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Learning with AI, Thinking with Care: Responsible Generative AI Use, Academic Integrity, and Learning Equity in Indian Higher Education

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***Abstract*-- Generative artificial intelligence (GenAI) can support technology-enabled learning through explanation, feedback, language assistance and practice. Yet uneven access, limited AI literacy, weak institutional guidance and hidden outsourcing can widen educational inequality and undermine academic integrity. This structured literature and policy review examines responsible GenAI use in Indian higher education through a learning-for-development lens focused on access, equity and student success. It synthesises selected peer-reviewed scholarship, international guidance and Indian policy documents. The review proposes that responsible adoption depends on four linked conditions: equitable access to learning support; critical AI literacy; transparent academic-integrity expectations; and assessment designs that make understanding visible. The article introduces the THINK Framework - Transparency, Human Judgement, Integrity, Need for Verification, and Knowledge Protection - as a practical guide for students. It also outlines an institutional pathway for inclusive implementation. The article argues that GenAI should expand learners' capabilities rather than merely accelerate task completion or deepen existing digital divides.**

***Keywords*-- generative AI; learning equity; academic integrity; technology-enabled learning; higher education; India; AI literacy**

I. Introduction

Generative artificial intelligence (GenAI) has rapidly become part of technology-enabled learning in higher education. Students can use conversational systems and other generative tools to request explanations, translate or simplify material, generate practice questions, receive feedback, organise an outline, troubleshoot code and explore different perspectives. These capabilities can be valuable in systems where students have unequal access to academic support, language assistance, mentoring and specialist learning resources. At the same time, the same tools can create risks when students depend on paid services, accept inaccurate output uncritically, reveal private data, or submit generated work that they cannot explain.

From a learning-for-development perspective, the central question is not whether GenAI should be universally permitted or prohibited. The more relevant question is how institutions can use it to expand meaningful learning opportunities without reinforcing existing inequalities or weakening the development of independent judgement. A learner who uses AI to clarify a difficult concept, compares the response with reliable sources and writes an original answer may gain access to valuable support. A learner who relies on AI-generated work without understanding it may gain only the appearance of success.

India provides a significant context for this discussion. The National Education Policy 2020 positions technology and emerging capabilities as important dimensions of educational transformation, while also recognising the importance of inclusive access and teacher capacity (Ministry of Education, Government of India, 2020). UNESCO (2023, 2024) similarly emphasises human agency, learner protection, age-appropriate use and critical competencies. For Indian higher education, responsible GenAI adoption must therefore connect academic integrity with affordability, accessibility, language diversity, privacy and quality teaching.

This article develops a structured literature and policy review of responsible GenAI use in Indian higher education. It contributes a learning-for-development framing that brings together four outcomes: access to learning support, equity in participation, academic integrity and student success. It also proposes a student-centred THINK Framework and an institutional action pathway suitable for universities and colleges operating across diverse resource settings.

II. Review Approach And Scope

This article is a structured literature and policy review rather than a systematic review or meta-analysis.

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It draws on selected peer-reviewed studies, recent evidence reviews, international guidance and public policy documents that address GenAI in education, academic integrity, learning equity, student support, assessment and Indian higher education. The sources were selected for direct relevance to the paper's conceptual focus and were interpreted thematically. Because studies differ substantially by country, institutional setting, student population, tool, survey question and outcome measure, no numerical data were pooled.

The review is guided by three questions: (a) how can GenAI expand or constrain equitable access to learning support in higher education; (b) what academic-integrity and learning risks emerge when students use GenAI without critical guidance; and (c) what institutional actions can link technology-enabled learning with equitable participation and authentic student success?

