
Elucidating Global Conventional Education and Liberal Studies in the Age of Artificial Intelligence (AI) Technology

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Abstract: *This article investigates the future of conventional education and liberal studies in light of artificial intelligence (AI). It investigates how AI reshapes educational objectives, demonstrating synergies and challenges across utilitarian, workforce-oriented models and humanistic, inquiry-based traditions. A narrative review method is used to synthesize theoretical, conceptual, and empirical research on AI in education. Comparative case studies from China, Malaysia, and the West are used to demonstrate the various paths of AI adoption. The analysis frames the argument by integrating theoretical perspectives upon functional along with expressive logicity. Conventional education benefits from AI by improving personalization, scalability, and assessment automation. However, risks include teacher de-skilling, over-standardization, and equity disparities. Liberal studies utilize artificial intelligence in digital humanities and cultural inquiry, but it becomes overlooked in policy priorities and risk trivializing complex humanistic values. A comparative analysis reveals similarities in AI literacy and hybrid pedagogy, but differences in epistemological orientations and policy support. The article unveils the “Dual Pillar AI-Education Framework,” which views AI as a bridge between conventional education and liberal studies. This framework provides a conceptual model for balanced integration, highlighting the significance of maintaining both utilitarian skills and humanistic values. The findings offer recommendations for educators and policymakers on how to ethically integrate AI. To guarantee education keeps being both effective and inclusive in the modern era of AI, methods such as hybrid pedagogical approaches, ethical governance, and cross-disciplinary collaborations must be implemented.*

Keywords: *AI; conventional education; liberal studies; digital humanities; educational technology*

1. INTRODUCTION

The twenty-first century has witnessed an unprecedented emergence of AI across economic, social, and cultural spheres. While education, long regarded as both a transmitter of tradition and a driver for social revolution, is now at the focus of significant disturbance (Koseda et al., 2024). Machine learning algorithms, natural language processing, adaptive platforms, and predictive analytics are increasingly being utilized in the classroom, transforming how knowledge is obtained, shared, and assessed (Luckin et al., 2016; Holmes et al., 2022). Though such developments have an opportunity to improve efficiency and personalization, it additionally poses basic questions about the purpose and nature of education itself.

Thus, the tidal wave of AI technologies has redefined the contours of education worldwide, reshaping traditional systems and philosophical assumptions about teaching, learning, and human development. Conventional education, with its emphasis on structured curriculum, measurable outcomes, and workforce preparation, has been among the first to embrace AI tools for efficiency and personalization (Zawacki-Richter et al., 2019; Chiu, 2023; Pulsfor et al., 2023). Liberal studies, traditionally oriented toward cultivating critical thinking, ethical reflection, and holistic human development, face more complex challenges and opportunities. While AI offers new avenues for digital humanities and cross-disciplinary inquiry, it also raises concerns about marginalization in an era dominated by utilitarian and technocratic agendas (Nussbaum, 2010; McArthur, 2021).

As such, this article seeks to explore the conceptual, comparative, and practical implications of AI for both conventional education and liberal studies. It synthesizes global perspectives, with particular attention to case examples from China, Malaysia, and Western contexts, to highlight the divergent trajectories and shared challenges in this new educational landscape. Drawing on theoretical foundations in educational philosophy (Habermas, 1984; Dreyfus, 1992), policy analyses (OECD, 2025), and recent empirical studies (Li, 2021; Holmes and Lee, 2024), the article advances a conceptual framework “The Dual Pillar AI-Education Model” to envision a balanced and sustainable integration of AI into education.

Ultimately, the central argument of the article is that AI should be positioned as a mediating bridge between conventional education and liberal studies rather than as a disruptive force privileging one tradition over the other. This balance is crucial if education is to remain both effective in preparing individuals for the AI-shaped labor market and humane in cultivating democratic citizenship and ethical responsibility.

2. CONCEPTUAL AND THEORETICAL FOUNDATIONS

2.1 Conventional Education

Conventional education is fundamentally based on structured educational systems that evolved throughout the period known as the Industrial Revolution. Its main characteristics involve uniform curriculum, structured relationships between teachers and students and evaluation-driven education (Pulsfor et al., 2023). The goal was intended to promote social stability, develop an educated labor force, as well as preserve cultural values (Redecker and Punie, 2013). Epistemologically, conventional educational systems are consistent with positivist and behaviorist doctrines, which hold that all knowledge remains constant, adaptable, and measurable in nature. However, Conventional education is frequently criticized for its rigid structure, concentration on rote memory, and lack of response to individualized characteristics of learners (Freire, 1970). Nevertheless, proponents believe that it offers critical structure and oversight in environments in which universal literacy and numeracy continue high goals.

2.2 Liberal Studies

Liberal studies, on the other hand, arose out of the classic liberal arts traditions, emphasizing grammar, rhetoric, and logic before expanding to involve philosophy, literature, history, and the sciences (Kimball 1986). The purpose is to cultivate critical thinking, ethical judgment, and autonomous thinking (Das and Alam, 2025). Contemporary liberal studies emphasize interdisciplinarity, innovation, and engagement with society, typically as a contrast to restricted vocationalism (Nussbaum, 2010). Furthermore, humanistic, constructivist, and critical pedagogies all have an influence on liberal studies. Humanism values personal development and self-actualization. For example, Piaget (1970) argues that constructivism holds that learners actively create meaning through experience. While Freire (1970) believes that critical pedagogy emphasizes education's role in confronting power structures and promoting emancipation.

2.3 Theoretical Tensions

Conventional education frequently promotes efficiency, standardized outputs, and knowledge reproduction, which aligns with utilitarian theories of career readiness (Biesta, 2010). Liberal studies, on the other hand, place an emphasis on inquiry, contemplation, and individual development with the goal of cultivating ethical thinking and critical social responsibility (Nussbaum, 2010). The growing adoption of AI exacerbates these issues. On the one hand, AI systems thrive at providing organized knowledge and automating repetitive processes, increasing instructional and educational efficiencies (Luckin et al., 2016). On the other hand, questions

remain regarding whether AI can effectively foster creativity, ethical judgment, and democratic engagement required for comprehensive education (Selwyn, 2019).

2.4 Conceptual Lens

This article views conventional education and liberal studies as complimentary legacies which influence the growing educational atmosphere, rather than as antagonistic approaches. Conventional education's concentration on structured information and efficiency promotes stability, whereas liberal studies emphasize inquiry and transformation stimulates creativity and ethical awareness (Biesta, 2015; Nussbaum, 2010). In the age of AI, this relationship raises fundamental epistemological, pedagogical, and philosophical issues that transcend over technological implementation (Peters and Heraud, 2015). Such a perspective enables a critical examination of how AI might be included while maintaining humanistic and democratic principles in education (Selwyn, 2019).

