AI, DEVELOPMENT, AND DIPLOMACY: INDIA-AFRICA COOPERATION IN THE AGE OF TECHNOLOGY

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Abstract

This article examines the increasing intertwining of artificial intelligence (AI), development, and diplomacy in growing cooperation between India and Africa. It discusses the strategic and ethical implications of technological engagement in the Global South. As both India and African countries explore the transformative potential of AI, their collaboration reflects their shared commitment to leveraging digital innovation for inclusive development in line with the spirit of South-South cooperation. India's approach—cantered on digital public goods, capacity building, and people-centric technology—has attracted interest from African nations as a prospective partner, offering an alternative to Western and Chinese models. Initiatives such as the Pan-African e-Network, e-Vidya Bharati, and the Co-WIN platform demonstrate India's dedication to applying AI-based technologies in a human-cantered manner across healthcare, agriculture, and education. However, significant challenges remain, including issues of technological sovereignty, data colonialism, ethical governance, and geopolitical competition. African countries face similar dilemmas regarding control over data infrastructure and the deployment of AI, which often lacks robust legal and institutional regulation. This paper argues that, for AI to become a genuine enabler of development and diplomacy, both India and African nations must address these structural inequalities and co-create policies that promote fairness, accountability, and technological self-sufficiency. The AI partnership between India and African nations thus offers a vital lens through which the politics of emerging technologies in the developing world can be understood.

Keywords: India, African Nations Relations, Artificial Intelligence, Digital Diplomacy, Technological Sovereignty, South–South Cooperation, Data Colonialism

Introduction

The 21st century is ushering in significant transformations across sectors such as healthcare, agriculture, governance, and national security. Once the

domain of industrialized nations, artificial intelligence (AI) now influences the developmental trajectories of countries in the Global South, including India and various African nations. These countries are harnessing digital innovation not only as a tool for modernization but also as a platform for geopolitical engagement. AI's core power lies in its ability to process vast quantities of data, automate complex tasks, and augment human decision-making—thus improving efficiency, reducing costs, and enabling smarter, evidence-based governance. Flourishing in the era of digital globalization, AI has come to symbolize technological strength, strategic control, and competitive advantage. It increasingly shapes domestic policy agendas and redefines international relationships (Garcia, 2022). For the Global South, AI offers a dual opportunity: accelerating development and addressing structural weaknesses in vital sectors such as agriculture, education, healthcare, and public administration. Yet, AI also presents challenges, including digital stratification, data dependency, algorithmic bias, and the erosion of technological sovereignty. India and African nations find themselves at a crucial intersection. As a regional power and leading provider of digital public infrastructure, India is rapidly expanding its AI capabilities through national initiatives such as the National AI Strategy by NITI Aayog and efforts to promote AI as a socially beneficial tool. Simultaneously, African nations are embracing AI as a cornerstone of their digital future. Countries like Rwanda, Kenya, and South Africa are at the forefront, investing in AI-powered services, digital governance, and innovation ecosystems. Despite shared challenges—such as poverty, rural-urban disparities, and infrastructure gaps—India and the African continent now share a common vision: using AI to drive development and assert a stronger voice in global debates on emerging technologies (Mienye et al., 2024). This shared vision marks a new phase of South-South cooperation, where AI is not merely a tool but also a strategic domain of diplomacy and convergence. India's evolving policy toward Africa—traditionally centered on cultural affinity, education, and development assistance—is increasingly prioritizing technological collaboration. Initiatives such as the India-Africa Forum Summit (IAFS), digital health diplomacy during the COVID-19 pandemic (e.g., the Co-WIN platform), and e-governance capacity-building with emerging African partners underscore this digital shift (Chung, 2025). In parallel, African nations continue to build technological ties with both China and the West, but India presents a distinct alternative—offering cost-effective innovation aligned with democratic values. Understanding AI within the India-Africa context is critical given these dynamics. First, it enhances our understanding of how technology is reshaping foreign policy and strategic alignments in the

Global South. Second, it reveals that digital tools are not only engines of economic transformation but also instruments of soft power and identity projection (Dye, 2022). Third, it underscores the ethical, political, and infrastructural complexities that arise when AI is introduced into socio-political systems where regulatory mechanisms are still evolving. Fourth, it positions India and African nations as potential architects of a more equitable and transparent global AI governance model—where fairness, inclusivity, and accountability are prioritized.

