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The Value of AI for Africa, the Middle East, and Türkiye

A Review of Industry, Academic, and Open Source Evidence

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The Value of AI for Africa, the Middle East, and Türkiye

Hundreds of billions of USD are projected to hit the MENA IT market, and **over 60% of MENA-run organizations are adopting AI.**

2,400+ AI companies have raised $803M in Africa, and **Nigeria and South Africa lead in AI adoption globally.**

The AMET region is using open source AI to develop **local language models,** including Orange's models in West Africa and the UAE's Falcon & Jais.

AI adoption could add **$320B to MENA's GDP by 2030**, with the UAE representing the largest share (13.6%), followed by Saudi Arabia (12.4%) and Egypt (7.7%).

In **Africa**, AI adoption could increase **GDP by $61-103B** annually, projecting to reach $234B by 2030.

Open source offers a cost-effective approach to AI integration, with many finding it **cheaper to deploy** than proprietary AI and **delivering a higher return on investment.**

Open source AI positively impacts **innovation**, with more users planning **AI pilot launches** as compared to proprietary users.

Africa's **open source developer community** is growing: Nigeria +50%, Kenya +40%, and South Africa +30%.

AI has nuanced impacts, creating net new jobs in the AMET region and opportunities for **Africa's youthful workforce to leapfrog technologically.**

Agriculture is a key sector for AI adoption as it employs **half of Africa's workforce** and offers opportunities for pest detection, crop analysis, and targeted advice.

AI **healthcare** applications include **disease detection** (Kenya's MediScan), **vaccination planning** (Nigeria's Vax-Llama) and **decision support** (Türkiye's HealthGPT).

Government services, education, and **telecommunications** are all critical areas for AI implementation, saving the sectors money through user support and productivity gains.

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Executive summary

This report examines the value of open source artificial intelligence (AI) across Africa, the Middle East, and Türkiye (AMET). Drawing on industry and academic evidence, it analyzes adoption and investment trends, economic potential, workforce impacts, sectoral applications, and policy recommendations.

Looking first at investment and adoption, the report finds good growth signals in the region, with governments and private investors channeling billions into infrastructure and startups. The general public's uptake is also strong: according to various studies, Nigeria, South Africa, the UAE, Egypt, and Saudi Arabia rank within the top countries globally for their populations' use of AI. Comparing the Middle East and North Africa (MENA) with the rest of Africa, MENA benefits from strong capital and connectivity, while African startups face limited data infrastructure and GPU access. Having the resources and capabilities to invest in and adopt AI are critical, as MENA countries stand to gain $320 billion in GDP, Africa up to $234 billion, and Türkiye $50–60 billion.

Open source AI provides a uniquely cost-effective and democratizing pathway for AMET countries. By lowering entry barriers, it enables governments, startups, and researchers to fine-tune models in local languages and cultural contexts. It also accelerates innovation, with open source users planning more pilot launches than proprietary users. For the Middle East, open source AI amplifies the impact of heavy infrastructure investments by fostering a dynamic ecosystem. In Africa, it enables digital leapfrogging, allowing mobile-first entrepreneurs to scale without prohibitive upfront capital.

The report then turns to workforce implications, which are significant but nuanced. Despite its projected impact on 40% of jobs globally, evidence shows that AI will not necessarily replace workers, but instead complement existing activities. In fact, it is expected to augment the number of jobs in AMET: for example, Türkiye anticipates 3.1 million net new jobs by 2030, Saudi Arabia ranks third globally for AI hiring, and Africa's young population offers a significant growth opportunity. These projections rest on the region's ability to upskill and train its population. Open source AI is a key enabler for this, as it provides free, hands-on training environments and can broaden participation among diverse groups.

Finally, the report highlights AI use cases across agriculture, healthcare, government services, education, and telecommunications across the AMET region, a number of which rest on open source technologies. To increase use cases and maximize the economic and societal benefits of AI, the report urges policy approaches that embed open source AI in national strategies, create innovation-friendly procurement policies, establish regional hubs for open development, invest in public-private partnerships for infrastructure, and scale up talent programs using open tools and data. These steps will help ensure that AI's projected $614 billion GDP impact on AMET by 2030 is both inclusive and sustainable.

Introduction

Artificial intelligence (AI) is increasingly influencing our personal, professional, and cultural lives, with significant transformations projected for the economy, workforce, and society at a global scale. Open source AI in particular provides unique opportunities as compared to proprietary solutions. Open source AI allows for significant economic benefits, such as cost savings, decreased time to market, higher revenue gains, and a more engaged talent market.[1] Beyond economic value, open source AI also has the potential to transform the workforce and the wider population through greater technological accessibility, transparency, adoptability, and efficiency, democratizing research and development, localizing solutions, and embedding trust and security into the design of the system.[2,3]

Defining open source AI

The definition of open source AI is continuing to take shape in the open source community. Its complexity is due to its various components, including software, data, model parameters, and documentation.[4] When we use the term **open source AI in this report**, we are referring to open models in the domain of generative AI, with the same definition as the May 2025 report:[1]

> **Open models** are defined in the Generative AI Commons' Model Openness Framework as machine learning models whose architecture, parameters (i.e., pre-trained weights and biases), and documentation are released under permissive licenses that permit their use, study, modification, and redistribution.[5]
>
> **Generative AI** refers to AI systems and models that create novel outputs, such as text, images, audio, video, and/or code, by learning patterns and distributions from training data rather than following explicit programming. Generative AI includes but is not limited to: language models, which enable tasks such as text generation and summarization; vision models, which enable tasks such as image generation and modification; and multimodal models, which are trained on data of multiple modalities, such as text, images, and audio, and accordingly enable the generation of outputs across different modalities, such as text-to-image creation or image-to-text reasoning. Among these, foundation models, which are characterized by their large scale, training on diverse datasets, and adaptability to various downstream tasks, play a crucial role in the development and application of generative AI systems.

Recent research has captured open source AI's economic and workforce value at a global level.[1] But how is this value captured in specific regions? This report provides an overview of open source AI's value in Africa, the Middle East, and Türkiye (AMET), capturing open source AI adoption in this region, its value to the economy and innovation, its impact on the workforce and developer communities, and user stories. Where we were unable to find open source AI-specific data, we relied on data on AI more generally. This report begins with an overview of adoption and investment rates of AI across the AMET subregions,* followed by an analysis of the economic benefits of open source AI and how these are particularly salient to the AMET region. After reviewing the impacts of AI on the AMET workforce, the report reviews case studies in five main sectors. Finally, the report concludes with open source AI-specific policy recommendations for the region.

AI adoption and investment

Globally, organizational adoption of and experimentation with AI is growing to increasingly new heights. According to a 2024 Linux Foundation study, a majority of organizations are using AI in at least one business function, and up to 94% of companies around the world** have adopted AI in some form.[6] Companies and nations around the world are investing heavily in the technology, with global corporate investment reaching US $252.3 billion in 2024, increasing 25% from 2023.[7] Across the AMET region, AI investment totaled $4.5 billion in 2024, with projections that it will increase to $14.6 billion by 2028.[8] An analysis of investment and adoption rates show important differences between AMET countries. The following subsections describe these differences in greater detail, focusing on general AI investment and adoption before describing open source AI trends.

AI investment and adoption in MENA

In the Middle East and North Africa (MENA), Gartner forecasted IT spending to reach $169 billion in 2026, up 8.9% from 2025.[9,10] This encompasses spending on data center systems, devices, software, IT services, and communications services. Of this growth, data centers represent the highest segment, making up 7.7% of total spending. As Gartner argued, this segment of spending is fueled by the demand for AI capabilities.

At a national level, governments are attracting and allocating funds to support core AI infrastructure development that will position these countries as global partners. As CNBC reported, Middle Eastern sovereign funds increased their AI investments by 5x in 2024.[11] This includes Saudi Arabia's "Project Transcendence," which sets aside $100 billion for AI and technology investments. The country also announced a $40 billion AI fund in partnership with American venture capital,[7,12] and launched Humain, an AI company backed by the Saudi Public Investment Fund to train models inside the country.[13] The UAE has also announced a $100 billion AI-focused investment fund called MGX.[14] MENA countries' national strategies appear primarily focused on deploying state-directed capital, with the

* This report is structured to group Middle East and North Africa as MENA and Africa to exclude the North African countries. Türkiye is grouped on its own. Some of the cited reports from Africa include North Africa in their analysis.

** In this survey, 55% of respondents were from the Americas, 18% from APAC, 17% from Europe, and 9% from the rest of the world.

intent of becoming global leaders and investment partners in AI.[15,16]

The region is also attracting foreign corporate investment. External funds are being channeled in MENA startups, which raised $228.4 million in April 2025, double what they raised the month before.[17] In 2025, Egypt counted 44 AI startups with $83.4 million in total funding.[18] Government funding for early-stage companies and innovation-friendly incentives and regulations are encouraging the launch and scale of AI solutions in MENA.

Impressive levels of investment are also matched by high adoption rates. According to Salesforce, employees in the Middle East are mirroring the 233% increase in global adoption of AI throughout the first half of 2025,[19] while a 2023 McKinsey report found that 62% of Gulf Cooperation Council (GCC) organizations were using at least one AI-powered application, slightly ahead of North American, Asia-Pacific, and European organizations.[20] A 2025 Deloitte survey of Saudi Arabia, the UAE, and Qatar found that most are in the early implementation stages, but 69% plan to increase investment in AI technologies in 2026.[21] Similarly, a 2024 McKinsey report found that almost three quarters of their survey respondents from GCC economies worked at organizations who were already using AI in at least one function, and most organizations are investing in AI but few have scaled their implementation.[22] The top use cases for these survey respondents included content generation and summarization. As of early 2025, the UAE, Egypt, and Saudi Arabia are among the top 6 countries globally for public adoption of AI tools – at 91%, 90%, and 88%, respectively.[23]

AI investment and adoption in Türkiye

According to KPMG research, the Turkish population's adoption of AI tools is the tenth highest in the world, at 81% in early 2025.[23] However, according to Implement Consulting Group's 2024 study, only 19% of large enterprises in Türkiye had adopted AI in 2023, and 5% of small and medium enterprises (SMEs), compared to 30% and 7% in EU countries, respectively.[24] Looking at the country's readiness to adopt, research shows a high operating environment—where trust in AI is high, data governance is strong, and there exists a diversity of practitioners—but a weaker AI strategy and infrastructure compared to other countries.[24] This may explain why the general public is using AI tools, while corporate implementation is slower to adopt the technology.

