AI Education Policy: Strategies to Balance Digital Equity, Pedagogical Integrity, and Workforce Alignment for Nepal's Higher Education

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INTRODUCTION

BACKGROUNDS: AI IN EDUCATION

Artificial Intelligence chatbots like ChatGPT, Gemini, DeepSeek, and Claude have been growing in relevance in our economy and education. While these AI bots have existed long before the 2020 decade, it has only recently evolved into its commercial stage that can generate valuable responses in seconds. Generative AI now operates as a dynamic cognitive tool capable of synthesizing information, generating complex texts, simulating data, and acting as a personalized adaptive tutor. The integration of these tools into university classrooms brings a stark duality of positive and negative externalities for student development.

On the positive side, AI presents an unprecedented opportunity for capacity augmentation. By providing low-cost, immediate tutoring, AI acts as an equalizer in education. Controlled trials indicate that providing AI tools to lower-performing or inexperienced tutors dramatically increases their students' success rates by up to 9 percentage points (OECD 2026). Furthermore, when AI is explicitly permitted in coursework, there is a statistically significant positive correlation with overall student GPA (Tan 2025), particularly for students practicing repeatable skills in STEM-related courses.

However, the negative externalities present a critical threat to long-term intellectual growth. Unregulated AI use induces metacognitive laziness, a phenomenon where students offload the productive cognitive struggle required for deep learning onto the AI (OECD 2026). While students using AI may see massive performance boosts on practice assignments (+48%), this overreliance leads to a severe drop in independent exam performance (-17%) when the tool is removed (OECD 2026). This threat is especially prevalent in the social sciences, where AI shortcuts bypass the very processes of critical analysis and independent argument-building that students are meant to practice.

CURRENT LANDSCAPE

Nepal's economy is highly service-oriented, with the service sector accounting for roughly 55–60% of the national GDP (World Bank 2026). Consequently, Nepal's economic velocity relies not on raw manufacturing, but on the intellectual quality and specialization of its human capital. As global labor markets adapt AI, more jobs will be lost to automation, and education will lose its trust and value if it doesn't adapt itself to utilize the new technologies and think beyond them. Boston Consulting Group in 2026 estimated that around 43% of current US jobs could become fully automated soon. This figure will be different for Nepal, but it nevertheless carries the weight of adapting to the evolving markets. Nepal must prioritize the development of critical, independent thinkers who can out-compete automation, rather than students who rely on rote memorization.

Despite this imperative, digital transformation in Nepali higher education remains fractured. Globally, Nepal ranks 150th out of 188 countries on the Oxford 2024 Government AI Readiness Index, revealing severe gaps in technological infrastructure, data availability, and unified governance. The government has taken initial steps to address this through the Ministry of Communications and Information Technology's National AI Policy 2025, which aims to reduce the digital divide, increase the IT sector's GDP contribution, and produce 5,000 AI-skilled professionals.

Universities around the world have already been adapting to the rise of AI. Some hold it to be a revolutionary mentor for students while others see it as an attacker on today's educational integrity. Higher education can agree that AI is not something they can ignore, and they must respond to it with new policies to reform their students, professors, and administration.

While every college has been tackling AI in their own relative way, there is no common consensus on how it should be done. This is hard to do as no one can fully predict AI's involvement with the economy and job market yet. Many institutions are not prepared to tackle the questions of AI ethics in education. The ones who have implemented their own policies have restrictive access to their student performance scores and are unwilling to disclose any shifts in their student performance for outside research as it could challenge their reputation.

Access to the data is restricted but I still went to seek out the opinions of many reputable educational board members of Nepal to seek their opinion on the current state of AI in Nepali higher education. The principal of Quest International College, previous examination controller of

Kathmandu University, and department head at Tribhuvan University had agreed to respond to my interview of their perspective of the issue.

The common consensus among the three highly positioned individuals is that AI has already became a problem in the Nepali Education. They recognized these factors which contributed to this consensus:

- There is a rise in cheating, even obvious ones where the students hadn't removed the initial prompt response by the chatbots.
- There has been a greater discrepancy between class performance and exam performance. While this always had been the case in previous years, the sudden widening of this gap is concerning and highly suspected be due to AI usage in the classroom which reduced student exam readiness.
- There is a growing concern of cheatings among the professors, and many have already been acting to their own judgement and responding in ways like changing the course assessments to be classroom based.
- Professors and administrative staff have also been using AI for their own work to appear formal, accurate, and complete their daily tasks faster.
- All agree that an institutional wide policy and reeducation on AI ethics and expectations is needed for the students, professors, and administration.