This paper, therefore, aims to analyze the political, strategic, and developmental dimensions of AI cooperation between India and African nations. It explores how both regions are shaping a new model of South-South cooperation that is anchored in technology and guided by human-centered principles. Through these inquiries, the paper contributes to the growing body of literature on the nexus between technology and international relations. It offers a political science perspective on how AI is shaping a multipolar, digitally interconnected Global South—where countries like India and African nations are not passive recipients of innovation but active agents in redefining the global technological order.

Conceptual Foundations

Artificial Intelligence (AI) in the developing world extends far beyond the realm of technological advancement; it is a deeply political phenomenon that intersects with global power structures, development paradigms, and international diplomacy. Understanding AI's role in India and across the African continent requires the use of political science frameworks that reflect both the aspirations and challenges of the Global South. This analysis draws on three interconnected theoretical perspectives—South-South Cooperation (SSC), techno-developmentalism, and postcolonial international relations (IR)—to explore the complex entanglements between AI, diplomacy, and development, while also questioning dominant Eurocentric narratives that continue to influence global discussions on technological governance. South-South Cooperation has become a core principle in the diplomacy of the Global South, promoting mutual respect, shared developmental experiences, and non-conditional partnerships. It contrasts with the traditional North-South aid model by encouraging reciprocal collaboration that is responsive to the specific socio-economic contexts of developing countries. The legacy of solidarity efforts such as the Bandung Conference of 1955 and the Non-Aligned Movement underscores the historical foundation of SSC, which today manifests in technology-sharing initiatives, co-development projects, and

joint capacity-building programs tailored to local objectives rather than profit extraction (Tesema & ASSECAA, 2024). India's evolving foreign policy toward Africa is a pertinent example of SSC in action. Programs such as the India-Africa Forum Summit (IAFS), the Indian Technical and Economic Cooperation (ITEC) initiative, and the export of digital public goods like the Co-WIN vaccination management system and Aadhaar-based identity platforms all exemplify India's commitment to a partnership model based on technological solidarity rather than donor-recipient dynamics (Toupin & Siad, 2025). These initiatives highlight a shift toward building affordable, open, and adaptable digital infrastructure that allows India and African nations to bypass dominant Western and Chinese technological models. The second lens, techno-developmentalism, analyzes how technological progress is linked to economic modernization, social improvement, and the assertion of national dignity. In countries such as India, this relationship is particularly pronounced. National programs like "Digital India" and the "AI for All" strategy illustrate how the country envisions its technological growth as part of a broader project of nation-building and global positioning. These initiatives combine digital innovation with democratic governance, aiming to position India as a leader in ethical and inclusive technology. In parallel, several African countries are also incorporating AI into national development agendas. For instance, South Africa's Presidential Commission on the Fourth Industrial Revolution demonstrates how AI is being strategically integrated into key sectors such as agriculture, education, and governance. Despite these efforts, techno-developmentalism has been critiqued for its overly deterministic view of technology as inherently progressive, often ignoring deep-rooted structural inequalities, governance shortcomings, and sociocultural mismatches in the deployment of digital systems. Political science perspectives must therefore interrogate who benefits from AI and how these imported models align—or clash—with local democratic values and indigenous practices. In the cases of both India and African nations, techno-developmentalist discourses tend to prioritize innovation and modernization while underemphasizing the importance of digital sovereignty, algorithmic fairness, and participatory design (Ayana et al., 2024). The third theoretical approach, postcolonial international relations theory, provides a vital critique of mainstream IR for its Eurocentrism and lack of attention to the agency and epistemologies of the Global South. It argues that modern global hierarchies—including those embedded in technological ecosystems—are shaped by colonial legacies and power asymmetries. This is particularly relevant in the context of AI, where digital tools may replicate systems of control, surveillance, and

exploitation under the guise of development. Western and Chinese involvement in African AI landscapes often exemplifies these risks, especially when it comes to surveillance technologies and policing platforms that may lack transparency and accountability. While India is often seen as a more collaborative and democratic partner compared to the United States or China, its engagement must still be critically examined to avoid replicating top-down, paternalistic approaches to technology transfer (Nature Machine Intelligence, 2025). Postcolonial theory underscores that AI is never neutral; it embodies specific assumptions about governance, efficiency, and progress that may not align with local worldviews or democratic ideals. Hence, epistemic justice must become a core component of India-Africa AI cooperation. This means integrating local knowledge systems, indigenous languages, and community-based governance models into the development and implementation of AI technologies. Only by doing so can these technologies truly serve their intended populations in inclusive and empowering ways. When considered together, the frameworks of South-South Cooperation, techno-developmentalism, and postcolonial international relations offer a comprehensive lens for analyzing AI as both a diplomatic instrument and a political construct. India and African countries are increasingly asserting themselves as influential players in global debates over AI ethics, governance, and inclusion. However, tensions persist in balancing the developmental promises of AI with the risks of technological dependency, managing unequal capacities in knowledge production and infrastructure, and reconciling optimism about digital futures with the need for democratic accountability. Postcolonial insights, in particular, advocate for the decolonization of AI governance and emphasize the need for countries in the Global South to become co-creators of a pluralistic and just digital future. Rather than passive consumers of external technologies, India and African nations have the opportunity to shape a more inclusive and equitable AI order that reflects the diversity of their societies and the aspirations of their people (Pouris, 2025).