Türkiye's startup ecosystem secured $1.1 billion in 2024, with AI companies leading in deal counts.[25] The country's government is supporting this investment, with the Technology and Innovation Fund providing investments for tech startups. The government is also looking at large infrastructure projects such as data centers to build out its national AI capacity.[25]

AI investment and adoption in Africa

AI investment in Africa grew by over 40% between 2023 and 2025, with CNBC Africa predicting that the African AI market will hit $6.4 billion at the end of 2025.[26] As compared to MENA's more top-down state-backed financing, the investment landscape in Africa is more decentralized and venture-driven.[27] This is reflected in AI strategies in Kenya, Nigeria, Senegal, and South Africa, where the motivation comes from solving pressing developmental issues, increasing accessibility, and fostering startups and innovators.[28,29,30,31]

Despite this focus, AI startup investment remains limited in Africa: according to StartupList data, the continent received $27 million in 2024, compared to the hundreds of billions of global investment in AI startups that year.[7,18] The startup environment is limited by a lack of representative data, risk aversion of private capital investment, and limited infrastructure.[32,33] Some startups

break through this capital gap: for example, Kenya's Amini, an AI agriculture tool, backed by $2 million in early-stage funding, and Ghana's Aya Data, an LLM company that raised $900,000.[34] Kenya holds the most startup funding on the continent, while Nigeria is a leader in startups for the continent—growing from 35 in 2022 to over 80 in early 2024, and collectively raising over $120 million during this period, making up over half of the entire continent's funding from 2022 to 2024.[18,35,36,37] In 2025, South Africa counted 31 AI companies with $150.4 million raised collectively. Overall, the continent is home to over 2,400 AI companies that have raised $803.2 million in external funding as of June 2025.[18]

Beyond venture capital, Africa is also partnering with large corporations to fund innovation and infrastructure development, such as Google's catalytic fund for over 100 startups and grants for open source language research, Microsoft's $300 million AI and cloud infrastructure investment in South Africa, and Meta's Waterworth and 2Africa projects—undersea cables providing connectivity to South Africa, Kenya, Nigeria, and Senegal, among other countries.[38,39,40] Such infrastructure improvements support the accessibility, scalability, and growth potential for startups in emerging markets.

Investment in Africa is also being directed by governments, with a focus on larger-scale investments often through foreign direct investments. Data centers have become a large part of national strategies, with African governments implementing tax incentives and "Special Economic Zones" to promote data center construction and investing in renewable energy opportunities to improve grid reliance.[41] Kenya, for example, launched a $1 billion initiative in partnership with Microsoft and G42 to build a sustainable data center in 2024.[37] Cassava and NVIDIA are partnering to build Africa's "first AI factory."[42] These investments will help the continent build more resilient and independent AI ecosystems.[37] The literature also shows increasing investment in research activities: AI studies conducted in Africa have grown significantly in the last decade, particularly in South Africa,[43] while Nigeria committed $3.5 million in 2024 to AI research and development (R&D) initiatives across its universities.[36]

Despite nascent investment trends, African countries show significant adoption rates. According to McKinsey research, 40% of African companies have started to experiment with AI or have already implemented solutions.[32] The 2025 KPMG analysis of select emerging markets shows that Nigeria and South Africa rank in the top eight of countries whose populations are using AI—at 92% and 83%, respectively.[23] As high adopters of AI, African countries must ensure that they can build their own localized tools to have a stake in the AI ecosystem and see their languages and norms reflected in AI solutions. This is where open source AI is critical as a means to removing the roadblocks to capital and encouraging global collaboration.

Open source AI adoption in AMET

Open models represent a particularly strong opportunity for the AMET region. The emergence of open models such as Meta's Llama models and the DeepSeek models have demonstrated that any nation can access, adopt, and develop AI tools, regardless of the country's financial capabilities.[44,45,46,47,48] Prioritizing open source at the policy level means that AMET countries can leapfrog in AI development using democratizing technologies.

"Prioritizing open source at the policy level means that AMET countries can leapfrog in AI development using democratizing technologies."

As a result of its affordability and flexibility, open source AI is being adopted throughout the region. Adoption has come from larger corporate involvement in the region, such as the work of Orange Telecommunications to integrate African regional languages into LLMs for digital inclusion by fine-tuning open models.[49,50] Masakhane, an organization that releases open models and datasets for African languages, gives Africans the tools to develop local solutions.[49] Since 2019, Masakhane contributors have released 49 translation results on GitHub in more than 30 African languages.[49] Open data initiatives are also cropping up to increase the supply of African data and advance data sovereignty. For example, Kenya's Open Data Initiative makes government data freely accessible to the public through an online portal.[37,51] In the Middle East, locally-developed models such as Falcon, Fanar, and Jais all rely on open models.[52,53]

While AI is projected to boost economies around the world, having the resources and infrastructure to implement and sustain the technology's use is critical. Looking broadly at the AMET region, adoption and investment rates show divergent stories of readiness. As the Oxford AI Index from 2024 indicated, the UAE, Saudi Arabia, Türkiye, and Egypt are in the mid-range of global Government AI Readiness, while Nigeria, Kenya, and Senegal rank at the lower end of the range.[54] This readiness is ranked on various governance, innovation, and infrastructure, including the existence of a national AI strategy and regulation, entrepreneurship-friendly business environments, R&D funding, and the availability of data.[54] In the Middle East, the financial capital and connectivity exists to build large-scale infrastructure. However, in Africa, a lack of capital and connectivity means that ventures are less capable of getting off the ground. For example, gaining access to Graphics Processing Units (GPUs) is severely limited—according to Zindi Africa, only 1% of data scientists have access to GPUs.(55) Open models with less computational power provide an important solution in these conditions.[48]

These differing circumstances between Africa and the Middle East have resulted in African innovations and investments that are more targeted, agile, and application-focused, while the Middle East focuses on larger infrastructure projects and broad-based transformation.[56] Open source AI plays a distinct role in each. In the Gulf, it is adopted to develop a diverse and localized range of applications on top of the new and growing infrastructure. In Africa, open models represent the foundation on which startups build and scale, without massive upfront investment. Greater adoption of open source AI tools will allow these countries to capitalize on the economic benefits of the technology, outlined in the next section.

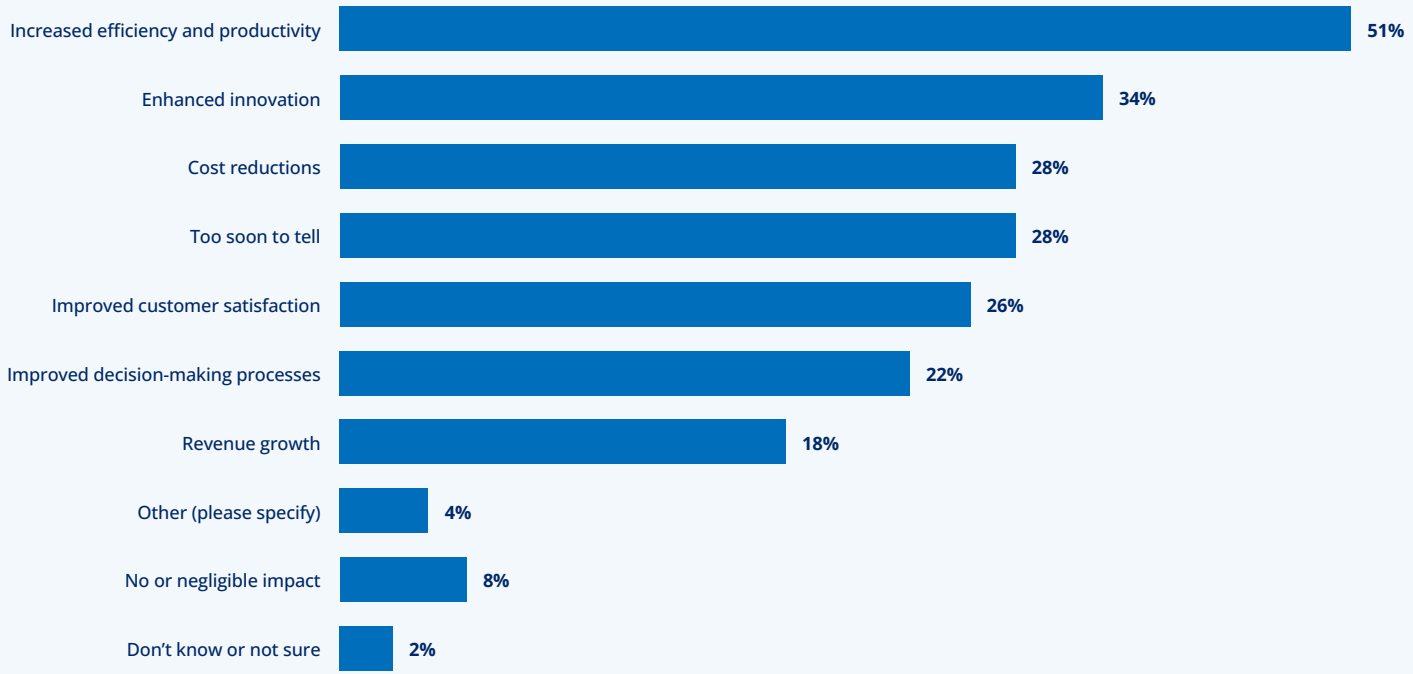
The economic benefits of AI

AI presents significant economic benefits for organizations. In a 2024 global survey on Generative AI, the Linux Foundation (LF) found that increased efficiency and productivity was the number one benefit to implementing AI (51%), followed by enhanced innovation (34%) and cost reductions (28%) (see Figure 1).[6]

FIGURE 1

ECONOMIC AND BUSINESS BENEFITS OF AI

What impacts has generative AI had on your primary use case?



