



SEEK WISDOM, ELEVATE YOUR INTELLECT AND SERVE HUMANITY!

Addis Ababa University  
አዲስ አበባ ዩኒቨርሲቲ



**ADDIS ABABA UNIVERSITY**

**SCHOOL OF LAW**

**HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE IN ETHIOPIA**

**BY**

**RAJAN BEDADA GUDATA**

**Addis Ababa, Ethiopia**

**4 August 2025**

# **HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE IN ETHIOPIA**

A thesis submitted to Addis Ababa University, School of Law, in partial fulfillment of the requirements for the degree of Masters of Laws (LLM) in Human Rights Law

**By: Rajan Bedada Gudata**

**Id. GSR/9393 /16**

**Advisor: Abdi Jibril Ali (PhD, Associate Professor)**

**Addis Ababa, Ethiopia**

**4 August 2025**

## Declaration

I, Rajan Bedada, hereby declare that the thesis '*Human Rights and Artificial Intelligence in Ethiopia*' is my original work. To the best of my knowledge, I have genuinely acknowledged the works of others used in this thesis with proper citations and footnotes accordingly. This thesis has never been submitted before, to any university or other institution for whatever purpose.

**Rajan Badada**

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## Approval Page

Advisor: Abdi Jibril Ali (PhD, Associate Professor))

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Examiners:-

	Name	Signature	Date
1.	_____	_____	_____
2.	_____	_____	_____
3.	_____	_____	_____

## Acknowledgments

First of all, I owe my heartfelt gratitude to my advisor Dr. Abdi Jibril Ali (Associate Professor) for his invaluable advises and constructive comments throughout the whole text that has given life to this thesis. Had it been not for his continuous and proper guidance, finishing this research would have been unthinkable. I am also very much thankful for my parent and families who have given me all the necessary moral and material supports.

I also want to extend my thanks to friends and classmates with whom I have shared a lot and engaged insightful discussions on many issues related with this work. Lastly, I am very much thankful to all those who have contributed something in the culmination of this thesis in one way or another.

## Table of Contents

Declaration.....	i
Approval Page.....	ii
Acknowledgments.....	iii
Acronyms.....	vii
Abstract.....	ix
CHAPTER ONE.....	1
INTRODUCTION.....	1
1.1. Background of the study.....	1
<b>1.2. Statement of the Problems</b> .....	2
1.3. Objectives of the study.....	3
1.3.1. General objective.....	3
1.3.2. Specific objectives.....	3
1.4. Research Questions.....	3
1.4.1. Main research question.....	3
1.4.2. Specific Research Questions.....	3
1.5. Review of Literatures.....	4
1.6. Research Methods and Methodology.....	6
1.7. Methods of Data Collection.....	6
1.8. Sampling methods and Techniques.....	6
1.9. Sources of Data.....	7
1.10. Limitations of the study.....	7
1.11. Organizations of the study.....	7
CHAPTER TWO.....	9
HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE.....	9
2.1. Introduction.....	9
2.2. Conceptual Overview of Artificial Intelligence.....	9
2.3. Nature and Concepts of Human Rights.....	11
2.3.1. The Anthropocentric View to Human Rights.....	11
2.3.2. Vertical Nature of Responsibility.....	13

2.4. Challenges of AI to Human Rights .....	14
2.4.1. Complexity, Opacity and Unpredictability .....	14
2.4.2. Digital Dictatorship and Restriction of Movement .....	15
2.4.3. Attribution of Rights and Personhood .....	15
2.4.4. Liability and Culpability Problems .....	16
2.4.5. Data Privacy and Surveillance .....	16
2.4.6. Discrimination.....	17
2.4.7. Limiting Freedom of Expression .....	18
2.4.8. Unemployment and Suppression of Creativity .....	18
2.4.9. Autonomous Weapons and Agents .....	19
2.5. International Regulatory Developments on AI .....	20
2.5.1. AI in War and Armed Conflicts .....	22
2.5.2. AI and Corporate Accountability .....	24
2.5.3. AI and Child Rights .....	25
2.5.4. Artificial Intelligence on Discrimination .....	26
2.6. African Human Rights Developments on AI .....	27
CHAPTER THREE .....	30
HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE IN ETHIOPIA .....	30
3.1. Introduction.....	30
<b>3.2. Ethiopian Regulatory Landscape on AI</b> .....	30
3.2.1. Ethiopian Artificial Intelligence Policy .....	30
3.2.2. Other Related Policy and Strategy .....	32
3.2.3. Legislative Frameworks .....	33
3.2.3.1. Personal Data Protection Proclamation No.1321/2024.....	33
3.2.3.2 Ethiopian Computer Crimes Proclamation No. 958/2016 .....	35
3.2.3.3 Digital Identification Proclamation No. 1284/2023.....	37
3.3. AI and Human Rights .....	38
3.3.1. AI and the Right to Life .....	39
3.3.2. AI and the Right to Privacy.....	40
3.3.3. AI and Freedom of Movement.....	43
3.3.4. AI and Freedom of Expression .....	43
3.3.5. AI and the Right to Work.....	43

3.3.6. AI and the Right to Equality and Non-discrimination .....	44
3.4. Institutional Frameworks .....	45
3.4.1. Ethiopian Artificial Intelligence Institute .....	45
3.4.2. Ethiopian Bio and Emerging Technologies Institute .....	48
CHAPTER FOUR.....	53
Conclusion and Recommendations.....	53
4.1. Conclusion .....	53
4.2 Recommendations.....	55
Bibliography .....	xi

## Acronyms

**AI-** Artificial Intelligence

**AUDA-** African Union Development Agency

**AWS-** Autonomous Weapon System

**EAI-** Ethiopian Artificial Intelligence Institute

**BETin-** Bio and Emerging Technology Institute

**ERB-** Ethics Review Board

**FDRE-** Federal Democratic Republic of Ethiopia

**GDPR-** General Data Protection Regulation

**HLEG-** High Level Expert Group

**HRC-** Human Rights Council

**ICJ-** International Committee of Jurists

**ICRC-** International Committee of the Red Cross

**IHL-** International Humanitarian Law

**IHRL-** International Human Rights Law

**INSA-** Information Network Security Administration

**LAWs-** Lethal Autonomous Weapons

**NISS-** National Intelligence and Security Service

**OECD-** Organization for Economic Cooperation and Development

**OHCHR-** United Nations Office of Higher Commissioner for Human Rights

**SDGs-** Sustainable Development Goals

**TPLF-** Tigray People Liberation Front

**UDHR-** Universal Declaration of Human Rights

**UNGPs-** United Nations Guiding Principles on Human Rights

**UNESCO-** United Nations Educational, Scientific and Cultural Organization

**UNICEF-** United Nations International Children Emergency Fund

**UNGA-** United Nations General Assembly

**UNSC-** United Nations Security Council

**UNSG-** United Nations Secretary General

## Abstract

*Artificial Intelligence is a new paradigm of technological system that is impacting human rights in many respects. Despite its new opportunities in assisting the protection of human rights, it also challenges human rights which potentially range from compromising human dignity to rendering individuals jobless to depriving their freedom of speech. It disrupts the mainstream view conceived of human rights that human rights is exclusively owned by natural born human beings. It may also shift the nature of responsibility that is usually centered on human beings and targeted against states than to corporates or other entities. As a result it necessitates the reconsideration of human rights so as to ensure individuals' rights in order to make it withstand the inundation of AI. The need to revisit human rights is not limited to international level, but also induces us to observe the place of national legislations in regulating AI activities.*

