ARTIFICIAL INTELLIGENCE LITERACY AMONG INDIAN YOUTH: AWARENESS, ADOPTION AND FUTURE READINESS

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Abstract:

Artificial Intelligence (AI) is having a growing impact on education, work and daily life, and this knowledge is becoming an essential skill for young people.AI (Artificial Intelligence) is a growing influence in the education, employment and everyday life, and AI literacy is an essential skill for youth. In this study, Artificial Intelligence literacy among youth of South Gujarat has been explored with special focus on awareness, usage, exposure and readiness for future. This study used quantitative research design and obtained primary data from 200 respondents of the youth using a questionnaire. The characteristics of respondents and their use and exposure to AI were analyzed using descriptive statistics, and regression analysis was used to analyze the relationship between AI literacy and future readiness. The results show that there is a positive strong correlation between AI literacy and future readiness among the youth. The regression model provides $R = .333$ and $R^2 = .111$, suggesting that 11.1% of the variation in future readiness is accounted for by AI literacy. The relationship is statistically significant, ($\beta = .333$, $t = 4.970$, $p < .001$) and the alternative hypothesis is supported. The study underscores the need for greater AI literacy by educating, raising awareness about ethical issues, addressing digital-skilling gaps, and using AI responsibly to better prepare youth for the future of AI.

1. Introduction:

1.1 Artificial Intelligence: Concept, Evolution, and Applications

Artificial Intelligence (AI) is technology that allows the computer and machines to mimic human thought processes like learning, problem solving, decision making, creativity, and independence. It includes all the systems that process data, identify patterns and carry out tasks, which would otherwise demand human intelligence from narrow applications to the broader claims of general intelligence.

The idea was developed from a mid-20th century notion. In 1950, Alan Turing published his paper “Computing Machinery and Intelligence” which led to the question—can machines think, and the Turing Test (Turing 2012). It was at that same Dartmouth Conference in 1956, when John McCarthy and others started the field of AI, that the term was coined (McCarthy, Minsky, and Shannon 1955). Some early successes were the logic theorist program and Arthur Samuel's system for playing checkers. The progress was slow and had periods of what became known as the AI winters, where expectations were not met, and computing power was scarce.

AI usage has expanded to almost every industry. It has applications in health care for diagnosis, drug discovery, and personalized treatment. Autonomous vehicles and traffic optimization are examples of applications of AI in transportation. It is employed in finance to detect fraud and for algorithmic trading. Adaptive learning platforms in the education sector

and precision farming in the agriculture sector. Examples of everyday tools such as virtual assistants, recommendation systems, language translation, and generative tools for content creation. Computer vision, robotics, and natural language processing are other applications of AI. As computing power and data continues to increase, AI is moving beyond rule-based systems into data-driven, generative and increasingly independent systems, transforming industries and life in general (Campbell, Hoane, and Hsu 2002)(Topol 2019).

1.2 Artificial Intelligence Literacy: Meaning, Dimensions, and Significance

The ability to critically analyze AI technologies, communicate and collaborate with AI systems, and leverage AI as a tool in the online, home, workplace, and educational environment. It is not just about being able to use tools or having technical skills, but also about comprehending the function of AI, identifying its flaws and biases, evaluating its results with an analytical perspective, and considering the ethical concerns. Education is often defined by the ability to apply the skills, to make evaluative judgments, to have knowledge of core concepts, and to be engaged and responsible (Long and Magerko 2020).

Common facets of AI literacy usually encompass foundational understanding and knowledge of AI (such as concepts like machine learning, data dependency, and system constraints), skills in the use and application of AI (including the ability to prompt effectively and problem-solve with AI tools), critical evaluation and creation with AI (including identifying potential biases, errors, or limitations in AI-generated content, and leveraging AI to generate creative insights or ideas), and ethical navigation (including understanding the ethical implications of AI use, such as concerns about fairness, privacy, accountability, transparency, and societal impact). Some extend these to the affective domains, including attitudes towards AI, human-AI collaboration, and specific domains. Cognitive, technical, ethical and critical-thinking aspects are constantly emphasized in scholarly and educational models (Lintner 2024).

In the era of AI's integration into education, the workplace, and everyday life, AI literacy has become a rapidly evolving concept. It helps individuals learn how to take advantage of benefits, while reducing risks of misinformation, overreliance, algorithmic bias and privacy issues. Literacy in an AI economy will promote employment, informed decision making, and innovation. It promotes responsible citizenship by allowing people to challenge AI-generated content and engage in discussions about regulating and addressing ethical implications. If the general public is not informed about AI, there can be digital divides in access to and understanding of AI. It has become an important skill in educational systems, workplaces, and

policy-making that is increasingly considered as a core competency, akin to digital or data literacy, to equip learners and professionals for meaningful interactions with intelligent systems, rather than simply taking in their products (Annapureddy, Fornaroli, and Gatica-Perez 2025).

1.3 Status of AI Awareness and Adoption among Indian Youth

The youth in India have demonstrated a solid engagement with AI tools, but they also exhibit significant gaps in their understanding of the underlying concepts and practices. Surveys show high adoption rates, especially amongst digitally connected youth. According to OpenAI data, the majority of ChatGPT messages in India are sent by people under the age of 30, and those aged 18 to 24 make up almost half of all user interactions. According to the surveys of rural youth, 55% use AI nearly every day, while 28% use it occasionally, frequently to translate languages, provide writing help, and to assist with learning. More than 90% of Gen Z and millennials use AI in professional contexts to learn, grow, seek career advice, and manage stress, and they are confident in using it at work. Research in some areas of North India finds that 85 per cent of students in higher grades are using AI for concepts, research or homework. AI is gaining a growing number of users, especially among younger individuals who find it more convenient to get information or creative ideas from AI than from traditional search engines (Menon and Shilpa 2023)(Xu et al. 2024).