2024 Generative AI Survey, Q16, Sample Size = 297, answered by organizations who adopted GenAI, Source: LF GenAI 2024 survey data.world

The productivity gains from AI present significant economic growth potential for countries around the world. In the Middle East, it is projected that AI could contribute $320 billion to national economies by 2030, with the UAE, Saudi Arabia, and Egypt expected to see economic injections representing 13.6%, 12.4%, and 7.7% of their respective GDPs.[57,58] The 2025 Deloitte survey of GCC states found that the most important benefits of implementing AI for an organization are improved efficiency and productivity as well as developing and improving new products and services.[21] In Türkiye, Implement Consulting Group estimates that widespread adoption of AI could boost the country's GDP by approximately $50-60 billion.[24]

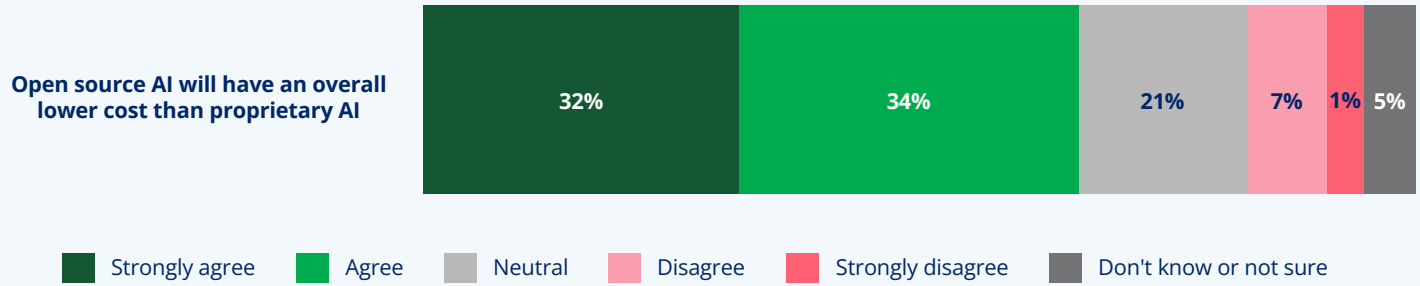
In Africa, a 2025 McKinsey analysis suggested that adoption of AI could unlock $61-103 billion annually across sectors.[32] Various sources project that AI adoption could add $234 billion to $2.9 trillion to Africa's GDP by 2030.[59] Nigeria, for example, is well positioned to achieve these gains because of its forward-looking national strategy and dynamic tech ecosystem.[60] As the Implement report highlights, achieving these gains hinges on successful adoption and implementation of the technology.[24]

Open source AI represents a unique opportunity for countries and organizations that might have a harder time adopting and implementing AI solutions due to financial constraints. The democratizing power of open source AI comes primarily from the cost savings: without open source solutions, companies would have to spend 3.5x more on software, and two-thirds of organizations find open source AI cheaper to deploy than proprietary models (see Figure 2).[1] This is a key reason why open source AI is chosen over proprietary solutions—evidence shows that the choice to adopt open models and tools is primarily due to the cost savings associated.[1]

FIGURE 2

OPEN SOURCE AI'S COST SAVINGS AS COMPARED TO PROPRIETARY AI

To what extent do you agree with the following statement?



2024 Generative AI Survey, Q28, Sample size = 311-314, Source: LF GenAI 2024 survey data.world

This choice appears to pay off in the longer run: A 2024 IBM study also found that 51% of companies using open AI tools report a positive return on investment (ROI)—10% higher than those not using open source.[61] Although no empirical evidence exists on the economic value of open source AI to AMET countries, we can extrapolate that the lower cost of open source is a significant consideration for countries in the AMET region. Where local socioeconomic and infrastructure limitations exist, there remains an opportunity for countries to compete on a global scale and have their own values and languages represented in models by way of open source solutions. As the Economist explains, open source helps distribute economic growth and technological development by democratizing access and increasing representation.[2]

Benefits to the ecosystem and innovation

Beyond cost reductions, open source AI also fosters innovation and ecosystem growth. Collaborating on open source projects leads to faster time to market with higher quality products.[1] According to the 2024 IBM study, companies using open source plan to launch more AI pilots this year (38% planning 21+ pilots) than companies not using open source (26% planning pilots).[61] As regions such as Africa face limited funding and a lack of infrastructure, open source AI offers the tools to innovate and collaborate at a lower cost than proprietary models.[62]

This is particularly salient for small businesses, as open source provides the market entry opportunity to develop niche applications and leverage existing models.[62] National strategies across the AMET region, from Saudi Arabia to Nigeria, have identified a vibrant startup and SME sector as critical to economic diversification and job creation.[28,63,64] Establishing policy and procurement practices that prioritize innovation leveraging open models and tools would help bolster a more inclusive, dynamic, and resilient private sector in this region.

Public-private partnerships also support ecosystem building and local innovation, such as Meta's Llama Impact Accelerator program which provides seed funding, training, and technical support for startups to launch their product.[65]

The collaborative and transparent nature of open source also creates the environment for healthier developer ecosystems. Developers in the AMET region can more readily pick up open source tools, fine-tune them, provide upstream contributions, and build applications on top of them. This creates a rich network effect, expanding and diversifying the open model or tool's use cases and talent pool, and establishing a regional standard as it becomes more localized and sustainable. As research from Brookings shows, Africa's open source ecosystem is growing—specifically, Nigeria's developer community grew by almost 50% between 2022 and 2023, Kenya over 40%, and South Africa 30%.[53,66] Having the tools and skillsets to contribute to open source is particularly salient in Africa. Conferences such as Open Source Community Africa and the co-located CHAOSSCon event support open source developer ecosystem building, knowledge sharing, and best practices, with sessions on AI featuring throughout.[67,68]

In the MENA region, as well as Türkiye, the open source developer ecosystem also appears to be growing. A 2024 report from the Tony Blair Institute found a 95% increase in GitHub pushes per labor-force participant in Egypt, and the UAE, Saudi Arabia, and Türkiye also experienced increases in GitHub contributions in 2024.[53] In Türkiye, OpenTR Foundation activities include hosting events, working groups, and conducting a new study to better understand the state of open source contribution in the country, all with the goal of broadly supporting the growth of the country's open source developer community.[69]

The adoption of open source in the AMET region also creates a network effect of collaborative organizations and projects.

Africa has a host of collaborative efforts around open source and AI. Various African organizations exist to help advocate for adoption, build communities, and promote African involvement in development and contributions, such as OSCAfrica, the AI Alliance, Zindi, and Masakhane.[70,71,72,73] These groups power innovation through collaboration: for example, Zindi invited experts to compress InkubaLM, an open source Small Language Model that supports African languages, to make it usable on smaller devices that do not have constant connectivity.[74] Similarly, in Tükiye, the first Turkish LLM was developed through the collaboration of 1,792 volunteers around an open source project called T3AI.[75] Trendyol, a leading e-commerce platform in Türkey, has led the development of a Turkish language model using Llama2.[76] In numerous instances, open source provides the vehicle to innovate and build solutions that address local needs.

The economic value of open source in the AMET region is not just associated with the cost savings and direct innovative effects of its adoption, but with the ripple effects of its development and implementation. As described above, the use of open source creates a complementary community of contributors required for its maintenance, growth, and upskilling. Growing this community of talent is key to maintaining a thriving ecosystem that keeps this region competitive.

Beyond the direct economic benefits, open source AI offers a profound opportunity to facilitate cultural inclusion across the AMET region. Its inherent flexibility allows it to be adapted to local languages and cultural contexts, serving as a powerful tool for digital inclusion and the preservation of heritage. Arabic-speaking countries are relying on their ability to fine-tune models like Llama to produce Arabic-first language models that democratize access to AI tools across the Middle East and North Africa.[77,78,79,80] Similarly in Africa, open models are being adapted to support many African languages.[81,82] Looking beyond the implementation stage, the ability to contribute those developments back into the main model means greater participation in the development cycle for those who may be less represented in foundation model development, such as developers in Africa and the Middle East. These initiatives, made feasible through open source, are crucial for ensuring that the global digital infrastructure is representative. Open source has cultural, not just technical, ramifications.

Inclusion in digital infrastructure is key to reducing bias and exclusion from economic growth. AI offers significant productivity gains and economic benefits, as described above, while open source models help democratize that growth by making education, development, and implementation more accessible.[2] In AMET countries, open source AI extends accessibility beyond urban centers to the edge.[45] By democratizing access to cutting-edge technology, open source empowers local communities to build solutions for their most pressing challenges in areas like education, healthcare, and civic engagement, fostering a more equitable and resilient digital society.

“AI offers significant productivity gains and economic benefits, while open models help democratize that growth by making education, development, and implementation more accessible.”