Learning-For-Development Analytical Lens

Table 1. Learning-For-Development Lens for Responsible Generative AI Use

Dimension	Potential contribution of GenAI	Risk if unaddressed	Institutional implication
Access	On-demand explanations, practice, translation and study support.	Students without affordable devices, data, paid tools or accessible interfaces may be excluded.	Provide approved low-cost or free options, accessible formats and campus support.
Equity	May reduce barriers related to language confidence, disability and limited prior academic support.	Output may reflect bias; unequal digital skills and premium subscriptions can create advantage.	Use multilingual, disability-inclusive guidance and equity-aware assessment.
Student success	Can support feedback, revision, self-regulated learning and confidence.	Fluent output can hide shallow learning and reduce practice of core skills.	Embed reflection, formative feedback and student explanation in course design.
Academic integrity	Can support transparent brainstorming, language improvement and formative practice.	Hidden authorship, fabricated references and prohibited assistance can undermine trust.	Clarify permitted use, disclosure and fair review processes.

Figure 1 presents the relationship between access, equity, learning success, integrity and institutional support. It treats responsible AI-supported learning as a capability-building process rather than a tool-adoption exercise.

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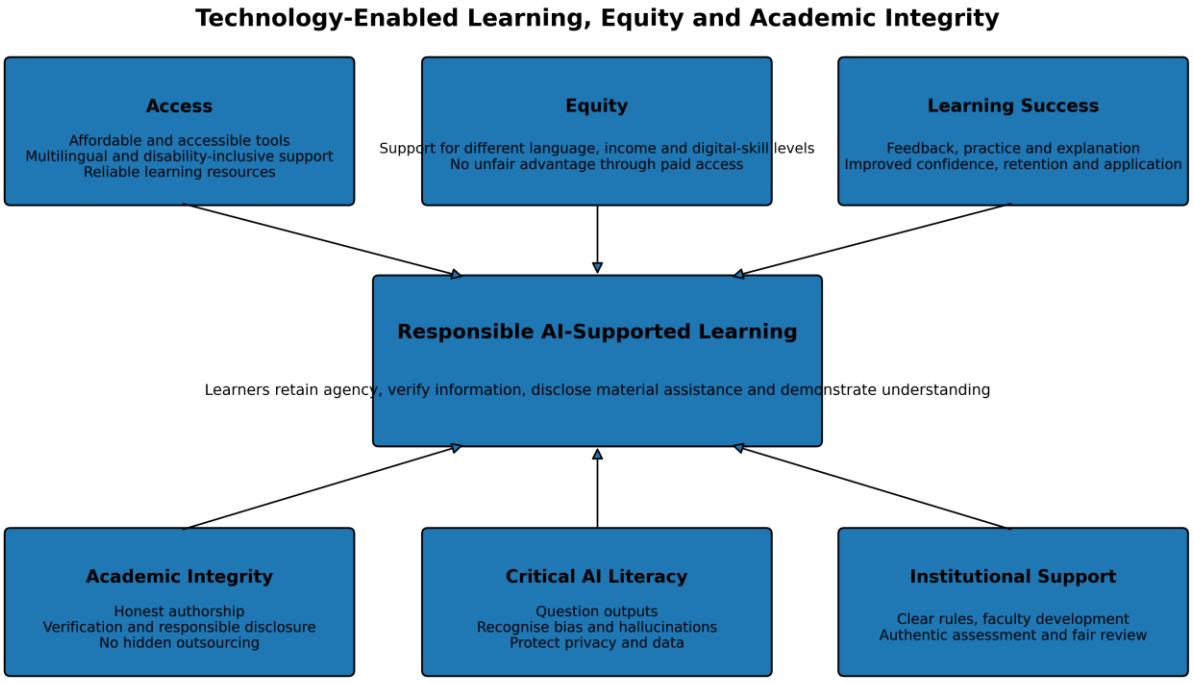

Figure 1. Technology-Enabled Learning, Equity and Academic Integrity Framework

Note. Developed for this review.

Use of AI-Assisted Tools

During preparation of this manuscript, the authors used an AI-assisted language tool to improve clarity and grammar. The authors independently determined the article's focus, reviewed and verified the cited sources, made all substantive decisions, and take full responsibility for the accuracy, originality, fairness and legal compliance of the final text. This declaration should be retained only after it has been personally verified by all authors before submission.