"*The overall performance of students may be better than previous years in technical skills because of AI they use in their studies but from the point of view of examinations, their performance is declining*"

– Ram Prasad Ghimire Kathmandu University's previous Examinations Controller (personal communication, 2026)

"*…To understand and act accordingly. We require 'strong ethical use' policy. Now, even the AI giants like the US (at least the public) are concerned about the impacts that AI and data centers can have. Personally, I feel that use of AI could affect our own ideas and 'natural intelligence'. Last but not the least, I hope we do not have to live in the world where 'intelligence is artificial' and 'stupidity is original"*

– Dr. Smriti Gurung, Ph.D. Associate Professor & Head, Dept. of Environmental Science Kathmandu University (Primary Expert Interview, 2026)

The insights above were all incredibly helpful for my research to be grounded in the experiences and expectations of the faculties of Nepal's higher education. They provided me with their experiences as my evidence of the issues of AI in education and their perceptions of how the faculty has been responding to these issues.

I also had the honor to work with a lot of high school students biweekly during my time at IIDS. While they aren't college students, but they would be soon incoming students. They were grades 9 and 10 in a Patan public high school. During the time I was able to gather some more consensus on how the students had felt about AI technologies though debate activities and surveying. The students expressed a very thoughtful analysis that AI can induce cheating and laziness but also that AI can boost the efficiency of learning. Most students expressed an equal opinion on if AI was good or bad for society but also that most of them have indeed tried an AI chat bot before. This was very informative as many of them are part of the soon incoming class for Nepal's universities.

Existing Policy Frameworks

CURRENT NEPAL AI POLICIES

Within Nepal, higher education AI policies are currently decentralized and often reactionary, lacking a unified national framework for classroom implementation.

Kathmandu University: This institution has adopted a conditionally permissive approach. While generative AI is strictly banned during examinations, students are permitted to use AI tools for homework and assignments, provided they obtain explicit permission from the professor and formally disclose their AI usage. The university has even recently started to adopt a new education program of the Department of Artificial Intelligence to study AI (Kathmandu University).

Tribhuvan University: Operating with a more restrictive stance, Tribhuvan University strictly bans AI use on all exams. For other coursework, the university lacks a uniform policy, leaving the regulatory decision entirely up to individual professors (Enewspolar 2024)

National AI Policy 2025 (Ministry of Education): At the governmental level, Nepal has established broad, ethically driven goals to incorporate AI into education. The policy aims to produce 5,000 AI-skilled professionals, increase the IT sector's GDP contribution by 1%, and reduce educational inequities. The Ministry envisions educational AI as a cost-saving tool to help train and prepare teachers, advocating for a pedagogical shift towards project-based learning that tests critical thinking rather than rote memorization (Ministry of Education 2025)

From this we can see that there is no alignment in AI policies that are currently established in Nepal. This is a major flaw as many institutions are operating on their own goals with their own framework to AI. This inconsistency can threaten the legitimacy of Nepal’s higher education if some school’s monitors AI very loosely and allows for students to possibly slip through these gaps and obtain a degree while having little ability to perform the skills expected of the degree.

EXISTING FOREIGN AI STRATEGIES

Globally, universities and governments have adopted a wide spectrum of policies to manage the rapid emergence of generative AI, ranging from full integration to strict prohibition. The organization and data for the following labels and differentiation is obtained from Giugliano's 2025 Thesify article.

Permissive Models: Institutions such as Harvard and Johns Hopkins encourage the experimental use of AI to foster digital literacy. These universities permit AI usage provided students explicitly disclose its use and refrain from inputting proprietary or confidential data. Kathmandu University and Quest International College is currently using this model.

Conditional Models: Universities like Oxford, Cambridge, and Stanford generally allow AI for preliminary tasks such as brainstorming, outlining, or personal research. However, its use is strictly prohibited in summative assessments, such as final papers and exams, unless explicitly authorized, with unauthorized use treated directly as academic misconduct. Tribhuvan University is using this model.

Highly Restrictive Models: Certain departments, such as specific humanities divisions at Caltech, enforce explicit bans on AI tools. Unless an instructor provides a "green light" for a specific assignment, any unapproved AI assistance is penalized and treated as equivalent to unauthorized collaboration with another person.

National Integration (The Malaysian Model): Looking toward developing nations, Malaysia provides a strong blueprint for infrastructure and workforce integration. Malaysia's Ministry of Higher Education collaborated with Amazon Web Services (AWS) to build an AI workforce through Technical and Vocational Education and Training programs. By utilizing a "train the trainers" model, they effectively upskilled professors who then passed this localized expertise and direct tool access down to their students.

UNESCO/OECD Guidance: Global governing bodies emphasize that sustainable AI must be human-centered, human-controlled, and guided by equity. UNESCO classifies educational AI into system-facing tools for management, student-facing tools for learning, and teacher-facing tools for empowerment, warning against structural risks like algorithmic bias and data privacy violations

Critical Challenges and Policy Gaps

STRUCTURAL BARRIERS AND CONSIDERATIONS

Costs & Benefits of AI use

The integration of Artificial Intelligence (AI) into the classroom presents a transformative opportunity to democratize educational quality, functioning as a "great equalizer" for under-resourced learning environments. One of the most significant advantages of an AI-assisted classroom is its capacity to augment teaching effectiveness, particularly for disadvantaged students who lack access to premium educational resources. According to a 2023 randomized controlled trial analyzed by the OECD, providing educational generative AI to mathematics tutors yielded the highest returns for inexperienced or lower-performing educators. These tutors saw a 9-percentage point (+9pp) increase in their share of successful students, compared to a modest 2 percentage point (+2pp) boost for medium and high-performing tutors (See figure 1). By offering immediate, low-cost tutoring and scalable, personalized guidance, AI tools can rapidly bridge the gap between varying levels of instructional quality and raise the baseline of student success.