Workforce augmentation and skills development

AI is poised to have profound and nuanced impacts on the global workforce. The technology is set to impact 40%+ of jobs around the world, with 18% of work globally predicted to be automated.[83,84] Largely speaking, evidence shows that AI will not necessarily replace workers, and instead complement existing activities and even increase the size of the workforce, particularly in technical fields.[84,85] Holding AI capabilities will also help workers command over 20% higher wages.[1]

> *"Largely speaking, evidence shows that AI will not necessarily replace workers, and instead complement existing activities and even increase the size of the workforce, particularly in technical fields."*

In the AMET region, there are unique pressures on the workforce to avoid being left behind. As Hatzius et al (2024) found, emerging markets are less exposed to AI automation in the workforce than developed markets, and some countries in the AMET region fall below the global average—in particular, Kenya, Nigeria, and Egypt.[84] This translates to less potential for productivity gains among the population, with no AMET countries falling above the global annual productivity growth average.[84] Country-specific workforce impacts across AMET are detailed below.

Job transformation and creation in AMET countries

Workforce transformation is varied across the different countries of the AMET region. The Implement Consulting Group's 2024 analysis of Türkiye's labor market shows that while 55% of jobs will be augmented through AI adoption, only a small fraction (~4%) are deemed highly exposed to potential displacement.[24] McKinsey's 2020 research shows that the country is projected to see 3.1 million net new jobs by 2030 from AI and digitization: 8.9 million new jobs will emerge, 7.6 million will disappear, plus an additional 1.8 million technology-related jobs.[86] Türkiye's AI talent pool is growing to meet this skills demand: As the 2025 Stanford AI Index found, the country has seen almost 2x increase in AI talent between 2016 and 2024, placing it #7 globally of countries experiencing this phenomenon.[7] In the Middle East, headcount is expected to increase on average over 2025, particularly in the UAE.[21] According to a 2025 Deloitte survey, 69% of organizations in the UAE and Saudi Arabia intend to increase headcount for AI initiatives in the coming year.[21] According to the Stanford 2025 AI Index Report, Saudi Arabia ranks #3 globally for the year-over-year AI hiring rate.[7]

A 2024 whitepaper explains the unique workforce circumstances for Africa when it comes to AI exposure.[87] Africa faces specific challenges for workplace adoption, including cost barriers, minimal computing capacity, power unreliability, and a lack of investor confidence.[87] However, the continent also has a unique opportunity to leapfrog large infrastructure needs by deploying its youthful population, which is expected to double to 2.5 billion by 2050—making it the youngest population in the world.[87,88] This translates to a fast-growing and technologically-savvy workforce, where 78% of Africans report using AI tools

weekly, higher than in Europe or the United States.[89] African AI professionals in particular are increasing, with a 40% increase in 2023.[56] AI is creating new roles across different key sectors, such as agriculture, cybersecurity, healthcare, financial services, and education.[56] Open source AI will be critical in democratizing access to these new roles and skills within a country's population.

Agriculture in particular represents a significant opportunity for workforce adoption, as it employs half of Africa's population.[87] Those with access to digital tools and connectivity are already experiencing productivity gains from AI, as described later on in this report.[56] For those countries and sectors in Africa who have less access and fewer resources to train their employees to use it, free and open tooling becomes highly valuable.

Nevertheless, a central challenge for policymakers and business leaders is to design and implement effective, large-scale, and continuous reskilling programs to build AI capacity in the existing workforce. Governments and corporations across the AMET region have launched ambitious, large-scale initiatives to upskill and reskill their workforces.

Upskilling initiatives

Currently, the AMET region is experiencing an AI talent gap. According to the 2025 Deloitte survey, one-third of organizations in the UAE and Saudi Arabia report concerns about their AI expertise, and almost half (44%) feel that their AI talent pool is insufficient.[21] McKinsey estimates that 21.1 million Turkish workers are in need of skills enhancement.[86] In Africa, the talent gap is exacerbated by limited digital literacy.[56] Comparing across the region, Africa had about 5,000 AI specialists in 2025, Saudi Arabia also 5,000, and the UAE 7,000—compared to Germany, at more than 40,000.[14,56] Globally, talent gaps persist: a 2025 LF study found that core AI skills are lacking in over 50% of organizations.[85] This skills gap exists not only from the hiring manager perspective, but from the employee perspective; as found by SAP, 67% of employees report wanting more AI training than they are currently receiving.[90]

To address these skills gaps, national and organizational upskilling programs are cropping up across the AMET region. The UAE has implemented a government program with the goal of training one million AI specialists by 2027.[91] Saudi Arabia's national AI strategy set a goal to train 20,000 specialists by 2030.[16,92,93] Egypt similarly has outlined a talent goal in its national strategy, aiming to train 30,000 specialists by 2030.[63,94] In Africa, Nigeria implemented its Three Million Technical Talents program in 2023, which has since been aligned to its AI strategy to train 70% of its youth in AI by 2030.[56,95] At an organizational level, Microsoft research showed that 60% of South African companies, 51% of UAE companies, and 49% of Turkish companies have implemented reskilling programs for their employees.[96] The 2025 Deloitte survey shows that the UAE and Saudi Arabia are implementing strategies to address their talent needs, specifically performance-based incentives, AI fluency programs, and upskilling strategies.[21]

Open source AI's impact on the workforce

The open source ecosystem plays an important role in these massive talent development goals. Providing educational licenses for proprietary AI tools at the scale of hundreds of thousands or even a million learners would be logistically complex and prohibitively expensive. Open models and platforms can be freely downloaded, accessed, and modified by students, researchers, and developers. They provide the hands-on, practical experience necessary to build real-world skills, and the sandbox to learn.[3] Their accessibility and transparency also equates to empowerment of groups that are often excluded in development circles, such as female and youth participation.[97]

Use of open models and frameworks could also lead to new and more positions. For example, In South Africa, new "AI Auditor" roles are cropping up to address bias in Llama deployments.[98] It is projected that 2,000 new positions will be created in this capacity by 2027. Globally, the LF found that open source helps retain talent by providing opportunities for engagement and knowledge-sharing in leading-edge technical communities.[85] The ubiquity of some open tools and models in global AI stacks, such as PyTorch, means that demand will grow for engineers and scientists that are proficient in these open technologies.[1] Finally, the accessibility of open source lowers the barrier for young professionals and those with limited resources to enter the market. Open source AI broadens and deepens the AI workforce.

The value of AI across sectors

Across the AMET region, AI is delivering value in critical sectors. In the Middle East, McKinsey research from 2024 found that AI delivers significant value across a number of its key sectors, with energy and materials, capital projects and infrastructure, financial services, and social, healthcare, and education as the top four sectors.[22] In Africa, top sectors for AI implementation include financial services, retail, telecommunications, education, and mining and energy.[18,32] AI also has transformative potential for sustainable development, particularly in Africa where state-of-the-art solutions are needed to address poverty, climate change, and access to services.[99]

The following subsections review AI case studies across five of these critical sectors for the AMET region: agriculture, healthcare, public services, education, and telecommunications. A number of these case studies rely on open models and tools as they provide startups and researchers access to powerful technologies and they democratize AI development and standardization, leading to increased speed of deployment, adaptability, and multidisciplinary collaboration.[97,100]

Agriculture

AI is transforming agriculture around the world, with applications developed for crop disease detection, autonomous weeding systems, intelligent watering, microfinancing applications, and predictive yield analysis.[1,101,102] Agriculture is a critical sector in the AMET region, particularly in Africa where half the workforce is employed. According to 2025 McKinsey research, AI is set to have the highest impact in agriculture across marketing and sales as well as supply chain and operations functions.[32]

There are many use cases of AI in AMET's agriculture sector. This includes Nigeria's FarmCrowdy, which provides decision

support and analysis for crop selection as well as market access coordination to connect farmers and buyers.[103] Meta's Llama model has been fine-tuned in a few cases to produce tailored solutions, such as Senegal's AgriPredict project that automates pest alerts, the Farmer Chat project used by Sub-Saharan farmers to provide targeted advice in local languages, and the Flow Informatics phosoAI project that is used in Malawi to provide information on food prices, availability, and practices.[104,105,106] Türkiye's Bugmapper project detects crop diseases and pests, and is used through a mobile app.[107] Many of these projects are deployed on farmers' mobile devices, which make lightweight and efficient models critical.[108,109]

Healthcare

AI in healthcare can lead to significant resourcing, diagnostic, and decision support efficiencies.[1] From automating nurse scheduling and simple clinical tasks, to providing diagnostic support in radiotherapy and disease prediction, its potential is immense. Particularly in regions where doctor shortages are common, such as in the Middle East and Africa, applications to reduce the workload burden of practitioners and other healthcare professionals are welcome—and are increasingly being developed.[110] In Africa's healthcare sector, AI stands to have the highest impact in supply chain and operations as well as in marketing and sales, according to McKinsey research.[32] The Middle East has prioritized the development of surgical and rehabilitation robots, as well as pharmacy and medication management, with the sector expected to generate US$811.30 million by 2028.[111]

AI is seeing increasing relevance in African healthcare systems. In Senegal, the country's KERA health platform implements AI to address inefficiencies and reduce costs in the system.[112] Kenya's MediScan is using Llama for radiology analysis,[104] and its clinical system has integrated a doctor copilot called AI Consult, which in one study reduced diagnostic and treatment errors by 16% and 13%, respectively.[113] An open source drug discovery tool was developed in a South African partnership to produce malaria and tuberculosis drugs.[114] In maternal health, Nigeria's HelpMum created an open source immunization tracker called Vax-Llama to provide parents with targeted immunization information, and Jacaranda Health in Kenya created UlizaLlama, an open source digital health educator for parents in multiple African languages.[49]

Across the Middle East and North Africa, startups are developing healthcare applications to address diverse problems. UAE researchers developed a medical chatbot called BiMediX2 that interprets medical scans and provides chatbot capability on Telegram in Arabic.[115] In Egypt, a collaboration between doctors and technologists produced a locally-developed model to read mammogram images for preliminary breast cancer diagnoses.[116] Türkiye is testing HealthGPT, the first Turkish large language model developed for healthcare, trained explicitly with Turkish medical terminology.[117] Many of these healthcare applications across the AMET region are using open source AI to fine-tune a model to fit the specific needs of the country, the population, and the health context.