3. ARTIFICIAL INTELLIGENCE AND EDUCATIONAL PARADIGMS

3.1 Overview of AI in Education

AI has established itself to become one of among the most influential trends in educational settings. AI-powered solutions currently offer adaptive learning platforms, intelligent tutoring systems, automated grading, predictive analytics, and even natural language chatbots that can communicate with learners in real time in response (Holmes et al., 2022; Zainudin, 2024). The implementation of such tools is often described as an evolutionary move from teacher-centered instruction to learner-centered, data-driven personalization (Luckin et al., 2016; Cai and Zainudin, 2025). In conventional education, eventually, AI largely improves efficiency by automating tasks such as administration, streamlining assessments, and offering immediate responses (Ahamed, 2025; Deckker and Sumanasekara, 2025). For liberal studies, AI gives up new avenues for knowledge access, multidisciplinary study, as well as critical discussions concerning ethical along with the universal human predicament (Younsoo and Yi, 2021; Jang et al., 2023; Sarkar, 2023).

3.2 Paradigm Shifts in Pedagogy

The recent development of AI not only adds novel resources to the arsenal of tools yet marks a shift in educational perspectives. Pedagogy has always been concerned with the immediate dissemination of knowledge by humans. The locus of power shifts from the teacher to algorithmically driven systems as AI advances (Selwyn, 2019). Learners become increasingly reliant on AI to create educational paths, propose tools, and pinpoint deficiencies in skills. In fact, this shift raises questions: If knowledge is mediated through algorithms, how do learners critically

engage with sources? What becomes of the teacher's role as mentor, critic, and moral guide? From a paradigmatic perspective, AI accelerates the transition from knowledge acquisition to knowledge navigation, where learners must filter, evaluate, and synthesize information rather than merely receive it (Williamson and Piattoeva, 2020).

3.3 Critiques of Technocentrism

Experts cautioned opposed to technocentrism, or the notion that technological advances might solve any kind of educational issues (Papert, 1987). Although AI offers personalized experiences, it also has the potential to reinforce current disparities. Data-driven platforms frequently exhibit biases entrenched in training datasets, resulting in disparate results for minority groups (Benjamin, 2019). Also, relying too heavily on technology could undermine important humanistic aspects of education, such as empathy, discourse, and reflection on ethics (Selwyn 2019). The greatest risk arises in simplifying educational to a strictly utilitarian endeavor: an approach of input- output optimization in which efficiency trumped reflection (Quiambao, 2022). For conventional education, this might imply hyper-standardization (Ross and Alsayegh, 2023), while liberal studies might be marginalized in favor of STEM and vocational goals (Satchanawakul and Liangruenrom, 2025).

3.4 Opportunities for Conventional Education

AI offers significant benefits to conventional education. Automated grading minimizes educator work, predictive analytics identify at-risk learners, and adaptable platforms enable personalized education (Holmes et al., 2022). Such instruments are consistent with the traditional system's emphasis on structured growth, responsibility, and measurable results (Ahamed, 2025). Most importantly, AI permits scalability, which makes education easier to attain in resource-constrained settings (Yusuf, 2025). However, such benefits should be calibrated against the concerns of excessive monitoring and the dehumanizing nature of interactions between educators and learners. The paradigm shift implies that, although AI might optimize current structures, it shouldn't have authority over the ethical and social functions associated with education.

3.5 Opportunities for Liberal Studies

In liberal studies, AI serves as a double-edged sword. On the one hand, AI-powered tools might offer accessibility to massive cultural and historical materials, allowing for more multidisciplinary inquiry (McArthur, 2021). AI is currently being utilized in digital humanities projects for text analysis, historical reconstruction, and culture analysis, giving learners unparalleled learning possibilities (Younsoo and Yi, 2021). On the other hand, liberal studies face existential threats (Jang et al., 2023): if AI promotes technical efficiency and professional success, humanities branches may be dismissed as "unimportant." However, such uncertainty brings new significance

to liberal studies. The ethical, philosophical, and societal aspects of AI necessitate the same kind of critical thinking that liberal studies foster. Bias, human autonomy, and the future of democracy may not be answered solely by algorithms; it calls for reflective human interaction (Nussbaum, 2010).

3.6 Paradigm Convergence and Divergence

The paradigmatic influence of AI therefore demonstrates both convergence and divergence. Conventional education sees AI as a tool for optimizing existing systems, while liberal studies have a struggle in reaffirming its everlasting significance. The convergence is based on the common need for AI literacy (Batolar and Kaur, 2020; Turvey and Pachler, 2025): every learner, regardless of discipline, needs to understand how AI influences knowledge and society. A distinction appears in the goal: for traditional education, AI is an effectiveness booster; for liberal studies, it is a source of critique and reflection.

To sum up, AI is more than just a technological advancement; it represents a fundamental transformation in the world of education. Its impact extends beyond merely teaching procedures, addressing underlying philosophical inquiries such as epistemology, authority, and the founding goals of human development (Popenici and Kerr, 2017). Conventional education, with its planned, goal-oriented strategy, and liberal studies, with its emphasis on critical inquiry and holistic understanding, are equally driven to adapt to AI's revolutionary abilities to reshape the way knowledge is created, circulated, and appreciated throughout society (Selwyn, 2019). Instead of functioning in a vacuum, such customs continue to grow increasingly interdependent to negotiate the upheavals along with possibilities brought on by AI. This interaction will be extremely important in defining an increasingly equitable, ethical, and human-centered paradigm within the educational system (Williamson and Eynon, 2020).

4. IMPLICATIONS FOR CONVENTIONAL EDUCATION

4.1 Positive Impacts of AI on Conventional Education

The incorporation of AI into conventional education is frequently lauded for increasing effectiveness, adaptability, and reliability in knowledge delivering. In China, adaptive platforms like as Squirrel AI have proved its capacity to modify content according to specific student needs, offering millions of learners with tailored learning paths determined by real-time performance information (Zawacki-Richter et al., 2019). Such platforms are tightly aligned with the regimented, accountability-driven culture of conventional education, guaranteeing learners grasp standardized courses while supporting varying learning paces.

In Malaysia, for example, the Ministry of Education is experimenting with AI-powered predictive analytics to track academic achievement and to detect dropouts (Mat Yusoff et al., 2025). This coincides with the traditional school commitment to measurable results and oversight, as AI enables educators to act promptly and more efficiently. Equally, in Western countries, AI-driven evaluation platforms such as Gradescope have gained popularity in higher learning, lowering educator burden yet retaining evaluation uniformity and impartiality (Jordan and Mitchell, 2015).