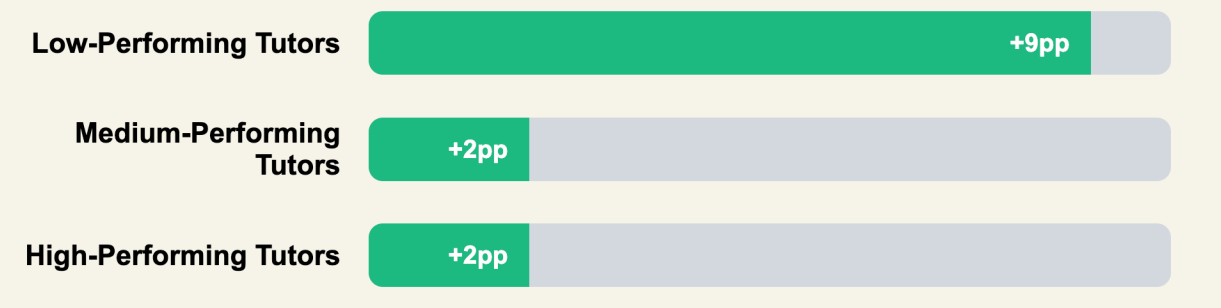


Figure 1 from Organization for Economic Cooperation and Development

However, the primary drawback of an AI-integrated classroom is the severe risk of "metacognitive laziness," a phenomenon where students offload critical thinking and problem-solving processes onto the technology. A randomized controlled trial of high school students in Türkiye during the 2023–2024 school year vividly illustrated this paradox. When students were permitted to use generic generative AI for mathematics practice, their performance skyrocketed, showing a 48% increase in practice results. Yet, when these same students were subsequently evaluated on independent exams without AI assistance, their scores plummeted by 17% compared to the baseline of students who never used the tool (see figure 2). This data reveals that while AI

can artificially inflate immediate performance on homework, it actively bypasses the cognitive "productive struggle" required to build long-term retention and independent analytical skills.

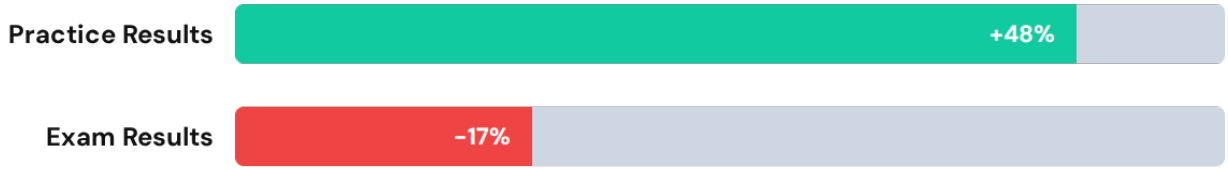


Figure 2 from Organization for Economic Cooperation and Development

While generative AI tools offer substantial efficiency gains and expand access to educational resources, their unmonitored adoption across Nepali higher education introduces severe challenges to ethical scholarship and academic integrity. Without structured institutional safeguards, the uncritical use of these technologies' risks worsening plagiarism concerns and devaluing university qualifications (Khatri & Karki, 2023). Ultimately, these pros and cons suggest that the success of an AI classroom hinges entirely on targeted pedagogical governance. To harness the "great equalizer" effect without succumbing to metacognitive laziness, institutions cannot rely on unregulated student access. Classrooms must evolve beyond passive memorization and take-home essays, which are highly vulnerable to AI shortcuts, and instead redesign coursework to emphasize active, verifiable applications of knowledge, such as structured debates, oral defenses, and proctored problem-solving.

Research & Retention Challenges

Beyond the disciplinary divide between STEM and the social sciences, a comprehensive national AI policy must also differentiate its regulations based on the student's degree level. For Nepal's emerging digital economy, the primary objective at the undergraduate (BA/BSc) level is massive workforce capacity building and student retention. Given the severe dropout rates driven by resource scarcity and inadequate academic support, undergraduate programs must leverage AI primarily as an accessible, personalized tutoring tool. By permitting foundational AI assistance in lower-level coursework, while utilizing active assessment methods to prevent metacognitive laziness, universities can significantly boost retention rates. This inclusive approach ensures that

a larger volume of students successfully graduates and enters the Nepali labor market with the baseline digital and technical proficiencies required to sustain the service and technology sectors.

