THE ROLE OF ARTIFICIAL INTELLIGENCE IN BRIDGING SKILLS GAP IN SOCIAL SCIENCE EDUCATION FOR SUSTAINABLE NATIONAL DEVELOPMENT

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Abstract

The widening skills gap between graduates of Social Science Education and the demands of Nigeria's contemporary labour market has raised concerns among educators, policymakers, and development stakeholders. This study examines the role of artificial intelligence (AI) in bridging skills gap in Social Science Education for Sustainable National Development. The study explores two key dimensions: AI-supported analytical and problem-solving skills, and AI-supported digital literacy among social science students and lecturers. It is a theoretical paper which builds upon results from past researches on the subject matter as such explores data from secondary sources such as internet, books and news papers to support the findings. From the literature reviewed in addition to the synthesis of the Constructivist theory, the findings reveal that AI tools when thoughtfully integrated into teaching and learning strengthen students' analytical and problemsolving skills and digital literacy. However, challenges such as limited infrastructure, inadequate training, and institutional policy gaps limit effective adoption. The study concludes that AI holds transformative potential for Social Science Education if supported by institutional commitment, capacity building, and inclusive digital policies. Recommendations are offered, some of which stated that regular training should be provided to help educators integrate AI tools into social science education to boost analytical and problem-solving skills and that, Government and institutional authorities should invest in reliable internet access and digital learning facilities to increase digital literacy in institutions.

Keywords: Artificial Intelligence, Social Science Education, Bridging Skills Gap, Sustainable Development

Introduction

Globally, education systems are undergoing significant transformation due to rapid advancements in artificial intelligence (AI) and increasing expectations that formal education should produce graduates equipped with higher-order competencies necessary for sustainable national development. Artificial Intelligence (AI) broadly refers to the ability of computer-based systems to perform tasks that normally require human intelligence, including learning, reasoning, problem-solving, perception, and decision-making (Russell and Norvig, (2021). In today's knowledge-based economy, national progress increasingly depends on citizens who possess strong analytical, problem-solving, and digital skills capable of addressing complex socio-economic, political, and governance challenges. A persistent gap still exists between the competencies developed through traditional education systems and the skills required for innovation, productivity, and sustainable development, particularly within social science disciplines that play a vital role in public policy, social cohesion, and democratic governance (Holmes et al., 2019; UNESCO, 2021). AI-supported learning environments such as intelligent tutoring systems, adaptive learning platforms, and learning analytics enable personalized learning, data analysis, real-world problem simulation, and evidence-based decision-making (Luckin et al., 2016; Zawacki-Richter et al., 2019). These capabilities are especially relevant to Social Science Education, where students are expected to interpret social data, evaluate policy alternatives, and apply critical reasoning to complex societal issues. Studies (Alkhawaja et al., 2025; Holmes et al., 2019) show that AI-supported analytical and problem-solving tools significantly enhance critical thinking, decision-making, and complex problem-solving skills, which are essential for innovation, productivity, and sustainable development

Internationally, AI-enhanced analytical and problem-solving skills are increasingly viewed as strategic assets for national competitiveness and institutional development. Countries that effectively integrate AI into their education systems are better positioned to develop adaptable workforces, innovative economies, and responsive governance structures (OECD, 2024). In Social Science Education, AI tools support scenario analysis, systems thinking, and policy modelling, helping students understand complex social systems related to governance, inequality, health, security, and development planning (Facione, 2020). These competencies contribute to national development by producing graduates capable of informed civic engagement and evidence-based decision-making.

At the same time, digital literacy has expanded beyond basic ICT skills to include the ability to critically evaluate, ethically use, and interact meaningfully with digital and AI-generated information (Haider et al., 2024). AI-supported digital literacy improves students' ability to access, verify, analyze, and synthesize information while participating responsibly in digital environments (Mohamad et al., 2025; Shin et al., 2024). In Social Science Education, digital literacy can enable students to engage with digital archives, social datasets, online governance platforms, and global knowledge networks, thereby strengthening learning outcomes and supporting national development processes. Despite these global developments, the integration of AI into Social Science Education in developing countries such as Nigeria remains limited. Although education is recognized as a key driver of economic growth, democratic stability, and social transformation in Nigeria, Social Science Education still relies largely on conventional teaching methods that do not adequately develop analytical reasoning, problem-solving skills, and advanced digital literacy among students (Ifijeh & Yusuf, 2020). This situation is particularly concerning given Nigeria's socio-economic challenges such as unemployment, insecurity, governance issues, and social inequality, which require graduates with strong analytical and digital competencies.