AI allows for enhanced accessibility in addition to increased effectiveness. AI-powered translation tools, for example, make multilingual learning easier and assist learners in ethnically varied classes. This is especially important in countries such as India and Malaysia, in which multilingualism is common and conventional educational systems frequently struggle to satisfy the demands of different demographics.

4.2 Challenges and Risks in Conventional Education

Despite such advantages, the utilization of AI poses significant difficulties with conventional education. A particular reason for concerns is educator retraining. As AI takes over responsibilities such as grading, lesson planning, along with feedback providing, educators might be reduced to positions of oversight, reducing professional autonomy as well as power (Selwyn, 2019). This has the potential to undermine educators' conventional duties as ethical guides and communal figures, as well as educational leaders.

Over-standardization is still an additional concern. While AI systems could modify content, it typically does so beneath programmers' restrictive constraints, prioritizing expediency above inventiveness (Williamson and Piattoeva, 2020). For example, China's gigantic AI platforms provided by Baidu have received chastised for emphasizing preparing for exams above holistic learning, supporting instead of revolutionizing conventional education (Niu et al., 2022).

Equity challenges are additionally significant. Accessibility to AI-enhanced conventional education is frequently dependent on infrastructures and financial resources (Orhani and Hoti Kolukaj, 2025). In Malaysia's rural areas, inadequate internet infrastructure impedes the successful deployment of AI, exacerbating educational gaps between urban and rural schools (Mad Nordin and Alias, 2023; Muhamad Ali, 2024). Similarly, in the United States, AI adoption has significantly benefited well-funded schools, prompting concerns about increasing socioeconomic disparities.

Lastly, data privacy and monitoring have evolved as international issues (Sakubu, 2025). AI-powered learning management systems routinely collect massive volumes of student data, including keystroke patterns and biometric markers (Kasprowski et al. 2022; Tiwari and Mishra, 2023). Education, for example, strict GDPR legislation has compelled schools to evaluate the ethical implications of such operations, but in less regulated environments, education information

exploitation remains a significant issue (Parti and Szabo, 2024).

4.3 Global Case Examples

Malaysia: The country's embrace of AI appears to be incremental but deliberate, with several pilots taking place in urban schools. For example, the "AI for Youth" program, developed in conjunction with Intel, aims to provide children with AI literacy abilities while simultaneously assisting teachers in dealing with conventional education issues. However, deficiencies in implementation between rural and urban schools reveal the unequal advantages associated with AI integration (Mad Nordin and Alias, 2023).

China: The extensive implementation of AI into primary and secondary schools underscores the government's goal of becoming a worldwide AI leader. Although platforms such as Squirrel AI and TAL Education's apps have increased accessibility and personalization, it has additionally come under fire for strengthening exam-oriented education, prompting questions regarding whether AI reinforces as opposed to altering traditional education's more rigid components (Li, 2021).

United States and Europe: In the United States and Europe, artificial intelligence has long been predominantly utilized in educational institutions along with evaluation methods. The combination of Gradescope and mechanized essays assessment systems shows efficiency-oriented convergence. Nevertheless, opposing parties claim that such tools simplify intricate expression among students to algorithmic assessments, weakening the depth of traditional instruction (Gupta et al., 2024).

4.4 Future Directions for Conventional Education

The survival of conventional education in the digital age of AI hinges on whether algorithms strike an appropriate equilibrium between efficiency and humanism. Significant recommendations embrace the following:

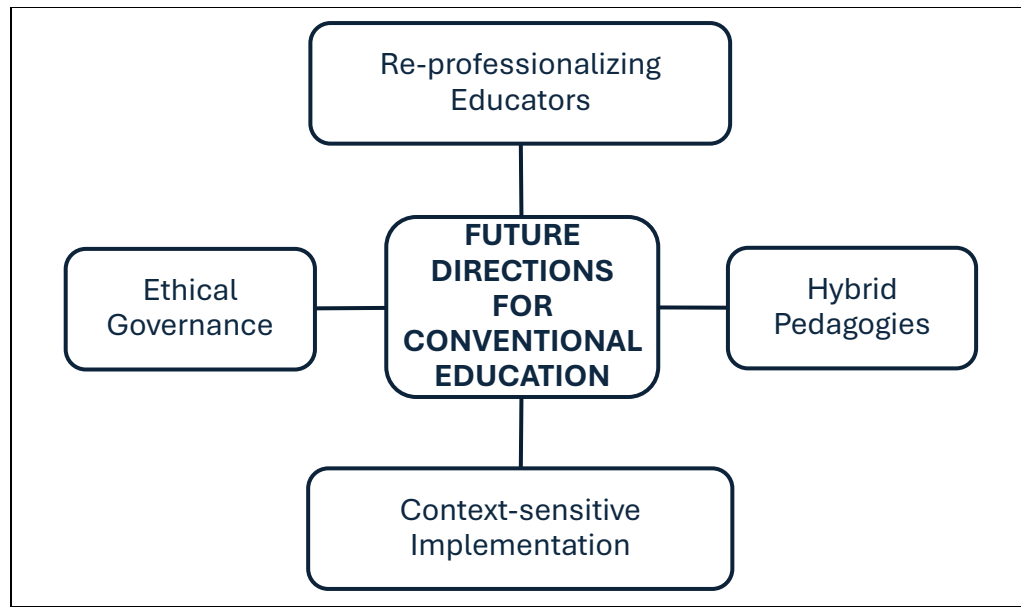


Figure 1: Future Directions for Conventional Education

- a. **Re-professionalizing Educators:** Rather than substituting it, artificial intelligence could augment it through automating monotonous work yet retaining authority as mediators of interpersonal relationships, ethical behavior, along with inventiveness.
- b. **Context-sensitive Implementation:** AI should be tailored to contexts in place. In China, this might suggest going over exam-oriented solutions; in Malaysia, overcoming rural infrastructure shortcomings; and in the West, guaranteeing AI supplements instead of over simplifying assessments.
- c. **Ethical Governance:** Robust security measures for data need to be implemented to preserve the anonymity of students. Conventional education must develop criteria to ensure that AI fulfills requirements for learners as opposed to simply institutional expediency exclusively.
- d. **Hybrid Pedagogies:** Blended learning approaches which combine AI-driven customization with human-driven discourse are a feasible approach. Such approaches preserve conventional education's framework and responsibility yet overcoming its shortcomings by means of adaptability and inclusiveness.