Conversely, the policy framework for master's and Ph.D. students must be fundamentally different, rooted in strict academic integrity and the demand for original intellectual production. Graduate students are training to become the leading researchers, policymakers, and industry innovators of Nepal. Consequently, their academic outputs must be held to the absolute highest standard of human ingenuity. Allowing generative AI to synthesize literature or generate core arguments at this advanced level directly undermines the nation's capacity to produce independent thought leaders. Primary field insights from Kathmandu University reflect this necessity; university leadership currently enforces a "zero tolerance" policy regarding AI-generated content in master's and Ph.D. theses, utilizing central systems to rigorously check for AI plagiarism before accepting any graduate submissions.

Therefore, Nepali higher education institutions must implement a tiered AI governance model based on academic seniority. While undergraduate policies should focus on safely integrating AI to democratize learning and retain a broad student base, graduate policies must establish strict, enforced guardrails that protect original research. For MA and Ph.D. candidates, AI usage should be restricted strictly to data modeling, statistical processing, or coding under explicit ethical guidelines, while the core synthesis, argumentation, and writing must remain entirely human. This dual-tiered approach ensures Nepal simultaneously meets its quantitative need for a larger educated workforce while preserving the qualitative brilliance required to lead its future industries.

STEM & Social Science

The Nepali Ministry of Communications and Ministry of Education has both expressed their clear goals to create a more AI prepared Nepal. This means a blanket policy will not create the results as intended. AI will provide many opportunities never seen before by students of all ranges.

Research done by Tan and Yang (2025) used 2000 students and demonstrated that students in general performed significantly better when allowed the use of AI (r = 0.289). Assessments reveal a significant disparity in how generative AI impacts different academic disciplines, disproportionately benefiting students in STEM fields over those in the social sciences.

Academic Metric	Correlation Coefficient
Linear Algebra Score	0.245
Ideology Score	0.156
Probability Score	0.267
Microelectronic Devices Score	0.312
Signal and System Score	0.298
Modern History Score	0.134
Overall GPA	0.289

Correlation coefficients between AI usage frequency and academic performance

Table 1 Adapted from Tan and Yang (2025)

According to this large-scale study on generative AI integration in higher education teaching and learning, student academic performance increases as they are given access to AI tools, but this positive correlation is notably stronger in technical courses (Tan & Yang, 2025). For instance, students utilizing AI in STEM-heavy courses like Microelectronic Devices saw a strong positive correlation with their scores (r=0.312), whereas the impact on social science subjects like Modern History was significantly weaker (r=0.134) (Tan & Yang, 2025).

This divergence is likely rooted in the fundamental differences between how these disciplines are taught and evaluated. STEM education is typically built on structured, sequential lecture pacing and algorithmic problem-solving, requiring students to practice and repeat specific technical skills. In this environment, AI serves as a highly effective, personalized tutor that can help students drill repeatable formulas until mastery is achieved. Conversely, the social sciences demand a much higher degree of independent critical thinking, subjective analysis, and the ability to construct nuanced arguments. When students use AI to bypass these reading and writing assignments, they lose the "productive struggle" required to build their analytical capabilities. The need for reliable academic support is particularly urgent in Nepal, where students frequently

struggle to connect theoretical STEM subjects to real-world implementation. Compounding this issue, the number of students actively pursuing STEM pathways consistently decreases as they advance to higher education levels, a drop-off heavily exacerbated by a severe lack of skilled teachers and modern educational infrastructure.

Understanding this disciplinary divide is highly actionable for Nepal, especially given the nation's severe struggles with overall student enrollment and retention. Recent data highlights an educational crisis where over 59% of students representing more than 620,000 individuals (ekantipur 2026) have either dropped out of the system entirely or failed and repeated their grades. Much of this massive attrition stems from financial hardships and a lack of engaging, supportive educational environments. Rather than implementing blanket university-wide AI bans, Nepali institutions should adopt a separate, proactive policy for STEM departments. By formally integrating AI as a sanctioned tutoring tool, universities can provide struggling students with the personalized academic support they lack, utilizing technology to directly counteract dropout rates. As the country shifts toward an inclusive digital economy, empowering students with digital skills and tech-driven education is essential to prevent technology from inadvertently widening the economic divide between urban centers like Kathmandu and remote rural areas. Retaining students in STEM through this targeted AI support holds the key to unlocking Nepal's innovation potential and meeting the rapidly expanding demand for data science and software professionals

It is also reasonable that with Nepal’s need for STEM students, they also need quality leaders who can guide the country and its companies to succeed in the modern world not by following hallucinated data, previous data, or even historical precedent. In the real world of Nepal, a lot of places may not have reliable data to use, or an suitable economy to follow the policies that countries like India, Malaysia, or even Bhutan. This means that our social science majors must become critical thinkers to evaluate the Nepal economy even without being provided reliable data or historic example. Every decision has weight and must match Nepal’s circumstances to the developing global economy, thus having separate policies on the expectations of AI usage for students of social science is critical to protect the integrity of Nepali education.

