**Introduction**

In recent years, Africa has witnessed technological advancements that have raised optimism that data-driven digital solutions could revolutionise various sectors and transform the future of work on the continent. These advancements, driven by increased mobile phone penetration, improved internet access, and a growing tech-savvy population, could have profound implications for labour and digital rights in the region.

Furthermore, the convergence of data-driven digital technologies such as generative artificial intelligence (AI) and robotic automation, combined with new business models such as location-based platformisation and gig-work, could deliver considerable benefits. Those benefits could include creating job opportunities, particularly for youth, stimulating economic growth by diversifying African economies towards more dynamic industries, reducing dependence on traditional sectors, and developing homegrown innovations that attract foreign direct investments (FDI) and foster local digital entrepreneurship.

However, the convergence of quickly evolving technologies and new business models also pose significant challenges, such as job displacement, data privacy violations, worker exploitation, algorithmic bias, and perpetuate multidimensional structural injustices. These challenges have significant implications for both labour and digital rights in Africa.

In addition, the datafication of socioeconomic and democratic activities in Africa, driven by the increasing collection and value creation of data, poses several risks to labour and digital rights. It is important to recognise and address these risks to ensure that the data-driven digital revolution and the deployment of AI systems in Africa benefit the majority of citizens, respect human rights, and do not perpetuate structural injustices.

This policy brief highlights the need for a collaborative approach amongst policymakers, civil society, industry, and academia that balances trade-offs between digital skills development, just data value creation (JDVC), and fair labour practices, with digital innovation and entrepreneurship, that can be realised in industries without smokestacks (IWOSS). The brief provides an overview of the emerging uses of frontier data-driven technologies and their impact on labour and digital rights in Africa and offers policy recommendations.

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5. Ibid.  
11. An approach within data-driven industries that emphasises fairness, equity, and ethical considerations in the process of generating value from data. It involves ensuring that the benefits of data-driven activities are distributed equitably among different stakeholders, avoiding biases, and addressing social and economic disparities. In summary, it is a human-centred approach to data as a factor of production. See here.  
12. IWOSS consist of network industries, value-added manufacturing, and tradable services, such as remote office services, financial services, tourism, ICT-based services (content creation, gig-work, remote work, etc), agro-processing/agritech and transit trade (logistics), to name a few. See here.
2. State of Emerging Tech and Changing Work Dynamics in Africa

Data-driven digital technologies are transforming various sectors, particularly in IWOSS, which are emerging as the most dynamic industries with significant opportunities for economic growth and job creation to leverage Africa’s demographic dividend. Coincidentally, these industries rely on digital technologies and will benefit significantly from data-driven systems such as AI and new business models such as platformisation. For example, mobile money services, such as M-Pesa, revolutionised financial transactions, enabling digital payments, money transfers, and (digital) financial inclusion. E-commerce platforms, such as Jumia, Takealot and Konga, have grown substantially, offering consumers convenient ways to shop online while also creating job opportunities in logistics, customer support, and sales.

Furthermore, the gig economy has gained traction in Africa, with digital platforms like Uber, Bolt, and Upwork transforming their respective sectors by offering flexible work and employment opportunities in ride-hailing, delivery services, and content creation. In Agriculture, mobile applications and the Internet of Things (IoT) devices are improving farming finance, agricultural practices, and market access for farmers.

Likewise, the data-driven digital transformation has spurred the proliferation of innovation hubs in cities like Nairobi, Cape Town, and Lagos, fostering digital entrepreneurship and tech startups.

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13 Ibid.
16 Techpoint Africa. (2023). How M-Pesa Is Revolutionizing Financial Inclusion In Kenya and Beyond?
17 Daniele Tricarico, D. (2023). What is the opportunity for e-commerce in Africa?
19 Ibid.
There is a lot of techno-optimism that leveraging these frontier technologies will create new economic opportunities and offer flexible work arrangements as well as novel pathways to economic growth. However, technology-driven structural change is most likely to occur only if the contextual realities of deploying new technologies in pre-existing inequitable ecosystems are considered.\textsuperscript{22}

For example, there is hype that generative AI can enhance productivity for end users who are often from wealthier technological ecosystems. Meanwhile, the emerging evidence shows that in Africa, existing global multidimensional structural power dynamics influence who benefits from frontier technologies.\textsuperscript{23} For instance, in Kenya, data enrichment workers at the end of a global AI value chain have had to contend with issues like inadequate psychological support, meagre wages, exposure to traumatic content, and a lack of recognition under labour laws.\textsuperscript{24}

