining young adults' preparedness for employment. These studies suggest that career readiness involves more than familiarity with AI; it may also relate to practical competence, confidence, adaptability, and the ability to respond to changing professional requirements.

Overall, the reviewed literature provides a foundation for understanding AI literacy and its potential relationship with career readiness. Previous studies have explored AI literacy concepts, educational approaches, competency frameworks, employability, career adaptability, and career expectations. However, further investigation is useful in the Chennai context, particularly among young adults from different educational and employment backgrounds, including students, job seekers, and working professionals. Therefore, the present study examines AI literacy among young adults in Chennai, identifies factors contributing to AI

literacy, and analyses the relationship between AI literacy and career readiness.

5. Research Methodology

The study adopted a descriptive research design. Primary data were collected from 100 respondents through a structured questionnaire. Convenience sampling, a non-probability sampling method, was used. Respondents included young adults in Chennai with different educational and employment statuses. The questionnaire included demographic questions and statements related to AI literacy, factors associated with AI literacy, and career readiness. Likert-scale responses were coded from 1 (Strongly Disagree) to 5 (Strongly Agree).

The data were analysed using percentage analysis to describe respondent characteristics and item responses, the Weighted Average Method to summarise AI literacy statements, Multiple Linear Regression to examine selected factors associated with AI literacy, and Pearson Correlation to assess the linear association between AI literacy and career readiness. The regression model treats AI literacy as the dependent variable and the four selected contributing factors as predictors; it does not directly estimate a causal effect of AI literacy on career readiness. Statistical significance was evaluated at the 5% level.

6. DATA ANALYSIS AND INTERPRETATION

6.1 Respondent Profile

The sample included 100 respondents. The largest age group was 21–23 years (71%). Male respondents accounted for 54% and female respondents for 46%. Undergraduate respondents represented 56% and postgraduate respondents 44%. In terms of current status, 58% were students, 17% were employed, 13% were both studying and employed, 10% were job seekers, and 2% were self-employed. Overall, 86% reported having used AI tools, while 14% had not.

Table 1. Demographic Profile of Respondents

Characteristic	Category	Percentage
Age	18–20 years	21%
Age	21–23 years	71%
Age	24–26 years	5%
Age	27–30 years	3%
Gender	Male	54%
Gender	Female	46%

Education	Undergraduate	56%
Education	Postgraduate	44%
Current status	Student	58%
Current status	Employed	17%
Current status	Student and employed	13%
Current status	Job seeker	10%
Current status	Self-employed	2%
AI tool use	Have used AI tools	86%
AI tool use	Have not used AI tools	14%

6.2 Weighted Average Analysis of AI Literacy

The Weighted Average Method was used to summarise eight AI literacy statements. Responses were assigned weights from 1 for Strongly Disagree to 5 for Strongly Agree. The overall weighted average was 3.61 out of 5. AI tool usage and responsible AI use recorded the highest item averages (3.76 each), while AI conceptual knowledge recorded the lowest average (3.40). The sum of the weighted totals for the eight items is 2,888. Since each of the eight items received 100 responses, the total number of item responses is 800; therefore, the overall weighted average is $2,888 \div 800 = 3.61$.

Table 2. Weighted Average Scores for AI Literacy Statements

Statement	SD	D	N	A	SA	Weighted Average	P-value
AI Conceptual Knowledge	8	12	31	30	19	3.40	0.8
AI Prompting Skills	9	8	19	50	14	3.52	0.6
AI Tool Usage	8	7	19	33	33	3.76	0.1
Evaluating AI Answers	5	12	27	41	15	3.49	0.7
Awareness of AI Bias	10	8	19	39	24	3.59	0.5
Responsible AI Use	7	8	22	28	35	3.76	0.1
AI Task Identification	7	7	20	40	26	3.71	0.3
AI Trend Awareness	7	8	21	41	23	3.65	0.4

Total weighted score						2,888	/	
overall average						800	=	
						3.61		

6.3 Objective 2: Factors Contributing to AI Literacy

Multiple Linear Regression was conducted with AI literacy as the dependent variable and training/workshops, digital access, peer/social/professional interaction, and personal curiosity/self-directed learning as predictors. The model was statistically significant, $F(4, 95) = 45.19$, $p < 0.001$. The model had $R = 0.81$, $R^2 = 0.66$, adjusted $R^2 = 0.64$, and a standard error of the estimate of 0.61. The predictors collectively explained approximately 66% of the variation in AI literacy scores in this sample.

Table 3. Multiple Regression Model Summary

Measure	Value
R	0.81
R Square	0.66
Adjusted R Square	0.64
Standard Error of the Estimate	0.61
F-statistic	45.19
Significance	$p < 0.001$

Table 4. ANOVA Table

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	67.13	4	16.76	45.19	.001
Residual	35.28	95	.37	—	—
Total	102.41	99	—	—	—

The ANOVA table shows that the overall regression model is statistically significant, $F(4, 95) = 45.19$, $p < 0.001$. This indicates that the four independent variables, taken together, significantly predict AI literacy among the respondents.