However, awareness is still not uniform. In fact, Indians were among the least informed overall, as just 19 percent of people aged 18–34 said they heard or read a great deal about AI, according to a Pew survey of multiple countries. Concept learning can lag behind frequency of use: while many students think of generative AI as a tool similar to a search engine, only a small number of engineering or early-career tech professionals exhibit advanced “AI-native” skills beyond basic familiarity with the tools. There is a good degree of daily or occasional use, but less structured knowledge of how systems function, their boundaries and ethics. Economic application is also limited in rural areas, with approx. 14 percent using AI to earn a living while 40 percent are interested in certified training. Tools, mobile connectivity, education or job requirements are all motivators for adoption, but are infrastructure issues, differential knowledge of digital literacy, and the need for formal skilling issues. High usage is being transformed into meaningful literacy and livelihood opportunities through government and institutional interventions, such as introducing curriculum content and delivering certified courses. Overall, the youth in India are showing strong signs of adopting AI in practice,

highlighting their role as contributors to the growth of the technology and the need to close the awareness and depth-of-understanding divide (Goyal et al. 2024).

1.4 Objectives

- To measure the level of awareness about the Artificial Intelligence (AI) of the youth in South Gujarat.
- To understand the connection between AI literacy and the future readiness of youth.
- To gain insight into the importance of AI awareness, exposure and usage for the preparation of young people for an AI-powered future.

2. Literature review

(Chakraborty 2026) used a qualitative approach to look at how and why young Indians use generative AI in their schoolwork. This study used theme analysis to delve into the reasons behind 206 individuals' decisions to use AI-powered tools instead of more conventional research methods. The participants ranged in age from 16 to 30 years old. The results showed that many people are aware of and make regular use of generative AI platforms, mostly due to their accessibility, efficiency, and ease of use. The study brought attention to the dangers of being excessively reliant on AI technologies and stressed the need to encourage responsible AI practices, even if participants showed little awareness about the ethical issues related to AI use. The study adds to the existing literature on the topic of young people's use of artificial intelligence and calls for more quantitative research using bigger and more representative samples to confirm and expand upon these results.

College students in Northeastern India were surveyed to determine their AI awareness (Choudhury and Chowdhury 2026). Roughly one hundred and twenty-five students filled out a structured questionnaire that centred on digital inequality, algorithmic prejudice, and technology acceptability. Students were highly knowledgeable about AI technologies and made frequent use of AI tools for schoolwork, according to the results. Some people are worried that students would use AI too much as a way to get their homework done faster and less intentionally, which could lead to less meaningful learning experiences overall. However, many people still think AI is a great tool for learning and finding knowledge. For more in-depth analysis, the study went on to create an AIPE (Artificial Intelligence Perception Index) using Likert-scale responses. To ensure technological inclusion and address the potential impact of AI dependence on students' critical thinking and autonomous learning skills, the authors concluded that AI plays a complex role in higher education. They underlined the significance of addressing these concerns.

The inter-connectedness of consumer readiness, digital literacy and acceptance of the AI-mediated marketing was explored by (Rupa et al. 2026), with a specific focus on capabilities, awareness and inclusivity. This chapter used a narrative review design to condense the interdisciplinary literature on technology transfer, AI commercialization, and digital products/services. The authors developed a conceptual framework that explains consumers' engagement with AI marketing systems based on the literature reviewed. The study also analyzed the factors related inclusiveness that affect the participation of consumers in marketing strategies mediated by AI in an equal manner. By integrating perspectives from technology studies and consumer behaviour, the chapter highlighted the importance of digital capabilities and consumer awareness in facilitating responsible engagement with AI-based marketing. The results indicated that digital literacy is becoming a key factor to support consumers in the comprehension, judgment, and use of AI-supported commercial systems. The research also highlighted the need for inclusivity to ensure equal opportunity to engage in AI-driven markets. In summary, Rupa et al. (2026) found that capability, awareness, and inclusivity are vital for the ethical and responsible use of AI in marketing to ensure sustainable and empowering applications.

(Jadhav 2026) focused on the influence of digital literacy and Artificial Intelligence (AI) on youth job prospects in India over the transition of the labour market in 2024-2025. The study evaluated the link between digital and AI skills and employability, sectoral mobility and job quality of youth aged 15–29 based on secondary data from national labour surveys, education reports and industry studies. The results showed that youth unemployment is on the decline, but jobs are becoming more and more technology-driven and skill-specialized. Digital literacy has become a fundamental requirement for formal employment, and the ability to use AI is now a factor in the expectations of employers for entrance to formal jobs. But a wide gap was found between rural and urban areas, between men and women, and between socio-economic groups, limiting the technology-based employment opportunities to be enjoyed equitably. The study also revealed a mismatch between the growth of AI adoption at the enterprise level and the preparedness of fresh graduates, thus heightening the potential risks of displacement and underemployment. Jadhav noted that digital literacy and AI skills have become an intrinsic part of the employment resilience and spoke about the need for inclusive policies in AI, integrated education reforms, and targeted digital-skilling programmes.

