Caribou Digital

G:ENESIS UNLOCKING VALUE

mastercard foundation

Preparing for AI in the BPO and ITES Sector in Africa

A research collaboration between Caribou Digital and Genesis Analytics, conducted in partnership with the Mastercard Foundation

Preparing for AI in the BPO and ITES Sector in Africa

Authors

This report was written by Ceri Louise Scott, Grace Natabaalo, Jonathan Donner, and Jon Beardsley.

Recommended Citation

Caribou and Genesis Analytics. "Preparing for AI in the BPO and ITES Sector in Africa." Caribou Publishing, February 2025. https://www.caribou digital.net/publication/preparing-for-ai-in-the-bpo-and-ites-sector-in-africa/.

Acknowledgements

We are grateful to the Mastercard Foundation for supporting this work, for Rodwell Mangisi, Sharon Analo Okwomi, Muchemi Wambugu for suggestions and engagement throughout the research process. Special thanks to Hèlenè Smertnik for project oversight and to Shelby Brewster for editing. We are grateful to the experts who participated in the scenario workshops, and to the twenty young workers for sharing their experiences and perspectives with Caribou Digital.

Caribou delivers fund management, learning partnerships, and research, advisory, and evaluation services, supporting organizations worldwide to build more inclusive and ethical digital economies.

www.caribou digital.net

Genesis Analytics

In a world undergoing convulsive technological and political change, Genesis partners with key actors to deliver urgent, lasting impact in critical areas. Genesis, an impact firm founded, incorporated and headquartered in Africa, has worked in 52 African countries and more than 100 countries globally. Uniquely, Genesis is focused on the Young World—the arc of countries with young populations stretching across Africa, the Middle East, South Asia and parts of Southeast Asia.

www.genesis-analytics.com

This report was produced by Caribou in partnership with the Mastercard Foundation. The views presented in this paper are those of the authors and do not necessarily represent the views of the Mastercard Foundation.

Information about providers and services contained in this report does not constitute endorsement or recommendation by the authors, the Mastercard Foundation, or Caribou. Quotes have been edited only for clarity and brevity.

Accessibility

This PDF has been designed using Adobe's PDF accessibility evaluation tool, a checklist of considerations to support compliance with the Web Content Accessibility Guidelines (WCAG) 2.1 Level AA, among the most comprehensive and widely-used accessibility standards for digital content.

Cover image © Jacob Wackerhausen / iStock

Published February 2024

Contents

Abbreviations

AI	artificial intelligence
AGI	artificial general intelligence
ATM	automated teller machine
BPO	business process outsourcing
CGAR	compound annual growth rate
CRM	customer relationship management
GBS	global business services
GISC	Global Impact Sourcing Coalition
HITL	humans in the loop
ITES	information technology–enabled services
IVR	interactive voice response
KYC	know your customer
LLM	large language model
NLP	natural language processing
QA	quality assurance
ROI	return on investment
WFM	workforce management

Executive summary

The business process outsourcing (BPO) and information technology–enabled services (ITES) sector is a vital source of employment for Africa's young workforce, supported by government initiatives to attract global outsourcing demand.

Countries including South Africa, Rwanda, Kenya, Nigeria, and Uganda have prioritized the sector, with ambitious plans to create millions of jobs. Currently, Africa's sector workforce stands at just over 1 million, representing 2% of global supply. The sector's job creation potential is considerable. Increasing Africa's market share by 10 percentage points could generate 5 million direct and 7 million indirect jobs. Such growth is possible if Africa's sector follows similar trajectories to India and the Philippines. However, current projections estimate a more modest additional 1.8 million direct jobs created by 2030.

Putting Africa's BPO/ITES sector on a more accelerated growth path to realize its job creation potential requires investment in skills, connectivity, office space, and supplies. Arguably most importantly, it requires shifting perceptions about the quality of Africa's outsourcing offer. Investments of this magnitude aren't made quickly or easily, and artificial intelligence (AI) has thrown caution to many investors who are concerned about the technology's impact on the sector.

The rise of AI, particularly generative AI, presents a dual-edged reality. While it offers opportunities for productivity and service expansion, it also threatens jobs and fundamentally alters the work landscape. **This report, produced by Caribou Digital and Genesis Analytics in partnership with the Mastercard Foundation, examines the implications of AI adoption for Africa's BPO/ITES sector, with a particular focus on the sector's potential as a driver of youth employment.**

Findings

1 Four job families drive employment in Africa's BPO/ITES sector.

Genesis Analytics established that the African BPO/ITES sector predominantly comprises four job families—Customer Experience, ITES, Finance and Accounting, and AI Data Services—together accounting for 85% of employment. AI Data Services, the fastest-growing family, has a projected 5-year compound annual growth rate of 37%, followed by ITES (27%), Customer Experience (24%), and Finance and Accounting (9%). Customer Experience serves as a key entry point for women (56%) and youth (72%). ITES and AI Data Services also show strong youth inclusion at 68% and 70%, respectively, though workers in both families are largely male.

2 Over 40% of current tasks in the BPO/ITES sector in Africa are at risk of automation.

Task-level analysis revealed that over 40% of work in Africa's BPO/ITES sector is susceptible to automation. To assess this impact, a total of 130 unique tasks across 36 key job roles were identified, categorized, and scored based on their automation potential over a 5-year horizon. The findings show that 40% of these tasks are most at risk of automation, with significant variations across the four job families.

- The Finance and Accounting job family has one of the highest risks of automation, with 44% of current tasks identified as automatable.
- In the ITES job family, about 40% of current work is highly susceptible to automation, but more senior roles have some of the highest rates of resilience.
- The Customer Experience job family, which currently accounts for 44% of employment, has relatively high rates of automation susceptibility.
- Senior-level AI Data Services roles are the most resilient but currently account for less than 0.1% of BPO/ITES sector positions.

3 Junior roles and women workers are the most vulnerable.

Junior roles, which are most common in the sector, are highly susceptible to automation, with over half of tasks automatable. Women, who disproportionately occupy these roles, face a 10% higher automation risk than men. With AI handling increasingly sophisticated tasks, entry-level roles will likely require more than just basic digital literacy. Young Africans entering the sector will need foundational knowledge in AI and proficiency in technical tools and software to effectively interact with and manage AI systems.

4 Young workers are adapting to AI at work, exhibiting high levels of augmentation.

Young workers are already integrating AI into their daily routines, offering valuable insights into its immediate impact. Interviews with twenty workers highlight their extensive use of tools like ChatGPT, Copilot, and in-house chatbots to enhance productivity, creativity, and efficiency. These AI technologies have become essential for tasks such as coding, debugging, content generation, and customer service. These workers see AI as an assistant that simplifies repetitive tasks and allows them to focus on problem-solving and decision-making.

5 Young workers view AI as both an enabler and a potential disruptor.

While young workers appreciate how AI tools streamline their work and enhance creativity, they also worry about job security, particularly in entry-level roles most vulnerable to automation. However, many also see opportunities for growth, believing that mastering AI technologies can open pathways to higher-level roles and career advancement.

6 Scenarios highlight job transformation over wholesale displacement.

The rapid evolution of AI and uncertain sociopolitical responses to its diffusion mean it is challenging to predict exactly how AI will reshape Africa's BPO/ITES sector. Under conservative projections, sector growth and time for reskilling result in marginal automation effects. More advanced scenarios, driven by step changes in AI capabilities, result in transformative changes where traditional roles are fundamentally redefined. Drawing lessons from previous technological revolutions, job transformation rather than wholesale displacement can be expected.

Recommendations

To harness AI's benefits and mitigate its risks in the sector, the report proposes:

1. **Supporting upskilling and reskilling:** Develop training programs targeting roles most at risk of automation, focusing on AI proficiency and transferable skills. Implement strategies that promote women's access to higher-skilled roles and provide mentorship for career advancement.
2. **Supporting labor market insights:** Create a collaborative open-source platform that delivers real-time insights into job market shifts. This will help various actors such as government, skilling providers, and funders to anticipate skill shifts, track AI's impact, and align training and education systems with market demands.
3. **Advocating for responsible AI standards:** Establish industry-wide guidelines for ethical AI use and adoption, with a focus on environmental sustainability and ethical labor practices, ensuring a just and inclusive future for young workers. Establish ethical guidelines to protect workers in high-risk roles like content moderation and customer support.
4. **Investing in AI hubs with advanced infrastructure and sustainable energy to position African enterprises as global leaders in AI.** These hubs would support startups, foster cross-industry collaborations, and develop AI solutions tailored to Africa's needs, while serving as talent incubators to grow the local workforce and boost job creation.
5. **Investing in AI-powered rural and peri-urban BPO/ITES models.** A combined approach that leverages impact sourcing and innovative rural BPO/ITES models is likely necessary if rural youth in Africa to participate in the BPO/ITES sector.

Introduction

Since 2019, Norah has worked as a customer service agent in Uganda. Nine months ago, she joined a new BPO company that recently set up shop in Uganda. Norah's tasks include responding to customer inquiries via live chat from 3 p.m. to midnight. Three months into her new role, the company introduced an AI assistant to work alongside her.

"They said it was just to make the platform more efficient and make sure that we can be more productive because then you can answer more tickets faster if you're just searching in the assistant or just clicking on what the assistant has given," Norah recalls.

Now, every time a customer inquiry comes in, the AI assistant immediately suggests four possible responses. Norah selects the best one, speeding up her workflow and making her job easier. With AI's help, she's now expected to resolve at least 30 customer queries per shift, up from 20. The company has also changed the response time from 10 minutes to 2 minutes per query. "*The AI Assistant is perfect, because it makes it much faster to answer those tickets*," Norah explains.

Norah admits some concern about AI eventually taking over her role, but she remains optimistic about the importance of humans in customer service: *"[AI] cannot give you emotional interaction. In fact, 85% of the people that will text us on live chat will say they want to speak to a human being because they feel like a human being will solve the issue*."

At the same time, Norah believes AI could help her transition to more complex tasks, allowing her to grow professionally and earn more: "*The first tier of customer support should eventually completely be automated so that it's the second tier where you're speaking to humans. A lot of the stuff that I'm doing now, if it was fully automated, I could move on to tier two support, where we could get paid more.*"

As AI capabilities grow, will Norah's role evolve—or could she find herself facing the risk of job loss?

Norah's experience is part of an ongoing transformation reshaping the global Business Process Outsourcing (BPO) and Information Technology–Enabled Services (ITES) sectors, where young workers are adapting to an evolving work landscape of AI-powered tools. Norah is one of twenty young BPO/ITES employees interviewed for this report who are now working side by side with generative AI and automation tools like chatbots, ChatGPT, and Microsoft Copilot as part of their daily routines.

This report investigates the growing influence of artificial intelligence (AI) on the BPO/ITES sector in Africa, with a focus on industry's potential as a driver of youth employment.

The BPO/ITES sector has been central to employment initiatives across Africa, particularly for the continent's youth. Many African governments, including those of South Africa, Egypt, Kenya, Rwanda and Uganda, prioritize the sector in national development strategies, crafting policies and incentives to attract increasing shares of global demand. The Kenyan government plans to implement new laws and policies aimed at creating one million jobs in the sector over the next five years.[1] In early 2024, Nigeria launched the "Outsource to Nigeria Initiative," a public-private partnership designed to attract global outsourcing companies and create employment opportunities.[2] Uganda unveiled its National Business Process Outsourcing Policy in 2024 with the goal of generating 100,000 jobs for young people.[3]

This study contributes to the Mastercard Foundation's Young Africa Works Strategy, which seeks to enable 30 million young people in Africa, especially young women, to secure dignified and fulfilling employment by 2030.[4] Understanding the impact of AI on the BPO/ITES sector is crucial for developing effective strategies to support meaningful and dignified work in Africa.

1 Republic of Kenya, "Government's Plan to Create 1 Million Jobs."
2 Anyanwu, "Nigeria Launches 'Outsource to Nigeria Initiative' to Capture Share of $8.79 Trillion Global BPO Market."
3 Julian, "Uganda Government Seeks to Create 100,000 Jobs Through Business Process Outsourcing."
4 Mastercard Foundation, "Young Africa Works Strategy."

Responding to this need, this study, undertaken by Genesis Analytics and Caribou Digital, with support from the Mastercard Foundation, provides an evidence-driven analysis of AI's likely future impacts on job families within Africa's BPO/ITES sector. Given the limited research on the potential impacts of AI in the African context, this report addresses a critical knowledge gap.

Research questions and methods

The analysis combines literature reviews, stakeholder interviews, worker interviews, and scenario analyses to map AI's likely influence on job roles in the BPO/ITES sector.

Interviews and discussions focused on the following questions:

1. Given the complexity and uncertainty of how AI is evolving:
   a. What is the expected impact of generative AI adoption on jobs in the BPO/ITES sector between now and 2030?
   b. How are youth in the sector adapting to the changing AI environment?
2. What actions, in which focus areas, can ensure that the sector remains a vibrant, inclusive, and growing source of dignified and fulfilling work for African youth in the years ahead?

To match the multifaceted nature of the topic, the research team employed a mixed methods approach to understand the potential impacts of AI on the African BPO/ITES ecosystem. This approach emphasized human-centeredness and inclusion, addressing the diverse needs of different groups such as women and youth.

By exploring changes across different scenarios, the research sheds new light on the potential of AI to enhance or disrupt the BPO/ITES ecosystem in Africa, and identifies key actions including policy research, support for responsible innovations, and capacity strengthening.

The initial analytical step involved a review of the BPO/ITES sector's current landscape in Africa, focusing on the current concentration of employment and historic trends. This review was built on Genesis Analytics's extensive knowledge of the sector and encompassed analyses of various reports of the state and nature of the sector and data from the GBS.World portal.

This knowledge base was crucial in crafting the BPO/ITES job family framework, which identifies priority job families and roles across various seniority levels to assess the potential impacts of AI on these positions. The review also articulated key functions and tasks of these roles. Building on this foundation, the study then undertook an impact assessment to explore AI's potential pathways in affecting the sector.

Structure of the report

1. *The BPO and ITES in Africa* provides an in-depth look at the global and African landscapes for BPO and ITES, examining potential advantages and opportunities for growth in the sector.
2. *AI and the BPO/ITES* sector demystifies AI and explores current discourse on its potential effects on the industry globally.
3. *Priority job families and roles* introduces priority roles across seniority levels and job families that comprise BPO/ITES: Customer Experience, ITES, Finance and Accounting, and AI Data Services.
4. *Automation risk* explores the potential impacts of AI integration in the aforementioned job families over the next five years.
5. *Future scenarios of AI in BPO/ITES sector* explores three AI adoption scenarios to assess AI's potential impact on Africa's BPO/ITES sector, projecting trends across job families, seniority levels, and task types, while also examining implications for women and youth.
6. *Youth frames and experiences* presents insights from interviews with young workers in the sector, focusing on how they are adapting to AI in the workplace and their perspectives on the technology's impact on their roles.
7. The *Discussion* argues that the path forward involves preparing for changes in task composition and mix of jobs across the sector.
8. *The final section* synthesizes findings and offers strategic recommendations for policymakers, business leaders, educational institutions, and sector workers to harness AI's opportunities and mitigate associated risks.

By delivering a nuanced analysis of AI's potential impacts on Africa's BPO/ITES sector, this report aims to equip interested parties with insights necessary to navigate the forthcoming transformations, ensuring that the sector remains positioned to deliver dignified employment for African youth at scale.

The BPO/ITES sector in Africa

As a substantial and fast-growing market, the BPO/ITES sector presents a significant opportunity for African countries, offering pathways for economic growth and employment, especially for the continent's burgeoning youth population.

The global landscape

BPO/ITES encompasses a wide range of services from customer support to cloud engineering. It has become a cornerstone of the digital economy, demonstrating robust growth and creating substantial employment opportunities worldwide.

Business process outsourcing

Front-office and back-office services provided by third-party operators or in global service centers for enterprise clients.

- Customer support
- Telemarketing
- Bookkeeping
- Payroll processing
- Data entry and translation

IT-enabled services

IT services and functions that can be delivered remotely to enterprise clients.

- IT help desk support
- Software development
- Database management
- Quality assurance
- IT support and maintenance

The global BPO/ITES market has experienced remarkable growth over the past decade. In 2022, the global IT services market reached a value of US$1.1 trillion and is expected to grow at a compound annual growth rate (CAGR) of 8.2% from 2023 to 2030, spurred by increasing digitization of business processes, the need for cost-effective solutions, and rising demand for cloud computing and AI applications.[5] The current global BPO/ITES workforce exceeds 43 million.[6]

Countries like India and the Philippines exemplify the sector's potential for mass job creation. In 2021, India's BPO/ITES sector generated nearly US$200 billion in revenue, contributing 8% to the country's GDP and employing an estimated 5 million people.[7] The market is projected to achieve nearly a 10% year-on-year growth over the next 5 years, creating an additional 2.5 million jobs by 2028.[8] Similarly, in the Philippines BPO/ITES is projected to reach almost US$38 billion by 2024, up from approximately US$35 billion in 2023.[9] The sector employs over 1.5 million people, almost one-third of whom are outside of the capital city, Manila.[10]

Governments in both India and the Philippines have actively supported the sector through policies, incentives, infrastructure development, and global advocacy. Moreover, cost-effective labor and a relatively high-skilled, English-speaking workforce position these two countries to capture significant shares of the growing market.

Africa's growing BPO/ITES sector

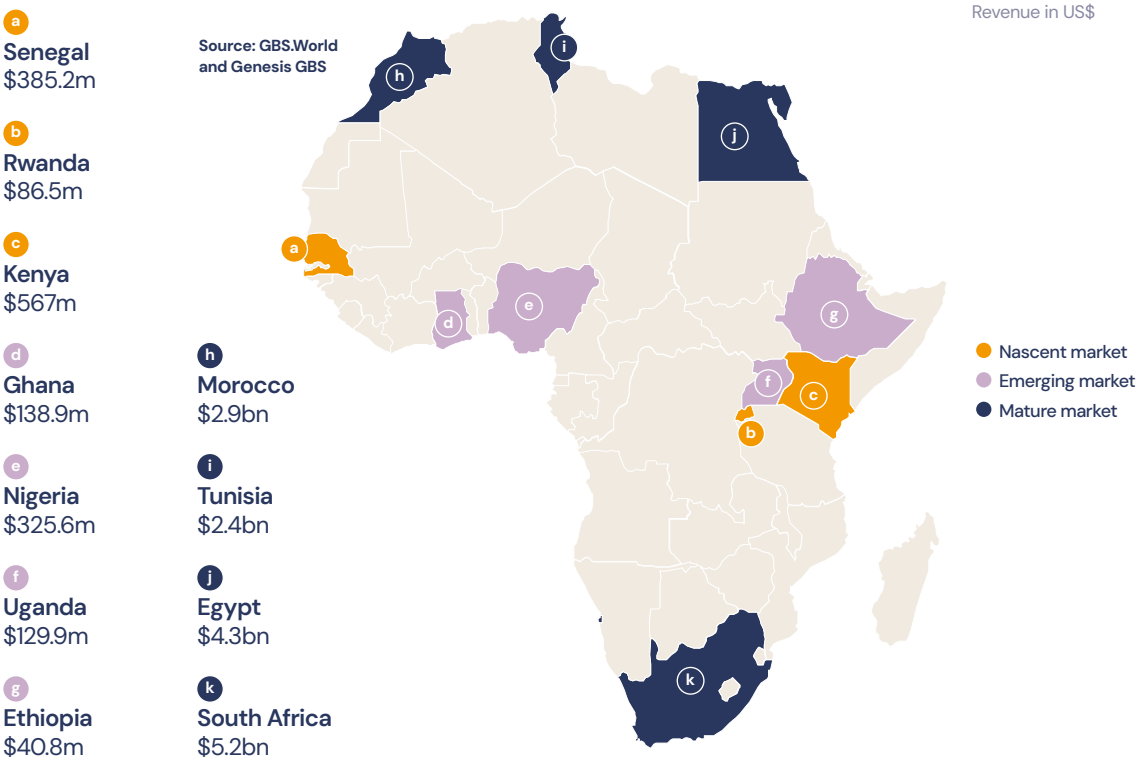
In Africa, the BPO/ITES sector is growing rapidly and positioning itself as a key player in the continent's economic landscape. The African BPO/ITES market (domestic and international segments combined) is projected to reach US$35 billion by 2028, a CAGR of 14.2%.[11] South Africa has the most established BPO/ITES market (US$5.2 billion), followed by Egypt (US$4.3 billion), Morocco (US$2.9 billion), and Tunisia (US$2.4 billion).[12] BPO/ITES markets in Kenya, Rwanda, Senegal, Ghana, Uganda, and Nigeria are experiencing notable growth, which is particularly significant as the sector serves as a vital employment pathway for Africa's youth and women.

5 Grand View Research, "IT Services Market Size, Share, Growth Analysis Report 2030."
6 GBS.World, 2023.
7 . NASSCOM, "Technology Sector in India 2022."
8 GBS.World, 2023.
9 KDCI Outsourcing, "Philippine Outsourcing Statistics (2024)."
10 Ochave, "IT-BPM Sector Revenues Increase by 10% in 2022."
11 Based on calculations by Genesis Analytics; GBS.World, 2023.
12 Based on calculations by Genesis Analytics; GBS.World, 2023.

African markets currently capture a small share of global demand, but some countries are rapidly establishing credibility.

Figure 1 ▾
Estimated size and maturity of select African IT and BPO markets (2022)

Revenue in US$



Global industry trends in the BPO/ITES market bode well for Africa's positioning:[13]

- Global buyers are increasingly seeking quality and value at lower costs, leading them to consider offshoring to more affordable locations like Africa.
- The growing importance of environmental, social, and governance factors is driving a shift toward impact sourcing, which benefits Africa due to its untapped labor market and lower attrition rates.
- Enterprise buyers are diversifying their delivery locations, moving away from concentrated regions in Asia like the Philippines and exploring opportunities in Africa.
- The rise of nearshoring and onshoring in other industries is also influencing the BPO/ITES market, potentially impacting demand for African services.

Many major industry players already see exceptional value in investing in Africa's BPO/ITES sector. Africa's language compatibility with major European and North American markets, favorable time zones, cultural affinity, and neutral accents are factors that influence major players to outsource to the continent.[14] Additionally, Africa's growing population and young, tech-savvy workforce provide a vast pool of talent, while competitive labor costs ensure cost-effective solutions.

13 GBS.World, *2023 Africa Global Business Services Benchmarking & Market Report.*
14 Genesis GBS, "Bespoke US and UK Source Market Value Propositions for South African Offshoring Providers."

The sector is a pathway to employment for youth and women

Women constitute a significant portion of the BPO/ITES workforce in many countries. For example, in South Africa, of all new export jobs (those with demand originating outside of the country) created in the sector between 2018 and 2022, 65% were for women and 89% for youth.[15]

For young Africans, BPO/ITES offers entry-point careers with skills transferable to a digital economy. Given Africa's high youth unemployment—nearly 48% in Southern Africa[16] and over 20% in North Africa[17]—this sector's potential to create jobs is critical. Entry-level roles in BPO/ITES offer salaries that far exceed national minimum wages, up to 10 times the minimum wage in some instances. Benefits and protections (e.g., paid leave, training, set salaries) often offered by BPO/ITES companies position the sector favorably as an avenue for dignified and inclusive work.

While the sector does offer job opportunities, it is crucial to address its limitations in creating employment for rural youth and the challenges faced by workers, especially those in roles exposed to harmful conditions.

Employment opportunities in BPO/ITES predominantly benefit youth in urban and peri-urban areas, where most companies in the sector are located. This urban-centric focus is not unique to BPO/ITES but reflects broader structural challenges across Africa. About 57% of sub-Saharan Africa's population lives in rural regions,[18] where agriculture employs up to 60% of youth.[19] Lack of industrial infrastructure in rural areas further hinders participation in the BPO/ITES economy. Reliable electricity, high-speed internet, and a digitally skilled workforce—essential for the sector—are typically concentrated in urban centers. Additionally, outsourcing clients in global markets often require stringent service-level agreements, including 24/7 connectivity, which draws most operators to cities, where such infrastructure is more readily available.

15 Genesis GBS, "Bespoke Us and Uk Source Market Value Propositions for South African Offshoring Providers."
16 World Bank, "Transforming Education for Inclusive Growth."
17 ILO, "Global Employment Trends for Youth 2024: Middle East and North Africa."
18 World Bank, "Rural Population - Sub-Saharan Africa."
19 ILO, "Global Employment Trends for Youth 2024: Middle East and North Africa."

Overcoming these barriers and extending opportunities to rural youth requires innovative solutions to address infrastructure gaps and ensure operational feasibility, as discussed later in the report.