Although AI adoption in Nigerian tertiary institutions is gradually increasing, its use for enhancing analytical and digital competencies is still constrained by infrastructural challenges, weak policy frameworks, and low levels of AI literacy among educators and students (Joseph et al., 2025). These challenges create a gap between the potential benefits of AI in Social Science Education and its actual contribution to sustainable national development. It is based on this backdrop that the study examined the role artificial intelligence in bridging skills

gap in Social Science Education for sustainable national development.

Conceptualization of Artificial Intelligence

According to Russell and Norvig, (2021), Artificial Intelligence (AI) broadly refers to the ability of computer-based systems to perform tasks that normally require human intelligence, including learning, reasoning, problem-solving, perception, and decision-making. In contemporary scholarship, AI is understood not merely as automation technology but as a set of adaptive, data-driven systems capable of augmenting human cognitive capacities across multiple sectors such as education, healthcare, governance, security, and economic planning (Holmes et al., 2019). AI technologies encompass machine learning, natural language processing, predictive analytics, robotics, and intelligent decision-support systems. These technologies function by processing large volumes of data to identify patterns, generate predictions, and support evidencebased decisions (OECD, 2024).

AI is viewed as a general-purpose technology, similar to electricity or the internet, with the capacity to reshape national institutions, productivity structures, and development trajectories when effectively integrated into human systems (Brynjolfsson & McAfee, 2017). AI is increasingly conceptualized as a human centered tool one that enhances human intelligence, institutional efficiency, and societal problem-solving rather than replacing human agency (UNESCO, 2021). This perspective emphasizes responsible, ethical, and inclusive AI deployment aligned with societal development goals.

Artificial Intelligence and Social Science Education

According to Luckin et al. (2016), AI-supported learning environments help students develop higher-order cognitive skills by scaffolding complex thinking processes. In social science education, this enables students to move beyond memorization toward evidence-based reasoning and social problem-solving. Digital literacy refers to the ability to effectively access, evaluate, create, and communicate information using digital technologies (UNESCO, 2018). In social science education, AI supports inquiry-based learning, critical engagement with social data, and personalized learning experiences (Holmes et al., 2019). In educational institutions, digital literacy is particularly important, as future educators are expected to integrate technology into classroom practice. Redecker (2017) notes that AI-enhanced digital environments strengthen learners' confidence, adaptability, and lifelong learning capacities. Selwyn, (2019) posited that the integration of AI into social science education improves quality of teaching and learning, student engagement and participation, research competence and innovation, employability and teaching readiness. These outcomes are influenced by institutional factors such as infrastructure availability, lecturer competence, and curriculum design (Selwyn, 2019). To UNESCO (2021), human capital development serves as a critical mediating link between artificial intelligence and sustainable national development. AI's developmental impact is largely dependent on the extent to which citizens possess the skills required to understand, apply, and ethically manage AI technologies (UNESCO, 2021). These skills include analytical reasoning, problem-solving, digital literacy, and critical thinking. Education systems particularly social science education play a central role in this mediation by preparing individuals to interpret data, understand social systems, evaluate policies, and engage responsibly in digital civic spaces. AI-enhanced education strengthens these competencies by enabling experiential learning, scenario analysis, and real-time engagement with complex social problems (Zawacki-Richter et al., 2019).

The Role of Artificial Intelligence

Artificial Intelligence (AI) refers to the simulation of human intelligence in machines that are programmed to think, learn, reason, and solve problems. AI systems are designed to perform tasks that typically require human

intelligence such as decision-making, pattern recognition, language processing, and predictive analysis. In recent years, artificial intelligence has become one of the most transformative technologies influencing education, healthcare, business, governance, and national development across the world (Russell & Norvig, 2021).