(Virojrut et al. 2026) studied structural relationships between artificial intelligence (AI) literacy, creative thinking capability, learning achievement and entrepreneurial readiness of prospective Generation Z entrepreneurs in Thailand. The study was quantitative in nature and

the data obtained was in the form of questionnaire which was administered to 506 university students. The assessment of direct and indirect relationships between the proposed variables was done using Structural Equation Modeling (SEM) software with SmartPLS 4. The results showed that AI literacy had a significant positive effect on creative thinking ability and a moderate positive effect on students' learning achievement. The direct impact of AI literacy on entrepreneurial readiness was also relatively low but statistically significant. The learning achievement was significantly influenced by creative thinking capability, and entrepreneurial readiness was an important predictive variable of creative thinking capability. The results also showed that AI literacy is found to have a significant indirect effect on entrepreneurial readiness through creative thinking capability and learning achievement. The research highlighted the importance of embedding AI literacy and creative learning approaches in higher education. The authors extended Human Capital Theory by defining AI literacy as a type of digital human capital that can help develop entrepreneurial readiness, both cognitively and academically.

The study by (Krishnan 2026) is a three-year mixed methods study of an ethical AI pedagogy in 12 information-rich higher education institutions in India that involved the integration of AI literacy, ethics and offline access. The research highlighted human-centred thinking, awareness of ethical issues, and AI system design, concepts drawn from UNESCO's AI Competency Framework for students and teachers. The project used a quasi-experimental design, along with journals, focus groups and learning analytics, with 600 people in the intervention group with 568 in the control group. A total of 1,168 students, faculty and administrators were engaged in the study. Participants in the intervention showed an increase in AI literacy (78.9%, d = 0.80), ethical awareness (76%, d = 0.90), as well as creativity and collaboration improvements. The effects were found in both genders and non-technical students. Rural institutions, however, had higher levels of anxiety, lower level of readiness, and infrastructure limitations, causing a disparity between urban and rural in AI literacy and ethical awareness. The research highlighted the importance of combined technical and ethical training, institutional support and suggested a scalable approach for critical AI literacy in Indian higher education and information services.

(Mukhopadhyay 2026) qualitatively analyzed India's national artificial intelligence policy by using existing AI literacy models. The study aimed to bridge the existing scholarship gap on the link between national AI policy and theoretical aspects of AI literacy. It examined the India AI 2023: Expert Group Report – First Edition through a four-dimensional lens of AI literacy – understanding, application, evaluation and ethics. Thematic analysis was used to

determine the extent to which these dimensions were seen within the national policy document. The results showed that overall, the AI policy in India was found to be in line with all four dimensions of AI literacy. Three other relevant themes were also found at the sociocultural level: inclusion, equity, and AI for social good. While this is a positive development, the study revealed some policy requirements that may hinder the full realization of AI literacy for everyone. Mukhopadhyay (2026) stated that while India's national AI policy is a good stepping stone for promoting AI literacy, it needs to be complemented with focused efforts on inclusion, equity and socially responsible implementation of AI.

(Pal 2025) explored the increasing importance of AI literacy for generation beta learners and the need for the NEP 2020 to nurture the development of AI skills. The study pointed to the fact that today's children are being raised in an environment hungry for technology and AI literacy is now part of the digital education. It critically analyzed the necessity of developing curricula in educational institutions that incorporate Artificial Intelligence (AI) and explored the implementation possibilities in the socio-economic and technological context of Indian educational institutions. Based on the study, the authors claimed that through AI learning, new educational opportunities can be created and children's understanding of concepts, practices, and perspectives of AI can be developed. Pal (2025) additionally suggested extending AI literacy beyond a specific technological skill to encompass technological literacy as a whole. Technological literacy was defined as a type of multiliteracy, which is a combination of various aspects of digital competence in the modern world. It highlighted the need for AI literacy and technological literacy, and urged for the development of appropriate education frameworks for the integration of the two. The study emphasized the significance of curriculum development, teacher preparedness, and policy-driven educational approaches in enhancing AI literacy for the next generation of Indian students.

To explore how artificial intelligence (AI) literacy is conceptualized and applied, (Khodabin and Arsalani 2025) carried out a systematic literature review (SLR) on 24 academic and policy-oriented publications that were published from 2020 to 2025. The study identified some of the key challenges using the PRISMA framework as being infrastructural inequalities, linguistic exclusion and policy fragmentation. It also looked at context-sensitive AI literacy programs in other nations including India, Kenya, and South Africa. The results showed that AI literacy is a multi-faceted concept, involving technical knowledge, civic engagement, ethical considerations, and digital sovereignty. The review also noted that a large number of national AI strategies resonate with the perspectives of the Global North which may not be well aligned with local socio-economic contexts and epistemologies. The authors then highlighted

those AI literacy strategies that are grounded in the local context, informed by community perspectives, and built with an equity lens. They suggested that AI literacy should not only be seen as an educational goal but as a core capability and development tool for it. The research added to the discussion around inclusive digital transformation by emphasizing the value of accessibility, ethics, social participation and AI literacy policies that are appropriate for the local context.

(Hossain et al. 2025) explored the levels of artificial intelligence (AI) literacy that library and information science (LIS) students exhibit in South Asia, and determined the differences between countries, educational levels, gender identity, and English language proficiency. A total of 914 students were surveyed from Bangladesh, India, and Pakistan. The results indicated the varying levels of AI literacy among students from different countries, with Indian students exhibiting the highest levels of conceptual understanding and ethical considerations, while Bangladeshi students had the highest levels of practical skills, and Pakistani students the highest level of sensitivity towards ethical concerns. The higher the level of study, the greater the AI literacy, indicating that the trajectory of education is related to the knowledge and skills gained in the field of AI. English language proficiency had an impact on familiarity and understanding of AI, though not significantly on overall proficiency. Students most frequently utilized AI tools to search for information, proofread content and summarize articles, but were less familiar with the use of advanced applications. Issues of academic integrity and plagiarism were also significant. The study called for region-specific, inclusive, ethical, and focused AI literacy courses to enhance the curriculum development and equip library and information science students for the workplaces of the future in AI-powered professions.

