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The Emergence of Artificial Intelligence in Africa and its Impact on the Enjoyment of Human Rights

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Abstract

Meeting the rising need for development and tackling the attendant challenges in Africa requires pragmatic and innovative strategies. Although there is evidence that political governance is improving across the continent, these improvements are not meeting the expectations and needs of several sections of the society. Artificial Intelligence (AI) seems to be one tool with a great potential to address these current challenges. Just like every innovative technology, AI has both positive and negative aspects. This article examines the human rights implications of AI introduction into Africa in light of rights enshrined in the African Charter on Human and Peoples' Rights.

Keywords

human rights – Artificial Intelligence – Africa – African Charter – innovation – technology

1 Introduction

In today's world, the proliferation of Artificial Intelligence (AI) in diverse sectors is notable. Navigation systems (e.g. Google map, Waze), drones, automated airplanes, autonomous driving cars, chatbots, mobile phones etc., are examples of AI-based technologies. Technologies exhibiting traditional intelligence not many years ago (i.e., could not function without human control), now possess abilities to predict and solve complex problems and give emotional support in the form of companionship. The need for stress-free solutions with

near-perfect results within a projected time necessitated the development of AI. Without any doubt, AI has improved various sectors and, to a reasonable extent, has made life more convenient and stress-free. AI has solved many problems within a reasonable time frame.

Tech executive, Siobhán Lewington opined that AI does not change the nature of legal work, for example, but rather it enables lawyers to focus their efforts on creating legal content (e.g., planning a legal argument or crafting a bespoke contract) rather than manually completing rote work.¹ She gave an example of NextLaw Labs, which is Dentons' collaborative innovation platform. Dentons teamed up with ROSS Intelligence to develop a legal advisor application (app) using IBM Watson's cognitive and natural language processing abilities to streamline legal research. In practice, Dentons' lawyers can ask the app questions precisely as they would ask humans, and the application searches through the laws to supply evidence-based answers.² AI-based technology has also transformed the traffic sensors on the road into a smart agent that automatically detects accidents and predicts future traffic conditions.³ AI has been acknowledged to have significantly contributed to the transportation industry, particularly making the aviation industry more productive.⁴

In the medical field, AI has helped with drug discovery as well as in diagnosing and managing diseases and ailments at reduced costs and time. Today, several traditional medical methods are being replaced by many algorithms that can predict pharmacologic properties of drugs as well as analyse scientific literature faster and better.⁵ For example, AI was used to screen existing medications to fight the Ebola virus at the nick of time, which would have otherwise taken years to achieve.⁶ Most recently, scientists have relied on AI-based

1 S Lewington, 'Artificial Intelligence and the Legal Sector the New Normal?' (*Fox Rodney Search*, July 2016) <foxrodney.com/wp-content/uploads/2016/07/Artificial-Intelligence.pdf> accessed 28 May 2020.

2 *ibid.*

3 *ibid.*

4 R Abduljabbar, Hussein Dia, Sohani Liyanage and Saeed Asadi Bagloee, 'Applications of Artificial Intelligence in Transport: An Overview' (*Sustainability*, January 2019) <<https://www.mdpi.com/2071-1050/11/1/189/htm#cite>> accessed 20 May 2020.

5 L Probst, B Pedersen and L Dakkak-Arnoux, 'Harnessing the Economic Benefits of Artificial Intelligence' (*Digital Transformation Monitor*, November 2017) <https://ec.europa.eu/growth/tools-databases/dem/monitor/sites/default/files/DTM_Harnessing%20the%20economic%20benefits%20v3.pdf> accessed 30 May 2020.

6 A Gupta, P Malik, M Pathania and V K Rathaur, 'Overview of Artificial Intelligence in Medicine' (*J of Family Medicine and Primary Care*, August 2019) <https://www.researchgate.net/publication/334834378_Overview_of_artificial_intelligence_in_medicine/fulltext/5d42e1f7a6fdcc370a71e8e7/334834378_> accessed 30 May 2021.

technologies to contain the spread of the coronavirus (CoVid-19) pandemic and, more importantly, to rapidly develop vaccines.⁷ For example, BlueDot developed an intelligent system that predicted the virus outbreak even before major agencies issued any notification about the outbreak and developed an app that could sift through multiple data to determine the chances of being exposed to the virus.⁸ The AI system at Insilico Medicine has also been able to analyse the molecules and provide feedback about molecules suited to counter the CoVid-19 pandemic. Through AI, several countries have been able to grow their economies by creating new jobs and opportunities. According to a 2017 PWC report, AI could contribute about EUR 13.33 trillion to the global economy by 2030, more than the current output of China and India combined. Of this, EUR 5.6 trillion is likely to come from increased productivity and EUR 7.73 trillion from consumption side effects.⁹

Despite the enormous opportunities that AI presents, several challenges remain. Some of these challenges include the high implementation costs. According to Erick Schonfeld, Apple spent about USD 200 million to implement Siri, Apple's virtual assistant app.¹⁰ Mike Butcher also mentioned that Amazon spent USD 26 million implementing Alexa¹¹ which was developed in 2013 to compete with Siri. It must be noted, however, that the cost of implementing AI largely depends on what task such AI is designed to perform. A survey conducted by WebFx suggests that companies can pay up to USD 300,000 for AI software.¹² Udit Handa's view was also similar to this, estimating the price of

7 S Castellanos, 'How AI Played a Role in Pfizer's Covid-19 Vaccine Rollout' (*WSJ*, 1 April 2021) <<https://www.wsj.com/articles/how-ai-played-a-role-in-pfizers-covid-19-vaccine-rollout-11617313126>> accessed 30 March 2020.

8 D Yakobovitch, 'How to Fight the Coronavirus with AI and Data Science' (*Towards Data Science*, 15 February 2020) <<https://towardsdatascience.com/how-to-fight-the-coronavirus-with-ai-and-data-science-b3b701f8a08a>> accessed 30 May 2020.

9 A S Rao and G Verweij, 'Sizing the prize What's the real value of AI for your business and how can you capitalise?' <<https://www.pwc.com/gx/en/issues/analytics/assets/pwc-ai-analysis-sizing-the-prize-report.pdf>> accessed 20 May 2021.

10 E Schonfeld, 'Silicon Valley Buzz: Apple Paid More Than \$200 Million For Siri To Get Into Mobile Search' (*TechCrunch*, 29 April 2010) <<https://techcrunch.com/2010/04/28/apple-siri-200-million/>> accessed 26 April 2021.

11 M Butcher, 'Sources Say Amazon Acquired Siri-Like Evi App For \$26M – Is A Smartphone Coming?' (*TechCrunch*, 17 April 2010) <<https://techcrunch.com/2013/04/17/sources-say-amazon-acquired-siri-like-evi-app-for-26m-is-a-smartphone-coming/>> accessed 26 April 2021.