Government services

In government services across the AMET region, AI is being adopted to reduce administrative burden, increase efficiency of processes and applications, support citizen engagement, and leapfrog outdated tech.[1,32] AI adoption across African governments and public sector services have the highest impact in software engineering and customer operations functions, according to McKinsey.[32] The potential value of AI deployment across African public sector entities, including healthcare, is estimated at 2.9-4.8 billion USD.[32]

In Kenya, the AI taskforce has recommended the development of chatbots to increase e-government services.[55] This has led to an effort from the Kenyan government to build an open source chatbot for services discoverability using the open source tool GovStack.[118] Across the Middle East and Africa, tax authorities have been using AI solutions to manage messaging and submissions and estimate individual underreporting and fraud.[32] In the UAE, the government is developing models for public service delivery, including visa and licensing services.[110,119] Even at a more strategic level, AI plays a role in managing national priorities and resources. For example, the UAE government launched an AI application that monitors progress of strategic national goals.[120] Open source AI represents a valuable option to keep sensitive citizen data secure and private.

Education

Incorporating AI into educational systems supports more diverse and broader training opportunities, and also helps reduce workload of teachers developing curriculum.[1] AI application in Africa's education system will bring about the highest impact in supply chain and operations as well as marketing and sales functions, according to McKinsey.[32]

South African curriculum was used to develop the STEPS project, which provides teaching materials development augmented by AI to African teachers.[121] Schools can also benefit from the open language models developed by Masakhane and Lelapa that support local languages.[81] Egypt's national strategy includes the development of AI applications to support curriculum generation, as well as virtual tutors.[122] Startups in the Middle East are building virtual teaching assistants and automatic grading systems, and are using open models to create Arabic-specific models.[123]

Telecommunications

In telecommunications, AI provides opportunities for predictive maintenance, customer service support, and optimization of networks.[32] In this sector in Africa, AI will have the highest impact in customer operations and marketing and sales, according to McKinsey, with up to 9.6 billion USD potential growth for African Telco providers adopting the technology.[32] To drive growth in the Middle East and Africa, telco Orange is using Meta's Llama 3.1 and OpenAI's open speech models to build regional African language capability, translating into more responsive customer support and sales solutions.[50] In the Middle East, DakAI is developing AI solutions for the telecommunications sector, including customer services, smart city management, and energy optimization.[124] AMET's telecommunications sector is poised for growth as demand for connectivity and data services increases.[32] For countries in Africa who are still in the process of building out their connectivity infrastructure, open source AI provides an important opportunity to localize solutions.[125]

Conclusion

This analysis of existing literature found that while AI investment and adoption are accelerating across the AMET region, open source offers a uniquely powerful pathway to ensure that these benefits are widely accessible, locally relevant, and sustainable.

AI has the potential to inject up to $614 billion into the AMET region's GDP by 2030, primarily through productivity gains. The realization of this potential depends on capital and infrastructure, as well as the availability of affordable, adaptable tools. Open models reduce entry barriers, enabling governments, startups, and community members to innovate with fewer constraints.

Beyond economic gains, open source AI is fostering vibrant ecosystems of developers and innovators across the AMET region, encouraging greater innovation and faster time to market and lowering the barrier to entry to market for SMEs. Community-driven collaborative model development is cropping up in the region, often relying on open source to build solutions that reflect the cultures and languages of the AMET region. With youthful populations in Africa and ambitious national reskilling goals in the Middle East and Türkiye, open source AI equips learners with accessible, hands-on experience as the need for skilled talent intensifies.

In addition to the wide-spread productivity gains associated with artificial intelligence, open source in particular represents an important pathway for the AMET region to realize these gains. For the Middle East, open source AI will be an accelerant for economic diversification. Fostering an ecosystem of startups and SMEs innovating on open platforms ensures that their massive investments in data centers and cloud infrastructure yield a dynamic, knowledge-based private sector working on applications that are grounded in their local languages and values. For the major African economies, open source will be even more critical, unlocking new growth opportunities and digitally leapfrogging by empowering entrepreneurs to build innovative, mobile-first solutions without the need for prohibitive upfront capital investment.

Policy recommendations

Based on this analysis, we offer key policy directions for the region to best support open source AI development and innovation:

1. Implement AI strategies at the national level that prioritize the use of and contribution to open source projects, outline procurement strategies that encourage open source adoption, financially support the creation of open source program offices (OSPOs) at the ministry level, and create innovation-friendly zones and incentives for local open development.
2. Harness local talent and build local capacity by developing upskilling and certification programs that use open tools, data, models, and content.
3. Establish regional hubs for open source AI development and collaboration for the co-development guidelines, best practices, datasets, and projects to encourage African, Middle Eastern, and Turkish engagement in open source projects at a global level, all operating under ethical AI governance frameworks.
4. Invest in public-private partnerships to build computational infrastructure, support research, and launch new models and tools for AI development.

Lastly, while the evidence on the value of AI is strong, this literature review revealed gaps in empirical studies on open source AI to Africa, the Middle East, and Türkiye. Further research should explore the benefits of open source AI to the region, to what extent the countries are adopting and investing in open source AI as compared to proprietary AI, and how to best support talent development and sector adoption in this region. Ultimately, a crucial differentiator for success over the next decade will be the degree to which countries embrace open models. Fertile ground for this ecosystem must be established through supportive policies, open data initiatives, and sustained investment in skills.

References

1. Hermansen A, Osborne C. The Economic and Workforce Impacts of Open Source AI [Internet]. The Linux Foundation; 2025 [cited 2025 Sept 9]. Available from: **https://www.linuxfoundation.org/research/economic-impacts-of-open-source-ai?hsLang=en**

2. Sahgal V. Open sourcing the AI revolution. 2024 [cited 2025 Sept 8]. Economist Impact. Available from: **https://impact.economist.com/new-globalisation/open-sourcing-ai-revolution**

3. Gerosa M, Hermansen A, Lai A, Lawson A. The State of Sovereign AI [Internet]. 2025 [cited 2025 Sept 8]. Available from: **https://www.linuxfoundation.org/research/state-of-sovereign-ai**

4. The Open Source AI Definition – 1.0 [Internet]. Open Source Initiative. [cited 2025 Sept 8]. Available from: **https://opensource.org/ai/open-source-ai-definition**

5. White M, Haddad I, Osborne C, Liu XYY, Abdelmonsef A, Varghese S, et al. The Model Openness Framework: Promoting Completeness and Openness for Reproducibility, Transparency, and Usability in Artificial Intelligence [Internet]. arXiv; 2024 [cited 2025 Sept 8]. Available from: **http://arxiv.org/abs/2403.13784**

6. Lawson A, Hendrick S, Rausch N, Sica J, Gerosa M. Shaping the Future of Generative AI [Internet]. The Linux Foundation; 2024. Available from: **https://www.linuxfoundation.org/research/gen-ai-2024**

7. Maslej N. Artificial Intelligence Index Report 2025. Stanford. 2025; **https://hai.stanford.edu/ai-index/2025-ai-index-report**

8. IDC [Internet]. 2025 [cited 2025 Sept 8]. AI Spending in the Middle East, Türkiye, and Africa Set to Soar as Region Commits to an AI-Fueled Digital Future. Available from: **https://my.idc.com/getdoc.jsp?containerId=prMETA53088825**

9. Gartner [Internet]. 2025 [cited 2025 Sept 8]. Gartner Forecasts MENA IT Spending to Reach $169 Billion in 2026. Available from: **https://www.gartner.com/en/newsroom/press-releases/2025-08-04-gartner-forecasts-mena-it-spending-to-reach-169-billion-us-dollars-in-2026**

10. El-Shaeri N. Arab News. 2025 [cited 2025 Sept 8]. MENA IT spending to reach $169bn in 2026. Available from: **https://arab.news/y8egj**

11. Rooney K, Schmidt K. CNBC. 2024 [cited 2025 Sept 8]. Middle Eastern funds are plowing billions of dollars into hottest AI startups. Available from: **https://www.cnbc.com/2024/09/22/middle-eastern-funds-plowing-billions-into-the-hottest-ai-start-ups-.html**

12. Kairouz M. World Economic Forum. 2024 [cited 2025 Sept 8]. Four steps MENA must take to develop intelligent economies. Available from: **https://www.weforum.org/stories/2024/04/4-steps-mena-must-take-to-develop-intelligent-economies/**

13. Soliman M. Middle East Institute. 2025 [cited 2025 Sept 8]. Saudi Arabia's AI ambition, and what it means for the United States. Available from: **https://www.mei.edu/publications/saudi-arabias-ai-ambition-and-what-it-means-united-states**

14. Awad A, Littig L, Mourtada R, Dalbeshkin A. BCG Global. 2025 [cited 2025 Sept 8]. The GCC AI Pulse: Mapping the Region's Readiness for an AI-Driven Future. Available from: **https://www.bcg.com/publications/2025/the-gcc-ai-pulse-mapping-the-regions-readiness-for-an-ai-driven-future**

15. Gulf Nations Fast-Track AI Ambitions, UAE Leads Regional Readiness, says BCG Report [Internet]. MIT Sloan Management Review Middle East. 2025 [cited 2025 Sept 8]. Available from: **https://www.mitsloanme.com/article/gulf-nations-fast-track-ai-ambitions-uae-leads-regional-readiness-says-bcg-report/**

16. Saudipedia [Internet]. 2024 [cited 2025 Sept 8]. National Strategy for Data and AI (NSDAI). Available from: **https://saudipedia.com/en/article/2878/economy-and-business/data-and-ai/national-strategy-for-data-and-ai-nsdai**