(Pant, Ghadge, and Mulik 2025) explored the transformative impact of Artificial Intelligence (AI) on higher education in India, focusing on the areas of instruction, learning, administration, and research. The study also pointed out the increasing trend of adaptive learning, virtual classrooms, personalized education, and career counseling with the help of AI-driven platforms. AI was also found to be a way to make education more accessible for differently-abled students and students in rural and remote areas. The study, however, also revealed some significant challenges such as poor infrastructure, low financial capacity, lack of trained staff, and data privacy and ethics issues. The study also took into account the relevance of the National Education Policy (NEP) 2020 in the technological modernization in education. The Random Forest Regression model was employed to predict the support for increased adoption of AI in higher education institutions. For the model, MSE was 15.34, RMSE was 3.92, and R^2 was 0.57, which means that the model explains 57% of the variance

in the AI adoption support. The authors highlighted the importance of collaboration between academia, industry and government, as well as infrastructure and digital literacy, for inclusive integration of AI.

(Kumar and Jain 2025) explored the implications of artificial intelligence (AI) for employment in India, covering job displacement and job creation in various sectors—such as manufacturing, agriculture, services, healthcare, and information technology. The study highlighted that India has a vast workforce and a growing number of digital populations, making it an important juncture in its journey towards an AI-powered economy. It reviewed what is happening in the employment market, real-life examples, action taken at a government level, preparedness of the education system and policy considerations. The results indicated that AI can enable higher productivity, generate new job prospects and contribute to economic development, and also, induce job displacement due to the loss of skills. The study particularly emphasized the need to develop the education and training system to equip workers with the necessary digital, technical and cognitive skills. It was concluded that implementation of coordinated institutional responses and government policies were key to employment transition. Kumar and Jain presented strategic pathways that placed a special focus on inclusive development, social equity, adaptation to the workforce, and the creation of sustainable jobs. The study found that the government, industry, educational institutions, and workers need to work together to ensure that AI-driven transformation has a widespread positive impact on employment opportunities in India.

Among India's youth, (Sunaina and Singh 2025) investigated how AI may both generate and identify disinformation. This quantitative study aimed to examine the digital literacy practices, exposure to AI-generated disinformation, and awareness of AI-based detection tools among 173 youths (16–30 years old) from Hisar, Haryana. More time spent on social media was associated with a higher likelihood of encountering disinformation, according to the data. With fewer than half of the participants being acquainted with AI and AI-powered fact-checking tools, the general level of knowledge regarding these technologies was determined to be moderate. There was no discernible difference in verification behaviour based on gender, and age had little bearing on AI awareness. The research highlighted the vital importance of incorporating critical thinking and digital literacy into school programs immediately, while also advocating for the creation and implementation of systems that can detect misinformation fuelled by artificial intelligence.

(Nurhayati et al. 2025) explored the readiness of parents, challenges in adopting AI for kids' education in Indonesia, and the policies needed to support this integration. This study used a

mixed method that included survey of parents in Indonesia (100 parents) followed by in-depth interview. The quantitative part examined the levels of AI literacy, accessibility, and attitudes, while the qualitative part involved interviews that focused on socio-economic barriers and cultural issues. Quantitative data was analysed using descriptive statistics and regression analysis while qualitative data was analysed using thematic analysis. The results revealed that while most parents were aware of the educational possibilities of AI, their ability to facilitate learning with AI was still limited. It was found that factors that were important predictors of AI adoption readiness included higher educational attainment, being more digitally literate, and having stable internet access. But issues of privacy of data, bias in algorithms, and lack of human interaction were still major challenges. The study highlighted targeted programs of AI literacy as a crucial instrument in enhancing parental readiness. The concept of accessible learning materials, digital equity, parental-focused AI literacy programs, and protective data policies were proposed by Nurhayati et al. (2025) to foster responsible and inclusive AI usage in the education sector, particularly affecting children.

(Chang and Choi 2025) performed a qualitative study to explore how researchers and educators see AI literacy and its use in the classroom. The study found that there are four main ways to improve AI literacy, according to interviews with fifteen people from different academic and research institutions: creating national AI literacy frameworks, using simulations as an instructional tool, integrating ethics into curriculum, and fostering interdisciplinary project-based learning. Research has also shown that there are a number of obstacles, such as different understandings of what constitutes AI literacy, a lack of qualified educators, uneven access to technology, students' reliance on generative AI, and inadequate funding and policy backing. According to the research, one of the biggest problems with implementing AI literacy programs is the lack of standardised assessment methods. Through all-encompassing governmental backing, professional development programs, and fair access to AI materials, the authors believe that AI literacy should be an integral part of contemporary education.

(H. Musawa, A. Almalik, and M. Khan 2024) aims to examine the effect of Artificial Intelligence (AI) on education in the Kingdom of Saudi Arabia (KSA), specifically its preparedness for AI use in education. This study was theoretically based on the Theory of Planned Behaviour (TPB), Unified Theory of Acceptance and Use of Technology (UTAUT), and Technology Acceptance Model (TAM). Primary data was obtained by surveying 198 students, teachers, faculty and administrators who were selected through stratified random sampling. EViews was used for analyzing data to explore factors that affect adoption intentions of AI. The results revealed that about 35%–40% of the participants had positive attitudes

towards AI adoption, highlighting the importance of disseminating more information and awareness about AI. The results of the regression analysis indicated that attitude, knowledge, and perceived usefulness significantly predicted the intention to adopt Artificial Intelligence, with differences found between the genders, ages, and professional roles. Using the results of these findings, the authors created an AI Readiness Assessment Tool based on TPB, UTAUT, and TAM. From the students' side, the study recommended practical ideas to assist students in adopting technology and using it as a tool to help them learn, and from the faculty side, it emphasized the practical recommendations for teachers to follow in using AI as a tool in their teaching process, while from the administrative side, it presented a theoretical and operational foundation for using technology in education and teaching in accordance with the Saudi Vision 2030.