12 'AI Pricing: How Much Does Artificial Intelligence Cost?' <<https://www.webfx.com/internet-marketing/ai-pricing.html>> accessed 26 April 2021.

developing and implementing AI to be between USD 100,000–USD 300,000.¹³ With the advancement in technology, developing and implementing AI may not be as cost-intensive as they used to be, as several companies are now dedicated to developing open-source and low-cost intelligent systems for businesses such as Google AI and Microsoft Azure AI.¹⁴ Despite this cost reduction, it might still be difficult for several low-income countries and smaller-scale companies to acquire these technologies. Apart from the cost of developing and implementing AI, there are concerns that AI will increase unemployment rates across the world. According to McKinsey research, it is speculated that by 2030 about 400 to 800 million jobs will be lost to AI, approximately 30 percent of human labour, and about 75 million to 375 million people may need to switch occupational categories and learn new skills.¹⁵ According to Ian Goldin, about 40 percent of jobs in Europe are vulnerable to AI over the coming decades; about 50 percent of jobs in the USA, and an even greater share in developing countries.¹⁶ Further, there are concerns that AI proliferation might lead to lack of creativity, emotions, ethics, and an increase in privacy violations as well as the propensity of making humans lazy.¹⁷ However, it seems the advantages outweigh the disadvantages.¹⁸

There is a race among several countries, including African countries, to take advantage of AI to improve their economies. Many African countries are experiencing growing pressures to develop at a faster pace by tackling poverty, political instability, curbing crime, increasing productivity, and combating corruption. There is a recognition among these countries that AI could offer immediate solutions to some of the challenges faced. There has been a noteworthy increase in AI-related applications across different enterprises in Africa.

13 Udit Handa, 'Is Artificial Intelligence Development Expensive?' (*Cynoteck*, 3 October 2019) <<https://cynoteck.com/blog-post/is-artificial-intelligence-development-expensive/>> accessed 26 April 2021.

14 *ibid.*

15 J Manyika, S Lund, M Chui, J Bughin, J Woetzel, P Batra, R Ko, and S Sanghvi, 'Jobs Lost, Jobs Gained: What the Future of Work Will Mean for Jobs, Skills, and Wages' (*McKinsey*, 28 November 2017) <<https://www.mckinsey.com/featured-insights/future-of-work/jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages#>>> accessed 26 April 2021.

16 I Goldin, 'Will AI Kill Developing World Growth?' (*BBC*, 18 April 2019) <<https://www.bbc.com/news/business-47852589>> accessed 26 April 2021.

17 N Duggal, 'Advantages and Disadvantages of Artificial Intelligence' (*Simplilearn Solutions*, 28 March 2021) <<https://www.simplilearn.com/advantages-and-disadvantages-of-artificial-intelligence-article>> accessed 26 April 2021.

18 D Tuffley, 'Why the Benefits of AI and Robotics Outweigh the Harm' (*SmartCompany*, 21 February 2018) <smartcompany.com.au/startupsmart/news/benefits-ai-robotics-outweigh-harm/> accessed 26 April 2021.

Several collaborations exist among AI-related organisations, such as startups, online companies, corporations, consulting firms, educational institutions, and government agencies. Recently, the Dakar Institute of Technology (DIT) started a training program on AI to enable efficient use of data to solve pressing issues like climate change on crops. Also, a mobile app called Agrix Tech was recently launched in Cameroon, which allows farmers to diagnose crop problems, and the app will recommend treatments. The farmer takes the photograph of the leaf, and the app can analyse and identify any problems with the leaf. Capgemini recently also launched a project in Kenya that uses AI to crunch big data and give farmers necessary recommendations as to when to plant to avoid food shortages. Also, Microsoft and Facebook have enormous projects for startups as well as other businesses in Nigeria and a host of other African countries.¹⁹

These developments are exciting and may well improve the enjoyment of human rights across the African continent. However, the most worrisome aspect is their harmful and adverse effects on human rights. Several developed countries are trying to put in place or have already adopted laws to curb some of these adverse effects. However, most African countries do not have adequate legal frameworks or regulations to curb human rights infringement resulting from the use of AI. This hiatus has resulted in several uncertainties regarding the unchecked embracement of AI within the continent. This paper seeks to explain the reality of AI's impact on the enjoyment of human rights within the African continent. More specifically, the paper addresses the following questions: How can AI help in the protection and enjoyment of human rights? Does the desperate quest to introduce AI into African countries without adequate legal infrastructure threaten the enjoyment of human rights in the continent? Do existing laws in African countries address the present and unforeseen concerns of AI-based technologies?

2 Influence of AI on the Enjoyment of Human Rights: Prospects and Challenges

With the introduction of AI, there is a soaring need to make laws that will address the present challenges accompanying these technologies. In many ways, traditional laws which give efficacies to our traditional rights are not

19 D Mumbere, 'African Countries Cautiously Embrace Artificial Intelligence [SciTech]' (*Africanews Congo*, 03 December 2019) <[https://www.africanews.com/2019/12/03/african-countries-cautiously-embrace-artificial-intelligence-scitech//](https://www.africanews.com/2019/12/03/african-countries-cautiously-embrace-artificial-intelligence-scitech/)> accessed 23 May 2020.

robust enough and can hardly protect humans from the adverse effects of AI. Risse did not mince words when he postulated that,

if there is nothing more to the mind than the brain, then algorithms in the era of big data will outdo us soon at almost everything we do: they make ever more accurate predictions about what book we enjoy or where to vacation next; drive cars more safely than we do; make predictions about health before our brains sound alarms; offer solid advice on what jobs to accept, where to live, what kind of pet to adopt, if it is sensible for us to be parents and whether it is wise to stay with the person we are currently with based on a myriad of data from people relevantly like us. Internet advertisement catering towards our preferences by assessing what we have ordered or clicked on before is a mere shadow of what is to come.²⁰

The world is constantly evolving, and so must our laws. Latonero, expressed his fears when he noted that human rights could not address all the present and unforeseen concerns about AI.²¹ In 2017, the Council of Europe published a report on algorithms and human rights. The report stated that the growing use of algorithmic systems potentially impacts all human rights.²² It further noted that the

use of algorithmic systems raises challenges not only for the specific sector in which they are operated but also for society as a whole. The right to life, the right to a fair trial, the presumption of innocence, the right to privacy and freedom of expression, workers' rights, the right to free elections, and the rule of law itself, all may be impacted. The impact of 'algorithms' used by the public and private sector, in particular by internet platforms, on the exercise of human rights and the possible regulatory implications has become one of the most hotly debated questions today.²³

20 M Risse, 'Human Rights and Artificial Intelligence: An Urgently Needed Agenda' (*Harvard Kennedy School*, May 2018) <<https://www.hks.harvard.edu/publications/human-rights-and-artificial-intelligence-urgently-needed-agenda>> accessed 30 May 2020.

21 M Latonero, 'Governing Artificial Intelligence: Upholding Human Rights & Dignity' (*Data & Society*, 2018) <https://datasociety.net/wp-content/uploads/2018/10/DataSociety_Governing_Artificial_Intelligence_Upholding_Human_Rights.pdf> accessed 5 April 2020.

22 Council of Europe, 'Algorithms and Human Right' <<https://rm.coe.int/leaflet-algorithms-and-human-rights-en/168079cc19>> accessed 5 April 2020.

23 *ibid.*

In other words, the development of AI has or will have significant benefits and consequences on the enjoyment of human rights. Succinctly, no one can state the extent to which AI will be developed and deployed. Therefore, there is the need to strike a balance between humans and AI if both are to co-exist peacefully.

Some human rights are affected and influenced by the emergence of this technology more than others. This article examines some of the rights contained in the African Charter on Human and Peoples' Rights (African Charter) that are likely to be most affected by these innovations.

