



Learning Agenda on the socio-economic and political impacts of AI in Africa

Learning Agenda

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1 | Context and Motivation for Research

Artificial Intelligence (AI) can catalyse economic and social transformation. AI has the potential to inject \$2.9 trillion into the African economy by 2030, equating to a 3% annual increase in GDP.¹ This economic boost could lift 11 million Africans out of poverty and create jobs for half a million people across the continent each year.²

However, AI also has the potential to reinforce existing structural inequalities, intensify current economic, social, political and environmental issues, and give rise to new challenges. AI can perpetuate or amplify existing power imbalances. For example, this may include differential impacts on labour across industries, where AI-enabled process automation leads to job destruction for lower earning groups, while benefiting higher earning groups. As another example, AI systems that are developed with imbalanced training data, or with data that is not representative of vulnerable groups may produce outputs that can disadvantage or even damage these groups.

The risks and benefits associated with AI are highly contextual. Oxford Insights' AI Readiness Index illustrates how countries and regions vary in the underlying features needed to safely leverage AI.³ Differences in government readiness, data and infrastructure readiness, and readiness of the technology sector will result in differences in the way AI influences domestic markets. Understanding the risks and opportunities of AI and how they impact different groups across Africa calls for focused research.

There are significant gaps in knowledge and evidence on the socio-economic and political implications of AI and how these will surface in different contexts across the world. The current dialogue and research surrounding AI continue to be dominated by perspectives and entities from the Global North. Additionally, stakeholder groups across the AI ecosystem, such as Big Tech, think tanks and policy makers understand the risks and opportunities of AI differently. While there is an agreement on the importance of responsible AI, especially across the Global South, there is a lack of clarity on what this means in practice and how this varies across countries and regions.

The International Development Research Centre's (IDRC) Artificial Intelligence for Development (AI4D) program recognises the potential for AI and the need for research that brings an evidence base to the likely impacts of AI in Africa. The AI4D program aims to foster responsible AI research and applications for the benefit of Africa and beyond while mitigating the severe risks of this disruptive technology. AI4D initiatives supporting high-quality research, responsible innovation and talent development have already increased participation in international platforms and encouraged the generation of local research. There is still much to be done to shift the global discourse and research around responsible AI to be more inclusive of the specific challenges felt by regions across the Global South.

The IDRC's call for research proposals on AI's socio-economic and political impacts in Africa represents a critical step toward shedding light on the complex and largely unexplored implications of AI across societies in Africa. The initial outcome of the call for research is investment into regionally-relevant, high-quality research that answers the key questions policymakers need to understand the scale and direction of AI's impact. The ultimate outcome will be arming policy makers and key stakeholders within Africa's AI ecosystem to make decisions in order to prevent and mitigate against the risks of AI, especially in relation to inequality, in order to unlock the full potential of AI across Africa.

¹ IDRC and Genesis Analytics (2024) AI in Africa: The state and needs of the ecosystem. Executive Summary. Available [Here](#).

² Ibid.

³ Oxford Insights (2024) Government AI Readiness Index 2024. Available [Here](#).

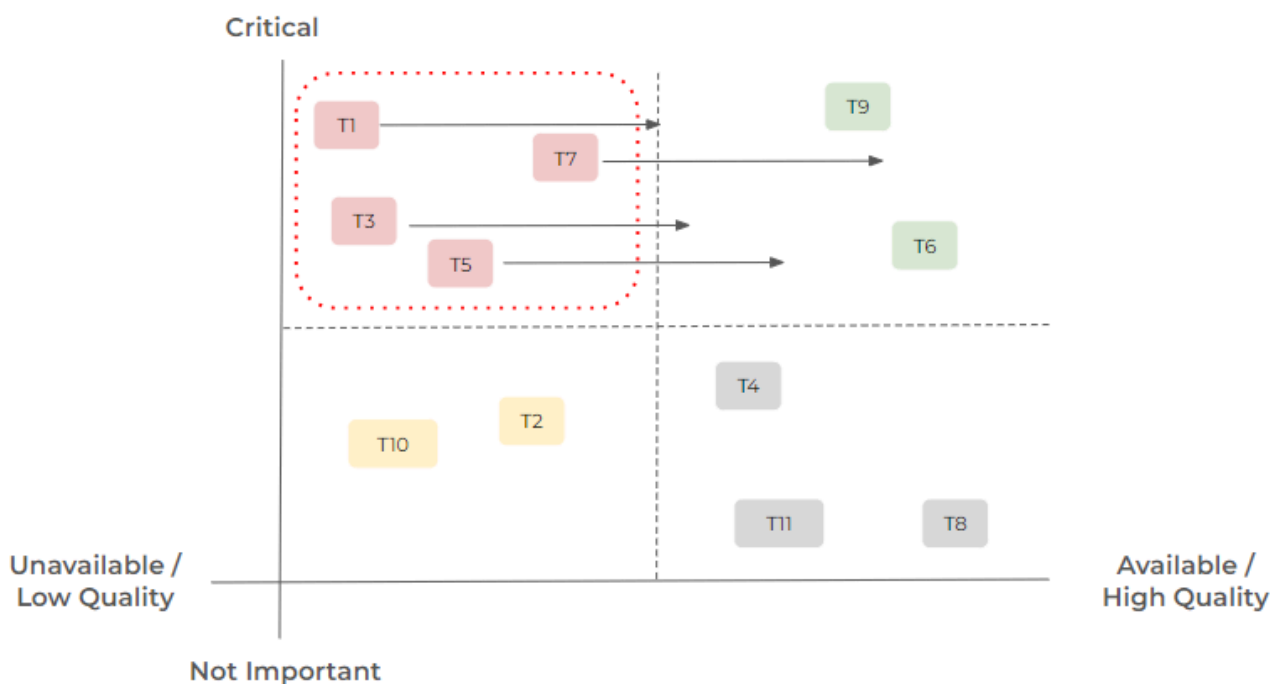
This study lays the groundwork for IDRC’s call for research proposals by investigating the areas of research needed to better understand the socio-economic and political impacts of AI in Africa. To guarantee that the research funded is not only robust but also meaningful, the formulation of a clear and targeted research agenda is imperative. A well-defined research agenda ensures that the most urgent and impactful issues are addressed. To achieve this the purpose of this study is to surface the research gaps and high impact topics that can serve as strategic focus areas to better support policy makers in understanding the socio-economic and political impacts of AI in Africa.