AI and Development in the Global South

Artificial Intelligence (AI) is increasingly being recognized as a catalyst for socio-economic transformation in the Global South, particularly in India and across the African continent, where long-standing developmental challenges such as inadequate infrastructure, limited access to quality healthcare and education, and fragmented economic structures have historically hindered progress. In this context, AI offers the potential not

just for technological advancement but for structural leapfrogging, allowing nations to bypass traditional stages of industrial and institutional development and move directly into the digital era. Both India and African countries are integrating AI into their national development strategies, with adaptations suited to their specific socio-political and economic contexts. In India, AI deployment has been pursued vigorously by both public and private sectors across multiple domains such as agriculture, healthcare, and education (Wall et al., 2021). For instance, precision agriculture using AI-enabled tools has empowered farmers to optimize yield, manage pests, and predict weather patterns with greater accuracy. Collaborations between multinational companies like Microsoft and national institutions such as the Indian Council of Agricultural Research (ICAR) have led to the development of AI-driven mobile applications that provide real-time support to small and marginal farmers. Healthcare has also seen significant AI adoption, with Indian startups such as Niramai and Qure.ai pioneering AI-based diagnostic technologies capable of detecting diseases like tuberculosis and breast cancer at early stages, thereby improving health outcomes in underserved rural communities. The education sector has similarly benefited through policy frameworks like the National Education Policy (NEP) 2020, which emphasizes AI's role in personalizing learning experiences, addressing linguistic diversity, and fostering digital inclusion. These efforts are supported by strategic policy initiatives like the National Strategy for Artificial Intelligence, led by NITI Aayog, which aims to harness AI's transformative potential for inclusive growth (Verma, 2023). Meanwhile, on the African continent, the momentum toward AI adoption is also accelerating, despite vast socio-economic disparities and varying political conditions. Countries such as Kenya, Rwanda, Nigeria, and South Africa have emerged as AI innovation hubs, initiating projects that leverage AI to address pressing development challenges. In Kenya, for example, the PlantVillage Nuru application—developed in collaboration with Penn State University and the UN Food and Agriculture Organization—uses AI and smartphone cameras to diagnose plant diseases, enabling timely intervention by farmers. Rwanda has employed AI-powered drones to transport medical supplies to rural areas, significantly reducing emergency response times. South Africa, through the establishment of the Presidential Commission on the Fourth Industrial Revolution (PC4IR), is actively developing a national AI policy to guide the integration of intelligent technologies into governance, education, and economic planning. These cases reflect a growing awareness across Africa of AI's capacity to address complex issues such as food insecurity, public health, and educational access. However, in contrast to India, which has

developed a relatively robust domestic AI ecosystem with formalized policies and institutional frameworks, many African countries remain reliant on external partnerships—often with Western or Chinese technology firms—for AI solutions (Pokhariyal et al., 2023). This reliance raises critical concerns around digital sovereignty, technological dependency, and data ownership, particularly in settings where data protection laws and institutional enforcement mechanisms are still developing. Despite these challenges, the application of AI in both India and Africa holds immense promise for transforming public service delivery, enabling data-driven governance, enhancing resource efficiency, and improving inclusion for historically marginalized populations. Natural language processing, for example, can help overcome linguistic barriers in multilingual societies; AI-enabled platforms can personalize curricula for students with diverse needs; and intelligent health systems can facilitate more responsive and accessible care in rural areas. Furthermore, the strategic development of AI has implications for economic planning and labor markets, offering new opportunities in fields such as AI ethics, machine learning training, and local innovation ecosystems (Arora & Mehta, 2020). India's model of digital public infrastructure (DPI), anchored in innovations like the Aadhaar biometric ID system and the Unified Payments Interface (UPI), demonstrates how large-scale, inclusive digital solutions can be designed and implemented at scale. These innovations have become reference points for African countries, several of which are now adopting components of India's DPI through initiatives such as Digital India for Africa, reflecting a growing alignment in South-South cooperation around AI-driven development. However, alongside these opportunities, there are serious risks and structural constraints that threaten to undermine the benefits of AI in the Global South. Chief among these is the digital divide—both between countries and within them—manifested in disparities in internet access, digital literacy, and basic infrastructure. These limitations restrict the reach of AI solutions, often concentrating benefits in urban, wealthier areas while leaving behind rural and disadvantaged populations. India, despite its digital progress, still faces such internal divides, while many African nations contend with even more severe infrastructure deficits. In addition to this, technological dependency remains a pressing concern. Although India has made strides in cultivating indigenous AI capabilities, much of its core technological infrastructure and algorithmic expertise remains dependent on global tech giants. This issue is even more pronounced in Africa, where imported AI systems are frequently implemented without full ownership or localized customization, and where data is often stored or processed outside national borders. This