2.1 *The Right to Presumption of Innocence*

The right to the presumption of innocence is referred to as the undoubted law,²⁴ axiomatic, elementary, and a fundamental principle of procedural fairness in criminal law.²⁵ Presumption of innocence is a restatement of the rule that in criminal matters, the public prosecution has the burden of proving the guilt of the accused before the court can convict the accused of the crime charged.²⁶ This right is provided for under Article 7(1)(2) of the African Charter, which states that – 'every individual shall have the right to have his cause heard.... this comprises the right to be presumed innocent until proved guilty by a competent court or tribunal.'²⁷

This right ought to be reiterated as often as possible, especially with the growing use of AI in the criminal justice system. The use of AI in the criminal justice system helps to curb crimes. An increasing number of law enforcement agencies across the world are experimenting with technologies such as predictive models, GPS tracking, and facial recognition. Many policy-makers have endorsed the technology and have invested millions into research for the development of smart policing tools, including systems to identify chronic offenders.²⁸ In the future, increasingly divided demographic, economic, and technological lines, on achieving human security will not be without its

24 J Fery and L Leonie, 'The Presumption of Innocence as a Counterfactual Principle' (2016) 12(1) *Utrecht L Rev* 32, <<https://www.utrechtlawreview.org/articles/abstract/10.18352/ulr.324/>> accessed 5 April 2020.

25 P Ferguson, 'The Presumption of Innocence and Its Role in the Criminal Process' (2016) 27 *Crim L Forum* 131, <<https://doi.org/10.1007/s10609-016-9281-8>> accessed 7 April 2020.

26 S K Assefa, 'The Principle of the Presumption of Innocence and its Challenges in the Ethiopian Criminal Process' (2012) 6(2) *Mizan L Rev* 273.

27 Organization of African Unity (OAU), African Charter on Human and Peoples' Rights (African Charter), 27 June 1981, CAB/LEG/67/3 rev 5, 21 ILM 58 (1982).

28 A Zavrnik, 'Criminal Justice, Artificial Intelligence Systems, and Human Rights' (*ERA Forum*, February 2020) <<https://doi.org/10.1007/s12027-020-00602-0>> accessed 5 April 2020.

difficulties. Systemic challenges, such as, climate change and war, and more localised threats like social, economic, or political disruptions, are almost certain. One way to meet these challenges is through novel applications of technology. AI holds much promise to enable the international community, governments, and civil society to predict and prevent human insecurity. With increased connectivity, more sophisticated sensor data, and better algorithms, AI applications may prove beneficial in securing basic needs and alleviating or stopping violent action.²⁹

In light of this, several African countries are introducing AI to help solve the issue of insecurity. Recently, Huawei installed 1,800 HD cameras and 200 HD video surveillance systems across Nairobi, Kenya.³⁰ Also, Reuters reported that Uganda's police spent USD 126 million on closed-circuit television cameras, which was handled by Huawei.³¹ Similarly, several countries like Nigeria, Ghana, Egypt, South Africa, Algeria, Botswana, Zambia, Angola, Zimbabwe, and Ethiopia have adopted the Huawei Smart Cities program. This project aims to help governments monitor cities through the installation of CCTV cameras, which are equipped to recognise faces, even if they cover their faces, read and recognise people by how they walk, as well as read cars' number plates.³²

AI tools, through generated data, identified those who are likely to commit a crime, and these data have undoubtedly helped to fight crime. For instance, in Europe, the Dutch children's rights organisation Terre des Hommes was the first NGO to combat webcam child sex tourism by using a virtual character called sweetie. The sweetie avatar posed as a 10-year old Filipino girl, which was used to identify offenders in the chatrooms and online forums by gathering information on people who contacted sweetie and solicited webcam sex.³³

29 H M Roff, 'Advancing Human Security through Artificial Intelligence' (*International Security Department and US and the Americas Programme*, May 2017) <<https://www.chathamhouse.org/sites/default/files/publications/research/2017-05-11-ai-human-security-roff.pdf>> accessed 8 April 2020.

30 A L Dahir, 'Chinese Firms are Driving the Rise of AI Surveillance Across Africa' Quartz Africa (*New York*, 18 September 2019) <<https://qz.com/africa/1711109/chinas-huawei-is-driving-ai-surveillance-tools-in-africa/>> accessed 13 May 2020.

31 E Biryabarema, 'Uganda's cash-strapped cops spend \$126 million on CCTV from Huawei' Reuters (*London*, 15 August 2019) <<https://www.reuters.com/article/us-uganda-crime/ugandas-cash-strapped-cops-spend-126-million-on-cctv-from-huawei-idUSKCN1V50RF>> accessed 15 May 2020.

32 D Mumbere, 'African countries cautiously embrace Artificial Intelligence [SciTech]' (*Africanews Congo*, 03 December 2019) <<https://www.africanews.com/2019/12/03/african-countries-cautiously-embrace-artificial-intelligence-scitech/>> accessed 23 May 2020.

33 Zavrnsnik (n 28).

This tool will help many African countries who are battling insecurity, human trafficking, terrorism, and kidnapping.

With the use of AI tools in the criminal justice systems, the right to presumption of innocence is threatened as enormous data collected beforehand become the primary deciding factor on who is innocent and who is not.³⁴ However, using such data to determine who is likely to commit a crime affects the fundamental rights of individuals who may have limited choices on the neighbourhoods they live in or even their circle of friends, which over time affects their behavioural patterns and lifestyles. For example, Robert McDaniel, a 22-year-old student who received increased police attention due to predictive programme analysis of his social network and residence in a poor and dangerous neighbourhood, was unlucky. He had been surrounded by crime and many of his acquaintances were caught up in it. As he was considered a risk, there was increased police scrutiny of his activities.³⁵ Nevertheless, such a database has been found by the office of the Inspector General of Police of Los Angeles to be significantly inconsistent as the majority of the individuals identified as chronic offenders had few, if any, actual contact with the police.³⁶ The story of Robert McDaniel would have probably been different if it occurred in some African countries where there is high police brutality. The presumption of innocence should not be watered down with the dawn of AI. As Duarte suggested, algorithmic tools should be aimed at helping judges identify reasons to release someone rather than focus on an individual's risk.³⁷

Brutality and violence by police and other security forces in several African countries have been a cause of concern. The extra-judicial killings, inhuman treatments, harassments, and assaults in Nigeria, South Africa, Kenya, Uganda, Egypt, and a host of others are alarming.³⁸ Several of these incidents are merely based on speculations and are without any concrete pieces of evidence. However, even with evidence, the laid-down legal procedures should be duly followed and accused persons must be presumed innocent until convicted by a

34 *ibid.*

35 M Stroud, 'The Minority Report: Chicago's New Police Computer Predicts Crimes, but is it Racist?' (*The Verge*, 19 February 2014) <<https://www.theverge.com/2014/2/19/5419854/the-minority-report-this-computer-predicts-crime-but-is-it-racist>> accessed 14 May 2020.

36 Zavrnsnik (n 28).

37 C Hodgson, 'AI Tools in US Criminal Justice Branded Unreliable by Researchers' (*Financial Times*, 26 April 2019) <<https://www.ft.com/content/7b6c424c-676e-11e9-a79d-04f350474d62>> accessed 20 April 2020.

