

## **Regulating Artificial Intelligence through a human rights-based approach in Africa**

Oyeniya Abe, PhD

Lecturer in Law, Huddersfield Law School

University of Huddersfield, United Kingdom

(Research Associate, Centre for Comparative Law in Africa, Faculty of Law, University of Cape  
Town, South Africa)

Corresponding author: o.o.abe@hud.ac.uk

And

Akinyi J. Eurallyah, LLM

PhD Candidate,

Schulich School of Law,

Dalhousie University,

Canada

## **Regulating Artificial Intelligence through a human rights-based approach in Africa**

### **Abstract**

While the dawn of Artificial Intelligence (AI) solutions has aided in solving some of societal challenges, globalization and technological innovation potentially have the capability to disrupt, suspend or change existing legal order, preventing the realization of business and human rights principles. For example, with AI-enabled systems, Africans can now access better healthcare, education, health, and transportation. However, human rights violations induced by AI have the potential to undermine human rights concerns. This chapter contextualizes the usage of AI systems and its implications for human rights violations. With particular reference to Africa, it gives an overarching context capable of constructing legal reactions to corporate related human rights violations. Some of the questions posed and asked are: What are the ways human rights can be protected from exploitative tendencies of AI companies? How can African states, and businesses respond to regulatory challenges triggered by loss of work due to automation? What innovations and new methodologies are to be designed to engage with a sustainable and automated future? Finally, we propose reforms for corporate entities developing and deploying AI to respect human rights.

## Regulating Artificial Intelligence through a human rights-based approach in Africa

Dr. Oyeniyi Abe\*  
Akinyi J. Eurallyah\*\*

### Abstract

While the dawn of Artificial Intelligence (AI) solutions have aided in solving some of societal challenges, globalization and technological innovation potentially have the capability to disrupt, suspend, or change existing legal order, preventing the realization of business and human rights principles. For example, with AI-enabled systems, Africans can now access better healthcare, education, health, and transportation. However, AI has the potential to undermine human rights concerns. This article contextualizes the usage of AI systems and its implications for human rights violations. With particular reference to Africa, it gives an overarching context capable of constructing legal reactions to corporate related human rights violations. Some of the questions posed are: What are the ways human rights can be protected from exploitative tendencies of AI companies? How can African states, and businesses respond to regulatory challenges triggered by loss of work due to automation? What innovations and new methodologies are to be designed to engage with a sustainable and automated future? Finally, we propose reforms for corporate entities developing and deploying AI to respect human rights.

Key words: Artificial Intelligence (AI), Africa, human rights accountability, privacy, data protection.

### 1. Introduction

The concept and concerns surrounding the impact of Artificial Intelligence (AI) on human rights within an African context has received few considerations in academic literature.<sup>1</sup> The few literature appear to portray a disconnect between disruptive technologies broadly and human rights implications.<sup>2</sup> On one hand, while state entities have deemed recourse to AI as a pathway to attracting investment within their territories, AI as a form of investment has been considered the next industrial revolution capable of fast tracking the growth and development of developing economies.<sup>3</sup> It is estimated that if properly implemented, AI has the potential to offer \$15.7

---

\* Oyeniyi Abe is a Lecturer at the Law School, Huddersfield Business School, University of Huddersfield, United Kingdom. He can be reached at o.o.abe@hud.ac.uk. Special thanks to the anonymous reviewers.

\*\* Akinyi Eurallyah is a PhD Candidate at the Schulich School of Law, Dalhousie University, Canada.

<sup>1</sup> M Romanoff and P Hidalgo-Sanchis, 'Building ethical AI approaches in the African context' (*UN Global Pulse*, 28 August 2019) <<https://www.unglobalpulse.org/2019/08/ethical-ai-approaches-in-the-african-context/>> accessed 26 June 2021; Clayton Besaw and John Filitz, 'Artificial Intelligence in Africa is a Double-edged Sword' (*Science & Technology: Governance, Technology, Urban Development*, 16 January 2019) <<https://ourworld.unu.edu/en/ai-in-africa-is-a-double-edged-sword>> accessed 26 June 2021.

<sup>2</sup> M Risse, 'Human Rights and Artificial Intelligence: An urgently needed agenda' (2018) HKS Faculty Working Paper Series No. RWP18-015 <<https://www.hks.harvard.edu/publications/human-rights-and-artificial-intelligence-urgently-needed-agenda>> accessed 20 May 2021.

1  
2  
3  
4 trillion to the global economy by 2030.<sup>4</sup> AI has also made work easier and faster compared to  
5 human intelligence.<sup>5</sup> For instance, with the advent of autonomous vehicles, the transport industry  
6 is expected to record fewer road accidents and proper management of traffic-flows.<sup>6</sup> Likewise, in  
7 the health sector, AI is making new diagnostic and decision-support tools for medical  
8 professionals.<sup>7</sup> In addition, corporate entities have opted for intelligent personal assistants like  
9 Siri, Alexa, and Cortana that use voice recognition, thus making their businesses more efficient.<sup>8</sup>  
10 AI has also been used in the creative industry to compose orchestral music,<sup>9</sup> and generate short  
11 films.<sup>10</sup>

12  
13  
14  
15 Unquestionably, AI is reshaping the economy,<sup>11</sup> democratic participation, and society at large.  
16 One of the growing narratives in Africa is that AI cannot be regulated due to the technological  
17 innovation and disruptions they portend. Due to its relatively new phenomena, there are certain  
18 debates about the constitutionality or potential human rights implications around these  
19 technologies. These debates encompass the ways rightsholders interrelate with businesses, and in  
20 the process, modify business approaches towards fulfilling their responsibility to respect human  
21 rights. The question is how can manufacturing and usage of AI software be managed without  
22 social, ethical, and severe human rights implications? The disruption by AI has created concerns  
23 surrounding state and non-state actor's capability to use this tool as an instrument of oppression,  
24 which in many cases inexplicably affects the vulnerable members of the society. For instance, AI  
25 can lead to discrimination, loss of income, and uncertainties around the supply chain. This debate  
26  
27  
28  
29  
30

---

31 <sup>3</sup> T Mills, 'The impact of artificial intelligence in the everyday lives of consumers' (*Forbes*, 7 March 2018)  
32 <<https://www.forbes.com/sites/forbestechcouncil/2018/03/07/the-impact-of-artificial-intelligence-in-the-everyday-lives-of-consumers/?sh=17fbd8f46f31>> accessed 26 June 2021.

33  
34  
35 <sup>4</sup> *ibid.*

36  
37 <sup>5</sup> H Wilson and P Daugherty, 'Collaborative Intelligence: Humans and AI Are Joining Forces' (*Harvard Business Review*, July-August 2018) <<https://hbr.org/amp/2018/07/collaborative-intelligence-humans-and-ai-are-joining-forces>> accessed 5 June 2020; J Anderson and L Rainie, 'Artificial Intelligence and the Future of Humans' (*Pew Research Center*, 10 December 2018) <<https://www.pewresearch.org/internet/2018/12/10/artificial-intelligence-and-the-future-of-humans/>> accessed 5 June 2020.

38  
39  
40  
41  
42  
43 <sup>6</sup> P Stone, Rodney Brooks, and others, 'Artificial Intelligence and Life in 2030' *Report of the 2016 Study Panel*,  
44 <[https://ai100.stanford.edu/sites/g/files/sbiybj9861/f/ai100report10032016fnl\\_singles.pdf](https://ai100.stanford.edu/sites/g/files/sbiybj9861/f/ai100report10032016fnl_singles.pdf)> accessed 20 May 2021.

45  
46 <sup>7</sup> *ibid.*

47  
48 <sup>8</sup> *ibid.*

49  
50  
51 <sup>9</sup> R Moss, 'Creative AI: Computer composers are changing how music is made' (*New Atlas*, 26 January 2015)  
52 <<https://newatlas.com/creative-artificial-intelligence-computer-algorithmic-music/35764>> accessed 19 April 2021.

53  
54  
55 <sup>10</sup> M Hutson, 'New algorithm can create movies from just a few snippets of text' (*Science*, 23 February 2018)  
56 <<https://www.sciencemag.org/news/2018/02/new-algorithm-can-create-movies-just-few-snippets-text>> accessed 25  
57 June 2021.

58  
59  
60  
61  
62  
63  
64  
65 <sup>11</sup> D Wagner, 'How Artificial Intelligence is Changing the Global Economy' (*Our World*, 15 November 2018)  
66 <[https://ourworld.unu.edu/en/how-ai-is-changing-the-global-economy#:~:text=Artificial%20intelligence%20\(AI\)%20and%20machine,sectors%20of%20the%20global%20economy](https://ourworld.unu.edu/en/how-ai-is-changing-the-global-economy#:~:text=Artificial%20intelligence%20(AI)%20and%20machine,sectors%20of%20the%20global%20economy)> accessed 25 June 2021.