dependency exacerbates vulnerabilities related to data sovereignty, privacy, and state capacity to regulate AI systems effectively. Another serious challenge is algorithmic bias. AI systems trained predominantly on datasets from the Global North often fail to perform accurately in different cultural, linguistic, and socio-economic environments, resulting in outputs that may be inaccurate or discriminatory. For instance, facial recognition systems developed in Western contexts have shown significantly higher error rates when applied to African or South Asian faces, exposing the dangers of uncritical AI adoption without appropriate localization and testing (Kapoor & Sahoo, 2025). Moreover, the lack of robust regulatory and ethical frameworks to guide the responsible development and deployment of AI poses an ongoing threat. While India has articulated principles of ethical AI—including transparency, accountability, and inclusiveness—under the guidance of institutions like NITI Aayog, actual enforcement and implementation remain limited. In Africa, few nations have formal AI policies, and continental coordination remains at an early stage, despite some regional initiatives aiming to foster harmonized digital development. Both regions also suffer from a shortage of skilled personnel in AI research, development, and policy formulation. While India has initiated training programs such as "Responsible AI for Youth" and built a growing ecosystem of AI startups and research institutions, capacity still lags behind global standards. African countries are beginning to invest in similar initiatives, but the overall talent gap remains a major barrier to scaling AI solutions sustainably. When comparing India and Africa, it is clear that India benefits from a more integrated policy and institutional environment that facilitates AI development. The Indian state plays an active role in promoting AI through public-private partnerships, a dynamic tech startup ecosystem, and strong digital infrastructure. In contrast, the African AI landscape is more fragmented, with countries at varying stages of readiness. Some, like South Africa and Kenya, are leading regional efforts, while others are still building the foundational structures necessary for AI integration. Nevertheless, Africa's young population, mobile-first innovation culture, and continental initiatives such as the African Continental Free Trade Area (AfCFTA) offer significant potential for rapid advancement, provided that sufficient investment is made in infrastructure, legal frameworks, and capacity development. To bridge these gaps and ensure that AI becomes a tool for shared progress rather than dependency, collaborative platforms between India and Africa are crucial. Joint research centers, knowledge-sharing networks, capacity-building exchanges, and policy dialogues can play vital roles in ensuring

that AI is developed and deployed in ways that respect local contexts, prioritize inclusion, and enhance digital sovereignty.

India–Africa Relations: Historical and Strategic Context

The relationship between India and Africa is historically rich and strategically evolving, rooted in shared anti-colonial struggles, South-South cooperation, and mutual aspirations for development and self-reliance. Following the end of colonialism, both India and newly independent African nations actively sought to avoid alignment with the Cold War's bipolar world order, instead forging their own path through collaborative frameworks. India consistently supported African decolonization, playing an active role in global movements such as the Non-Aligned Movement (NAM) and the Afro-Asian solidarity movement, underpinned by the ideological vision of leaders like Jawaharlal Nehru and Kwame Nkrumah, who promoted a united front against imperialism and economic dependency. Over time, India's engagement with Africa shifted from ideological solidarity to a more structured and strategic partnership, driven by evolving financial, political, and geopolitical considerations. India's foreign policy towards Africa has prioritized themes such as Pan-Africanism, the export of appropriate technology, and reciprocal development assistance (Chaturvedi, 2015). One of the most significant instruments of this policy is the Indian Technical and Economic Cooperation (ITEC) program, launched in 1964. ITEC exemplifies India's commitment to capacity-building as a cornerstone of South-South cooperation, offering thousands of African professionals training each year in sectors such as information technology, rural development, governance, and entrepreneurship. Unlike the conditionalities often attached to aid from the Global North, India's ITEC assistance emphasizes mutual respect, non-interference, and shared benefit, a model that resonates more comfortably with African partner nations. In contrast to China's highly institutionalized and infrastructure-focused engagement with Africa through the Forum on China-Africa Cooperation (FOCAC), India created the India-Africa Forum Summit (IAFS) in 2008 to consolidate and elevate its African relations on a continental scale. The third IAFS, held in 2015 in New Delhi, marked a major milestone, drawing representatives from all 54 African nations, and underlined India's intent to deepen political, economic, and developmental collaboration at both bilateral and multilateral levels (Bhattacharya, 2011). Through the IAFS process, India has pledged billions of dollars in concessional finance, technical assistance, and infrastructure development, positioning itself as a credible and trusted development partner. Unlike