In qualitative disciplines where generative models readily automate written essays, active oral engagement offers an essential safeguard for critical inquiry. Empirical literature shows that transitioning from passive lectures to structured, case-based debating significantly enhances

students' analytical reasoning and spontaneous counter-argumentation (Dewangga et al., 2024; Omelicheva & Avdeyeva, 2008; Othman et al., 2015). Rather than relying on static take-home papers, live classroom debates compel learners to construct and defend evidence-based claims in real time, directly measuring cognitive depth (Tao & Griffith, 2019)

In this policy brief I also specifically have chosen to avoid the critique for a humanities policy brief. It is purposeful as humanities studies like the arts, music, and dance cannot be measured in consensus. Many professors may have different expectations for their students, and the market may not even reflect those expectations as well. In graphic design, we can see that more advertisement has been transformed into AI pieces. While it may have some downsides of seeming lower quality, it is an extremely low cost, fast, and still effective way of marketing which many businesses has already picked up. AI will likely only get better at providing art, music, and dance, and it is therefore hard for anyone to realistically determine if AI art is real art. It can also coproduce with students as they help plan the piece, coordinate it, or even just offer a near final draft which the student makes minor revisions to. I believe this ultimate decision should be left onto the student and professor to decide how much AI do they deem worthy taking onto their pieces.

As AI gets more productive and effective, the reasonable need for human labor comes from the need for accountability and passionate leadership. This is needed for students of STEM and social sciences to be accountable for what they produce and sign off, in law, medicine, design, and management. This means that these fields must be held up to a standard when educating students who will eventually hold the responsibility over the livelihood of dozens to millions of people.

ETHICAL VULNERABILITIES

While generative AI offers unprecedented opportunities for capacity augmentation, its unregulated integration into Nepali higher education carries significant ethical vulnerabilities. The primary ethical concern is the exacerbation of the "new digital divide”, an inequality not just of internet access, but of AI literacy and technological enablement.

Translating national AI strategies into actionable institutional frameworks requires clear ethical guardrails across education, digital diplomacy, and public infrastructure. Without clearly defined governance and implementation roadmaps, expanding automated systems into higher education risks creating accountability voids, data privacy breaches, and unmanaged institutional vulnerabilities (Pandey & Bhatt, 2025). Relying blindly on automated detection algorithms poses serious evaluation risks due to statistical false positives and variations in benchmarking accuracy. Institutions must understand the underlying mechanics and limitations of detection models rather than treating detector scores as definitive proof of academic misconduct (Tian et al., 2025).

As global bodies like UNESCO have warned, AI advancements risk creating an "AI divide" where the benefits of technology are heavily skewed toward technologically privileged and urban populations, leaving rural and marginalized communities further behind. In Nepal, this disparity is already stark. Field insights from university leadership emphasize that modern technological advancements are currently concentrated in major cities like Kathmandu and Pokhara, while students in mountainous and rural regions lack basic digital infrastructure (S. Gurung, personal communication, July 2026). If AI becomes a standard, expected component of university coursework, students without reliable broadband, modern devices, or basic AI literacy will be inherently disadvantaged. According to the Ministry of Education, Science and Technology, only 43.1% of government schools possess broadband connectivity, meaning the foundational infrastructure required to support inclusive AI use is largely absent for much of the population. A university policy that encourages AI without concurrently funding universal access risks transforming a tool of educational equity into a mechanism that widens the socioeconomic gap between urban and rural students.

Furthermore, ethical vulnerabilities extend into data privacy and academic integrity. The unchecked use of generative AI involves feeding student data, institutional research, and proprietary information into third-party servers. Without a stringent, localized data governance framework, universities risk violating student privacy and compromising the intellectual property of their research departments. Furthermore, as Tribhuvan University's recent mandates highlight, reliance on AI can rapidly erode the culture of academic honesty, prompting institutions to rely heavily on imperfect plagiarism software or draconian bans to police student behavior.

To mitigate these ethical vulnerabilities, Nepal's higher education AI policies must be fundamentally human-centered and inclusive. Universities must prioritize infrastructural equity, ensuring all students have equal access to AI tools via university-funded computer labs, before mandating AI's use in the curriculum. Furthermore, institutions must actively teach AI literacy, focusing not just on how to use the tools, but on understanding their ethical limitations, biases, and data security risks.

