HUMAN RESOURCE

Impact of Generative Artificial Intelligence on Employability and Skill Requirements among University Students in India

Krisha Patel, Neha Chandra

Amity Business School, Amity University Maharashtra, Mumbai, Maharashtra, India

Published November 2026

Abstract

The field of Generative Artificial Intelligence (AI) is now receiving much attention and is being utilised in areas such as writing, investigation, design, programming and data and client services. Generative AI can develop text, graphics and other content according to user instruction. Its increasing implementation in business and education has led to both enthusiasm and concern, particularly amongst students as they consider their own future careers.

Whilst a degree and/or knowledge is still important in the workplace, there is increasing recognition of the value of applied skills. Digital skills, problem solving, communication and the ability to utilise and learn how to use new technology are also highly regarded. Although AI can automate parts of some jobs, it is also seen as an enabler, allowing staff to work in new and more efficient ways. Again, this will vary depending on a job and how and to what extent AI is implemented and used by an organisation and its staff.

India's government and industry are currently addressing and responding to the above trends. Literature produced by these bodies frequently references building AI skills, re-skilling and ensuring young people can adjust to evolving career roles. Thus, this research looks at how students can adjust to working in an AI enhanced world and considers what universities may need to do to facilitate this.

1 Current affairs background

India has been discussing AI, career preparedness and education within the country. According to NASSCOM forecasts, the number of professionals with AI skills is predicted to rise from approximately 6-6.5 lakh in 2024 to over 12.5 lakh by 2027. Government parliamentary response to this in March 2026 highlighted AI and Big Data Analytics as areas for staff re-skilling. UNESCO and MeitY also jointly released a report in 2026, the India AI Readiness Assessment Report. Within this, AI regulation and ethics were given attention and there was an emphasis on inclusive and well planned AI integration and workforce career enhancement. Further, Government programmes such as FutureSkills PRIME are also endeavouring to increase individual staff skills in new technologies. Therefore, in addition to being a technological area, AI is also linked to education and to labour and skills policy.

This underpins how students can prepare for career evolution and new role and skills expectations.

2 Literature review

2.1 AI and role evolution

It is increasingly recognised that AI is influencing the evolution of roles. Alongside, and in some instances in place of, the automation of standard processes, there may also be additional roles for reviewing, analysing, managing and applying specialist skills in conjunction with AI.

2.2 AI and employability

Digital, data and AI skills are increasingly recognised as key. Equally though, students also need to recognise when it is suitable to use AI and then assess and effectively convey information from AI outputs.

2.3 Human skills

Although AI is becoming more widely available, human skills are still highly important. These include decision making, creativity, empathy, team-working and leadership. Humans are still accountable for decision making and its effects. Although AI can carry out various functions, people and organisations must retain overall control.

2.4 Over-dependence and inappropriate use

Concerns exist around the accuracy of AI, along with issues such as false information, data security, bias and plagiarism. Students who fail to review and question AI outputs risk impairing their investigative and analytical skills. Appropriate AI use necessitates review, openness and awareness of organisational guidelines.

2.5 Education and career progression

To meet the changing world of work, education systems must evolve. This can involve providing experiential learning, industry engagement and updated teaching. Furthermore, students can particularly benefit from links between education and application. Similarly, AI skills should be included within education alongside subject-specific knowledge.

3 Research gap

Much current discourse centres around technological development, business implementation and whether AI might cause job loss. From a student point of view, this research investigates how AI can affect career preparedness and what skills university students may need. Both human and digital skills are examined. Moreover, differences in approach can exist between informal and professionally appropriate AI use. As this is secondary research, this report highlights further areas for investigation and does not assess students' actual skill sets.

4 Research objectives

1. To investigate how generative AI is affecting occupational functions and initial career roles.
2. To identify AI and digital skills that may contribute to graduate employability.
3. To recognise the continued relevance of communication, analytical, creative and adaptable skills.
4. To discuss concerns relating to uncontrolled or unsuitable AI use.