*Framing human rights as the commendable framework for Artificial Intelligence regulation, the thesis addresses Ethiopian AI governance landscapes within the prism of human rights law. To do so, the paper discusses Ethiopian policies, strategy and legislatives that have incorporated the works of digital and emerging technology tools in one way or another. Having done that, the paper underpins the existence of huge gaps on frameworks incorporating human rights with regard to AI regulation. The paper also scrutinizes the potential impacts of specific human rights as a result of employing AI. The central objective of this paper therefore is to posit the place of Ethiopian laws regarding the protection of human rights from undue and malicious outcomes of AI driven activities. To that end, the researcher has consulted two Institutes principally working on AI in Ethiopia which are Ethiopian Artificial Intelligence Institute (EAI) and Ethiopian Bio and Emerging Technology Institute (BETIn). While the efforts done so far by these institutes are appreciable, the responses acquired from them attest the low level of Ethiopian governance frameworks on AI. The finding of the study is that Ethiopia is yet to adopt comprehensive and robust frameworks on the regulation of AI. The interplay of various factors hindered the timely formulation of these laws which specifically address the impact of emerging technologies on human rights. The typical factors such as capacity constraints, lack of collaboration with other sectors, the prioritization of innovation over regulation, the overlapping of mandates and the patience to run after global paces have considerably retarded the Institutes to proactively adopt*

*AI regulations. On the other hand, while Ethiopian AI governance system is almost nonexistent, AI violation of human rights is already started to manifest in Ethiopia.*

*Therefore, Ethiopia needs to adopt new legislations and revise its existing laws embracing international and other jurisdictions' experiences on the regulation of AI.*

# CHAPTER ONE

## INTRODUCTION

### 1.1. Background of the study

The development and uses of Artificial Intelligence (AI) technologies poses extensive impacts on human rights.<sup>1</sup> In spite of its opportunities, AI has the potential to negatively affect the enjoyment of human rights.<sup>2</sup> Therefore, the development of AI by different organs, particularly government that is duty bound to protect human rights in every sense, needs meticulous assessment of potential impacts on human rights.<sup>3</sup> Nonetheless, there are still loopholes on establishing obligations and responsibilities under International Human Rights Law (IHRL) apply to AI.<sup>4</sup>

In response to these problems, instruments are emerging at global level under United Nations System and specifically Human Rights Council (HRC) which functions under the auspices of UN coupled with initiatives from other international organs. From regional perspective Europe could be mentioned at the forefront in adopting legislations which regulate AI. Other regions like Africa have also been making progress in the adoption of instruments relevant to AI.

Following the regional developments, many states have started to regulate the problems of AI. However, the phases and commitment of states towards such measures varies from one to another. In Africa, no country has adopted AI dedicated legislation. Africa is yet to develop inclusive academic literature and research on AI.<sup>5</sup>

Ethiopia is no exception. The comprehensive laws relating to AI are yet to emerge. Despite lack of regulation, Ethiopia has started to deploy AI in different sectors. In June 2020, the Government of Ethiopia has adopted the national digital transformation strategy, Digital Ethiopia

---

<sup>1</sup> African Commission, 'Resolution on the Need to Undertake a Study on Human and Peoples' Rights and Artificial Intelligence (AI), Robotics and Other New and Emerging Technologies in Africa (2019) ACHPR/Res. 456 (LXVI), preamble.

<sup>2</sup> Lottie Lane, 'Clarifying Human Rights Standards through Artificial Intelligence Initiatives' (2022) 71(4) International and Comparative Law Quarterly 915.

<sup>3</sup> Dirk J. Brand, 'Responsible Artificial Intelligence in Government: Development of a Legal Framework for South Africa' (2022) 14(1)JeDEM 130, 132.

<sup>4</sup> Lottie Lane(n 2) 922.

<sup>5</sup> Gaffley M, Adams R & Shyllon O, 'Artificial Intelligence. African Insight. A Research Summary of the Ethical and Human Rights Implications of AI in Africa' (2022) HSRC & Meta AI and Ethics Human Rights Research Project for Africa – Synthesis Report 3.

2025, which incorporated AI as one of the most driving tools to enhance development. Ethiopia also specifically adopted the regulation to establish an Artificial Intelligence Institute Establishment which was inaugurated in September 2022.<sup>6</sup>

Therefore, it is necessary to assess the existing regulations so as to identify whether they incorporate issues relating to the design, development and deployment of AI in Ethiopia and scrutinize them whether they are in line with the cherished human rights.

## 1.2. Statement of the Problems

Human rights should be respected by all individuals and organizations including Non-government organizations, companies, and other private organs beside the states which have the duty to respect, protect and fulfill.<sup>7</sup> States and other actors in AI lifecycle and oversight of AI system have responsibility to ensure that these systems are designed and operated in ways that respect all human rights.<sup>8</sup>

If AI is left without strong regulation, it may seriously affect the enjoyment of human rights. Due to this fear, there are movements to control and regulate AI. A number of stakeholders have debated the ethical and legal considerations relating to responsible AI.<sup>9</sup> The position and role of private actors that are actively doing on AI lifecycle is one of the hotly discussed issues.<sup>10</sup> However, key attention to regulate AI by the government concerning the nature and responsibility towards its citizens is necessary.<sup>11</sup>

Apart from a policy on AI, Ethiopia has no AI related legislation and has no national AI strategy. While the policy on AI could be mentioned as a landmark framework on AI in Ethiopia; however, it is not satisfactory in ensuring AI respecting human rights. There are stakeholders such as the Global Information Society Watch which found that Ethiopia's AI development potentially bears both opportunity and challenges; opportunity, relating to the optimum

---

<sup>6</sup> Ethiopian Artificial Intelligence Institute Establishment Regulation, Council of Ministers Reg. No. 510/2022, Federal Negarit Gazette, year 28, No. 32. 23 April 2022.

<sup>7</sup> UN Human Rights Office of the Higher Commissioner(OHCHR), Guiding Principles on Business and Human Rights, New York and Geneva, 2011 (UNGPs) (hereinafter cited as , Guiding Principles on Business and Human Rights) principle 1 and 11.