1  
2  
3  
4 around human rights challenges ‘power differentials and provides individuals, and the  
5 organizations that represent them, with the precise tools to question the motives of authoritative  
6 actors, such as states and businesses.’<sup>12</sup> For example, the use of AI in algorithmic decision-  
7 making processes has introduced a new wave of challenges brought about by biased data and  
8 measurement error.<sup>13</sup> These challenges greatly impact human rights. Further complicating this is  
9 the fact that victims do not have access to adequate remedies. A classic illustration is the  
10 utilisation of facial recognition software in surveillance cameras which has been used as  
11 mediums of discriminatory profiling, especially against certain races and mistaken identity of  
12 personalities.<sup>14</sup> In addition, autonomous vehicles will not only lead to displacement of manual  
13 drivers but could also have adverse impacts on the environment. Businesses such as Cambridge  
14 Analytica have been accused of tampering with the voting systems of countries like Kenya  
15 leading to the question of whether the constitutionally guaranteed rights of Kenyan citizens may  
16 have been violated during the 2013 and 2017 presidential elections?<sup>15</sup>

17  
18  
19  
20  
21 A human rights-based approach within the context of this work is one which focuses on  
22 development of the people and protection of their fundamental human rights. AI must integrate a  
23 respect for human rights framework and ensure that fundamental liberties are integrated in  
24 regulatory frameworks, norms, standards, plans, and policies of government.

25  
26  
27 This article examines the potential of a human rights-based approach to AI in Africa. It explores  
28 various ways such adverse effects of AI on universally recognized human rights can be  
29 mitigated. Therefore, the questions this article seeks to answer are: how can we hold companies  
30 accountable for algorithm-based decisions? What are the ways human rights can be protected  
31 from exploitative tendencies of AI companies? How can African states, and businesses respond  
32 to regulatory challenges triggered by loss of work due to automation? What innovations and new  
33 methodologies are to be designed to engage with a sustainable and automated future? The article  
34 proceeds as follows: Part one is the introduction. Part two highlights the utilization of AI  
35 globally and the relevance of that utility to enhancing socio-economic development in Africa. It  
36 further examines the instrumentality of AI and its potential to violate human rights within the  
37 African context. Part three analyses the regional framework on AI in Africa, drawing lessons  
38 from other jurisdictions such as the European Union (EU) and the Organization of Economic  
39 Cooperation Development (OECD). This section further proposes an African Union governance  
40 regulatory framework for AI. Part four concludes the article.

---

41  
42  
43  
44  
45  
46  
47  
48  
49 <sup>12</sup> C van Veen, ‘Artificial Intelligence: What’s Human Rights Got to do with It?’ (*Date and Society: Points*, 14 May  
50 2018) <<https://points.datasociety.net/artificial-intelligence-whats-human-rights-got-to-do-with-it-4622ec1566d5>>  
51 accessed 22 June 2021.

52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65  
<sup>13</sup> L Andersen, ‘Human rights in the age of artificial intelligence’ (*Access Now*, November 2018)  
<<https://www.accessnow.org/cms/assets/uploads/2018/11/AI-and-Human-Rights.pdf>> 24 June 2021.

<sup>14</sup> Shai Gilboa, et. all, ‘Faception is a Facial Personality Analytics Technology Company’ (*Faception*)  
<<https://www.faception.com>> accessed 28 June 2021.

<sup>15</sup> J Crabtree, ‘Here’s how Cambridge Analytica played a dominant role in Kenya’s chaotic 2017 elections’ (*CNBC*,  
23 March 2018) <<https://www.cnbc.com/2018/03/23/cambridge-analytica-and-its-role-in-kenya-2017-elections.html>  
> 24 June 2021.

## 2. The Concept of Artificial Intelligence and Implications for Human Rights Violations

While most of the conception about AI focuses on making machines intelligent, the role of humans in this process complicates the human rights impact of AI.<sup>16</sup> Several scholars have envisioned AI as a mechanized procedure that possesses the basic functionality of humans.<sup>17</sup>

AI is grouped according to the utility of their functions. First, basic AI increases the performance of business analytics solutions and improves normalcy in the functioning of digital platforms.<sup>18</sup> These digital platforms are commonly used in online matching, chatbots, and credit scoring such as in M-Shwari (Kenya) Tala (Kenya) M-Kajy (Madagascar), and ValU (Egypt). Second, advanced AI simulates human cognitive abilities like perception, vision, and spatial processing, enabling the analysis of unstructured data like texts, images, and audio data.<sup>19</sup> This intelligence structure has been used in domains like social media, facial and speech recognition, and medical diagnoses. Examples include China's Yitu Technology on facial recognition, Infervision which provides medical diagnoses within and beyond China, and NIO which provides autonomous vehicle technology.<sup>20</sup> Third, autonomous AI enhances the ability to interact with humans and learn on its own.<sup>21</sup> Its prototypes include Fetch Robotics, Boston Dynamics, and Hanson Robotics.

Despite their daily interactions with AI systems, the public perception of AI in Africa is largely amorphous, and the impact of these systems on human rights protections have not been considered in literature. For example, public attitudes towards AI tend to be more pragmatic, measuring these systems based on the objective of end users, the importance of utilizing AI compared with other approaches, the inappropriateness of these technologies and how it violates privacy, and the extent of human involvement in decision-making.

### 2.1 Opportunities and Solutions of AI for Socio-Economic Development in Africa

While guaranteeing socio-economic rights, AI can drive growth and enhance development in Africa in several ways including intelligent automation of the workforce with its associated risk of job losses, augmenting both labour and physical capital, and enhancing innovation.<sup>22</sup> Automation has the potential to improve business production, thus lowering costs of

---

<sup>16</sup> N Nilsson, *The quest for Artificial Intelligence: A history of ideas and achievements* (Cambridge University Press 2010).

<sup>17</sup> D Strusani and GV Hounbonon, 'The role of Artificial Intelligence in supporting development in emerging markets' (2019) EMCompass Note 69 <<https://www.ifc.org/wps/wcm/connect/32e54505-3bfb-4198-b939-e1e8847715f1/EMCompass-Note-69-Role-of-AI-in-EMs.pdf?MOD=AJPERES&CVID=mNdPiNf>> accessed 28 June 2021, 1-2; S Russell and P Norvig, 'Artificial Intelligence: A modern approach' (3rd edn, Pearson 2010).

<sup>18</sup> Strusani and Hounbonon (n 17).

<sup>19</sup> *ibid.*

<sup>20</sup> *ibid.*

<sup>21</sup> *ibid.* 2.

<sup>22</sup> University of Pretoria, 'Artificial Intelligence for Africa: An Opportunity for Growth, Development and Democratisation' (*Access Partnership*, 28 November 2018) <[https://www.up.ac.za/media/shared/7/ZP\\_Files/ai-for-africa.zp165664.pdf](https://www.up.ac.za/media/shared/7/ZP_Files/ai-for-africa.zp165664.pdf)> accessed 28 June 2021.

1  
2  
3  
4 production.<sup>23</sup> This directly increases output and indirectly increases consumption. In Africa, AI  
5 has been used in different sectors through a variety of means which are discussed below.  
6  
7

### 8 2.1.1 Access to healthcare

9 In the health industry, the most critical concern is providing options for effective treatment.<sup>24</sup> AI-  
10 centric solutions can speed up diagnoses, improve public health policy, and assist in preparing  
11 for global pandemics. It also improves health care delivery by having advanced care analytics to  
12 help medical personnel identify potential challenges.<sup>25</sup> Kenya has the ‘Sophie Bot’ that can  
13 easily be accessed by patients instead of visiting the hospital. The Sophie Bot relies on AI to  
14 process and respond to concerns relating to sexual and reproductive health.<sup>26</sup> Kenya’s Medical  
15 Supply Agency and IBM’s Watson utilise AI to transform healthcare supply chains.<sup>27</sup> In  
16 addition, South Africa’s Numberboost used AI to come up with a solution aimed at addressing  
17 the United Nations’ Sustainable Development Goal of improving access to healthcare.<sup>28</sup>  
18 Nigeria’s Apmis uses AI to allow medical practitioners and personnel to share and exchange data  
19 easily, transparently, and securely.<sup>29</sup>  
20  
21  
22  
23

### 24 2.1.2 Access to public services

25 Public service delivery is a major challenge for Africans seeking accurate and efficient service.  
26 The goal is to reduce bottlenecks and redundancy in the service industry.<sup>30</sup> The low level of  
27 satisfaction has created distrust and apathy towards seeking public sector assistance in providing  
28 essential services. Recourse to AI has shown that unnecessary bureaucracy is curtailed, leading  
29 to reduced costs of administrative procedures and increased delivery of public services. For  
30 example, Kenya’s eCitizen uses AI to offer citizens and residents services such as, application  
31 for a passport, searching for a title deed, and application for marriage or business certificates  
32 without having to physically visit a government office.  
33  
34  
35

### 36 2.1.3 Access to Food

37  
38  
39  
40  
41

---

42 <sup>23</sup> Strusani and Hounbonon, (n 17), page 4.