(Ajitha, Geevarathna, and Huxley 2024) In their study titled 'Human-AI Collaboration: Human perception and awareness on the integration of AI at the individual's level' (2024), Ajitha, Geevarathna and Huxley explored how human and AI work together and investigated the perception and awareness of the human participants regarding the AI integration at their level in the context of Karnataka, India. The study examined the impact of demographic factors on awareness, perceptions, and understanding of AI, specifically in the context of news media, social media, and AI-powered applications. It also examined if awareness and perceptions of AI impact on people's understanding of AI functioning. The results indicated that age is significantly related to comfort with AI, perception of AI-generated news, interactions with AI-powered chatbot, participation in AI-related discussions, and ethical concerns over AI applications. While respondents showed significant understanding and interest in AI technologies, there were significant differences between the various groups and the different use cases. The research findings suggest that AI systems need to be flexible to handle user expectations and sensitive to ethical issues for greater user inclusion in AI use.

(Balakrishnan et al. 2024) examined the factors that affect the resistance, attitudes of users to Artificial Intelligence Voice Assistants (AIVA). The study developed a theoretical framework that combined the Status Quo Bias Theory and the Technology Acceptance Model (TAM) and included the following factors: sunk cost, regret avoidance, inertia, perceived value, switching costs, perceived threat, perceived ease of use, and perceived usefulness. The data obtained from 420 respondents were analyzed by using structural equation modeling (SEM). The results showed that the perceived value had a significant negative effect on resistance towards AI voice assistants, while inertia did not have a significant effect on resistance. But there were significant differences in inertia among gender and age groups. It

was concluded that perceived usefulness, ease of use positively influences users' attitudes, and resistance is influenced by psychological and behavioural factors. The results provide valuable insights into the adoption of AI technology and user acceptance.

(Chiu et al. 2024) explored the notion of "Artificial Intelligence literacy and competency" in the K–12 context by considering the perspectives of teachers in the design of a holistic AI education framework. The study extended the concept of AI literacy beyond technical knowledge to incorporate other key skills, such as confidence, self-reflection, collaboration, and ethical awareness. Thirty experienced AI teachers from 15 middle schools were involved in the research and four cycles of co-design were conducted. The resulting framework was based on five key dimensions of AI competency: technology, societal impact, ethics, collaboration and self-reflection. Furthermore, the study suggested five effective learning experiences, and identified future research topics such as prompt engineering, data literacy, algorithmic literacy, self-reflective thinking, and empirical validation for cultivating AI competencies. The study found that AI education should go beyond just teaching learners technical skills to cultivate responsible, ethical, and confident AI users, which would enhance their AI literacy and readiness for future.

(Cardon et al. 2023) surveyed 343 communication teachers to investigate how generative AI could affect business communication courses. Results showed that most participants expected AI-assisted writing tools to proliferate in the workplace, which would call for major shifts in pedagogy. Concerns voiced by participants about AI-assisted writing included a decline in critical thinking and an erosion of literary authenticity, while benefits such as increased productivity and better idea generation were more widely recognised. In order to make good use of AI in the workplaces of the future, the researchers suggested that students should acquire thorough AI literacy that includes application, authenticity, responsibility, and agency. In order to make the most of AI's educational potential while limiting its potential negative effects, the study suggested institutional changes and changes to curricula.

(Roy et al. 2022) examined the intention to use AI based robot in educational system of universities of India. The study adopted a combination of the Technology Acceptance Model (TAM), the Theory of Planned Behaviour (TPB), and the Technology Readiness Index (TRI) to create a holistic model that explains the adoption of AI in higher education. The data were gathered from teachers and students from various Universities of India and 13 hypotheses were tested that look at the factors responsible for the adoption intentions and user attitudes. The results showed that nine hypotheses were confirmed and four were disconfirmed. The results showed a positive attitude of the teachers and students towards the use of AI-based robots in

education. The study recommended that the university administration should promote the use of AI in education to improve the quality of education and technological readiness.

3. Methodology

3.1 Research Design and Study Area

A quantitative research design was used in the study to investigate Artificial Intelligence (AI) literacy and their relationship with future readiness of youth. The study was done in South Gujarat with the sample respondents being young in various age-groups and educational levels. The study aimed to evaluate levels of awareness, exposure, use, and literacy about the application of artificial intelligence, and their correlation with youth future readiness.

3.2 Population, Sample Size and Sampling

The study sample comprised young people in the area of South Gujarat. The total number of respondents who were studied was 200. The respondents were divided into four age groups namely 18-20 years, 21-23 years, 24-26 years and 27-30 years and different educational qualification. Responses from the selected participants were collected by using a structured approach. The attached document does not specify the population size or the particular statistical formula used for calculating the sample size; therefore, no unsupported sample-size calculation is added here.

3.3 Data Collection

Primary data were obtained through the use of a structured questionnaire which was administered to the respondents. The questionnaire aimed to collect data on the participants' demographic information, how often they use AI tools, their previous experience with AI, and topics related to AI literacy and future readiness. The study included respondents from different educational backgrounds to obtain a broader understanding of AI literacy among youth.

3.4 Data Analysis

The data collected were analysed using descriptive and inferential statistics. The participants' demographics and AI-related responses were presented using descriptive analysis. The relationships between Artificial Intelligence Literacy and Future Readiness were tested using the regression analysis. The study tested the following null hypothesis and alternative hypothesis: null hypothesis: the AI literacy level of students has no significant effect on their future readiness; alternative hypothesis: the AI literacy level of students has a significant positive effect on their future readiness.