5. To propose methods by which universities and students can prepare for an AI enhanced career environment.

5 Methodology

5.1 Design

This research employs a descriptive and analytical approach. Secondary literature is analysed to discuss how generative AI may affect career preparedness and skills. No attempt is made to analyse causality using statistics.

5.2 Data

Secondary data was analysed, comprising government, industry and international body publications and policy. No primary data was gathered via surveys, interviews or questionnaires.

5.3 Scope

This research relates to Indian university students and considers how they can prepare for the labour market. Initial and early career roles are of particular relevance within business and other industries. Areas investigated include AI awareness, career skills, career preparedness and suitable AI use. Links between education and career are also explored.

6 Hypotheses

H1: Improved knowledge of generative AI may increase students' felt career preparedness.

H2: Human skills such as analysis and communication remain relevant to career preparedness in an AI enhanced environment.

H3: Students' self-directed problem solving and investigative skills may be impaired if they unreservedly use AI and do not review its outputs.

H4: Students' career preparedness may be enhanced through experiential learning and industry engagement which relate to AI.

7 Analysis

Within this report, AI awareness and use form the background. Factors which may affect career preparedness include staff skills development and appropriate AI use. Outcomes of interest are felt career preparedness, adaptability and occupational function. Note that this is a conceptual analysis and no statistical analysis is performed.

8 Findings

8.1 AI is affecting function

Whilst there may not yet be complete job role replacement, there appears to be greater recognition of AI's influence on functions. Functions such as writing, data handling and content creation can be enabled or even automated by AI. Staff may increasingly be required to review, amend and utilise AI outputs.

8.2 AI awareness can be career beneficial

Students that can effectively use AI for investigation, ideation, analysis and increased productivity may be well prepared for businesses that are incorporating AI. Nevertheless, in addition to AI awareness, students must recognise both its strengths and constraints and ensure data confidentiality. Outputs also require review.

8.3 Analytical and review skills are key

Although generative AI can present information in an assured manner, it may also be erroneous. Students and new staff must therefore be able to investigate, recognise omissions and assess the trustworthiness of AI outputs. Employers seek individuals that can discern good advice from incorrect information and then assume accountability for end outputs.

8.4 Communication and team-working skills remain relevant

Staff commonly work in teams. Good communication skills are also needed to convey and receive information and to manage feedback. Although AI can be used to generate material, it is not able to wholly replicate the contextual and relationship aspects of human communication. These skills are relevant in many business areas.

8.5 Adaptability is a key career skill

Both AI and occupational function are likely to continue to evolve. Students may not be able to ascertain in advance which specific AI software or tool will be most pertinent for them during their careers. Therefore, the sustainability of career preparedness may be improved by a person's ability to self-educate and adapt to and update their skills, in comparison to focussing solely on knowledge of one AI application.

8.6 Appropriate AI use is a key professional skill

Issues such as data security, bias, intellectual property and academic integrity are all relevant. Students entering business must recognise what data should not be inputted into publicly available AI systems. They also need to understand when it is appropriate to disclose their use of AI and to be aware of, and adhere to, an employer's guidelines. Appropriate AI use should thus be regarded as fundamental to professional skills.

8.7 Universities play a part in addressing skills differences

They can contribute to students' career preparedness by embedding AI related experiential learning, case studies, industry engagement and skills development. Teaching should emphasise both the process and evaluation behind students' work to ensure that they can recognise and articulate their work.

9 Discussion

Often, AI is presented in current debate as either detrimental to employment or as automatically enhancing productivity. However, the literature shows that, in reality, AI can affect functions, introduce new skills requirements and enhance productivity. Again, this will depend on factors such as AI implementation, staff training, availability and the re-engineering of occupation function within businesses.