2 | Methodology

The research agenda methodology was designed to uncover the most urgent research gaps regarding the socio-economic and political impact of AI across Africa. In developing the research agenda, topics that were both highly important, as identified by stakeholders, and significantly under-researched were identified.

As presented in Figure 1, to guide the analysis, a prioritisation matrix was used to plot themes against two key criteria: their perceived importance and the availability of high quality research. The primary goal was to identify and focus on the red "Urgent Gap" quadrant. The purpose of the to-be-funded research is to move these into the green quadrant.

Figure 1: Conceptual Research Framework - Learning Agenda Objectives



This framework was populated using the following four-stage process:

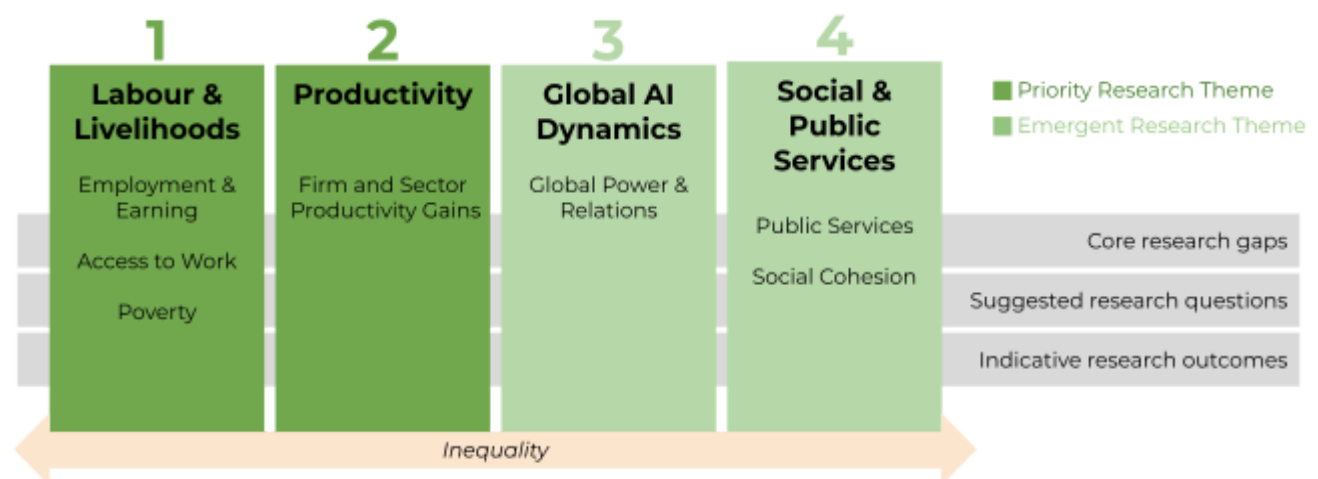
1. **Literature Heat Mapping:** Approximately 110 sources were consulted, including policy papers, academic journals, newspaper articles, blog posts, and research reports. Key themes were systematically coded to create a "heat map" of the most frequently discussed topics, which provided an initial understanding of theme importance and the existing research landscape.

2. **Key Informant Interviews (KIIs):** Interviews were conducted with subject matter experts, including AI and development economics academics, donor organisations, research hubs, and policy networks. In total, 22 KII's were conducted and these conversations served to validate which themes and topics were of high importance and, crucially, helped to identify what was seen to be missing from the current available research.
3. **Targeted Desktop Research:** Further desktop research was then performed on the prioritised themes. This stage focused on understanding the specific research questions which have already been addressed within the literature, confirming the extent of the research gaps identified.
4. **Synthesis and Validation:** Finally, initial identified research gaps were validated and developed with key consultations with policymakers. The initial learning agenda was then validated in an online stakeholder workshop before finalisation. The online validation workshop was conducted with subject matter experts, including AI and development economics, academics, donor organisations and policy networks. There were 10 attendants in total.

3 | Research Themes and Topics

The learning agenda is organised across four **themes**. Within each theme, topics, their associated research questions and indicative research outcomes are presented. In addition, the [Annex](#) presents **hypothetical research prototypes** linked to each theme. These provide concrete examples of how the research questions might be answered and what the findings may entail. The following graphic provides an overview of the themes and sub topics:

Figure 2: Overview of Themes and Topics



Inequality is the primary cross-cutting theme of this agenda. The impacts of AI are not uniform. Instead, they are shaped by intersecting identities including gender, ethnicity, age, education, geography and more. Research should accordingly adopt an intersectional approach to analyse these differential outcomes. In doing so, the research will support policymakers in ensuring inclusivity and the protection of vulnerable populations. Additionally, the complex nature of AI's impact necessitates interdisciplinary research, combining methodologies from economics, sociology, data science, and policy studies to generate a holistic understanding.

This learning agenda presents all themes and topics that emerged as important research areas for further study. All themes are presented here to provide options for the IDRC to choose from for their call for research. Priority focus areas are highlighted in dark green in the figure above.

Theme 1: Labour and Livelihoods

Africa faces a significant challenge with unemployment, a situation projected to worsen due to ongoing demographic shifts. By 2050, Africa is expected to be home to nearly 59% of the world's working-age population.² The working-age cohort (20-64 years) alone is projected to almost double from 883 million in 2024 to 1.6 billion by 2050.⁴ Youth unemployment presents a pressing concern across the continent, with 26.1% of Africa's youth (15-24) not in employment, education or training (NEET), equating to around 72 million people, compared to 9.6% across countries in the European Union.⁵ The continent's workforce is concentrated in small-scale and independent work, which accounts for 85% of the total labour force.⁶

AI is already impacting work across Africa, and these impacts are expected to evolve. Global research suggests that AI will induce significant structural changes in labour markets. The World Economic Forum's (WEF) 2025 Future of Work report projects that 170 million jobs could be created while 92 million are displaced over the next five years, globally.⁷ In South Africa, digitisation, machine learning and automation could displace as many as 3.3 million existing jobs by 2020, but has the potential to create up to 4.5 million jobs, a net gain of 1.2 million jobs.⁸

However, there is insufficient rigorous evidence about AI's differential impacts on African job markets. Specifically the nuances of its impact on different sectors, worker demographics and firm size remain poorly understood. Interviewees consistently noted these knowledge gaps. More granularly, the key research topics are as follows:

1. The **impact on net employment figures** including across and within sectors
2. The **impact on opportunity pathways and access to work** specifically entry-level roles and opportunities for MSMEs and independent gig workers
3. The **impact of AI on poverty and economic vulnerability** at large

Topic 1.1: Net Impact of AI on Employment Figures

A key research gap is understanding the scale and nature of AI's impact on employment in Africa.