38 Abdul Tejan-Cole, 'Statement by the African Studies Association on Police Violence in African Countries' (*African Studies Association*, 30 June 2020) <<https://africanstudies.org/advocacy/statement-by-the-african-studies-association-on-police-violence-in-african-countries/>> accessed 29th April 2021.

competent court of law. Sequel to this, there are concerns that the advent and introduction of AI will further escalate the rate of police brutality if the current situations are not improved. Therefore, to ensure that African countries maximise the potentials of AI in the security sector without infringing on the right to presumption of innocence, it is pertinent to reform the security agencies.

2.2 *The Right to Fair Hearing*

The right to a fair hearing is guaranteed under Article 7 of the African Charter. This provision guarantees the procedural rights of parties to judicial proceedings, which are meant to create conditions upon which an accurate and fair judgment is realisable.³⁹ This guarantees the defendant's right to effectively participate in his/her trial, the right to be informed promptly of the cause and nature of the accusation, and the right to defend oneself. It requires public authorities not only to abstain from acts which may be detrimental to an individual but, most of all, taking positive steps to ensure proper administration of justice within the State.⁴⁰ AI is useful in the dispensation of justice as it creates a faster and more efficient system; it also guarantees the rule of law and the quality of public justice.⁴¹

AI can significantly improve court proceedings through the use of algorithms. Algorithms are more effective than humans in terms of capacity and speed. Thus, it can sort through large databases as well as sourcing information while eliminating human errors. One of the software developed to handle a large amount of documentary evidence is predictive coding, also referred to as computer-assisted review (CAR) or technology-assisted review (TAR). Predictive coding is a document review software developed through AI that continuously learns and makes better decisions, thereby expediting review documents and saving time and money. In *Pyrrho Investments Limited v MWB Property Limited*,⁴² about 17.6 million documents were brought before the court as evidence. For the first time, the British court, in this case, allowed the use of predictive coding during the electronic discovery process of document disclosure, and the predictive coding reduced the document to 3.1 million by electronic de-duplication processes.⁴³ Also, in *Irish Bank Resolution*

39 M Dymitruk, 'The Right To A Fair Trial In Automated Civil Proceedings' (*Oxford Academic*, 2019) <<https://doi.org/10.5817/MUJLT2019-1-2>> accessed 5 April 2020.

40 *ibid.*

41 CEPEJ, 'European Ethical Charter on the Use of Artificial Intelligence in Judicial Systems and their Environment' (*Council of Europe*, 2018) <https://rm.coe.int/ethical-charter-en-for-publication-4-december-2018/16808f699c> accessed 5 April 2020.

42 *Pyrrho Investments Limited v MWB Property Limited* [2016] EWHC 256.

43 *ibid.*

Corporation Limited & Ors v Sean Quinn & Ors,⁴⁴ the Irish court endorsed the use of predictive coding and rejected the argument of the opposing party to use linear manual review. The US court in *Da Silva Moore v. Publicis Groupe* has also adopted the use of predictive coding.⁴⁵

More importantly, AI could promote legal certainty and create opportunities for conducting more rigorous research. Bearing these in mind, biased rulings would recede, as the decisions would not be based on gender, race, and appearance or with sentimental banality.⁴⁶ This will go a long way to help the judicial system in Africa, which is currently plagued with protracted cases and politically influenced decision. Several cases drag on for years, some for 10 to 20 years, sometimes outliving the original litigants. For example, it took 32 years before the court reached a final decision in the case of *Shell v. Anaro*.⁴⁷ The case started in 1983 at the High Court and the final judgment at the Supreme Court was delivered in 2015. The protracted nature of cases makes it more expensive and frustrating.⁴⁸ With the introduction of AI, these challenges can be mitigated. Several Africa countries have introduced basic case management software. For example, in 2018, the Nigerian Supreme Court launched the Nigeria Case Management System (NCMS) and Nigeria Legal Mail.⁴⁹ South Africa in 2020 deployed its own case management software called the CaseLines.⁵⁰ Also, in 2020, Kenya deployed its own case management software which allows electronic filing of cases, bail hearings and delivering of judgements.⁵¹ Following this deployment, the court in *Re Estate of Roger Bryan Robson*⁵² allowed

44 *Irish Bank Resolution Corporation Limited & Ors v Sean Quinn & Ors* [2015] IEHC 175.

45 *Da Silva Moore v. Publicis Groupe et al.* (2012) 868 F.Supp.2d 137.

46 T Heikkinen, 'How Does the use of Artificial Intelligence Affect the Concept of Fair Trial' (Master Thesis, Lund U 2019) <<https://lup.lub.lu.se/student-papers/search/publication/8980709>> accessed 5 April 2020.

47 *The Shell Petroleum Development Company of Nigeria Limited v. Chief Joel Anaro 7 ORS* [2015] [SC].

48 E O Popoola, 'Appraisal of the Contemporary Jurisprudence on the Right to Environment: A Case Study of Nigeria and South Africa' [2016] Ahmadu Bello U 390–392.

49 E Okakwu, 'Mandatory communication of court documents by e-mail begins July 16 in Nigeria – CJN' (*The Premium Times*, 2 February 2018) <<https://www.premiumtimesng.com/news/top-news/257408-mandatory-communication-court-documents-e-mail-begins-july-16-nigeria-cjn.html>> accessed 27 April 2021.

50 G Juma, 'Embracing Electronic Court Case Management Systems: Lessons from The Kenyan Experience During Covid-19' (*DLA Piper*, 4 November 2020) <<https://www.dlapiper.com/en/africa/insights/publications/2020/11/africa-connected-issue-5/embracing-electronic-court-case-management-systems/>> accessed 27 April 2021.

51 *ibid.*

52 *In Re Estate of Roger Bryan Robson (Deceased)* [2020] Succession Cause No. 955 of 2013.

witnesses to give evidence through video conferencing. Further, Uganda has more recently deployed its own case management software.⁵³

Nevertheless, AI is not without its negative aspects. The right to a fair hearing may be breached when defendants are prevented from challenging the AI tools used for their conviction. This right applies to expert witnesses, documentary evidence victims, and computer files relevant to the case brought against the defendant. Therefore, to ensure effective participation, defendants should be able to challenge the algorithmic score, which is the basis of their conviction.⁵⁴ Since AI systems are generally less transparent, they cannot be cross-examined (i.e., examine the data and the underlying rules of the risk-scoring methodology).⁵⁵ Therefore, any AI system that aids in the conviction of a defendant and does not possess the power of explaining its actions could potentially undermine the right of a fair trial.⁵⁶ One such AI tool is the Correctional Offender Management Profiling for Alternative Sanctions (COMPAS). This is a tool used by the US Court in criminal matters. It is a case management and decision support tool used to access the possibility of the defendant becoming a recidivist. The risk score from this tool determines the sentencing of the court. In *State v. Loomis*,⁵⁷ Eric Loomis was arrested because he was driving a car used in a shooting and was convicted and sentenced to 6 years imprisonment without any evidence linking him to the crime apart from driving the car. His conviction was actually based on his past criminal record and the high-risk score assigned by CAMPUS. Loomis challenged the court's decision because he was not allowed to assess the algorithm. The Wisconsin supreme court ruled against Loomis, reasoning that knowledge of the algorithm's output was a sufficient level of transparency.