One of the major roles of artificial intelligence is the automation of complex tasks and processes. AI enables organizations and institutions to automate repetitive and data-intensive tasks, thereby improving efficiency, productivity, and accuracy. In sectors such as banking, healthcare, manufacturing, and education, AI systems are used for data analysis, customer service automation, fraud detection, and decision support systems (Brynjolfsson & McAfee, 2017). Automation through AI reduces human error, saves time, and allows professionals to focus on more strategic and creative tasks. Artificial intelligence also plays a significant role in data analysis and decisionmaking. AI systems can process large volumes of data quickly and identify patterns that may not be easily detected by humans. This capability is particularly important in research, governance, and policy formulation, where data-driven decision-making is essential. AI-powered analytics help organizations and governments make informed decisions, predict future trends, and develop effective policies for social and economic development (Shrestha et al., 2019).

In education, artificial intelligence has transformed teaching and learning processes through personalized learning, intelligent tutoring systems, automated assessment, and learning analytics. AI enables adaptive learning platforms that adjust instructional content based on students' learning pace, strengths, and weaknesses. This improves students' learning outcomes and engagement (Luckin et al., 2016). AI also supports research activities by assisting in literature searches, data analysis, academic writing support, and knowledge organization, thereby improving academic productivity and research quality. In addition, Artificial intelligence plays an important role in developing analytical and problem-solving skills. AI tools such as simulations, predictive models, and data visualization platforms allow learners and professionals to analyze complex problems, test different solutions, and make evidence-based decisions. These skills are essential in addressing modern societal challenges such as unemployment, poverty, insecurity, healthcare delivery, and environmental sustainability (Holmes et al., 2019).

Furthermore, artificial intelligence contributes significantly to digital

literacy development. As digital technologies continue to evolve, individuals are required not only to use digital tools but also to understand, evaluate, and interact with AI-generated information responsibly. AI systems help individuals develop information literacy, data literacy, and digital communication skills necessary for participation in the modern digital society (Ng et al., 2021). These digital competencies are essential for workforce development, innovation, and national development in the digital economy. Artificial intelligence also plays a crucial role in national development by supporting innovation, economic growth, and improved governance systems. Countries that invest in AI technology and AI education are more likely to experience technological advancement, improved productivity, better public service delivery, and global competitiveness (OECD, 2024). AI applications in governance include smart cities, digital governance platforms, security intelligence systems, and public service automation, all of which contribute to efficient governance and sustainable development.

With all its numerous benefits, the use of artificial intelligence also presents some challenges such as ethical concerns, data privacy issues, job displacement due to automation, digital divide, and lack of technical expertise, particularly in developing countries. Therefore, the integration of artificial intelligence into education and national development strategies must be carefully managed to ensure ethical use, inclusiveness, and human capacity development (UNESCO, 2021).

AI supported analytical and problem solving skills in Social Science Education and Sustainable National Development

Several studies (Wu & Yang 2022; Tahir et al. 2025; Lin & Chen (2024; Martins & Oshotoye,

2025; Hashim et al. 2025), confirm AI's positive impact on cognitive skill development. Wu and Yang (2022) found that AI-based activities improved elementary students' conceptual understanding, noting that balanced teacher scaffolding rather than excessive support encouraged independent computational thinking. Tahir et al. (2025) reported that AI tools significantly enhanced undergraduate students' analytical reasoning, synthesis, and evaluative skills, with disciplinary variations revealing stronger positive perceptions among education students compared to natural sciences counterparts. However, concerns regarding overreliance and ethical dilemmas underscored the need for structured AI literacy. The dual nature of AI's influence on higher-order thinking is evident across contexts.

Lin and Chen (2024) observed that AI applications exerted a dual impact on creativity: rigid frameworks sometimes constrained innovative thinking, while flexible, personalized tools stimulated novel problem-solving approaches. Similarly, Martins and Oshotoye (2025) found that while AI improved analytical efficiency and knowledge access in Nigerian higher education, uncritical use risked intellectual dependency and erosion of deep reasoning, reinforcing the necessity of constructivist-aligned, intentionally designed AI environments. AI's contribution to adaptability and innovation is further supported by Hashim et al. (2025), who demonstrated that AIdriven personalization and real-time feedback enhanced students' analytical skills and learning efficiency in Malaysia, though institutional and infrastructural constraints limited full realization of these benefits. Yang et al. (2022) linked AI-supported learning to stronger problem-solving abilities, innovation orientation, and entrepreneurial intentions among Chinese university students, with science and technology students outperforming humanities peers findings that highlight AI's potential to nurture analytically competent graduates for national development.