<sup>8</sup> UN Special Rapporteur on the Right to Privacy. Report on Artificial Intelligence and Privacy, A/HRC/41/35. (2019) Para.40.

<sup>9</sup> Dirk J. Brand (n 3) 134.

<sup>10</sup> Lottie Lane (n 2) 916.

<sup>11</sup> Dirk J. (n 3) 134.

advantage it brings for socioeconomic enhancements, and challenges, as to the potential violations human rights.

Therefore, the thesis studies the regulation of AI in Ethiopia to ensure the protection of human rights.

### 1.3. Objectives of the study

#### 1.3.1. General objective

The research principally scrutinizes whether Artificial Intelligence and other technology related policies and laws in Ethiopia incorporates human rights approach throughout AI lifecycle.

#### 1.3.2. Specific objectives

The study has the following specific objectives:

- To assess the regulation of AI to comply with International Human Rights Law.
- To examine the challenges of AI on the enjoyment of human rights.
- To identify the specific gaps in the regulation of AI in Ethiopia.

### 1.4. Research Questions

The study will try to answer one main question and other sub-questions.

#### 1.4.1. Main research question

The pillar research question of the study is:

- ✓ Does the artificial intelligence development in Ethiopia incorporate human rights?

#### 1.4.2. Specific Research Questions

- ✓ What is the position of International Human rights Law on the regulation of AI?
- ✓ What are the challenges of AI on the contemporary human rights System?
- ✓ Do policies and laws related to AI and technology in Ethiopia address human rights concerns?
- ✓ What measures should be taken to mitigate the negative impact of AI on human rights in Ethiopia?

## 1.5. Review of Literatures

To elucidate proper answers for research questions, the researcher goes through many literatures relating to the topic of the study. The literature review of this research shall cover different jurisprudences and research works that have recently been done on AI with regard to Human Rights. However, there is no comprehensive research done so far that targets the given topic in Ethiopia. Due to this fact the researcher decided to go through the related literatures both within and without the geographical jurisdiction of the study.

Lottie Lane, in his article titled, *Clarifying Human Rights Standards through Artificial Intelligence Initiatives*, explores many issues on AI through the lens of human rights regulation.<sup>12</sup> The article addresses the extent and intensity of AI law and governance initiatives at international, regional and national levels. The paper demonstrates the underdevelopment of IHRL. Therefore, it underlines the need for Human rights for systematic regulation of AI. However, the place of Africa as a region and specifically Ethiopia relating to the governance of AI is not explicated in the paper.

Joel Bergenfalk in his paper titled “*AI and Human Rights: an explorative analysis of upcoming Challenges*” discusses AI impacts on different parts of society through human rights perspective. The paper has examined the potential challenges of AI to contemporary human rights in the near future. In that he affirmed that the weakness of human rights frameworks to have controlling power over the evolving AI is due to the inability of human rights doctrine to cover the issue and human imperfection. The finding of the paper is that human rights doctrines should be revisited from the root instead of trying to solve the problems by merely adopting additional treaties that contrasts the existing doctrines.<sup>13</sup> The writer also put that in many countries, when the issue of AI is at hand, the concern of rights and regulations held secondary position while business and the possible benefit we may grasp from AI is highly esteemed.<sup>14</sup> However, the paper is not country specific, nor it recommends and has no direct practical bearing on the factual challenges the states may face with the development of AI.

---

<sup>12</sup> Lottie Lane (n 2).

<sup>13</sup> Joel Bergenfalk, ‘AI and Human Rights: an explorative analysis of upcoming Challenges’ (2019) Human Rights Studies.

<sup>14</sup> Ibid, 5.

Abay Addis in his article called “*Potentials and Possible Drawbacks of Adopting Predictive Algorithm AI in the Ethiopian Criminal Justice System: Lessons from the US Experience*”<sup>15</sup> underscores the usefulness of using predictive algorithms in Ethiopian criminal justice systems for the purposes of effectiveness and efficiency. It reminds us that there is an active plan going on in the Federal Supreme Court to apply AI in the court systems including predictive algorithms. Affirming such an initiative as the positive move of the state, at the same time he also suggests that the factual realities of the country should be considered while examining the legal, ethical, and social consequences of employing this technology. Moreover, he recommended for the adoption of regulations that govern the usage of the systems, and comprehensive data protection law, and the establishment of proper infrastructure. The paper puts the ethical and moral implications of delegating human decisions to machines as a challenge of the AI predictive Algorithm. As the paper states, the values and principles that support the criminal justice system, such as justice, fairness, equality, dignity, and human rights, especially the right to privacy, can potentially be derogated as a result of employing AI algorithms. Despite its precise urge for the well regulated use of predictive Algorithms, the analysis and usage of the paper is confined to the area of criminal justice system. The article did not say anything about the overall impact of AI on human rights in aggregate. It rather opted for discussing an aspect of AI which is predictive algorithm AI with criminal justice tone than human rights perspective.

Frehiwot Gebrekristos in the paper titled “*AI for Ethiopia: Opportunities and Challenges*”<sup>16</sup> has discussed the advantages of AI in Ethiopia with its corresponding challenges. The writer has appreciated the positive role AI can play in different sectors. At the same time, the author is also mindful that if AI is left without proper intervention, its negative impact on the creation of imbalances and inequalities in economic, social and political areas are inevitable. Therefore, Frehiwot recommends that the government need to work towards building a legal framework for AI.

However, the paper lacks specificity and never gives a clue as to what kind of legal framework and regulatory means should the government employ. Moreover, the author did not use human

---

<sup>15</sup> Abay Addis Emire, ‘Potentials and Possible Drawbacks of Adopting Predictive Algorithm AI in the Ethiopian Criminal Justice System: Lessons from the US Experience’ (2023) 15 Jimma University Law Journal 122-142.

<sup>16</sup> Frehiwot Gebrekristos Girmay, ‘Artificial Intelligence for Ethiopia: Opportunities and Challenges’ (2019) 16(1) International Journal of Information and Communication Technology (ICT).

rights' language in the paper. The author rather inclined towards the ethical consideration of AI as an experience that must be adapted from the developed countries.

Therefore, the study is engaged for solving the problems and limitation of these papers.

## 1.6. Research Methods and Methodology

The study is based on qualitative research method. Under the mode of qualitative approach, the study mainly employs doctrinal legal research approach. The study also owns the character of non-doctrinal legal research. This stems from the fact of the study which inevitably touches certain subjects of studies. Hence, the researcher believed that having a proper attention to other disciplines is a mandatory measure to enrich the study with tangential knowledge and enlighten the readers with interdisciplinary subjects.

The paper uses descriptive method, comparative and analytical method of researching.