Generative AI as an Equity-Sensitive Learning Resource

Learning opportunities

GenAI can be useful when it functions as a learning companion rather than a replacement for the learner. Large language models can support personalised explanation, formative feedback, writing assistance, accessibility and tutoring-like interaction (Kasneci et al., 2023). Students may request explanations at different levels of difficulty, generate practice questions, obtain feedback on a draft, explore examples and identify gaps in an argument. These functions can be particularly meaningful for learners who have limited access to individual academic support outside class hours.

However, access to a tool does not automatically produce learning. The educational value depends on the quality of prompts, the student's prior knowledge, the credibility of the information used to check outputs and the learning design around the tool. OECD (2026) notes that GenAI can support learning when it is used with purposeful pedagogy, but it can also enable task completion without corresponding understanding. The equity goal is therefore not simply to make AI available; it is to ensure that all students can use it critically, safely and productively.

Unequal access and uneven capability

A learning-for-development lens requires attention to unequal starting points. Students may differ in access to reliable devices, broadband, paid subscriptions, disability-support features, English-language fluency, digital confidence and teacher guidance. An institution that permits extensive AI use without providing equivalent support risks rewarding students who can purchase premium services or who already possess strong digital and academic literacies. Conversely, a blanket ban may remove useful support for learners who need language clarification, extra practice or structured feedback.

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Equitable implementation requires a differentiated response: approved institutional tools where feasible; low-bandwidth and multilingual support; accessibility guidance; classroom opportunities to practise critical use; and assessment arrangements that do not assume identical access outside the institution. UNESCO (2023) stresses the importance of protecting human agency and learner rights, while UNESCO's student competency framework (2024) positions AI literacy as broader than technical operation. Students need to understand the capabilities, limitations and ethical consequences of AI systems.

Student adoption: a contextual indicator, not a global estimate

Public survey evidence from the United Kingdom illustrates the speed of student adoption but should not be generalised to India or treated as a global average. In the HEPI-Kortext survey series, reported student use of AI in at least one way rose from 66% in 2024 to 92% in 2025 and 95% in 2026 (Freeman, 2024, 2025; Stephenson & Armstrong, 2026). The relevant lesson for Indian institutions is not that the same prevalence exists locally. It is that guidance, academic support and assessment design can quickly become outdated if institutions wait for perfect data before responding.

Table 2. Reported Use of Generative AI Among UK Full-Time Undergraduates

Indicator	2024	2025	2026
Reported use of AI in at least one way	66%	92%	95%
Reported use of GenAI for assessed work	53%	88%	94%
Direct inclusion of AI-generated text in assessed work	3%	8%	12%

Note. Compiled from Freeman (2024, 2025) and Stephenson and Armstrong (2026). These figures are UK-specific and are included only as a contextual illustration of rapid adoption.

Academic Integrity and Learning Risks

Academic integrity in an AI-assisted environment concerns more than textual similarity. It is about whether students honestly represent their contribution, retain responsibility for claims and analysis, follow assessment rules, and can demonstrate their own learning. The International Center for Academic Integrity (2021) describes integrity through values such as honesty, trust, fairness, respect, responsibility and courage. These values remain relevant when a student uses AI, but they must now be applied to disclosure, authorship, verification, privacy and the permissible boundary between assistance and substitution.

Hidden authorship and cognitive outsourcing

The most serious risk occurs when students use GenAI to complete intellectual work they are expected to undertake themselves and then submit the result as personal work. Perkins (2023) and Cotton et al. (2024) highlight the challenges that large language models create for authorship, plagiarism and assessment validity. The issue is not that a student has sought assistance; it is whether the student has outsourced reading, reasoning, argumentation, calculation or writing in a way that conceals the real learning process.

Cognitive outsourcing can be particularly damaging for students who already feel underprepared. AI may temporarily improve the appearance of work while depriving learners of practice in the very skills they need to build confidence and long-term capability. For this reason, an equity-sensitive integrity policy should be educative rather than solely punitive. It should explain why independent thinking matters, show students how to use AI for feedback and practice, and use fair processes when misuse is suspected.