43  
44 <sup>24</sup> L Sallstrom, O Morris, and H Mehta, ‘Artificial Intelligence in Africa’s Healthcare: Ethical Considerations’  
45 (September 2019) ORF Issue Brief No. 312 <[https://www.orfonline.org/wp-](https://www.orfonline.org/wp-content/uploads/2019/09/ORF_Issue_Brief_312_AI-Health-Africa.pdf)  
46 [content/uploads/2019/09/ORF\\_Issue\\_Brief\\_312\\_AI-Health-Africa.pdf](https://www.orfonline.org/wp-content/uploads/2019/09/ORF_Issue_Brief_312_AI-Health-Africa.pdf)> accessed 28 June 2021.

47  
48 <sup>25</sup> U Pretoria (n 22) page 10.

49  
50 <sup>26</sup> I Amukasa, ‘Sophie Bot’ (*Sophie Bot, Patient Innovation*, 3 June 2019) <[https://patient-](https://patient-innovation.com/post/2071?language=en)  
51 [innovation.com/post/2071?language=en](https://patient-innovation.com/post/2071?language=en)> accessed 28 June 2021.

52  
53 <sup>27</sup> ‘Solving Africa’s healthcare logistics problems with AI’ (*BizCommunity* 2021)  
54 <<https://www.bizcommunity.com/PDF/PDF.aspx?l=196&c=159&ct=1&ci=179698>> accessed 28 June 2021.

55  
56 <sup>28</sup> U Pretoria (n 22) 19.

57  
58 <sup>29</sup> Sallstrom, Morris, and Halak Mehta (n 24) 4.

59  
60 <sup>30</sup> U Pretoria (n 22) 8.  
61  
62  
63  
64  
65

1  
2  
3  
4 The right to food is not guaranteed under the African Charter on Human and Peoples' Rights.<sup>31</sup>  
5 Considering that access to food is a legal and policy issue, the realization of this right has  
6 become the focus of states through agricultural policies and programmes that guarantee food  
7 security.<sup>32</sup> These guarantees can be facilitated through adaptation of AI, that will not only ensure  
8 coherent government policies but see to the implementation of such food policies.  
9

10  
11  
12 Agriculture is critical to the sustainable development of African countries. It has an accumulative  
13 human capital amounting to over 65% of the continent's labour force.<sup>33</sup> As a result of the  
14 increase in trade and the growing population, the continent's food market is predicted to increase  
15 from USD300 billion to USD1 trillion by 2030.<sup>34</sup> However, the growth of the food industry is  
16 inhibited by land expropriation, uncultivable soil, famine, and incipient pest resistance.<sup>35</sup> Yet,  
17 utilisation of AI based technology can improve production and efficiency in the food value  
18 chain. In Kenya, FarmDrive uses mobile phones, data, and machine learning to offer farmers an  
19 alternative credit scoring platform,<sup>36</sup> thus minimizing the USD 450 billion global agriculture  
20 financing gap that 'prevents financial institutions from lending to creditworthy smallholder  
21 farmers.'<sup>37</sup> Similarly, Vital Signs gathers and analyses pixels' value and colour from satellite  
22 imagery data to predict rainfall and drought patterns.<sup>38</sup> This guarantees farmers' access to  
23 information needed to increase food productivity, guiding Africans toward sustainable food  
24 development and at the same time safeguarding nutritious and resilient livelihoods. Information  
25 and communication technology, through appropriate data is essential to ensuring food security in  
26 Africa. Vital Signs is able to synthesize data into significant insights for farmers and policy  
27 makers.<sup>39</sup> Nigeria's Zenvus uses machine learning to enhance farm yields and profits by not only  
28 advising farmers on when, how, and what to farm but also detecting outbreaks of diseases and  
29  
30  
31  
32  
33

---

34  
35  
36 <sup>31</sup> African Charter on Human and People's Rights, (Adopted 27 June 1981, entered into force 21 October 1986)  
37 (1982) 21 ILM 58 (African Charter),  
38

39 <sup>32</sup> C Deji, A Djurfeldt, and M Jirstrom, 'Agricultural Policy in Sub-Saharan Africa and its relevance for  
40 Smallholder Farmers, Women and Youth' (AgriFoSe2030 Reports 2017-1)  
41 <[https://pub.epsilon.slu.se/16878/1/dejil\\_c\\_et\\_al\\_200415.pdf](https://pub.epsilon.slu.se/16878/1/dejil_c_et_al_200415.pdf)> accessed 28 June 2021.  
42

43 <sup>33</sup> U Pretoria (n 22) 9.  
44

45 <sup>34</sup> The World Bank, 'Africa's food markets could create one trillion-dollar opportunity by 2030', (*The World Bank*,  
46 4 March 3013) <<https://www.worldbank.org/en/news/press-release/2013/03/04/africas-food-markets-could-create-one-trillion-dollar-opportunity-2030>> accessed 27 June 2021.  
47  
48

49 <sup>35</sup> *ibid.*  
50

51 <sup>36</sup> Crowd 360 'Alternative credit scoring for smallholder farmers' (*FHI 360*, 16 April 2018)  
52 <<https://crowd360.org/alternative-credit-scoring-for-smallholder-farmers/>> accessed 28 June 2021.  
53

54 <sup>37</sup> *ibid.*  
55

56 <sup>38</sup> Vital Signs, 'The Gold Standard of Environmental Monitoring Systems' (*Vital Signs* 2021)  
57 <<http://www.vitalsigns.org/overview>> accessed 28 June 2021.  
58

59 <sup>39</sup> *ibid.*  
60  
61  
62  
63  
64  
65



1  
2  
3  
4 pests allowing the farmers to act on time.<sup>40</sup> Equally, South Africa's Aerobotics uses aerial  
5 imagery from drones and AI to detect early pests and diseases.<sup>41</sup>  
6  
7

#### 8 2.1.4 Access to Capital

9 Most small and medium scale enterprises (SMEs) in Africa lack access to capital. Financial  
10 technology platforms such as Fintech have the ability to increase access to finances, and  
11 investment. Evidence supports the assertion that an increasing number of Africans are in need of  
12 more sophisticated banking services, with approximately 40% of them preferring digital  
13 banking.<sup>42</sup> In Nigeria, Kudi uses natural language processing and AI to improve peer-to-peer and  
14 peer-to-business money transfers thus making payments faster, more affordable, and reliable.<sup>43</sup> A  
15 similar solution for Kenyans is M-PESA.<sup>44</sup> Kenya also has Tala that uses AI to analyse  
16 individual's Facebook and SMS data before disbursing a loan to customers without credit  
17 history.<sup>45</sup>  
18  
19  
20  
21

22 The use of AI in the financial sector can also help shield financial institutions from risks, assess  
23 allocation of credit, detect fraud, and increase digital sales.<sup>46</sup> Other areas include anti-money  
24 laundering alert investigations and decision making; monitoring the regulatory environment;  
25 assessing customer satisfaction; and calculation of risks and efficient reaction to market trends.<sup>47</sup>  
26 Such AI solutions include Nigeria's Scan to Pay App that was launched by Zenith Bank Plc,<sup>48</sup>  
27 ALAT (which was the first fully digital bank in Africa) developed by Wema Bank Plc,<sup>49</sup> South  
28 Africa's Strider which provides a toolbox of platforms from which financial institutions can  
29 provide financial education and other services to prospective and existing clients.<sup>50</sup>  
30  
31  
32  
33  
34

---

35  
36 <sup>40</sup> 'The Zenvus Advantage| Data-Driven Farming' (*Zenvus*, 2016) <<https://www.zenvus.com>> accessed 25 June  
37 2021.

38  
39 <sup>41</sup> 'Intelligent Tools for Perennial Crops' (*Aerobotics*, 2021) <<https://www.aerobotics.com/?identifier=default-sign-up-button>> accessed 25 June 2021.

40  
41  
42 <sup>42</sup> B Ngugi, 'Kenyan banks among world's most profitable' *Business Daily* (Nairobi, 1 March 2018)  
43 <<https://www.businessdailyafrica.com/bd/markets/market-news/kenyan-banks-among-world-s-most-profitable-2192152>> accessed 28 June 2021.

44  
45  
46 <sup>43</sup> 'Providing affordable financial services' (*Kudi*) <<https://kudi.com>> accessed 24 June 2021.

47  
48 <sup>44</sup> 'M-PESA' <<https://www.safaricom.co.ke/personal/m-pesa>> accessed 24 June 2021.

49  
50 <sup>45</sup> 'Mobile Loans in Kenya directly from your Smartphone' (*TALA*) <<https://tala.co.ke>> accessed 24 June 2021.

51  
52 <sup>46</sup> U Pretoria (n 22) 13.

53  
54 <sup>47</sup> U Pretoria (n 22) 14.

55  
56 <sup>48</sup> Zenith Scan to Pay' <<https://www.zenithbank.com/scan-to-pay/////////>> accessed 28 June 2021.