## 1.7. Methods of Data Collection

The qualitative and analytical data collection methods are employed. The research elucidates the international and regional human rights instruments that incorporate issue of AI in one way or another. The documents are both the binding and non-binding human rights instruments. The thesis also studied Ethiopian proclamations, policies and regulations which have connections with AI.

In addition, the expert interviews are engaged with legal officers of the identified AI and technology institutes.

## 1.8. Sampling methods and Techniques

The sampling method of the thesis is the purposively selected sampling mode which the researcher deliberately employed due to the nature of the research questions. Due to the fact that the research focuses on the human rights issues of AI, the researcher engaged his research with experts from Ethiopian Artificial Intelligence and Ethiopian Bio and Emerging Technology Institute. Hence, the researcher has had interviews and email responses with research expert and an authority from each institute respectively.

## 1.9. Sources of Data

The researcher conducted his study by using both primary and secondary sources. Primary data sources include typical international human rights instruments and other non-binding documents like guidelines, resolutions, general comments, policies, and guiding principles. In addition to primary data sources, secondary data sources like books, journals, articles, and other various sources are used in the study of the thesis.

## 1.10. Limitations of the study

Since the study area of this research is hardly studied, the literatures are rarely provided to support the researcher with necessary materials. At international level there are relatively considerable amount of materials written on the issue of human rights approach towards the regulation of AI. But at the regional level there are very few materials on that accord. The issue becomes even worse when it comes to domestic basis on which almost there are no organized literatures and research materials on human rights regulation and approaches of AI. The research also did not specifically focus on the impact of AI on specified human rights. Rather it studied the risks of AI on human rights as a whole except highlighting typical human rights as the most prone rights to AI activities.

## 1.11. Organizations of the study

The study of the research is organized into four chapters. The first chapter of the study is the introduction part of the research. This chapter encompasses background of the study, the statement of the problems, the objective of the study, methods and methodology of the study, the sources of data, the limitations and organizations of the study and the overview of literature review. This chapter conveys the benchmark as to how the research is to be done.

The second chapter of the research discusses the normative frameworks on the nature of AI and its human rights implications. It is mainly about the conceptual and theoretical review of the study. To do so, the chapter stems its discussion from pinning down the challenging issues revolving around the notions of AI within human rights purview. Hence, the chapter touches the relevant and necessary literature reviews which assist the researcher to penetratingly dive into the previously studied works on the related area. The chapter also highlights the responses and

initiatives that are being made to human rights regulation of AI both at international and African levels.

Chapter three studies about prominent Ethiopian AI and technology related laws, strategy and policies. The study delves into identified Ethiopian legislatives on digital and technology. Chapter four contains the conclusion and recommendations of the study.

## CHAPTER TWO

### HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE

#### 2.1. Introduction

Artificial Intelligence (AI) is already defining every aspect of human development and begs human rights regulation for its fair empowerment.<sup>17</sup> Nowadays, the concern about the consequences of our growing reliance upon AI is aptly rising.<sup>18</sup> AI challenges the current legal systems; reconsidering regulatory mechanism to tackle its consequential impacts is important.<sup>19</sup> The use of AI raises various questions of which one is the impact it have on human rights.<sup>20</sup> AI is evolving rapidly when the development of Human Rights Law along with AI is still on its infant stage.<sup>21</sup> This manifested imbalance between the impact of AI and the lack of legal regulations offers the need for systematic human rights regulations.<sup>22</sup> Hence, the risk of human rights violations of AI and the need to find solutions is attracting many stakeholders.<sup>23</sup> Therefore, this chapter is centered on the nexus between human rights and AI from regulatory point of view. The chapter begins with highlighting the definition and conceptual overviews of AI. The chapter touches upon some concepts of our human rights. It also focuses on the impacts and potential challenges of AI systems on human rights. The chapter will finally study the position of human rights laws to regulate AI.

#### 2.2. Conceptual Overview of Artificial Intelligence

It's difficult to put the exhaustive definition of AI for it is an evolving intelligent system. There is lack of universal definition amongst disciplines which created the problem of definitional

---

<sup>17</sup> Themis Tzimas, 'Artificial Intelligence and Human Rights: Their Role in the Evolution of AI' (2020) 80 ZaöRV 533, 534.

<sup>18</sup> Eileen Donahoe and Megan MacDuffee Metzger, 'Artificial Intelligence and Human Rights' (2019) 30(2) Journal of Democracy 115.

<sup>19</sup> M. Patrão Neves and A. Betâmio de Almeida, 'Before and Beyond Artificial Intelligence: Opportunities and Challenges' in Henrique Sousa Antunes and others (eds), *Multidisciplinary Perspectives on Artificial Intelligence and the Law* (Springer, Lisbon 2024), 119.

<sup>20</sup> Dirk J. Brand (n 3) 130, 131.

<sup>21</sup> Soha Rawas, 'Artificial Intelligence: The Future of Humanity' (2024) 4(25) Discover Artificial Intelligence 9.

<sup>22</sup> Themis (n 17) 533,549.

<sup>23</sup> Ikegbo Chukwuma Arinze, 'The Place of Human Rights Ethics in the Era of Artificial Intelligence' (2024) 1(1) (EJOPAAH) 4.

inconsistency of AI.<sup>24</sup> AI is dynamically pacing with technological advancement of societies and it is a generic term of technologies than a fixed tool.<sup>25</sup> Some definitions define AI as the range of methods, technological tools, and the set of activities; while others try to put it as abstract computer programs which itself generates information and participates in communication.<sup>26</sup> As Access Now has defined, AI is better looked at as an area of study which contains many subfields such as Neural Networks, Robotics, Natural Language Processing, and others than definable thing.<sup>27</sup>

Nevertheless, there is still no unified legal definition of AI although in different countries we find the first stages of the development of a proper legislative framework.<sup>28</sup> However, there are definitions given by newly emerging instruments which mainly are soft laws.

One of such instruments was adopted by the European Commission High-Level Expert Group on Artificial Intelligence stating as software and/or hardware intelligent systems that can employ symbolic rules or understand a number oriented model and adjust their behavior studying the manner how the environment is impacted as a result of the preceding implementations.<sup>29</sup>

As a category, AI can be a system that automates decisions and analytical process such as the classification and identification of data.<sup>30</sup> AI can also be classified as weak, also labeled as narrow AI, and strong which is also called Artificial General Intelligence and Artificial Super Intelligence.<sup>31</sup> AI, as a science that is the systematic study of intelligent machines, is an important aspect of the fourth industrial revolution that fundamentally changes almost all dimensions of human life.<sup>32</sup> Hence, as an area of academic endeavor, AI contains six disciplines

---

<sup>24</sup> Olivia J. Erdelyi and Gabor Erdelyi, 'The AI Liability Puzzle and a Fund-Based Work-Around' (2021) 70 *Journal of Artificial Intelligence Research* 1309, 1319.