Table 4. Multiple Regression Coefficients

Predictor	B	Std. Error	Beta	t	p-value	Interpretation
Training and workshops	0.008	0.007	0.09	1.04	0.300	Not significant

Digital access	0.10	0.09	0.10	1.17	0.244	Not significant
Peer/social/professional interaction	0.33	0.10	0.36	3.26	0.02	Significant
Personal curiosity/self-directed learning	0.35	0.09	0.36	3.89	<0.001	Significant

Peer/social/professional interaction and personal curiosity/self-directed learning were statistically significant individual predictors of AI literacy. Training/workshops and digital access were not individually significant at the 5% level. The significant overall model does not mean that every predictor is individually significant.

6.3.1 Hypothesis Testing for Regression

H_0 : The selected factors do not collectively have a statistically significant contribution to AI literacy.
 H_1 : The selected factors collectively have a statistically significant contribution to AI literacy.
 Decision: Since $p < 0.001$ is below the 0.05 significance level, the null hypothesis is rejected. The selected factors collectively provide a statistically significant explanation of AI literacy scores in this sample.

6.4 Objective 3: Relationship Between AI Literacy and Career Readiness

Pearson Correlation was used to assess the linear relationship between the corrected AI literacy and career readiness composite scores. The correlation coefficient was 0.819, with $p < 0.001$ and $N = 100$. This indicates a strong positive and statistically significant association: respondents with higher AI literacy scores tended to report higher career readiness scores. Correlation alone does not establish causation.

Table 5. Pearson Correlation Between AI Literacy and Career Readiness

Variables	Pearson r	Significance	N
AI Literacy and Career Readiness	0.819	$p < 0.001$	100

6.4.1 Hypothesis Testing for Correlation

H_0 : There is no statistically significant relationship between AI literacy and career readiness among young adults in Chennai.

H_1 : There is a statistically significant relationship between AI literacy and career readiness among young adults in Chennai.

Decision: Since $p < 0.001$ is below the 0.05 significance level, the null hypothesis is rejected. The results provide evidence of a statistically significant positive relationship between AI literacy and career readiness in the sample.

7. MAJOR FINDINGS

The study included 100 young adults in Chennai selected through convenience sampling. The largest age group was 21–23 years (71%); 54% of respondents were male and 46% were female, and 86% reported having used AI tools. The overall weighted average across the eight AI literacy statements was 3.61 out of 5, based on a total weighted score of 2,888 across 800 item responses. The regression model was statistically significant ($R = 0.81$, $R^2 = 0.66$, adjusted $R^2 = 0.64$, $F(4, 95) = 45.19$, $p < 0.001$). Peer/social/professional interaction ($B = 0.33$, $\beta = 0.36$, $p = 0.002$) and personal curiosity/self-directed learning ($B = 0.35$, $\beta = 0.36$, $p < 0.001$) were significant individual predictors of AI literacy, whereas training/workshops and digital access were not individually significant at the 5% level. Pearson correlation showed a strong positive association between AI literacy and career readiness ($r = 0.819$, $p < 0.001$, $N = 100$).

8. SUGGESTIONS

Educational institutions can provide practical workshops that allow students to experiment with AI tools and understand their capabilities and limitations. Peer-learning groups, discussions, mentoring, and professional communities can be encouraged to support the sharing of AI knowledge and practical experience. Young adults can be encouraged to practise self-directed learning and keep up with changes in AI tools and workplace applications. AI literacy programmes should include critical evaluation of AI-generated information, privacy awareness, bias recognition, and responsible use. Students and job seekers can be guided to demonstrate AI-related skills through projects, portfolios, and examples of responsible

AI-assisted work. Institutions and organisations can periodically assess AI literacy needs and adapt learning activities to students and early-career workers.

9. CONCLUSION

The study examined AI literacy and career readiness among young adults in Chennai. The regression findings show that the selected factors collectively provided a statistically significant explanation of AI literacy scores. Peer/social/professional interaction and personal curiosity/self-directed learning were significant individual predictors, whereas training/workshops and digital access were not individually significant at the 5% level.

The Pearson correlation analysis identified a strong positive and statistically significant relationship between AI literacy and career readiness ($r = 0.819$, $p < 0.001$). Respondents reporting higher AI literacy tended also to report higher career readiness. This association should not be interpreted as proof that AI literacy directly causes greater career readiness, particularly given the descriptive design and convenience sample.

Educational institutions and organisations may support young adults through practical AI learning, peer interaction, self-directed learning, and education on responsible AI use. Further research with larger and more diverse samples and additional research designs could provide a deeper understanding of how AI literacy relates to career readiness.

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