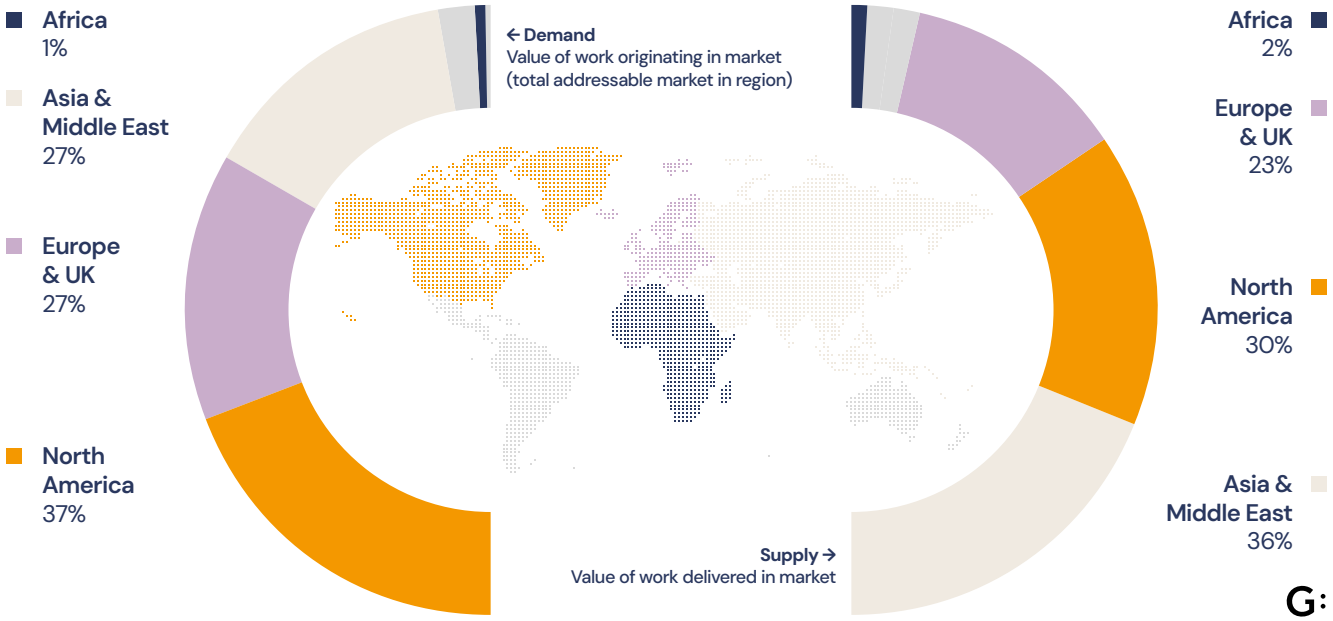
It is also important to acknowledge the dark side of the BPO/ITES sector's growth: the extremely challenging conditions faced by content moderators and AI data workers. Young content moderators in Kenya,[20] for example, have reported significant psychological strain from frequently reviewing harmful and explicit content without sufficient mental health support, often leaving them traumatized.[21] Many workers have expressed concerns about low wages.[22] AI data workers face long hours of monotonous tasks in poor working environments, further exacerbated by insufficient pay.[23] Addressing these issues is critical to ensuring the sector's growth is both sustainable and equitable, prioritizing worker well-being alongside economic advancement.

Increasing Africa's share of the global BPO/ITES market can unlock more jobs

Despite these challenges, increasing Africa's share of the global BPO/ITES market presents a significant opportunity to generate dignified and fulfilling jobs and drive economic growth across African countries, potentially replicating the success of established industry leaders like India and the Philippines.

Currently employing 1.1 million people, Africa captures only 2% of global demand, compared to Asia's 36%.[24] A 10-percentage-point increase in this share could generate 5 million direct and 7 million indirect jobs.[25] Employment creation of this magnitude is possible; under current growth projections, the BPO/ITES sector could create an additional 1.8 million direct jobs by 2030.[26]

20 These accounts are based on the experiences of former employees at Sama Source, a BPO company in Kenya that has since ceased its content moderation. "Sama March Update"; Ranta, "The Unknown Women of Content Moderation."
21 Gebrekidan, "Content Moderation: The Harrowing, Traumatizing Job that Left Many African Data Workers with Mental Health Issues and Drug Dependency."
22 Rowe, "'It's Destroyed Me Completely': Kenyan Moderators Decry Toll of Training of AI Models."
23 Graham et al., "Meet Mercy and Anita – the African Workers Driving the AI Revolution, for Just over a Dollar an Hour."
24 Based on calculations by Genesis Analytics; Genesis GBS, 2023.
25 Based on calculations by Genesis Analytics; Genesis GBS, 2023.
26 Based on calculations by Genesis Analytics; Genesis GBS, 2023.



The employment creation potential of this sector is significant. However, it will unfold against the backdrop of rapid change in the capabilities of AI, particularly generative AI. The next section discusses how AI applications might undercut this potential by automating tasks and reducing job opportunities.

Figure 2 ▲
Currently employing 1.1 million people, Africa captures only 2% of global demand.

Data as of 2023. Source: ***2023 Africa Global Business Services Benchmarking & Market Report***, GBS.World, Genesis GBS

AI and the BPO/ITES sector

The promise of AI brings both opportunities and uncertainties, especially regarding impacts on employment and the evolving nature of work. This section explores current discourse around AI's potential effects, clarifying the opportunities AI offers while addressing the concerns it raises for the workforce.

AI unpacked

Artificial intelligence (AI) refers to the development of computer systems capable of performing tasks that typically require human intelligence. AI performs complex pattern recognition and statistical analysis at unprecedented scale and speed. Machine learning algorithms, a subset of AI, enable systems to improve performance on a specific task through experience without being explicitly programmed. Deep learning, a more advanced form of machine learning, uses artificial neural networks inspired by the human brain to process data and make decisions.

Current AI capabilities are limited to narrow AI: AI designed to perform a specific set of tasks within a particular field, like image recognition or forecasting, or language understanding and generation.[27] But a single AI system cannot currently traverse different fields. This is in the realm of artificial general intelligence (AGI), where systems could perform image recognition and forecasting and language generation.

27 IBM, "What Is Artificial Intelligence (AI)?"

Narrow AI

Predictive AI focuses on forecasting outcomes based on historical data. It uses machine learning algorithms to identify patterns and make predictions about future events or behaviors. Examples of predictive AI include recommendation systems used by streaming platforms, fraud detection in financial services, and predictive maintenance in manufacturing.[28]

Generative AI, on the other hand, creates new content based on learned patterns. This type of AI can generate text, images, music, and even code.[29] Recent advancements in generative AI, such as OpenAI's GPT (Generative Pre-trained Transformer) models, have garnered significant attention due to their ability to produce human-like text and engage in complex conversations. As AI adoption accelerates globally, we explore the trends in generative AI that are reshaping industries, including BPO/ITES.

Generative AI use and adoption is on the rise

The rapid evolution of generative AI is reshaping industries and economies worldwide, with adoption rates soaring: in 2024, 65% of organizations globally are now using generative AI, up from just 33% the previous year.[30] Use of generative AI is significantly increasing in middle- and low-income economies, which contribute nearly half of global traffic to generative AI platforms.[31] Workers in sectors like BPO, ICT, finance, and professional services are the primary users.

Africa shows promising trends in AI usage, particularly in South Africa, where over 60% of workers routinely use generative AI tools, compared to 46% in the US, 44% in the UK, and 41% in France.[32] Despite this progress, 97% of AI applications in Africa remain predictive and largely focus on agriculture (49%), climate action (26%), and energy (24%), with generative AI comprising just 3% of implementations.[33]

There is growing interest and investment in generative AI on the continent. In a survey of 130 African CEOs, over 54% plan substantial investments to address economic volatility and enhance profitability, particularly in ICT, sales, marketing, and finance. However, challenges persist: 75% of CEOs surveyed cite concerns about data readiness, and 78% doubt their workforce has the skills to fully harness generative AI's potential.[34]

28 Caballar, "Generative AI vs. Predictive AI."
29 Caballar, "Generative AI vs. Predictive AI."
30 McKinsey & Company, "The State of AI in Early 2024."
31 Liu and Wang, "Who on Earth Is Using Generative AI?"
32 Oliver Wyman Forum, "How Generative AI Is Changing the Future of Work."
33 GSMA, "AI for Africa: Use Cases Delivering Impact."
34 KPMG, "Africa CEO Outlook 2024."

AI's predicted impact on jobs the global BPO/ITES sector

Globally, business support services, including BPO/ITES, is one of the top twenty industries most vulnerable to disruption from AI-driven language models.[35] One study projects that by 2026, one in ten customer interactions will be automated.[36] Avasant, an outsourcing advisory firm, estimates that up to 300,000 BPO jobs in the Philippines could be lost to AI over five years.[37]

Recent announcements from companies developing large language models (LLMs) suggest significant disruption for BPO companies that offer data annotation services. For instance, Meta's "Self-Taught Evaluator" hints at a future where AI models can autonomously assess their own performance, potentially reducing the need for extensive human oversight.[38]

While the impact of AI on job displacement is a prominent concern, many studies also highlight potential benefits for workers, especially low-skilled workers in BPO/ITES. A study examining the impact of a generative AI conversational assistant on the productivity and work experience of customer support agents found that access to the AI assistant increased productivity, measured by issues resolved per hour, by 14% on average. Productivity gains were much larger for novice and lower-skilled agents (34% increase) compared to experienced and highly skilled agents (minimal impact).[39] Similar trends in productivity gains were seen in a study of software developers in countries including Kenya and Ethiopia.[40]

Predicting the diffusion and impact of AI is difficult with such rapid and exponential advancements in the technology's capabilities.[41] Macro-level studies often fail to capture the nuanced, region-specific effects within sectors like BPO/ITES, underscoring the challenge of designing effective policies and programs amidst significant uncertainty.

The following section introduces four job families and the roles that comprise employment in the BPO/ITES sector: Customer Experience, ITES, Finance and Accounting, and AI Data Services.

---

35 Felten, Raj, and Seamans, "How Will Language Modelers like ChatGPT Affect Occupations and Industries?"
36 "Gartner Predicts Conversational AI Will Reduce Contact Center Agent Labor Costs by $80 Billion in 2026."
37 Rai, "The World's Call Center Capital Is Gripped by AI Fever—and Fear."
38 Paul, "Meta Releases AI Model That Can Check Other AI Models' Work."
39 Brynjolfsson, Li, and Raymond, "Generative AI at Work."
40 Peng et al., "The Impact of AI on Developer Productivity."
41 McKinsey & Company, *The Economic Potential of Generative AI*.

Priority job families and roles

This section draws on previous analysis and data gathered by Genesis Analytics to present a snapshot of the state of the sector and its job families by role, task, and inclusion of youth and women.

Methods

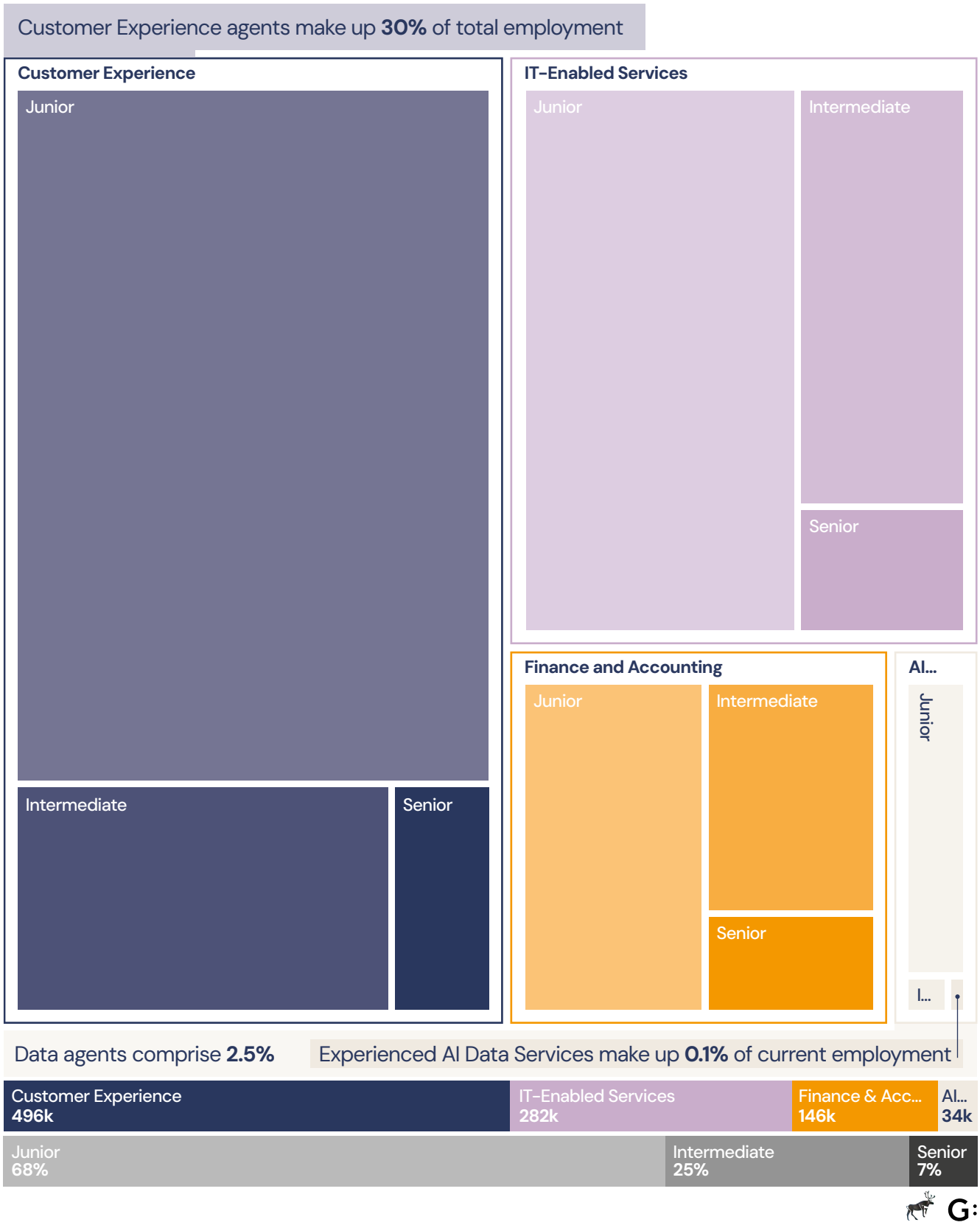
The priority roles across seniority levels and job families[42] represent the greatest share of employment in Africa's BPO/ITES sector. Data on current employment shares was drawn from GBS.World and supplemented by industry surveys and consultations.

Findings

The African BPO/ITES sector is predominantly comprised of four job families: Customer Experience, ITES, Finance and Accounting, and AI Data Services. Together, these families account for approximately 85% of the sector's employment, with most roles at the junior level.

42 A job family is a group of roles involving similar types of work, skills, and task types within an organization, often progressing in levels of responsibility and complexity.

Figure 3 ▾
Employment in Africa's BPO/ITES sector in 2024 in concentrated in Customer Experience and junior roles. Source: Genesis GBS.



One role alone—junior-level customer experience agents—comprises 30% of the total workforce. Given its prevalence, understanding and tracking potential trajectories of this role is critical.

Figure 4 ▾
Priority roles across job families and seniority levels.

Junior roles	Employed split (est.)	Intermediate roles	Employed split (est.)	Experienced roles	Employed split (est.)	Market share estimate
Customer Experience						
Customer service/ sales agents*	**30.80%**	Team supervisors*	**4.40%**	Call centre management*	**1.10%**	
Administration and support staff	**1.10%**	Quality assurance (QA) analysts	**3.08%**	Quality assurance (QA) managers	**0.66%**	
Technical support staff	**1.10%**	WFM real time analysts	**1.10%**	WFM managers*	**0.66%**	44%
IT-Enabled Services						
Tech help desk support agents	**6.75%**	Help desk supervisors*	**0.75%**	IT managers*	**0.63%**	
Administration and support staff*	**5.00%**	IT technical specialists*	**3.13%**	Senior software developers	**0.75%**	
Junior software developers*	**3.50%**	Software developers*	**3.75%**	Senior IT specialists*	**0.75%**	25%
Finance and Accounting						
Junior accountants	**1.69%**	Accountants	**3.25%**	Senior accountants	**0.78%**	
Finance clerks*	**2.02%**	Supervisors	**0.65%**	Finance management	**0.26%**	
Finance assistants and junior financial analysts*	**3.12%**	Financial analysts	**0.65%**	Senior financial specialists	**0.59%**	13%
AI Data Services						
Data agents	**2.52%**	Team leaders	**0.06%**	Delivery directors	**0.02%**	
Junior data scientists	**0.09%**	Delivery managers	**0.11%**	Lead data scientists	**0.03%**	
Junior data analysts	**0.09%**	Operations managers	**0.06%**	Other directors (HR and Finance)	**0.03%**	3%
Other						**15%**

*: Role encompasses multiple related job titles that share similar skill sets and responsibilities.

While growth rates across these job families vary considerably, all are trending upward. AI Data Services is the fastest-growing family, with a projected 5-year CAGR of 37%, highlighting its critical role in driving future innovations.[43] ITES follows with a CAGR of 27% over the same period, driven by the increasing demand for digital skills and technological expertise.[44] The projected CAGR of the Customer Experience family over the next 5 years is 24%, indicating the continued value of managing customer interactions and delivery of quality, personalized experiences. In contrast, Finance and Accounting is expected to grow at a modest CAGR of 9% in the next 5 years, underscoring its stable yet slower demand trajectory.

In terms of inclusion, the Customer Experience family shows high representation of women (56%) and youth (72%), making it a key entry point for these groups. ITES also shows strong youth inclusion (68%), but remains primarily male, with women's representation at only 33%. Similarly, AI Data Services is very youth friendly at 70% youth, but only 38% women, indicating both its potential for inclusion and areas for improvement.

Inclusion at senior levels varies substantially across job families. For instance, senior-level call center management is balanced (55% women), but only 15% of lead data scientists and senior IT specialists are women.

"Here, call centers are the most paying job sectors at the moment. If you're not working within your career, then you're gonna earn less. But if you, if you like a doctor, a teacher, all of that, then you're paying decent money. But if you are not working in a call center and you're working maybe in a retail store, then you earn less in the retail store in South Africa. But in a call center they offer us decent money compared to the retail stores. So I think that's why a lot of youngsters choose call centers."

Female Customer Experience worker, South Africa

43 AI Data Services estimates from 2024 to 2030. Data from Grand View Research.

44 Estimates for global growth from 2023 to 2027. Data from Deloitte, Genesis GBS, and Gartner.

Figure 5 ▾
Inclusion in priority job families

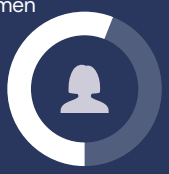
Customer Experience

This job family focuses on managing interactions between the company and its customers.

Current size: 44%

Global growth: 13%

Inclusion rates
Women
Youth



IT-Enabled Services

This encompasses a broad range of technology-driven roles that support and enhance business processes.

Current size: 28%

Global growth: 8%

Inclusion rates
Women
Youth

Finance and Accounting

This job family involves managing financial records, transactions, and reporting.

Current size: 13%

Global growth: 9%

Inclusion rates
Women
Youth

AI Data Services

This emerging job family focuses on the management and analysis of data to develop and refine AI models.

Current size: 3%

Global growth: 37%

Inclusion rates
Women
Youth

Automation risk

As AI's development continues to evolve, its impact on roles within BPO/ITES could be quite significant. Over 40% of current tasks in the sector in Africa are at risk of automation. At the same time, AI creates demand for new skills and roles focused on AI management and oversight. This section examines potential outcomes of AI integration in BPO/ITES across Africa over the next five years.

Methods

To explore the possible impacts of AI across the prioritized job roles in the four job families, a detailed methodology was implemented, focusing on comprehensive task identification, categorization, evaluation of AI's potential effects over a five-year horizon, and scoring.

Tasks and responsibilities for each role were compiled through a combination of consultations and reviews of job postings. For each role, longer lists of tasks were synthesized into five discrete task categories based on tasks' functional similarities and objectives.

To establish a baseline, as many factors as possible are held constant. Therefore, baseline scoring is based on current task composition of a job and current understanding of AI capabilities. Scoring does not factor in changes in overall demand for work. These dynamics form part of the qualitative discussion and scenario analysis in later sections.

This categorization streamlined the analysis and delivered a focused assessment of AI's impact. Each task category was defined with a detailed description to ensure that the scope of each task was well understood, facilitating a more accurate evaluation of how AI technologies might be applied.

Each task category was assessed against a set of criteria to determine the potential for automation and resilience to AI disruption over the next five years:

1. High automation potential: Tasks where AI can automate 90% or more of responsibilities.
2. Moderate automation potential: Tasks where AI can automate around half of responsibilities.
3. Minimal automation potential: Tasks that are predominantly human-driven with little to no automation of responsibilities.

Weighted average scores were then calculated based on the current shares of employment and percentage spread across the tasks' tendency to be automated by AI.

This quantitative approach was complemented by qualitative insights gathered from over twenty stakeholder interviews (see *Appendix 1*), ensuring a balanced understanding of the challenges and opportunities presented by AI. The initial scores and assessments were reviewed by industry experts and stakeholders to validate the findings. Feedback was incorporated to fine-tune the analysis, ensuring accuracy and reliability. The final task categories, descriptions, AI impacts, and scores can be found in *Appendix 5*.

Figure 6 ▾
Job family framework

Task types for junior roles	Task Types for Intermediate Roles	Task Types for Senior Roles
Customer Experience		
• Voice and text-based inquiry and complaint handling • Translation services • Troubleshooting and technical assistance • Customer training and onboarding	• Team leadership and support • Complaint resolution management • Call metrics monitoring and analysis • Workload adjustments and scheduling • Quality assurance and compliance	• Designing and implementing comprehensive customer experience solutions across multiple platforms • Evaluating effectiveness of strategies • Client and stakeholder management
IT-Enabled Services		
• Providing help desk support to solve IT issues • Coding and code documentation preparation • Network troubleshooting (remote and physical)	• Advanced troubleshooting • Optimizing system performance • Coding and code quality assurance • Identifying and correcting bugs in software	• Designing and developing software architecture • Managing and overseeing IT infrastructure and systems • Conducting IT security audits • Client and stakeholder management
Finance and Accounting		
• Data collection and data entry • Financial analysis, reporting, and auditing • Invoice and payment processing	• Data collection and data entry • Financial analysis, reporting, and auditing • Invoice and payment processing	• Data collection and data entry • Financial analysis, reporting, and auditing • Invoice and payment processing
AI Data Services		
• Data collection • Tagging and annotating data • Ensuring accuracy of data labeling • Model training • Initial data analysis	• Team leadership and support • Overseeing projects involving data labeling, model training • Resource and budget management • Identifying inefficiencies and enhancing team workflows	• Team leadership and support • Overseeing projects involving data labeling, model training • Resource and budget management • Identifying inefficiencies and enhancing team workflows

Findings

The analysis reveals that based on current AI capabilities, just over 40% of tasks performed by workers in the BPO/ITES in Africa are at risk of automation. To assess this impact, a total of 130 unique tasks across 36 key job roles were identified, categorized, and scored based on their automation potential over a 5-year horizon. The findings show that 40% of these tasks are most at risk of automation, with significant variations observed across the four job families. This signals considerable reengineering of processes that have traditionally formed the backbone of many roles. These advancements promise to enhance efficiency, streamline workflows, and reduce costs. Advancements also, rightly so, raise concerns about job loss.

Given current AI capabilities, at least 40% of current tasks in Africa's BPO/ITES sector are at risk of automation by 2030.

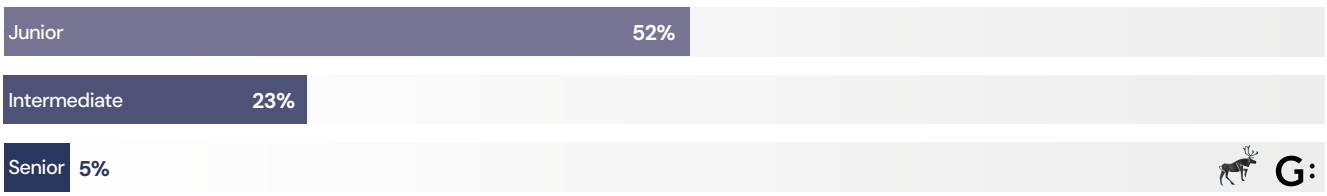
Automation risk at the job family level

Automation risk varies across the four job families within the BPO/ITES sector, with AI Data Services being the most affected. The following analysis prioritizes sectors based on their share of workers, providing a clearer view of the impact on employment.