DIGITAL LITERACY AND ECONOMICAL GOALS

Nepal's geographical constraints as a landlocked, mountainous nation severely limit its capacity to compete in traditional manufacturing exports. Nepal’s economic development remains constrained by a paradox where domestic labor is exported while consumer goods are imported, placing insufficient focus on building local productivity and institutional capacity. Transitioning toward a digitized, knowledge-driven future requires strategic investments in domestic digital literacy, allowing the expanding service sector to generate high-value, specialized human capital rather than relying primarily on foreign remittances (Pandey, 2025). Consequently, the country's economic future is intrinsically tied to the digital economy. The government has recognized this imperative through the Digital Nepal Framework 2.0, which sets an ambitious target to export Rs 30 billion worth of IT-related services over the next decade, projecting the creation of 500,000 direct jobs (Ministry of Communications and Information Technology, 2025). Furthermore, data indicates that Nepal's exports of digitally provided services have already been growing at a promising annual rate of 12.3%, positioning the country favorably within South Asia (World Bank, 2025). However, while national strategies set bold goals to produce thousands of AI-skilled professionals to fuel this digital transition, there is a glaring lack of a pedagogical bridge. The current disjointed university policies, ranging from strict bans to unregulated use, fail to provide a cohesive roadmap on how to manage AI in the classroom to produce this highly competitive, globally ready workforce.

To bridge this gap and meet national economic targets, universities must fundamentally modernize the classroom, moving away from traditional, passive learning models. As AI becomes increasingly capable of synthesizing information and writing generic essays, rote

memorization and standard take-home assignments are rapidly losing their pedagogical value. Instead, educators must shift toward dynamic, in-person assessment methods that force students to actively apply their knowledge. Integrating structured, parliamentary-style debating into the curriculum is one of the most effective ways to achieve this. The core mechanics of a debate, rapidly evaluating empirical evidence, identifying logical fallacies, and articulating rebuttals under pressure, demand the exact type of high-level cognitive flexibility that AI cannot replicate. By transitioning from isolated reading assignments to collaborative, in-person problem-solving and oral defenses, universities can ensure students are developing the rigorous critical thinking skills required by the modern tech sector rather than simply using AI to bypass their education.

Ultimately, for Nepal to trade globally, its workforce must offer specialized, high-quality intellectual capital that stands out in the international digital market. If universities lean on blanket AI bans, they graduate students who are technologically illiterate and unprepared for modern, AI-assisted workflows. Conversely, if they allow unregulated AI use, they risk graduating students who suffer from metacognitive laziness and lack independent analytical skills. A balanced, discipline-specific AI policy acts as the missing bridge. By explicitly teaching students how to use AI ethically as a co-pilot, while rigorously testing their independent reasoning through active, in-person work, Nepal can successfully cultivate the resilient, digitally fluent workforce needed to achieve its ambitious economic and IT export goals.

Effective Policy Recommendations for Nepal's Higher Education

CORE POLICY GUIDELINES

To adapt the Nepali education system to the modern AI world, new policies must be made to benefit students fairly.

1) **Fund access to AI** to all schools, especially public colleges where students may struggle to access AI reliability on their own.

    a. Nepali colleges must adopt AI into their schooling structures as a tool to help students with administrative work like scheduling and career guidance. These are specifically tailored and monitored supportive chatbots to help students coordinate

    b. These AI systems can be advertised as free guidance and tutoring to students. This is general access for students to use for their free exploration and learning.

    c. Professors and university staff must be given AI use and ethics training to provide a modernized and efficient classroom for students.

    d. This expense will later save worker costs to Nepali colleges as AI replaces high expense tutoring or guidance workers and increase retention rates.

2) **AI must be banned across examinations and student submissions** but permitted to use as a study tool.

    a. New roles to monitor AI use and cheating should be created to evaluate suspected student submissions or performance discrepancies from GPA and exam scores. A general understanding must be made that AI suspicions and detectors can never guarantee accuracy, as AI can also avoid AI detectors.

    b. Students will inevitably obtain access to AI, it is not possible to ban them from using it, but it is possible to establish guidelines on its expected usage in the classroom.

c. Assist professors to gradually change their course styles and expectations to better assess students' performance and critical thinking skills inside of the classroom. Professors must understand that essays and written work is no longer a reliable way to assess student performance due to AI cheating. Shifting towards debating and analytics is a better way to assess student performance via student engagement and response quality.

3) **Two perspectives of a passive push in employment colleges and higher standards of enforcement in research institutes** should be made in evaluation of the two separate focuses of Nepali education. While all universities would want to soon control the access and usage of AI, the universities of different student bodies should first build on policies which fulfills needs best for their student body.

   a. Higher performance colleges focus on quality learning and creative minds, meaning they are more at risk to AI hallucinations, and thus needs a greater acknowledgement on AI usage on their assignments and tasks. Universities like Kathmandu University and Tribhuvan should be trusted to produce high-quality minds and jobs that can follow suit with this reputation and not overly rely on AI for their judgment. Thus, these universities should first focus their funds on AI restriction and monitoring.

      This higher performance expectations also applies for students of master's and PhD studies. The are expected to have greater expertise and leadership within their fields. With this responsibility there must also be higher expectations set for these student bodies first as access is not their priority, but usage is.

   b. Colleges with struggling retention rates, perhaps below 70%, or vocational training schools, often struggle with fair resource access and student long-term planning. The college often struggles with retention and graduation rates for many first-generation students. These universities should first focus their abilities on AI adoption and implementations inside the classroom to offer better tutoring services, course planning, and career planning.

c. A gradual lean to cover all sides is eventually the optimal results but Nepali students currently face very different struggles, one from access and another on accountability. The diverse focuses needed for each school should be acknowledged and taken into account first before making their AI policies to be more permissive or restrictive.