In the long run, AI's impact on conventional education is enormous but ambiguous. On the one hand, AI improves efficiency, personalization, and scalability, which complement the algorithm's conventional aims. However, problems such as deskilling, uniformity, inequity, along with monitoring threaten to erode its humanitarian and cultural elements. Worldwide encounters, ranging from China's massive incorporation to Malaysia's circumspect deployment and Western efficiency-driven implementations, highlight the benefits and challenges. The question for conventional education cannot be whether to incorporate AI, rather how to implement the

technology in ways which maintain its societal objectives yet rejecting technocentric reductionist thinking.

5. IMPLICATIONS FOR LIBERAL STUDIES

5.1 Liberal Studies and Enduring Mission

Liberal studies have traditionally served as the academic framework for developing critical thinking, ethical reflection, and social responsibility. In the intervening time, liberal studies, as opposed to conventional education, characterized by efficiency and measurable achievements, emphasizes investigation towards humanistic significance, cultural history, and logical reasoning (Nussbaum, 2010). In an era characterized by AI, the continuing existence and progress of liberal studies relies on its capacity to continually demonstrate its social relevancy simultaneously responding to the technological revolution. Eventually, AI presents liberal studies with an intriguing conundrum. On one hand, it risks marginalizing humanities studies by emphasizing technological and vocational abilities above inquiry into philosophy. On the other hand, AI gives novel tools for inquiry yet highlighting exclusively the social and ethical concerns which liberal studies have the greatest ability to deal with.

5.2 Opportunities for Liberal Studies in the AI Era

The rise of AI provides great opportunities for expanding the significance of liberal studies in today's educational system. Learners may utilize AI-powered algorithms such text mining along with computational language analysis within the realm of digital humanities to gain new understandings into history, literature, and philosophy. Liberal studies promote multidisciplinary conversation while rigorously exploring the ethical issues of digitalization and oversight. Furthermore, AI improves citizen engagement, helping liberal education achieve its objective of developing educated, accountable, and participatory citizens.

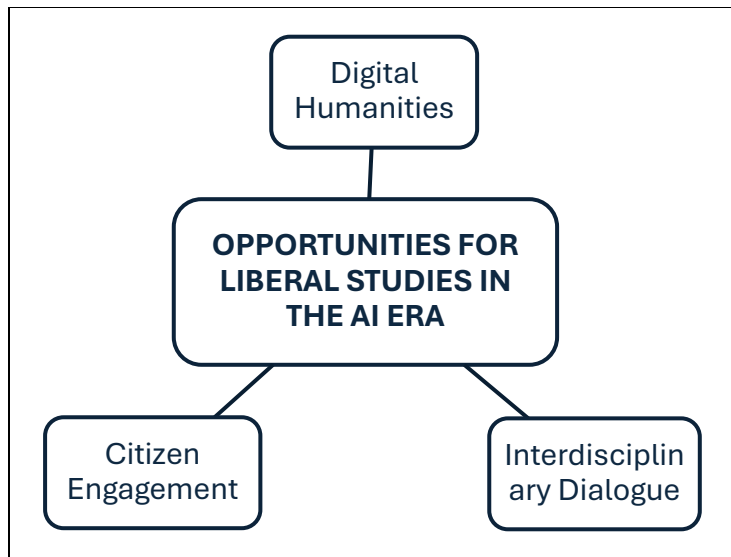


Figure 2: Opportunities for Liberal Studies in the AI Era

- a. **Digital Humanities:** AI-powered text mining, picture identification, and computational language analysis have altered studies in areas such as history, literature, and philosophy. Google's Books Ngram Viewer and the utilization of machine learning to investigate Shakespearean attribution claims demonstrate the way AI may augment classical humanities research (McArthur, 2021). Learners pursuing liberal studies nowadays have accessibility to highly effective instruments for identifying trends and discoveries that were traditionally unreachable using conventional approaches.
- b. **Interdisciplinary Dialogue:** Liberal studies seem strategically placed to facilitate discussions on the intersection of technology and society. AI literacy incorporated into liberal arts curriculum enables learners to participate constructively in ethical discussions about automation, algorithmic bias, and surveillance (Das and Alam, 2025). For example, American liberal arts universities increasingly integrate digital ethics components throughout philosophical and political analysis studies (Davoodi, 2024), giving learners an opportunity to question the social implications of technologies.
- c. **Citizen Engagement:** Liberal studies may utilize AI tools to improve civic engagement by encouraging analytical thinking and evidence-based decision-making. AI-powered discourse analyses and real-time verification of information systems provide useful resources towards eliminating misconceptions and promoting evidence-based debates (Flew, 2021). Such applications do not solely improve public discourse yet additionally foster ethical digital citizenship. In democracy circumstances, this directly reinforces the liberal studies aim of training learners for effective engagement with society outside academic routes (Nussbaum, 2010).

5.3 Challenges and Risks for Liberal Studies

Notwithstanding all the possibilities that AI provides, liberal studies confront major hazards in an AI-driven educational setting. Humanities have become progressively sidelined as authorities favor STEM and vocational disciplines for economic growth, and AI exacerbates this tendency by replacing cognition duties. Knowledge is becoming transformed into fragments of information, compromising the breadth of discovery. Furthermore, ethical thinking concerns being diluted by algorithmic mediation, since inadequate utilization of digital tools exacerbates worldwide discrepancies regarding how liberal studies progress with AI.