4. Result

Table 1: Age group distribution

Age		
	Frequency	Percent
18–20 years	54	27.0
21–23 years	34	17.0
24–26 years	58	29.0
27–30 years	54	27.0
Total	200	100.0

The age distribution reveals that the respondents' ages were fairly spread out among the age groups. The 24-26 years age group had the highest number (58 respondents) making up 29.0%. The age range 18–20 years and 27–30 years accounted for 27.0% (54 respondents) each, and the age range of 21–23 years had the lowest percentage with 17.0% (34 respondents).

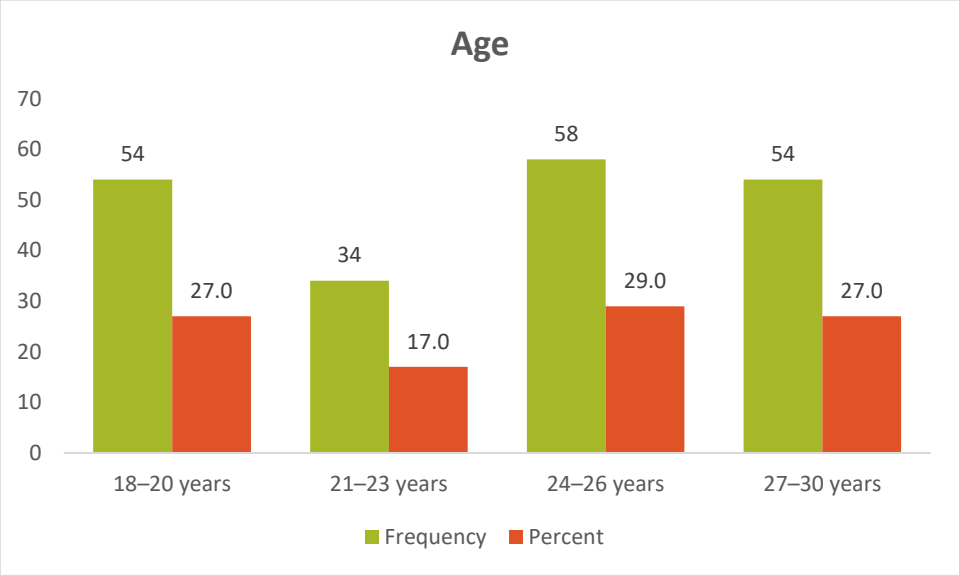

Figure 1: Age group distribution

Table 2: Gender responses distribution

Gender		
	Frequency	Percent
Male	93	46.5
Female	107	53.5
Total	200	100.0

The distribution of males and females suggests a fairly equal number of female and male respondents. The slightly higher proportion was female respondents (107 respondents; 53.5%)

while male respondents (93 respondents; 46.5%). Therefore, the sample is representative of the population of the female sex is more than the male sex by 7.0 percentage points.

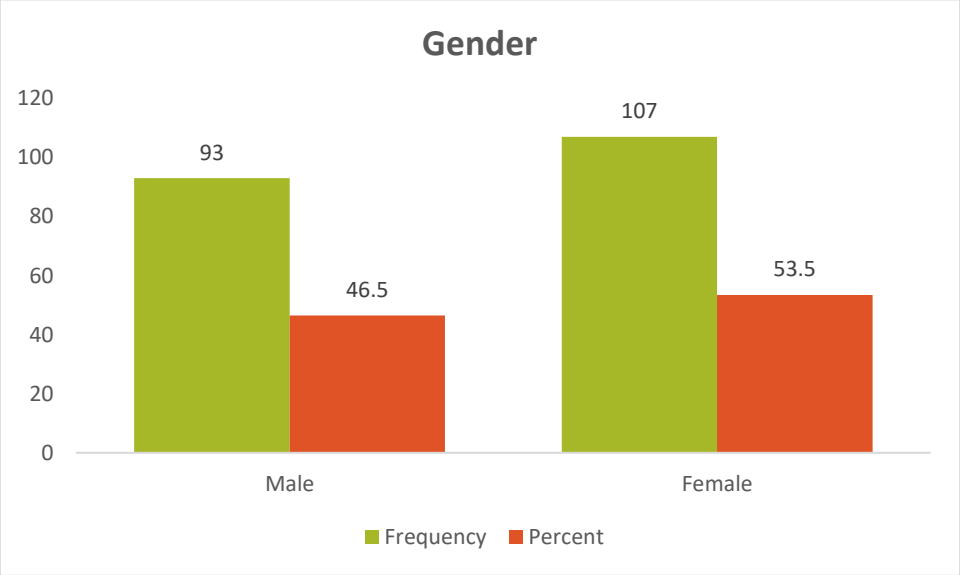

Figure 2: Gender responses distribution

Table 3: Education qualification distribution

Education qualification		
	Frequency	Percent
Higher Secondary	49	24.5
Undergraduate	40	20.0
Postgraduate	38	19.0
Doctoral	32	16.0
Other	41	20.5
Total	200	100.0

The distribution of educational qualifications shows a wide range of experiences among the respondents. The highest number of respondents had higher secondary qualifications (49) and other qualifications (41) and then the undergraduate qualifications (40). The postgraduate students accounted for 19.0% (38 respondents) while the doctoral students accounted for 16.0% (32 respondents).