<sup>25</sup> Yulia Razmetaeva, 'Artificial Intelligence and the End of Justice' (2024) 1 *Bio-Law Journal* 345, 346.

<sup>26</sup> Andrey V. Skorobogatov and Alexandr V. Krasnov, 'Law nature of Artificial Intelligence' (2023) 14(1) *Problems of Information Society* 3, 8. .

<sup>27</sup> Access Now, *Human Rights in the Age of Artificial Intelligence* (2018) 8.

<sup>28</sup> Stela Enver Mecaj, 'Artificial Intelligence and Legal Challenges' (2020) 20(34) *Revista Opinião Jurídica (Fortaleza)* 180, 182.

<sup>29</sup> European Commission, 'High-Level Expert Group on Artificial Intelligence, 'Ethics Guidelines for Trustworthy AI' European Commission, Brussels (8 April 2019) 36.

<sup>30</sup> Michael Pizzi, Mila Romanoff and Tim Engelhardt, 'AI for Humanitarian Action: Human rights and ethics' (2020) 102(913) *International Review of the Red Cross* 145, 150.

<sup>31</sup> *Themis* (n 17) 533, 541.

<sup>32</sup> Abdessalam Jaldi, 'Artificial Intelligence Revolution in Africa: Economic Opportunities and Legal Challenges' (Policy Paper, 2023) Policy Center for the New South, 5.

which are natural language processing, knowledge representation, automated reasoning, machine learning, computer vision, and robotics.<sup>33</sup>

In this thesis, AI could be better defined as intelligent systems and a range of ever evolving technological innovations than a tool or software.

## 2.3. Nature and Concepts of Human Rights

Two typical natures of human rights which have great implication for AI are discussed below.

### 2.3.1. The Anthropocentric View to Human Rights

Anthropocentrism is centered on the notion of individuality of human beings and indivisibility of human rights. Human rights are assumed on the existence of dignified human beings inherently endowed with moral claims.<sup>34</sup> The modern framework of international legal system is anthropocentric which makes the introduction of the concept of AI into legal regulation complicated.<sup>35</sup> Universal Declaration of Human Rights (UDHR) states that “all human beings are born free and equal in dignity and rights.”<sup>36</sup> UDHR uphold that “human beings are endowed with reason and conscience and should act towards one another in a spirit of brotherhood.”<sup>37</sup> This conveys the message that human beings are dignified and exalted from other beings due to their nature of having reason and conscience. It implies humanistic approach to the innate dignity of human beings and their inalienable rights.<sup>38</sup> In the conception of human rights, human dignity is the backbone of human beings when human rights are seen as the instruments of protection.<sup>39</sup> This is ethical way of approaching human rights on which the current IHRL has found its

---

<sup>33</sup> Joshua C. Gellers, *Rights for Robots: Artificial Intelligence, Animal and Environmental Law* (Routledge, 2021) 5.

<sup>34</sup> Steven Livingston and Mathias Risse, ‘The Future Impact of Artificial Intelligence on Humans and Human Rights’ (2019) 33(2) *Ethics & International Affairs* 141, 151.

<sup>35</sup> Andrey (n 26) 3, 9; Ron Iphofen & Mihalis Kritikos, ‘Regulating Artificial Intelligence and Robotics: Ethics by Design in a Digital Society, *Contemporary Social Science*’ (2021) 16(2) *Journal of the Academy of Social Sciences* 170, 175. The existing modes and tools to deal with legal issues were developed to oversee human decision-makers and often fail when applied to AI systems.

<sup>36</sup> Universal Declaration of Human Rights, UNGA Res 217A (III) (UDHR), UN Doc A/810 (adopted on 10 December 1948), article 1.

<sup>37</sup> *Ibid.*

<sup>38</sup> Britta Van Beers, ‘A better way of being?: Human Rights, Trans-humanism and ‘the Utopian Standpoint of Man’ in Bart Van Klink, Marta Soniewicka and Leon Vanden Broeke(eds), *Utopian thinking in law, politics, architecture and technology* (Edward Elgar Publishing, London 2022) 248; See also, Saskia Stucki, *One Rights: Human and Animal Rights in the Anthropocene*, (SpringerBriefs in Law, Switzerland 2023) 9 and 18.

<sup>39</sup> Paweł Łuków, ‘A Difficult Legacy: Human Dignity as the Founding Value of Human Rights’ (2018) 19 *Human Rights Review* 313, 322.

expression.<sup>40</sup> The difficulty with such an approach comes when other entities emerge and compete with human beings in terms of intelligence and the ability to make a decision.<sup>41</sup> AI is shockingly disturbing the conventional sense of understanding that agency is a privilege for humans with distinct cognitive abilities, intentionality and capacity to make autonomous decisions.<sup>42</sup> Due to the confinement of individual autonomy only to human person, the traditional way of approaching copyright authors, accountability, legal personality, personhood and etc. are fundamentally questioned in this digital age.<sup>43</sup> Hence, there is a fear that the rapidly evolving AI may inaugurate a new era of legal subjects for which a new legal framework is needed.<sup>44</sup>

The anthropocentric conception of human rights also bases its argument on the exceptionality and uniqueness nature of human beings.<sup>45</sup> Nowadays, such a claim of specialty and superiority is being proven untenable.<sup>46</sup> Therefore, such human rights doctrine and traditional legal concepts will face many challenges in the course of time, unless continuous adaptation is made to correspond to new developments in AI.<sup>47</sup>

The newly emerging technological systems are also undermining the idea of individuality of human beings on which indivisibility of human rights is established.<sup>48</sup> Consequently, AI potentially owns the capacity to crack brain data and gain human cognitive information by

---

<sup>40</sup> Stephen P. Marks, 'Human Rights: A Brief Introduction' (2014) Working Paper, Harvard School of Public Health, 4. Stephen puts that "the ethical basis of human rights has been defined using concepts such as human flourishing, dignity, duties to family and society, natural rights, individual freedom, and social justice against exploitation based on sex, class or caste".

<sup>41</sup> Matthias Risse, 'Human Rights and Artificial Intelligence: An Urgently Needed Agenda' (2018), working Paper, Carr Center for Human Rights Policy, 5.

<sup>42</sup> Anna Grear, 'Human Rights and New Horizons? Thoughts towards a New Juridical Ontology: Science Technology and Human Values (2018) 43 (1) ORCA 129, 136.

<sup>43</sup> Evita Isretno Israhadi, 'The Impact of Developments in Artificial Intelligence on Copyright And other Intellectual Property Laws' (2023) 11(11) Journal Of Law And Sustainable Development 14.

<sup>44</sup> Themis (n 17) 533,548.

<sup>45</sup> Saskia (n 38) 23.