FOCAC's largely top-down and state-led model, IAFS places emphasis on people-centered development, democratic governance, and bottom-up capacity-building, enabling India to share lessons from its own development journey. India has contributed substantially to African sectors such as education, healthcare, digital infrastructure, trade, and diaspora engagement. Initiatives like e-Vidya Bharati and e-Arogya Bharati (e-VBAB) provide remote education and telemedicine services to African students and patients, continuing the legacy of the Pan-African e-Network launched in 2009, which connected Indian universities and hospitals with African counterparts to deliver real-time services in learning and healthcare (Seethi, 2023). The post-COVID-19 era offered India a renewed chance to reinforce its reputation as a reliable partner, particularly through its vaccine diplomacy and the transfer of its Co-WIN digital platform for vaccine management. Furthermore, India has strengthened its trade and investment footprint in Africa in key sectors such as pharmaceuticals, information technology, and agriculture. Politically, India supports Africa's demand for more equitable representation in global institutions, including the United Nations Security Council and the World Trade Organization, reinforcing its stance as an advocate of reform in global governance.

AI in India–Africa Cooperation

India's rise as a major contributor to the international digitalisation space has significantly strengthened its foreign policy approach, particularly through its cooperation with African nations in the field of Artificial Intelligence (AI). This collaboration reflects a renewed model of South-South cooperation rooted in mutual respect, shared developmental goals, and non-conditional partnerships. India's growing digital and AI capacities, particularly in the development and export of digital public goods (DPGs), have enabled the country to support African nations in their pursuit of inclusive and sustainable technological growth. DPGs, defined as digital technologies, open-source software, datasets, and standards that are openly accessible and can be modified freely across borders, provide a crucial infrastructure for driving development without commercial exploitation. India's successful implementation of large-scale DPGs, such as the Aadhaar biometric identity system, serves as an exemplary model for several African countries aiming to improve their digital ID systems. The Aadhaar platform, which has provided a unique digital identity to over 1.3 billion Indian citizens, is attractive to African governments due to its scalability, privacy protocols, cost-effectiveness, and interoperability.

However, its adoption requires adaptation to local contexts and regulatory frameworks to ensure efficacy and sustainability (Ma et al., 2018). Another landmark Indian initiative, the Co-WIN platform, which managed COVID-19 vaccine registration, logistics, and distribution, showcases the potential of AI and data analytics in public health governance. During the COVID-19 pandemic, India extended this tool as part of its vaccine diplomacy efforts, not just by donating vaccines but also by sharing the underlying digital infrastructure with interested African nations. Co-WIN's real-time data tracking, integration with mobile technologies, and equitable distribution model resonate with African public health needs, especially in countries with resource-constrained healthcare systems. This digital health diplomacy reflects how AI-based governance tools can be successfully repurposed across contexts to improve service delivery and pandemic management. Education and skill development form another vital area of India–Africa AI collaboration, embodied by the e-Vidya Bharati initiative, launched on the Pan-African e-Network. This program connects Indian universities with African students via tele-education platforms enhanced with AI capabilities, bridging gaps in higher education and vocational training. The e-Vidya Bharati program allows students to benefit from remote learning, personalised curricula, language translation tools, and adaptive testing technologies that adjust to learners' levels (Arora & Mehta, 2020). These AI-driven educational technologies are critical in addressing Africa's digital skill gap and high youth unemployment, fostering job creation and long-term economic resilience. Agriculture is another major sector where Indian AI innovations align well with African priorities. Both regions depend heavily on agriculture for livelihoods and national economies, making precision agriculture and AI-enabled solutions especially relevant. Indian startups and research institutions have introduced AI-powered tools for pest detection, soil quality monitoring, weather forecasting, drip irrigation, and supply chain optimisation. In Africa, mobile-based AI applications are being piloted for real-time crop disease diagnosis and agronomic advisory services, helping smallholder farmers make data-informed decisions, improve yields, and secure food supply (Pokhariyal et al., 2023). These technologies, rooted in affordability and adaptability, are being transferred through collaborative efforts involving Indian research centres, private technology firms, and African governments. India's approach, emphasising local agency and co-