4) **STEM – Social Science based department bans** would follow through with the precise performance data of the two groups.

   a. Students of STEM majors are proven to benefit more from AI usage. This is assumed to be because their studies are more structured and requires more structured guidance than creative directions. AI can provide tutoring very well for this group if used properly as a training tool on difficult STEM courses, allowing more students to stay in STEM. With these goals, STEM majors should then have more lenient policies on AI use and studying. Exams must be hosted in person and frequently to truly test the students' individual understanding and practice. Lectures may be able to move forwards quicker as students can self-review more effectively.

   b. Social science studies often expect more diverse minds, critics, and fast responders rather than standardized procedures. AI while does boost their scores, will likely not translate as well into positive real-world performances than STEM students. Social science majors' papers must be limited to handwritten, in person testing, or debate styled classrooms to challenge student performance without AI tools. They must be given stricter guidelines on AI usage.

   c. Studies in humanities are harder to evaluate as many art forms are subjective. There is no specific data on humanities majors' performance to AI, and it is not likely to exist as AI's ethical level of influence on the arts is more debatable. This decision is a responsibility we can relay onto the in-professor's discretion.

IMPLEMENTATION OF POLICY

The four policies recommended would all need their own avenues of funding and enforcements to be able to achieve a successful and equitable education.

The general goals to create AI access and policies should be a priority of all colleges in Nepal. These standards if needed can be enforced by the Ministry of Education and market competition for AI access to become available via campus devices or widely available access. The University Grants Commission (UGC) of Nepal controls the public fundings to universities and their relative expectations. They have a great power and duty to enforce the shifts in AI readiness for Nepali Higher education.

Outside of the ministry, the universities must create policies themselves which can enforce the necessary standards of performance and code of conduct to the new tools. These include clearly labeled policies on examination bans, clear understanding of how AI should be ethically used in their education, and complete courses to train educators and administrations to adapt to understand and use the new tools. Universities must organize how AI is used by their students while also heavily implementing it for the classroom to be more efficient and tailored for each pupil.

Professors must be reactive to how they tailor their classrooms. The course style must be adjusted to fit around a more engagement-based classroom and less on tendinous workloads that can be automated. Professors must be ready to penalize students who are highly suspected to have used AI in their assignments to help enforce the university standards.

These new moves should be swift and explicit to the student body. Inform them of the new policies and discourage applicants from using AI in their applications. While the AI detector can showcase false negatives, it's often correct on the positives it provides (Tian 2025). Advancing AI detectors has a very high success rate by looking for patterns of writing which AI bots use. Their sentence structures and length are often rigid and has very provides very little differences between sentences. These traits however can also be bypassed by prompting the AI to write in ways to avoid AI detection.

The best method is to have human intuition. While grading can become automatic over time, professors should always use their own discretion and understanding of students to judge if the student could have likely written a paper. Administration can always cross reference the writing to writings made by the student from a previous time periods or class to find discrepancies in style.

No detection method can be perfect or without human bias. Much of Nepal and the world may lack a common standard for how AI should and can be used yet so finding experts to educated professors, then their students will be a challenge. While this is the case, Universities can still clearly label out its goals and expectation for student performance and enforce it with the tools and discretion they entrust in.

I met a professor of psychology who utilized a test he developed himself, where he would remove every few words from the assignment and ask the student to fill it in. If the student has written the assignment he believes it should have an 80% accuracy, but if not, it would reasonably be lower. This idea has not yet been fully tested on it practicality and accuracy but it's showcases the creative ways professors are also trying to get ahead of the modernized cheating.

Future Data and Discussions

EXPECTED OUTCOMES

To ensure the long-term viability and effectiveness of Nepal's higher education AI policies, universities and the Ministry of Education must establish rigorous frameworks to measure expected outcomes. The true success of these policies will not be seen in how much AI is used, but in how effectively it translates into genuine learning gains, workforce readiness, and overall economic growth.

Measuring Results: Exam vs. GPA Performance

A critical expected outcome of effective AI policy is distinguishing between the "illusion of learning" and actual cognitive development. As observed in recent working papers analyzing large research universities, unregulated generative AI introduces a novel mechanism for grade inflation. In courses with high "AI-exposed tasks" such as unsupervised writing and coding assignments, researchers found that the share of 'A' grades artificially rose by up to 13 percentage points, rendering overall GPA a "noisier signal" of actual underlying skill.

Therefore, universities must pivot their tracking metrics. To accurately measure policy success, institutions must compare students' AI-assisted practice scores (like take-home GPAs) against their performance in controlled, in-person examinations. A successful policy implementation will show a closing gap between these two metrics. If the GPA heavily outpaces the exam scores, it serves as a red flag that students are succumbing to metacognitive laziness and offloading the productive struggle onto the AI, rather than genuinely learning.