<sup>46</sup> Ibid, 32. Particularly, "Darwinian naturalism and the past decades of scientific advances and bioethical debate have incrementally worked to debunk the idea of Human Exceptionalism, as its empirical and metaphysical assumptions are 'increasingly and evidently anachronistic'". See also, Anna (n 42) 129, 130. "The individualism and Human Exceptionalism of Human Rights have been accused of a "Philosophical Speciesism" which is intrinsically at odds with collective, ecological imperatives in an age of climate crisis."

<sup>47</sup> Alžběta Krausová, 'Intersections between Law and Artificial Intelligence' (2017) 27(1) International Journal of Computer (IJC) 55, 61.

<sup>48</sup> Yingxuan Zhang, 'Human Rights of Cloning in Never Let Me Go: A Posthuman Perspective' (2021) 8(2) International Journal of Research in Humanities and Social Studies 31, 33. Human cloning is one of the indications that human beings are no longer indivisible.

trespassing to the subtle private area of human minds.<sup>49</sup> As a counteractive measure, there are newly emerging rights that eventually claim to be recognized by UN Human Rights System.<sup>50</sup> Although there is a debate going on between human rights conservatism and human rights reformism as to whether new rights are necessary, the emergences of the new sets of rights created doubt against the feasibility of anthropocentricism view towards human rights.<sup>51</sup> Hence, it raised again a quest for, from another, non-human, new perspective of rights.<sup>52</sup>

### 2.3.2. Vertical Nature of Responsibility

The nature of contemporary human rights law is also such that there is no private sector accountability. Instead of other actors like companies, individuals are given the rights to bring claims only against the states for human rights protection.<sup>53</sup> When it comes to AI, it is private sectors and companies which are enormously developing and deploying AI to the public. AI detrimentally disrupts international laws by shifting the balance of power away from states to non-state actors.<sup>54</sup> Therefore, AI influences not only legal practices but also shakes the foundation of law itself.<sup>55</sup> Moreover, many of the companies which own AI systems are transnational and their effects also trespass the borders of the states. Admittedly, IHRL frameworks with regard to AI are much less developed, particularly regarding the role and responsibilities of the different actors active within it.<sup>56</sup>

---

<sup>49</sup> Philipp Kellmeyer, ‘‘Neurorights’’: A Human Rights Based Approach for Governing Neurotechnologies’ in Silja Voeneke, et.al.(eds), *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary perspectives* (Cambridge University Press 2022), 415.

<sup>50</sup> Ibid, 412; see also Emmie Nordell, ‘Artificial Intelligence, International Human Rights and Cognitive Liberty’ (Master’s thesis, University of Gothenberg 2019), 45. There are rights framed around how to protect mental privacy and mental integrity in the interaction with AI-based systems. The rights under the generic term of ‘Neurorights’, like mental privacy, informational privacy, mental integrity and cognitive liberty or mental self-determination can possibly be mentioned. See also, Yingxuan (n 33) 31, 34. There is a claim that a human person invented through cloning should have the same human rights as a human being created by natural birth.

<sup>51</sup> Philipp (n 49) 414.

<sup>52</sup> Anna (n 42) 129, 131.

<sup>53</sup> John H. Knox, ‘Horizontal Human Rights Law, (2008) 102(1) American Journal of International Law 1.

<sup>54</sup> Matthijs M Maas, ‘International Law Does not Compute: Artificial Intelligence and the Development, Displacement or Destruction of the Global Legal Order’ (2019) Melbourne Journal of International Law 4.

<sup>55</sup> Alžběta Krausová (n 47) 61.

<sup>56</sup> Lottie Lane (n 2) 916.

## 2.4. Challenges of AI to Human Rights

AI is susceptible to making risks and violates human rights even though people are oblivion of its harms in most cases.<sup>57</sup> For instance, as access now has affirmed, algorithmic decisions pose great challenges on individuals and society in many respects.<sup>58</sup>

AI impacts almost all rights recognized in international human rights treaties. Ultimately, human rights by their nature are “universal, indivisible and interdependent and interrelated.”<sup>59</sup> For example, there is a symbiosis between data protection relating to privacy rights and other rights protected by ICCPR such as the right to movement, freedoms of expression and association.<sup>60</sup>

Major challenges posed by AI to human rights are discussed below.

### 2.4.1. Complexity, Opacity and Unpredictability

Unpredictability, Opacity and lack of transparency is everywhere in AI systems.<sup>61</sup> Disruptive technologies such as AI bring with them new and previously unforeseen human rights risks.<sup>62</sup> The complex and dubious nature of many AI systems poses the problems of establishing responsibility that has ushered in the necessity of having effective regulative approach to AI.<sup>63</sup> This opacity of AI systems may hinder individuals from identifying the time and situations in which their rights were violated and then from seeking remedy.<sup>64</sup> David Kaye, the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression, demonstrated that “the dissemination of information and ideas in an AI-governed system is guided by unknown forces with priorities that may contrast with an enabling environment for plurality of media and independent voices.”<sup>65</sup> Moreover, due to the

---

<sup>57</sup> Yulia (n 25) 345.

<sup>58</sup> Access Now (n 27) 13.

<sup>59</sup> UN Human Rights Committee, Vienna Declaration and Programme of Action (1993), 5. available at: <http://www.ohchr.org/EN/ProfessionalInterest/Pages/Vienna.aspx>. Accessed on 17 November 2024.

<sup>60</sup> American Civil Liberties Union, 'Report: Informational Privacy in the Digital Age: A Proposal to Update General Comment 16 (Right to Privacy) to the International Covenant on Civil and Political Rights' (February 2015), 4.

<sup>61</sup> Christiane Wendehorst, 'Liability for Artificial Intelligence: The Need to Address Both Safety Risks and Fundamental Rights Risks' in Silja Voeneke and others (eds), *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary perspectives* (Cambridge University Press, New York 2022) 189.

<sup>62</sup> United Nations Forum on Business and Human Rights, 'Technology and Human Rights' (2017), 3.

<sup>63</sup> Dirk J. (n 3) 131.

<sup>64</sup> Michael Pizzi(n 30) 152.