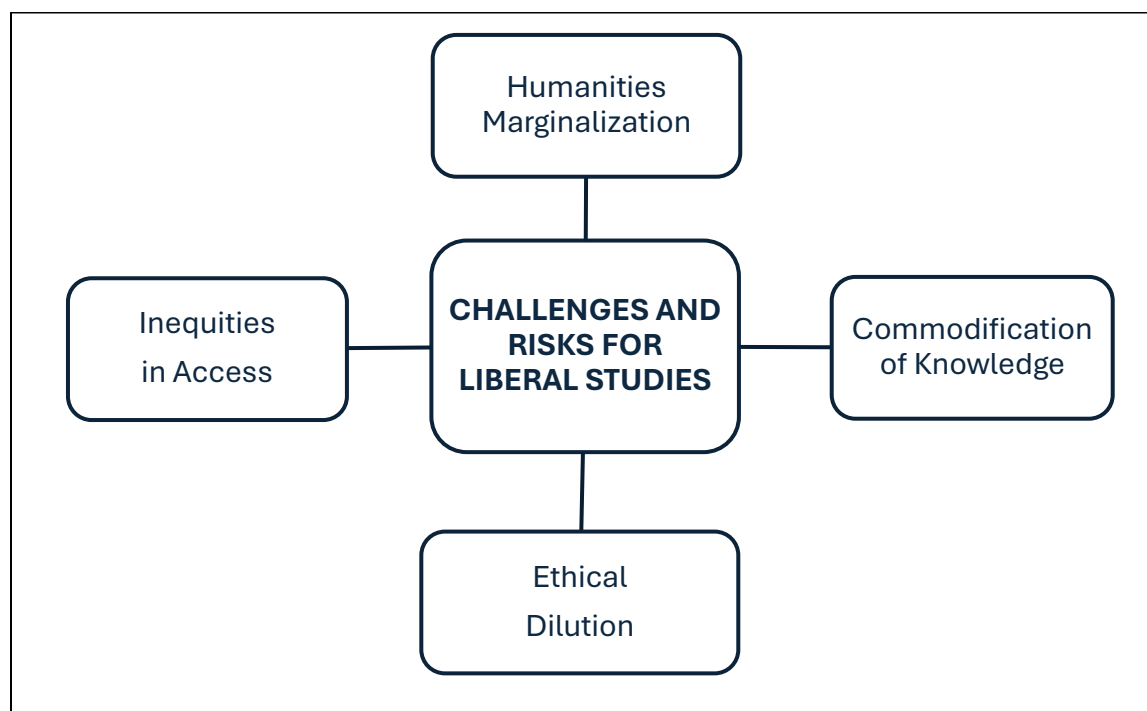


Figure 3: Challenges and Risks for Liberal Studies

Humanities Marginalization: Governmental priorities in China, Malaysia, and many Western nations increasingly emphasize STEM and vocational training as pathways to economic growth (Marginson, 2019). In this context, liberal studies are often perceived as “non-essential,” a perception reinforced by AI’s growing capacity to automate tasks historically tied to data analysis and information processing (Selwyn, 2019). Without effectively demonstrating their relevance in an AI-driven workforce, liberal studies risk further marginalization and a continued erosion of their institutional presence.

Commodification of Knowledge: AI technologies frequently condense difficult knowledge into simple, digestible chunks, altering how students engage with liberal studies. For example, micro-

streaming platforms like Douyin (China's TikTok) are increasingly providing "bite-sized" education in philosophy or history (Kuss and Griffiths, 2021). While this improves accessibility and expands reach, it also risks trivializing the humanities by portraying them as entertainment rather than hard intellectual pursuit. Such commodification may impede the long-term inquiry that is crucial to the aim of liberal studies (Selwyn, 2019).

Ethical Dilution: Liberal studies have long served as areas for cultivating moral judgment and reasoning about ethics, prompting learners to confront ambiguity, values, and personal accountability. Computerized AI becomes more prevalent in scholastic debate whether via computerized academic assessment, AI-generated contentions, or algorithm-curated material, the vital function in interpersonal discourse and ethical confrontations might be eroded. Such developments have the potential to undermine the formative aim of liberal studies by focusing education on effectiveness as opposed to genuine moral and ethical participation (Selwyn, 2019).

Inequities in Access: To be successful, digital humanities projects often require significant facilities, technological skills, along with ongoing financial support. While colleges in Europe and North America frequently lead technological advances, several in Southeast Asia and Africa face financial restrictions, poor technological capability, and unequal accessibility to technologies (Fiormonte, 2022). Such a disparity could further exacerbate worldwide gaps in the manner that liberal studies deal with AI, leading to disparate opportunities for learners and educators to engage in groundbreaking humanistic investigation.

5.4 Global Case Examples

Malaysia: Liberal studies confront more challenging issues as policy structures prioritize technical and vocational education to meet demands from industry (Mad Nordin and Alias, 2023). Nonetheless, many educational institutions have been experimenting with AI in liberal studies courses, such as utilizing AI-powered translation resources for literature lessons to increase engagement with worldwide literature. Such small endeavors point to opportunities to revitalize liberal studies irrespective of utilitarian policy circumstances.

China: Although China stresses STEM education, it also recognizes the significance of ethical in AI research. Universities such as Tsinghua have created programs in AI ethics and philosophy, which frequently appear under the larger national agenda of "trustworthy AI." Nevertheless, the utilitarian emphasis on economic growth can obscure underlying liberal studies legacies (Li, 2021).

United States and Europe: Liberal arts colleges started to incorporate the ethics of artificial intelligence throughout philosophy and political science courses. Stanford University, for example, provides interdisciplinary courses in ethics, technology, and public policy that focus on a humanistic understanding of AI's societal influence. AI was utilized by the digital humanities

centers in the UK and EU to analyze historical archives, such as the British Library's digitized manuscripts, thereby broadening the scope of historical study (Gupta et al., 2024).

5.5 Theoretical Debates: Human–Machine Epistemology

The intersection of AI and liberal studies poses additional theoretical concerns regarding the knowledge itself. Do algorithms create “knowledge,” or do they only simulate it? Researchers such as Hubert Dreyfus (1992) contended that human brain reasoning comprises intuitive knowledge which is not identifiable as principles. Liberal studies therefore offer an important forum for debating the question of AI is capable of simulating or outperforming reasoning by humans. Furthermore, critical theorists advise over reducing education for rationality as an instrument, which prioritizes computational effectiveness over human principles (Habermas, 1984). In this regard, liberal studies serve as a counterbalance to technological domination, emphasizing the importance of ethics, culture, and discussion. Simultaneously, constructivist viewpoints indicate that AI might grow into a participant in meaning-making if employed as an instrument as opposed to a substitute for human inquiry.

5.6 Future Directions for Liberal Studies

For liberal studies to survive in the AI era, various strategic goals seem critical, notably embedding AI literacy, reclaiming relevance, innovative pedagogies, and providing global inclusivity as follows:

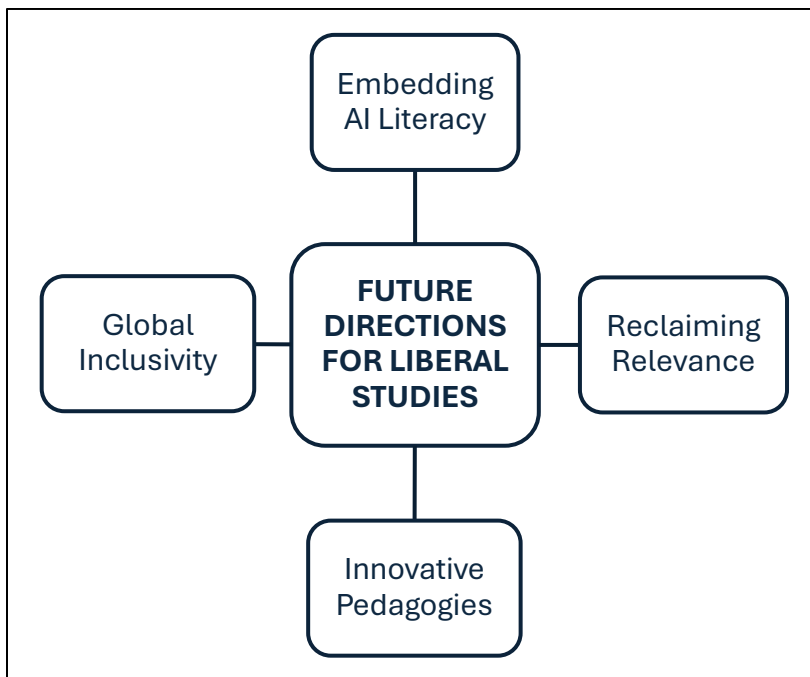


Figure 4: Future Directions for Liberal Studies

Embedding AI Literacy: Liberal studies programs require learners not only to objectively evaluate AI's sociocultural implications, but additionally to understand its theoretical basis, enabling deeper, more knowledgeable arguments about ethics as well as accountable digital involvement.