17. Zulhusni M. Why the Middle East is a hot place for global tech investments [Internet]. AI News. 2025 [cited 2025 Sept 8]. Available from: **https://www.artificialintelligence-news.com/news/why-the-middle-east-is-attracting-global-tech-investments-right-now/**

18. StartupList Africa Blog [Internet]. [cited 2025 Sept 8]. The $803M Question - Can Africa Build AI or Just Use It. Available from: **https://blog.startuplist.africa/articles/ai-revolution-in-africa-2025**

19. AI Adoption Climbs 233% Globally with the Middle East Showing Similar Momentum, Report finds [Internet]. MIT Sloan Management Review Middle East. 2025 [cited 2025 Sept 8]. Available from: **https://www.mitsloanme.com/article/ai-adoption-climbs-233-globally-with-the-middle-east-showing-similar-momentum-report-finds/**

20. Chandran V, Fadia A, Isherwood T, Shah N, Soni K. McKinsey & Company. 2023. The state of AI in GCC countries—and how to overcome adoption challenges. Available from: **https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/the-state-of-ai-in-gcc-countries-and-how-to-overcome-adoption-challenges**

21. The perfect storm: A perspective on unlocking AI's value in Middle East [Internet]. Deloitte. 2025 [cited 2025 Sept 8]. Available from: **https://www.deloitte.com/content/dam/assets-zone2/middle-east/en/docs/services/consulting/2025/middle-east-state-of-ai.pdf**

22. Isherwood T, Vinay C, Karan N et al. The state of gen AI in the Middle East's GCC countries: A 2024 report card [Internet]. McKinsey & Company. 2024 [cited 2025 Sept 8]. Available from: **https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-gen-ai-in-the-middle-easts-gcc-countries-a-2024-report-card**

23. Keverenge H. KPMG Study Reveals Nigeria, Egypt, and South Africa Lead in Global AI Adoption - But Where Does Kenya Rank? [Internet]. Techish Kenya. 2025 [cited 2025 Sept 8]. Available from: **https://tech-ish.com/2025/05/23/nigeria-egypt-and-south-africa-lead-in-global-ai-adoption/**

24. Thelle MH, Lundberg AT, Hovmand BE, Virtanen L, Trahholm-Mikkelsen N, Pedersen ST, et al. The economic opportunity of AI in Türkiye [Internet]. Implement Consulting Group; 2024 [cited 2025 Sept 9]. Available from: **https://implementconsultinggroup.com/article/the-economic-opportunity-of-generative-ai-in-turkiye**

25. Sırt T. Daily Sabah. 2025 [cited 2025 Sept 8]. Turkish startup ecosystem secures $1.1B with 470 investment deals in 2024. Available from: **https://www.dailysabah.com/business/tech/turkish-startup-ecosystem-secures-11b-with-470-investment-deals-in-2024**

26. Africa's AI market to be the next growth frontier for global tech players. CNBC Africa [Internet]. 2025 June 18 [cited 2025 Sept 8]; Available from: **https://www.cnbcafrica.com/media/7750240731437/africas-ai-market-to-be-the-next-growth-frontier-for-global-tech-players**

27. Rootsnsquares. African Startups and AI: Why the $1 Trillion AI Arms Race Matters [Internet]. Medium. 2025 [cited 2025 Sept 8]. Available from: **https://medium.com/@rootsnsquares/african-startups-and-ai-why-the-1-trillion-ai-arms-race-matters-3dffc2aac0df**

28. National Artificial Intelligence Strategy [Internet]. The Federal Ministry of Communication, Innovation and Digital Economy. 2024 [cited 2025 Sept 8]. Available from: **https://ncair.nitda.gov.ng/wp-content/uploads/2024/08/National-AI-Strategy_01082024-copy.pdf**

29. South Africa National Artificial Intelligence Policy Framework [Internet]. Communications & Digital Technologies Republic of South Africa. 2024 [cited 2025 Sept 8]. Available from: **https://fwblaw.co.za/wp-content/uploads/2024/10/South-Africa-National-AI-Policy-Framework-1.pdf**

30. UNESCO [Internet]. [cited 2025 Sept 8]. Senegal. Available from: **https://www.unesco.org/ethics-ai/en/senegal**

31. White & Case LLP [Internet]. 2025 [cited 2025 Sept 8]. AI Watch: Global regulatory tracker - Kenya. Available from: **https://www.whitecase.com/insight-our-thinking/ai-watch-global-regulatory-tracker-kenya**

32. Mayowa K, Umar B, Anass B, Ziyaad B. Leading, not lagging: Africa's gen AI opportunity [Internet]. McKinsey & Company. 2025 [cited 2025 Sept 8]. Available from: **https://www.mckinsey.com/capabilities/quantumblack/our-insights/leading-not-lagging-africas-gen-ai-opportunity**

33. Signé L. Leveraging AI and emerging technologies to unlock Africa's potential [Internet]. Brookings. 2025 [cited 2025 Sept 8]. Available from: **https://www.brookings.edu/articles/leveraging-ai-and-emerging-technologies-to-unlock-africas-potential/**

34. Dushime A. World Economic Forum. 2025 [cited 2025 Sept 8]. What role will private equity play in Africa's AI future? Available from: **https://www.weforum.org/stories/2025/04/rethinking-private-equity-for-africa-s-ai-driven-future/**

35. Mwangi K. These 5 African Countries Are Leading the Tech Boom in 2025 [Internet]. Tech In Africa. 2025 [cited 2025 Sept 8]. Available from: **https://www.techinafrica.com/these-5-african-countries-are-leading-the-tech-boom-in-2025/**

36. Olatoye N. Instinct Hub. 2025 [cited 2025 Sept 8]. The Rise of Artificial Intelligence in Nigeria: Current Trends and Future Outlook. Available from: **https://instincthub.com/blog/the-rise-of-artificial-intelligence-in-nigeria-current-trends-and-future-outlook**

37. The State of AI in Africa Report [Internet]. The Centre for Intellectual Property and Information Technology Law. 2025 [cited 2025 Sept 8]. Available from: **https://aiconference.cipit.org/documents/the-state-of-ai-in-africa-report.pdf**

38. Orimemi V. Google announces $37m investment to support AI innovation in Africa [Internet]. TheCable. 2025 [cited 2025 Sept 8]. Available from: **https://www.thecable.ng/google-announces-37m-investment-to-support-ai-innovation-in-africa/**

39. Kaaru S. Microsoft invests $300 million to boost AI in South Africa [Internet]. CoinGeek. 2025 [cited 2025 Sept 8]. Available from: **https://coingeek.com/microsoft-invests-300-million-to-boost-ai-in-south-africa/**

40. Nagarajan G, Aimé AH. Unlocking global AI potential with next-generation subsea infrastructure [Internet]. Engineering at Meta. 2025 [cited 2025 Sept 8]. Available from: **https://engineering.fb.com/2025/02/14/connectivity/project-waterworth-ai-subsea-infrastructure/**

41. Ranjan A. Africa's Data Center Market to Triple by 2030, Hitting $3.06B [Internet]. TechAfrica News. 2025 [cited 2025 Sept 8]. Available from: **https://techafricanews.com/2025/04/25/africas-data-center-market-to-triple-by-2030-hitting-3-06b/**

42. Thomas D. Cassava and Nvidia to launch Africa's "first AI factory" [Internet]. African Business. 2025 [cited 2025 Sept 8]. Available from: **https://african.business/2025/03/technology-information/cassava-and-nvidia-to-launch-africas-first-ai-factory**

43. Kondo TS, Diwani SA. Artificial intelligence in Africa: a bibliometric analysis from 2013 to 2022. Discov Artif Intell. 2023 Oct 23;3(1):34.

44. Quansah S. Carnegie Endowment for International Peace. 2025 [cited 2025 Sept 8]. DeepSeek R1: Implications of a New AI Era for Africa. Available from: **https://carnegieendowment.org/posts/2025/03/deepseek-ai-implications-africa?lang=en**

45. Perez E. Arab News. 2025 [cited 2025 Sept 8]. The open-source revolution in Saudi Arabia. Available from: **https://www.arabnews.com/node/2598348**

46. Al-Dhaheri S, Peng B. Trends Research & Advisory. 2025 [cited 2025 Sept 8]. DeepSeek's Rise: A New Factor in the UAE's AI Strategy. Available from: **https://trendsresearch.org/insight/deepseeks-rise-a-new-factor-in-the-uaes-ai-strategy/**

47. ITS N. Middle East Companies View DeepSeek as Key to Affordable AI [Internet]. Inside Telecom. 2025 [cited 2025 Sept 8]. Available from: **https://insidetelecom.com/middle-east-ai-companies-view-deepseek-as-affordable/**

48. Clynch H. DeepSeek's cheaper AI claims raise African hopes [Internet]. African Business. 2025 [cited 2025 Sept 8]. Available from: **https://african.business/2025/01/technology-information/deepseeks-cheaper-ai-claims-raise-african-hopes**

49. Adams R, Adeleke F, Junck L, Segun S, Alayande A, Abdella SE, et al. The State of AI in Africa: A Landscape Study [Internet]. Global Center on AI Governance; 2025 [cited 2025 Sept 8]. Available from: **https://www.globalcenter.ai/research/ai-in-africa-landscape-study**

50. Orange to expand open-source AI models to African regional languages for digital inclusion [Internet]. Newsroom Groupe Orange. 2024 [cited 2025 Sept 8]. Available from: **https://newsroom.orange.com/?p=54149**

51. DataPortals.org [Internet]. [cited 2025 Sept 8]. Kenya Open Data Initiative. Available from: **https://dataportals.org/portal/opendata_go_ke/**