<sup>65</sup> David Kaye, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression* (UN General Assembly, 73<sup>th</sup> Sess, 2018) UN Doc A/73/348, para 30.

advancement of AI, individuals will be exposed to far more constraints of the future sophisticated intelligent systems.<sup>66</sup>

#### 2.4.2. Digital Dictatorship and Restriction of Movement

Artificial Intelligence can also create digital dictatorships in which mighty power is confined to handful of individuals while many number of people are exposed to the situation of uselessness.<sup>67</sup> Therefore, people have very limited capability to compete with and withstand AI systems and its activities on decision making and achieving other purposes.<sup>68</sup> AI is being empowered to control the free movement of individuals. The myriad amalgamation of AI systems and its applications can easily detect the whereabouts and even the future possible movement of individuals.<sup>69</sup> Using such advantages, some states use AI systems to engage in arbitrary or unlawful surveillance and censorship practices that violate IHRL.<sup>70</sup> Governments will continue to use AI for further restriction of movements when the technology will extend to public areas like smart highways and biometrically tagged public transportation systems.<sup>71</sup>

#### 2.4.3. Attribution of Rights and Personhood

Asserting human rights directly against robotic harms has become increasingly topical, following the sophistication and intricacy of robotic technologies.<sup>72</sup> The claim goes that these machines will be conferred the moral status which even includes human rights protection in the near future.<sup>73</sup> Nonetheless, conferring personhood and legal personality on AI is not as easy as it seems. The difficulty surrounding AI legal personhood lies in answering the questions like ultimate value, responsibility and commerciality.<sup>74</sup> It is difficult to establish these and other intricate claims for AI. Therefore, as some writers put “attributing personhood for an autonomous AI is still controversial and debated by ethicists, philosophers and legal scholars

---

<sup>66</sup> Sheshadri Chatterjee and Sreenivasulu N.S, ‘Evolution of artificial intelligence and its impact on human rights: from sociolegal perspective’ (2021) 64(2) IJLMA 184, 191.

<sup>67</sup> Yuval Noah Harari, *21 lessons for 21<sup>st</sup> Century*, (Vintage, London 2018) 12.

<sup>68</sup> Hin- Yan Liu and Karolina Zawieska, ‘From responsible robotics towards a human rights regime oriented to the challenges of robotics and artificial intelligence’ (2017) 22 Ethics and Information Technology 321, 326.

<sup>69</sup> Access Now(n 27) 21

<sup>70</sup> Freedom Online Coalition, Joint Statement on Artificial Intelligence and Human Rights (November 2020), 2

<sup>71</sup> Access now(n 27) 22

<sup>72</sup> Hin- Yan Liu and Karolina Zawieska (n 68) 1.

<sup>73</sup> Steven Livingiston and Mathias Risse (n 34) 141, 148.

<sup>74</sup> Visa A. J. Kurki, *Legal Personhood: Elements in the philosophy of law*, (Cambridge University Press, Cambridge 2023) 56.

with some finding that robots might qualify for rights and others rejecting the possibility on jurisprudential, normative, or practical grounds.”<sup>75</sup> Those who argue against the bestowal of legal personality to AI, appeal to the notions which supposedly only human beings can possess like consciousness, freewill and rationality.<sup>76</sup> On the other hand, the proponents claim that AI already possesses those traits.<sup>77</sup>

#### 2.4.4. Liability and Culpability Problems

Alongside the attribution of personhood comes liability challenge which makes nations to have different interpretations of the wrongful actions of AI.<sup>78</sup> In contrast to the traditional concept of liability we are familiar with, it is difficult to make an AI accountable due to the result of countless interactions among many actors.<sup>79</sup> It is complex to establish conventional legal liability regimes for AI due to, among others, lack of foreseeability and its dubious outcome.<sup>80</sup>

The other related challenge in the course of deploying autonomous AI is the question as to how to make a machine or non-human intelligent system punishable.<sup>81</sup> The notion of culpability is paradigmatically linked to the notions of free will and conscience.<sup>82</sup> The difficulty is that it is opaque to establish these elements for an AI to make it punishable since AI does not have essential elements for culpability such as mental states and the capacity to think.<sup>83</sup>

#### 2.4.5. Data Privacy and Surveillance

The enormous progress of AI has become acute challenge of data governance and privacy issues.<sup>84</sup> The emergence of AI and its deployment in many areas of life specifically intensified

---

<sup>75</sup> Joshua C. Gellers (n 33) 16.

<sup>76</sup> Shakuntla Sangam, ‘Legal Personality for Artificial Intelligence with Special Reference to Robot: A Critical Appraisal’ (2020) 6(1) Indian Journal of Law and Human Behavior 16, 18.

<sup>77</sup> Ibid.

<sup>78</sup> Shyamal Dave, ‘Artificial Intelligence’s Liability, Judging the Future-Today’ (2023) 2(1) Journal of Law and Artificial Intelligence 30, 31.

<sup>79</sup> Müller, Vincent C. (forthcoming Spring 2020), ‘Ethics of artificial intelligence and robotics’, in Edward N. Zalta (ed.), *Stanford Encyclopedia of Philosophy* (Palo Alto: CSLI, Stanford University), 14.

<sup>80</sup> Olivia J. Erdely (n 24) 1329.

<sup>81</sup> Shyamal (n 78) 30.

<sup>82</sup> Shane O’Sullivan and others ‘Legal, regulatory, and ethical frameworks for development of standards in artificial intelligence (AI) and autonomous robotic surgery’ (2018) International Journal of Medical Robotics and Computer Assisted Surgery 7.

<sup>83</sup> Ryan Abbott and Alex Sarch, ‘Punishing Artificial Intelligence: Legal Fiction or Science Fiction’ (2019) University of California 323, 349.

<sup>84</sup> OECD, ‘AI, Data Governance and Privacy: Synergies and Areas of International Cooperation’ (2024) OECD Artificial Intelligence Papers, No. 22 , 13.

the violation against the right to privacy and other human rights.<sup>85</sup> The era of ubiquitous automation in almost all aspects of human endeavors, has considerably changed how personal data is processed and exploited with the assistance of AI applications.<sup>86</sup> AI is enabling governments and companies to collect, store and process huge amount of data concerning individuals living across the globe.<sup>87</sup> The AI systems' capability to analyze and draw inferences from both personal and big data can have serious implications for many protected facets of the right to privacy.<sup>88</sup> When not properly regulated, AI has the ability to explore and exploit these data sets.<sup>89</sup>

Government surveillance has become rampant with the expansion of the internet and new technologies such as AI which facilitate more invasive surveillance than before.<sup>90</sup> Digital technology which generates the "golden age of surveillance" is equipping states, corporations and other non-state actors to intrude and trace the whereabouts of individuals.<sup>91</sup>

#### 2.4.6. Discrimination

AI driven discrimination can be caused by the unequal access of certain sects of society to these technologies, bias in the data, and algorithmic errors.<sup>92</sup> Such biases are recurrently done in many of AI oriented companies.<sup>93</sup> When the data on which an AI model is trained is underrepresented, prejudiced or even owns error, it may result in the differential treatment or unfair decisions and

---

<sup>85</sup> UNGA, 'The Right to Privacy in the Digital Age' A/HRC/RES/42/15 (Resolution adopted by the Human Rights Council on 26 September 2019) preamble.