Reclaiming Relevance: Rather than condemning AI, liberal studies should emphasize its crucial function in dealing with important issues of prejudice, fairness, and democracy highlighted by developing innovations while guaranteeing that ethical principles remain the foundation of innovations.

Innovative Pedagogies: The digital humanistic framework must be widened, with AI tools utilized not solely for simplicity, yet to additionally deepen interpretative complexity, improve analytical methods, and develop novel means of interpreting cultural and historical data.

Global Inclusivity: Educational institutions across developing countries require continuous funding for continued involvement with the digital humanities education, to guarantee liberal studies continue internationally inclusive rather than becoming a fringe benefit of high-income countries.

In the long run, AI presents both pitfalls as well as possibilities in liberal studies. Although automation and utilitarian goals threaten to marginalize the humanities, AI raises critical ethical and social issues that merely liberal studies may successfully confront. Case studies from the United States, Europe, China, and Malaysia show a variety of outcomes, ranging from resuscitation under digital humanities scholarship to marginalization from legislative indifference. Liberal studies' sustainability will be largely determined by its ability to accept AI as a research collaborator while safeguarding education's intangible humanistic dimensions specifically critical thinking, ethical initiative, and social accountability.

6. SYNERGIES AND RIGIDITIES BETWEEN CONVENTIONAL EDUCATION AND LIBERAL STUDIES IN THE AI ERA

AI has an impact on both conventional education and liberal studies, though in radically distinct manners. Although both systems confront analogous developments in structure, such as educational automated processes, resource digitization, as well as data-driven decision-making, the results differ due to the respective epistemological perspectives. The juxtaposing assessment identifies points of synergy, in which both gain through AI integration as well as points of contention, wherever respective objectives and approaches contrast.

6.1 Synergies

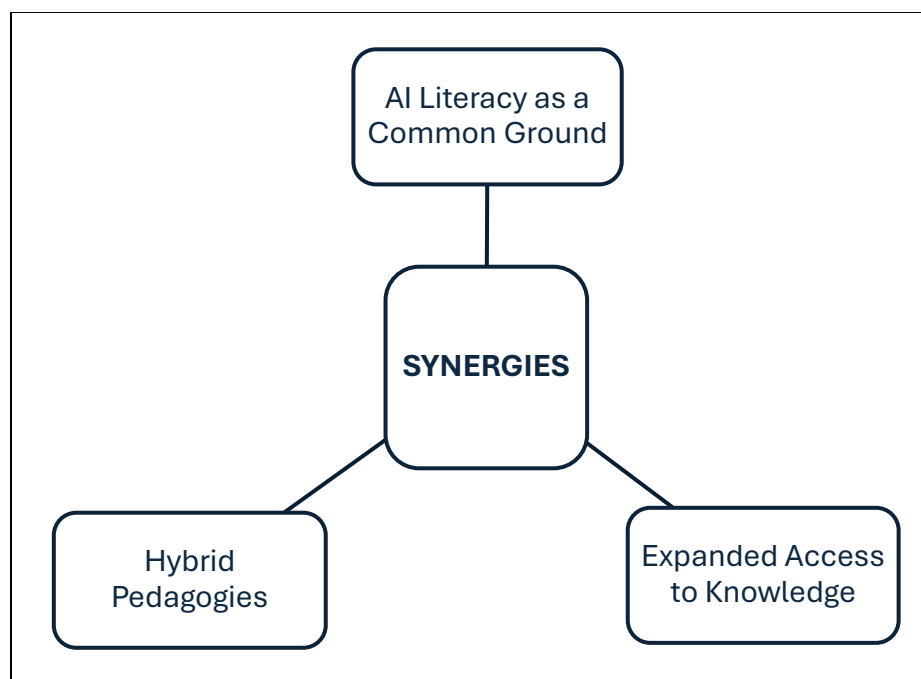


Figure 5: Synergies

AI Literacy as a Common Ground: Both conventional education and liberal studies are increasingly requiring learners to possess AI literacy. For conventional education, this guarantees competitiveness in AI-mediated job marketplaces. For liberal studies, AI literacy lays the groundwork for ethical criticism and engagement with society. Therefore, AI functions as an interconnected ability that connects technological efficiency as well as thoughtful deliberation.

Expanded Access to Knowledge: AI-powered translation, adaptive learning, and open-access platforms make educational resources more accessible across contexts. This promotes large-scale literacy and skills training in traditional education; in liberal studies, it allows for a deeper involvement with worldwide philosophical and cultural materials. The two approaches share the goal of utilizing AI to increase engagement and minimize obstacles to acquiring knowledge.

Hybrid Pedagogies: The utilization of hybrid frameworks, which combine AI customization and human interaction, strengthens both traditions. In conventional education, this guarantees systematic process of learning whereas respecting various backgrounds. In liberal studies, combinations of algorithms enable AI to deal with routine duties (such as data analysis) while still allowing for discussions based on Socrates along with inquiry into ethics.