On one hand, optimistic reports offer projections of 230 million new digital jobs across Africa, suggesting a future of opportunity and job creation.⁹ On the other hand, sector-specific studies present more cautionary findings; for example, one analysis indicated that full AI adoption in Nigeria's agricultural sector could displace over 20 million jobs.¹⁰ A central hypothesis in more recent research is that AI is not simply creating or destroying jobs, but fundamentally transforming roles and tasks, which in turn affects the demand for skills and overall work readiness.

⁴ New African Magazine (2024) Reaping the demographic dividend requires time, money and effort. Available [Here](#).

⁵ ILOSTAT (2023) African youth face pressing challenges in the transition from school to work. Available [Here](#).

⁶ AUDA-NEPAD (2025) AI and the Future of Work. Available [Here](#).

⁷ WEF (2025) The Future of Jobs Report. Available [Here](#).

⁸ McKinsey (2019) The Future of Work in South Africa: In Brief. Available [Here](#).

⁹ WEF (2025) The Future of Jobs Report. Available [Here](#); SAP (2025) AI Skills Development in Africa: New Report Findings Revealed. Available [Here](#).

¹⁰ VerivAfrica (2025) The Future of Work: AI's Impact on Nigeria's Job Market. Available [Here](#).

Core Research Gaps

Studies suggest that while emerging markets generally have lower exposure to AI, tasks requiring higher-cognitive skills are disproportionately at risk.¹¹ This indicates that higher-skilled jobs could be particularly vulnerable. However, a critical lack of granular, contextual research into the impact of AI on Africa's employment rates currently hinders the development of effective policy to address this potential challenge.

1. Net figures and a macro-level understanding of cross-sectoral impacts: While global and some pan-African reports offer high-level projections, there is a lack of rigorous analysis to understand the potential *net* effect on employment across Africa. Policymakers lack a clear, evidence-based picture of which sectors are likely to be the biggest net job creators and which face the most significant losses at a macro level, making it difficult to prioritise national economic and industrial strategies. Crucially, research is missing that looks beyond the direct automation of existing roles but to include job creation in upstream and downstream sectors of the AI value chain. For instance, AI's significant demand for data and energy could spur growth in green jobs for the renewable energy transition, while the need for local data creates opportunities for new roles in data collection, annotation, and monetisation. These lines of enquiry remain underexplored.

2. Identifying AI's impact on job creation and displacement at the sector-level. Macro-level figures, even if accurate, are insufficient. The impact of AI will vary dramatically within sectors due to differences in task composition and adoptability. The recent paper by Caribou Digital and Genesis Analytics explores the impact of AI on Africa's BPO and ITES sector and found that 40% of tasks are at risk of automation and women face a 10% higher automation risk than men.¹²

Figure 3: Example Report examining AI's impact on job displacement and creation in the BPO and ITES sector



Research Questions and Indicative Research Outcomes

More detailed hypothetical research prototypes for this theme are outlined [here](#).

RQ1.1.1 What is the projected net impact of AI on employment in Africa as determined by current trends? What is the differential impact across sectors?

This research could produce macro-level statistics on employment shifts, identifying sectors of employment growth and contraction attributable to AI adoption. Research could also present a sectoral breakdown as well as quantitative analysis of wage dynamics, potential for salary growth or decline in roles most affected by AI. Without this research, it

¹¹ IMF (2024) AI will transform the Global Economy. Let's make sure it benefits humanity. Available [Here](#).

¹² Caribou and Genesis Analytics (2025) Preparing for AI in the BPO and ITES Sector in Africa. Available [Here](#).

will be difficult for policymakers to understand the key sectors for potential job creation and could lead to misdirected public investment and industrial policy.

RQ1.1.2 What is the impact of AI on specific job roles and tasks within key African sectors in terms of automation, augmentation, or creation? And what is the differential impact when considering gender, education levels, and geographic location?

This research could yield sector-specific reports detailing which job roles are most affected and how these impact different demographic groups. Key data points produced could include task-level analyses of job descriptions, data on the percentage of tasks within specific roles that are now automated or augmented by AI and qualitative research on the lived experience of AI job transformation.

Topic 1.2: Impact on opportunity pathways and access to work

Beyond the net effect on job numbers and qualitative changes in tasks, it is crucial to understand how AI is reshaping the pathways and access to work itself. This topic delves into the practical experience of these shifts at the firm and individual level. It examines whether individuals, particularly youth, are being equipped for an AI-enabled workplace, and explores the quality and nature of opportunities for the small enterprises and independent workers who constitute the majority of Africa's workforce.

Core Research Gaps

1. The impact of AI on pathways to earning opportunities and work readiness: A critical and often overlooked area is the vulnerability of entry-level jobs, the traditional gateway for young people into the formal labour market. Bloomberg finds that AI could replace more than 50% of the tasks performed by market research analysts (53%) and sales representatives (67%), compared to just 9% and 21% for their managerial counterparts.¹³ Similarly, evidence from online freelance platforms like Upwork shows a 21% reduction in the number of jobs available for African freelancers since 2022, a trend that particularly affects entry-level opportunities.¹⁴ While these global studies indicate that entry-level roles are particularly threatened by automation exposure, there is a gap in understanding in more detail how entry-level roles across the continent and across sectors will be impacted. This may include examining how AI affects apprenticeships and informal skill-building pathways that often serve as alternatives to formal entry-level positions, understanding the differential impact across sectors, and evaluating whether AI is creating new labour market entry points.

Moreover, exposure to automation varies across sectors: for instance, entry-level, rote roles in tech-enabled services and financial services may face higher displacement risks than where human interaction remains central, such as care work. These variations are poorly understood in African labour markets, where sector-specific data on automation risk is limited.