Verification, bias, privacy and data protection

GenAI can produce plausible but inaccurate information, nonexistent references, biased explanations or contextually weak advice. Students should therefore treat output as a prompt for inquiry rather than as evidence. Verification should include checking original sources, confirming quotations and data, reviewing calculations, comparing perspectives and assessing whether the response is relevant to the task. This practice strengthens information literacy and reduces the risk of fabricated content.

Privacy also has an equity dimension. Students may not understand how public AI systems process prompts and uploaded files.

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They should not enter personal identifiers, financial information, confidential academic material, research data, examination questions, client information or identifiable details about other people unless a secure, institutionally approved arrangement exists. Poorer digital literacy can make some students more vulnerable to such risks; clear, accessible guidance is therefore essential.

Table 3. Equity-Sensitive Academic Integrity Risk Matrix

Risk	Effect on learning or equity	Student-level safeguard	Institutional response
Hidden authorship	Apparent success without development of independent capability.	Use AI for support, not replacement; disclose material use.	Clear rules, authentic assessment and fair review.
Fabricated or inaccurate content	Students with weaker research skills may be disproportionately harmed.	Check every reference, claim, statistic and quotation.	Teach verification through course activities and library support.
Unequal access to paid tools	Premium access can create unequal performance advantages.	Use only permitted tools and declare material assistance.	Provide approved access or design assessments that do not reward purchasing power.
Bias and language exclusion	Outputs may marginalise local, linguistic or disciplinary perspectives.	Compare sources and add local/contextual knowledge.	Offer multilingual guidance and inclusive examples.
Privacy or data exposure	Students may unintentionally disclose sensitive information.	Avoid uploading personal or confidential material.	Issue safe-use protocols and provide secure alternatives.

The THINK Framework for Responsible and Equitable Use

The THINK Framework is proposed as a practical student-level guide. It translates broad policy principles into five questions and behaviours that can be incorporated into orientation sessions, assessment briefs, writing-centre support, digital-literacy modules and classroom discussion. The framework connects responsible AI use to equitable learning by emphasising not merely permission, but the learner's continuing agency and capacity to evaluate output.

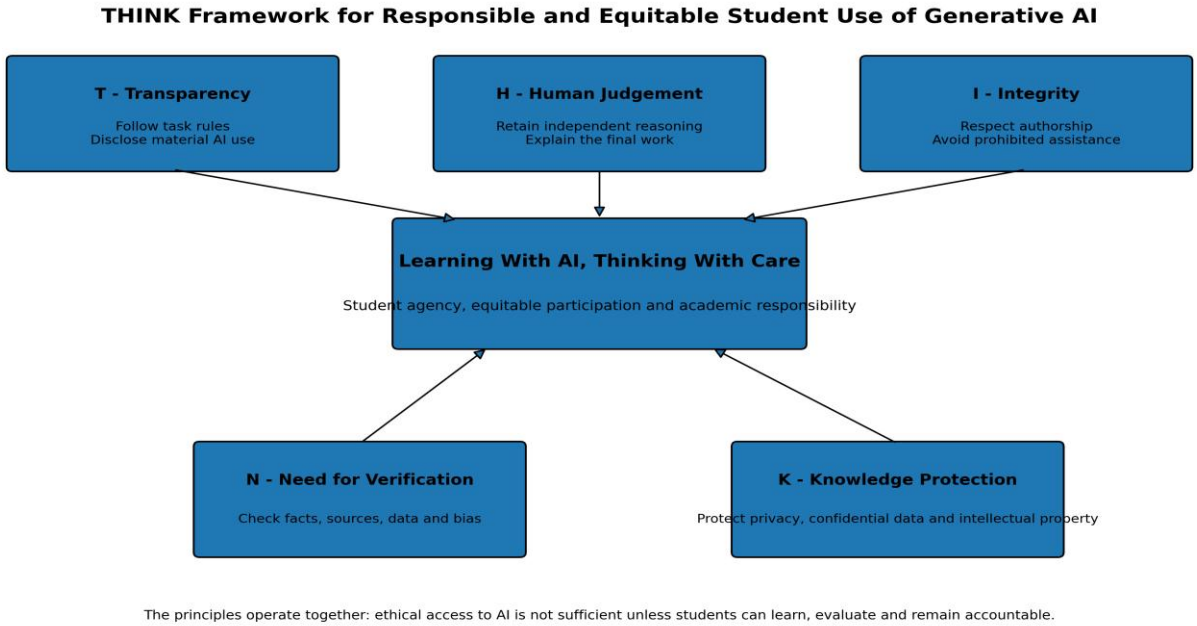

Figure 2. THINK Framework for Responsible and Equitable Student Use of Generative AI

Note. Developed for this review.