6.2 Rigidities

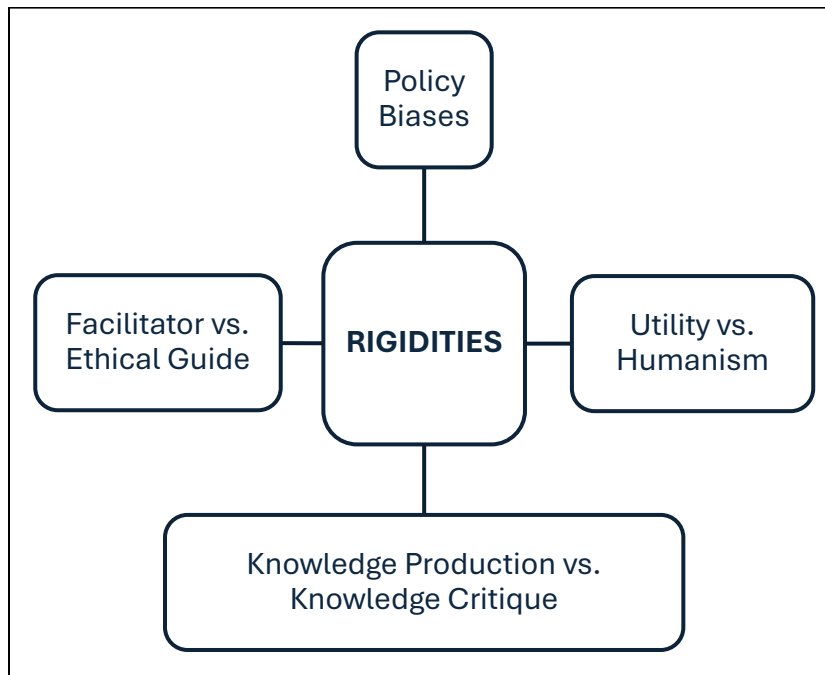


Figure 6: Rigidities

Utility vs. Humanism: Conventional education's goal is to correlate AI adoption with tangible results such as examination achievement, job readiness, as well as organizational accountability. Liberal studies, on the other hand, place an emphasis on humanistic goals such as ethical inventiveness, responsible participation, along with individual development. AI frequently reinforces utilitarian principles, prioritizing conventional education's goals while dismissing liberal studies' non-instrumental principles.

Knowledge Production vs. Knowledge Critique: AI strengthens conventional education's function in knowledge development by guaranteeing effective proficiency in the standard curriculum. Liberal studies, on the contrary, emphasize knowledge criticism, which involves contesting the legitimacy and beliefs underlying algorithmic frameworks. This divergence highlights a fundamental disagreement: while AI concurs with conventional education's epistemology, it also calls for liberal studies' critical inquiry.

Facilitator vs. Ethical Guide: In terms of educator roles, conventional education that incorporates AI minimizes educators' administrative duties while bolstering their position as facilitators of formal learning. In liberal studies, however, the position of educator as an advocate for discussion and ethical guidance is more difficult to replace. Excessive automation could result in eroding this

fundamental function of humanity, causing a clash between liberal studies’ devotion to interactions and AI’s technocentric concentration.

Policy Biases: Governments and educational institutions often give preference to AI adoption in STEM and vocational training, while neglecting humanities and social sciences. For example, most countries’ national AI education strategies concentrate on job readiness, matching conventional educational aims, whereas liberal studies find it difficult with defending its position within such technocratic strategies. This policy bias heightens conflicts between traditions.

6.4 Comparative Dimension between Conventional Education and Liberal Studies

DIMENSION	CONVENTIONAL EDUCATION	LIBERAL STUDIES
Primary Orientation	Utility, structure, efficiency	Humanism, inquiry, ethical reflection
AI Contribution	Personalization, automation, scalability	Digital humanities, ethical debate, critique
Teacher Role	Facilitator of structured learning	Dialogical partner, moral guide
Risks of AI	Deskilling, over-standardization, inequality	Marginalization, trivialization, ethical dilution
Policy Alignment	Strong (aligned with STEM and workforce agendas)	Weak (often marginalized in AI-driven reforms)

Table 1: Comparative Dimension between Conventional Education and Liberal Studies

To put it simply, conventional education and liberal studies share the goal of utilizing AI to improve literacy, access, and hybrid pedagogy. However, its goals, philosophical foundations, and organizational standing differ significantly. Conventional educational institutions benefit far more from AI’s utilitarian standpoint, whereas liberal studies risk being marginalized once it reaffirms its function in criticizing and interpreting AI’s consequences for society. The obstacle is to reconcile these distinctions while establishing an educational environment that through AI reinforces each tradition as opposed to favoring either one over another.

7. FUTURE TRAJECTORIES AND CONCEPTUAL MODELS

As AI is becoming more integrated into educational ecosystems, both conventional education and liberal studies confront unanticipated challenges. The trajectory will not be linear; rather, it will be driven by competing forces such as advancements in technology, policy goals, and societal devotion to humanistic principles. This paper describes three major potential future scenarios and suggests a conceptual model which reconciles conventional education and liberal studies amid the tidal wave of AI. Several future scenarios become apparent including the following:

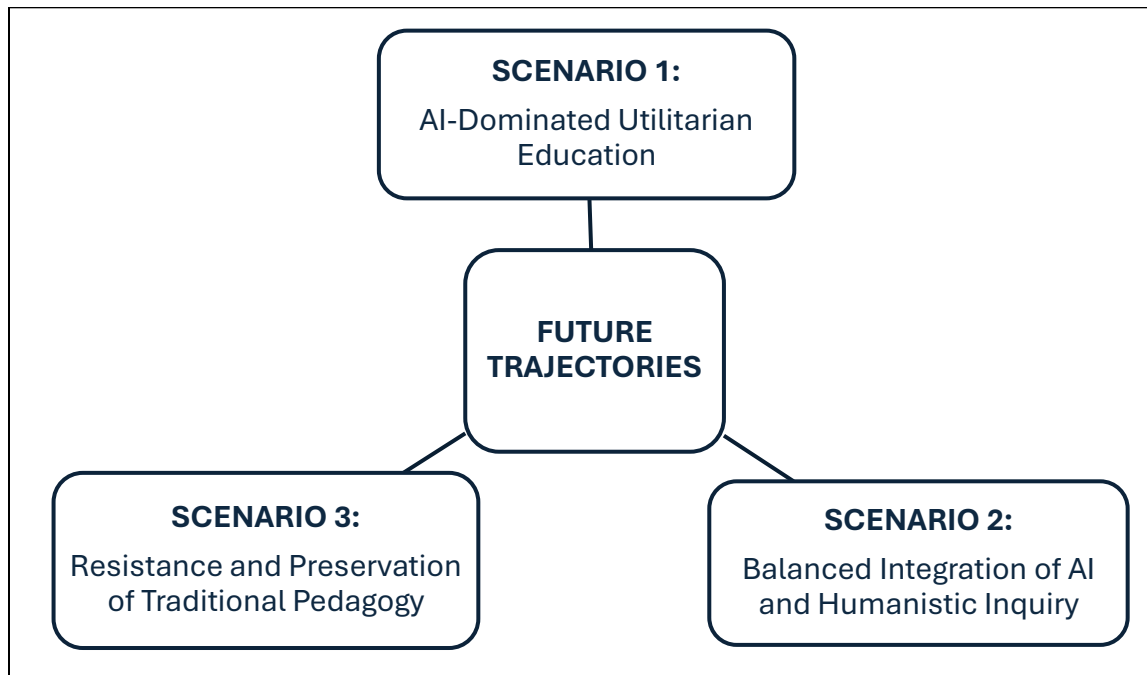


Figure 7: Future Trajectories

a. Scenario 1: AI-Dominated Utilitarian Education

In this trajectory, AI is completely consistent with the utilitarian perspective of conventional education. Educational instruction is personalized, automated and assessed through data-driven metrics. Liberal studies face marginalization due to their contributions are regarded as to be less economically significant. This scenario corresponds to trends in China’s AI-driven labor force readiness approaches along with certain Western educational competency-based efforts.