Customer Experience (44% of current sector)

AI is transforming the Customer Experience job family, and just over 40% of current tasks are at risk of automation, suggesting that AI will primarily enhance rather than replace human roles. This is a critical finding given that Customer Experience currently accounts for nearly half of all employment in the sector. In this job family, chatbots and messaging platforms streamline routine tasks like FAQs and transactional updates, reducing the need for human input while ensuring consistency and efficiency. AI-driven voice systems, such as interactive voice response (IVR), automate basic tasks like call routing, but human oversight is often required to address the complexities of speech, including accents, emotions, and cultural nuance.

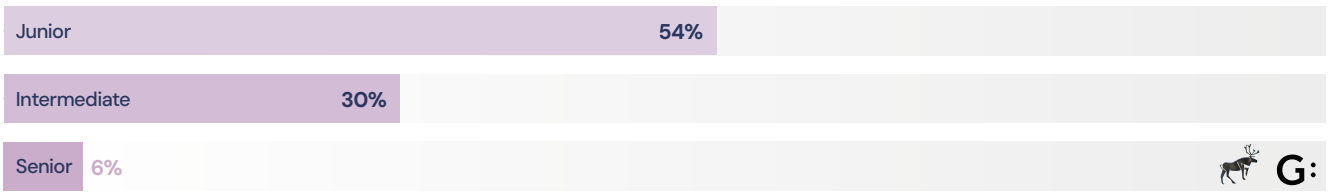
Figure 7 ▾
Percentage of Customer Experience tasks susceptible to automation by AI



IT-Enabled Services (25% of current sector)

In the ITES job family, about 40% of current workload is highly susceptible to automation. AI is automating tasks related to system monitoring, basic troubleshooting, maintenance, and quality assurance. Administration and support staff and tech help desk support agents are among the roles most susceptible to displacement.

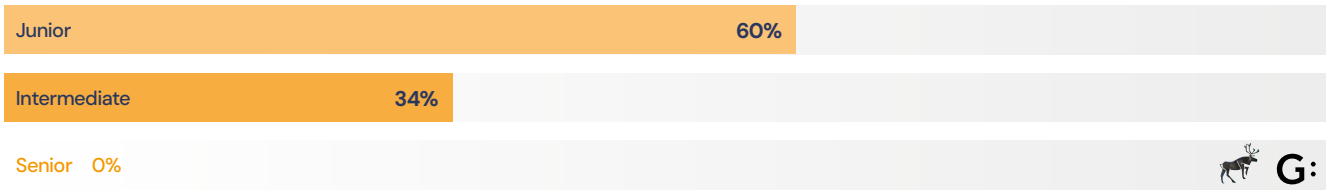
Figure 8 ▾
Percentage of ITES tasks susceptible to automation by AI



Finance and Accounting (13% of current sector)

The Finance and Accounting job family has one highest risks of automation, with 44% of current tasks identified as automatable. Routine processes such as bookkeeping, data entry, and transaction processing are particularly susceptible to automation, driven by AI-powered software and machine learning algorithms. These technologies are redefining operational efficiency, accuracy, and speed, prompting a shift in workforce dynamics.

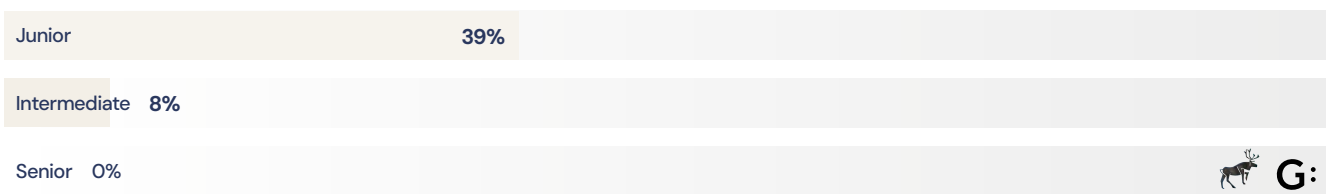
Figure 9 ▾
Percentage of Finance and Accounting tasks susceptible to automation by AI



AI Data Services (3% of current sector)

This job family has a dual effect by being embedded in the AI value chain. It is the family with the lowest predicted rates of automation with 35% of tasks at risk of automation but also has the lowest rates of tasks unaffected by AI. The advent of advanced AI models and tools, such as Meta's "Segment Anything" model, is automating many of the repetitive and time-consuming tasks traditionally performed by junior data workers. AI tools are also becoming increasingly proficient in content moderation, automatically flagging inappropriate or harmful content by employing techniques like image recognition, natural language processing (NLP), and sentiment analysis.

Figure 10 ▾
Percentage of AI Data Services tasks susceptible to automation by AI



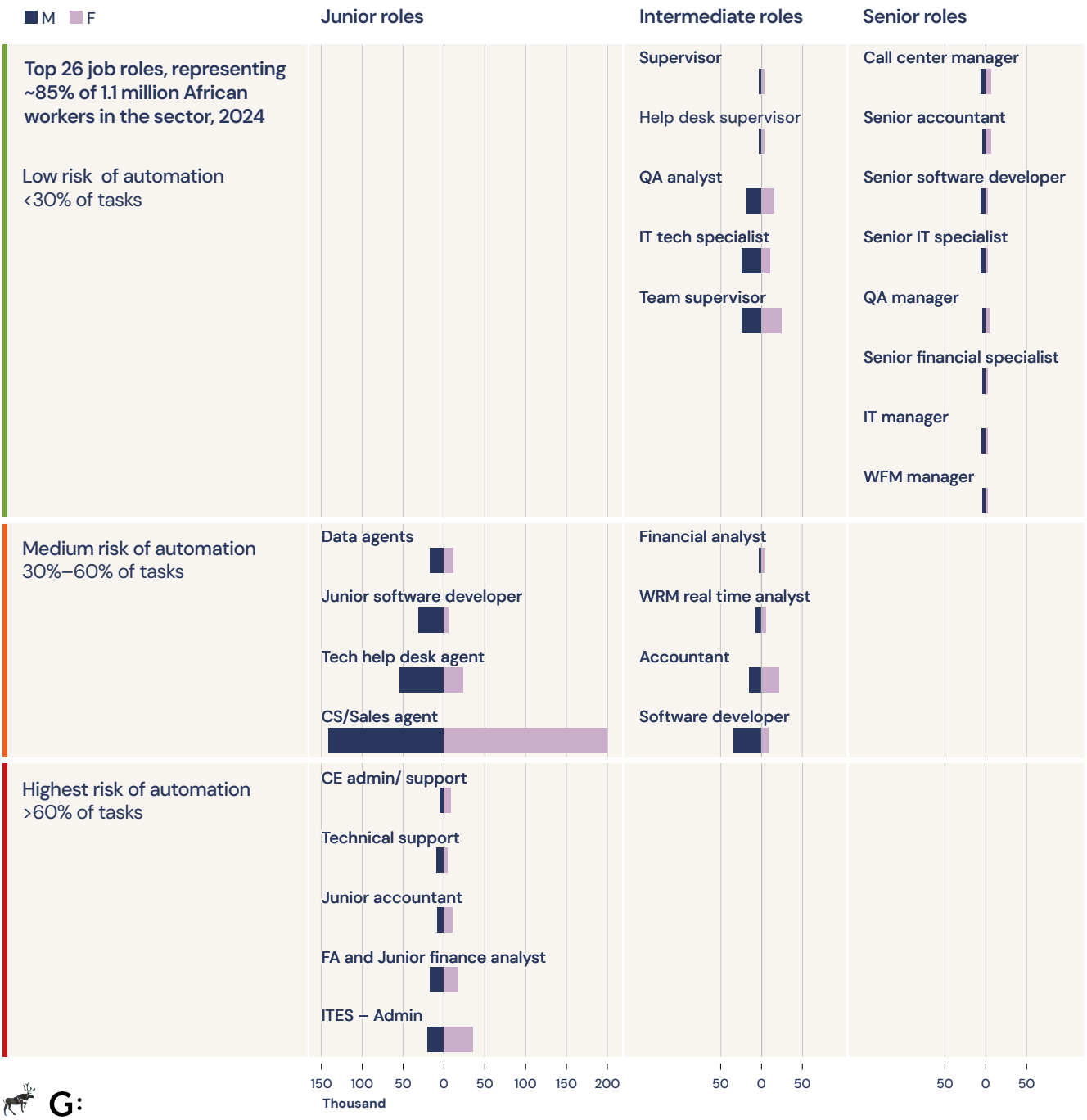
Possible impacts across job levels

Junior roles across all job families are the most vulnerable, with 52% of all work identified as automatable and only 3% deemed resilient. This vulnerability is largely due to the repetitive and transactional nature of these roles, which are prime candidates for AI-driven automation. Senior roles are significantly more protected, with only 4% of tasks automatable and a substantial 40% resilient. Intermediate roles also fare better; a notable 20% of tasks are likely to be resilient, driven largely by the oversight, quality control, and coordination responsibilities typical of this level.

Figure 11 ▾

Job families analysis: Automation Risks by Role, Seniority, and Gender

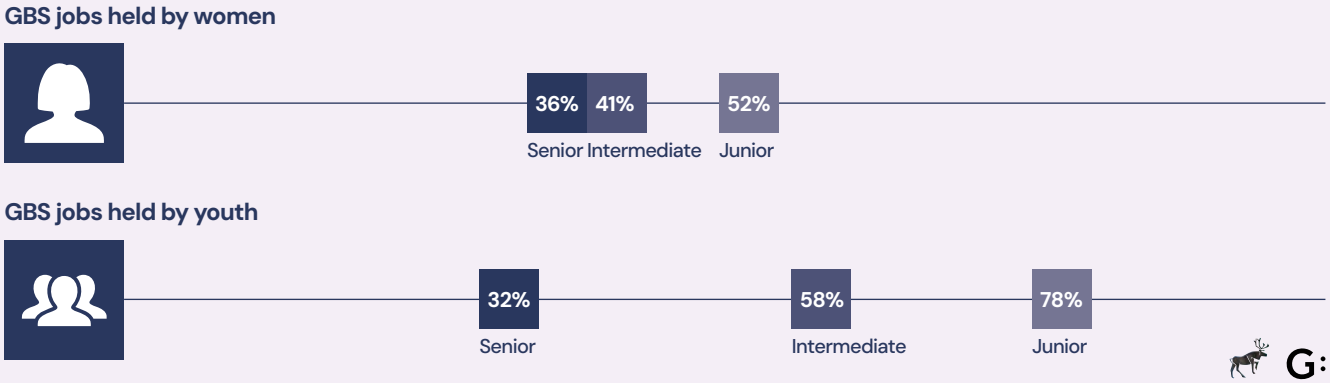
Note: Automation risk calculated as proportion of key sub-tasks in a role susceptible to automation. Roles with fewer than 4,000 people excluded from display.



Shares of employment across seniority levels for women and youth. What happens to junior roles has an outsized impact on the sector as a whole.

Figure 12 ▾

Source: Genesis GBS, GBS.World



Historically, junior, entry-level positions in these job families have provided a gateway for youth to gain initial work experience and skills. However, as AI automates many routine tasks, entry requirements are likely to become more onerous. Take the example of Jacob and Miriam. Jacob is a data annotator whose job involves meticulously analyzing and labeling textual, image, audio, and video data, aiding in the development of machine learning models. Today, AI training tools such as V7 can auto-annotate some of the data. On its website, V7 says it can enable companies to label data ten times faster and double the productivity of workers. Jacob isn't worried that AI can completely take over his tasks; he says there's still a need for humans to train the AI but recognizes that the use of auto annotators could eventually reduce the number of data annotators needed. On the other hand, Miriam is a project supervisor. Her role requires daily human interaction putting her job at very minimal risk of automation.

Jacob, 24

Ghana

Junior Data Annotator,
AI Data Services

Automation susceptibility: Moderate

Tasks: Tagging images, text, video, and audio; describing videos and images.

Jacob uses ChatGPT to help create good descriptions of videos and images.

> *"I noticed that one of the platforms we use, V7, has the ability to auto-annotate certain objects. If you had a feature like that on the platform, it would make work a lot faster, and there wouldn't be a need for 100 or more annotators."*

Miriam, 28

Kenya

Intermediate Project Supervisor,
AI Data Services

Automation susceptibility: Very low

Tasks: Project management, including supervising and assigning tasks to junior data annotators, writing project progress reports for the clients.

Miriam uses ChatGPT to craft professional communications with clients.

> *"When I'm generating reports, I use ChatGPT to refine my emails before I send it to the client or the management."*

With AI handling increasingly sophisticated tasks, entry-level roles will likely require more than just basic digital literacy. Young Africans entering the sector will need foundational knowledge in AI and proficiency in technical tools and software to effectively interact with and manage AI systems. Moreover, problem-solving skills and analytical thinking will be highly valued as AI systems generate insights that require human interpretation.

Beyond technical skills, soft skills such as adaptability, communication, and emotional intelligence will become increasingly valued. Extended learning, workplace readiness programs, and work-integrated learning grow in importance by providing the necessary step up for incoming young workers to meet higher expectations. Workers like Jacob who already work with AI can advance their knowledge of the technology and move up the ladder into more senior positions or new roles.

Figure 13 ▾
Implications of automation for job families

Customer Experience	• Nearly one-third of the current workforce sits in a single role: contact center agents. This role is at **moderate risk of disruption via automation of tasks**. • Half of tasks currently performed by contact center agents are at risk of automation.
IT-Enabled Services	• Taking a weighted average across the family, **ITES consists of roles and tasks with the lowest levels of automation risk, and the highest levels of resilience**. • Senior levels stand to gain significant productivity enhancements, with more than 60% of their work projected to be enhanced by AI.
Finance and Accounting	• Workers in this job family have some of the **highest levels of automation susceptibility**. • Nearly two-thirds of junior-level work is predicted to be at risk of automation.
AI Data Services	• Basic data processing is becoming increasingly susceptible to automation, but the demand for AI-ready data is also rapidly increasing. • Consultations indicate that there is **both increasing productivity from increased automation and workforce sizes**. • Senior-level positions in this family are most resilient—30% more resilient than the next safest job category. However, employment here is fractional, accounting for less than 2% of the current workforce.

Possible impacts on inclusion

Junior roles, support functions, and customer relations represent an outsized share of current employment for African women in the BPO/ITES sector. As these roles are also most affected by AI, **work done by women is on average 10% more susceptible to automation than that by men.** Additionally, women's resilience score is lower (8%), compared to men (12%). These figures reflect systemic issues, including the concentration of women in junior roles and in job families with higher automation potential, such as customer experience and support functions.

This highlights an urgent need for policies that promote gender equity, focusing on upskilling and career advancement opportunities for women in the sector.

This discussion captures the current moment and is based on current views and understanding of AI capabilities. Given these findings, scenario analysis provides a useful tool to explore how different futures for AI adoption might shape the sector.

Future scenarios of AI in the BPO/ITES sector

The evolution of AI is subject to considerable uncertainty. To unpack this uncertainty, Genesis Analytics led consultations and revisited the literature on the sector to identify three possible scenarios for AI's development, with a fourth, more speculative scenario involving artificial general intelligence.

Methods

This module of the study employs a scenario analysis methodology to systematically explore the potential impacts of AI on Africa's BPO/ITES sector. This approach examines how AI *could* reshape the industry, influencing employment, operational strategies, and economic structures.

The baseline scenario, in which 40% of current task composition in the African BPO/ITES sector is at risk of automation, is based on current task composition of jobs and current understanding of AI capabilities. Scoring here does not factor in changes in AI capabilities nor the market responses to AI's integration. This, of course, is unrealistic. A scenario analysis articulates how changing AI capabilities, socioeconomic conditions, and market responses could affect the sector.

Each scenario was crafted through iterative consultations with experts and stakeholders, leveraging both qualitative and quantitative data. The analysis incorporated trends from historical technological revolutions, drawing parallels to current AI advancements. A series of hybrid, co-creative workshops were also used to inform the scenario analysis. The first workshop focused on understanding future trends and pace of development in AI globally, and the second applied these considerations to Africa's BPO/ITES sector. *Appendix 4* contains further details on the methodology of these workshops.

Genesis Analytics identified key uncertainties and drivers of change, including levels of investment, technological progress, policy and regulatory environments, societal responses, and the development of AI use cases. By examining these factors, we constructed four future scenarios that encapsulate varied paths that AI integration might take.

Drivers of change

Levels of investment

Increased funding in AI research and development accelerates technological breakthroughs, facilitates the scaling of AI solutions, and encourages innovation across sectors. Investment in generative AI has exploded, seeing an average CAGR of 74% between 2017 and 2022.[45] Uneven investment can slow global progress and concentrate advancements in specific regions or industries. Three-quarters of investments in generative-AI companies were based in the US.[46] Drying up of investments, reminiscent of the dot-com bubble burst, could halt innovation and significantly slow AI diffusion.

Technological progress

Advancements in AI technologies, such as machine learning algorithms and hardware improvements, enhance AI's capabilities, making it more applicable and efficient across various tasks. Breakthroughs in areas like quantum computing and neuromorphic engineering could potentially fundamentally reshape AI's scope. Failure to achieve key breakthroughs, particularly in the pursuit of AGI, could delay the transformative potential of AI systems and act as a significant barrier to diffusion. Moreover, issues like hallucinations and model bias can undercut trust and investor confidence, and prompt restrictive regulation.

Policy and regulation

Supportive policies and frameworks can promote AI development by providing clear guidelines, protecting intellectual property, and incentivizing innovation while ensuring ethical standards are maintained. However, stringent or ambiguous regulations can stifle innovation, creating compliance burdens and legal uncertainties that deter investment. Regulation can also outright halt adoption, as in the case of the regulation of cryptocurrencies or specific digital platforms like TikTok in Afghanistan or Google in China.

Societal responses

Public enthusiasm has historically played a crucial role in the rapid adoption of technologies like smartphones and social media. The labor market adapts to the changing nature of work, investing in future skills and the creation of new roles. However, societal concerns about privacy, job displacement, and ethical implications can lead to resistance against AI, prompting calls for restrictive regulations that could slow its adoption.

Use cases and demand

The development of compelling AI use cases that demonstrate clear benefits and efficiencies can drive demand across industries, encouraging widespread adoption and integration. High-impact applications in healthcare, finance, and logistics have showcased AI's potential to transform operations and deliver value. Nearly 60% of AI's economic contribution will be derived from consumption-side effects.[47]

45 McKinsey & Company, *The Economic Potential of Generative AI.*
46 McKinsey & Company, *The Economic Potential of Generative AI.*
47 ITU and World Bank, "Transformative Technologies (AI)."

Findings

Scenario 1

Stagnated progress

In this scenario, AI continues its steady advancement without any groundbreaking innovations. As a result, the sector as a whole experiences a slower rate of automation. Enhancements in NLP, computer vision,[48] and predictive analytics improve existing applications, but AI remains domain-specific and necessitates substantial human supervision. This scenario could unfold due to hardware limitations, ethical and regulatory constraints, or economic impacts on AI research funding. Furthermore, social and political concerns around data privacy, job displacement, and inequality could slow AI integration, adding another layer of complexity to this scenario.

Green = overall net positive impact expected; orange = mixed impact (some services growing, others shrinking); red = overall net negative impact expected

Investment levels	Investment levels remain stable with continued concentration on infrastructure, hardware, and tech giants, sustaining existing AI capabilities and efficiencies rather than fostering technological breakthroughs.
Technological progress	Incremental improvements are made, but revolutionary advancements are absent. Models remain data and computing-power hungry.
Policy and regulation	Policy remains at the global level of compacts and governance frameworks. Regulations are moderately supportive in providing a predictable environment but lack mechanisms to promote transformative applications.
Societal response	Public sentiment remains cautiously optimistic, adopting AI in familiar contexts. But large-scale upskilling in AI-specific competencies is slow and concentrated in technological hubs.
Use cases and demand	Demand is steady, focused on cost and efficiency improvements rather than embracing transformative use cases and institutional overhauls.
Potential sector-level impact	Warnings of widespread automation are unrealized; instead, augmentation continues for the rest of the decade.
Potential inclusion impact	Tools enhance productivity and support market entry for non-native English speakers, remote workers, and disabled workers.

The workforce remains relatively stable, as automation enhances rather than replaces human roles. This environment allows businesses and employees more time to adapt to technological changes.

48 A field of AI that enables the analysis of visual data, allowing computers to identify objects and derive information from images and videos.

The slower pace of AI evolution means that there is ample opportunity for targeted upskilling initiatives, especially in areas where human interaction and oversight are indispensable. Skills, such as judgment, empathy, and problem-solving, that augment AI's capabilities continue to be highly valued. Operational processes remain heavily dependent on human expertise, particularly in sectors that involve complex tasks or require a high degree of personalization. Compared to the baseline scenario, this steady progression offers predictability and continuity, with fewer disruptions to existing employment structures.

Figure 14 ▾

Stagnated progress allows for more time for the sector to adjust.

Levels of expected impact – the more green, the more positive the expected impact; the more red, the more negative the expected impact.

Scenario 2

Uneven breakthroughs

This scenario envisions accelerated progress in AI capabilities, particularly in areas like transfer learning[49] and unsupervised learning.[50] AI systems become more versatile and require less human intervention. Generative AI models become significantly more powerful, leading to widespread adoption across various industries. The technology industry, with its inherent focus on innovation, readily integrates advanced AI for functions like software development, cybersecurity, and data analytics. The finance sector leverages AI for fraud detection, algorithmic trading, and personalized financial services. Services and retail may also more readily employ AI for supply chain optimization, customer experience personalization, and inventory management, benefiting from the sector's rapid digitalization and consumer data insights. The public sector, healthcare, and education may be slower and more resistant to AI integration, encountering regulatory hurdles and concerns about privacy and human-centric decision-making.

Disparities in big data access play a significant role in this scenario. Access to large-scale, diverse, and high-quality data is crucial for training robust AI models. However, these resources may not be evenly distributed across all industries or geographies. Industries with extensive customer interactions may have a wealth of data to utilize for AI, while others may lack such resources. Some regions may have less developed data infrastructure or stringent data privacy regulations that limit data availability. These disparities can significantly impact the capabilities of AI systems in different sectors, contributing to uneven development of AI integration across the BPO/ITES sector.

Green = overall net positive impact expected; orange = mixed impact (some services growing, others shrinking); red = overall net negative impact expected

Investment levels	Investment levels surge in select industries, driven by breakthrough use cases and demand, particularly in tech and finance.
Technological progress	Incremental improvements are made, but revolutionary advancements are absent. However, these incremental improvements lead to large-scale shifts in viability and demand in specific industries.
Policy and regulation	Divergent regulatory environments emerge, with some regions driving AI diffusion while others impose constraints. This produces winners and losers across different geographical regions.
Societal response	Social acceptance varies, but negative sentiments are outweighed by business imperatives.
Use cases and demand	Finance, IT services, retail, media, and healthcare see notable increases in demand for AI applications.
Potential sector-level impact	The sector sees bifurcation, with advanced AI integration in tech-forward areas and slower adoption elsewhere, creating diverse operational standards. This presents an opportunity for African markets to be early movers and capture demand in growing markets.
Potential inclusion impact	Inclusion opportunities flourish in high investment areas—if operators and local institutions can scale supply to match the shifting demand in high-growth sectors. If the workforce is unable to shift, higher automation potential will drive down demand for entry-level roles, which are typically occupied by women and youth.

49 A machine learning technique that applies knowledge gained from one task to improve performance on a related task. For example, a general language model can be trained with healthcare-specific data to develop a patient support chatbot.

50 A machine learning technique that uses algorithms to discover patterns and insights in unlabeled data without human guidance or intervention.

For the BPO/ITES sector, uneven adoption necessitates adaptability and responsiveness to shifting demands. Technology, finance, and services sectors' accelerated use of AI will increase demand for sophisticated services such as data analytics, AI system management, and compliance monitoring. The BPO/ITES sector must enhance its capabilities in these areas, offering tailored solutions that meet the advanced needs and expectations of these industries to remain competitive.

Conversely, sectors slower to adopt AI, such as public services, may continue to rely on traditional outsourcing solutions. Here, the BPO/ITES sector can act as a bridge, assisting these industries in transitioning to tech-driven practices by offering AI integration services, training, and support.

This duality provides the opportunity for innovative African outsourcing firms to capture increasing shares of demand for specialized services, beating out incumbent firms that are slower to adapt, while also allowing traditional firms to draw on existing talent and pivot to resistant sectors.

Figure 15 ▾

Uneven breakthroughs affect some job families more than others.

Levels of expected impact – the more green, the more positive the expected impact; the more red, the more negative the expected impact.

Scenario 3

Rapid advancement

This scenario sees a step change in AI capabilities with major breakthroughs in areas such as quantum computing[51] or neuromorphic engineering.[52] AI systems demonstrate high levels of reasoning and problem-solving abilities across diverse domains, fundamentally altering the nature of work in many sectors.