2. Impact of AI on MSME business opportunities and independent workers' ability to access meaningful and dignified work. While global discourse often focuses on large-scale corporate automation, it is essential to understand the implications of AI for smaller economic actors, who collectively form the backbone of Africa's economy. An estimated 85% of the continent's workforce work in the informal economy which primarily comprises MSMEs as well as independent workers (including gig and platform workers).¹⁵ It is crucial to recognise the diversity within the MSME category, which ranges from a single-person survivalist business that constitutes the majority, to growth-oriented

¹³ Bloomberg (2024) A white-collar world without juniors. Available [Here](#).

¹⁴ Caribou and Genesis Analytics (2025) Preparing for AI in the BPO and ITES Sector in Africa. Available [Here](#).

¹⁵ UNDP (2022) Informal Economy in Africa: Which way forward. Available [Here](#).

medium sized start-ups. While there is potential for AI to improve or degrade the quality of small businesses and gig workers, there is a lack of empirical evidence on its actual impact. This includes not just income, but also income stability, working conditions and occupational safety. The risk that algorithmic management and opaque wage-setting could undermine worker agency is a major concern that requires empirical investigation. This research should also examine AI's differential impacts affecting different demographics in relation to gender, age, geography, digital literacy for example. Research in this topic would support policymakers in establishing regulation that guards against AI platforms institutionalising precarious work.

Research Questions and Indicative Research Outcomes

More detailed hypothetical research prototypes for this theme are outlined [here](#).

RQ1.2.1 What is the impact of AI on the availability and nature of pathways into earning opportunities across Africa?

This research could provide qualitative and quantitative data on how entry-level job descriptions and required competencies are changing across key industries. Research on this topic would support policymakers in ensuring populations are adequately equipped to be competitive in the labour market.

RQ1.2.2 **What is the impact of AI tools and platforms on MSME business opportunities and independent workers' ability to access meaningful and dignified work across Africa?**

How does this differ across dimensions such as income, income stability, working hours and occupational safety? What is the differential impact when considering gender, education levels, and geographic location? What is the differential impact across MSME sizes and life stages?

This research could empirically compare the economic stability and labor patterns of MSMEs and independent workers, differentiating between those using AI-enabled digital platforms and those not. It could quantify income fluctuations and working hour variations for both groups to assess AI adoption's impact on precariousness, specifically regarding income stability and total labor time.

Topic 1.3: Impact of AI on poverty

The changes occurring in labour markets due to AI are hypothesised to have a direct bearing on poverty and economic vulnerability. Sub-Saharan Africa faces a significant poverty crisis, with World Bank forecasts indicating that by 2030, the region could be home to 90% of the world's extremely poor, the only global region where extreme poverty is projected to increase.¹⁶ Whether AI lifts people out of poverty by creating new, higher-value opportunities or exacerbates it by displacing workers and suppressing wages is a critical, unanswered question. This research area connects the impacts on labour directly to household-level economic outcomes.

¹⁶ World Bank (2024) Pathways out of Poverty. Available [Here](#).

Core Research Gaps

1. **The link between AI-driven livelihood changes and poverty levels:** There is a major evidence gap in empirically connecting the adoption of AI in the economy to measurable changes in poverty rates and household resilience. While it is assumed that positive changes in employment and income will reduce poverty, this link needs to be explicitly investigated to guide pro-poor policy. Analysis could link macro or sectoral data on AI adoption with micro-level household survey data. The tangible data points emerging from this research could include calculations on the change in the poverty headcount ratio and the poverty gap in regions with high versus lower AI penetration.

Research Questions and Indicative Research Outcomes

More detailed hypothetical research prototypes for this theme are outlined [here](#).

RQ1.3.1 What is the impact of AI on poverty levels and economic vulnerability in Africa?

This research could provide econometric analysis linking AI adoption rates in key sectors to household-level poverty data. Indicative outputs may include calculations on the change in the poverty headcount ratio and the poverty gap in regions with high versus low AI penetration.

Theme 2: Productivity

Macroeconomic productivity gains are critical for Africa to reduce poverty, create jobs, achieve sustainable growth, and build resilience against shocks. Productivity is a measure of the efficiency with which a country combines capital and labour to produce more with the same level of inputs.¹⁷ For example, a factory that produces twice as many goods with the same number of workers and machines has doubled its productivity. Productivity is important because it is a key determinant of living standards in the long term. Increasing productivity over time allows businesses to produce more goods and services per unit of input. This ultimately enables higher wages, aids economic growth, increases profitability, and boosts tax revenues.¹⁸

While the continent's economic growth is accelerating, with projections of 3.9% in 2025 and 4% in 2026, these gains are set against structural economic weaknesses, including small domestic markets, limited local value addition, reshoring of manufacturing, dependence on primary commodities and - automation through AI.¹⁹ The recent decline in Official Development Assistance (ODA), projected to fall by as much as 40-60% by 2030, further underscores the urgent need for the continent to strengthen its domestic resource mobilisation and internal economic foundations.²⁰ Boosting domestic productivity is therefore necessary for generating government revenue and ensuring long-term resilience and growth.

AI presents a monumental economic opportunity. Projections indicate that AI could contribute up to \$15.7 trillion to the global economy, and while estimates vary, the potential gains for Africa are substantial.²¹ Research from IDRC and Genesis Analytics has estimated a potential \$2.9 trillion boost for

¹⁷ Reserve Bank of Australia (2024) Productivity: Explainer. Available [Here](#).

¹⁸ Office for National Statistics (2025) How Productive is your Businesses? Available [Here](#).

¹⁹ African Development Bank Group (2025) African Economic Outlook 2025 - Africa's short-term outlook is resilient despite growing economic and political headwinds. Available [Here](#).

²⁰ Dalberg (2025) Our Five Year Projections on Overseas Development Aid Funding. Available [Here](#).