b. Scenario 2: Balanced Integration of AI and Humanistic Inquiry

In this trajectory, AI concurs with both traditions. Conventional education utilizes AI for effectiveness, whereas liberal studies utilize it to support the digital humanities, ethical criticism, and multidisciplinary studies. This trajectory envisages hybrid pedagogies in which individual discourse is at its core. For example, Malaysia’s policy of integrating AI literacy into schools while maintaining ethical along with moral education represents an advancement towards this model.

c. Scenario 3: Resistance and Preservation of Traditional Pedagogy

AI adoption stagnates on this trajectory due to ethical, cultural, or pedagogical disagreements. Liberal studies are gaining traction in criticizing and challenging the uncontrolled proliferation of technological advances. Several European educational institutions that utilize "slow education" models demonstrate this method of education, which emphasizes reflective learning and interaction with humans, along with a low dependence on technology.

7.3 Conceptual Model: The “Dual Pillar AI-Education Framework”

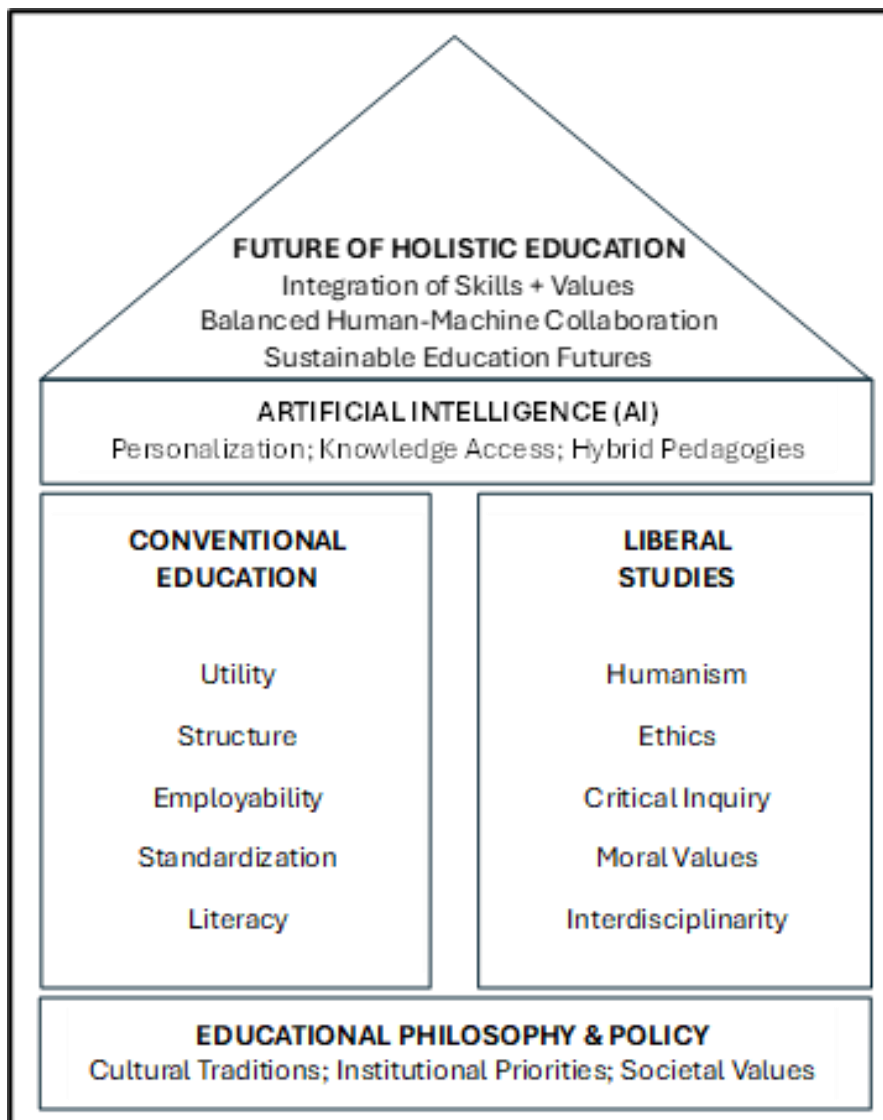


Figure 8: Dual Pillar AI-Education Framework

AI's role in education could be viewed as a bridge between two fundamental pillars: conventional education (efficiency, structure, literacy) and liberal studies (critical thinking, ethics, and humanism). The framework's equilibrium is contingent upon maintaining both of its foundations equally sturdy, with AI acting as an intermediate point opposed to a substitute. Based on the preceding foundation, this framework visually communicates that AI shouldn't substitute for either culture or tradition but rather complement and bolster it to ensure reliable educational future for mankind. In this context, the trajectory of education pursuant to AI influence will inevitably alternate between utilitarian supremacy, equitable adoption, and uncompromising sustainability. The "Dual Pillar Framework" emphasizes the importance of equilibrium: AI must function as a bridge, promoting conventional education and liberal studies, instead of favoring one over the other. Simply by this balance will education be additionally efficient and beneficial in the AI technological age.

8. CONCLUSION

The convergence of AI, traditional education, and liberal studies holds either opportunity along with risk. Conventional education benefits directly due to AI's compatibility with utilitarian purposes, whereas liberal studies face a possibility of being marginalized as AI opens novel paths for discovery. Comparing the two approaches uncovers similarities in AI literacy, access, and pedagogy, however differences in purpose, epistemology, and policy support. The Dual Pillar AI-Education Framework highlights that AI ought to function as a bridge, preserving both traditions simultaneously. Worldwide examples, ranging from China's extensive integration to Malaysia's reconciliation initiatives and Europe's conservationist campaigns, show that the foreseeable future of education is going to follow many different paths, each determined by respective cultural and educational objectives. Finally, the dilemma for educators and policymakers shouldn't be whether to utilize AI, but rather how to properly implement it ethically. If utilized effectively, AI might enhance both the efficiency of conventional education and the ethical breadth of liberal studies, guaranteeing that educational opportunity in the AI era is both successful and beneficial.

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