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Table 4. THINK Framework: Student Actions

Principle	Meaning	Practical student action
Transparency	Be open about material AI support when rules require disclosure.	Read task instructions; keep a simple record of significant AI assistance; use a short declaration when required.
Human Judgement	Retain personal reasoning and responsibility for decisions.	Use AI suggestions as a starting point; add independent analysis; be able to explain the final work.
Integrity	Respect authorship, fairness and assessment rules.	Do not use AI in prohibited tasks; do not submit generated work as wholly personal work.
Need for Verification	Check output before relying on it.	Verify facts, sources, quotations, statistics, calculations and relevance against credible original materials.
Knowledge Protection	Protect personal, institutional and third-party information.	Avoid uploading personal, private, confidential or copyrighted information to public systems.

Institutional Pathway for Learning Equity and Student Success

Students cannot be expected to navigate AI-enabled learning alone. Higher-education institutions need a coordinated approach that combines access, capability and accountability.

A policy that focuses only on misconduct may create anxiety and encourage hidden use; a policy that promotes experimentation without clear boundaries may create unfairness and weaken assessment validity. The appropriate approach is to make ethical and critical AI use an explicit part of technology-enabled learning support.

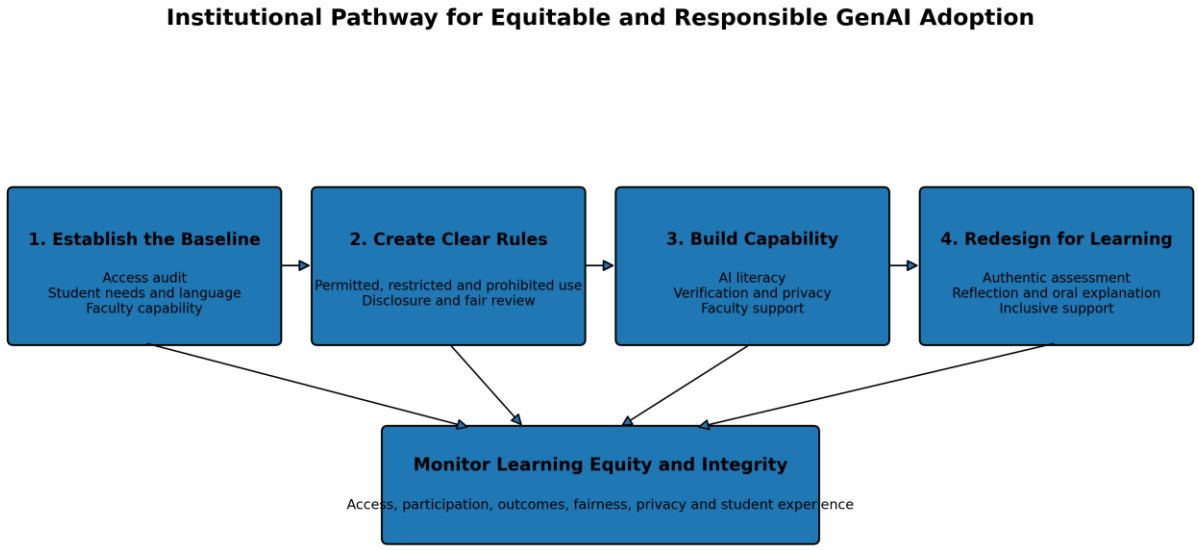

Figure 3. Institutional Pathway for Equitable and Responsible Generative AI Adoption

Note. Developed for this review.