Also, some of these data can be hacked into and/or manipulated against an accused person. The risks that accompany these innovations should not be ignored. In other words, the insignia of right to fair hearing in our democratic societies should not be downplayed when analysing the admissibility of the use of AI in the judiciary.⁵⁸ It is logical to suggest at this point that AI's most pertinent task should be to assist the justice system in ensuring a fair trial and

53 E Murungi And D T Tusiime, 'Covid-19: Law and Technology – Why an Electronic Case Management System is a Necessity in Uganda' (*Bowmans*, 4 May 2020) <<https://www.bowmanslaw.com/insights/covid-19-law-and-technology-why-an-electronic-case-management-system-is-a-necessity-in-uganda/>> accessed 27 April 2021.

54 Heikkinen (n 46).

55 Dymitruk (n 39).

56 *ibid.*

57 *State v Loomis*, 881 NW2d 749 (WI 2016).

58 Heikkinen (n 46).

automated decisions, but AI should never be left without human supervision as the outcome of a lawsuit has a significant impact on the life of the defendant. The quality of justice should be the goal of using AI and not merely its efficiency and effectiveness.

2.3 *The Right to Freedom of Expression, Access to Information, and Privacy*

The right to freedom of expression entails the freedom to talk and write about or otherwise express ideas and opinions without any censorship or interference from the State, subject only to a few exceptions.⁵⁹ Access to information rights enables all citizens to know how the decisions that affect them are made, how public funds are handled, and according to which criteria institutions act.⁶⁰ Article 9 of the African Charter states that – ‘every individual shall have the right to receive information. Every individual shall have the right to express and disseminate his opinions within the law’

The right has often been described as one of the essential foundations of a democratic society because it guarantees every person’s right to exchange information, debate ideas, and express opinions.⁶¹ It must be borne in mind that information is very pertinent in shaping people’s opinions on sensitive issues as they affect peaceful human existence. Algorithms have become a necessary tool to defend freedom of expression and the values underlying it. AI not only powers complex service operations, but it is also increasingly necessary to create the conditions for a robust and vibrant democratic exchange on online platforms. The advent of AI-based technology has contributed immensely to this right as anyone can have access to information through their devices. However, we must not lose sight of the fact that development of this kind has its attendant consequence. Search engines like Google, Bing, Yahoo, and Baidu as well as social media platforms like Facebook, YouTube, Instagram, Twitter, and LinkedIn through personalisation of user’s online activities rank information to be displayed. Generally, algorithms rank commercial contents and news using users’ past searches. Through such personalised ranking, relevant algorithms could determine which news gets displayed on its first page, thereby

59 D Bychawska-Siniarska, ‘Protecting the Right to Freedom of Expression Under the European Convention on Human Rights: A Handbook for Legal Practitioners’ (*Council of Europe*) <<https://rm.coe.int/handbook-freedom-of-expression-eng/1680732814>> accessed 3 May 2020.

60 OECD, Right to Access Information <<https://www.oecd.org/mena/governance/right-to-access-information-2018.pdf>> accessed 5 May 2020.

61 UNGA ‘Resolution on the Right to Privacy in the Digital Age’ (21 January 2019) UN Doc A/RES/73/179.

determining the type of news available to the user. This could affect authentic news from reaching the user or limit the exposure of the reader.⁶² David Kaye stated that AI shapes the world of information in a way that is opaque to the user and conceals its role in determining what the user sees and consumes.⁶³

The introduction of automated processes may exacerbate the complexity of decision-making inherent in content moderation. Unlike humans, algorithms are today not capable of evaluating cultural context, detecting irony, or conducting the critical analysis necessary to identify accurate information.⁶⁴ In other words, issues such as false positives⁶⁵ and false negatives,⁶⁶ potential bias and algorithmic discrimination, large scale processing of user data and profiling, the presumption of the appropriateness of prior censorship, inadequate oversight, and lack of purpose are yet to be addressed in aiding freedom of expression.⁶⁷ Several mischief-makers are taking huge advantage of it, using social media platforms to spread rumours and fake news. For instance, one Kabiru Mohammed was captured recently by security agents in Nigeria for supposedly making, creating and circulating fake videos of a wedding ceremony between the President of Nigeria and a female Minister.⁶⁸

Article 9 of the African Charter only provides for the right to information and free speech without including the right to privacy. However, the Declaration of Principles on Freedom of Expression and Access to Information in Africa (Declaration) which was adopted by the African Commission on Human and Peoples' Rights (ACHPR) in 2019 introduced the right to privacy as part of the rights provided for under Article 9 of the Charter. Principle 40 (1) of the Declaration states that – 'Everyone has the right to privacy, including the

62 M Brkan, 'Freedom of Expression and Artificial Intelligence: On Personalisation, Disinformation and Lack Of Horizontal Effect of the Charter' (2019) <<http://dx.doi.org/10.2139/ssrn.3354180>> accessed 5 April 2020.

63 C Berthélémy, 'UN Special Rapporteur Analyses AI's Impact on Human Rights' (*EDRI*, 07 November 2018) <<https://edri.org/un-special-rapporteur-report-artificial-intelligence-impact-human-rights/>> accessed 17 May 2020.

64 UNGA 'Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression' (29 August 2018) UN Doc A/HRC/41/35/Add.2.

65 False positive is a test result that detects the condition when the condition is absent.

66 False negative is a test result that does not detect the condition when the condition is present.

67 E Llanso, J van Hoboken, P Leerssen and J Harambam, 'Artificial Intelligence, Content Moderation, and Freedom of Expression' (*Transatlantic Working Group*, 2020) <<https://www.ivir.nl/publicaties/download/AI-Llanso-Van-Hoboken-Feb-2020.pdf>> accessed 7 April 2020.

68 N Kanayo, 'Does AI Threaten Digital Human Rights in The Global South?' (*Fairplanet*, 04 February 2020) <<https://www.fairplanet.org/story/does-ai-threats-digital-human-rights-in-the-global-south/>> accessed 13 May 2020.

confidentiality of their communications and the protection of their personal information.' The Declaration further encourages States to adopt laws to protect the personal information of individuals in accordance with international human rights law and standards.

The Declaration went further by laying down the guiding principles for accessing personal information in Africa. Principle 42 of the Declaration clearly states that for any personal information to be processed, the owner of such information has the rights to be informed in detail about the processing. The owner also has a right to access personal information that has been or is being processed, object to the processing as well as rectify, complete, or erase personal information that is inaccurate, incomplete, or prohibited from the collection, use, disclosure, or storage. It further states that personal information could be lawfully processed with the consent of the individual concerned. The process of obtaining the consent and use of such personal information must be conducted in a lawful and fair manner and in accordance with the purpose for which it was collected. There must be transparency and disclosure to the owner of any personal information held, and such information must be kept confidential and secure at all times.

Moreover, where any information obtained with consent is incomplete, erased, or rectified, it can be updated. However, where an unauthorised person accesses personal information, such a person whose personal information was accessed has the right to be notified of this fact within a reasonable period and of the identity of the unauthorised person, unless such identity cannot be established. Such a person whose information was unlawfully accessed has the right to seek redress and remedy for the violation of his/her privacy and the unlawful processing of their personal information.

