

Artificial Intelligence (AI) and Technology in Africa

AERC concept note

Introduction

AI is discussed almost everywhere by everyone on a daily basis esp. after the introduction of ChatGPT early in 2023 which made AI go mainstream. The future of Africa (as in elsewhere) will depend on the consequences of technological and policy decisions made today. For Acemoglu and Johnson (2023), the ultimate impact of AI depends on its impact on the labour markets/workers. As a framework, the African Union (AU) AI Continental Strategy for Africa also seeks to address the concerns regarding job losses and enhancing job creation opportunities through the integration of AI in various industries.

The introduction of a new or disruptive technology (e.g. a financial technology -Fintech) is a recurring theme in an era of technological changes, and new forms of technology might pose a threat to or destroy existing firms (e.g. formal financial institutions). However, the idea of destruction or creative destruction due to technological innovation is not a new idea. As a conceptual framework for our discuss, it is relevant to refer to the work of Joseph Schumpeter who is the originator of disruptive innovation theory and who identified innovation as the critical dimension of economic development, including entrepreneurship (Schumpeter 1937, 1939, 1942). Departing from the static view of Walras (1874) and Marshall (1890) and highlighting the importance of technological dynamic, Schumpeter acknowledged how technological innovations (e.g. the invention of railways, AI, Fintech...etc) change 'ways of doing things' over time.

The innovation theory of Schumpeter was popularized by growth theorists and the new growth theorists who explored the relationship between innovation and economic growth, albeit without a focus on the role of an entrepreneurial firm, such as a FinTech start-up (Romer 1990, 1994, 1996; Solow 1956, 1957). Spencer and Kirchoff (2006), based on a careful discussion of the role of technology in economic growth, address how New Technology-Based Firms (NTBFs) such as FinTech start-ups constitute a source of disruption and serve as key drivers of Schumpeterian creative destruction. Apart from the extensive discussion in economics of technology in economic growth theories, we can also learn a lot from the management literature, which discusses the effect of disruptive innovative technology on existing and new firms (e.g. in financial activities)

AERC research Fintech, financial inclusion and women/youth empowerment

AERC researchers have been engaged with research in fintech, financial inclusion and inequality (Ndung'u 2019; Murinde, 2012; Demir et al 2020). Recent research examines the role of financial technology (FinTech) in improving the occupational choices of women in Africa (Kedir and Kouame, 2022). The authors analyse the link between FinTech and entrepreneurship, drawing on large data sets from central and western Africa that hold important novel policy implications for the wider Africa region. This helps to clarify if and when financial technology use may translate into self-employment, and how it can contribute to the improvement of the livelihoods of marginalised social groups such as women and youth.

However, it is not only in fiancé that we see fast technological progress. There are several important changes in agriculture, health, education, transport, education...etc. In the parallel workshop of the AUDA-NEPAD Africa Policy Bridge Tank2024 Inception Conference on African Futures, we will have a panel discussion on the following key and broad ranging issues of AI and technology in the economic development of Africa.

- **What is AI and its recent status/use in Africa?**
 - AI in Agriculture/Industry
 - AI in health
 - AI and finance
 - AI and education
 - ...etc.
- **What are the opportunities to be leveraged due to AI and disruptive technology for African economic transformation?**
- **What are the challenges associated with AI and disruptive technologies in Africa?** (e.g. legal and institutional frameworks for responsible AI adoption and technology governance in general);
- **What are the policy measures/initiative/reform required to make the most of AI and technological opportunities to promote economic development and enhance living standards in Africa?**

Bios of the AI and Technology panel

Moderator:

Abbi M. Kedir, Director of Research, African Economic Research Consortium (AERC), Nairobi, Kenya and an associate Professor in international development and international business at the University of Sheffield, UK. He holds MSc in Economics and Econometrics and a PhD in Economics from the School of Economics, University of Nottingham, UK. He has several editorial board membership responsibilities in international journals such as the Journal of Development Studies, International Journal of Entrepreneurial Behaviour and Research, Economics, and Frontiers. He did published work in fintech, financial inclusion and entrepreneurship.

Panelists/discussants;

Dr. Abiyot Bayou Tehone (TBC) is a senior advisor to the Minister of the Ministry of Innovation & Technology. He holds a PhD in ICT Management from Korea Advanced Institute of Science and Technology. He also completed executive education programs from Harvard Kennedy School and Digital Frontiers Institute. He is a Certified Digital Finance Professional. He works with the government and other stakeholders to develop and implement policies and strategies that foster innovation, digitalization, and economic growth. In addition, he serves as a Data and Governance System Advisor for the Tony Blair Institute for Global Change, where he supports Data Governance related Policies and solutions for public sector reform and development. With over 20 years of experience in the ICT industry and government administration, he has a strong background in ICT management, digital transformation, e-government, and knowledge economy leadership. He is passionate about leveraging technology and innovation to address the challenges and opportunities of the 21st century.

Tewodros Makonnen holds a PhD in Economics from the University of Leicester, UK. Currently, he works at Policy Study Institute, Addis Ababa, Ethiopia. He also serves as a Senior Country Economist, International Growth Centre (IGC), London School of Economics and Political Science. He has over 20 years of research experience on the Ethiopian economy. Tewodros' research interest is macroeconomics, applied microeconometrics and development economics. In the past, he has worked as a Junior Research Fellow at the Ethiopian Economic Policy Research Institute. He has also worked as a Junior Research Officer at the National Bank of Ethiopia.

Pazion Cherinet is a seasoned technology leader and entrepreneur with over two decades of experience in engineering, strategic leadership, and tech startups. Pazion is a graduate of Seattle University, where he studied Electrical and Computer Engineering and a founder and CEO of Orbit Health, a leading digital health company that is transforming healthcare access and improving quality care outcomes. Pazion is a visionary leader who is focused on expanding Orbit Health's innovative health management solutions throughout Ethiopia and other parts of Africa. Under Pazion's leadership, Orbit Health has developed and launched innovative health management solutions implemented across public and private health facilities and are improving the quality of care and expanding access to healthcare for millions of people. The company has also successfully launched an Innovation Hub in partnership with the Mastercard Foundation, which provides business training and coaching to aspiring engineers and entrepreneurs to help them launch their own digital startups. In the first year of operation, the Innovation Hub successfully developed and launched 15 startups in industries ranging from Digital Health, Education, Transport, and Services.

Pazion began his technology startup journey while leading a successful engineering career at Boeing, where he spent 12 years holding various responsibilities including lead systems engineer, strategy, and project leader. Pazion's experience at the Boeing Company has provided him with a solid foundation in engineering, operations, and strategic leadership. He has leveraged this experience to develop innovative health management solutions at Orbit Health. Pazion's leadership and entrepreneurial skills have enabled him to successfully launch and grow Orbit Health into a leading digital health company in Africa.