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Action priorities

Table 5. Institutional Actions for Equitable Technology-Enabled Learning

Action area	Priority action	Contribution to learning for development
Access and inclusion	Provide low-cost or approved tools, accessible formats, multilingual examples and learning-support alternatives.	Reduces barriers related to income, language, disability and prior digital exposure.
Student AI literacy	Teach prompting, verification, bias awareness, privacy, attribution and source evaluation.	Builds learner agency and transferable digital capability.
Faculty support	Offer course-design guidance, model assessment statements and discipline-specific examples.	Improves consistency and reduces contradictory messages to students.
Assessment design	Use reflection, oral explanation, draft history, local cases, practical tasks and process evidence.	Values authentic understanding and makes learning visible.
Academic-integrity process	Define permitted, restricted and prohibited use; establish disclosure and proportionate review procedures.	Protects fairness without treating students as presumed offenders.
Monitoring and evidence	Track access, student experience, learning outcomes, integrity concerns and unintended exclusions.	Enables iterative improvement and evidence-based scale-up.

III. Implications For Indian Higher Education

The Indian higher-education context makes the access-equity-success connection especially important. Institutions serve students with different financial resources, digital access, linguistic backgrounds, disability-related needs, prior exposure to academic writing and confidence using English-language technologies. Responsible GenAI adoption should not be a privilege for students who can pay for premium subscriptions or who already know how to distinguish reliable from fabricated output.

A practical first step is a short, student-friendly AI-use guide for every institution and course. It should explain what use is permitted, what use requires disclosure, what is prohibited, how to verify sources, what data should never be uploaded and how students can seek clarification. Institutions can then build on this foundation through faculty development, library and writing-centre support, multilingual resources, digital-access provision and authentic assessment.

The proposed framework does not require every institution to purchase sophisticated AI systems before acting. Low-cost measures can have immediate value: a common disclosure statement; a one-page verification checklist; accessible orientation materials; protected assessment rules; examples of permitted and prohibited use; and opportunities for students to explain how they used AI. These actions can help ensure that technology-enabled learning increases capability rather than merely increasing the speed of content production.

IV. Recommendations

Embed AI literacy within digital literacy, academic writing and orientation programmes rather than treating it as a separate technical topic.

Provide an institution-wide baseline policy and allow departments to add discipline-specific rules for coding, design, data analysis, writing and professional practice.

Ensure that assessment does not reward access to expensive tools; use process evidence, local application, oral explanation and reflection where appropriate.

1. Create student-facing resources in accessible and, where possible, multilingual formats, including examples of verification and disclosure.
2. Treat suspected AI misuse through transparent, evidence-based and educative processes, with attention to whether students had clear guidance and equitable access to support.
3. Monitor implementation through student feedback, access audits, faculty experience and data on learning support, not merely through detection-tool outputs.

V. Limitations

This article is a structured literature and policy review rather than a systematic review or meta-analysis. Its evidence base includes diverse countries, disciplines, student groups and measures of AI use, so numerical findings are not pooled.

The UK survey figures are illustrative and should not be interpreted as estimates for India. India-specific empirical evidence on GenAI use across different regions, languages, institutional types and socioeconomic groups remains limited. Future research should test the THINK Framework through student co-design, mixed-method implementation studies and equity-focused evaluation.

VI. Conclusion

Generative AI can help widen access to explanation, feedback and practice, but only when institutions ensure that students can use it critically, safely and fairly. Academic integrity should not be treated as an obstacle to technology-enabled learning. It is one of the conditions that makes meaningful learning possible: students need to know what they understand, how they developed an argument and when they must acknowledge assistance.

For Indian higher education, the central task is to link GenAI adoption with learning equity and student success. The THINK Framework and institutional pathway proposed in this article offer a practical starting point. Their shared premise is simple: students may learn with AI, but they must continue to think with care.

DECLARATIONS

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Ethics approval. This article uses publicly available literature, reports and policy documents. It does not involve human participants or personal data.

Data availability. No new dataset was generated. All sources used in this review are cited in the reference list.

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