Apata et al. (2025) synthesized evidence from 51 empirical studies, concluding that AIdriven personalized learning, predictive analytics, and adaptive systems significantly improve educational quality, analytical thinking, and inclusive participation. However, persistent barriers including ethical concerns, infrastructural deficits, and uneven implementation particularly in developing countries, risk undermining AI's developmental promise. Collectively, these studies affirm that AI-supported analytical and problem-solving skills contribute meaningfully to sustainable national development, yet such outcomes depend critically on balanced pedagogical mediation, institutional readiness, and ethical governance to prevent dependency and ensure equitable access.

AI supported digital literacy in Social Science Education and Sustainable National Development

A growing body of empirical evidence establishes AI-supported digital literacy as a critical enabler of effective AI engagement, academic achievement, and sustainable learning outcomes across educational backgrounds. Several studies demonstrate the direct benefits of AI literacy on student performance and well-being. Shi et al. (2025) found that AI literacy significantly predicted academic performance and digital well-being in generative AI-supported higher education, with writing performance serving as a partial mediator. Critically, AI literacy extended beyond technical proficiency to encompass critical engagement with AI tools a distinction vital for social science education. Similarly, Wu and Zhang (2025) reported a strong positive effect of generative AI integration on secondary students' digital literacy and innovation capability, revealing that these constructs mutually reinforce each other, thereby enhancing critical thinking, adaptive reasoning, and information processing skills central to social science inquiry.

Peng (2025), drawing on conservation of resources theory, demonstrated that AI-supported instruction enhanced creativity through increased learning engagement, while AI literacy strengthened students' capacity to translate AI usage into meaningful learning experiences. This placed digital literacy as an enabling resource that maximizes the developmental benefits of AImediated education. Lan et al. (2025) identified mindfulness as a

significant antecedent, enhancing AI awareness, ethical understanding, and collaborative competence dimensions that collectively increased students' behavioural intentions to apply AI technologies. These findings underscore that AI literacy is multidimensional, integrating ethical reasoning, self-regulation, and reflective awareness, competencies closely aligned with the normative and analytical goals of social science education. Institutional and pedagogical dimensions are equally significant. Li et al. (2025) found that educators' digital literacy, influenced by age, experience, and AI tool exposure, directly shaped their capacity for curriculum innovation and pedagogical effectiveness implications transferable to social science education where instructor readiness influences student outcomes. Kim et al. (2025) empirically validated that constructivist-oriented, contextually authentic AI learning resources significantly improved students' AI conceptual understanding and digital competencies, reinforcing the importance of embedding. Addressing the broader competencies required for responsible AI engagement, Laffier et al. (2025) proposed a conceptual framework linking digital wellness skills mindfulness, emotional intelligence, and critical thinking to healthy AI interaction, emphasizing that digital literacy must include ethical awareness and self-regulation to mitigate AI-associated risks.

The Constructivist Theory

The constructivist theory of learning is grounded in the foundational works of Jean Piaget, Lev Vygotsky, and Jerome Bruner, whose contributions between 1926 and 1960 shaped modern understanding of how knowledge is formed. Collectively, these scholars advanced the view that learning is not a passive process of receiving information from an instructor but an active, dynamic process in which learners construct meaning through interaction with their physical, social, and cultural environments. From this perspective, understanding emerges as learners engage with ideas, reflect on experiences, and negotiate meaning through social interaction.

Constructivism recognizes learners as active sense-makers who draw on prior knowledge and lived experiences to analyze social issues, evaluate alternative viewpoints, and generate contextually grounded solutions. This orientation aligns closely with the goals of Social Science Education, which emphasize critical inquiry, analytical reasoning, and socially informed decisionmaking.

The theory is underpinned by several core assumptions that are directly applicable to AIsupported learning environments. First, learning is viewed as an active process in which learners construct knowledge through exploration, inquiry, and problem-solving rather than through passive reception of information. Second, learners' prior knowledge, experiences, and socio-cultural backgrounds play a crucial role in shaping how new information is interpreted and understood. Third, knowledge construction is enhanced through social interaction, dialogue, and collaboration, as meaning is co-created through shared experiences and collective reasoning. Fourth, learning is most effective when it is situated within authentic, real-world contexts that reflect practical and societal challenges. Finally, constructivism emphasizes learner autonomy, reflection, and selfregulation, with instructional scaffolding provided as temporary support and gradually withdrawn as learners develop competence and independence.