Privacy is indispensable for the exercise of a range of human rights, such as freedom of expression, freedom of association, freedom of choice as well as being fundamental for the exercise of personal autonomy and broader societal norms.⁶⁹ The right to privacy has been an issue of concern for several decades. With the advent of AI, the definition of privacy has been expanded beyond the traditional concept of consent, purpose, use, limitation, transparency, and accountability, the pillars upon which international data protection standards rest. This is because AI systems work by exploiting existing data sets and creating new ones; the ability of people to know, understand and exercise control

69 'Privacy and Freedom of Expression in the Age of Artificial Intelligence' (*Article 19*, 2018) <<https://www.article19.org/wp-content/uploads/2018/04/Privacy-and-Freedom-of-Expression-In-the-Age-of-Artificial-Intelligence-1.pdf>> accessed 8 April 2020.

over how their data are used is deprived of practical meaning in this context.⁷⁰ Privacy International observed in a report that AI-driven consumer products are frequently equipped with sensors that generate and collect vast amounts of data without the knowledge or consent of those in its proximity. The report further states that AI can be used to infer sensitive facts from relatively mundane data such as location histories and social media interactions.⁷¹ AI could also be used to learn about people's emotional states, health, politics, etc. The more significant point, however, is that unless AI systems are consciously designed and consistently evaluated for their differential impacts on different populations, they have the genuine potential to hinder, rather than help, progress towards greater equity.⁷²

The storage of personal information on places like iClouds has caused many individuals, especially human rights activists, to advocate for laws protecting people's information. Companies like Apple launched iCloud to offer cloud information storage. There are concerns that individuals often do not or cannot give explicit and informed consent to the use, sale, or multiple resale of their personal data, as the collecting, processing, use, storage, and sharing of personal data, including sensitive data, have increased significantly in the digital age.⁷³ According to Andrew Grojean, the implementation of the General Data Protection Regulation (GDPR) in Europe grants European consumers more ownership of their data and the ability to remove that data from marketing systems.⁷⁴ Google has taken a chunk of this fire for breach of users' privacy in the last decade.⁷⁵ Similarly, Facebook announced a data breach of 90 million users.⁷⁶ It has been advised that marketers need to make it very clear on their websites what data they are collecting and how it will be used in understandable languages. The essence of Andrew Grojean's suggestion is to make

70 UNGA 'Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression' (29 August 2018) UN Doc A/HRC/41/35/Add.2.

71 Privacy International (n 69).

72 *ibid.*

73 UN Doc A/RES/73/179 (n 61).

74 A Grojean, 'GDPR, AI and Machine Learning in the Age of Data Privacy' (*Intouch International*, 2018) <https://www.intouchsol.com/wp-content/uploads/Blog/PDFs/IntouchPOV_GDPRAIandMachineLearningintheAgeofDataPrivacy.pdf> accessed 8 April 2020.

75 'Google Agrees to Pay US\$ 7.5M Over Google+ Data Breaches' (*CISOMAG*, 10 January 2020) <<https://www.cisomag.com/google-agrees-to-pay-us-7-5m-over-google-data-breaches/>> accessed 23 May 2020.

76 V Highfield, 'Facebook Faces £1.25bn EU Fine Due to Massive Data Breach' (*Alphr*, 1 October 2018) <<https://www.alphr.com/facebook/1009986/facebook-data-breach>> accessed 8 April 2020.

users of such platforms more intentional about approving data use.⁷⁷ GDPR considerations include the following:

1. Requires companies to gather consent from users of their platforms to store their data for any purpose. The challenge here is that users are confronted with long-term obligations and conditions in small print that they accept without thinking of the consequence of this acceptance in the long run.
2. Right to be forgotten, i.e., users of such platforms have the right to erase the data companies have stored about them and request proof of the erasure.
3. Right to explain to users of such platforms how their data is collected and used.
4. Right to opt-out of automated decision making, i.e., consumers have a right to have humans involved if AI is responsible for a significant outcome, e.g., healthcare system.
5. Ethical use of data, i.e., data providers are responsible for unethical use of data by third parties, e.g., marketers.⁷⁸

The United Nations General Assembly has also intervened in ensuring additional protection of privacy rights in its Resolution 73/179 of 17 December 2018.⁷⁹ This resolution affirms that right to privacy should not be interfered with and any interference with this right should take into account its legality, necessity, and proportionality.⁸⁰ The resolution admonishes States to respect, protect, and take all measures to prevent the violation of this right. The resolution recommends that States enact relevant laws and regulations on this right. In order to effectively implement the enacted laws and regulations, States must regularly review their procedures, practices, and legislation. It also provides that States should establish or maintain the existing independent, effective, adequately resourced, and impartial judicial, administrative, and parliamentary domestic oversight mechanisms to ensure that those whose rights have been violated have access to an effective remedy.⁸¹

In Africa, the number of internet users has increased from about 4.515 million people in 2000 to more than 590 million people as of December 2020, which is about 43% of the entire African population. Of these numbers, over 70% of the population in Kenya, Libya, Mauritius, Nigeria, and Seychelles

77 Grojean (n 74).

78 *ibid.*

79 UN Doc A/RES/73/179 (n 61).

80 *ibid.*

81 *ibid.*

have access to the internet.⁸² The rate of internet penetration on the continent necessitated the adoption of the African Union Convention on Cyber Security and Personal Data Protection (AU Convention), which was adopted on 27 June 2014 and entered into force on 11 May 2020.⁸³ This Convention establishes the legal framework for cybersecurity and personal data protection in Africa. Article 8 of the Convention states that ‘each State Party shall commit itself to establishing a legal framework aimed at strengthening fundamental rights and public freedoms, particularly the protection of physical data, and punish any violation of privacy without prejudice to the principle of free flow of personal data.’⁸⁴ Article 11(1)(a) provides that each State Party shall establish an independent administrative authority that will ensure compliance with the provisions of this Convention and adequately inform the concerned persons of their rights and obligations.⁸⁵ Furthermore, the Convention provided for the right to information stating that data controllers shall inform anybody whose data are to be processed about their identity, purpose of acquiring the data, categories of the data, duration of keeping the data, the possibility of removing such data, the period of maintaining the data, and proposed transfers of data to third countries.⁸⁶ The Convention also provided for the right to access information stating that any natural person whose data are to be processed may request and access the data collected and what data are being processed.⁸⁷ Furthermore, the Convention states that everyone has the right to object, on legitimate grounds, to the processing of any data relating to them. Such individuals can also demand that the data controller rectify, complete, update, block, or erase, as the case may be, the relevant personal data where such data are inaccurate, incomplete, equivocal or out of date, or whose collection, use, disclosure, or storage are prohibited.⁸⁸

About 28 of the 54 countries in Africa have adopted laws and regulations to protect personal data, with nine others currently working on enacting their data protection laws.⁸⁹ The AU Convention and GDPR stand as a model for many countries on the continent. Constellation Research analyst Steve Wilson

82 ‘Internet Users Statistics for Africa’ (*Miniwatts*, 15 March 2021) <<https://www.internetworldstats.com/stats1.htm>> accessed 28 April 2021.