57  
58 <sup>49</sup> 'ALAT by WEMA' <<https://www.alat.ng>> accessed 28 June 2021.

59  
60 <sup>50</sup> 'Strider' <<https://stridertech.co.za>> accessed 28 June 2021.  
61  
62  
63  
64  
65

1  
2  
3  
4 However, the extent to which these AI enabled systems impact human rights in Africa has not  
5 been critically considered. The next section discusses the challenges and impact of AI on human  
6 rights in Africa.  
7

## 8 9 2.2 Challenges and Impact of AI on Human Rights

10 The implementation of AI-centric solutions in several sectors of the market economy results in a  
11 more reliable, accessible, and effective service. In this section, we investigate the instances  
12 where some of these human rights infringements do occur, noting that AI's ability to identify,  
13 categorize, and discriminate data amplifies the probability of human rights abuses.<sup>51</sup>  
14  
15

### 16 2.2.1 Right to equality and non-discrimination

17  
18  
19 By its nature, AI is tied to its ability to sort and filter data by ranking search results and  
20 classifying people into groups.<sup>52</sup> In the process, AI treats different groups of people inversely.<sup>53</sup>  
21 In certain instances, such difference in treatment results in positive consequences, especially  
22 when used in systems aimed at promoting diversity.<sup>54</sup> However, in others, the use of AI solutions  
23 in sectors such as the criminal justice system have perpetuated injustice in judicial decision  
24 making such as sentencing, bail, and bond terms.<sup>55</sup>  
25  
26

27 The International Bill of Rights prohibit discrimination on any ground.<sup>56</sup> The impact of such  
28 discrimination, especially on Africans, is twofold.<sup>57</sup> First, discrimination by AI systems on an  
29 African generation may adversely impact on their health, economic opportunities, or wealth  
30 accumulation which consequently trickles down to the later generations. For example, AI  
31 solutions that prioritize factors like costs and profit over the wellbeing of the patient have the  
32 potential to recommend treatment based on the patient's insurance policy or ability to pay for the  
33 medical services, a fact which may result in denial of medical care. These systems, if employed  
34 on one generation, may incapacitate the ability of that generation to take care of its offspring.  
35 Secondly, AI solutions in the education sector that are racially biased can limit the admission of  
36 most Africans (blacks) in white-dominated academic institutions. Similarly, racial discrimination  
37  
38  
39  
40  
41

---

42  
43 <sup>51</sup> U Pretoria (n 22) 19.

44  
45 <sup>52</sup> U Pretoria (n 22) 24.

46  
47 <sup>53</sup> *ibid.*

48  
49 <sup>54</sup> *ibid.*

50  
51 <sup>55</sup> *ibid.*

52  
53 <sup>56</sup> The Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III) (UDHR); the  
54 International Covenant on Economic, Social, and Cultural Rights (adopted 16 December 1966, entered into force 3  
55 January 1976) UNGA Res 2200A (XXI) (ICESCR); and the International Covenant on Civil and Political Rights  
56 (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) arts 26, 27; collectively  
57 referred to as the International Bill of Rights are the foremost human rights instruments drafted under the auspices of  
58 the United Nations.

59  
60 <sup>57</sup> RM Blank, M Dabady, and CF Citro (eds), 'Measuring Racial Discrimination' (National Academies Press 2004).

1  
2  
3  
4 in the labour market in relation to hiring and performance appraisals could limit the wage growth  
5 and promotion of most Africans.  
6  
7

### 8 2.2.2 Right to privacy and data protection

9 Surveillance systems limits citizens' rights to privacy.<sup>58</sup> Kenya's Vital Signs and South Africa's  
10 Aerobotics harvests data from satellite imagery. This technology can not only provide  
11 comprehensive data on an individual's movements but also predict their future location.<sup>59</sup> The  
12 precision and invasive nature of these technologies can provide businesses operating in weak  
13 states the capability to stymie or impose constraints on human rights activists' actions and  
14 movements.<sup>60</sup>  
15  
16  
17

18 Privacy is fundamental to human dignity<sup>61</sup> and is recognized under international human rights  
19 law.<sup>62</sup> These instruments safeguards citizens arbitrary or unlawful interference with anyone's  
20 privacy, family, home, correspondence, or reputation.<sup>63</sup> The African Union Declaration of  
21 Principles on Freedom of Expression and Access to Information in Africa reinforces the people's  
22 right to privacy, including the confidentiality of their communications and protection of their  
23 personal information or data.<sup>64</sup> Such protection is established by law in accordance with the  
24 principles of consent of the individual, fairness, autonomy in relation to their personal  
25 information, right to be notified of any unauthorised access to one's information, and protection  
26 from harmful sharing of the personal information such as non-consensual sharing of intimate  
27 images of women and child pornography.<sup>65</sup> Equally, the Johannesburg Principles on National  
28  
29  
30  
31

---

32  
33 <sup>58</sup> U Pretoria (n 22) 21.

34 <sup>59</sup> *ibid.*

35  
36  
37 <sup>60</sup> S Zuboff, 'The Age of Surveillance Capitalism' (1st edn, PublicAffairs 2019).

38  
39 <sup>61</sup> UDHR art 12.

40  
41 <sup>62</sup> Such international human rights law includes: International Convention on the Protection of the Rights of all  
42 Migrant Workers and Members of their Families (adopted 18 December 1990, entered into force 1 July 2003) Doc.  
43 A/RES/45/158, (ICPRMWMF) art 14; Convention on the Rights of the Child (adopted 20 November 1989, entered  
44 into force 2 September 1990) (CRC) art 16; European Convention for the Protection of Human Rights and  
45 Fundamental Freedoms (adopted 4 November 1950, entered into force 3 September 1953) Rome, 4.XI.1950  
46 (ECPHRFF) art 8.

47  
48 <sup>63</sup> See UDHR art 12; article 17 of ICCPR. See further, Charter of Fundamental Rights of the European Union,  
49 (adopted 7 December 2000, entered into force 1 December 2009) 2012/C 326/02 (CFR), art 7 confers upon everyone  
50 the right to respect his or her private and family life, home, and communications. With respect to data, Article 8 of  
51 CFR guarantees every European the right to have their personal data protected. Such data must be fairly processed  
52 for clearly stated objectives subject to the individual's consent or other legitimate basis founded on the law. The  
53 same proviso additionally allows everyone to access data which has been gathered concerning him or her, and an  
54 additional right to have such data rectified.

55  
56 <sup>64</sup> See Declaration of Principles on Freedom of Expression and Access to Information in Africa, 2019 (Adopted by  
57 the African Commission on Human and Peoples' Rights at its 65th Ordinary Session held from 21 October to 10  
58 November 2019) ACHPR/Res.350 (EXT.OS/XX) 2016, (DPFEAIA) art 97.

59  
60 <sup>65</sup> *ibid* art 100.  
61  
62  
63  
64  
65

1  
2  
3  
4 Security, Freedom of Expression and Access to Information impose on States authoritative  
5 standards clarifying the legal scope of restrictions on freedom of expression on grounds of  
6 protecting national security,<sup>66</sup> ensuring that they exercise proportionality<sup>67</sup> in order to balance the  
7 achievement of the intended objective against the fundamental right to freedom of privacy and  
8 expression.<sup>68</sup>  
9

10  
11  
12 When not properly regulated, AI has the capability to mine and analyse big data sets which more  
13 often than not include personal data. The analysis of such data by AI systems may reveal  
14 individuals' sensitive personal information such as gender, sexual orientation, and marital status,  
15 thus warranting advanced levels of protection.<sup>69</sup> Even though such international instruments  
16 protect citizens privacy rights, recognition by countries, citizens' rights to privacy, data  
17 protection and freedom of expression especially on social media have perennially been infringed  
18 upon by the complicity of businesses in cooperating with government to share data. For example,  
19 following Kenya's 2007 post-election violence that claimed the lives of thousands, there were  
20 efforts to monitor political conversations online as a broader effort to curb hate speech.<sup>70</sup> The  
21 Kenyan government engaged the services of Cambridge Analytica to access and analyse the data  
22 of millions of Kenyans on Facebook, Twitter, and Google in a bid to determine and manipulate  
23 their political views on the incumbent presidency.<sup>71</sup> This confirmed that online radicalization can  
24 be propagated by a deliberate strategy of violating peoples' online personal private data,  
25 misinformation, and manipulation by AI solutions in order to sway their political views in favour  
26 of an otherwise unpopular government.  
27  
28  
29  
30  
31

### 32 2.2.3 Right to work, and adequate standard of living

33  
34 The ICESCR mandates states to take steps to ensure everyone has the right to work.<sup>72</sup> Such steps  
35 include technical and vocational guidance and training programmes; policies and techniques to  
36  
37

---

38  
39  
40 <sup>66</sup> UNCHR 'Report of the Special Rapporteur, Mr. Abid Hussain pursuant to Commission on Human Rights  
41 resolution 1993/45 (1996). See Johannesburg Principles on National Security, Freedom of Expression and Access to  
42 Information (adopted 01 October 1995) U.N. Doc. E/CN.4/1996/39.