Work is completely redefined in an era where intelligent machines are prevalent. Organizations shift focus toward governance, ethical deployment, and overarching system oversight as AI assumes control over many routine and complex tasks. Traditional roles have been automated, redefined, or replaced by intelligent systems. Where there is job creation, it is centered around AI governance.

Green = overall net positive impact expected; orange = mixed impact (some services growing, others shrinking); red = overall net negative impact expected

Investment levels	Skyrocketing investments fuel ubiquitous AI integration, accelerating innovation and widespread use.
Technological progress	AI capabilities expand rapidly across domains, achieving significant breakthroughs that reshape industries.
Policy and regulation	Policy and regulatory responses vary. More socialist and democratic states are pressured to constrict AI advancement, while free-market and centralized states focus on capturing demand and economic opportunities stimulated by AI diffusion.
Societal response	Society struggles to keep pace with rapidly advancing technologies. There are dramatic responses in the short term, with protests, advocacy, and social commentary prompting policy responses.
Use cases and demand	Businesses and some governments adopt diverse and impactful AI applications, demonstrating clear use cases that fuel soaring demand and the emergence of new operating models and businesses.
Potential sector-level impact	Inefficiencies in skilling systems across the continent struggle to match the rate of change in labor market demands. The African BPO/ITES sector loses shares of the global market and pivots toward domestic and regional sources of demand. However, the potential costs of running AI applications may mean that countries with relatively low labor costs continue to enjoy a comparative advantage for certain tasks, presenting work opportunities for African youth.
Potential inclusion impact	There are full-scale revisions and automation of traditional roles and entry-level positions, which are typically occupied by women and youth. A pivot to neighboring and regional markets that are slower to adopt advanced AI applications may provide some buffer to widespread job losses for entry-level talent.

51 An emerging field of computer science that uses quantum mechanics to solve problems beyond the capabilities of supercomputers.

52 An approach to computing that mimics the way the human brain works, simulating the structures and functions of the brain to process information.

Such transformative shifts urgently require dynamic reskilling and upskilling initiatives. The workforce must pivot toward strategic, ethical, and managerial competencies to remain relevant in an environment where AI is prevalent. Compared to the baseline scenario, this rapid advancement represents a significant shift in employment dynamics, acutely affecting junior roles; even intermediate levels are likely to experience significant displacement. Such rapid shifts are likely to necessitate immediate policy interventions and large-scale investments in training programs to address the profound changes in job structures and skill requirements.

Figure 16 ▾

Rapid advancement would spell tectonic shifts for the sector.

Levels of expected impact – the more green, the more positive the expected impact; the more red, the more negative the expected impact.

Scenario 4

Artificial general intelligence (AGI)

This speculative scenario involves the development of AI systems that match or exceed human-level intelligence across a wide range of cognitive tasks. While AGI remains a theoretical concept and is not expected in the near future, its potential development could have profound implications for all aspects of society and the economy.

The emergence of AGI may necessitate a complete reevaluation of societal structures and employment models. Traditional roles dissolve—even those at senior levels and those most resilient at a baseline. New frameworks for economic compensation, such as universal basic income, become essential. The focus shifts to managing AGI's societal impact, with significant attention to aligning these systems with human values and ethical norms, and likely moves into the merging of philosophical, anthropological, and mathematical academic disciplines. This scenario spells the end of the BPO/ITES sector as it is known today.

Green = overall net positive impact expected; orange = mixed impact (some services growing, others shrinking); red = overall net negative impact expected

Investment levels	Investment becomes hyper-focused on AGI development, overshadowing traditional AI applications.
Technological progress	AGI development alters the technological landscape, eclipsing previous AI capabilities and usages.
Policy and regulation	Global policy efforts are unprecedented as governments, NGOs, civil society groups, and global elites seek to manage AGI's profound impacts, focusing on ethical and societal considerations.
Societal response	Society is faced with profound changes, sparking debates about human-AI coexistence and redefining work dynamics. News and social media are awash with AGI.
Use cases and demand	Existing business paradigms are challenged. Unicorns embracing AGI and a redefined world of work emerge off the back of significant venture capital investments.
Potential sector-level Impact	The sector has an existential crisis, as do most other industries.
Potential inclusion impact	AGI's disruption necessitates new inclusivity frameworks. Social protection policies take center stage in discussions around fair work.

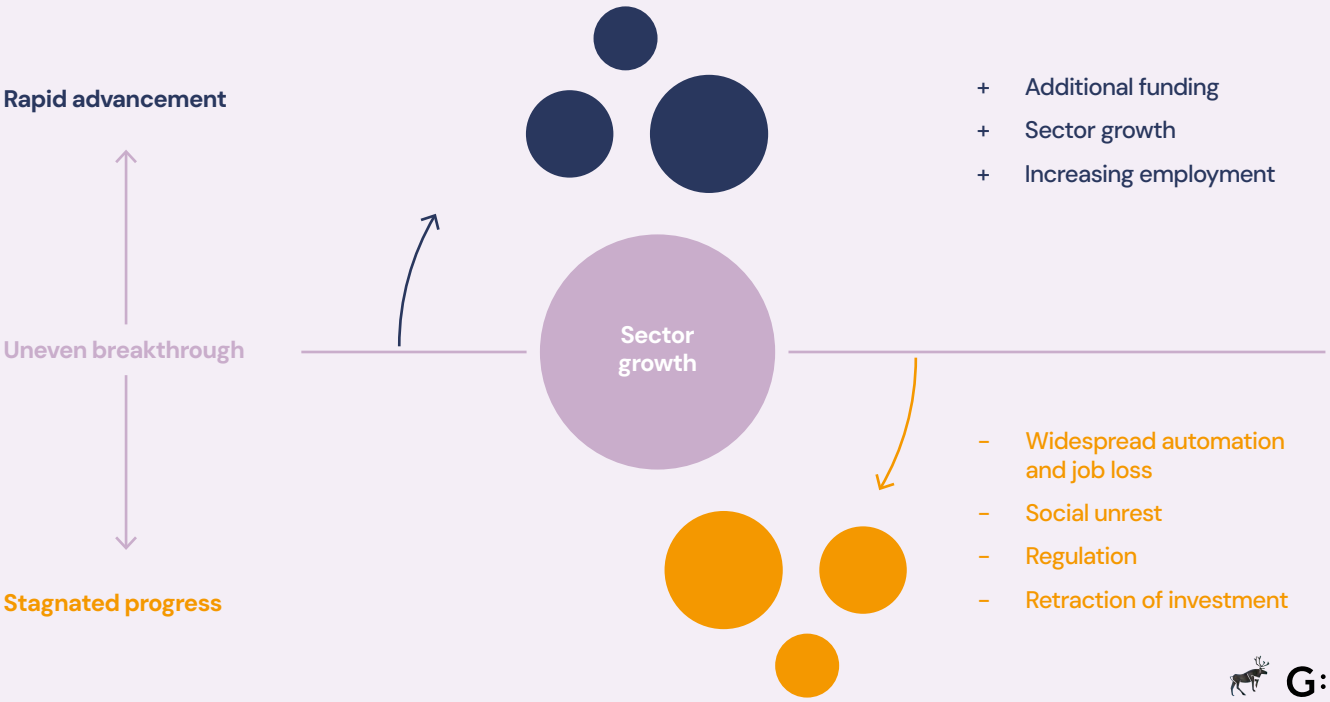
What young workers think

> *"In my assessment, generative AI requires a human touch in order to be complete. It cannot entirely run on its own. Maybe when we get to [AGI] at that point, I can say, 'OK, now, artificial intelligence can take my job.' But as things are now, I understand there's still a lot of deep learning going on. LLMs are still being built, new tools are still being discovered. But until then my job is still very safe even though I'm using AI."*
>
> **Conrad, AI Data Services team lead, Kenya**

Mutually reinforcing cycles may accelerate or stagnate AI's diffusion, and complicate forecasting between the scenarios.

Drivers of change are mutually reinforcing such that negative societal responses could lead to restrictive regulation and a retraction of investment—causing stagnated progress in the diffusion of AI. In contrast, strong demand and adoption will support continued investment that stimulates technical breakthroughs and the expansion of use cases and opportunities for adoption.

Figure 16 ▾
Drivers of adoption and diffusion of AI



Implications across the four scenarios

The introduction and integration of AI presents a double-edged sword for the BPO/ITES sector in Africa. While AI poses a risk to traditional outsourcing jobs by replacing certain repetitive and data-intensive tasks, it also increases demand for newer, more specialized roles within the outsourcing ecosystem. As AI technologies evolve, they are creating new and fast-growing value chains which also present significant potential for job creation, particularly in tasks requiring refinement, customization, and human oversight.

As with past technological revolutions, entry-level roles will likely experience the most disruption as routine tasks become automated. AI integration will likely raise barriers to entry for junior roles as tasks increase in complexity and demand higher levels of digital and AI literacy. Entry-level talent will need to be not only proficient at using AI tools but also adept at understanding AI shortcomings and identifying errors. Across all levels, while AI tools enhance technical and analytical skills, human-centric competencies such as ethical reasoning, leadership, communication, and strategic thinking remain critical and largely unaffected by AI. These skills become increasingly indispensable in more senior positions and drive the resilience of senior-level roles.

It is unlikely that the extreme or even advanced scenarios have a short-term horizon. At present, companies are primarily in the exploratory phase, seeking to identify viable use cases and gradually incorporate AI into their operations. For example, less than 15% of contact center businesses surveyed as part of CCW's market study reported actively investing in generative AI initiatives and tracking performance.[53]

The implementation of AI across sectors remains limited, as organizations proceed cautiously to understand the full implications and potential of these technologies—just over 70% of surveyed businesses are still scoping their investments.[54] Additionally, the adaptation and emergence of sectors around new AI capabilities inherently require time, as they involve not only technological integration but also shifts in workforce skills, regulatory frameworks, and market dynamics. This cautious pace suggests a more gradual evolution toward the transformative impacts that advanced AI scenarios might promise.

While the scenarios represent potential futures, young workers are already adapting to AI in the workplace, offering valuable insights into the technology's current impact.

53 CCW, "2024 March Market Study: State of Generative AI."
54 CCW, "2024 March Market Study: State of Generative AI."

Youth frames and experiences

This section presents firsthand experiences of young professionals in the BPO/ITES sector as they navigate the complexities of working alongside AI-powered assistants and automation tools.

Their narratives explore how they are adapting to an evolving work environment, leveraging AI technologies to enhance their productivity, and actively contributing to the development and training of these systems. The dynamic interplay between technology and human skills in the workplace provides crucial insights for policymakers, the private sector, and development partners interested in preparing the next generation of professionals for an AI-integrated future.

Methods

Caribou Digital interviewed twenty young BPO workers—ten women and ten men—across seven African countries: Kenya, Uganda, Ethiopia, Ghana, Nigeria, Rwanda, and South Africa. These workers, primarily in junior to intermediate roles, represent a cross section of the industry, from data annotation specialists to customer service agents, content moderators to software developers. The workers represent three of the four job families covered in this report; no interviews with workers in Finance and Accounting were secured.

To ensure privacy, all names used are pseudonyms. To further protect the identity of the young workers, names of the companies where they work are not included. Quotes have been edited for only brevity and clarity.

Findings

Young workers are already adapting to AI at work

AI has become an ever-present assistant for workers across customer service, IT support, and AI data services, transforming how they do daily tasks. All interviewees have adapted to this AI-enabled shift, integrating tools like Microsoft Copilot, ChatGPT, AI grammar assistants, and in-house AI-powered chatbots into their daily routines. They are leveraging generative AI to advance their professional goals and boost productivity, sometimes customizing tools to fit their needs and workplace practices.

Some workers began using AI at work because their companies introduced it, while others adopted AI tools on their own initiative. For many, AI has become part of their daily routine, supporting both simple and complex tasks.

Leila, a junior customer service agent turned content moderator at a global BPO company in Nairobi, shared how AI supported her work in her previous role. As a customer service agent, she used AI tools like virtual assistants for drafting emails, checking grammar, and scheduling. Chatbots handled repetitive queries, enabling her to focus on tasks requiring a human touch. Before she transitioned roles a few months ago, the company introduced enterprise-level ChatGPT.

"[The company] said that [ChatGPT] could expand how to think outside the box. They say whenever you are blocked or you feel like the knowledge base given to you by the company is not enough, you can always use ChatGPT to help you formulate [a response]."

Leila, content moderator, Kenya

As a content moderator, Leila continues to work alongside AI. The content moderation platform she uses daily includes an AI feature that pre-filters graphic content before it reaches her for review.

Christopher is a junior IT support engineer in Nigeria who works for a company that provides customer support to Microsoft clients globally. His company recently mandated the use of Microsoft Copilot, a chatbot preloaded with responses to common client issues, and actively monitors employee usage to ensure compliance. Christopher also uses ChatGPT every day.

"We use it every day. If you don't use it, it will show on the back end and everything you use it for to show that this is what you actually use it for. So they just want to make sure everybody is using it and to make work easier and save time."

Christopher, IT support engineer, Nigeria

While Leila and Christopher are limited to specific, company-approved AI tools, primarily to protect customer data, other workers enjoy greater freedom to simultaneously use multiple AI tools.

For AI Data Services workers, who spend their days training various AI models, the use of generative AI has become a significant part of their process. They use DALL-E, ChatGPT, and Copilot to generate and evaluate training content.

"They don't encourage [usage of ChatGPT], but they don't frown upon it either. It's something that I personally do to help myself get ahead."

Jacob, data annotator, Ghana

Joan, a KYC (know your customer) analyst in Nigeria, uses ChatGPT to draft client emails and conduct research, despite her company not formally endorsing the tool. She hopes management will provide broader acceptance and support for the use of AI as part of work in the future.

"It's more in a personal capacity, because we weren't really told to use it, but I felt like I wanted my sentences to be more accurate. I wanted my work to stand out."

Joan, KYC analyst, Nigeria

Youth use of AI shows high levels of augmentation

This shift toward AI in the workplace demonstrates significant levels of augmentation[55]—the use of AI tools or technologies to enhance work capabilities or performance—among young workers. Interviewees described using AI tools to assist with problem-solving, enhance creativity, boost efficiency, and improve overall quality of work.

Sandra is a web developer who works for a BPO company in Nairobi that provides software and web development services. She uses a range of generative AI tools, including ChatGPT, Claude, and ZZZ Code AI, as coding assistants that identify errors.

"I use [ZZZ Code AI] for debugging most of the time. When it comes to programming you're like, 'Why is the error here?' You don't see the error, but there's an error. So you'd be like, 'OK, debug this code for me.' And then you just select the language or what you want to do for you and then it generates it."

Sandra, web developer, Kenya

55 Gartner, "Augmented Intelligence."

"The code is repetitive, so I have to write the same kind of code 160 times. Sometimes when you try to write the same code, you may lose focus and you may miss a dot or semicolon or something. So I use ChatGPT to manage that."

Michael, web developer, Ethiopia

For workers with more years of experience in BPO, AI tools have significantly sped up workflows. In addition to enabling efficiency, AI supports creativity and speed.

"Before these tools came, it wasn't very easy doing research and analysis. You had to Google things. It was very tedious. Now we have these tools that generate content within seconds. It's really a game changer. It actually cuts the work that was supposed to take around maybe an hour … I find myself taking seconds, just writing a prompt and getting the results."

Henry, AI data worker, Kenya

"Let's say you are given a full chapter of a book and you need to summarize it. I use Copilot or ChatGPT—I tell it to analyze the chapter. At least it makes my work a bit easy. I only focus on the decision-making, the comparison, and the critical thinking. So I don't have to read it over and over to analyze a book."

Isaac, AI data worker, Kenya

In Ghana, Stella, a product associate at an AI data company, leverages AI tools like Meta AI, Gemini, and ChatGPT to learn about new subjects, enabling her to work on AI projects that require specialized knowledge.

"With consistency, you eventually become what you're trying to become. If ordinarily the geospatial scientist that has gone to school for six years would know how to do the task, with ChatGPT I can just quickly do it. And then if that becomes a task that you have to do consistently, you'll be able to do it on your own without AI help. What a geospatial person can do, you can now do."

Stella, AI data worker, Ghana

AI also assists with professional communication when interacting with managers and international clients. In customer service and IT support, workers serve a diverse global clientele, from North America to the UK, where clear, culturally attuned communication is essential.

"To make my English to be more native and official, Copilot has helped with communicating with [international clients] in the US. They are always like 'What kind of English is this?' But using Copilot has made the dynamic easier."

Christopher, IT support engineer, Nigeria

While these experiences illustrate that AI can be an invaluable assistant, it's not without limitations. In customer service, where clear communication and empathy are essential, AI can sometimes increase rather than alleviate stress for workers.

"So sometimes customers get very frustrated with the automated system and then that frustration is then put to us as humans. So [AI] helps 50%, and it doesn't help on the other 50%."

Catherine, customer service representative, South Africa

Workers have reported other issues, such as "hallucinations" (incorrect or nonsensical AI responses) and the inconvenience of needing multiple accounts to work around usage limits on free AI tools. Website slowdowns from high traffic also create occasional bottlenecks, affecting productivity.

These experiences illustrate the varied ways AI is augmenting the work of young employees. Whether for technical tasks, creative support, or professional communication, AI tools have become embedded in daily routines, reflecting a new landscape of work where AI plays a constant role in enhancing productivity and professional confidence of the young workers, even with the challenges of using it.

Young workers' perspectives on AI's impact on work range from optimism to worry to realism

While young workers appreciate how AI has streamlined tasks and improved efficiency, they hold a range of perspectives on its future impact. Some are optimistic, believing that AI cannot fully replace the human touch required in their roles, while others see potential threats to job security as AI continues to evolve.

"My first impression was if this thing can do the work I can spend hours on, hopefully my skill will not be redundant."

Christopher, IT support engineer, Nigeria

"It's not gonna take my job. I'm just here to use it to progress my job and become so good at my job."

Stella, AI Data Services product associate, Ghana

Workers recognize that, while AI has automated certain tasks and speeds up processes, it still lacks the depth required to handle complex human interactions. Many in customer service believe AI tools can't replace the empathy and adaptability needed for person-to-person interactions. They feel that, while the AI can easily complete simple tasks, it cannot replicate the empathy, patience, and emotional intelligence that agents bring to their roles.

"The BPO industry requires human interaction … Customers sometimes enter a query about a product but then end up venting about their personal issues. The AI won't understand that or won't relate as much as I would or won't share empathy or sympathy as much as a person would."

Ibrahim, Customer Experience worker, South Africa

While tools like Microsoft Copilot assist with basic tasks, Christopher often finds that cases become too intricate for AI alone, requiring him to spend hours resolving issues directly with clients.

"It turns into a very complicated task that AI on its own would not be able to deal with until the case is closed."

Christopher, IT support engineer, Nigeria

In Nigeria, Joan explains that the critical thinking she applies when assessing the honesty of customer financial transactions cannot be replicated by AI. While AI can handle straightforward tasks, such as responding to basic customer queries via chat or email, it lacks the nuanced judgment required for in-depth analysis.

"The main work that involves going to the account looking out for the details, [AI] can't do that obviously. So you do the critical thinking while it helps with the other aspects."

Joan, KYC analyst, Nigeria

Even those providing AI Data Services echo this sentiment, emphasizing that their human resourcefulness and critical thinking in complex scenarios can't be matched by AI, which relies heavily on pre-programmed data.

"When it comes to resourcefulness, I think that is one skill that I have that AI can never really match because it's very needy. It's like a child being taught how to count to 10. If there isn't a teacher, if there isn't any data to be communicated to the child, it would be very difficult for it to learn how to count from 1 to 10 on its own. But with humans, we have a way of learning without having full access to all the necessary data or all the necessary things I would need to execute a task."

Jacob, data annotator, Ghana

Two content moderators shared that, while AI tools can pre-filter some of the content they review, these systems often miss certain details or make mistakes. Both noted that the filters don't always catch everything, making their role essential.

"So there are times that the suggestions are a bit off course, and you know that they are. So you have to really have a nice grasp of policy … you can't just purely rely on the suggestions, because you're going to do a terrible job."

Gabriel, content moderator, Kenya

Workers recognize that as AI capabilities expand, their jobs might change, leading to a sense of concern about the impact of AI on job security.

"It's really going to reduce the number of data annotators needed for a specific job. Recently I noticed that one of the platforms we use, V7, has the ability to auto annotate certain objects. A feature like that would make work a lot faster. And so there wouldn't be a need for 100 or more annotators. One person could churn out the same amount of assets as 3 to 5 people using that same feature."

Jacob, data annotator, Ghana

"Every single day, AI gets better. And you're just a small cog in the wheel, because as much as we do a bit of policing and stuff, we're also feeding enormous amounts of data to these machines. If you are talking about job security, then it doesn't look good for the guy at the end of the screen. The more AI gets into what we do, the more the possibility of us being redundant increases."

Gabriel, content moderator, Kenya

Some young workers in intermediate managerial positions also see the possibility of companies hiring fewer people due to AI. Rebecca, who works in HR support at an ITES company in Rwanda, is cognizant of AI's productivity benefits but also foresees a future where companies will consider efficiency and hire fewer people.

"Because at the end of the day, every company wants to grow. So if something is introduced there and it can do 70% of someone's work in terms of, someone would spend 24 hours on a case, but they would work on 10 different cases in less than five hours. That is something great to be celebrated."

Rebecca, ITES HR support, Rwanda

Some workers argue that AI will ultimately bring both positive and negative change. They say AI has already created new roles and will likely continue to open up new opportunities. Others believe AI will make them more productive, enabling them to advance in their careers and rise through the ranks at work.

"It's a very necessary thing that needs to happen so that even we, as humans, will have the free time to explore and attend to bigger problems that need our attention instead of having people sit behind a computer and click and annotate and click and annotate. Unfortunately, that is going to affect some people negatively. But I think as time goes on, our education system will adapt and train people to have higher skill sets that would be necessary."

Henry, AI data worker, Kenya

"But at the moment, we are also thinking if it's really true AI will take over, then why is the company still expanding? It's not shutting down. It also tells us that for human beings, we just need that personal touch at the end of the day, which technology will never have."

Anna, customer service agent, Kenya

Youth see upskilling and reskilling as the best ways to navigate change

"You have to come up with new skills every day. But how do you do that? You do a few courses here and there. Eventually, if that time comes, when AI is taking over, then probably you're one of the people that is going to be there because you know more about AI compared to other people. It's all about building your knowledge and reading more."

Naomi, customer service agent, Uganda

Young workers are turning to reskilling and upskilling to navigate the changes AI is bringing to their roles. Some, like those in data annotation and customer service, are investing in skills that position them to adapt and thrive as AI transforms their industries. Others, observing how AI automates more tasks in their current roles, are considering courses that will best equip them to leverage AI in future roles. This proactive approach reflects a recognition that staying relevant in an AI-driven workplace requires ongoing learning and adaptability.

For those in AI Data Services, the shift to deeper knowledge about AI is already happening. Many workers who started in data annotation have developed an interest in areas like machine learning and neural networks, seeing these as pathways to more advanced roles in the field.

Joseph, a junior machine learning associate, has been taking short courses on neural networks and machine learning, aiming to eventually secure a role that will be less likely to be automated.

"In the future, maybe I'll look for a role [like] machine learning engineer, which I'm sure will not be phased out."

Joseph, machine learning associate, Kenya

In Kenya, a team lead in data annotation has set his sights on becoming an AI consultant. With knowledge gained through annotation and additional AI courses, he sees an opportunity to help businesses automate processes like marketing and data processing.

"There will be a lot of money in that space. So if I can be at my best using AI to come up with such solutions, then I'm looking into that space as an AI consultant."

Conrad, data annotation team lead, Kenya

Even for some workers in customer service, AI has sparked interest in technology itself, prompting them to consider a career in the field. Norah, who recently took a short course in AI, is interested in learning coding languages like Python and dreams of becoming a developer or data analyst.

"Now that AI was demystified for me, I want to head into the tech space. I'd like for tech to be demystified and to learn coding languages like Python. If I'm putting my wildest dreams out there, I'd love to be a developer. But I would also want to do data analytics."

Norah, customer service agent, Uganda

For workers in customer service and IT support, reskilling provides a safety net and a chance to pivot to different career paths. Some workers are aiming to advance in their current companies by acquiring new qualifications. Anna, a customer service agent in Nairobi, is currently taking a course in virtual assistance, preparing to transition to freelance or remote roles should her current position change due to AI.

"Of course, you worry. But at the same time, as I'm doing this customer service experience, I keep on adding skills. At the moment, I am doing a virtual assistance [course]. Therefore, by that time, I'm sure I would have already noted how to start on a virtual assistant or how to assist clients online rather than going to work for a company."

Anna, customer service agent, Kenya

Others are exploring entirely new fields. In Nigeria, IT support engineer Gabriel is looking to move into cybersecurity. In Ghana, Sophie hopes to focus on cybersecurity in AI, combining her interests in tech and security for a future-proof career. Michael, a web developer in Ethiopia, plans to learn machine learning, while Joseph in Kenya is exploring roles in AI quality assurance and ethics.