52. Open-Source AI in the Middle East: Three key opportunities - and the risks companies can't ignore [Internet]. CXO Insight Middle East. 2025 [cited 2025 Sept 8]. Available from: **https://www.cxoinsightme.com/future/tech/open-source-ai-in-the-middle-east-three-key-opportunities-and-the-risks-companies-cant-ignore/**

53. Westgarth T, Garson M, Crowley-Carbery K, Otway A, Bradley J, Mökander J. Tony Blair Institute for Global Change. 2024 [cited 2025 Sept 8]. State of Compute Access 2024: How to Navigate the New Power Paradox. Available from: **https://institute.global/insights/tech-and-digitalisation/state-of-compute-access-2024-how-to-navigate-the-new-power-paradox**

54. Fuentes Nettel P, Hankins E, Stirling R, Cirri G, Grau G, Rahim S, et al. 2024 Government AI Readiness Index. Oxf Insights [Internet]. 2024 Dec 20 [cited 2025 Sept 9]; Available from: **https://oxfordinsights.com/wp-content/uploads/2024/12/2024-Government-AI-Readiness-Index-2.pdf**

55. Chege G. Is open-access AI the great safety equalizer for African countries? [Internet]. Brookings. 2025 [cited 2025 Sept 8]. Available from: **https://www.brookings.edu/articles/is-open-access-ai-the-great-safety-equalizer-for-african-countries/**

56. AI and the Workforce in Africa [Internet]. Cisco and Carnegie Mellon University Africa. 2025 [cited 2025 Sept 8]. Available from: **https://newsroom.cisco.com/c/dam/r/newsroom/pdfs/Cisco-CMU-Whitepaper_AI-and-the-Workforce-in-Africa.pdf**

57. AI Expects to Inject US$320 Billion into Middle East Economy by 2030 [Internet]. Fintechnews Middle East. 2024 [cited 2025 Sept 8]. Available from: **https://fintechnews.ae/22052/abudhabi/ai-expects-to-inject-us320-billion-into-middle-east-economy-by-2030/**

58. Wamda [Internet]. 2025 [cited 2025 Sept 8]. Google launches second 'AI First' accelerator for MENA, Turkiye startups. Available from: **https://www.wamda.com/2025/05/google-launches-second-ai-accelerator-mena-turkiye-startups**

59. National Artificial Intelligence Strategy [Internet]. The Federal Ministry of Communications, Innovation and Digital Economy. 2023 [cited 2025 Sept 8]. Available from: **https://fmcide.gov.ng/initiative/nais/**; WEF 2025: Africa's $1.5 trillion tech opportunity [Internet]. African Business. 2025 [cited 2025 Sept 18]. Available from: **https://african.business/2025/01/technology-information/wef-2025-africas-1-5-trillion-tech-opportunity**; AI for Africa: Use cases delivering impact [Internet]. GSMA. 2024 [cited 2025 Sept 18]. Available from: **https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/gsma_resources/ai-for-africa-use-cases-delivering-impact/**

60. Nigeria's mobile money success offers key insights into an era of AI prosperity [Internet]. Microsoft. 2025 [cited 2025 Sept 8]. Available from: **https://news.microsoft.com/source/emea/features/how-nigerias-mobile-money-success-offers-key-insights-into-driving-an-era-of-ai-prosperity/**

61. IBM Newsroom [Internet]. 2024 [cited 2025 Sept 8]. IBM Study: More Companies Turning to Open-Source AI Tools to Unlock ROI. Available from: **https://newsroom.ibm.com/2024-12-19-IBM-Study-More-Companies-Turning-to-Open-Source-AI-Tools-to-Unlock-ROI**

62. Msomi L. ITWeb. 2024 [cited 2025 Sept 8]. ITWeb TV: Open-source AI: Unlocking potential for South Africa's SMEs. Available from: **https://www.itweb.co.za/article/itweb-tv-open-source-ai-unlocking-potential-for-south-africas-smes/nWJadMbNoBEMbjO1**

63. Benamara A. Egypt Launches Second National AI Strategy, Anchoring Its Position as a Regional Digital Leader [Internet]. TechAfrica News. 2025 [cited 2025 Sept 8]. Available from: **https://techafricanews.com/2025/07/14/egypt-launches-second-national-ai-strategy-anchoring-its-position-as-a-regional-digital-leader/**

64. Abul-Enein H. Introducing Saudi Arabia's National Strategy for Data and AI [Internet]. Access Partnership. [cited 2025 Sept 8]. Available from: **https://accesspartnership.com/opinion/introducing-saudi-arabias-national-strategy-for-data-and-ai/**

65. Vota W. Apply Now: $25,000 for African Artificial Intelligence Applications [Internet]. ICTworks. 2025 [cited 2025 Sept 8]. Available from: **https://www.ictworks.org/african-artificial-intelligence-applications/**

66. Vota W. A Great Open Source Race: China vs India vs the African Continent [Internet]. ICTworks. 2025 [cited 2025 Sept 8]. Available from: **https://www.ictworks.org/a-great-open-source-race-china-vs-india-vs-the-african-continent/**

67. OSCAfrica [Internet]. [cited 2025 Sept 8]. Open Source Festival 2025. Available from: **https://festival.oscafrica.org/**

68. CHAOSScon Africa 2025 [Internet]. CHAOSS. [cited 2025 Sept 8]. Available from: **https://chaoss.community/chaosscon-africa-2025/**

69. OpenTR [Internet]. 2024 [cited 2025 Sept 8]. Available from: **https://opentr.foundation/en/**

70. About Us | OSCAfrica [Internet]. [cited 2025 Sept 8]. Available from: **https://oscafrica.org**

71. About [Internet]. Alliance For AI. [cited 2025 Sept 8]. Available from: **https://www.alliance4ai.org/about/**

72. Zindi [Internet]. [cited 2025 Sept 8]. Zindi. Available from: **https://zindi.africa/**

73. Masakhane [Internet]. [cited 2025 Sept 8]. Masakhane. Available from: **https://www.masakhane.io/**

74. Africa News [Internet]. 2025 [cited 2025 Sept 8]. Africa's First Multilingual Small Language Model Gets Even Smaller - Thanks to Top African Innovator. Available from: **https://www.africanews.com/2025/05/31/african-ai-talent-shrinks-continents-first-multilingual-language-model-by-75**

75. Yanik T, Yildirim E. AA. 2025 [cited 2025 Sept 8]. Turkish large language model T3 AI launches beta version. Available from: **https://www.aa.com.tr/en/turkiye/turkish-large-language-model-t3-ai-launches-beta-version/3628696**

76. Hugging Face [Internet]. [cited 2025 Sept 8]. Trendyol. Available from: **https://huggingface.co/Trendyol/Trendyol-LLM-7b-base-v0.1**

77. Malin C. Middle East AI News. 2024 [cited 2025 Sept 8]. G42 relaunches Inception with family of 20 open-source Jais AI models. Available from: **https://www.middleeastainews.com/p/g42-inception-20-open-source-jais-llms**

78. Democratizing AI: Here's how G42's new LLM JAIS 70B will help. Gulf Business [Internet]. 2024 Aug 5 [cited 2025 Sept 8]; Available from: **https://gulfbusiness.com/g42s-inception-launches-llm-jais-70b/?utm_source=chatgpt.com**

79. Bari MS, Alnumay Y, Alzahrani NA, Alotaibi NM, Alyahya HA, AlRashed S, et al. ALLaM: Large Language Models for Arabic and English [Internet]. arXiv; 2024 [cited 2025 Sept 8]. Available from: **http://arxiv.org/abs/2407.15390**

80. Malin C. Middle East AI News. 2024 [cited 2025 Sept 8]. SDAIA's Arabic LLM now live on watsonx. Available from: **https://www.middleeastainews.com/p/sdaias-allam-arabic-llm-live-on-watsonx**

81. Rethinking Open Source in the Age of Foundational AI Models [Internet]. ICTworks. 2025 [cited 2025 Sept 8]. Available from: **https://www.ictworks.org/open-source-foundational-ai-models/**

82. InkubaLM: A small language model for low-resource African languages [Internet]. Medium. 2024 [cited 2025 Sept 8]. Available from: **https://medium.com/@lelapa_ai/inkubalm-a-small-language-model-for-low-resource-african-languages-dc9793842dec**

83. Georgieva K. IMF. 2024 [cited 2025 Sept 8]. AI Will Transform the Global Economy. Let's Make Sure It Benefits Humanity. Available from: **https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity**

84. Hatzius J, Briggs J, Kodnani D, Pierdomenico G. Global Economics Analyst The Potentially Large Effects of Artificial Intelligence on Economic Growth (BriggsKodnani) [Internet]. Goldman Sachs; 2023 [cited 2025 Sept 9]. Available from: **https://www.gspublishing.com/content/research/en/reports/2023/03/27/d64e052b-0f6e-45d7-967b-d7be35fabd16.pdf**

85. Gerosa M, Lawson A. 2025 State of Tech Talent Report [Internet]. The Linux Foundation; 2025 [cited 2025 Sept 8]. Available from: **https://www.linuxfoundation.org/research/open-source-jobs-report-2025**

86. Future of Work: Turkey's Talent Transformation in the Digital Era. McKinsey Co [Internet]. 2020 Jan; Available from: **https://www.mckinsey.com/featured-insights/future-of-work/the-future-of-work-in-turkey**

87. O'Neill J, Marivate V, Glover B et al. AI and the Future of Work in Africa: White Paper [Internet]. Microsoft. 2024 [cited 2025 Sept 8]. Available from: **https://www.microsoft.com/en-us/research/wp-content/uploads/2024/06/Whitepaper-AIandTheFutureofWorkinAfrica-June24.pdf**

88. Worldometer [Internet]. 2025 [cited 2025 Sept 8]. Africa Demographics. Available from: **https://www.worldometers.info/demographics/demographics-of-africa/**

89. Day R. Carnegie Endowment for International Peace. 2024 [cited 2025 Sept 8]. U.S. Development Agencies Should Embrace AI to Transform the U.S.-Africa Relationship. Available from: **https://carnegieendowment.org/research/2024/09/africa-ai-us-development?lang=en**

90. Gibbard K, Park L. SAP. 2024 [cited 2025 Sept 8]. Upskilling your workforce for the AI era. Available from: **https://www.sap.com/blogs/upskilling-your-workforce-for-the-ai-era**

91. Group SOO. 1 Million AI Talents Initiative: UAE Bold Move to Build AI Workforce by 2027 [Internet]. 2025 [cited 2025 Sept 8]. Available from: **https://thesoogroup.com/blog/one-million-ai-talents-initiative-uae**

92. Saudi Arabia and UAE among top 20 nations globally for AI talent density, Global AI Competitiveness Index [Internet]. Crypto Breaking News. 2025 [cited 2025 Sept 8]. Available from: **https://www.cryptobreaking.com/saudi-arabia-and-uae-among/**

93. Memish ZA, Altuwaijri MM, Almoeen AH, Enani SM. The Saudi Data & Artificial Intelligence Authority (SDAIA) Vision: Leading the Kingdom's Journey toward Global Leadership. J Epidemiol Glob Health. 2021 June;11(2):140–2.