43  
44 <sup>67</sup> *Lingens v. Austria*, 8 EHRR 407. Application Number 981/82, para 40 (1986).

45  
46 <sup>68</sup> Johannesburg Principles (n 66) 3.

47  
48 <sup>69</sup> U Pretoria (n 22) 20; See also S Levin, 'New AI can guess whether you're gay or straight from a photograph' (*The*  
49 *Guardian*, 7 September 2017) <[https://www.theguardian.com/technology/2017/sep/07/new-artificial-intelligence-](https://www.theguardian.com/technology/2017/sep/07/new-artificial-intelligence-can-tell-whether-youre-gay-or-straight-from-a-photograph)  
50 [can-tell-whether-youre-gay-or-straight-from-a-photograph](https://www.theguardian.com/technology/2017/sep/07/new-artificial-intelligence-can-tell-whether-youre-gay-or-straight-from-a-photograph)> accessed 28 June 2021; See also P Lewis, 'Facial  
51 recognition can tell if you're gay' (*The Guardian*, 7 July 2018)  
52 <[https://www.theguardian.com/technology/2018/jul/07/artificial-intelligence-can-tell-your-sexuality-politics-](https://www.theguardian.com/technology/2018/jul/07/artificial-intelligence-can-tell-your-sexuality-politics-surveillance-paul-lewis?CMP=Share_iOSApp_Other)  
53 [surveillance-paul-lewis?CMP=Share\\_iOSApp\\_Other](https://www.theguardian.com/technology/2018/jul/07/artificial-intelligence-can-tell-your-sexuality-politics-surveillance-paul-lewis?CMP=Share_iOSApp_Other)> accessed 28 June 2021.  
54

55  
56 <sup>70</sup> Nanjala Nyabola, 'Digital Democracy, Analogue Politics: How the Internet era is Transforming Politics in Kenya'  
(Zed Books 2018) 163.

57  
58 <sup>71</sup> *ibid*, 163.

59  
60 <sup>72</sup> ICESCR (n 56) art 6.  
61  
62  
63  
64  
65

1  
2  
3  
4 achieve steady economic, social, and cultural development; and full and productive employment  
5 under conditions safeguarding fundamental political and economic freedoms to the individual.<sup>73</sup>

6 This right extends to an individual's achievement of an adequate standard of living for himself  
7 and his family, including food, clothing, and housing, and to continuously improve his living  
8 conditions.<sup>74</sup> It is noteworthy that this right is not an unconditional and absolute right  
9 encompassing the right to be employed, however, it mandates states to take measures that are aimed  
10 at ensuring everyone is employed.<sup>75</sup>

11  
12  
13  
14 The role of AI solutions through automation in several industries could result in unprecedented  
15 amounts of job losses.<sup>76</sup> For example, Fastbrick Robotics developed the Hadrian X, a robot that  
16 has the potential to lay off some workers since it lays 1,000 bricks in an hour, an amount that  
17 would take at least two bricklayers a day to complete.<sup>77</sup> Similarly, Tally, a robot developed by  
18 Simbe Robotics in San Francisco, is a fully autonomous shelf auditing and analytics solution  
19 roaming supermarket aisles during regular business hours ensuring that there is adequate stock  
20 on the shelves and proper pricing.<sup>78</sup> While there have been studies that examine the impact of AI  
21 on jobs in Africa, evidence suggests that automation could result in the loss of approximately  
22 400 million to 800 million jobs by 2030.<sup>79</sup> When jobs are lost to the automation process, income  
23 is also lost. Consequently, if automation indeed shifts the labour market to the negative, majority  
24 of people will struggle to attain adequate living standards. Furthermore, one common  
25 denominator among all the analysts is that AI will be a disruptive force, not only to the market  
26 economy but also to the society at large in the next five decades.<sup>80</sup> By 2030, AI will enhance a  
27 country's GDP by at least 10% due to product enhancements and gains.<sup>81</sup> While projections  
28 show that countries in the Global North stand to benefit the most, African countries cumulatively  
29 records a staggering 5.6% GDP growth.

---

34  
35  
36 <sup>73</sup> *ibid.*

37  
38 <sup>74</sup> ICESCR (n 56) art 11.

39  
40 <sup>75</sup> See General Comment No. 18: The Right to Work (Art. 6 of the Covenant), UN Committee on Economic, Social  
41 and Cultural Rights (CESCR) E/C.12/GC/18.

42  
43 <sup>76</sup> K Drum, 'You will lose your job to a robot – and sooner than you think', (*MotherJones*, November/December  
44 2017) <<https://www.motherjones.com/politics/2017/10/you-will-lose-your-job-to-a-robot-and-sooner-than-you-think/>> accessed 25 June 2021; D Shewan, 'Robots will destroy our jobs – and we're not ready for it' (*The Guardian*, 11 January 2017) <<https://www.theguardian.com/technology/2017/jan/11/robots-jobs-employees-artificial-intelligence>> accessed 25 June 2021.

48  
49 <sup>77</sup> Shewan (n 76).

50  
51 <sup>78</sup> *ibid.*

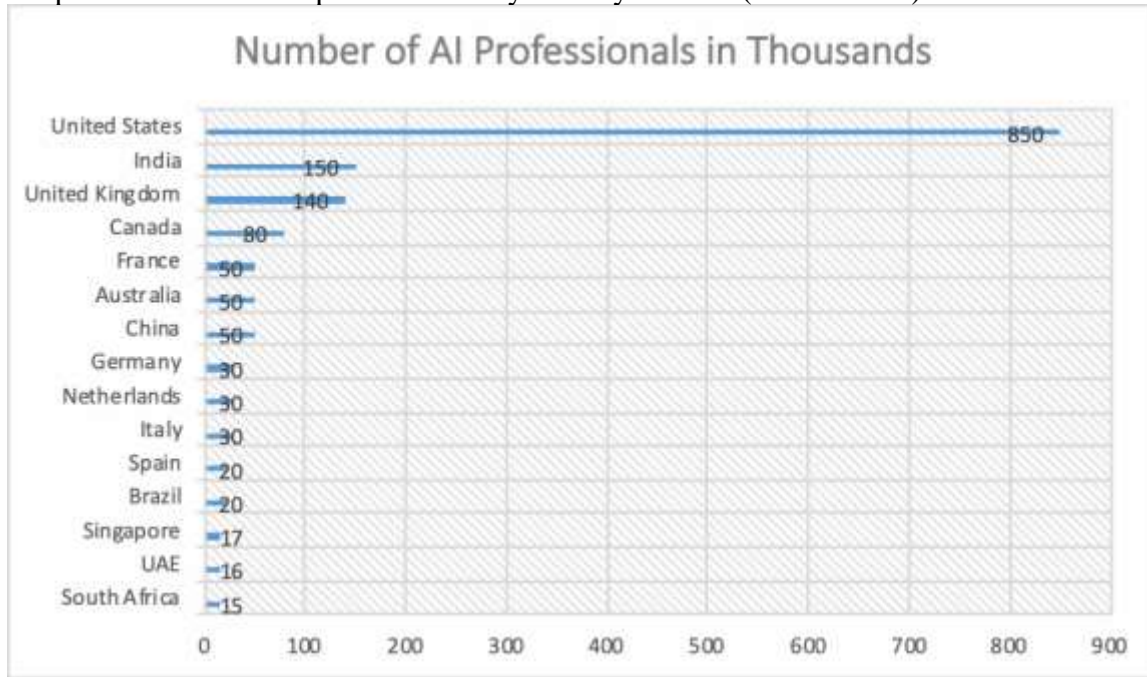
52  
53 <sup>79</sup> D Meyer, 'Robots may steal as many as 800 million jobs in the next 13 years' (*Fortune*, 29 November 2017)  
54 <<https://fortune.com/2017/11/29/robots-automation-replace-jobs-mckinsey-report-800-million/>> accessed 25 June  
55 2021.

56  
57 <sup>80</sup> 'Number of artificial intelligence (AI) professionals by country in 2017 (in 1,000s)' (*Statista*)  
58 <<https://www.statista.com/statistics/944319/ai-professionals-by-country/>> accessed 25 June 2021.