Young workers recognize that AI's rise necessitates adaptability and forward thinking. By investing in new skills, they aim to secure their futures, whether by advancing within their current companies, transitioning to new roles, or pursuing entirely different career paths. As AI reshapes industries, these workers are positioning themselves not just to adapt but to thrive in this constantly evolving landscape.

What youth want to thrive in an AI-driven work environment

To BPO companies: Invest in on-the-job upskilling and reskilling programs

Young workers are upskilling independently, but they believe BPO companies need to be proactive in supporting their growth to help them thrive in an AI-transformed workplace. They recommend a worker-centered approach that prioritizes upskilling and reskilling to align employees' skills with new AI-driven demands.

"The landscape is changing really fast and it's really important for companies to help their workforce evolve with technology, ensuring everyone has a role in this evolving era. They should focus on upskilling and making sure everyone is up to scale in terms of generative AI."

Henry, AI data worker, Kenya

"If a process is becoming automated, can we train the person to run the automation or to do something else? Because there will always be work. I feel like companies are outsourcing more and more workforce management."

Norah, customer service agent, Uganda

To governments: Grow and protect the BPO industry

Young workers see the BPO industry as a vital source of employment and want governments to support its growth by providing tax incentives, encouraging investment, and expanding opportunities for young workers. They emphasize the importance of protecting workers' rights through regulations that require companies to commit to fair pay, job security, and better working conditions. Youth call on governments to add AI to curricula, introducing AI-related skills in schools to enable the workforce to prepare for an AI driven-future from an early age.

To development partners: Support the AI ecosystem and training programs

Several workers have benefited from programs like ALX Africa, which provides AI training through partnerships with organizations like the Mastercard Foundation. Young workers want such programs to be scaled up and linked directly to job opportunities, building a robust pool of AI-trained professionals across Africa.

Some workers in AI Data Services aspire to use their expertise to develop their own AI models and create AI solutions that can alleviate some of Africa's problems in agriculture, health, and education. They suggest that development partners support these ambitions by funding computing capacity, building professional AI networks, and providing resources to allow young Africans to innovate in the field.

To fellow youth: Pursue AI skills

Recognizing that the future of work will be heavily influenced by AI, young workers encourage their peers to start gaining AI skills early to prepare for future work opportunities and adapt to meet the demands of an AI-driven work economy.

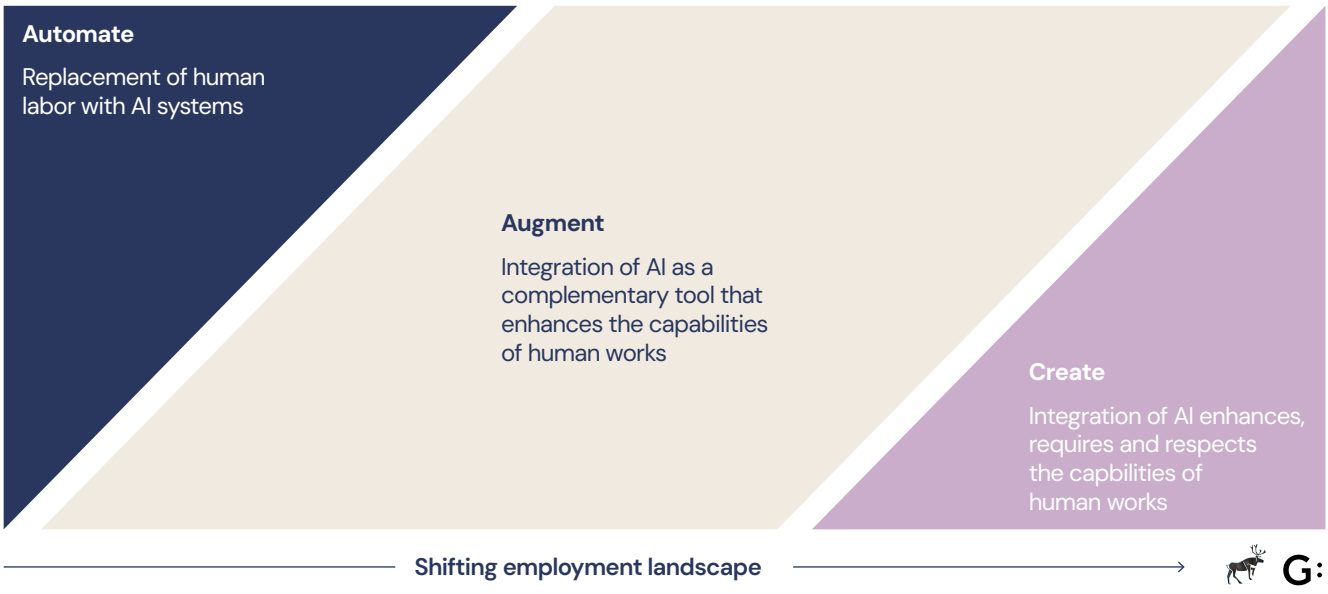
Building on these reflections on how young workers are adapting, the following section explores how augmentation and resilience can enable them to thrive in the evolving sector.

Discussion

As outlined in this study, based on current AI capabilities, just over 40% of the underlying tasks in BPO/ITES work in Africa is at risk of automation. This doesn't mean these jobs will disappear—many will transform.

Insights from young workers in the sector reveal high levels of augmentation already occurring, suggesting a future where AI supports and enhances productivity, especially in entry-level roles. By augmenting roles, AI will shift the nature of work and expectations of junior roles in particular. This dramatic shift also has the potential to enrich job satisfaction by allowing workers to engage more deeply, creatively, and flexibly with their work.

Figure 17 ▾
Employment resilience is driven by augmentation as the sector shifts



The path forward involves preparing for changes in task composition and mix of jobs across the sector. Understanding which elements of BPO/ITES roles can be augmented by AI and which are resilient to automation is essential. Notably, only about 10% of tasks are resilient to automation, emphasizing the widespread integration of AI and the need for employees to develop skills in areas that AI currently cannot replicate—such as human interaction, creativity, and complex problem-solving in unstructured scenarios.

Learnings from past technological revolutions

Past technological revolutions indicate that advancements often lead to job transformation rather than wholesale job displacement. They also highlight the importance of complementary innovations and adaptations in realizing the full potential of new technologies. Four notable examples are the introduction of automated teller machines (ATMs), the widespread adoption of spreadsheet software like Microsoft Excel, the advent of the internet, and the implementation of interactive voice response (IVR) systems.

1. ATMs: Contrary to initial fears, the introduction of ATMs did not lead to a significant reduction in bank teller jobs. A study by James Bessen found that while ATMs reduced the number of tellers per branch, they also reduced the cost of operating a branch, leading banks to open more branches. As a result, the number of bank tellers in the United States actually grew between 1980 and 2010, despite the widespread adoption of ATMs.[56]
2. Spreadsheet software: The introduction of spreadsheet software like Excel in the 1980s revolutionized accounting and financial analysis. While it automated many manual calculations, it didn't lead to widespread job losses among accountants. Instead, it changed the nature of accounting work, allowing professionals to focus on more complex analysis and strategic tasks.[57]
3. Internet: The internet has radically altered the landscape of work. While it's reduced the demand for some occupations, like post officers, it's created new, behemoth employers in e-commerce, cybersecurity, and software development. Gig work now accounts for over 10% of global employment and is a segment of the global labor market that is growing much faster in developing regions than developed.[58]
4. IVR systems: The adoption of IVR in customer service initially raised concerns about job displacement. However, while IVR systems have automated simple inquiries, they have also allowed human agents to focus on more complex customer interactions, often leading to improved customer satisfaction and retention.[59]

56 Bessen, *Learning by Doing: The Real Connection between Innovation, Wages, and Wealth.*
57 Frey and Osborne, "The Future of Employment."
58 World Bank, "Demand for Online Gig Work Rapidly Rising in Developing Countries."
59 ILO, "Robotics and Reshoring - Employment Implications for Developing Countries."

Augmentation as the pathway to resilience and new forms of work

Customer Experience

AI is transforming the Customer Experience job family. Just over 40% of tasks in this domain are automatable, but nearly half are set for augmentation over the next five years. This suggests that AI will primarily enhance rather than replace human roles. The emphasis will shift toward handling intricate customer service issues that require a personal touch, which could mean increasing earnings through higher value-added work. Workers will need to become proficient in managing AI tools to meet customer needs efficiently.

Take the example of Norah's current junior role as a customer service agent. Norah already thinks that the work she does can and should be automated because she knows AI can handle simple tasks. With some training, Norah says this would allow her to move to tier two of customer support where she deals with customers who need to speak to a human. Tier two support includes agents that have a higher level of technical support experience and expertise and can handle more complex issues.[60] Norah sees this as a pathway to a more satisfying role with better pay as she explain:

> *"The first tier of customer support should eventually completely be automated so that it's, it's the second tier where you find that you're speaking to humans because a lot of the stuff that I'm doing now, if it was fully automated, I think I could then move on to tier two support where we could get paid more."*
>
> **Norah, customer service agent, Uganda**

In her new role in tier two customer support, Norah's company could introduce more AI that could make Norah even more productive. Introducing a generative AI conversational assistant can increase productivity, particularly for lower-skilled workers, and workplace experience for customer support agents like Norah.[61]

The impact of AI differs between text-based and voice-based interactions. In text-based interactions, AI technologies primarily serve as tools for automation. Systems like chatbots and automated messaging platforms efficiently handle routine inquiries, such as FAQs and transactional updates, reducing the need for human intervention in these areas. This automation allows businesses to streamline operations, deliver consistent responses, and

60 Bauer, "How to Set up Support Tiers."
61 Brynjolfsson, Li, and Raymond, "Generative AI at Work."

handle high volumes of interactions without the corresponding increase in headcount. For voice-based interactions, the impact of AI leans more heavily toward augmentation than automation. While AI-driven voice systems such as IVR can automate straightforward tasks like routing calls and processing simple requests, the nuances of human speech, including accents, emotions, and cultural references, often demand human oversight and intervention.

For workers everywhere, AI-driven language processing and translation tools can act as valuable augmentative resources. These tools enable workers to engage effectively with customers across linguistic divides, providing real-time language support that enhances communication and service quality. Similarly, AI systems programmed with cultural nuances and context can support agents in delivering interactions that are culturally sensitive and empathetic across time zones and national boundaries. AI also can augment the handling of more complex interactions by providing workers with customer data, sentiment analysis and recommended solutions, enabling them to deliver more personalized service. This augmentation ensures that workers are not constrained by language and cultural barriers, which is particularly powerful for bridging the gap between, Western-centric sources of demand and the African workforce.

BPO leaders in customer services[62] have emphasized the importance of maintaining a "humans in the loop" (HITL) approach when integrating AI into customer service operations. However, this stance often lacks critical examination of its long-term implications such as workforce reduction as AI becomes more sophisticated.

IT-Enabled Services

In ITES, AI is automating tasks related to system monitoring, basic troubleshooting, maintenance, and quality assurance. However, augmentation is likely to feature strongly, with over 40% of tasks identified as augmentation-friendly.

For roles like software developer, AI tools promise substantial enhancement. AI-driven coding assistants and automation tools accelerate the software development life cycle—from code generation to testing to deployment. These technologies empower developers to enhance code quality and foster innovation, allowing them to focus on architecture and user-focused design improvements. However, developers must continuously upskill to remain competitive by mastering AI-integrated development environments and understanding machine learning concepts.

Senior-level roles in the ITES job family have some of the highest levels of augmentation potential relative to senior roles in other job families, driven largely by senior IT specialists who can leverage AI to monitor IT systems, identify issues, and streamline implementation processes.

62 Pretorius, "How AI Is Changing the Value of People in the BPO Sector."

Finance and Accounting

The Finance and Accounting job family is projected to have the highest automation potential, with 44% of current work identified as automatable. Routine processes such as bookkeeping, data entry, and transaction processing are particularly susceptible to automation, driven by AI-powered software and machine learning algorithms. These technologies are redefining operational efficiency, accuracy, and speed, prompting a shift in workforce dynamics.

Positions like junior finance assistant, junior accountant, and junior financial analyst are likely to be most directly impacted by automation, with more than half of current workloads susceptible to automation—the most of any junior level across the four families considered. AI tools are automating repetitive tasks, such as data entry and reconciliation, freeing junior staff to engage in more analytical and strategic work. This shift demands upskilling in AI-driven software tools and data analysis techniques, enabling these professionals to transition from transactional roles to more value-added tasks like financial analysis and forecasting. Resilience at the junior level is also driven by physical onsite inspections and audits.

Automation susceptibility for intermediate level roles is projected to be nearly 50% higher than the average across all four families at this level. Vulnerability is driven by the capabilities of AI-powered tools for data collection, scenario planning, and pattern analysis. AI can also automate significant portions of routine reporting often tasked to this level. This presents the opportunity for improved productivity of intermediate level roles and could even elevate the role of accountants as strategic thought partners to business decision-making, if appropriate upskilling is in place.

For senior accountants and senior financial specialists, AI offers an opportunity to focus on higher-level advisory services, compliance, and strategic planning. Senior professionals will be increasingly tasked with leveraging AI insights to guide financial strategy and ensure robust compliance frameworks. However, their expertise will be crucial in managing the ethical use of AI in finance and aligning AI-driven insights with contextual nuance and intimate knowledge of business goals.

AI Data Services

AI Data Services is a rapidly growing segment of the market and as the demand for AI increases, so too will the demand for HITL within the AI value chain. The sector is projected to grow at a CAGR of nearly 40% between 2024 and 2030.[63] Growth potential is evident in the likely impact on intermediate and senior level roles. Nearly two-thirds of senior-level work is resilient to or increasingly important in the face of AI integration—32% higher than the next most resilient job category in the BPO/ITES sector. However, senior-

63 Grand View Research, *Artificial Intelligence Market Size and Trends.*

level AI Data Services roles represent only just over 2% of employment in the job family and 0.1% of employment in the sector overall.

New roles will most certainly emerge in AI Data Services as increasing value is placed on data and AI as strategic assets. As organizations seek to leverage data and AI for competitive advantage and efficiency, the demand for skilled professionals who can identify use cases, manage the quality, ethics and compliance of AI systems, and interpret complex datasets will grow. Indeed, young workers in AI Data Services already see the potential of the sector to create more jobs in AI and are already upskilling themselves for such jobs.

What comes next? Potential roles of tomorrow across job families

Virtual Agent Mentor
Scopes and manages virtual AI assistants to deliver highly personalized, intuitive customer experiences. This role would be a key interlocutor, translating an in-depth understanding of client context to delivery of AI agent services based on individual customer preferences and behavior.

AI Ethics Officer
Ensures that AI data practices adhere to ethical guidelines and standards. This role would involve the development and monitoring of ethical frameworks for data usage, privacy, and bias mitigation in AI systems.

Data Bias Auditor
Examines datasets for potential biases and develops strategies to mitigate them. This role ensures that AI models are trained on balanced data to promote fair and unbiased outcomes.

Human-AI Collaboration Specialist
Optimizes interactions between humans and AI systems. This role would involve designing workflows and interfaces that enhance human productivity and decision-making when working with AI.

Explainability Designer
Makes AI decisions understandable to end users and stakeholders. This involves creating tools and interfaces that translate complex AI processes into easy-to-grasp insights, enhancing transparency and trust.

Impact sourcing: Insights and lessons from past initiatives

As early as 2011, a global initiative[64] championed impact sourcing: an inclusive employment practice in which companies in global supply chains intentionally hire and provide career development opportunities to people with limited prospects for formal employment. This initiative led to the establishment of the Global Impact Sourcing Coalition (GISC), a global network of businesses committed to impact sourcing.[65]

By 2019, GISC included more than 70 members—including Microsoft, Google, Bloomberg, Facebook, Nielsen, SAP Ariba, Tech Mahindra, Teleperformance, and many business service providers from around the world.[66] GISC aimed to create at least 100,000 impact sourcing jobs in Cambodia, Kenya, India, and Nepal. By the time it ended in 2020, the coalition had enabled the creation of 29,000 jobs in 19 countries.[67] GISC remains an active community on LinkedIn.

GISC offers several lessons for donors considering similar impact sourcing initiatives. The coalition's reflections report recommended that donors ensure that their vision and theory of change are translated into a compelling business case for companies. This includes highlighting the positive impact of the initiative on business outcomes like turnover, employee engagement, and service quality. Donors should be flexible in setting goals and evaluation metrics, as companies are more likely to engage and invest when they can shape objectives and metrics that align with both social and business goals.[68]

While GISC has concluded, other champions and operators have taken up the cause. Everest Group has been recognized for its "Commitment to Action," a proposal for "Enabling Inclusive Talent Models in the Global Services Industry" and is driving toward the goal of increasing the impact sourcing workforce to one million by 2030.[69] The South African government's GBS Masterplan calls for a commitment to impact sourcing and inclusive hiring plans to source new talent in the sector.[70] Harambee and Shadow Careers continue to scale their model which ensures young people from disadvantaged backgrounds receive the experience and support needed to successfully transition into the sector.[71]

Other outsourcing companies in Kenya and Uganda, such as DDD,[72] Na'maal, and Sama, have adopted similar sourcing models, particularly aimed at disadvantaged youth in cities. Na'maal, for example, provides both training and laptops to refugees, as well as remote work opportunities. Some of the young workers interviewed for this study described benefiting from this approach.

64 Rockefeller Foundation, "Job Creation Through Building the Field of Impact Sourcing."
65 Rockefeller Foundation and BSR, "Global Impact Sourcing Coalition."
66 BSR, "Global Impact Sourcing Coalition."
67 BSR, "GISC Annual Review 2019."
68 BSR, "The Global Impact Sourcing Coalition: Lessons Learned from a Market-Based Approach to Inclusive Employment."
69 Everest Group, "A Commitment to Action: Our 2030 Impact Sourcing Pledge."
70 Department of Trade, Industry and Competition. "Government and Industry to Boost Growing Global Business Service Industry Through New Industry Master Plan."
71 "Harambee Disrupts South African BPO Using Impact Sourcing."
72 Borgen, "5 Impact Sourcing Companies Alleviating Global Poverty."

Implications of an AI-driven BPO/ITES sector for rural youth

This report underscores that, by leveraging augmentation, the sector can equip young workers to adapt, excel, and seize new opportunities, paving the way for a more inclusive and sustainable future as it evolves with AI.

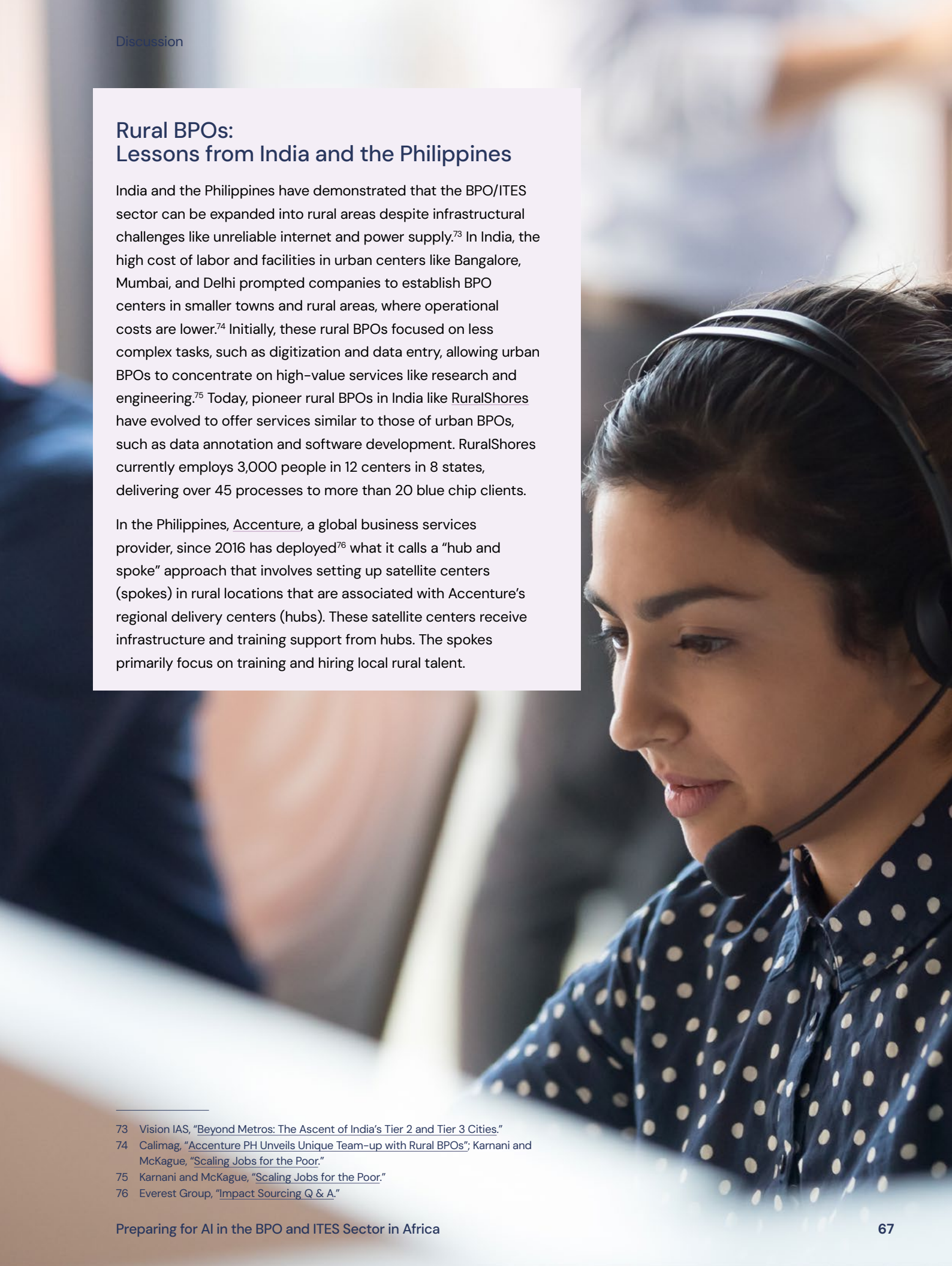
However, this transformation may not bode well for youth in rural areas, who face a multifaceted dilemma as they strive to secure meaningful employment in an increasingly digital economy. Even as the continent sees advancements in technology and innovation in big towns and cities, youth in rural areas remain on the fringes of this progress, grappling with significant barriers to internet connectivity, electricity, digital skills, and education—all critical elements for jobs in the sector.

The advent of AI intensifies this digital divide, creating an even greater gap between urban and rural populations and risking further marginalization of already disadvantaged rural youth. When more industries shift toward digital transformation and AI-driven processes, rural youth will be unable to compete in an economy that increasingly prioritizes digital proficiency, advanced technical skills, and now, AI literacy.

Rural BPOs: Lessons from India and the Philippines

India and the Philippines have demonstrated that the BPO/ITES sector can be expanded into rural areas despite infrastructural challenges like unreliable internet and power supply.[73] In India, the high cost of labor and facilities in urban centers like Bangalore, Mumbai, and Delhi prompted companies to establish BPO centers in smaller towns and rural areas, where operational costs are lower.[74] Initially, these rural BPOs focused on less complex tasks, such as digitization and data entry, allowing urban BPOs to concentrate on high-value services like research and engineering.[75] Today, pioneer rural BPOs in India like RuralShores have evolved to offer services similar to those of urban BPOs, such as data annotation and software development. RuralShores currently employs 3,000 people in 12 centers in 8 states, delivering over 45 processes to more than 20 blue chip clients.

In the Philippines, Accenture, a global business services provider, since 2016 has deployed[76] what it calls a "hub and spoke" approach that involves setting up satellite centers (spokes) in rural locations that are associated with Accenture's regional delivery centers (hubs). These satellite centers receive infrastructure and training support from hubs. The spokes primarily focus on training and hiring local rural talent.



73 Vision IAS, "Beyond Metros: The Ascent of India's Tier 2 and Tier 3 Cities."
74 Calimag, "Accenture PH Unveils Unique Team-up with Rural BPOs"; Karnani and McKague, "Scaling Jobs for the Poor."
75 Karnani and McKague, "Scaling Jobs for the Poor."
76 Everest Group, "Impact Sourcing Q & A."

Recommendations

The introduction and integration of AI presents a double-edged sword for the BPO/ITES sector in Africa. While it poses a risk to traditional outsourcing jobs by replacing repetitive and data-intensive tasks, it also increases demand for newer, more specialized roles within the outsourcing ecosystem. As AI technologies evolve, they are creating new and fast-growing value chains that present significant potential for job creation, particularly in tasks requiring refinement, customization, and human oversight.