²¹ PWC (2019) Sizing the Prize: PWCs Global Artificial Intelligence Study: Exploiting the AI Revolution. Available [Here](#).

the continent, while McKinsey forecasts that Gen AI alone could unlock between \$61 billion and \$103 billion in value.²²

However, there is major uncertainty regarding how, or even if, this productivity dividend will be realised. General forecasts fail to capture the granular realities of the impact of AI adoption across Africa. A deeper and more nuanced understanding is required to examine the potential productivity impacts for African economies. Within this theme, there is only one core research gap:

1. **The impact of AI on productivity gains**, from firm-level dynamics to its aggregate effect on macroeconomic growth and structural transformation

Topic 2.1: Impact of AI on Productivity Gains

Agenda 2063, the African Union's development blueprint, places structural transformation at the core of its vision for “The Africa We Want.”²³ This process of shifting economies from a reliance on primary commodities to diversified, high-value industrial and service sectors is critical for the continent's future. AI, with its capacity to boost productivity across sectors, presents a powerful engine for this transformation. The central hypothesis is that AI adoption in key sectors can drive significant productivity gains, leading to GDP growth and enhanced global competitiveness. Additionally, emerging research highlights the productivity potential for MSMEs, providing an opportunity for smaller economic actors to contribute to

Core Research Gaps

While the potential of AI is widely acknowledged, the evidence base required for strategic policy and investment is incomplete.

1. **Macro-level understanding of productivity gains of AI:** McKinsey's research into the economic value of Gen AI across sectors finds that 40 percent of surveyed institutions have either started to experiment with Gen AI or have already implemented significant solutions.²⁴ While it is clear that businesses across the continent have started to harness AI tools, there is little research on the productivity impacts of these technologies. Current research offers compelling but incomplete continent-wide data, but typically focus on a subset of AI or are too broad to identify which specific sectors are likely to be the primary national growth drivers.

Research in this sub-topic could produce calculations around Total Factor Productivity (TFP) calculations for key African economies, comparing trends in sectors with high AI penetration versus low AI penetration. Research could also include a decomposition analysis to isolate the contribution of AI to labour productivity growth, distinct from capital investment, allowing for a greater understanding of how AI impacts 'output by worker'. Furthermore, a research gap exists in providing a comprehensive analysis of the broader societal impacts of macro productivity gains. For example, research could model the potential "gender dividend" unlocked if AI-driven efficiencies in social services, childcare, or health administration lower the cost and increase the accessibility of care, enabling greater female participation in the workforce and boosting overall economic productivity and tax revenue.

2. **Systematic Measurement of Firm- and Sector-Level Productivity Impact.** While studies from organisations like the GSMA provide valuable case studies of current AI applications in Africa, there is a lack of systematic research that measures the impact of AI on increasing productivity at the sector and firm level. While robust impact testing in the agricultural sector has shown

²² IDRC and Genesis Analytics (2024) AI in Africa: The state and needs of the ecosystem. Executive Summary. Available [Here](#); Mckinsey (2025) Leading, not lagging: Africa's gen AI opportunity. Available [Here](#).

²³ African Union (2013) Agenda 2063: The Africa We Want. Available [Here](#).

²⁴ Mckinsey (2025) Leading, not lagging: Africa's gen AI opportunity. Available [Here](#).

that AI significantly increases productivity, beyond agriculture, there is a lack of evidence to understand firm-level adoption, operational efficiency, and innovation impacts in other key sectors such as mining, telecommunications, banking, retail and more.²⁵ Additionally, sectoral studies to date have typically focused at the national level.

Research here could utilise firm-level panel data generating metrics such as; 1) percentage change in operational efficiency, e.g., reduction in production time, cost per transaction or 2) return on investment (ROI) for AI capital expenditure.

Figure 4: Select research examining productivity impact of AI at the sectoral and national level

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Impact of artificial intelligence on the total productivity of agricultural factors in Africa

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Assessing the Impact of Artificial Intelligence on Productivity and Global Market Competitiveness: A Case Study of Nigeria

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Has generative AI become of age: Assessing its impact on the productivity of SMEs in South Africa

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²⁵ Olivier Donfouet & Ibrahim Ngouhou (2024) Impact of artificial intelligence on the total productivity of agricultural factors in Africa. Available [Here](#).

- 3. Impact of AI on the productivity of MSMEs and individual workers:** The central hypothesis is that AI can provide transformative tools for MSMEs and individual workers, helping to overcome traditional barriers, boost productivity, and increase their economic contribution. While the research question in Labour and Livelihoods examines AI's impact on MSMEs and independent workers through the lens of income, job quality, and opportunity, here the focus shifts to examining AI's potential to boost the productivity of MSMEs and independent workers and, in turn, their aggregate contribution to macro-economic output. While emerging anecdotal evidence and case studies highlight the potential of AI tools which can optimise inventory, provide dynamic pricing suggestions or facilitate micro-credit through alternative data scoring, there is little to no research on if these aggregate to influence macroeconomic growth.

Research Questions and Indicative Research Outcomes

More detailed hypothetical research prototypes for this theme are outlined [here](#).

-
- RQ2.1.1** What is the net productivity impact of AI across Africa, and which sectors are likely to emerge as the primary drivers of this growth?

This research could deliver macroeconomic analysis (TFP calculations, GDP growth) for key African economies, comparing trends in sectors with high and low AI penetration. It could also produce a sectoral growth map, identifying the industries most likely to drive AI-led productivity gains, which would help policymakers to focus industrial strategy and investment.

-
- RQ2.1.2** What is the impact of AI technology adoption on firm-level performance indicators, including productivity, operational efficiency, and innovation, within key African sectors?

This research could yield firm-level panel data or case studies that quantify the return on investment (ROI) for AI capital expenditure in key sectors. Key metrics might include the percentage change in operational efficiency (e.g., reduction in production time, cost per transaction) and the rate of new product or service development attributable to AI adoption.

-
- RQ2.1.3** What is the impact of AI on the productivity of Africa's MSMEs and individual workers and their resulting contribution to macroeconomic growth?

This research could generate quantitative and qualitative data on the performance of MSMEs. Key data points may include the percentage increase in monthly turnover for MSMEs post-AI adoption²⁶ data on time saved on administrative tasks (e.g., inventory, accounting), or a 'credit access score' measuring the success rate of formal loan applications for businesses using AI-driven fintech.