59  
60 <sup>81</sup> *ibid.*

1  
2  
3  
4  
5  
6 The data below shows the increasing impact of AI on job growth, with specific reference to  
7 African realities. In terms of AI human capacity, graph 1 below shows that while South Africa  
8 (the only African country in the top 15) has approximately 15,000 AI professionals as of 2017,  
9 the United States has about 850,000 AI professionals. Curiously, as indicated in graph 2, Africa  
10 is grouped abysmally under 'Rest of the World' with regards to countries impacted by AI by  
11 2030.  
12  
13

14 Graph 1: Number of AI professionals by country in 2017 (in thousands)



37  
38 Source: Statista, Artificial Intelligence (AI)

39  
40  
41  
42  
43 Graph 2: Projections on the global impact of AI on GDP by 2030  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57  
58  
59  
60  
61  
62  
63  
64  
65



Source: Statista

#### 2.2.4 Right to health

The ICESCR obligates States Parties to the Convention to take steps to ensure they fully realize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health.<sup>82</sup> AI systems have been heavily deployed in the healthcare to aid diagnoses of diseases, providing more patient treatment recommendations and making health services more accessible. However, AI also has some adverse implications on the right to health. These technologies have the potential to discriminate or be programmed in a way that they prioritise factors like costs and profit over the wellbeing of the patient.<sup>83</sup> For instance, some AI solutions are designed to recommend treatment based on the patient's insurance policy or ability to pay for the medical services, a fact which may result in denial of proper medical care due to their financial incapacitation. In addition, such AI solutions are not fully error-free. Thus, solutions like IBM's Watson have the potential to misdiagnose and recommend wrong medication. In this instance, who (or what) can be held accountable for the wrong life and death decision making?

#### 2.3 Prospects for a human rights-based AI deployment

Africa has an exceptional opportunity to leverage AI technologies for transformation and effectiveness.<sup>84</sup> These technologies have the potential to optimize solutions to the challenges facing the continent. However, the utilization of AI in Africa impacts various sectors— such as

<sup>82</sup> ICESCR art 12.

<sup>83</sup> Andersen (n 13) 14.

<sup>84</sup> Y Travaly and K Muvunyi, 'The future is intelligent: Harnessing the potential of artificial intelligence in Africa' (*Brookings*, 13 January, 2020) <<https://www.brookings.edu/blog/africa-in-focus/2020/01/13/the-future-is-intelligent-harnessing-the-potential-of-artificial-intelligence-in-africa/>> accessed 25 June 2021.

1  
2  
3  
4 education, health care, employment, and social life— and ultimately undermines or violates  
5 human rights. Navigating the complexities of the deployment of AI and their impacts on human  
6 rights in Africa requires a considered approach to prevent the use of AI as an instrument of social  
7 division, conquest, or violence. For example, disinformation and artificial misinformation has  
8 generated deep fakes, especially in conflict situations,<sup>85</sup> and is used to subdue and monitor those  
9 involved in civil protests.<sup>86</sup> China is developing facial recognition technology in Zimbabwe  
10 where individuals’ facial imagery is used by monitoring and facial recognition applications.<sup>87</sup>  
11 Weak law enforcement, nascent democratic structures, ethnic and religious divisions, and  
12 governance challenges in Africa further complicates the potential of AI to severely impact  
13 human rights. AI technologies presents a unique opportunity for African government to leverage  
14 new technology as a tool for transformative democracy. To achieve this transformation, a  
15 common governance framework for AI in Africa will create a unified approach to developing AI  
16 that integrates human rights compliance into its mode of operations.  
17  
18  
19  
20  
21

### 22 3. Regional Governance of Human Rights Implications of Artificial Intelligence: Lessons 23 for Africa 24

25 It is unclear what Africa’s approach to AI is. Intra and inter-continental competition amongst  
26 African states on AI, has revealed that these technologies have the potential, to not only  
27 transform the world positively, but also violate human rights. This is due to the fact that their  
28 algorithms and other problematic mathematical tools are scalable, largely unregulated,  
29 incomprehensible and almost incontestable, thus amplifying the inherent biases and other  
30 violations on the rapidly growing African population.<sup>88</sup> Consequently, it is important that a  
31 regional legislative instrument governing AI in Africa be enacted to limit the excesses of AI,  
32 especially with regards to human rights violations.<sup>89</sup> We are of the considered view that African  
33  
34  
35  
36

---

37  
38 <sup>85</sup> R Chesney and D Citron, ‘Disinformation on Steroids’ (*Council on Foreign Relations*, 16 October 2018)  
39 <<https://www.cfr.org/report/deep-fake-disinformation-steroids>> accessed 22 June 2021.

40  
41 <sup>86</sup> Z Jones, ‘Instagram apologizes for incorrectly flagging #EndSARS posts as false information’ (*CBSNews*, 22  
42 October 2020) <<https://www.cbsnews.com/news/nigeria-endsars-protest-apologizes/>> accessed 22 June 2021.

43  
44 <sup>87</sup> J Feola, ‘China Exports Facial Scan Tech to Zimbabwe, Launches First “AI Technology Entry to Africa”’ (*Radii*,  
45 16 April 2018) <[https://radiichina.com/china-exports-facial-scan-tech-to-zimbabwe-launches-first-ai-technology-](https://radiichina.com/china-exports-facial-scan-tech-to-zimbabwe-launches-first-ai-technology-entry-to-africa/)  
46 [entry-to-africa](https://radiichina.com/china-exports-facial-scan-tech-to-zimbabwe-launches-first-ai-technology-entry-to-africa/)> accessed 22 June 2021.

47  
48 <sup>88</sup> *ibid.*

49  
50 <sup>89</sup> Several countries have AI-specific national initiatives. For example, Australia has its Australia’s Tech Future,  
51 2025 Digital Transformation Strategy (Vision 2025) and Ethics Framework; Austria has AIM AT 2030: Artificial  
52 Intelligence Mission Austria 2030; Belgium has its AI 4 Belgium; Canada has a set of guiding principles to ensure  
53 effective and ethical AI, Canada’s Directive on Algorithmic Impact Assessment, and Canada’s Directive on  
54 Automated Decision-Making; China has its Guidance on Next Generation AI Development Plan and the Three-Year  
55 Action Plan for Promoting Development of a New Generation Artificial Intelligence Industry (2018-2020); Czech  
56 Republic has the National Artificial Intelligence Strategy of Czech Republic; France has the Strategy for a  
57 Meaningful Artificial Intelligence; Germany has its AI Made in Germany; India has the National Strategy for  
58 Artificial Intelligence; Singapore has its AI Singapore and the Digital Government Blueprint; and USA has the  
59 American AI Initiative and the National Artificial Intelligence Research and Development Strategic Plan 2019  
60 Update.  
61  
62  
63  
64  
65



1  
2  
3  
4 leaders must synergize with key stakeholders in academic, private sector, and non-governmental  
5 institutions, to generate a continental blueprint that will guide the articulation of AI technologies  
6 in the continent. Existing instruments must be harmonized to facilitate sustainable development  
7 and growth on the continent. In developing proposals for reform in Africa, we examine the  
8 European Union (EU) and the Organization for Economic and Co-operation Development  
9 (OECD) framework on AI with the aim of drawing lessons for the African Union (AU).<sup>90</sup>

10  
11 Hopefully, these lessons will inform the provisions of the proposed African regional framework  
12 on AI governance.

### 13 3.1 Governance of AI in the European Union

14  
15  
16  
17  
18 The EU approach to governance of AI and robotics deals with technological, ethical, legal, and  
19 socio-economic facets to create a Digital Single Market and enhance EU's research and  
20 industrial ability.<sup>91</sup> This approach is founded on three pillars. First, it strives to be ahead of  
21 technological developments in the competitive international landscape. This arose out of EU's  
22 inability to generate private investments over a period of time. Consequently, in 2016, EU  
23 invested EUR 2.4 – 3.2 billion in AI, compared to Asia's EUR 6.5 – 9.7 billion and North  
24 America's EUR 12.1 – 18.6 billion in the same year.<sup>92</sup> In order to compete globally, the region  
25 maximized the impact of investments at both regional and domestic levels, and encouraged  
26 synergies and cooperation across the region. To boost research and innovation, EU increased its  
27 annual investments significantly between 2018-2020.<sup>93</sup> The investment is designed to develop  
28 platforms that will provide access to AI resources for all users in the region. Second, the goal of  
29 these platforms is to promote socio-economic objectives such as business-education partnerships  
30 aimed at attracting and retaining more AI talent within the EU; training and retraining schemes  
31 for professionals in the AI field, including those with disabilities; and supporting digital skills  
32 and competence.<sup>94</sup> Third, in order to build trust among its citizens, the EU created an appropriate  
33 ethical and legal framework such as: General Data Protection Regulation,<sup>95</sup> and the Ethics  
34  
35  
36  
37  
38  
39

---

40  
41 <sup>90</sup> Other than the EU and OECD, other international AI initiatives include the G20 AI principles adopted during the  
42 G20 Ministerial Meeting on Trade and Digital Economy in June 2019; the Nordic-Baltic region has the Declaration  
43 on Artificial Intelligence in the Nordic-Baltic Region that was issued in 2018 and adhered to by Denmark, Estonia,  
44 Finland, the Faroe Islands, Iceland, Latvia, Lithuania, Norway, Sweden and Aland Islands; the Report of COMEST  
45 on Robotics Ethics issued by the UNESCO-World Commission on the Ethics of Scientific Knowledge and  
46 Technology in September 2017; and the Centre for AI and Robotics in Hague established by the United Nations  
47 Interregional Crime and Justice Research Institute and the Government of Netherlands in September 2017.