94. Ranjan A. Egypt Fast-Tracks AI Growth with Strategic Investments and Talent Development [Internet]. TechAfrica News. 2025 [cited 2025 Sept 8]. Available from: **https://techafricanews.com/2025/03/25/egypt-fast-tracks-ai-growth-with-strategic-investments-and-talent-development/**

95. 3 Million Technical Talent [Internet]. [cited 2025 Sept 8]. Available from: **https://3mtt.nitda.gov.ng/**

96. Microsoft [Internet]. 2020 [cited 2025 Sept 8]. AI is giving employees across the Middle East and Africa time to learn and innovate. Available from: **https://news.microsoft.com/en-xm/features/ai-is-giving-employees-across-the-middle-east-and-africa-time-to-learn-and-innovate/**

97. Taylor E. SurgeGraph. 2025 [cited 2025 Sept 8]. How Does Deepseek's Open-Source Approach Benefit the AI Community. Available from: **https://surgegraph.io/ai/how-does-deepseeks-open-source-approach-benefit-the-ai-community**

98. White T. Omdia. 2025 [cited 2025 Sept 8]. AI Adoption in the Middle East and Africa (MEA). Available from: **https://omdia.tech.informa.com/om129345/ai-adoption-in-the-middle-east-and-africa-mea**

99. Mienye ID, Sun Y, Ileberi E. Artificial intelligence and sustainable development in Africa: A comprehensive review. Mach Learn Appl. 2024 Dec 1;18:100591.

100. Cob-Parro AC, Lalangui Y, Lazcano R. Fostering Agricultural Transformation through AI: An Open-Source AI Architecture Exploiting the MLOps Paradigm. Agronomy. 2024 Feb;14(2):259.

101. Yun C. BasicAI. 2024 [cited 2025 Sept 8]. 7 Applications of AI in Agriculture | 2024 Updated | BasicAI's Blog. Available from: **https://www.basic.ai/blog-post/7-applications-of-ai-in-agriculture**

102. IBM [Internet]. [cited 2025 Sept 8]. Transforming small farming with open-source, AI-powered connected edge solutions. Available from: **https://www.ibm.com/case-studies/blog/transforming-small-farming-with-open-source-ai-powered-connected-edge-solutions**

103. Israel O. Case Study of Farm Crowdy (Nigeria) and Cloud-Based Decision Support. ResearchGate [Internet]. 2025 June 28 [cited 2025 Sept 8]; Available from: **https://www.researchgate.net/publication/394101907_Case_Study_of_Farm_Crowdy_Nigeria_and_Cloud-Based_Decision_Support**

104. Meta [Internet]. 2024 [cited 2025 Sept 8]. With 10x growth since 2023, Llama is the leading engine of AI innovation. Available from: **https://ai.meta.com/blog/llama-usage-doubled-may-through-july-2024/**

105. Digital Green [Internet]. [cited 2025 Sept 8]. FarmerChat. Available from: **https://digitalgreen.org/farmer-chat/**

106. Meta [Internet]. 2024 [cited 2025 Sept 8]. Announcing the inaugural Llama Impact Grant and Llama Impact Innovation Award recipients. Available from: **https://ai.meta.com/blog/llama-impact-grant-innovation-award-winners-2024/**

107. Daily Sabah [Internet]. 2024 [cited 2025 Sept 8]. AI improves pest detection in Kayseri's soilless farming. Available from: **https://www.dailysabah.com/turkiye/ai-improves-pest-detection-in-kayseris-soilless-farming/news**

108. Kenyan Farmers Use AI App To Detect Pests & Diseases [Internet]. Farmonaut. [cited 2025 Sept 8]. Available from: **https://farmonaut.com/africa/kenyan-farmers-use-ai-app-to-detect-pests-diseases**

109. Sriskandaraja D. How to Optimize AI Models for Mobile Devices Without Overloading Them [Internet]. Medium. 2025 [cited 2025 Sept 8]. Available from: **https://medium.com/@sridinu03/how-to-optimize-ai-models-for-mobile-devices-without-overloading-them-305ca8093abe**

110. Meta Announces Llama Impact Innovation Awards to Support AI-Driven Organisations in Africa, Middle East and Turkey [Internet]. CXO Insight Middle East. 2024 [cited 2025 Sept 8]. Available from: **https://www.cxoinsightme.com/news/meta-announces-llama-impact-innovation-awards-to-support-ai-driven-organisations-in-africa-middle-east-and-turkey/**

111. Deloitte [Internet]. 2024 [cited 2025 Sept 8]. Transforming healthcare in the Middle East: The impact of AI and robotics. Available from: **https://www.deloitte.com/middle-east/en/our-thinking/mepov-magazine/frontiers/transforming-healthcare-in-the-middle-east.html**

112. The AI Startups Winning African VC Backing in 2025 — and Why [Internet]. Launch Base Africa. 2025 [cited 2025 Sept 8]. Available from: **https://launchbaseafrica.com/2025/06/24/the-ai-startups-winning-african-vc-backing-in-2025-and-why/**

113. Korom R, Kiptinness S, Adan N, Said K, Ithuli C, Rotich O, et al. OpenAI. 2025 [cited 2025 Sept 8]. Pioneering an AI clinical copilot with Penda Health. Available from: **https://openai.com/index/ai-clinical-copilot-penda-health/**

114. Turon G. Ersilia: AI as a tool for drug discovery in Africa [Internet]. Software Sustainability Institute. 2024 [cited 2025 Sept 8]. Available from: **https://www.software.ac.uk/blog/ersilia-ai-tool-drug-discovery-africa**

115. Meta [Internet]. 2024 [cited 2025 Sept 8]. Extending healthcare access to underserved communities with AI. Available from: **https://ai.meta.com/blog/bimedix-built-with-llama/**

116. Onyeagoro J. AI in Healthcare: Egypt Rolls Out First Breast Cancer Detection Platform in Middle East [Internet]. TechAfrica News. 2025 [cited 2025 Sept 8]. Available from: **https://techafricanews.com/2025/08/25/ai-in-healthcare-egypt-rolls-out-first-breast-cancer-detection-platform-in-middle-east/**

117. Ondokuz Mayıs Üniversitesi [Internet]. 2025 [cited 2025 Sept 8]. OMU and Industry Partners Develop Türkiye's First AI-Powered Healthcare Model. Available from: **https://www.omu.edu.tr/en/icerik/news/omu-and-industry-partners-develop-turkiyes-first-ai-powered-healthcare-model**

118. Digital Leaders Spotlight: Kenya [Internet]. GovStack. 2024 [cited 2025 Sept 8]. Available from: **https://www.govstack.global/showcase/digital-leaders-spotlight-kenya/**

119. Department of Government Enablement [Internet]. [cited 2025 Sept 8]. Abu Dhabi to be the world's first fully AI-native government across all digital services by 2027. Available from: **https://www.dge.gov.ae/en/news/cx-strategy**

120. UAE Launches AI-Driven Government Performance System to Transform Public Sector Efficiency [Internet]. The Technology Express. 2025 [cited 2025 Sept 8]. Available from: **https://thetechnologyexpress.com/uae-launches-ai-driven-government-performance-system-to-transform-public-sector-efficiency/**

121. Chickering M. GPEKIX. 2025 [cited 2025 Sept 8]. Leveraging Artificial Intelligence and Open Educational Resources for Equitable STEM Education. Available from: **https://www.gpekix.org/blog/leveraging-artificial-intelligence-and-open-educational-resources-equitable-stem-education**

122. Egypt National Artificial Intelligence Strategy [Internet]. The National Council for Artificial Intelligence: Second Edition (2025-2030); [cited 2025 Sept 8]. Available from: **https://ai.gov.eg/SynchedFiles/en/Resources/AIstrategy%20English%2016-1-2025-1.pdf**

123. Collard A. Generative AI in the Middle East and Africa Survey 2024 [Internet]. KnowBe4; 2024. Available from: **https://www.knowbe4.com/hubfs/Generative-AI-in-the-Middle-East-and-Africa-Survey_EN-GB.pdf**

124. dakAI [Internet]. [cited 2025 Sept 8]. dakAI - AI-Powered Data Consulting. Available from: **https://www.dakai.ai/industries-pages/telecom-industry**

125. ASCEND Digital Solutions Limited [Internet]. 2025 [cited 2025 Sept 8]. The AI Disruption: Africa's Opportunity to Lead Through Open Innovation - Ascend Digital Solutions Limited. Available from: **https://ascenddigitalsol.com/the-ai-disruption-africas-opportunity-to-lead-through-open-innovation/**

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