83 The African Union Convention on Cyber Security and Personal Data Protection (adopted 2000) (EX.CL/846 (XXV)).

84 *ibid.*

85 *ibid.*

86 *ibid.*

87 *ibid.*

88 *ibid.*

89 ‘Data Protection and Privacy Legislation Worldwide’ (*UNCTAD*) <<https://unctad.org/page/data-protection-and-privacy-legislation-worldwide>> accessed 1 May 2021.

in 2014 first called for businesses to implement ‘Big Privacy,’ a term he used for privacy structure between industry and consumers that would ensure transparency in how data is used, noting that legislation was not keeping up with technology.⁹⁰ Protecting the right to privacy is crucial to the enjoyment of several related rights, such as, freedom of expression, association, political participation, and information.⁹¹

2.4 *The Right to Equality and Freedom from Discrimination*

Equality and freedom from discrimination are fundamental human rights, designed to protect people from unfair treatment through either direct or indirect discrimination. Indirect discrimination includes any act or omission which may appear neutral but has the effect of producing inequity.⁹² Although the world has progressed in enhancing the legal protection of individual and group rights against discrimination, nonetheless, discrimination still persists at different levels. The right to equality and freedom from discrimination is guaranteed under Article 2 of the African Charter, which states that – ‘every individual shall be entitled to the enjoyment of the rights and freedoms recognised and guaranteed in the present Charter without distinction of any kind such as race, ethnic group, colour, sex, language, religion, political or any other opinion, national and social origin, fortune, birth or any status.’

Many studies have demonstrated that certain AI systems are inherently discriminatory by detecting skin colour. Alarming reports have detailed the use of biased algorithms in the justice system, wherein judges use these tools for sentencing. These tools tend to predict the likelihood of the accused committing a similar crime over again.⁹³ Some governments are already using algorithmic systems to classify people based on problematic categories. For example, there are reports that the government of China is deploying systems to categorise people by social characteristics.⁹⁴ This Social Credit System is being developed

90 ‘Rethinking Privacy for The AI Era’ (*Forbes*, 27 March 2019) <<https://www.forbes.com/sites/insights-intelai/2019/03/27/rethinking-privacy-for-the-ai-era/#1437d7ba7foa>> accessed 8 April 2020.

91 UN Doc A/RES/73/179 (n 61).

92 T Walsh, N Levy, G Bell, A Elliott, J Maclaurin, I Mareels and F Wood, ‘The Effective and Ethical Development of Artificial Intelligence: An Opportunity to Improve Our Wellbeing’ (*Report for the Australian Council of Learned Academies*, 2019) <https://acola.org/wp-content/uploads/2019/07/hs4_artificial-intelligence-report.pdf> accessed 8 April 2020.

93 Latonero (n 21).

94 ‘Big Brother is Watching: How China Is Compiling Computer Ratings on All Its Citizens’ (*South China Morning Post*, 24 November 2015) <<https://www.scmp.com/news/china/policies-politics/article/1882533/big-brother-watching-how-china-compiling-computer>> accessed 8 April 2020.

to collect data on Chinese citizens and score them according to their social trustworthiness, as defined by the government. The system has punitive functions, such as shaming debtors by displaying their faces on large screens in public spaces or blacklisting them from booking trains or flights.⁹⁵

Dunja Mijatovic⁹⁶ suggested that Google was more likely to display adverts for highly paid jobs to male job seekers than females. The EU Fundamental Rights Agency also highlighted how AI could amplify discrimination. When data-based decision making reflects societal chauvinism, it reproduces and even reinforces the biases of that society. AI carries the severe risk of perpetuating, amplifying, and ultimately ossifying existing social biases and prejudices, with attendant consequences for the right to equality. This problem results from the fact that AI systems are trained to replicate patterns of decision-making they learn from training data that reflects the social status quo, existing human biases, entrenched power dynamics, and all. However, therein lies the problem: to the extent that an AI accurately replicates past patterns of human decision-making, it will necessarily perpetuate existing social biases. What is worse, unlike human decision-makers, who have the agency and the free will to change their moral perspective over time, for the foreseeable future, AI systems will not have any such capabilities of their own.⁹⁷ There have been attempts to frame discrimination in machine learning algorithms as a human rights issue. For instance, on 12 March 2018, a World Economic Forum (WEF) report raised both concerns and possible solutions for biased decision-making.⁹⁸ The report calls for human rights to move to the centre of AI discussion even when there is no intention for discrimination. AI systems for which success is strictly measured in terms of efficiency and profit may

95 M J Zeng, 'China's Social Credit System Puts Its People under Pressure to be Model Citizens' (*The Conversation*, 23 January 2018) <<https://theconversation.com/chinas-social-creditsystem-puts-its-people-under-pressure-to-be-model-citizens-89963>> accessed 10 April 2020.

96 D Mijatovic, 'In the Era of Artificial Intelligence: Safeguarding Human Rights' (*Open Democracy*, 3 July 2018) <<https://www.opendemocracy.net/en/digitaliberties/in-era-of-artificial-intelligence-safeguarding-human-rights/>> accessed 8 April 2020.

97 F Raso, H Hilligoss, V Krishnamurthy, C Bavitz and L Kim 'Artificial Intelligence & Human Rights: Opportunities & Risks' (*Berkman Klein Center for Internet & Society Research Publication*, 2018) <https://dash.harvard.edu/bitstream/handle/1/38021439/2018-09_AIHumanRights.pdf?sequence=1&isAllowed=y> accessed 12 April 2020.

98 'How to Prevent Discriminatory Outcomes in Machine Learning' (*White Paper*, March 2018) <http://www3.weforum.org/docs/WEF_40065_White_Paper_How_to_Prevent_Discriminatory_Outcomes_in_Machine_Learning.pdf> accessed 10 April 2020.

end up achieving these at the expense of a company's responsibility to respect human rights.⁹⁹

In May 2018, Amnesty International and Access Now led the drafting of the Toronto Declaration: Protecting the Rights to Equality and Non-Discrimination in Machine Learning Systems,¹⁰⁰ which highlighted the obligations and responsibilities of all actors in the use of AI to prevent discrimination against certain individuals and groups of people. The Council of Europe recommended in its assessment of the Human Rights Impacts of Algorithmic systems that, States should carefully assess what human rights and non-discriminatory rules may be affected because of the quality of data that are being used or extracted from the algorithmic system. Datasets often contain biases and may stand in as a proxy for classifiers such as gender, race, religion and political opinion or social origin. It further stated that particular attention should be paid to inherent risks, such as the possible identification of people from data that were previously processed based on anonymity or pseudonymity and the generation of new, inferred potentially sensitive data and forms of categorisation.¹⁰¹ Necessary structures and legal framework should, therefore, be put in place within the African continent to ensure that technologies developed or already in use do not by any means breach this right to equality and non-discrimination.

2.5 *The Right to Health*

The right to health is a wide-ranging right which is not only limited to the right to proper healthcare but is also linked to the core deciding factors of good health, such as access to safe and potable water, adequate sanitation, adequate supply of safe food, nutrition, housing, healthy occupational and environmental conditions, as well as access to health-related education and information.¹⁰² The right to health imposes a clear set of legal obligations on States to ensure appropriate conditions for the enjoyment of sound health for all people without discrimination.¹⁰³ Tedros Adhanom Ghebreyesus, the Director-General of World Health Organisation (WHO), stated that – ‘the enjoyment of the highest

99 *ibid.*

100 ‘The Toronto Declaration: Protecting the Rights to Equality and Non-Discrimination in Machine Learning Systems’ <https://www.accessnow.org/cms/assets/uploads/2018/08/The-Toronto-Declaration_ENG_08-2018.pdf> accessed 10 April 2020.