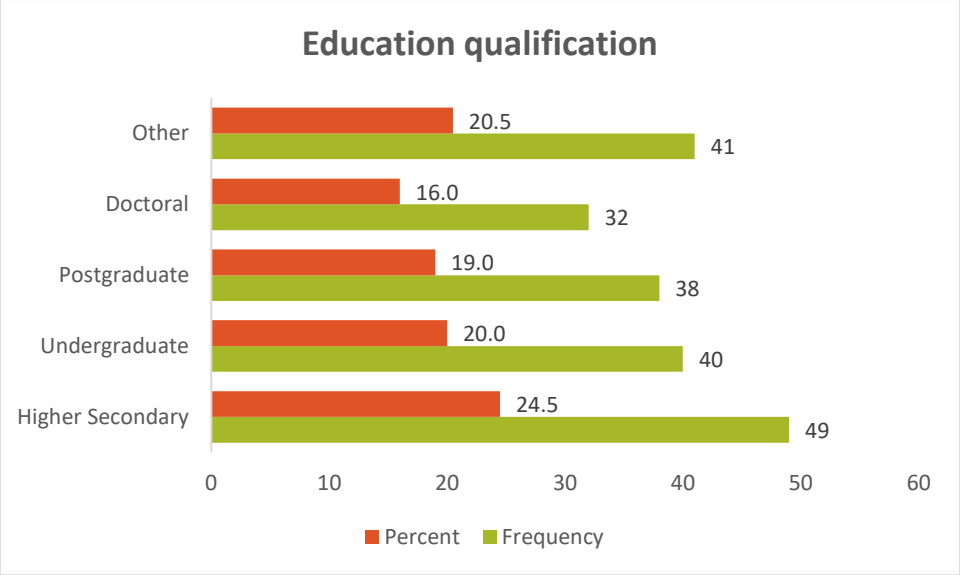

Figure 3: Education qualification distribution

Table 4: "How frequently are artificial intelligence tools used?" distribution

How frequently are artificial intelligence tools used?		
	Frequency	Percent
Less than 1 hour per day	49	24.5
1–3 hours per day	43	21.5
3–5 hours per day	41	20.5
5–7 hours per day	37	18.5
More than 7 hours per day	30	15.0
Total	200	100.0

Results show a range of respondents' usage of artificial intelligence tools. 24.5 % of the respondents (49) reported that they spent less than 1 hour per day with AI tools, followed by 21.5 % who spent 1-3 hours. In the meantime 20.5% reported 3-5 hours, 18.5% 5-7 hours and 15.0% more than 7 hours daily.

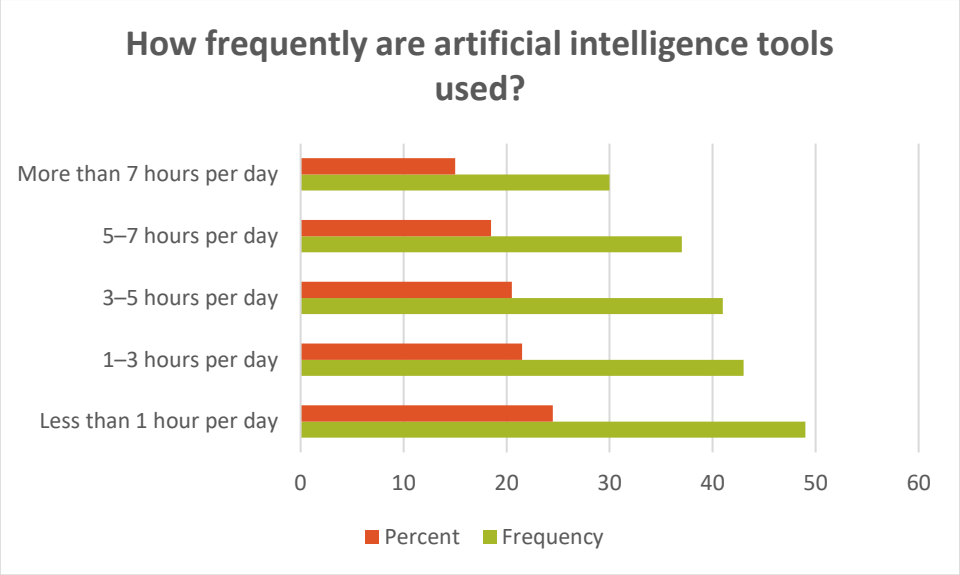

Figure 4: "How frequently are artificial intelligence tools used?" distribution

Table 5: "What is the level of previous exposure to artificial intelligence?" distribution

What is the level of previous exposure to artificial intelligence?		
	Frequency	Percent
Very low exposure	45	22.5
Moderate exposure	41	20.5
High exposure	63	31.5
Very high exposure	51	25.5
Total	200	100.0

The distribution shows that respondents had a high level of exposure to AI prior to the survey. The largest group (63 respondents or 31.5%) reported high exposure, 51 respondents or 25.5% reported very high exposure. There was a range of exposure to AI, with 20.5% (41 respondents) reporting moderate exposure and 22.5% (45 respondents) very low exposure.