IWVOSS have relatively high productivity and positive employment potential than many other industries. However, without the appropriate interventions, they are also likely to perpetuate adverse consequences.\textsuperscript{25} This is particularly so when combined with platform-based business models and frontier technologies such as AI that give rise to “winner-takes-all dynamics”, where more developed ecosystems are better equipped to leverage technological advances.\textsuperscript{26}

\textsuperscript{22} Ibid.
\textsuperscript{23} UNCTAD. (2021). Technology and Innovation Report 2021
\textsuperscript{25} Refer to the effects and outcomes of policies, practices, or technologies on different groups within a society. These consequences can result in disparities in access, benefits, or burdens, and they are often analyzed to understand the impact of various decisions or actions. See here; Baccini et al., 2021
\textsuperscript{26} Ibid.
3. Common Challenges for African Workers in the Digital Economy

Most of Africa’s digital economy success stories are based on “unicorns”, “pockets of excellence”, “technology islands”, or sociotechnical imaginaries that do not fully appreciate the reality that Africa lacks key enablers to scale the distributional benefits of e-commerce and frontier technologies to alleviate mass unemployment, multidimensional inequities, human capital gaps, and infrastructure deficiencies that constrain the continent.27

Furthermore, the COVID-19 pandemic spurred the transition of many traditional jobs into digital forms, such as remote work in tech support, customer service, and data entry. However, the pandemic also worsened the predicament of those with inadequate means and social protection, such as workers in informal employment and gig workers. Similarly, the ubiquity of digital technologies has also opened up challenges for workers and their digital rights in Africa, particularly those who are already vulnerable in labour markets that perpetuate structural marginalisation.28

Studies have shown that modern economic development is increasingly characterised by deepening globalisation, technological revolutions, digitalisation, demographic changes, and multidimensional structural inequalities, with the potential to perpetuate wealth concentrations in the digital economy.29 There are also concerns about data privacy and security given the massive personal data collection programmes associated with these developments that necessitate robust data governance.

Despite the supposed benefits, African workers encounter significant challenges in the data-driven digital economy. These include:

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i. Algorithmic Management in Digital Platform Work

Algorithms are increasingly being used to manage workers, leading to concerns of transparency, fairness, and accountability as workers often have little understanding of how these algorithms function. Algorithmic management, where algorithms dictate work assignments, shifts, and performance evaluations, is a prominent feature of digital platform work.\textsuperscript{30} This has several implications:

- **Lack of Human Oversight:** Algorithms serve as virtual bosses, leaving workers with limited recourse when faced with unfair decisions.
- **Impact on Autonomy:** Workers have limited control over their work schedules and conditions, impacting their autonomy and work-life balance.
- **Discriminatory Effects:** Algorithms may exhibit bias, resulting in discriminatory outcomes, such as gender or racial bias in job allocation or pay disparities.
- **Data Privacy Concerns:** Data collection and surveillance in the workplace raise privacy concerns, as workers’ personal data is often collected without their consent, leading to potential abuses of personal information.

ii. Precarious Labour Dynamics in the Gig Economy

Many gig workers lack job security, social protection, and fair wages and face infringements on their autonomy and digital rights when accessing work through digital platforms.\textsuperscript{31} Regulating the gig economy to protect the rights of gig workers is a growing concern due to the following challenges:

- **Censorship and Freedom of Expression:** In some African nations, restrictions on freedom of expression and censorship of online content already limit the ability of workers to engage in open discourse about labour issues, hindering labour activism and advocacy.
- **Digital Capabilities and Skills Gap:** The digital skills gap remains a challenge in many African countries, limiting individuals’ employability.
- **Legal Recognition:** In many African countries, gig and platform workers lack legal recognition, making it difficult to access labour protections and social benefits.\textsuperscript{32}
- **Freedom of Association:** Workers’ fundamental rights to freedom of association are at risk, as traditional forms of worker organising are challenged by the gig economy’s fragmentation. Thus, many gig and platform workers lack legal recognition, stripping them of labour protections, social benefits, and the right to organise.
- **Gendered Digital Divide and Limited Access to Opportunities:** Africa continues to face a significant gendered digital divide with access to the internet and digital tools unevenly distributed within and between nations. This disparity affects individuals’ ability to access information, job opportunities, and participate in the digital economy. Marginalised groups with different forms of discrimination are particularly vulnerable to more exclusion.\textsuperscript{33}
Technological advancements have brought both opportunities and challenges to the realm of labour and digital rights in Africa. Given the volatility, complexity, and ambiguity associated with dynamic ecosystems of technology, innovation, and the future of work, stakeholders need to collaborate and co-create coherent interventions that consider existing inequities. A transdisciplinary and collaborative stakeholder approach to governing the future of work in the digital economy is particularly important for Africa. There is also a need for home-grown solutions that foster the growth of IWOSS while safeguarding workers' rights and digital privacy. To scale the benefits of data-driven technologies such as AI requires certain enablers that rely on massive supply chains of human labour and scraped data, much of which is unattributed and used without informed citizen consent. Furthermore, current multidimensional power dynamics do not favour many African countries as global technical standards, norms, and values on AI governance favour ecosystems with more AI maturity, mostly from the global North.