Through strategic investments in labor market infrastructure, skill development, sustainable practices, ethical work frameworks, and robust AI enterprises, Africa can position itself to capitalize on the transformations caused by AI. These recommendations serve as a call to action for operators, buyers, governments, skilling institutes, NGOs, and donors to collaboratively drive this transformative journey, safeguarding job creation potential to ensure that the sector remains a driver of youth employment and helps connect Africa to the global digital economy in the age of AI.

Invest in AI-focused upskilling and reskilling to expand work opportunities and enhance readiness for evolving roles

Echoing recommendations by interviewees, addressing the challenges posed by AI and automation requires prioritizing retraining and upskilling initiatives for jobs that are most at risk of disruption. This targeted approach should focus on specific roles most likely to be affected by technological advancements, ensuring that training programs equip workers with the necessary skills to adapt to evolving job demands. A study by CISCO on the impact of AI on ICT jobs concluded that IT professionals would require three essential foundational skills to better a new job landscape.[77]

AI Literacy

- Critically select and use AI tools for the task.
- Use AI tools responsibly.
- Understand ethical aspects of AI.

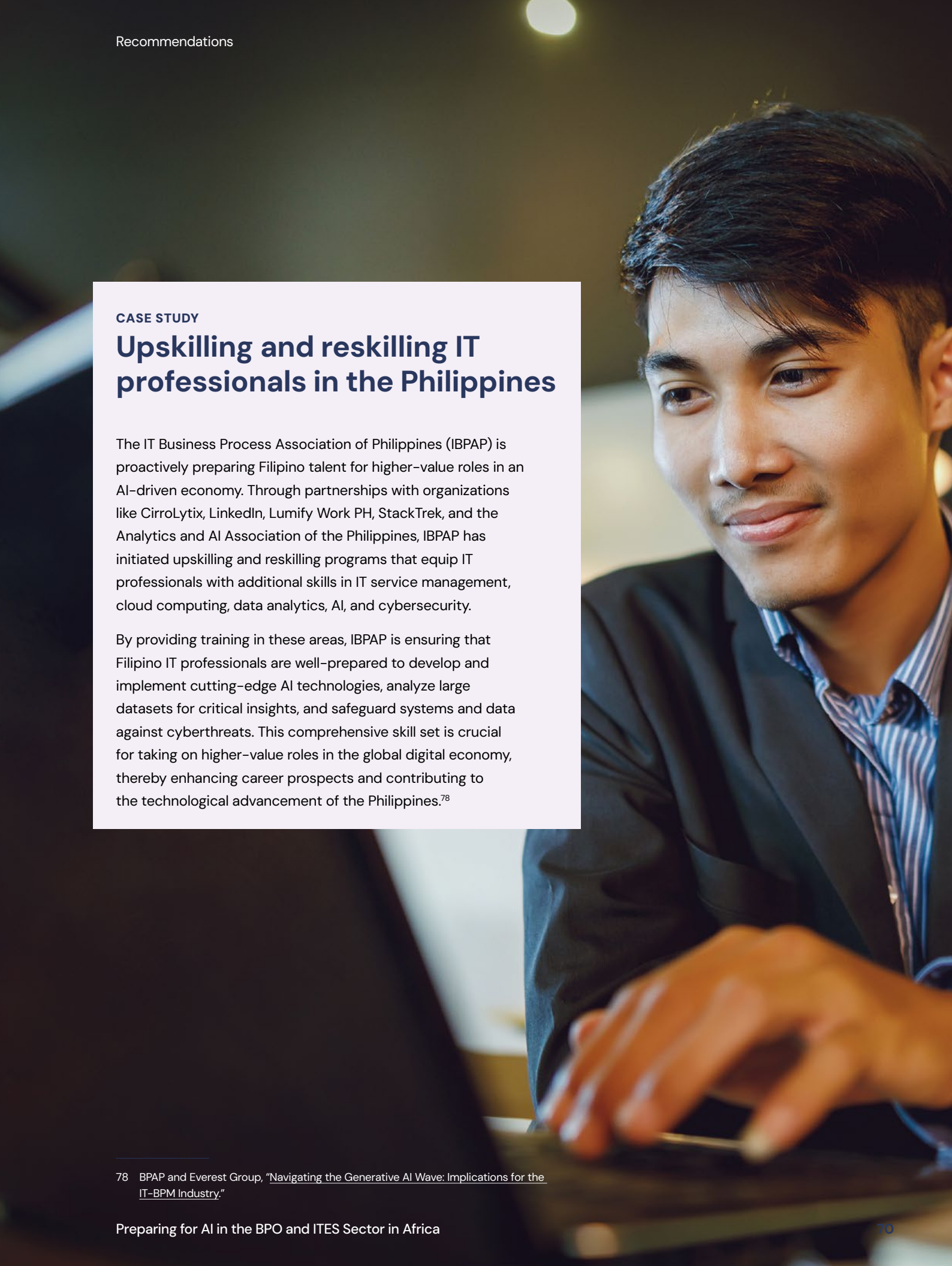
Data Fundamentals

- Data science principles and techniques
- Data classification
- Basic analytics
- Storytelling with data

Prompt Engineering

- How to interact with AI systems with prompts
- Prompting techniques
- Potential and limitations of the prompting engineering

77 AI-Enabled ICT Workforce Consortium, "The Transformational Opportunity of AI on ICT Jobs."



CASE STUDY

Upskilling and reskilling IT professionals in the Philippines

The IT Business Process Association of Philippines (IBPAP) is proactively preparing Filipino talent for higher-value roles in an AI-driven economy. Through partnerships with organizations like CirroLytix, LinkedIn, Lumify Work PH, StackTrek, and the Analytics and AI Association of the Philippines, IBPAP has initiated upskilling and reskilling programs that equip IT professionals with additional skills in IT service management, cloud computing, data analytics, AI, and cybersecurity.

By providing training in these areas, IBPAP is ensuring that Filipino IT professionals are well-prepared to develop and implement cutting-edge AI technologies, analyze large datasets for critical insights, and safeguard systems and data against cyberthreats. This comprehensive skill set is crucial for taking on higher-value roles in the global digital economy, thereby enhancing career prospects and contributing to the technological advancement of the Philippines.[78]

78 BPAP and Everest Group, "Navigating the Generative AI Wave: Implications for the IT-BPM Industry."

Across job families, adapting training curricula to emphasize skills that are resilient to disruption is essential. This could include areas such as critical thinking, creativity, and emotional intelligence, which are always in demand across various sectors.

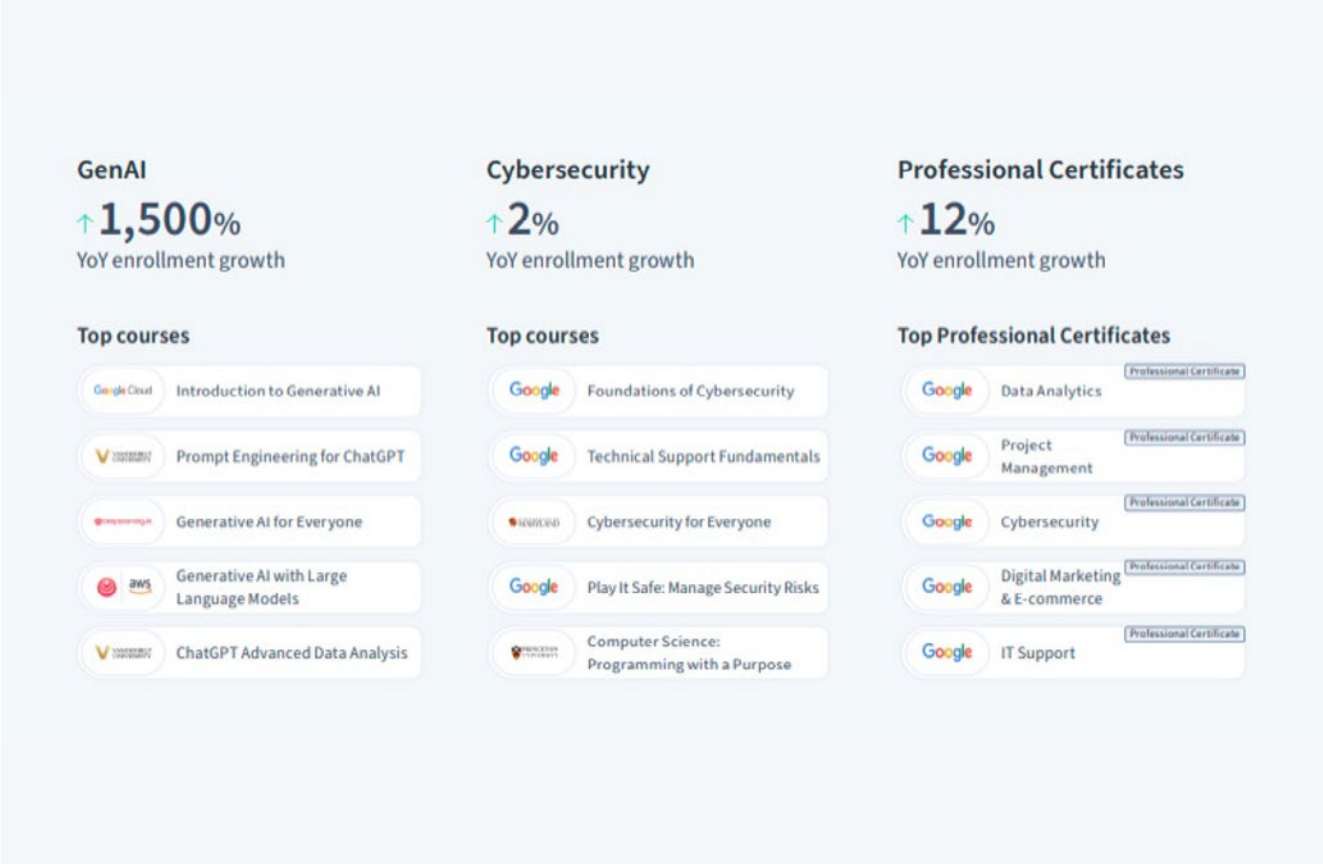
It is also imperative to consider the gendered impact of AI and automation on the workforce. Women are often disproportionately affected by job displacement in sectors like customer service, where many roles are at greater risk of being automated. Therefore, initiatives should be designed with a specific focus on safeguarding women's opportunities and participation in the sector.

Champions:
Skilling partners, BPO/ITES companies, national governments, and donor partners

Timeline:

- Medium-term (1–2 years): Review current skilling opportunities and incorporate basics of AI.
- Long-term (2–3 years): Roll out a reskilling and retraining of workers in partnership with skilling organizations.

Figure 18 ▾
How young Africans are responding to shifting skills demands



Improve forecasting of AI-related regional labor markets

The long-term nature of skilling and labor market transitions is at odds with the accelerated pace of innovation due to AI. Skilling, skills planning, and investment in skilling become increasingly difficult in such an uncertain environment.

To address this, we recommend developing a collaborative, open-source platform that delivers real-time insights into job market shifts. This system should incorporate live data analytics to anticipate and respond to rapid changes in AI technology and workforce demands, ensuring that strategies are adaptable and forward-thinking. The data platform should pull from various sources including job boards, operator investments, venture capital spends, and start-up fund raises and market surveys to identify the changing nature of existing roles and emergence of new areas of work. Matching this with a supply-side view from existing talent pools and skills pipelines, predictive analytics can be used to identify current and forecast future skills surpluses and shortages.

To accelerate the delivery of insights, augmenting existing labor market platforms should be considered. For example, in South Africa, Collective X is already creating a marketplace for digital skills, connecting employers with skills. A platform like this must prioritize strong data privacy and security measures to gain the trust of users and should feature a user-friendly interface, including offline versions or mobile apps to enhance accessibility in areas with limited internet connectivity.

Champions:

Regional bodies, national governments, and donor partners

Timeline:

- Quick win (6–12 months): Pilot the platform with initial data and basic functionalities in key markets like South Africa and Kenya.
- Long-term (2–3 years): Scale the platform across more regions and integrate predictive analytics.

Strengthen and shape the emerging consensus on a just framework for AI work

As AI continues to transform the BPO/ITES sector, it is imperative that growth aligns with environmental sustainability and ethical labor practices, ensuring a just and inclusive future for young workers.

We recommend advocating for the development of a comprehensive global framework that integrates sustainable AI practices with fair labor standards. This initiative should encompass policies and regulatory frameworks mandating companies to address environmental impacts—such as carbon emissions and resource use—alongside social concerns, including fair compensation, safe working conditions, and mental health support for workers, particularly in areas like content moderation.

The framework should:

- Promote responsible AI practices: Collaborate with environmentalists, labor organizations, and sustainability experts to establish industry-wide standards that reflect global benchmarks, such as the EU AI regulations[79] and Fair Work Principles.[80]
- Protect workers' rights: Partner with employers to improve working conditions, offer mental health support, and create clear pathways for young workers to transition into less harmful roles, ensuring fair pay and career advancement opportunities.
- Enhance transparency: Require companies to provide accurate job descriptions, particularly for content moderation roles, clearly outlining the nature of work and potential exposure to emotionally taxing tasks.
- Encourage adoption through incentives: Introduce tax benefits, certifications, or public recognition to reward businesses adopting these ethical and sustainable practices.

Organizations like the ILO and Fairwork Foundation, in partnership with environmental NGOs and regional economic communities, should champion this initiative. National governments and tech companies can provide the necessary support to create an AI landscape that is not only innovative but also ethical and sustainable, reflecting global standards such as the EU's AI regulation proposal and initiatives like the Green500 List.

79 Future of Life Institute, "EU Artificial Intelligence Act."
80 Fairwork Project, "Principles."

Champions:
NGOs, technical experts, national governments

Timeline:
- Medium term (1–2 years): Develop and implement the integrated policy framework and certification process for sustainable and fair AI practices.
- Long term (2–3 years): Establish incentive structures and ensure ongoing monitoring and compliance to uphold the framework's principles.

Foster AI enterprises with sustainable hubs and infrastructure

Positioning African enterprises as leaders in the global AI industry requires investment in advanced infrastructure and sustainable practices. AI hubs equipped with cutting-edge computing resources and supported by sustainable energy solutions would nurture startups, encourage cross-industry collaborations, and create innovative AI solutions tailored to Africa's unique challenges and opportunities. They should also function as melting pots for nurturing and growing African talent. Partnerships with operators, AI-native companies, and the broader private sector can provide practical, stipend-supported learning experiences that incorporate foundational AI knowledge, technical proficiency, and essential soft skills. Hubs should be located in areas with an existing density of young African talent, housing availability, and connections to employment opportunities. Often these locations will be in close proximity to leading universities.

A tech equipment lending program can aid rural youth in training and working remotely, thereby expanding access to opportunities. Community ownership models in hub operations can ensure local engagement and sustainability, as in Israel's Startup Nation Central. National ICT ministries and international development agencies should spearhead these initiatives with support from telecom companies, local communities, and international tech firms.

Champion:
National governments, universities, skilling institutions, and donor partners

Timeline:
- Quick win (6–12 months): Improve computer access through a lending program.
- Long-term (2–3 years): Develop and sustain AI hubs with advanced infrastructure and community involvement.

For rural youth: Invest in AI-powered rural and peri-urban BPO/ITES models

As shown throughout this report, AI threatens junior entry-level jobs that require basic technical skills, positions that are the clearest pathway into the sector for rural youth. While skilling programs are vital to prepare rural youth for future BPO/ITES roles, the availability of infrastructure will determine the sector's scalability and success in rural areas. This obstacle must be addressed if young people in rural areas are to work in the sector. A combined approach that leverages impact sourcing and innovative rural BPO/ITES models is essential to enable rural youth in Africa to participate in the BPO/ITES sector.

In Kenya, Qhala, a digital innovation company, is pioneering Digital Economy County Centers of Excellence, starting 90 kilometers outside of Nairobi in Nakuru County.[81] In partnership with county governments and other organizations, Qhala has created a one-stop center that provides training in data science, software engineering, AI, and AWS Cloud Practitioner certification. Additionally, the centers offer internet-connected computers, co-working spaces, and job placement services.

Learning Lions, located in a remote part of the Turkana region, is a social impact project and solar-powered ICT hub teaching rural youth the digital and design skills for them to thrive professionally. OnQ, a revenue cycle management BPO servicing global clients, has settled in Nyeri, bringing careers and its[82] continuing education program OnQ-U to a location 140 kilometers outside of Nairobi.

Projects can also draw inspiration from the location-agnostic approach of CloudFactory, Shortlist, and the Challenge Fund for Youth Employment, where youth purchase zero-interest essential equipment (e.g., laptops, smartphones, external monitors, portable power supplies) to enable them to work anywhere. This could be complemented by establishing shared workspaces in rural areas equipped with reliable electricity and internet connectivity. Such an approach would offer rural youth access to digital skills training, collaborative co-working environments, and remote employment opportunities.

81 Qhala, "Empowering Kenyan Youth Through the Digital Economy County Centers of Excellence (DECCOE) Program."

82 OnQ, "OnQ Training Methodology."

Additionally, expanding existing employability programs from organizations like Generation Kenya, Na'maal, and other BPO operators who practice impact sourcing can help include rural youth in the BPO/ITES sector. These existing skilling programs will have to adapt their training curriculum to include AI literacy. The ALX, a Mastercard Foundation-funded tech skilling program, must find ways to enable more rural youth to benefit from the online learning.

By addressing infrastructural, skills, and technological barriers, this model ensures rural youth can actively participate in the digital economy while remaining in their communities, reducing the need for urban migration.

Conclusion

The African BPO/ITES sector is at a transformative crossroads as AI reshapes work across industries. This report has highlighted both the risks of automation and the potential of AI to transform key job families, including Customer Experience, ITES, Finance and Accounting, and AI Data Services.

With current AI capabilities, over 40% of tasks in the sector are vulnerable to automation, indicating significant reengineering of processes that have traditionally defined these roles. However, these advancements also present vast opportunities for efficiency gains, workflow improvements, and cost reductions, balancing concerns about job displacement with the promise of a reimagined, more resilient workforce.

Automation risk is especially pronounced in junior roles, with women and youth facing heightened vulnerability. Junior positions, given their repetitive and transactional nature, are the most at risk, while senior and intermediate roles show higher resilience due to their oversight, quality control, and strategic responsibilities. Despite these disparities, there are substantial opportunities for augmentation and resilience across all job families.

To prepare young Africans for an AI-driven workforce, foundational knowledge in AI, proficiency in technical tools, and robust soft skills—such as adaptability, communication, and emotional intelligence—will be indispensable. Investment in targeted upskilling and reskilling programs is essential, particularly for women, to help workers transition into more resilient roles. Additionally, a real-time labor market platform will allow stakeholders to monitor workforce trends, align training with emerging roles, and bolster talent development across the continent. Establishing

standards for responsible AI practices and creating AI hubs with sustainable infrastructure will further protect young workers, enhance productivity, and position African companies as leaders in global AI innovation.

The future of Africa's BPO/ITES sector in an AI-driven world is indeed promising. With a balanced approach to skills development, policy advocacy, and sustainable AI practices, Africa can leverage AI to boost productivity, create new employment opportunities, and build a resilient, skilled workforce. By thoughtfully harnessing AI's transformative power, the sector can look forward to a future where technology not only augments human capabilities but also strengthens the foundation for long-term growth, stability, and opportunity across the continent.

References

AI-Enabled ICT Workforce Consortium. "The Transformational Opportunity of AI on ICT Jobs." July 2024. https://www.cisco.com/c/dam/m/ai-enabled-ict-workforce-consortium/report.pdf.

Anyanwu, Samuel. "Nigeria Launches 'Outsource to Nigeria Initiative' to Capture Share of $8.79 Trillion Global BPO Market." *Federal Ministry of Information and National Orientation* (blog), March 4, 2024. https://fmino.gov.ng/nigeria-launches-outsource-to-nigeria-initiative-to-capture-share-of-8-79-trillion-global-bpo-market/.

Bauer, Liz. "How to Set up Support Tiers." Zendesk. September 20, 2023. https://www.zendesk.com/blog/set-support-tiers/.

BORGEN. "5 Impact Sourcing Companies Alleviating Global Poverty." November 23, 2020. https://www.borgenmagazine.com/5-impact-sourcing-companies-alleviating-global-poverty/.

BPAP and Everest Group. "Navigating the Generative AI Wave: Implications for the IT-BPM Industry." February 2024. https://himap.ph/wp-content/uploads/2024/02/Everest-Group-on-Gen-AI-Wave-2023.pdf.

Brynjolfsson, Erik, Danielle Li, and Lindsey R. Raymond. "Generative AI at Work." Working Paper. National Bureau of Economic Research, April 2023. https://doi.org/10.3386/w31161.

BSR. "GISC Annual Review 2019." https://www.bsr.org/reports/GISC-Annual-Review-2019.pdf.

——. "Global Impact Sourcing Coalition." https://www.bsr.org/en/focus/climate-change.

——. "The Global Impact Sourcing Coalition: Lessons Learned from a Market-Based Approach to Inclusive Employment." July 2021. https://www.bsr.org/reports/GISC-Lessons-Learned-Report.pdf.

Caballar, Rina. "Generative AI vs. Predictive AI: What's the Difference?" IBM Blog, August 9, 2024. https://www.ibm.com/blog/generative-ai-vs-predictive-ai-whats-the-difference/www.ibm.com/blog/generative-ai-vs-predictive-ai-whats-the-difference.

Calimag, Melvin. "Accenture PH Unveils Unique Team-up with Rural BPOs." *Newsbytes.PH* (blog), April 29, 2014. https://newsbytes.ph/2014/04/29/accenture-ph-unveils-unique-team-up-with-rural-bpos-2/.

CCW. "2024 March Market Study: State of Generative AI." March 29, 2024. https://www.customercontactweekdigital.com/tools-technologies/whitepapers/2024-march-market-study-state-of-generative-ai.

Department of Trade, Industry and Competition. "Government and Industry to Boost Growing Global Business Service Industry Through New Industry Master Plan." Republic of South Africa, June 10, 2021. https://www.thedtic.gov.za/government-and-industry-to-boost-growing-global-business-service-industry-through-new-industry-master-plan/.

Everest Group. "A Commitment to Action: Our 2030 Impact Sourcing Pledge." September 19, 2022. https://www.everestgrp.com/clinton-global-initiative/.

——. "Impact Sourcing Q & A." https://www.everestgrp.com/wp-content/uploads/2016/10/RF-Accenture-Testimonial-on-Impact-Sourcing-approved_vf.pdf.

Fairwork Project. "Principles." https://fair.work/en/fw/principles/.

Fasica Berhane Gebrekidan. "Content Moderation: The Harrowing, Traumatizing Job that Left Many African Data Workers with Mental Health Issues and Drug Dependency." Data Workers' Inquiry, 2024. https://data-workers.org/fasica/.

Felten, Ed, Manav Raj, and Robert Seamans. "How Will Language Modelers like ChatGPT Affect Occupations and Industries?" SSRN, March 2023. https://doi.org/10.2139/ssrn.4375268.

Frey, Carl Benedikt, and Michael A. Osborne. "The Future of Employment: How Susceptible Are Jobs to Computerisation?" *Technological Forecasting and Social Change* 114 (2017): 254–80. https://doi.org/10.1016/j.techfore.2016.08.019.

Future of Life Institute. "EU Artificial Intelligence Act." https://artificialintelligenceact.eu/the-act/.

Gartner. "Augmented Intelligence." Gartner Information Technology Glossary. 2024. https://www.gartner.com/en/information-technology/glossary/augmented-intelligence.

GBS.World. "2023 Africa Global Business Services Benchmarking & Market Report." 2023. https://gbs.world/global-business-services-benchmarking-market-report/.

Genesis GBS. "Bespoke US and UK Source Market Value Propositions for South African Offshoring Providers." January 17, 2023. https://genesisgbs.com/blog/2023/01/17/released-bespoke-us-and-uk-source-market-value-propositions-for-south-african-offshoring-providers/.

Graham, Mark, Callum Cant, James Muldoon, and Mark Graham Callum Cant. "Meet Mercy and Anita – the African Workers Driving the AI Revolution, for Just over a Dollar an Hour." *The Observer*, July 6, 2024.

Grand View Research. "IT Services Market Size, Share, Growth Analysis Report 2030." 2023. https://www.grandviewresearch.com/industry-analysis/it-services-market-report.

GSMA. "AI for Africa: Use Cases Delivering Impact." July 2024. https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma_resources/ai-for-africa-use-cases-delivering-impact/.

Harambee. "Harambee Disrupts South African BPO Using Impact Sourcing | Harambee." https://www.harambee.co.za/harambee-disrupts-south-african-bpo-using-impact-sourcing.

IBM. "What Is Artificial Intelligence (AI)?" August 9, 2024. https://www.ibm.com/topics/artificial-intelligence.

ILO [International Labour Organization]. "Global Employment Trends for Youth 2024: Middle East and North Africa." August 9, 2024. https://doi.org/10.54394/GFEA7064.