48  
49 <sup>91</sup> 'A European Approach to Artificial Intelligence' (*European Commission*) <<https://ec.europa.eu/digital-single-market/en/artificial-intelligence>> accessed 22 June 2021.

50  
51  
52 <sup>92</sup> 'Communication Artificial Intelligence for Europe' (*European Commission*, 25 April 2018)  
53 <<https://ec.europa.eu/digital-single-market/en/news/communication-artificial-intelligence-europe>> accessed 22 June  
54 2021.

55  
56 <sup>93</sup> *ibid.*

57  
58 <sup>94</sup> 'A New Skills Agenda for Europe' (*European Commission*, 10 June 2016) <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52016DC0381>> accessed 22 June 2021.

1  
2  
3  
4 Guidelines for Trustworthy AI.<sup>96</sup> These Guidelines forms the basis for our argument on a human  
5 rights based approach to AI in Africa. The Guidelines define ‘Trustworthy AI’ as that which is  
6 lawful, ethical, and robust in both technical and social perspectives.<sup>97</sup> In upholding a  
7 fundamental rights-based approach to AI, the Guidelines contain certain fundamental rights such  
8 as human dignity, rule of law, equality, and non-discrimination. Such Guidelines to be replicated  
9 in Africa, will need to include respect for human autonomy, and prevention of harm.<sup>98</sup> Certainly,  
10 these Guidelines require an autonomous agency or oversight to ensure its effectively. To ensure  
11 such an instrument works effectively in Africa, the AU must create a human agency and  
12 oversight body that will ensure the safety of privacy and data governance, transparency, societal  
13 and environmental wellbeing, and accountability.<sup>99</sup> Consequently, a practical implementation of  
14 the human-centric approach to AI will be achieved.<sup>100</sup>  
15  
16

### 17 18 19 3.2 Governance of AI in the Organization for Economic Co-operation and Development 20 (OECD) 21

22 The OECD has created robust, human rights based, and innovative AI principles – 2019 OECD  
23 Council Recommendation on Artificial Intelligence.<sup>101</sup> These Principles adopt the notion that AI  
24 must be utilized sustainably, in a manner that benefits the people and planet, and is at the same  
25 time anchored on human-centred values. This will, however, require AI to be designed in a way  
26 that respects the rule of law, diversity, human rights, and democratic principles. To achieve the  
27

---

28  
29  
30 <sup>95</sup> Regulates issues relating to processing of personal data, rights of the data subject, transfer of personal data to third  
31 countries or international organizations, independent supervisory authorities. See further Regulation (EU) 2016/679  
32 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to  
33 the processing of personal data and on the free movement of such data and repealing Directive 95/46/EC (General  
34 Data Protection Regulation) <[https://eur-lex.europa.eu/legal-  
35 content/EN/TXT/PDF/?uri=OJ:L:2016:119:FULL&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:L:2016:119:FULL&from=EN)>.  
36

37 <sup>96</sup> ‘Ethics Guidelines for Trustworthy AI’ (*European Commission*, 8 April 2019) <[https://ec.europa.eu/digital-single-  
38 market/en/news/ethics-guidelines-trustworthy-ai](https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai)> accessed 28 June 2021.  
39

40 <sup>97</sup> *ibid.*

41 <sup>98</sup> *ibid.*, 12-14.  
42

43 <sup>99</sup> ‘Improving Access to Remedy in the area of Business and Human Rights at the EU level’ (*EU Agency for  
44 Fundamental Rights*, 10 April 2017) <[https://fra.europa.eu/en/publication/2017/improving-access-remedy-area-  
46 business-and-human-rights-eu-level](https://fra.europa.eu/en/publication/2017/improving-access-remedy-area-<br/>45 business-and-human-rights-eu-level)> accessed 28 June 2021; See also EU, ‘Liability for Artificial Intelligence  
47 and other emerging digital technologies’ (2019), Decision 2011/833/EU (OJ L 330, 14.12.2011, 39 ( Report on  
48 liability for Artificial Intelligence and other Emerging Technologies, which addresses specific challenges to existing  
49 tort law regimes posed by emerging digital technologies such as damage, causation, wrongfulness and fault,  
50 vicarious liability, and strict liability).  
51

52 <sup>100</sup> Other cooperative instruments designed to address issues resulting from AI usage include EU Declaration on  
53 Cooperation on Artificial Intelligence, Coordinated Plan on Artificial Intelligence (COM (2018) 795 final). See  
54 further European Commission, ‘EU Member States sign up to cooperate on Artificial Intelligence’  
55 <<https://ec.europa.eu/digital-single-market/en/news/eu-member-states-sign-cooperate-artificial-intelligence>>  
56 accessed 28 June 2021; European Commission, ‘Coordinated Plan on Artificial Intelligence (COM (2018) 795  
57 final)’ <[https://knowledge4policy.ec.europa.eu/publication/coordinated-plan-artificial-intelligence-com2018-795-  
59 final\\_en](https://knowledge4policy.ec.europa.eu/publication/coordinated-plan-artificial-intelligence-com2018-795-<br/>58 final_en)> accessed 28 June 2021.  
60

61 <sup>101</sup> ‘OECD Principles on AI’ (*OECD*) <<https://www.oecd.org/going-digital/ai/principles/>> accessed 28 June 2021.  
62  
63  
64  
65

1  
2  
3  
4 foregoing, it is important that the principles accomplish the resultant benefit of transparency  
5 whereby citizens can comprehend and challenge AI outcomes.<sup>102</sup>  
6  
7

8 The Recommendation also advised its adherents to implement several suggestions, in tandem  
9 with the above principles, in their domestic policies and international co-operation, channelling  
10 special focus on Small and Medium Sized firms. Though voluntary, the rationale for developing  
11 the Recommendation was that AI has the potential of improving the general well-being of the  
12 people, enhance productivity, and effectively react to global challenges such as climate  
13 change.<sup>103</sup> However, beneath the underlying benefits are the implications AI-enabled solutions  
14 have on the society and economies, notably concerning human rights and democracy, economic  
15 changes and inequalities, and impacts on the labour market.<sup>104</sup> This is significantly important for  
16 an African discourse and argument in this paper to create regulations on AI. The need for a  
17 balance necessitates a stable policy environment, especially at the regional level, to cultivate  
18 trust and embrace AI in the society with the underlying aim of promoting a human-centred  
19 approach to the development of AI. To create the balance, the utilization of AI within the African  
20 continent should consider the need for AI systems being human centred. Accordingly, the  
21 solutions should be designed in a way that they respect the rule of law, democratic principles,  
22 and human rights. Equally, the solutions should be transparent, coupled with responsible  
23 disclosure in a bid to ensure people can comprehend and challenge AI-based outcomes.  
24 Additionally, the entities deploying, or operating AI systems must be accountable to the society  
25 for their proper functioning. These are the fundamental principles upon which governance of AI  
26 under the OECD is anchored. What lessons can Africa learn from the OECD experience? The  
27 next section discusses these approaches and implications of an AI architecture in Africa.  
28  
29  
30  
31  
32  
33

### 34 3.3 Governance of AI in Africa

35 The governance of AI in Europe is anchored on fundamental rights and liberties. Both the EU  
36 and OECD emphasizes the need to promote trust and embrace AI in an ethical manner with the  
37 aim of promoting the rights of individuals. This is instructive for Africa.  
38  
39

40 In Africa, the internet or social media platforms could be used as tools of mass surveillance and  
41 infringement on the right to privacy in the digital environment.<sup>105</sup> Thus, the Declaration on  
42 Internet Governance and Development of Africa's Digital Economy (the Declaration),  
43 recognizes that the internet is a dynamic force for economic, social, and cultural development.<sup>106</sup>

44 Yet, it does not encourage, facilitate, or promote the respect of fundamental values and rights of  
45 individuals. Furthermore, the Declaration recommends the guarantee of an effective legal and  
46  
47  
48

---

49  
50 <sup>102</sup>Recommendation of the Council on Artificial Intelligence' (*OECD Legal Instruments*, 2019)  
51 <<https://legalinstruments.oecd.org/en/instruments/OECD-LEGAL-0449>> accessed 28 June 2021.  
52

53 <sup>103</sup> *ibid.*

54 <sup>104</sup> *ibid.*

55  
56  
57 <sup>105</sup> Declaration on Internet Governance and Development of Africa's Digital Economy, (2018)  
58 Assembly/AU/Decl.2(XXX) (DIGDADE), para 4.  
59

60 <sup>106</sup> *ibid* para 2  
61  
62  
63  
64  
65

1  
2  
3  
4 regulatory environments suitable for the growth of Africa’s digital economy through innovative  
5 applications and services.<sup>107</sup> Although this Declaration broadly covers the internet, much like the  
6 EU approach, the provisions under the Declaration are instructive for promoting rights-based  
7 approach to AI in Africa. Therefore, considering its voluntary nature, and given the massive  
8 infringement of the people’s rights in the field of internet and AI, it is imperative that a  
9 regulatory framework be put in place in Africa to protect peoples’ data, both online and offline –  
10 this is a significant lesson from the EU approach.  
11