African governments and ecosystem stakeholders can consider the following policy actions:

**4. Policy Recommendations**

Technological advancements have brought both opportunities and challenges to the realm of labour and digital rights in Africa. Given the volatility, complexity, and ambiguity associated with dynamic ecosystems of technology, innovation, and the future of work, stakeholders need to collaborate and co-create coherent interventions that consider existing inequities. A transdisciplinary and collaborative stakeholder approach to governing the future of work in the digital economy is particularly important for Africa. There is also a need for home-grown solutions that foster the growth of IWOSS while safeguarding workers’ rights and digital privacy. To scale the benefits of data-driven technologies such as AI requires certain enablers that rely on massive supply chains of human labour and scraped data, much of which is unattributed and used without informed citizen consent. Furthermore, current multidimensional power dynamics do not favour many African countries as global technical standards, norms, and values on AI governance favour ecosystems with more AI maturity, mostly from the global North.

African governments and ecosystem stakeholders can consider the following policy actions:

- **Strengthen Legal Recognition for Gig Workers:**
  Policymakers must ensure gig and platform workers are legally recognised as employees, granting them access to labour protections, social benefits, and collective bargaining rights. Collaboration with labour unions and civil society organisations is crucial in this process, to establish regulations and support systems that protect the rights and well-being of data enrichment workers, ensuring their safety, welfare, and mental health while they perform vital tasks in the digital ecosystem, as well as their rights to understand how algorithms affect their work.

  Strengthening legal recognition for gig workers can also support regulations that require transparency in algorithmic management of platforms and robust data protection laws in line with international standards.

- **Adopt participatory governance, foresight, and systems approach:**
  To harness the potential of emerging tech and ensure inclusive work dynamics, African countries need policy coherence and a systems approach to enhance digital capabilities, promote robust data governance, and protect labour and digital rights while fostering innovation and economic growth, in a manner that mitigates the continuation of intergenerational structural injustices. Engaging in future-oriented collaborative governance involving governments, civil society, academia, and industry stakeholders is critical to ensure that technological advancement does not violate labour and digital rights in Africa’s evolving digital landscape.

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34 Intersectional inequalities recognize that individuals may experience multiple forms of discrimination and disadvantage simultaneously, such as race, gender, class, and more. It emphasizes that inequities are often interconnected and cannot be fully understood or addressed in isolation. See here.

• **Address existing structural intersectional inequities:**
Governments and international organisations should invest in expanding meaningful digital access and connectivity, particularly in rural and underserved areas.

Prioritising and investing in digital literacy and skills development, including in AI, is foundational to equipping the African workforce with the competencies needed for the digital age.

Furthermore, enacting and enforcing labour laws that recognise and ensure labour protections for gig and platform workers as employees is important. Such laws should also protect their right to organise, and promote diversity and inclusion. These are essential steps that can support and address structural intersectional inequities.

• **Consider Geopolitics of Global AI Governance and Digital Rights:**
International collaboration is key to fostering partnerships with global AI hubs, technological transfers, interoperability, and facilitating knowledge exchange. By leveraging existing mechanisms for regional integration, African countries can potentially strengthen their position in global AI governance and overall global AI (hardware and software) value chains. Balancing data localisation policies with cross-border data free flows with trust is also essential to support digital innovation while safeguarding digital rights in a manner that reflects the contextual realities of different innovation ecosystems.

**Conclusion**

As Africa seeks to maximise the potential of its nascent digital economy, a human-centred approach that protects labour and digital rights must remain at the forefront of various policy agendas. The adoption of human-centred ethical AI principles must be promoted to ensure fairness, transparency, and accountability in AI systems, while also reflecting the contextual realities of different innovation ecosystems. In the digital age, co-creation and collaboration among governments, civil society organisations, academia, the private sector, and international actors is critical to ensuring that data-driven digital transformation benefits all African workers. Addressing these multifaceted challenges necessitates a holistic approach that balances technological advancement with equitable labour and digital rights for all Africans. Also, as AI reshapes the workforce, African governments must entrench digital rights protections, including by enacting and enforcing labour laws that recognise gig and platform workers as employees, ensuring labour protections, social benefits, and their right to organise.

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