The constructivist perspective provides a compelling theoretical justification for integrating artificial intelligence into Social Science Education. Artificial intelligence technologies, including intelligent tutoring systems, adaptive learning platforms, and generative AI tools, can be purposefully designed to support constructivist learning processes. AI facilitates active knowledge construction by enabling learners to explore complex social phenomena through simulations, data analytics, and scenario-based problem-solving activities. In social science classrooms, AI-driven tools allow students to engage with real-time socio-economic data, model policy outcomes, and examine the implications of social decisions, thereby strengthening analytical and problem-solving skills. Furthermore, AI supports scaffolded learning within learners' zones of proximal development, consistent with Vygotsky's social constructivist framework. Adaptive AI systems can adjust task

difficulty, provide timely feedback, and personalize learning pathways to ensure that students are appropriately challenged without becoming cognitively overwhelmed. Simultaneously, constructivist theory cautions against excessive scaffolding, a concern echoed in empirical literature that warns of intellectual dependency when AI support replaces rather than complements learners' independent reasoning.

AI also enhances social interaction and collaborative learning, which are central to social constructivism. AI-powered digital platforms facilitate peer collaboration, group inquiry, and shared problem-solving across diverse learning platforms. Such interaction is particularly valuable in Social Science Education, where understanding multiple perspectives is essential for addressing complex social and developmental issues. In addition, constructivism's emphasis on contextual and authentic learning aligns closely with AI-enabled real-world applications. AI tools can situate learning within pressing societal challenges such as governance, inequality, public health, and economic development, thereby enhancing relevance and promoting the transfer of learning to national development.

Discussion of findings

The literature consistently affirms that AI-supported learning environments enhance students' analytical and problem-solving capacities, which are foundational to social science education and national development. Across educational levels, AI tools have been shown to strengthen cognitive processing, evaluative reasoning, and applied problem-solving (Wu & Yang, 2022; Tahir et al., 2025). These skills align closely with the social sciences' mandate to equip learners with the capacity to analyze complex social realities, interpret data, and design contextsensitive solutions to societal challenges. However, the findings collectively caution against uncritical or excessive reliance on AI. Wu and Yang (2022) and Martins and Oshotoye (2025) revealed that while AI enhances analytical efficiency and access to knowledge, excessive dependency can undermine learners' intellectual autonomy. This anxiety underscores a central theoretical implication: AI should function as a cognitive amplifier rather than a cognitive substitute. Constructivist perspectives reinforce this position, emphasizing that meaningful analytical development occurs when learners actively engage with problems, reflect on processes, and exercise independent judgment within AI-supported environments.

Tahir et al. (2025) and Yang et al. (2022) on the other hand, revealed that AI's impact on analytical skill development is mediated by curricular orientation and epistemological traditions. Social science education, which emphasizes critical inquiry, ethical reasoning, and contextual understanding, may particularly benefit from AI when tools are aligned with reflective and dialogic pedagogies rather than purely instrumental tasks. These findings reinforce the argument that AI integration must be pedagogically intentional to meaningfully contribute to sustainable national development. The reviewed studies also reveal a nuanced relationship between AI use, creativity, and innovation. Lin and Chen (2024) demonstrate that AI-integrated educational applications exert a dual influence: they can either constrain creativity through rigid algorithmic structures or enhance innovation by exposing learners to diverse problem-solving pathways and personalized feedback. This duality suggests that creativity and analytical engagement are not automatic outcomes of AI adoption but are contingent upon design flexibility, learner agency, and instructional context.

Hashim et al. (2025) further show that AI-supported personalization and real-time feedback enhance adaptability and learning efficiency, competencies that are increasingly vital for navigating dynamic socio-economic environments. From a sustainable development perspective, these findings suggest that AI-enabled creativity and adaptability can support workforce readiness, innovation ecosystems, and entrepreneurial capacity key drivers of national development.