Theme 3: Africa in the Global AI Ecosystem

AI is reshaping the global economy, but its benefits and burdens are being distributed unevenly, threatening to deepen existing divides between and within countries. PWC's 2017 report projects that

²⁶ This could be proxied by technology enablement or adoption

85% of AI-driven economic gains could accrue to North America, China, and Europe compared to 8% to 'Africa, Oceania and the rest of Asia'.²⁷ This is not just an economic risk but a structural one, giving rise to concerns about "AI colonialism," where Africa is a consumer rather than producer of AI technology.

In order to promote policy around fostering more equitable global AI ecosystems research is required across one key area:

1. **The impact of current AI deployment on Africa's role within the global AI ecosystem,** focusing on the economic implications of data ownership, value chains, and wealth extraction

Sub-Theme 4.1: The impact of AI on Africa's role within the global AI ecosystem

The central hypothesis is that without deliberate intervention, the current trajectory of AI development will entrench new forms of dependency, sometimes characterised as "AI colonialism." This is hypothesised to occur through two primary channels: first, through extractive economic models where African data is harvested to create value and wealth that accrues disproportionately to global technology firms; and second, through the widespread deployment of culturally misaligned AI models that predominantly reflect Western norms, languages, and contexts, potentially marginalising local knowledge systems.

Core Research Gaps

1. **Data economy and extractive relationships:** While the risk of "extractive relationships" is frequently noted, there is a lack of empirical research that systematically maps the AI data value chain as it relates to Africa. There is a gap in understanding how data from African users is collected, processed, and monetised by global firms and what the net economic impact, in terms of value created versus value extracted, is for African economies. This evidence gap places African policymakers at a severe disadvantage in global negotiations. Without a clear, empirical understanding of the value of their citizens' data and how that value is being extracted, they cannot formulate effective data governance policies, negotiate fair terms for market access, or design strategies to capture a greater share of the AI value chain for their own economies.
2. **Mapping "Homegrown" vs. "Imported" AI:** Consultations consistently highlighted the need to make Africa a 'producer' rather than a 'consumer' of AI tools. Measuring the prevalence of locally developed versus imported AI technologies is crucial to understanding the future trends and impacts of locally-developed AI. A thriving homegrown AI sector creates high-value jobs, retains capital within the continent, and fosters a competitive advantage in the global digital economy. This research could produce a "State of the African AI Industry" report detailing the market share of local versus international AI vendors. This, in turn, would arm policymakers with ecosystem mapping for focused industrial policy and investment.

Research Questions and Indicative Research Output

More detailed hypothetical research prototypes for this theme are outlined [here](#).

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- RQ3.1.1** What is the impact of current African AI data ownership and usage models on creating one-sided economic benefits for the Global North?

This research could produce a value chain analysis that maps the flow of data from African users to global technology firms. Key outputs might include an estimation of the economic value generated from African data versus the amount of that value retained within the

²⁷ PWC (2019) Sizing the Prize: PWCs Global Artificial Intelligence Study: Exploiting the AI Revolution. Available [Here](#).

continent, providing policymakers with empirical evidence for global negotiations and data governance frameworks.

RQ3.1.2 What is the current distribution of "homegrown" versus "imported" AI solutions across key African markets, and how does this distribution correlate with economic outcomes like productivity and employment?

This research could deliver a report providing descriptive statistics on the adoption of local versus international AI vendors in key sectors. This data could be correlated with economic indicators to analyse the impact of different AI adoption pathways, informing policies aimed at fostering a more self-sufficient and competitive local AI ecosystem.

Theme 4: Social Impact and Public Service Delivery

AI presents a dual potential, on one hand, it offers transformative tools to address long-standing challenges in public service delivery, with the potential to make essential services more equitable and accessible. On the other hand, the rapid proliferation of AI, particularly generative models, introduces significant risks to social cohesion by potentially amplifying misinformation and enabling new forms of identity-based violence. Therefore, to understand AI's effect on social outcomes, this theme focuses on two critical and areas of research:

1. **The impact of AI on equitable public service delivery**, specifically AI's potential to create more efficient, inclusive and equitable public services.
2. **The impact of AI on social cohesion**, particularly in relation to misinformation and identity-based violence.

Topic 4.1: Impact of AI on Equitable Public Service Delivery

The central hypothesis is that AI can make essential public services, including healthcare, education, and social grants, more accessible, efficient, and tailored to the needs of the poor, thereby directly reducing poverty.

Core Research Gaps

1. **AI's Impact on pro-poor service delivery:** While there is emerging research on AI's capacity to make specific public services more efficient, these are primarily case study oriented. Additionally, current research does not test the impact of AI-enabled services and their ability to establish more effective, equitable and inclusive public service delivery. Similarly, risks of exclusion and algorithmically-generated inequality are poorly understood. The consequences of this being that policymakers may not be able to design policies that mitigate these risks, and that vulnerable populations may be disproportionately affected by the negative consequences of AI-enabled public services.

Research Questions and Indicative Research Output

More detailed hypothetical research prototypes for this theme are outlined [here](#).

RQ4.1.1 What is the impact of AI on the design and delivery of public services across Africa (e.g., social grants, healthcare, education) for the most vulnerable populations?

This research could provide a macro-level analysis of the impact of AI on public sector transformation across different African nations. The indicative output may be a report outlining different public service adoption models and modelling the relationship between national-level AI adoption in public services and key macroeconomic and social indicators, with sectoral case studies. The research could inform digital public service delivery and e-government roadmaps by identifying scalable models for AI-driven public service reform.

Topic 4.2: Impact of AI on social cohesion

The increasing sophistication and accessibility of AI tools, particularly Gen AI, have introduced new dimensions to the challenges of misinformation, disinformation, and various forms of violence, with specific implications for African societies. Gen AI has emerged as a powerful tool for creating highly realistic and manipulative content, including text, images, audio, and video, which can be deployed to spread false narratives and undermine democratic processes.

The key hypothesis is that AI technologies are not only being used to spread political disinformation but are also becoming potent tools for perpetrating and amplifying gender-based, racial, and community-based violence. Additionally, a critical vulnerability in the African context is the continent's rich linguistic diversity. Many African languages are underrepresented in the datasets used to train AI models and in the development of content moderation tools. This means that AI-generated disinformation and hate speech in local languages often proliferate with fewer checks and balances compared to content in globally dominant languages like English.