development rather than commercial control, sets it apart from Western and Chinese models of technology transfer. The Indian model promotes partnership by combining AI tool deployment with human capacity-building under schemes like the Indian Technical and Economic Cooperation (ITEC) program, which provides technical training alongside technological assistance. This ensures that African countries do not become passive recipients of innovation but instead co-creators and implementers of digital systems suited to their own development needs. Responses from African nations to Indian AI cooperation have generally been positive, influenced by India's emphasis on human-centric design and democratic values. Previous collaborations, such as the Pan-African e-Network for telemedicine and tele-education, have established India's reputation as a reliable partner capable of delivering scalable, low-cost solutions adapted to African contexts. Furthermore, India's status as a democratic, multi-ethnic country adds appeal to African governments that wish to maintain ethical governance and inclusivity in their digital transformation journeys. This stands in contrast to China's deep economic and digital presence in Africa, which, although extensive—especially in smart cities and 5G networks—is often seen as politically intrusive or economically controlling. India's AI and digital outreach better aligns with the African Union's Digital Transformation Strategy, which calls for regional self-reliance, intra-African data flows, and indigenous tech ecosystems. Indian DPGs support this vision by offering open-source and customizable platforms that empower local innovation. Nevertheless, despite shared values and intentions, the India–Africa AI partnership faces several challenges that must be addressed to realise its full potential. First, infrastructural disparities across Africa limit the scalability of AI technologies, with inconsistent internet access, electricity, and digital literacy hampering implementation in rural or underserved regions. Secondly, the governance of AI remains underdeveloped, as many African countries lack robust data protection laws, cybersecurity standards, and institutional frameworks necessary for managing AI responsibly. Third, the heterogeneity of Africa's languages, governance systems, and cultural practices necessitates highly localised AI solutions, making standardised implementation difficult. These challenges have prompted experts to advocate for more comprehensive cooperation frameworks that include not only technology sharing but also the establishment of joint research

institutions, AI policy dialogues, and multilateral platforms to promote ethical, inclusive, and context-sensitive AI adoption (Verma, 2023). By focusing on participatory governance, cultural alignment, and long-term skills transfer, such platforms would enable African countries to become autonomous actors in the global digital economy rather than remain dependent on external technology providers. Ultimately, the India–Africa AI partnership offers a promising and pragmatic alternative to the dominant global paradigms of tech diplomacy. It demonstrates how AI can be reimagined as a tool for empowerment rather than extraction, grounded in equity, accessibility, and mutual respect. The collaborative ventures in digital identity, public health, education, and agriculture illustrate the adaptability of India's AI innovations to African priorities and the potential for these partnerships to shape a more pluralistic digital order. With continued commitment to capacity building, regulatory harmonisation, and co-created knowledge systems, India and Africa can together set new benchmarks for ethical and inclusive AI in the Global South.

Political Implications and Challenges

The growing involvement of Artificial Intelligence (AI) in the India–Africa partnership presents both immense opportunities and complex political challenges, particularly concerning technological sovereignty, data colonialism, and political responsibility. While AI holds exciting potential to accelerate development and bridge digital divides, it simultaneously introduces new insecurities regarding the control of information, decision-making authority, and the shaping of technological futures. For many African states, technological sovereignty signifies the ability to govern AI tools, data infrastructures, and digital ecosystems independently, without overdependence on foreign governments or private corporations. However, the global AI landscape is dominated by powerful actors whose investments and technologies, driven by geopolitical motives, often undermine the agency of emerging economies (Birhane, 2020). This global dynamic complicates Africa's digital ambitions and introduces dilemmas for India, a country positioning itself as a fairer, more inclusive partner in AI cooperation. The issue of data colonialism has become increasingly pronounced, echoing past patterns of resource extraction, where data generated in the Global South is harvested, processed, and monetized by multinational corporations, primarily based