——. "Robotics and Reshoring - Employment Implications for Developing Countries." August 12, 2020. https://www.ilo.org/publications/robotics-and-reshoring-employment-implications-developing-countries.

ITU and World Bank. "Transformative Technologies (AI)." Digital Regulation Platform, August 5, 2024. https://digitalregulation.org.

Julian, Ninsiima. "Uganda Government Seeks to Create 100,000 Jobs Through Business Process Outsourcing." PML Daily, May 24, 2024. https://www.pmldaily.com/business/2024/05/uganda-government-seeks-to-create-100000-jobs-through-business-process-outsourcing.html.

Karnani, Aneel, and Kevin McKague. "Scaling Jobs for the Poor: Reducing Poverty through the Impact Sourcing BPO Approach." *Markets, Globalization & Development Review* 4, no. 4 (2019). https://doi.org/10.23860/MGDR-2019-04-04-02.

KDCI Outsourcing. "Philippine Outsourcing Statistics (2024)." May 10, 2024. https://www.kdci.co/outsourcing-blog/post/philippine-outsourcing-statistics-you-should-know-2024.

KPMG. "Africa CEO Outlook 2024." https://kpmg.com/za/en/home/insights/2024/10/africa-ceo-outlook-2024.html.

Mastercard Foundation. "Young Africa Works Strategy." https://mastercardfdn.org/our-strategy/young-africa-works/.

McKinsey & Company. *The Economic Potential of Generative AI: The Next Productivity Frontier*. June 2023. https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-economic-potential-of-generative-ai-the-next-productivity-frontier#introduction.

——. "The State of AI in Early 2024." May 30, 2024. https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai.

NASSCOM. "Strategic Review: The Technology Sector in India." January 31, 2022. https://nasscom.in/knowledge-center/publications/technology-sector-india-2022-strategic-review.

Ochave, Revin Mikhael D. "IT-BPM Sector Revenues Increase by 10% in 2022." BusinessWorld, March 1, 2023. https://www.bworldonline.com/top-stories/2023/03/01/507574/it-bpm-sector-revenues-increase-by-10-in-2022/.

Oliver Wyman Forum. "How Generative AI Is Changing the Future of Work." 2024. https://www.oliverwymanforum.com/global-consumer-sentiment/how-will-ai-affect-global-economics/workforce.html.

OnQ. "OnQ Training Methodology." https://onqoc.com/onq-training-methodology/.

Paul, Katie. "Meta Releases AI Model That Can Check Other AI Models' Work." Reuters, October 21, 2024. https://www.reuters.com/technology/artificial-intelligence/meta-releases-ai-model-that-can-check-other-ai-models-work-2024-10-18/.

Peng, Sida, Eirini Kalliamvakou, Peter Cihon, and Mert Demirer. "The Impact of AI on Developer Productivity: Evidence from GitHub Copilot." arXiv, February 13, 2023. https://doi.org/10.48550/arXiv.2302.06590.

Republic of Kenya. "Government's Plan to Create 1 Million Jobs." May 10, 2024. https://www.president.go.ke/governments-plan-to-create-1-million-jobs/.

Pretorius, Mervyn. "How AI Is Changing the Value of People in the BPO Sector." ITWeb Africa, September 4, 2024. https://itweb.africa/content/O2rQGqAENB9qd1ea.

Qhala. "Empowering Kenyan Youth Through the Digital Economy County Centers of Excellence (DECCOE) Program." *Medium* (blog), June 14, 2024. https://qhalahq.medium.com/how-qhala-is-empowering-kenyan-youth-through-the-digital-economy-county-centers-of-excellence-9c27ea5276c1.

Rai, Saritha. "The World's Call Center Capital Is Gripped by AI Fever—and Fear." Bloomberg, August 27, 2024. https://www.bloomberg.com/news/features/2024-08-27/philippines-call-centers-navigate-ai-impact-on-jobs.

Ranta, Botlhokwa. "The Unknown Women of Content Moderation." Data Workers' Inquiry, 2024. https://data-workers.org/ranta/.

Rockefeller Foundation. "Job Creation Through Building the Field of Impact Sourcing." Working Paper, June 2011. https://www.rockefellerfoundation.org/wp-content/uploads/Job-Creation-Through-Building-the-Field-of-Impact-Sourcing.pdf.

Rockefeller Foundation and BSR. "Global Impact Sourcing Coalition." 2016. https://www.rockefellerfoundation.org/wp-content/uploads/Global-Impact-Sourcing-Coalition.pdf.

Rowe, Niamh. "'It's Destroyed Me Completely': Kenyan Moderators Decry Toll of Training of AI Models." *The Guardian*, August 2, 2023. https://www.theguardian.com/technology/2023/aug/02/ai-chatbot-training-human-toll-content-moderator-meta-openai.

Vision IAS. "Beyond Metros: The Ascent of India's Tier 2 and Tier 3 Cities." 2024. https://www.visionias.in/resources/material/?id=1193&type=weekly_focus.

World Bank. "Demand for Online Gig Work Rapidly Rising in Developing Countries." September 7, 2023. https://www.worldbank.org/en/news/press-release/2023/09/07/demand-for-online-gig-work-rapidly-rising-in-developing-countries.

——. "Rural Population - Sub-Saharan Africa." World Bank Open Data. Accessed November 25, 2024. https://data.worldbank.org.

——. "Transforming Education for Inclusive Growth." Africa's Pulse No. 30, October 2024. https://hdl.handle.net/10986/41999.

Yan Liu and He Wang. "Who on Earth Is Using Generative AI?" Policy Research Working Papers 10870. World Bank Group Digital Development Global Practice, August 2024. http://documents.worldbank.org/curated/en/099720008192430535/IDU15f321eb5148701472d1a88813ab677be07b0.

APPENDIX 1:

Interviewees

Pseudonym	Sector	Role	Level	Gender	Country	Age
Jacob	AI and Data Services	Data annotation specialist	Junior	Male	Ghana	24
Henry	AI and Data Services	Project associate	Junior	Male	Kenya	26
Isaac	AI and Data Services	Data annotator	Junior	Male	Kenya	25
Joseph	AI and Data Services	Machine learning associate	Junior	Male	Kenya	27
Miriam	AI and Data Services	Project supervisor	Intermediate	Female	Kenya	28
Conrad	AI and Data Services	Team lead	Intermediate	Male	Kenya	31
Gabriel	AI and Data Services	Customer moderator	Intermediate	Male	Kenya	26
Leila	AI and Data Services	Content moderator	Intermediate	Female	Kenya	25–30
Norah	Customer Experience	Customer support agent	Junior	Female	Uganda	30–35
Naomi	Customer Experience	Customer support agent	Junior	Female	Uganda	30–35
Lydia	Customer Experience	Customer support agent	Junior	Female	Ghana	30
Ibrahim	Customer Experience	Deputy team leader	Intermediate	Male	South Africa	25
Catherine	Customer Experience	Technical support specialist/sales agent	Senior	Female	South Africa	31
Anna	Customer Experience	Customer support agent	Junior	Female	Kenya	27
Joan	ITES	KYC analyst	Intermediate	Female	Nigeria	26
Stella	ITES	Product associate	Intermediate	Female	Ghana	25
Michael	ITES	Web developer	Junior	Male	Ethiopia	35
Sandra	ITES	Full stack developer	Junior	Female	Kenya	24
Christopher	ITES	IT support engineer	Junior	Male	Nigeria	32
Rebecca	ITES	IT support/HR/training	Intermediate	Female	Rwanda	25

APPENDIX 2:

Summary of interviewees' use of AI

AI tools used	Main tasks performed by juniors	Main tasks performed by intermediaries and seniors	Findings from automation risk analysis
Job family*	**Customer Experience**		
• Chatbots • Virtual assistants • Gen AI assistants (e.g., enterprise-level ChatGPT and Copilot, Happy Fox) • Grammar tools (e.g., QuillBot) • AI-content filters	• Receiving inbound calls • Making outbound calls • Responding to inquiries via live chat and email • Moderating content • Customer compliance checks	• Managing and supervising workers • Allocating tasks and creating workflows for juniors • Coaching agents • Sometimes making calls and responding to emails and chats during busy periods • Writing reports	• AI is transforming the Customer Experience job family. Just over 40% of tasks in this domain are automatable. • Junior tasks such as responding to customers via email and chat are automatable. Person-to-person calls face less risk of automation. • Tasks performed by intermediaries face less risk of automation.
ITES			
• Gen AI assistants (e.g., enterprise-level ChatGPT and Copilot) • ZZZ Code AI	• Responding to IT-related inquiries via chat and email • Receiving inbound calls • Making outbound calls • Software development • Customer compliance checks (fintech) • Research • Coding	• Training juniors • Assigning tasks • Onboarding new workers	• About 40% of the current workload in this sector is highly susceptible to automation. • Administration and support staff and tech help desk support agents are among the most susceptible to displacement. • Tasks done by junior workers are most at risk of automation.
AI Data Services			
• ChatGPT • Claude • Copilot	• Labeling data such as images, text, audio (training) • Validating the output of machine learning models • Testing LLM content • Training LLMs	• Managing and supervising junior workers • Quality assurance • Communicating with clients	• This job family is most affected by AI, with over 95% of current work likely to shift as AI integrates into existing workflows. • AI Data Services is rapidly growing; as the demand for AI increases, so too will the demand for humans-in-the-loop (HITL) within the AI value chain.

* No interviewees were from the Finance and Accounting job family.

APPENDIX 3:

Expert consultations

Name	Organization	Industry Type
Mophat Okinyi	Techworker Community Africa	AI advisory board
Dr Oğuz Alyanak	Fairwork AI/Oxford Internet Institute	AI advisory board
Elvis Melia	Independent	AI expert
Nevin Khaled	ITIDA (Egypt)	Industry association
Rahul Srivatsa	Techno Brain	International operator
Annepeace Alwala	Sama	International operator
Matthew Mcmullen	Cogito Tech	International operator
Martin Roe	CCI Global	International operator
Mervyn Pretorius	CCI Global	International operator
Sven Decauter	Teleperformance	International operator
Sameer Raina	Digital Divide Data	International operator
Nelly Githaka	Avala AI	International operator
Freddie Monk	Aya Data	Regional operator
Kojo Hayford	eSAL	Regional operator
David Gowu	Inngen	Regional operator
Andy Searle	Paladin Consulting	Regional operator
Lorraine Charles	Na'amal	Skilling and placement
Shuting Xia	Na'amal	Skilling and placement
Edna Karijo	emobilis	Skilling and placement
Austen Stranahan	Shortlist	Skilling and placement
Nikki Germany	Moringa School	Skilling and placement
Celina Lee	Zindi	Skilling and placement
Patrick Morton	Generation	Skilling and placement
Evan Jones	Collective X	Skilling and placement

APPENDIX 4:

Workshop methodology

Workshop 1

This workshop focused on critically analyzing (and ultimately aligning on) the possible trajectories of innovation for AI. We circulated a pre-read that outlined various potential scenarios. These were then critically analyzed and discussed with the workshop participants. Discussion then shifted to identifying drivers of change or "signposts" that could indicate which trajectories look more likely.

Workshop structure

Time	Segment	Participant
Part 1: Introduction and scenario discussion		
10 mins	Welcome, context setting, introductions	Caribou & Genesis Analytics
5 mins	Presentation on speculative AI scenarios	Genesis Analytics
15 mins	Discussion and poll on scenario descriptions and drivers	All
30 mins	Facilitated discussion on scenario feasibility	All
5 mins	Body and email break	All
Part 2: Signposting and reflections		
45 mins	Facilitated discussion to identify scenario "signposts"	Genesis Analytics
5 mins	Reflection on the key learnings from the workshop	Caribou
5 mins	Thanks and next steps	Genesis Analytics

Participants

Participant	Organization	Industry Type
Faeeza Khan	Flux Trends	Think tank
Alex Tsado	Ahura AI	Private
Rahul Srivatsa	Technobrain	International operator
Korstiaan Wapenaar	Genesis Analytics	Impact firm

Workshop 2

This workshop aimed to critically examine the potential impacts of AI on various job families within the African GBS sector. The discussion centered around the anticipated reshaping of the sector by AI, with specific emphasis on opportunities and challenges for key demographic groups, including women, youth, refugees, persons with disabilities, and rural populations.

Workshop structure

Time	Segment	Description
10 mins	Introductions and housekeeping	Personal introductions
5 mins	Context	Background to the study and workshop objectives
10 mins	Presentation	Presenting headline views of state and likely impact on the sector
30 mins	Discussion with prompting questions	Exploring the direction of AI evolution in Africa's GBS sector
5 mins	Break	Body and email break
35 mins	Impact assessment breakout groups	Detailed exploration of AI's impact on specific job families
20 mins	Report Back to Plenary	Capturing key points from break out discussions
5 mins	Close	Thanks and next steps

Participants

Participants	Organization	Industry Type
Nelly Githaka	Avala	International operator
Gary Bennett	Tek Experts	International operator
Christopher (Edakasi) Okello	Sama	International operator
Nick Markham	Jobtech Alliance	Skilling
Anirudh Ramesh	Jobtech Alliance	Skilling
Edna Karijo	Emobilis	Skilling
Dephence Mrunde	Emobilis	Skilling
Lorraine Charles	Na'amal	Skilling
Chemsley Schubert	BPO Skills Academy	Skilling
Nikki Germany + Clare Korir	Moringa School	Skilling
Obi Igwe	Hugo	International operator
Patrick Morton	Generation	Skilling and job placement
Elvis Melia	Elvis Melia	AI/BPO researcher
Samuel Sundin	Fuzu	Skilling and job placement

APPENDIX 5:

Full impact scoring

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
AI Data Services	Junior	Data Agent	Data Identification & Labeling	Identify and label named entities in text using specific criteria.	AI can largely automate this task using NLP technologies such as entity recognition tools (e.g., Google Cloud Natural Language, IBM Watson).	1
AI Data Services	Junior	Data Agent	Document Classification	Classify documents into predefined categories based on content and context.	Machine learning models (e.g., text classification algorithms) can be trained to automatically sort documents into categories, reducing the need for manual sorting. Popular tools include TensorFlow and SpaCy.	1
AI Data Services	Junior	Data Agent	Verification & Correction	Ensure accuracy of data labeled by AI systems and make necessary corrections.	AI can propose potential corrections based on learned patterns; however, human validation is critical to maintain data integrity and train AI systems effectively.	2
AI Data Services	Junior	Data Agent	Pattern Analysis	Analyze and identify recurring patterns or anomalies in datasets.	Advanced analytics and machine learning algorithms can detect complex patterns and anomalies, but human analysts are needed to interpret the implications and decide on subsequent actions.	2
AI Data Services	Junior	Data Agent	Data Density Assessment	Evaluate density and distribution of data within a dataset for quality and usability.	AI tools can quickly compute statistical distributions and summaries, but human expertise is required to understand nuanced implications of this data on project outcomes.	2
AI Data Services	Junior	Data Scientist	Data Collection	Collect and aggregate data from various sources.	Tools like Apache NiFi and Google Dataflow can automate data extraction but may need human oversight.	2
AI Data Services	Junior	Data Scientist	Data Preprocessing (Structured)	Prepare and preprocess structured data for analysis and modeling.	AI can automate many preprocessing tasks, but some human oversight is required for accuracy and relevance.	1
AI Data Services	Junior	Data Scientist	Data Preprocessing (Unstructured)	Prepare and preprocess structured data for analysis and modeling.	AI can automate some preprocessing tasks, but human involvement is required for accuracy and relevance.	2
AI Data Services	Junior	Data Scientist	Exploratory Data Analysis	Perform initial data analysis to understand patterns and insights.	AI can assist, but human interpretation is crucial for meaningful insights.	2
AI Data Services	Junior	Data Scientist	Model Training	Train machine learning models on prepared datasets.	AI can automate model training processes, but human oversight is required.	3
AI Data Services	Junior	Data Scientist	Model Evaluation	Evaluate the performance of models using various metrics.	AI can assist in evaluation, but human analysis is critical for improvement.	3
AI Data Services	Junior	Data Analyst	Data Collection	Collect and aggregate data from various sources.	Tools like Apache NiFi and Google Dataflow can automate data extraction but may need human oversight.	2

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
AI Data Services	Junior	Data Analyst	Data Cleaning	Clean and prepare data for analysis.	AI-driven tools like Trifacta and OpenRefine can substantially automate data cleaning processes.	1
AI Data Services	Junior	Data Analyst	Exploratory Data Analysis	Perform initial data analysis to understand patterns and insights.	AI can assist, but human interpretation is crucial for meaningful insights.	2
AI Data Services	Junior	Data Analyst	Data Visualization	Explore and visualize data to identify patterns, trends, and relationships.	Visualization tools like Power BI and Tableau can aid visualization but need human insight.	2
AI Data Services	Intermediate	Team Leader	Resource & Budget Management	Allocate resources and manage budgets efficiently to meet project demands and maximize ROI.	AI can enhance resource planning and budget tracking, but final decisions and strategic allocations are made by managers.	2
AI Data Services	Intermediate	Team Leader	Stakeholder & Client Relations	Maintain and nurture relationships with clients and stakeholders to ensure project alignment and satisfaction.	AI can assist in managing communications and tracking satisfaction metrics, but interpersonal interactions are primarily human tasks.	3
AI Data Services	Senior	Lead Data Scientist	Predictive Modeling & Algorithms	Design and implement advanced predictive models or algorithms to enhance business operations and customer interactions.	AI tools and platforms are crucial in building and scaling complex models, yet conceptual design is led by humans.	2
AI Data Services	Senior	Lead Data Scientist	Data Trend Analysis	Identify patterns and trends in large datasets to derive actionable business insights.	AI significantly enhances pattern recognition capabilities, but strategic application of insights relies on human expertise.	2
AI Data Services	Senior	Lead Data Scientist	Leadership & Team Development	Provide guidance and mentorship to junior and intermediate data scientists in their development and projects.	AI may assist in training delivery, but mentoring, especially strategic and career guidance, is inherently human.	3
AI Data Services	Senior	Lead Data Scientist	Cross-functional Collaboration	Collaborate with various teams to understand requirements, design solutions, and implement models effectively.	AI can facilitate collaboration through tools, but the synthesis of complex cross-domain requirements is a human skill.	3
AI Data Services	Senior	Lead Data Scientist	Client Management & Stakeholder Communication	Effectively communicate complex data findings and strategic recommendations to non-technical stakeholders..	AI tools can help prepare data visualizations and reports, but nuanced communication and persuasion are human-driven.	3
AI Data Services	Senior	Delivery Director	Strategic Planning	Develop and implement strategic plans for the delivery of data services.	AI can provide data analysis support, but strategic planning is predominantly human-driven.	3
AI Data Services	Senior	Delivery Director	Performance Monitoring	Monitor overall performance metrics and KPIs.	AI can assist in data collection and analysis, but human oversight is essential.	2
AI Data Services	Senior	Delivery Director	Client Management & Stakeholder Communication	Maintain and develop relationships with key clients and stakeholders.	AI can assist in tracking communication, but relationship management is human-centric.	3
AI Data Services	Senior	Delivery Director	Budget Management	Manage budgets and financial planning for data services projects.	AI can assist in budgeting but financial decisions and planning remain human-centric.	2
AI Data Services	Senior	Delivery Director	Risk Management	Identify and manage risks associated with data services projects.	AI can assist in risk identification, but human intervention is needed for management.	2
AI Data Services	Senior	Director (HR & Finance)	Strategic Planning	Develop and implement strategic HR and financial plans.	AI can provide data analysis support, but strategic planning is predominantly human-driven.	3
AI Data Services	Senior	Director (HR & Finance)	Leadership & Team Development	Lead the team, setting an example in professional growth and operational excellence.	AI supports HR analytics and training tools, but mentoring and leadership development are inherently human roles.	3

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
AI Data Services	Senior	Director (HR & Finance)	Budget & Resource Management	Manage budgets and resources for HR and finance.	AI can assist in budgeting, but financial decisions and planning remain human-centric.	3
AI Data Services	Senior	Director (HR & Finance)	Policy Development	Develop and implement HR and financial policies.	AI can assist in drafting, but human expertise is required for policymaking.	2
AI Data Services	Senior	Director (HR & Finance)	Risk Management	Identify and manage risks in HR and financial operations.	AI can assist in risk identification, but human intervention is needed for management.	3
Customer Experience	Junior	Customer Service/ Sales Agent	Text-based Inquiry & Complaint Handling	Handle text-based customer inquiries and complaints through email, chat, or messaging platforms.	AI chatbots and automated text processing systems can efficiently manage routine text-based inquiries and complaints.	1
Customer Experience	Junior	Customer Service/ Sales Agent	Voice-based Inquiry & Complaint Handling	Address customer inquiries and complaints received via phone calls.	AI voice recognition and processing tools can initially handle calls but require human intervention for complex issues.	2
Customer Experience	Junior	Customer Service/ Sales Agent	Customer Needs Identification	Identify customer needs to provide a high-quality service tailored to each individual.	AI tools can analyze customer data to predict needs but require human empathy and understanding for effective service.	1
Customer Experience	Junior	Customer Service/ Sales Agent	Information & Record Management	Provide accurate product/service information and maintain secure, accurate customer records using information systems.	AI databases and robotic process automations can maintain and retrieve records efficiently, though setup and oversight are human-driven.	1
Customer Experience	Junior	Customer Service/ Sales Agent	Policy Adherence & Proactive Support	Adhere to company policies and proactively solve problems and make decisions to enhance customer satisfaction.	AI can assist in policy enforcement through monitoring tools, but decision-making and problem-solving are largely human tasks.	2
Customer Experience	Junior	Customer Service/ Sales Agent	Contextual Understanding & Empathy	Understand and respond to customer queries with empathy, considering their emotional and situational context.	AI can support in analyzing sentiments and context to some extent, but responding with empathy necessitates human interaction.	2
Customer Experience	Junior	Customer Service/ Sales Agent	Text-based Translation Services	Provide translation of text communication such as emails, chats, or text messages in multiple languages.	AI translation tools like Google Translate can effectively handle text-based translations, but nuances may require human review.	1
Customer Experience	Junior	Customer Service/ Sales Agent	Voice-based Translation Services	Offer real-time or near-real-time voice translation during phone calls or voice chats.	AI technologies can assist in voice translation, yet they often struggle with accents, idioms, and real-time accuracy, necessitating human oversight.	2
Customer Experience	Junior	Administration and Support Staff	Data Entry & Management	Collect, enter, and manage data in systems and databases.	AI can significantly automate data entry and management processes.	1
Customer Experience	Junior	Administration and Support Staff	Document Management	Handle, organize, and store documents both physically and digitally, ensuring easy access and security.	AI can automate document categorization and retrieval, significantly reducing manual work.	1
Customer Experience	Junior	Administration and Support Staff	Document Preparation	Prepare and organize documents for various purposes.	AI can assist in document preparation, but some tasks require human oversight.	2
Customer Experience	Junior	Administration and Support Staff	Scheduling & Calendar Management	Manage appointments, meetings, and schedules for staff, ensuring efficient use of time.	AI scheduling assistants can automate appointment setting and calendar management tasks.	1

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
Customer Experience	Junior	Administration and Support Staff	Customer Records Updates	Update customer records with new information and corrections.	AI can significantly automate records updates.	1
Customer Experience	Junior	Technical Support Staff	Troubleshoot Technical Issues	Identify and resolve technical problems for customers.	AI can assist in initial diagnostics, but complex issues require human intervention.	1
Customer Experience	Junior	Technical Support Staff	Provide Technical Assistance	Offer technical guidance and support for products/services.	AI can provide initial guidance, but complex support requires human expertise.	1
Customer Experience	Junior	Technical Support Staff	Document Technical Solutions	Document issues and solutions in knowledge bases.	AI can assist in documentation, but human input is essential for accuracy and relevance.	1
Customer Experience	Junior	Technical Support Staff	Conduct System Checks	Perform routine checks and maintenance on systems.	AI can automate routine checks but human oversight is still necessary for anomalies.	1
Customer Experience	Junior	Technical Support Staff	Customer Training/ Onboarding	Train customers on the use of products and services.	AI can assist in delivering training materials, but personalized training requires humans.	2
Customer Experience	Intermediate	Team Supervisor	Team Leadership & Support	Provide leadership and support, and foster a high-performing work environment for a team of collections agents.	AI can facilitate leadership support through analytics and monitoring tools but cannot replace human leadership qualities.	3
Customer Experience	Intermediate	Team Supervisor	Complaint Resolution Management	Handle escalated customer complaints ensuring resolutions are timely and satisfactory.	AI can help track and initially categorize complaints, but human intervention is crucial for complex resolution and empathy.	2
Customer Experience	Intermediate	Team Supervisor	Call Metrics Monitoring & Analysis	Monitor call metrics and analyze data to identify trends and areas for improvement in call operations.	AI and data analytics platforms can efficiently process and analyze large data sets, identifying KPIs.	1
Customer Experience	Intermediate	Team Supervisor	Process Optimization	Identify inefficiencies and recommend improvements to enhance team performance and workflows.	AI can suggest process improvements based on data trends, but implementing and optimizing processes require human decision-making.	2
Customer Experience	Intermediate	Team Supervisor	Compliance & Schedule Adherence	Ensure compliance with call policies and adherence to employee schedules.	AI tools can monitor compliance and scheduling, but like adjustments and nuanced enforcement depend on human supervisors.	2
Customer Experience	Intermediate	WFM Real Time Analyst	Performance Monitoring	Monitor performance metrics and ensure targets are met.	AI can assist in monitoring, but human interpretation and decision-making are required for real-time adjustments.	2
Customer Experience	Intermediate	WFM Real Time Analyst	Real Time Workload Adjustments	Make adjustments to schedules based on real-time data.	AI can automate some adjustments, but human intervention is needed for complex changes.	1
Customer Experience	Intermediate	WFM Real Time Analyst	Cross-functional Collaboration	Maintain close communication with operations partners and other WFM team members.	Platforms like Slack and Microsoft Teams can assist, but human interaction is crucial.	2
Customer Experience	Intermediate	WFM Real Time Analyst	Performance & Issue Reporting	Update details on forecast and performance reports.	AI can automate routine reporting and forecasting tasks, reducing manual effort and improving efficiency.	1
Customer Experience	Intermediate	WFM Real Time Analyst	Communicate with Team & Management	Provide real-time updates and recommendations to the team and management.	Core human task with minimal AI impact.	3