101 Council of Europe (n 22).

102 CESCR ‘General Comment No. 14’ on ‘the Right to the Highest Attainable Standard of Health’ (2000) UN Doc. E/C.12/2000/4.

103 World Health Organization, Human Rights and Health (WHO, 29 December 2017) <<https://www.who.int/news-room/fact-sheets/detail/human-rights-and-health>> accessed 14 April 2020.

attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.¹⁰⁴ This right is guaranteed under Article 16 of the African Charter, which provides that – ‘every individual shall have the right to enjoy the best attainable state of physical and mental health. State Parties to the present Charter shall take the necessary measures to protect the health of their people and to ensure that they receive medical attention when they are sick.’

The right to health is of such importance that the health sector is not exempted from AI-based technologies. Oncology, neurology, and cardiology are areas of medicine in which early detection is crucial.¹⁰⁵ In clinical care, AI-based technologies are assisting physicians in decision-making by providing them with relevant and up-to-date information for diagnosis and treatment. The ability of AI systems to make predictions based on massive data sets can also benefit the health sector.¹⁰⁶ The introduction of AI into the health sector in Africa will go a long way to help the continent tackle and mitigate the health problems confronting it. The ACHPR clearly stated in the Ogoni case that states must ensure that all actors within their jurisdiction do not violate the rights spelt out in Article 16.¹⁰⁷ The ACHPR stated that governments have an obligation to protect and ensure that individuals within their territory enjoy the right to health and should not only enact legislation to protect the right but also ensure that private actors do not infringe on it. Several countries are eager to introduce AI equipment into hospitals and clinics, which could be very helpful.

However, the quest to integrate AI into the health sector also has its attendant challenges. One of the apparent risks is that AI systems can be wrong and induce other health care problems. Although human health care providers can also make mistakes, a question of responsibility arises; i.e., who takes responsibility for these errors, the health care provider or the technology manufacturer? Secondly, these errors may have occurred in thousands of situations due to the widespread use of these technologies in hospitals. Thirdly, AI systems

104 T A Ghebreyesus, ‘Health is a Fundamental Human Right’ (*WHO*, 10 December 2017) <<https://www.who.int/mediacentre/news/statements/fundamental-human-right/en/>> accessed 14 April 2020.

105 M B Forcier, H Gallois, S Mullan and Y Joly, ‘Integrating Artificial Intelligence into Health Care Through Data Access: Can the GDPR Act as a Beacon for Policymakers?’ (*Journal of Law and the Biosciences*, 16 September 2019) <<https://doi.org/10.1093/jlb/lrz013>> accessed 9 April 2020.

106 *ibid.*

107 *The Social and Economic Rights Action Centre and the Centre for Economic and Social Rights v. Nigeria* [2001] ACHPR, Comm. No. 155/96.

require a substantial amount of data from sources such as electronic health records, pharmacy records, insurance claim records, or consumer-generated information. Data are typically fragmented across many different systems. This fragmentation increases the risk of error, decreases the comprehensiveness of datasets, and increases the expenses of gathering data.¹⁰⁸ Fourthly, in some instances, the collection of these data violates the right to privacy. These are but a few adverse effects of AI in the health sector.

It is therefore opined that holding manufacturers of these AI-based technologies accountable for possible errors emanating from their products could drive a human-centric approach to avoid deadly errors.

3 Conclusion

Undoubtedly, AI presents several benefits and challenges to the enjoyment of human rights. Many developed countries have adopted laws guiding companies as well as individuals on the use of these technologies in order to protect human rights. Nonetheless, these laws may lack the ability to address certain complex situations that may arise as a result of constant developments and technological innovations as well as the unpredictable outcome of these machines. Several African countries are quick to adopt these technologies due to their spontaneous economic advantages. The ultimate apprehension, however, is the desperate attempt by these countries to attain the standard of developed countries without caution and ignoring the potential consequences of these technologies. Unfortunately, in most African countries, there are limited to no regulations regarding implementation and use of AI. Where there are regulations and guidelines, they are not effective. Similarly, several of these countries are without the requisite laws to protect citizens from current and future human rights infringement caused by these technologies. The new low is that citizens of these countries have little or no idea of their traditional rights and how to claim them. Introducing sophisticated technologies without understanding the level of risk, vis-à-vis its adverse effects on human rights has more far reaching consequences than we can imagine.

Therefore, it is essential to put necessary structures and mechanisms in place to ensure that AI does not infringe on human rights in Africa. It is pertinent for relevant authorities and stakeholders to sponsor research and

¹⁰⁸ W N Price II, 'Risks and Remedies in AI in Health Care' (*Brookings*, 14 November 2019) <<https://www.brookings.edu/research/risks-and-remedies-for-artificial-intelligence-in-health-care/>> accessed 7 April 2020.

assessments that will help in understanding the human right implications of AI. These research and impact assessments should be conducted before implementing and introducing AI into any sector of the society. As a matter of urgency, relevant authorities and stakeholders must enact applicable laws and legislation to protect individuals against the adverse effect and impact of AI on human rights. As earlier mentioned, only 28 of the 54 African countries have enacted laws regarding data protection; the remaining 26 have yet to enact such laws. Also, apart from Kenya that has enacted practice directions on electronic case management, most African countries like Nigeria that have implemented electronic case management platforms have no practice directions or laws regulating them. As much as efforts are being made regarding data protection, relevant authorities and stakeholders should not neglect other aspects of human rights.

Further, beyond legislative action, authorities must ensure that relevant public officers and individuals are held responsible for any AI-based decisions. Judges should be adequately trained on how to use these technologies and their impacts on human rights. Also, authorities and stakeholders must ensure that police and other security agencies receive adequate training on how AI can infringe human rights. They must also establish an effective oversight mechanism for monitoring and investigating any misconduct that will improve the accountability of law enforcement officers, prevent abuse of power, stem impunity, and prosecute all offending personnel. Also, relevant authorities and stakeholders should adopt mechanisms and establish institutions that will enable those who are negatively impacted by decisions influenced by AI to seek redress. These entities must ensure public awareness and public participation. The public should participate at all the stages of implementing AI, the enactment of AI-related laws and the decision-making process. Public participation would not be effective without a well-structured citizen education programme. If citizens are not well-educated about, and encouraged to assume a role, even the most sophisticated system of laws may exist only on paper. Creating public awareness on relevant rights, demonstrating how AI can infringe on these rights, and indicating their legal standing (including in the context of class actions) may very likely contribute significantly to reducing infringement of such rights. Following the adoption of AIs, they should be adequately monitored and reviewed for potential negative impacts, and such negative impacts must adequately be dealt with.¹⁰⁹

109 Council of Europe (n 22).

In conclusion, in the words of Max Tegmark,¹¹⁰ ‘everything we love about civilisation is a product of intelligence, so amplifying our human intelligence with AI has the potential to help civilisation flourish like never before as long as we manage to keep the technology beneficial.’ Therefore, national and regional laws should track the development and introduction of these technologies to ensure a human-centric approach, which could guarantee human rights protection.

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¹¹⁰ A Parasham, ‘Niche Applications of Artificial Intelligence in Healthcare’ (*LinkedIn*, 10 August 2017) <<https://www.linkedin.com/pulse/niche-applications-artificial-intelligence-healthcare-angam-parashar>> accessed 10 April 2020.