in the United States or China. In many African contexts, this data is not only beyond the control of local governments but also fails to serve their strategic interests, thereby weakening their capacity for digital self-determination and informed governance (Salami, 2024). Although China is often perceived as more extractive due to its high-volume investments and centralised state-led digital initiatives, the export of Indian technologies such as Aadhaar and Co-WIN to African countries is not without concern. These systems, while intended to foster inclusion and efficiency, raise significant questions around governance, privacy, localization, and protection against misuse. In the absence of strong legal safeguards and sufficient technical know-how in many recipient countries, even well-meaning AI collaboration could unintentionally result in new forms of dependency, increased exposure of sensitive data, and the marginalization of vulnerable populations. Another pressing concern is the issue of political responsibility in regulating AI technologies. AI systems are frequently described as "black boxes," wherein the processes by which decisions are made are opaque and difficult to audit, posing serious challenges for transparency and democratic accountability (Regilme, 2025). In nations where institutional capacity is uneven—as in many parts of both India and Africa—ensuring that AI deployment adheres to principles of fairness, justice, and public participation is particularly difficult. Governments must navigate a delicate balance between the developmental promise of AI and the risks of entrenching bias, discrimination, or elite control. Though India and many African countries share a commitment to democratic values, inconsistencies in rule enforcement and political will often hinder the creation of robust accountability systems. Hence, technology transfer alone is insufficient for meaningful AI governance; complementary measures such as legal reform, public education, and civil society engagement are equally critical. The broader geopolitical environment further complicates this landscape, as Africa becomes an arena of contestation between global powers vying for technological and strategic dominance. China's Digital Silk Road initiative, alongside its investment in 5G networks and smart city infrastructure, offers African countries rapid modernization through large-scale infrastructure projects. Yet, these offerings are often critiqued for fostering surveillance regimes, debt dependence, and diminished policy autonomy (Elmi, 2020). The United States, in contrast, supports AI

development via private-sector innovation and multilateral engagements that promote ethics and human rights in AI use. This competitive dynamic between China and the US places additional pressure on African nations to choose between divergent models of technological development, each carrying distinct implications for national sovereignty and public welfare. India's AI diplomacy, meanwhile, unfolds within this contested environment but brings a different approach based on democratic norms, affordable innovation, and solidarity rooted in South–South cooperation. India emphasizes digital public goods, open-source platforms, and shared learning, which stands in contrast to the more proprietary and control-oriented models propagated by larger powers. Yet, despite these advantages, India faces limitations due to its comparatively smaller financial capacity and the structural imbalance of global influence (Grancia, 2024). As such, while India's vision for AI cooperation with Africa offers a potentially more equitable and decentralized alternative, realising this promise will require continuous political engagement, joint regulatory frameworks, and regionally coordinated strategies to resist external domination and ensure inclusivity. Ethically, India–Africa AI partnerships must uphold the core values of human dignity, equity, and privacy—principles embedded in both regions' constitutional traditions. Geopolitically, they must be designed to avoid replicating hierarchies or dependencies, and instead foster multipolar digital futures where African countries are active co-creators rather than passive recipients. Ultimately, the success of this AI collaboration depends not only on the technologies exchanged but also on the governance structures, cultural sensitivities, and political commitments that frame their use.

Future Prospects and Policy Recommendations

The future of the Artificial Intelligence (AI) partnership between India and Africa hinges on the establishment of a framework grounded in fairness, transparency, and cooperative AI diplomacy that prioritizes human-centric development. To maximize AI's transformative potential while safeguarding technological sovereignty and mitigating unethical practices, both regions must craft policies that effectively balance innovation with inclusion, and ensure equitable technology distribution coupled with robust capacity building. A critical first step involves formulating multilateral and bilateral frameworks that institutionalize collective collaboration on AI,

built upon principles of mutual respect, transparency, and shared developmental goals. Such frameworks should foster the creation of joint research and innovation centers where Indian and African scholars and practitioners work together on localized AI solutions tailored to the diverse socio-economic conditions of both regions. These hubs would not only support technological adaptation but also serve as engines of mutual knowledge sharing and problem-solving. In parallel, India and Africa can consider leading or co-establishing a South-South AI alliance or dedicated forum that sets ethical standards and governance principles for responsible AI. This platform could promote democratic engagement in AI policymaking and ensure the inclusion of voices from the Global South in global AI debates. At the national and regional levels, targeted policy initiatives should emphasize skills development and educational reform. A focus on cultivating AI literacy and technical expertise, particularly among Africa's youth, is vital to addressing the current talent shortage and stimulating indigenous innovation. Enhancing existing cooperation mechanisms, such as India's Indian Technical and Economic Cooperation (ITEC) program, with dedicated modules on AI ethics, data science, algorithmic transparency, and AI regulation, would serve this objective. Further, investment in scholarships, internships, and academic exchanges would nurture a new generation of AI professionals equipped to navigate both the technological and socio-political complexities of AI development. In tandem with education, the establishment of comprehensive data governance frameworks is essential to protect individual rights and national sovereignty. India and African countries should collaborate on developing data localization policies, privacy standards, and ethical AI usage guidelines informed by comparative global experiences. These frameworks must guarantee transparency in algorithmic design, enable accountability for AI implementation, and create mechanisms through which citizens can seek redress in cases of algorithmic bias or harm. As data norms converge, mutual trust in AI systems will grow, reducing susceptibility to exploitative data harvesting and intrusive surveillance. The partnership should also prioritize the promotion of human-centered AI, meaning the design and deployment of AI tools that are inclusive, culturally sensitive, and responsive to the needs of marginalized groups, including rural populations, women, and people with disabilities. Investments in AI-driven agriculture, healthcare, education, and public