Core Research Gaps

1. **AI's impact on perpetrating and amplifying identity-based violence across Africa:** While foundational work by organisations such as Research ICT Africa and UNESCO has been crucial in identifying how Gen AI can exacerbate gender-based violence, critical gaps remain in both geographic and thematic scope.²⁸ This research is either global or national in context, creating a need for studies with a broader continental basis. Additionally, while the focus on gender is vitally important, AI is also a potent tool for amplifying other forms of identity-based violence targeting ethnic, religious and other marginalised groups. These areas are comparatively under-researched yet are critical to understanding social cohesion and conflict across the continent. Research on this topic areas would support policymakers to design effective regulations, pre-empt conflict, and hold platforms accountable for protecting vulnerable communities.

Existing research examining impact of Gen AI on Gender-Based Violence

²⁸ Research ICT Africa (2025) The impact of social media and Generative AI on gender-based violence. Available [Here](#); UNESCO (2024) Fight against Technology-Facilitated Gender Based Violence. Available [Here](#).



The Impact of Social Media and Generative AI on Gender-Based Violence

Zara Schroeder, Drew Haller, Scott Timcke and Andrew Rens



**“Your opinion
doesn’t matter,
anyway”**

**Exposing Technology-Facilitated
Gender-Based Violence in an Era of Generative AI**

Research Questions and Indicative Research Output

More detailed hypothetical research prototypes for this theme are outlined [here](#).

RQ4.2.1 What is the impact of AI on the prevalence, nature, and mitigation of gender-based, racial, and ethnic violence, both online and offline, in African societies?

This research could move beyond cataloging individual incidents to model the systemic impact of AI-driven disinformation and identity-based violence on national-level outcomes. Key metrics may include correlations between the prevalence of such content and indicators of political polarization, electoral integrity, and inter-communal trust. The research could also provide a comparative analysis of the effectiveness of national policy frameworks and institutional responses, offering strategic recommendations to governments on building national resilience against AI-facilitated social fracturing.

4 | Annex 1: Hypothetical Research Prototypes

This annex provides examples of the types of research studies that could be supported under each theme of the learning agenda. Each proposal includes a potential title, methodology, and the key data points it would generate, highlighting its value for policymakers.

Theme 1: Labour and Livelihoods

Net Impact on Employment Opportunities

1. Addressing RQ1.1.1: Net Impact & Sectoral Shifts

- **Illustrative Research Title:** The Pan-African AI Footprint: An Econometric Analysis of Sectoral Employment Shifts (2020-2025)
- **Methodology:** A continent-wide econometric study using panel data from sources like the African Development Bank, national statistical offices, and private sector data providers. The research would correlate AI investment and digital infrastructure penetration with employment and wage changes across key sectors (e.g., finance, agriculture, BPO, retail, as well as emerging sectors like renewable energy for data centres and data service providers) in a representative sample of African economies.
- **Data Points for Policymakers:**
 - **Net Employment Impact Scorecard:** A country-by-country breakdown of current and expected net job gains/losses attributable to AI over the next five years.
 - **Sectoral Growth/Contraction Map:** A visual map identifying which sectors in which regions are becoming engines of AI-driven job creation versus those facing significant displacement risk.
 - **Wage Premium/Penalty Analysis:** Data showing the average wage difference for roles with high AI augmentation compared to traditional roles within the same sector.
 - **Emerging Value Chain Analysis:** An analysis identifying opportunities in upstream/downstream sectors, mapping the potential for 'green jobs' created to meet AI's energy demands or new enterprises focused on African data collection, annotation, and monetisation.

2. Addressing RQ1.1.2: Specific Job Roles & Demographics

- **Illustrative Research Title:** Work Reimagined: A Multi-Region Assessment of AI's Impact on the African Workforce
- **Methodology:** In-depth comparisons of AI-adopting firms in key sectors (e.g., telecommunications, banking, the creative industry, green economy) across multiple African regions. The study would combine process mapping (before/after AI), on-site employee interviews (disaggregated by gender, age, and role), and analysis of anonymised HR data to create a rich picture of AI's impact.
- **Data Points for Policymakers:**
 - **Task Automation Profile:** A report detailing the percentage of tasks automated versus augmented, or newly created by AI in specific job roles (e.g., "In customer service, 40% of inquiry tasks were fully automated, while 60% were augmented, requiring human oversight").
 - **Demographic Impact:** A key finding, e.g., "Across all regions studied, women were disproportionately affected by the automation of administrative roles, while new

AI-related technical roles were predominantly filled by men, highlighting a continent-wide upskilling challenge."

Employment Opportunity Pathways and Access to Work

1. Addressing RQ1.2.1: Pathways to Earning Opportunities

- **Illustrative Research Title:** Navigating the New Entry Point: The Changing Landscape for Africa's Young Professionals in Corporate and Creative Sectors
- **Methodology:** A mixed-methods study combining large-scale data analysis of online job portals and freelance platforms with qualitative interviews with university careers services, recruitment agencies, and youth employment hubs across several African countries, with a specific focus on pathways in digital media, design, and content creation.
- **Data Points for Policymakers:**
 - **Entry-Level Opportunity Index:** A metric tracking the decline or growth of entry-level job postings in AI-exposed fields, including key creative professions, since 2022.
 - **Skills Demand Dashboard:** An analysis of job descriptions showing the rise of required competencies like "AI tool proficiency" and "prompt engineering" for entry-level roles across various sectors (e.g., 'experience with Midjourney for graphic design' or 'AI-assisted copywriting').

2. Addressing RQ1.2.2: MSME business opportunities and independent workers' ability to access meaningful and dignified work

- **Illustrative Research Title:** A Comparative Study of AI's Impact on Dignity and Inequality among Independent Workers and MSMEs
- **Methodology:** A comparative study across two or three major African cities. The research would use a combination of worker diaries, surveys, and matched-pair analysis, comparing the income volatility, working hours, safety, and perceived autonomy of independent workers and MSMEs using AI-enabled platforms (e.g., gig work, e-commerce) versus their counterparts operating through traditional, non-platform-based models.
- **Data Points for Policymakers:**
 - **Income Volatility Score:** A comparative metric showing the week-to-week income fluctuation for platform-based workers versus workers in traditional MSMEs or independent roles in the same trade.
 - **Dignity at Work Index:** A composite score based on survey data measuring workers' perceived autonomy, safety, and access to recourse or support.
 - **Inequality Gini Coefficient:** A calculation of income inequality within the segment of platform-based workers and MSMEs, identifying if benefits are concentrated among a small group of high-rated workers.