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
Customer Experience	Intermediate	Quality Assurance Analyst	Communicate with Team & Management	Provide real-time updates and recommendations to the team and management.	Core human task with minimal AI impact.	3
Customer Experience	Intermediate	Quality Assurance Analyst	Performance Monitoring	Listen to and evaluate customer interactions.	AI can assist in monitoring and flagging issues, but human evaluation is needed for comprehensive analysis.	2
Customer Experience	Intermediate	Quality Assurance Analyst	Reporting & Analysis	Generate performance reports, analyze trends, present insights to management, and track key metrics.	BI tools like Tableau and Power BI can automate reporting and analysis, but human insight adds value.	1
Customer Experience	Intermediate	Quality Assurance Analyst	Develop Quality Standards	Create and maintain quality standards and procedures.	Human-driven task with minimal AI impact.	3
Customer Experience	Intermediate	Quality Assurance Analyst	Compliance & Schedule Adherence	Ensure compliance with call policies and adherence to employee schedules.	AI tools can monitor compliance and scheduling, but like adjustments and nuanced enforcement depend on human supervisors.	2
Customer Experience	Senior	Call Center Manager	Risk Management	Monitor external risks from market shifts or competitor strategies and develop mitigation plans.	AI analytics can identify potential risks, but developing and implementing risk management strategies are crucially human tasks.	3
Customer Experience	Senior	Quality Assurance Manager	Strategic Planning	Create and implement quality assurance strategies and policies.	AI can provide data, but strategy development is predominantly human-driven.	3
Customer Experience	Senior	Quality Assurance Manager	Oversee QA Processes	Supervise QA processes and ensure compliance.	AI can assist in monitoring, but oversight is human-centric.	2
Customer Experience	Senior	Quality Assurance Manager	Conduct Quality Audits	Perform and oversee quality audits.	AI can assist in data collection and pattern recognition, but audits require human judgment.	2
Customer Experience	Senior	Quality Assurance Manager	Leadership & Team Development	Train QA analysts and provide feedback.	Human-driven task with minimal AI impact.	3
Customer Experience	Senior	Quality Assurance Manager	Reporting & Analysis	Generate and present reports on quality metrics and findings.	AI can automate report generation, but insights and analysis require human input.	2
Customer Experience	Senior	WFM Manager	Develop Workforce Plans	Create long-term workforce management plans and strategies.	AI can assist with data, but planning and strategy require human judgment.	2
Customer Experience	Senior	WFM Manager	Performance Monitoring	Oversee and evaluate workforce performance metrics.	AI can assist in monitoring and reporting, but evaluation and decisions need human oversight.	2
Customer Experience	Senior	WFM Manager	Manage Scheduling Processes	Oversee and adjust scheduling processes and policies.	AI can assist in scheduling, but human oversight is necessary for adjustments and policies.	1
Customer Experience	Senior	WFM Manager	Budget & Resource Management	Allocate resources efficiently to meet business needs.	AI can assist in optimization, but decision-making is human-driven.	2
Customer Experience	Senior	WFM Manager	Reporting & Analysis	Generate and present reports on workforce performance and metrics.	AI can automate report generation, but insights and analysis require human input.	2

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
Finance & Accounting	Junior	Finance Assistant/ Financial Analyst	Data Collection	Collect and record financial data.	AI can automate data collection and record keeping. Some human oversight is required to ensure data storage is accurate.	1
Finance & Accounting	Junior	Finance Assistant/ Financial Analyst	Financial Analysis	Analyze financial statements and compliance reports to ensure adherence to reporting standards and procedures.	AI tools can pre-process and highlight anomalies in financial data, but deep analysis and judgment calls are human-dependent.	2
Finance & Accounting	Junior	Finance Assistant/ Financial Analyst	Financial Reporting & Auditing	Assist with the annual audit process, generate invoices, and contribute to financial reporting.	AI can streamline data compilation and generate reports, but accuracy checks and strategic insights require human input.	1
Finance & Accounting	Junior	Finance Assistant/ Financial Analyst	Onsite Inspections	Perform onsite inspections as part of a risk-based supervision approach.	AI can assist in scheduling and planning inspections, but actual onsite activities are conducted by humans.	3
Finance & Accounting	Junior	Finance Assistant/ Financial Analyst	Debt Management	Manage and maintain records of outstanding debts, communicate with debtors, and implement debt recovery measures.	AI can automate recordkeeping, send reminders, and track communications, but personal negotiations are better handled by humans.	1
Finance & Accounting	Junior	Finance Clerk	Invoice & Payment Processing	Process, audit, and manage various types of invoices and payments, ensuring accuracy and adherence to protocols.	AI can automate data entry, matching invoices with purchase orders, and processing payments.	1
Finance & Accounting	Junior	Finance Clerk	Account Reconciliation	Perform reconciliations for creditor accounts, ensuring accuracy and completeness of financial records.	AI-enhanced tools can automate the reconciliation processes and identify discrepancies quickly.	1
Finance & Accounting	Junior	Finance Clerks	Vendor Management	Manage vendor inquiries, disputes, and communications to maintain professional relationships and resolve issues.	AI can assist in managing inquiries through automated response systems, but human interaction is crucial for dispute resolution.	2
Finance & Accounting	Junior	Finance Clerks	Compliance & Record Management	Ensure all financial documents are correctly signed, distributed, and saved; verify data like tax IDs.	AI tools can manage document storage, perform data verification, and ensure compliance with financial regulations.	2
Finance & Accounting	Junior	Finance Clerk	Financial Reporting & Support	Assist in compiling financial reports, processing month-end transactions, and supporting audit activities.	AI can automate report generation and support data analysis, but human oversight is necessary for accuracy and decision-making.	2
Finance & Accounting	Junior	Accountant	Invoice & Payment Processing	Process, audit, and manage various types of invoices and payments, ensuring accuracy and adherence to protocols.	AI can automate data entry, matching invoices with purchase orders, and processing payments.	1
Finance & Accounting	Junior	Accountant	Account Reconciliation	Perform reconciliations for creditor accounts, ensuring accuracy and completeness of financial records.	AI-enhanced tools can automate reconciliation processes and identify discrepancies quickly.	1
Finance & Accounting	Junior	Accountant	Data Entry	Record financial transactions in accounting systems.	AI can significantly automate data entry processes.	1
Finance & Accounting	Junior	Accountant	Assist in Audit Preparation	Prepare documents and reports for audits.	AI can assist but human involvement is necessary for accuracy.	2
Finance & Accounting	Junior	Accountant	Generate Financial Statements	Assist in generating financial statements.	AI can automate report generation, but human insight and analysis are needed.	2
Finance & Accounting	Intermediate	Financial Analyst	Financial Reporting & Analysis	Support financial reporting, manage daily and weekly sales reports, and assist in month-end and forecasting cycles.	AI can automate routine reporting and forecasting tasks, reducing manual effort and improving efficiency.	1

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
Finance & Accounting	Intermediate	Financial Analyst	Business Planning	Assist in preparing and coordinating long-term plans and annual budget processes.	AI tools can help streamline data collection and scenario planning, but strategic thinking and plan adjustments are human-driven.	2
Finance & Accounting	Intermediate	Financial Analyst	Process Improvement	Improve core finance processes, ensure compliance, and handle special project financial studies.	AI can automate process mapping and compliance checks, but creating and innovating processes and handling complex projects require human expertise.	1
Finance & Accounting	Intermediate	Financial Analyst	Client Advisory & Application Support	Provide strategic advice and support clients in application processes for public sector funding.	AI tools can manage documentation and track requirements, while strategic advisory and application nuances need human judgment.	2
Finance & Accounting	Intermediate	Financial Analyst	Risk Mitigation & Compliance	Identify risks and ensure compliance with regulatory requirements related to public sector incentives.	AI can predict risk patterns and automate compliance monitoring, but strategic risk mitigation and compliance strategies require human input.	2
Finance & Accounting	Intermediate	Accountant	Financial Reporting & Analysis	Support financial reporting, manage daily and weekly sales reports, and assist in month-end and forecasting cycles.	AI can automate routine reporting and forecasting tasks, reducing manual effort and improving efficiency.	1
Finance & Accounting	Intermediate	Accountant	Financial Planning	Assist in the preparation and coordination of long-term plans and annual budget processes.	AI tools can help streamline data collection and scenario planning but strategic thinking and plan adjustments are human-driven.	2
Finance & Accounting	Intermediate	Accountant	Process Improvement	Improve core finance processes, ensure compliance and handle special project financial studies.	AI can automate process mapping and compliance checks, but creating and innovating processes and handling complex projects require human expertise.	1
Finance & Accounting	Intermediate	Accountant	Client Advisory & Application Support	Provide strategic advice and support clients in application processes for public sector funding.	AI tools can manage documentation and track requirements, while strategic advisory and application nuances need human judgment.	2
Finance & Accounting	Intermediate	Accountant	Risk Mitigation & Compliance	Identify risks and ensure compliance with regulatory requirements related to public sector incentives.	AI can predict risk patterns and automate compliance monitoring, but strategic risk mitigation and compliance strategies require human input.	2
Finance & Accounting	Intermediate	Supervisor	Team Leadership & Support	Lead and manage diverse teams to deliver high-quality data-driven solutions aligned with business goals.	AI tools facilitate team management and communication, but leadership remains predominantly human-driven.	3
Finance & Accounting	Intermediate	Supervisor	Performance Monitoring	Monitor performance metrics and ensure targets are met.	AI can assist in data collection and reporting, but human oversight is essential.	2
Finance & Accounting	Intermediate	Supervisor	Process Optimization	Identify inefficiencies and recommend improvements to enhance team performance and workflows.	AI can suggest process improvements based on data trends, but implementing and optimizing processes require human decision-making.	2
Finance & Accounting	Intermediate	Supervisor	Resource & Budget Management	Allocate resources and manage budgets efficiently to meet project demands and maximize ROI.	AI can enhance resource planning and budget tracking, but final decisions and strategic allocations are made by managers.	2
Finance & Accounting	Intermediate	Supervisor	Stakeholder & Client Relations	Maintain and nurture relationships with clients and stakeholders to ensure project alignment and satisfaction.	AI can assist in managing communications and tracking satisfaction metrics, but interpersonal interactions are primarily human tasks.	3
Finance & Accounting	Senior	Finance Manager	Reporting & Analysis	Produce detailed monthly management reports and financial information packs for stakeholders.	AI tools streamline data aggregation and report generation, but strategic insights and interpretations require human input.	1
Finance & Accounting	Senior	Finance Manager	Strategic Financial Planning	Lead budgeting, planning, and forecasting processes, aligning them with organizational goals.	AI enhances forecasting with predictive analytics, yet strategic alignment requires human financial acumen.	2
Finance & Accounting	Senior	Finance Manager	Risk Identification & Mitigation	Identify complex financial and business risks; develop and implement strategies to mitigate these risks.	AI provides risk assessment tools, but developing and applying mitigation strategies is a largely human-driven process.	3

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
Finance & Accounting	Senior	Finance Manager	Leadership & Team Development	Lead finance team, setting an example in professional growth and operational excellence.	AI supports HR analytics and training tools, but mentoring and leadership development are inherently human roles.	3
Finance & Accounting	Senior	Financial Specialist	Financial Modeling	Develop and refine complex financial models.	AI can assist in modeling, but human oversight is crucial for tuning and interpretation.	2
Finance & Accounting	Senior	Financial Specialist	Portfolio Management	Manage and optimize investment portfolios.	AI can assist in portfolio management, but human judgment remains essential.	2
Finance & Accounting	Senior	Financial Specialist	Strategic Financial Planning	Lead budgeting, planning, and forecasting processes, aligning them with organizational goals.	AI enhances forecasting with predictive analytics, yet the strategic alignment requires human financial acumen.	2
Finance & Accounting	Senior	Financial Specialist	Risk Identification & Mitigation	Identify complex financial and business risks; develop and implement strategies to mitigate these risks.	AI provides risk assessment tools, but developing and applying mitigation strategies is a largely human-driven process.	3
Finance & Accounting	Senior	Financial Specialist	Leadership & Team Development	Lead finance team, setting an example in professional growth and operational excellence.	AI supports HR analytics and training tools, but mentoring and leadership development are inherently human roles.	3
Finance & Accounting	Senior	Accountant	Strategic Financial Planning	Lead budgeting, planning, and forecasting processes, aligning them with organizational goals.	AI enhances forecasting with predictive analytics, yet strategic alignment requires human financial acumen.	2
Finance & Accounting	Senior	Accountant	Risk Identification & Mitigation	Identify complex financial and business risks; develop and implement strategies to mitigate these risks.	AI provides risk assessment tools, but developing and applying mitigation strategies is a largely human-driven process.	3
Finance & Accounting	Senior	Accountant	Leadership & Team Development	Lead finance team, setting an example in professional growth and operational excellence.	AI supports HR analytics and training tools, but mentoring and leadership development are inherently human roles.	3
Finance & Accounting	Senior	Senior Accountants	Compliance Management	Ensure compliance with financial regulations and standards.	AI can assist in monitoring compliance, but interpretation and enforcement require humans.	2
Finance & Accounting	Senior	Financial Specialist	Reporting & Analysis	Conduct complex financial analysis to support decision-making and oversee preparation and presentation of financial reports.	AI can automate report generation and assist in data analysis, but insights and decision-making remain human responsibilities.	2
IT Enabled Services	Junior	Help Desk Support Agent	IT Technical Support	Provide technical support to resolve IT issues related to hardware and software.	AI can assist in diagnosing common problems and suggesting solutions, but complex issues require human troubleshooting.	2
IT Enabled Services	Junior	Help Desk Support Agent	System Administration	Perform system administration tasks (e.g., user management, access control, software installation).	AI can automate routine tasks like software updates and user settings, but initial setup and complex issues need human oversight.	1
IT Enabled Services	Junior	Help Desk Support Agent	Network Troubleshooting (Remote)	Troubleshoot network issues including connectivity, configuration, and performance problems.	AI-powered tools can monitor networks and identify issues.	1
IT Enabled Services	Junior	Help Desk Support Agent	Network Troubleshooting (Physical)	Troubleshoot network issues including connectivity, configuration, and performance problems.	AI-powered tools can monitor networks and identify issues, yet hands-on troubleshooting often requires a technician.	2
IT Enabled Services	Junior	Help Desk Support Agent	Cross-functional Collaboration	Collaborate with other IT teams to implement and maintain IT infrastructure projects.	Collaboration platforms can be enhanced by AI, but effective teamwork and communication are predominantly human tasks.	3

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
IT Enabled Services	Junior	Help Desk Support Agent	Documentation & Knowledge Base	Document troubleshooting procedures and maintain knowledge base articles for future reference.	AI can help organize and retrieve documents efficiently, but creating detailed, accurate content requires human expertise.	1
IT Enabled Services	Junior	Software Developer	Coding and Code Quality Assurance	Write and review code to maintain high standards of code quality and maintainability across projects.	Automated tools can format code and perform static code analysis, but crafting clean, scalable code is primarily a human task.	2
IT Enabled Services	Junior	Software Developer	Feature Design & Implementation	Design and implement functional software features primarily for systems, applications and platforms.	AI can assist with code generation, syntax checking, and basic testing, but core design decisions are human-driven.	2
IT Enabled Services	Junior	Software Developer	Debugging & Problem Resolution	Identify and resolve software bugs and issues, ensuring stable and efficient system operations.	AI debugging tools can pinpoint problems and propose fixes, yet understanding complex bugs often needs human analysis.	2
IT Enabled Services	Junior	Software Developer	Code Documentation	Document software code and processes.	AI can assist in documentation, but human input is essential for accuracy.	2
IT Enabled Services	Junior	Software Developer	Collaborative Development	Work with cross-functional teams including designers, testers, and product managers, to create software solutions.	Tools like AI-powered project management can optimize collaboration, but effective teamwork relies on human interaction.	2
IT Enabled Services	Junior	Administration and Support Staff	Document Management	Handle, organize, and store documents both physically and digitally, ensuring easy access and security.	AI can automate document categorization and retrieval, significantly reducing manual work.	1
IT Enabled Services	Junior	Administration and Support Staff	Data Entry & Management	Collect, enter, and manage data in systems and databases.	AI can significantly automate data entry and management processes.	1
IT Enabled Services	Junior	Administration and Support Staff	Scheduling & Calendar Management	Manage appointments, meetings, and schedules for staff, ensuring efficient use of time.	AI scheduling assistants can automate appointment setting and calendar management tasks.	1
IT Enabled Services	Junior	Administration and Support Staff	Customer & Client Interaction	Handle customer and client inquiries, providing first-level support and directing queries to the appropriate channels.	AI chatbots can initially handle basic inquiries, but human interaction is required for complex issues.	2
IT Enabled Services	Junior	Administration and Support Staff	Sales Support	Assist the sales team by preparing materials, managing client databases, and following up on sales leads.	AI can streamline database management and automate follow-ups, but personal client engagement remains a human task.	2
IT Enabled Services	Intermediate	IT Technical Specialist	Advanced Troubleshooting	Troubleshoot complex hardware and software issues that go beyond initial diagnostics.	AI can assist in initial problem identification and suggest solutions, but deep diagnostics and fixes require expert human intervention.	2
IT Enabled Services	Intermediate	IT Technical Specialist	System Optimization	Optimize system performance through adjustments and upgrades to software and hardware configurations.	AI-based monitoring tools can suggest optimization, but implementing and fine-tuning system enhancements rely on technical expertise.	2
IT Enabled Services	Intermediate	IT Technical Specialist	Security Management	Manage and enhance network and data security measures, including the implementation of security protocols.	AI tools can identify security threats and anomalies, but configuring and managing security measures need human oversight.	2
IT Enabled Services	Intermediate	IT Technical Specialist	Team Leadership & Support	Provide leadership and support, and foster a high-performing work environment for a team of collections agents.	AI can facilitate leadership support through analytics and monitoring tools but cannot replace human leadership qualities.	3
IT Enabled Services	Intermediate	IT Technical Specialist	Technical Documentation	Create and update technical documentation for systems operations, user manuals, and training materials.	AI can help organize and manage documentation, but creating comprehensive and accurate technical content is a human task.	1
IT Enabled Services	Intermediate	Help Desk Supervisor	Performance Monitoring	Oversee performance of help desk support agents.	AI can assist in tracking and reporting, but human oversight and interpretation are needed.	2

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
IT Enabled Services	Intermediate	Help Desk Supervisor	Team Leadership & Support	Train and guide junior support agents.	AI can facilitate training material delivery, but personalized coaching requires human intervention.	3
IT Enabled Services	Intermediate	Help Desk Supervisor	Complaint Resolution Management	Resolve issues that are escalated from junior staff.	AI can assist in preliminary sorting, but human resolution is essential for complex cases.	2
IT Enabled Services	Intermediate	Help Desk Supervisor	Process Optimization	Create schedules and allocate tasks to team members.	AI can automate scheduling to an extent but requires human adjustments and oversight.	2
IT Enabled Services	Intermediate	Help Desk Supervisor	Stakeholder & Client Relations	Maintain and nurture relationships with clients and stakeholders to ensure project alignment and satisfaction.	AI can assist in managing communications and tracking satisfaction metrics, but interpersonal interactions are primarily human tasks.	3
IT Enabled Services	Intermediate	Software Developer	Write & Test Code	Develop and test software code.	AI can assist in coding and testing, but human developers are essential for complex tasks.	1
IT Enabled Services	Intermediate	Software Developer	Debugging	Identify and fix bugs in software.	AI can assist in identifying bugs, but human intervention is needed for complex issues.	2
IT Enabled Services	Intermediate	Software Developer	Reporting & Analysis	Document software code and processes.	AI can assist in documentation, but human input is essential for accuracy.	1
IT Enabled Services	Intermediate	Software Developer	Cross-functional Collaboration	Work with other developers and teams to complete projects.	Core human task with minimal AI impact.	3
IT Enabled Services	Intermediate	Software Developer	Implement Software Solutions	Implement software solutions based on requirements.	AI can assist but human developers are essential for implementation.	2
IT Enabled Services	Senior	IT Manager	Strategic IT Planning	Develop long-term IT strategies aligned with organizational goals, including technology adoption and infrastructure upgrades.	AI can assist in data analysis and simulation to inform strategic decisions, but planning and execution are human-driven.	2
IT Enabled Services	Senior	IT Manager	IT Governance & Compliance	Oversee IT governance frameworks and ensure compliance with regulatory requirements and internal policies.	AI can monitor compliance and automate reporting, but governance and strategic compliance decisions require human oversight.	1
IT Enabled Services	Senior	IT Manager	Budget & Resource Management	Manage IT budgets, allocate resources effectively, and justify investments in new technologies.	AI can aid in budget forecasting and resource optimization, but financial decisions and negotiations are driven by humans.	2
IT Enabled Services	Senior	IT Manager	Leadership & Team Development	Lead IT teams, recruit new talent, mentor employees, and foster a culture of innovation and continuous improvement.	AI can support HR analytics and track performance metrics, but leadership and personal development rely on human skills.	3
IT Enabled Services	Senior	IT Manager	Crisis Management	Manage and respond to IT emergencies, such as data breaches or significant system failures.	AI can provide rapid response tools and data analysis during a crisis, but strategic crisis management requires human acumen.	3
IT Enabled Services	Senior	Software Developer	Design & Architect Software Solutions	Design and develop software architecture.	AI can assist in design but human knowledge is essential for complex architecture.	2
IT Enabled Services	Senior	Software Developer	Code Review & Quality Assurance	Review code and ensure quality assurance.	AI can assist in code review, but human judgment is crucial.	2
IT Enabled Services	Senior	Software Developer	Leadership & Team Development	Provide guidance and mentorship to junior developers.	Core human task with minimal AI impact.	3

* 1: High automation potential; AI can automate 90% or more of responsibilities.
2: Moderate automation potential; AI can automate around half of responsibilities.
3: Minimal automation potential; predominantly human-driven with little to no automation of responsibilities.

Job Family	Seniority Level	Role	Task Category	Description	Impact of AI	Score*
IT Enabled Services	Senior	Software Developer	Develop Complex Algorithms	Develop advanced algorithms and solutions.	AI can assist but human expertise is essential for complex algorithms.	2
IT Enabled Services	Senior	Software Developer	Cross-functional Collaboration	Work with cross-functional teams on high-level projects.	Core human task with minimal AI impact.	3
IT Enabled Services	Senior	IT Specialist	Oversee IT Infrastructure	Manage and oversee IT infrastructure and systems.	AI can assist in monitoring but human management is required for complex systems.	2
IT Enabled Services	Senior	IT Specialist	Implement Advanced Technical Solutions	Implement and oversee advanced technical solutions.	AI can assist in implementation, but human oversight is necessary.	2
IT Enabled Services	Senior	IT Specialist	Conduct Security Audits	Perform and oversee IT security audits.	AI can assist in identifying issues, but human judgment is crucial.	2
IT Enabled Services	Senior	IT Specialist	Leadership & Team Development	Offer leadership and guidance on technical projects.	Core human task with minimal AI impact.	3
IT Enabled Services	Senior	IT Specialist	Policy Development	Create and implement IT policies and procedures.	AI can assist in drafting, but human expertise is required for policymaking.	2

Caribou Digital

mastercard foundation

February 2025