services must reflect local languages and cultural realities to ensure accessibility and relevance. Engaging communities in the planning and application of AI technologies will further ensure that technological deployment aligns with grassroots development priorities, enhancing social legitimacy and accountability. Simultaneously, India and Africa must bolster public-private partnerships to drive innovation, attract investment, and support entrepreneurship. Encouraging Indian startups to collaborate with African tech ecosystems could stimulate job creation and foster regional innovation clusters. Governments must ensure that regulatory environments discourage monopolistic practices and promote healthy competition. The development of innovation districts and business incubators across African countries, supported by Indian expertise and collaboration, can help localize AI solutions and reduce dependency on foreign imports. Finally, sustained dialogue through multilateral channels remains key to shaping the geopolitical context of AI governance. India and African nations must collectively advocate in global forums such as the Global Partnership on Artificial Intelligence (GPAI), the United Nations, and the World Trade Organization to champion a digital future that reflects the values, aspirations, and development priorities of the Global South. Through inclusive cooperation and strategic alignment, the India-Africa AI partnership has the potential to become a transformative force for equitable growth and technological empowerment across both regions.

Conclusion

This paper has explored the multifaceted role of Artificial Intelligence (AI) in shaping the trajectory of growth and diplomacy between India and Africa, highlighting that AI is not merely a technological tool but a strategic and political instrument that can redefine the parameters of South-South cooperation. The deployment and export of AI-driven digital public goods, such as India's Aadhaar biometric identity system, the Co-WIN vaccine management platform, and AI-enhanced tools in education and agriculture, mark a new paradigm of development assistance rooted in mutual benefit, capacity building, and respect for technological sovereignty. The enthusiastic reception of these tools by African countries demonstrates a shared optimism about deploying context-sensitive and inclusive technological solutions, standing in contrast to the often

extractive or prescriptive models promoted by dominant global players. The collaboration holds immense political weight, as it unfolds within a complex landscape marked by concerns over technological sovereignty, data colonialism, and the demand for greater political accountability in the governance of AI systems. For both India and Africa, developing robust data governance mechanisms, safeguarding privacy, and ensuring the transparent application of AI are essential tasks in making AI an empowering rather than exploitative force. This dynamic is further shaped by the influence of global powers such as China and the United States, whose approaches to AI in Africa either compete with or attempt to shape the India-Africa narrative. While China's model often emphasizes infrastructure-heavy, state-driven digital expansion, and the U.S. model supports private-sector innovation and ethical governance frameworks, India's alternative—anchored in democratic values, affordable innovation, and solidarity—offers a more relatable and autonomous path forward for African nations seeking diverse alliances. The potential future of this partnership is highly promising, as both India and African nations work toward overcoming critical challenges such as talent shortages, inadequate digital infrastructure, and weak regulatory capacities. This can be achieved through institutionalizing collaborative frameworks that promote joint research, reciprocal knowledge exchange, and targeted capacity development. The prioritization of human-centred AI ensures that technological advancement aligns with principles of social justice, equity, and the inclusion of marginalized communities, particularly rural populations, women, and persons with disabilities. Strengthening the AI ecosystem through public-private partnerships and enhanced regional coordination will also be essential in building resilient and self-reliant digital economies, thereby reducing overdependence on external actors. Strategically, a robust AI partnership between India and Africa could redefine the meaning of South-South cooperation in a world increasingly shaped by digital and multipolar transformations. It offers an opportunity to challenge the dominant North-South technological hierarchy by enabling the Global South to construct inclusive, ethical, and transparent technological futures. The India-Africa collaboration exemplifies how emerging economies can leverage AI and technology diplomacy not only to accelerate their own development but also to influence global digital governance frameworks. In conclusion, AI stands as a transformative force

with the potential to reshape the development and diplomacy of the Global South. Through this evolving partnership, India and Africa have the chance to forge a more democratic and inclusive future for AI—one where innovation is pursued with responsibility, and growth is achieved with inclusivity. This model of cooperation demonstrates how technology can be a vehicle for sustainable development, social empowerment, and global equity, contributing to a multipolar digital order that respects national diversity and upholds the dignity of all nations.

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