The Link to Poverty

1. Addressing RQ1.3.1: Poverty Levels and Economic Vulnerability

- **Illustrative Research Title:** From Code to Livelihoods: An Empirical Analysis of AI Adoption and Household Poverty in Africa

- **Methodology:** An econometric study linking macro-level data on sectoral AI penetration with micro-level household panel survey data from sources like the Living Standards Measurement Study (LSMS). The study would use statistical models to estimate the causal impact of AI-driven economic changes on household income, consumption, and poverty status.
- **Data Points for Policymakers:**
 - **Poverty Elasticity of AI:** A calculation estimating the percentage change in the national poverty rate for every 10% increase in AI adoption in a key economic sector.
 - **Household Resilience Score:** A metric showing whether households in regions with high AI adoption are more or less resilient to economic shocks compared to those in low-adoption regions.
 - **Policy Intervention Scenarios:** An analysis modelling the potential mitigating effect of government interventions. This would simulate how different policy responses, such as targeted social safety nets, reskilling subsidies, or the use of AI to improve social service delivery, could buffer households against the negative economic shocks of AI-driven job displacement.

Theme 2: Productivity Gains

Sector and Firm-Level Productivity

1. Addressing RQ2.1.1 & RQ2.1.2: Sector and Firm-Level Productivity

- **Illustrative Research Title:** The AI Dividend: Measuring Firm-Level Productivity and Macroeconomic Growth in Africa
- **Methodology:** A two-tiered study. The macro component would conduct a Total Factor Productivity (TFP) analysis for key African economies, comparing trends in sectors with high versus low AI penetration. The micro component would use firm-level panel data from a sample of businesses to generate metrics on the direct impact of AI investment on efficiency and profitability.
- **Data Points for Policymakers:**
 - **AI Contribution to GDP:** A decomposition analysis isolating the percentage point contribution of AI adoption to national labour productivity growth.
 - **Return on AI Investment (ROI):** An industry-level report showing the average ROI for AI capital expenditure in sectors like finance, manufacturing, and logistics.
 - **Operational Efficiency Gains:** Metrics such as the percentage reduction in production time or cost-per-transaction for firms that have adopted AI.

2. Addressing RQ2.2.1: Productivity of MSMEs

- **Illustrative Research Title:** Unlocking Hidden Value: An Experimental Study on AI's Productivity Impact on MSMEs
- **Methodology:** A field experiment, possibly a randomised control trial (RCT), where a sample of informal MSMEs are given access to and training on simple AI-powered tools (for inventory, pricing, or fintech access). The study would track their performance against a control group over 6-12 months.
- **Data Points for Policymakers:**

- **Turnover Growth Rate:** The percentage increase in monthly turnover for MSMEs post-AI adoption compared to the control group.
- **Credit Access Score:** A metric measuring the number of formal loan applications, success rates, and interest rates obtained by businesses using AI-driven fintech versus those that do not.

Theme 3: Africa in the Global AI Ecosystem

1. Addressing RQ3.1.1 & RQ3.1.2: Africa's Position in the Global AI Value Chain

- **Illustrative Research Title:** Digital Sovereignty or Data Colonialism? Mapping Africa's Position in the Global AI Value Chain
- **Methodology:** A comprehensive value chain analysis combined with an industry mapping exercise. The research would map how data from African users is collected, processed, and monetised by global firms. It would also produce descriptive statistics measuring the prevalence and market share of locally developed versus imported AI technologies in key African markets.
- **Data Points for Policymakers:**
 - **Data Value Extraction Estimate:** An estimate of the economic value generated from African data versus the amount of that value retained within the continent.
 - **Comparative analysis:** A report detailing the market share of local versus international AI vendors in key sectors, tracking this over time to measure progress towards a more self-sufficient ecosystem.

Theme 4: Social Impact and Public Service Delivery

Public Service Delivery

1. Addressing RQ4.1.1: Equitable Public Service Delivery

- **Illustrative Research Title:** The AI-Enabled State: A Comparative Analysis of National Public Sector Transformation Strategies in Africa.
- **Methodology:** A comparative multi-country study analysing national-level AI strategies for public service reform. The research would use public expenditure analysis to track investment in AI for service delivery and correlate this with national development indicators (e.g., Human Development Index, public health outcomes, education access rates) over time. This would be supplemented with interviews with policymakers to understand the drivers and barriers to scalable, equitable AI adoption at a national level.
- **Data Points for Policymakers:**
 - **Public Sector AI Transformation Model:** A report outlining and comparing different national models for integrating AI into public services, identifying common challenges and success factors.
 - **Return on Public Investment in AI:** A macro-level estimate correlating national spending on AI for public services with changes in public sector efficiency and key social outcomes (e.g., "A 1% increase in public AI investment was associated with a 0.5% improvement in national literacy rates").

- **National Strategy Scorecard:** An index evaluating the comprehensiveness of national AI strategies in addressing issues of equity, scalability, and inclusion in public service delivery.

Social Cohesion

2. Addressing RQ4.2.1: Social Cohesion

- **Illustrative Research Title:** AI, Social Fracturing, and National Resilience: Assessing Policy Effectiveness in Africa.
- **Methodology:** A mixed-methods comparative study across several African nations. The research would first correlate the prevalence of AI-driven disinformation and identity-based hate speech with national-level indicators of social cohesion, such as electoral integrity reports, public trust surveys, and documented incidents of inter-communal conflict. Secondly, it would conduct a systematic policy analysis of the legal and regulatory frameworks each country has implemented to combat these harms, supplemented by interviews with electoral commissions, law enforcement, and human rights bodies.
- **Data Points for Policymakers:**
 - **National Policy Effectiveness:** A comparative analysis evaluating the effectiveness of different national strategies (e.g., content moderation laws, digital literacy campaigns, cooperation with tech platforms) in mitigating the measured harms.
 - **Institutional Response Capacity Audit:** An assessment of the capacity of national institutions (like electoral commissions and judiciary) to investigate and respond to AI-facilitated threats, providing targeted recommendations for capacity building.



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