Indian university students may increasingly require a blend of subject-specific, AI and transferable skills to be career ready. Students may find it difficult to effectively convey, analyse and self-directally problem solve if they depend on AI without fully understanding it. Conversely, utilising AI as a support mechanism and simultaneously critically analysing and educating oneself about its use may boost both confidence and productivity.

All parties have a role to play. Students must continue to educate themselves. Universities should regularly review and update education and employers should provide staff training and clear guidance. Alongside implementing AI, a successful AI integration should ensure that people can competently, ethically and inclusively utilise it.

10 Recommendations

1. Students should gain basic knowledge of generative AI. This should include understanding how to formulate prompts, review outputs and recognise AI's strengths and weaknesses.
2. Students should utilise AI as a supplementary resource and not as an alternative to self-reading, analysis and skills development.
3. Students should develop good transferable skills together with digital skills (including analytical, communication, creativity and adaptability).
4. Universities should embed experiential AI learning, case studies and industry engagement within all subject areas.
5. Provide students with workshops covering AI ethics, data security, bias, academic integrity and appropriate AI use in business.
6. Promote and enable students to undertake internships and experiential activities, to understand how AI is actually utilised in business.
7. Students should create a portfolio showing their experiential skills, projects and personal contributions – not just display certificates.
8. Employers and education providers should facilitate and promote ongoing self-education and easily available skills updating.

11 Conclusion

Generative AI is becoming an increasingly significant element of education and labour markets in India. It can aid standard function, enhance productivity and even give rise to new occupational fields. Furthermore, AI is influencing the expectations for employees. India's current policy discourse emphasising AI skills and career preparedness further underlines the importance of students being suitably prepared for these developments.

Aside from AI use, this research suggests that career preparedness for an AI enhanced environment will also depend on students' possession of a range of skills. These include digital skills, along with analytical, communication, adaptable, creative and ethical skills. Rather than replacing education, AI should be recognised as an asset which, if appropriately utilised, can augment human skills. All stakeholders – students, universities and employers – have a part to play in preparing for this new environment.

11.1 Limitations and further research

As this is secondary research, no student, employer or recruitment data was gathered. Consequently, it is not possible to assess the extent to which students are utilising AI or to quantifiably establish the impact of AI skills on recruitment. Also, published data can differ in terms of the methods and timescale for which it is generated. Future research could comprise a student survey, an investigation of inter-disciplinary variations in AI awareness, recruitment interviews and an assessment of whether experiential AI education is linked to internship and/or employment outcomes.

References

[1] Government of India, Ministry of Labour and Employment. (2026, March 23). Impact of Artificial Intelligence on Employment, Skills and Education (Lok Sabha Unstarred Question No. 4955). https://sansad.in/getFile/loksabhaquestions/annex/187/AU4955_GgOD1o.pdf?source=pqals

[2] UNESCO. (2026, March 3). UNESCO–MeitY Launch India AI Readiness Assessment Report at India AI Impact Summit 2026 . https://www.unesco.org/en/articles/unesco-meity-launch-india-ai-readiness-assessment-report-india-ai-impact-summit-2026

[3] Press Information Bureau, Government of India. (2026, August 14). *FutureSkills PRIME Strengthens India's Future Ready Digital Workforce Through Skilling in Emerging Technologies*. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2299303&lang=2®=48

[4] Press Information Bureau, Government of India. (2026, February 12). *AI@Work: Driving Productivity, Jobs, and Innovation*. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2226912&lang=1®=1

[5] Press Information Bureau, Government of India. (2026, February 19). *India's Youth Dividend in the AI Era: Building a Future-Ready Talent Ecosystem*. https://www.pib.gov.in/PressReleasePage.aspx?PRID=2230044&lang=1®=3

[6] NIIT. (2026, March 31). AI, Cybersecurity, digital and data skills emerge as India's most critical future capabilities: NIIT India Skills Gap Report. https://nsearchives.nseindia.com/corporate/NIITLTD_31032026145621_StxCoverPressRelease31032026.pdf