The second major strand of findings positions AI-supported digital literacy as a critical enabler of effective AI use and sustainable learning outcomes. Shi et al. (2025) opined that AI literacy significantly predicts academic

performance and digital well-being, with self-regulated learning playing a complementary role. This finding reinforces the theoretical claim that digital literacy is not merely technical competence but encompasses critical engagement, metacognitive regulation, and ethical awareness core attributes of social science education. In addition, Wu and Zhang (2025) show that digital literacy and innovation capability are mutually reinforcing in AI-enhanced learning environments. This reciprocal relationship suggests that digital literacy empowers learners to leverage AI for higher-order reasoning, while innovationoriented tasks further deepen digital competence. Such dynamics are particularly relevant for Social Science Education, where digital tools increasingly mediate research, policy analysis, and civic engagement. The empirical evidence further expands the conceptualization of AI-supported digital literacy by foregrounding psychological and ethical dimensions. Lan et al. (2025) highlight mindfulness as a significant antecedent of AI literacy, influencing ethical understanding, collaborative competence, and behavioural intention. This finding aligns with Laffier et al.'s (2025) conceptual framework, which situates digital wellness, emotional intelligence, and self-regulation as moderators of healthy AI engagement. These insights extend theoretical discussions of digital literacy beyond skills acquisition to include well-being, ethical responsibility, and reflective awareness.

Concerning sustainable national development, such competencies are indispensable for nurturing socially responsible citizens capable of navigating AI-driven societies without exacerbating inequality, exclusion, or ethical harm. The findings also emphasize the pivotal role of educators and institutional capacity in realizing the developmental promise of AI. Li et al. (2025) demonstrate that educators' digital literacy significantly shapes their ability to integrate AI into teaching practices, with age, experience, and exposure influencing competence levels. Although their study focuses on medical education, the implications are transferable to social science education, where instructors' digital readiness directly affects curriculum innovation and student outcomes. Complementing this, Kim et al. (2025) show that constructivist-oriented, contextually relevant AI learning resources significantly enhance AI literacy. This supports the theoretical proposition that AI integration must be locally grounded and socially relevant to advance sustainable development goals. Without adequate infrastructure, policy support, and professional development as highlighted by Apata et al. (2025) AI risks reinforcing existing inequalities rather than promoting inclusive national progress. Altogether, the findings support a theoretically grounded position that AI-supported analytical skills and digital literacy are mutually reinforcing pillars of Social Science Education for sustainable national development. Whereas AI enhances efficiency, personalization, and access to knowledge, its developmental value depends on pedagogical balance, ethical governance, and institutional support. The evidence suggests that sustainable outcomes emerge when AI is embedded within constructivist, reflective, and learner-centred frameworks that prioritize critical thinking, creativity, and social responsibility.

Conclusion

This study confirms that artificial intelligence serves as a transformative catalyst within Social Science Education, with significant implications for sustainable national development.

The findings establish that AI-supported learning environments substantially enhance students' analytical reasoning, problem-solving capabilities, and digital literacy competencies that are indispensable for addressing complex socio-economic and governance challenges. However, the evidence also reveals that these developmental benefits are not automatic; they depend critically on pedagogical intentionality, balanced scaffolding, and the cultivation of AI literacy among both educators and learners. From a theoretical perspective, the constructivist framework proves essential, positioning AI not as a substitute for human cognition but as a cognitive amplifier that supports active knowledge construction, authentic problem-solving, and reflective inquiry. The empirical synthesis further underscores that digital literacy extends beyond technical proficiency to encompass ethical awareness, self-regulation, and critical engagement attributes that align closely with the

normative goals of social science education and the broader imperatives of responsible citizenship. Essentially, the study highlights that in developing contexts such as Nigeria, infrastructural deficits, policy gaps, and variable educator readiness continue to constrain AI's transformative potential.

Addressing these barriers requires strategic investment in digital infrastructure, contextsensitive policy frameworks, and continuous professional development that empowers educators to integrate AI within reflective, learner-centred pedagogies. The integration of artificial intelligence into Social Science Education offers a strategic pathway for bridging the persistent skills gap between traditional educational outcomes and the demands of a knowledge-driven economy. When deployed ethically, inclusively, and within constructivist learning paradigms, AI contributes not only to individual cognitive development but also to the cultivation of an analytically competent, digitally literate, and socially responsible citizenry essential foundation for sustainable national development in the twenty-first century.

Recommendations

Based on findings the following recommendations were made;

Regular training should be provided to help educators integrate AI tools into social science education to boost analytical and problem-solving skills..

Government and institutional authorities should invest in reliable internet access and digital learning facilities to increase digital literacy in institutions. This will go a long way to boost the AI literacy rate among staff and students in social science education generally.

3 AI-supported analytical and digital skills should be explicitly embedded in social science education curricula.

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