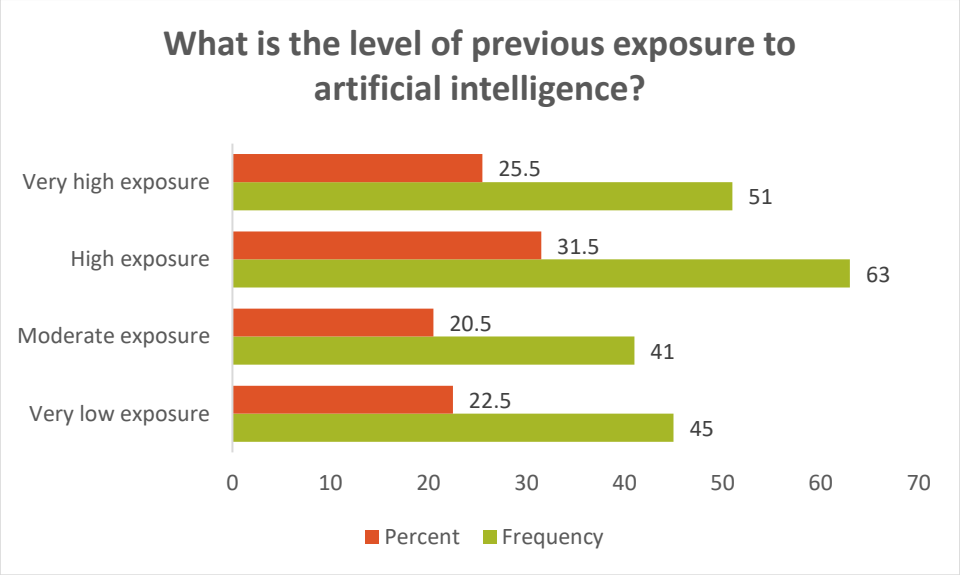

Figure 5: "What is the level of previous exposure to artificial intelligence?" distribution

Hypothesis

H_{01}: Artificial Intelligence Literacy has no significant effect on Future Readiness among Indian youth.

H_{11}: Artificial Intelligence Literacy has a significant positive effect on Future Readiness among Indian youth.

Table 6: Regression analysis on hypothesis

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333[a]	.111	.106	.91279
a. Predictors: (Constant), Artificial Intelligence Literacy				

According to the Model Summary, Artificial Intelligence Literacy is a positive relationship with the Future Readiness model, and R is .333. A "R^2 value of .111" means that 11.1% of the variation in Future Readiness is explained by Artificial Intelligence Literacy. The adjusted R^2 value is .106 so about 10.6% of the variance is explained after adjustment.

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.584	1	20.584	24.705	.000[b]

	Residual	164.971	198	.833		
	Total	185.555	199			
a. Dependent Variable: Future Readiness						
b. Predictors: (Constant), Artificial Intelligence Literacy						

The ANOVA table indicates that the regression model is statistically significant, and the F value is 24.705 with a value of $p < .001$. Since the significance value is below the 0.05 level, the regression model provides a statistically significant prediction of Future Readiness from Artificial Intelligence Literacy. For this reason the model is deemed appropriate to explain the relation between the two variables.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.557	.265		9.649	.000
	Artificial Intelligence Literacy	.343	.069	.333	4.970	.000
a. Dependent Variable: Future Readiness						

The table of coefficients shows that "Artificial Intelligence Literacy" has a positive and statistically significant impact on "Future Readiness. The unstandardized coefficient of .343 shows that for each unit increase in Artificial Intelligence Literacy, there is a .343-unit increase in Future Readiness. The standardized coefficient ($\beta = .333$) and the significant t-value ($t = 4.970$ $p < .001$) support the significant positive contribution.

The results indicated that the Artificial Intelligence Literacy has significant positive prediction ($\beta = .333$, $t = 4.970$, $p < .001$) on Future Readiness. As the significance value is less than 0.05, the null hypothesis that there is no any significant effect of Artificial Intelligence Literacy on Future Readiness is REJECTED. Therefore, the alternative hypothesis is accepted, meaning that the variables are significantly related with a positive relationship.

5. Discussion

The results are clear that AI Literacy is a crucial component to prepare the Indian youth for the future. Respondent profile consist of 200 youth of various age, gender and educational

qualification. AI engagement is significant: 75.5% used AI tools at least an hour each day, 57.5% used to have high or very high exposure to AI. The findings suggest that AI is becoming a normal aspect of the lives of many young people. However, it does not necessarily mean that any frequent usage should be taken as a full AI literacy. The findings from the literature review reveal that there is a disconnect between the practical application and the greater understanding of the concepts, limitations, bias, privacy, ethics and responsible use of AI. This distinction is significant as relying too heavily on AI can undermine the growth of critical thinking and independent study. The regression result is directly corroborative evidence to support the hypothesis of the study. Future Readiness is positively and significantly related to Artificial Intelligence Literacy with a beta value of .333, t value of 4.970, $p < .001$. The model is statistically significant ($F = 24.705$, $p < .001$) and accounts for 11.1% of the variance for Future Readiness (adjusted $R^2 = .106$). Therefore, the higher the AI literacy of the Indian youth, the higher will be their readiness for future. The results highlight the importance of education, ethical consciousness, digital-skilling training and inclusive access for AI adoption to become a meaningful competency and job readiness.

6. Conclusion

The study finds that Artificial Intelligence literacy plays a prominent positive role in the future readiness of the Indian youths. Exposure to and use of AI is significant, as indicated by the evidence: 57.5% have high or very high previous exposure and 75.5% spend at least one hour a day on AI tools. But that does not translate to high AI literacy. Youth must become familiar with concepts of AI, know how to assess information produced by AI, understand the potential for bias and limitations, and understand issues regarding ethics, privacy, and responsible use of AI. This is confirmed by the regression analysis, which revealed that the relationship between AI literacy and future readiness is significant and positive ($\beta = .333$, $t = 4.970$, $p < .001$). The model accounts for 11.1% of the variance in future readiness, and the significant result for the ANOVA ($F = 24.705$, $p < .001$) supports the predictive relationship. Thus, the null hypothesis is rejected and the alternative hypothesis is accepted. Overall, the results indicate that India must, beyond the mere act of using AI, strive towards building AI literacy by developing curricula, raising ethical awareness, providing digital-skilling programs, and ensuring the equitable access of the youth to the knowledge and use of AI for a responsible participation in the AI driven future.

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