Tracking Institutional Adoption and Efficiency

Beyond student performance, policy success must also be measured through the lens of institutional efficiency and faculty adoption. Surveys should be conducted to track the shift in how professors utilize AI to ease their operational burden. The OECD notes that AI tools can significantly augment teaching capacity, with 57% of lower secondary educators globally already agreeing that AI helps improve their lesson plans. By tracking metrics such as the reduction in administrative workflows, the use of AI for personalized student advising, and the speed at

which lower-performing tutors improve their student success rates, Nepal can quantify the "great equalizer" effect of AI within its public universities.

STEM Retention and Economic Growth

Ultimately, the most profound expected outcome of a well-calibrated AI policy will be reflected in Nepal's macroeconomic health and its ability to trade globally. Nepal's future digital economy relies on improving its STEM enrollment and retention rates. If universities successfully implement targeted, sanctioned AI tutoring tools within STEM departments, the expected outcome is a measurable reduction in dropout rates among struggling students.

By cultivating wise-minded students who are trained to use modern tools ethically and mindfully, Nepal will produce a workforce equipped to lead its digital transformation. This strategic alignment ensures that AI does not simply act as an unchecked shortcut, but rather as an essential cognitive scaffold, empowering Nepali graduates to secure the 500,000 direct jobs projected by the nation's IT export goals and driving sustainable domestic economic growth.

LIMITATIONS AND FUTURE RESEARCH

While this policy brief provides a strategic framework for integrating AI into Nepali higher education, it is subject to several limitations that warrant further empirical investigation. Primary among these limitations is the reliance on quantitative models from high-income countries, such as the OECD nations and China, which possess drastically different technological infrastructures and digital literacy baselines than Nepal. Consequently, applying the pedagogical outcomes observed in these controlled trials to the Nepali context, where broadband access is largely restricted to urban centers, requires careful contextual extrapolation. Furthermore, while the OECD Digital Education Outlook 2026 effectively quantifies the risk of "metacognitive laziness" (where students offload productive cognitive struggle onto AI, resulting in decreased long-term retention), the current research treats this phenomenon as a generalized risk across all student populations (OECD, 2026).

A critical gap exists in understanding how this metacognitive laziness operates specifically along the STEM and social sciences divide. Future research must investigate whether the cognitive offloading identified by the OECD manifests differently depending on the nature of the academic discipline. For instance, in STEM fields, where AI is used to drill repeatable algorithmic skills, students may experience a different form of cognitive reliance than students in the social sciences, who use AI to bypass subjective reasoning and argument construction (Tan & Yang, 2025; OECD, 2026). Investigating this gap would involve conducting localized, randomized controlled trials within Nepali universities. Such studies could compare independent exam scores of engineering students who used AI coding co-pilots against sociology students who used AI for essay synthesis, measuring which group suffers a sharper decline in independent critical thinking when the tool is removed.

Additionally, future research spaces should explore the long-term impacts of active assessment redesign on student employability. While this brief advocates for replacing traditional essays with structured debates and oral defenses to mitigate AI overreliance, empirical data tracking how these specific pedagogical shifts influence a graduate's performance in the Nepali service sector remains scarce. Addressing these gaps will ensure that Nepal's higher education policies evolve from reactive constraints into evidence-based strategies, empowering a digitally fluent and critically capable workforce.

CONCLUSIONS

The integration of Artificial Intelligence into Nepali higher education is no longer a looming theoretical possibility; it is a present reality that demands proactive, localized governance. As Nepal transitions toward a service-heavy, digital economy, aiming to export Rs 30 billion in IT services over the next decade and train 5,000 AI professionals as outlined in the National AI Policy 2082 (2025), its universities must serve as the primary engine for this transformation.

Currently, the disjointed regulatory landscape, oscillating between strict bans and unmonitored usage, leaves students highly vulnerable to "metacognitive laziness" and fails to prepare them for an automated global workforce. To harness AI as a "great equalizer" that

augments teaching capacity without eroding independent thought, Nepal must implement a nuanced, three-tiered policy framework. First, institutions must adopt discipline-specific guidelines, formally integrating AI as a sanctioned tutoring tool in STEM programs to boost retention, while maintaining strict guardrails in the social sciences to protect critical reasoning. Second, a structural divide must be established between undergraduate and graduate governance, utilizing AI to democratize learning for the masses while strictly enforcing human-only intellectual production for MA and Ph.D. candidates. Finally, to ensure these policies are effective and equitable, the government must prioritize the funding of baseline digital infrastructure, actively closing the gap between urban centers and rural, mountainous regions.

By shifting from reactionary restriction to structured integration, and by redesigning assessments to value active, in-person application over passive memorization, Nepali universities can produce a resilient, digitally fluent generation. Ultimately, a balanced AI policy framework will ensure that technology serves to amplify, rather than replace, the intellectual capital required to secure Nepal's technological sovereignty and long-term economic prosperity.

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