12  
13  
14 The AU Convention on Cyber Security and Personal Data Protection governs three major  
15 components: electronic transactions; personal data protection; and promoting cyber security and  
16 combating cybercrime.<sup>108</sup> However, AI protection goes beyond infringement of personal data.  
17 For example, AI poses other societal problems such as trust and confidence in AI-enabled  
18 solutions among citizens, adequate and effective grievance mechanisms. This necessitates the  
19 urgent need for a comprehensive African AI-specific legal and regulatory framework that is  
20 human rights based. However, unlike the EU, Africa suffers from weak enforcement capabilities  
21 and corruption. This creates a challenge for enforcement of AI- centric solutions anchored on  
22 fundamental rights and liberties. The UNGPs on Business and Human Rights obliges states to  
23 enforce laws that are aimed at requiring business enterprises to respect human rights. Failure to  
24 enforce such laws, which include privacy and anti-bribery laws, is deemed a substantial legal gap  
25 in state practice.<sup>109</sup> Thus, the need for a coherent AI-specific African framework that will govern  
26 AI systems and solutions.<sup>110</sup>  
27  
28

### 30 3.3.1 Usage and Deployment of AI in Africa

31 It is important to note that the challenges AI pose to human rights are discussed in the context of  
32 state and private actors. The AU Framework should institute very high standards on the  
33 deployment of AI and algorithmic decision-making systems within the public and private sector.  
34 These standards must be designed around mandatory human rights impact assessment and have  
35 an open, transparent, and competitive procurement standard.<sup>111</sup> The mandatory human rights  
36 impact assessment will identify human rights risks prior to acquisition and through its life cycle.  
37  
38 Such assessment should include audits by independent experts; measures to mitigate existing and  
39  
40  
41  
42  
43

---

44  
45 <sup>107</sup> *ibid* Principle 14.

46  
47 <sup>108</sup> African Union Convention on Cyber Security and Personal Data Protection (adopted 27 June 2014)  
48 (AUCCSPDP).

49  
50 <sup>109</sup> UNCHR, ‘Guiding Principles on Business and Human Rights: Implementing the United  
51 Nations ‘Protect, Respect and Remedy’ Framework’ (21 March 2011) UN Doc A/HRC/17/31

52  
53 <sup>110</sup> O Abe and A Ordor, ‘Local content requirements and social inclusion in global energy markets: Towards a  
54 business and human rights content’ in D Olawuyi (ed), *Local Content and Sustainable Development in Global  
55 Energy Markets* (CUP 2021) 392.

56  
57 <sup>111</sup> See ‘Kenya’s opposition coalition alleges French OT-Morpho tampered with election results; co. denies  
58 allegations’, (*Business and Human Rights Resource Centre*) <[https://www.business-humanrights.org/en/latest-  
59 news/kenyas-opposition-coalition-alleges-french-ot-morpho-tampered-with-election-results-co-denies-allegations/](https://www.business-humanrights.org/en/latest-news/kenyas-opposition-coalition-alleges-french-ot-morpho-tampered-with-election-results-co-denies-allegations/)>  
60 accessed 28 June 2021.  
61  
62  
63  
64  
65

1  
2  
3  
4 potential risks; plan to terminate usage or acquisition if it is discovered that there is the  
5 probability of extremely adverse implications on human rights.  
6  
7

8 The AU Framework should also ensure that transparency of an AI system’s purpose and usage  
9 does not unnecessarily infringe on the developer’s intellectual property rights. To achieve this,  
10 there must be the requirement for regular reports by the government on where and how they use  
11 AI and allowing independent audits of systems. The Framework must also avoid ‘black box  
12 systems’ that is, using AI systems only when they can comprehend how they work. The essence  
13 of this Framework is to have accountability mechanisms in place safeguarding the sustainable  
14 utilization of AI.  
15  
16  
17

18 Private companies that provide AI solutions have a responsibility to respect human rights and  
19 should always take appropriate measures at meeting this goal. The AU Framework must mandate  
20 corporate entities to conduct due diligence on the human rights implications of acquisition,  
21 usage, or deployment of AI systems including identifying both direct and indirect harm; conduct  
22 relevant stakeholder consultations; human rights impact assessment by both the private and  
23 public sector if the AI system is to be used by a public entity. Corporate actors have to adopt  
24 measures that prevent, mitigate or prohibit AI adverse impacts. Such measures will generally  
25 include complying with diversity and inclusion of expertise rules to avoid input bias by design  
26 and conduct continuous assessments on the AI systems to identify and mitigate existing and  
27 potential threats to human rights.  
28  
29  
30

31 Considering the egregious nature of corporate conduct in Africa, additional mandatory internal  
32 accountability mechanisms for the functioning of AI systems must be required of MNCs. These  
33 mechanisms will guarantee that companies are held accountable for the development of AI  
34 systems; establish clear and realistic processes by which aggrieved persons can submit their  
35 complaints and seek timely redress for any corporate induced human rights violations, delineate  
36 responsibility and accountability between the AI vendor and client, and establish the vendor’s  
37 duty to inform the client of the potential human rights risks of an AI system and train the client  
38 on how to mitigate such risks.  
39  
40  
41

### 42 3.3.2 Access to effective remedies 43

44 An effective approach in establishing a framework for the regulation of AI must consider how  
45 technology supports access to remedies, such as increasing workers voice, reducing income  
46 inequality, and improving communication and information. While these technologies offer  
47 numerous value-added outcomes for businesses, such as information on workers and customers  
48 experiences, the basis for adapting should be to provide action-oriented information to accelerate  
49 access to remedy for victims of human rights violations. The fundamental question is who  
50 provides the remedy when a machine-created algorithm discriminates against people, restrict  
51 freedom of expression, or when automation leads to mass displacement of labor.<sup>112</sup> The  
52 Framework must contain provisions mandating African states to have within their territories  
53 effective domestic judicial mechanisms that can adjudicate on exploitations arising from the use  
54 of AI.<sup>113</sup> Such mechanisms must extend beyond reduction of legal, practical and other relevant  
55  
56  
57  
58

59 <sup>112</sup> A Norton, *Automation and Inequality. The changing world of work in the Global South* (IIED August 2017)  
60  
61  
62  
63  
64  
65

1  
2  
3  
4 barriers that could impede access to remedy. Businesses must design operational-level grievance  
5 mechanism for their workers to ensure that victims have recourse to remedy resulting from  
6 decisions made by machines and algorithms, not humans. These mechanisms must be effective  
7 and easily accessible upon complaint by an aggrieved party, while also guaranteeing  
8 enforcement of Regulations and company policies.<sup>114</sup>  
9

#### 10 11 12 4. Conclusion

13 Human rights compliance is fundamental to positive utilization of AI technologies in regions  
14 such as Africa. In situations where deployment of AI results in negative consequences, a regional  
15 framework anchored on human rights systems will curtail the excessive tendencies of state to  
16 maliciously operationalize AI. Thus, African states must strengthen their core duty to protect  
17 human rights by collaborating with academic institutions in providing human centred AI  
18 solutions. A human rights approach to AI must be integrated in school curriculum, business  
19 models, and product designs. Where the risk of negative human rights impact is greater than the  
20 positives of the AI solution, such solution must be disabled or prevented from being fully  
21 operational by the state. Providers of AI technologies must be able to conduct human rights  
22 impact assessment and corporate due diligence on their solutions to ensure that human rights  
23 concerns are addressed and mitigated.  
24  
25

26  
27 Certainly, AI has facilitated African's access to education, health, public service, finance,  
28 transportation amongst others. That notwithstanding, AI has (and continues to) infringe on  
29 citizens' rights to freedoms of expression, movement, equality, non-discrimination, health, work,  
30 adequate standard of living, and democratic values. A protective mechanism to curtail the  
31 excessive disruption of AI, with particular reference to human rights implications is essential in  
32 Africa. Furthermore, a governance architecture for AI in Africa will generate a uniform and  
33 shared value approach to developing AI that considers the importance of fundamental rights and  
34 liberties in its operational framework. Such mechanisms guarantee trust and confidence in the AI  
35 systems. A legal instrument at the AU level which identifies opportunities and unpack solutions  
36 on how to mitigate the dangers of AI is pertinent to the sustainable utilization of these  
37 technologies in the continent. This will safeguard African citizens' access to better healthcare,  
38 education, and transportation. It will also further protect the integrity of the internet, prevent  
39 belligerent action by non-state actors, and the wanton disregard of citizens lives and right to  
40 participate in peaceful protest, amongst other rights and liberties.  
41  
42  
43  
44  
45  
46  
47  
48  
49  
50  
51  
52  
53  
54  
55  
56  
57

---

58 <sup>113</sup> DIGDADE (n 105) Principle 26.

59  
60 <sup>114</sup> *ibid* Principle 30.  
61  
62  
63  
64  
65