<sup>86</sup> Chidiogo Uzoamaka Akpuokwe, Adekunle Oyeyemi Adeniyi and Seun Solomon Bakare, 'Legal Challenges of Artificial Intelligence and Robotics: A Comprehensive Review' (2024) 5(3) Computer Science & IT Research Journal 544, 549.

<sup>87</sup> Christoph Bartneck et al., *An Introduction to Ethics in Robotics and AI*, (Springer Briefs, 2021) 62.

<sup>88</sup> Michael Pizzi (n 30) 145, 153; see also, Dirk J. Brand (n 3) 130, 144.

<sup>89</sup> Oyeniyi Abe and Akinyi J. Eurallyah, 'Regulating Artificial Intelligence through a human rights-based approach in Africa' (2021) 14(4) African Journal of Legal Studies 1, 12.

<sup>90</sup> Access Now (n 27) 21.

<sup>91</sup> Steven Livingston (n 34) 141, 143.

<sup>92</sup> Noémi Nagy, 'Humanity's new frontier: Human rights implications of artificial intelligence and new technologies' (2023) 64(2) Hungarian Journal of Legal Studies 236, 240; see also, Helberger and others, 'a Freedom Of Expression Perspective on AI in the Media: a Special Focus on Editorial Decision Making on Social Media Platforms and in the News Media' (2020) 11(3) European Journal Of Law And Technology 21.

<sup>93</sup> Mahboobe Safaei-Mehr and Najmeh HeidarianBaei, 'the Impact of Artificial Intelligence on Gender Equality in the Workplace: An Economic Geography Perspective' (2024) 13(4) European Online Journal of Natural and Social Sciences 40, 41. For instance, Amazon's Artificial Intelligence Algorithm had adopted a discriminatory approach in the hiring process, with a negative bias towards women.

outcomes.<sup>94</sup> Moreover, government itself may deliberately use AI-powered surveillance software for the purpose of targeted discrimination.<sup>95</sup>

#### 2.4.7. Limiting Freedom of Expression

AI is becoming a potential weapon to obstruct the enjoyment of the right to freedom of expression. The deployment of AI surveillance for the purpose of furthering economy or politics also poses risks to the right to seek and receive information, as well as to media pluralism.<sup>96</sup> As David Kaye stated, the right to expression of individuals is severely affected even without their awareness the technique and reason on what it basis.<sup>97</sup> Moreover, the rapporteur underlined that “the rights to freedom of opinion and expression are often excluded from public and political debates on AI, which, to the extent that they tackle human rights issues.”<sup>98</sup>

#### 2.4.8. Unemployment and Suppression of Creativity

The movement to automate jobs traditionally assigned to humans due to efficiency of economy, safety and corporate accountability and societal need is currently making strong stride.<sup>99</sup> As a result of this, there is prevalent concern that AI driven technologies could bring unprecedented joblessness in the near future.<sup>100</sup> Therefore, it is more reasonable to see AI as a potentially disruptive technology with a multi-layered and intricate impact on arrangement and foundations of labor markets such as jobs, working conditions, organization of work, and social dialogue.<sup>101</sup> Human rights and especially right to work as a basic and inevitable right of a human being is getting affected adversely and will extinguish if this advancement in AI is not regulated appropriately.<sup>102</sup>

---

<sup>94</sup> Michael Pizzi (n 30) 154.

<sup>95</sup> Access now (n 27) 24.

<sup>96</sup> Julia Haas, 'Freedom of the Media and Artificial Intelligence' (2020) Executive Summary, Global Conference for Media Freedom, 1.

<sup>97</sup> David Kaye, *Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression* (n 65) Para. 32.

<sup>98</sup> Ibid para.43

<sup>99</sup> Joshua(n 33) 2

<sup>100</sup> European Union, *The Ethics of Artificial Intelligence: Issues and Initiatives* (2020) EPRS Panel for the Future of Science and Technology, 18.

<sup>101</sup> Noémi Nagy(n 92) 17.

<sup>102</sup> Amrita Kaur Johar, 'Right to Work and Artificial Intelligence' (2024) 11(10) JETIR 3.

AI activities also affect traditional approaches of creativity and authorship, raising ethical and legal dilemmas; determining authorship when AI is involved in the creative process.<sup>103</sup> AI developers may be able to use generative AI models trained on copyrighted data to create contents simulating novel creativity of others in ways that is malicious to original authors' right to property.<sup>104</sup> There were certain areas which cannot be replaced by AI due to lack of creative thinking, empathy etc.<sup>105</sup> One of those areas of exception is the fruit of intellectual labor or the creativity of human minds on which many existing legal frameworks deny to confer AI systems to own copyright.<sup>106</sup> The problem of AI in intellectual property rights is such that it perplexes the authors as to whether it is human being or non-human entities who have created the work since AI is also able to have such a capacity to create.<sup>107</sup> Trade secret and business information are also unlikely secured in this era of AI unless it is backed by strong legal frameworks.

#### 2.4.9. Autonomous Weapons and Agents

Autonomy in weapon technology is enormously growing in every corner of the globe. One of the typical claims of AI is its ability to function autonomously without a need of human intervention.<sup>108</sup> It is fact that autonomous nature of AI offers certain amounts of risks. The harm is amply magnified in the case of autonomous agents employed for the purpose of war. Empowering AI into military system accelerates the function of autonomy in armed conflicts which in turn brings devastating consequences.<sup>109</sup> Currently, land and sea based combat vehicles, drones, and fighting robots are already containing considerable degree of autonomy.<sup>110</sup> Moreover, the danger of modern autonomous weapons is that it is difficult, even for designers, to know what behavior it will exhibit.<sup>111</sup> Therefore, autonomous agents in warfare are bitterly

---

<sup>103</sup> Chidiogo Uzoamaka Akpuokwe (n 86) 550.

<sup>104</sup> UN Office of the High Commissioner for Human Rights (OHCHR) 'Taxonomy of Human Rights Risks Connected to Generative AI' Supplement to B-Tech's Foundational Paper on the Responsible Development and Deployment of Generative AI, (November, 2023) 7.

<sup>105</sup> Amrita (n 102) 6.

<sup>106</sup> Evita Isretno (n 43) 4.

<sup>107</sup> Ibid.

<sup>108</sup> Simon Chesterman, 'Artificial Intelligence and the Problem of Autonomy' (2020) 1(2) *Journal on Emerging Technologies* 210, 212.

<sup>109</sup> Elke Schwarz, 'Autonomous Weapons Systems, Artificial Intelligence, and the Problem of Meaningful Human Control' (2021) 5(1) *Philosophical Journal of Conflict and Violence* 51, 52.

<sup>110</sup> Simon (n 108) 210, 230.

<sup>111</sup> István Zoltán Zárdai, 'Why Autonomous Agents Should Not Be Built for War' (2023) 13(1) *Journal of Philosophy of Life* 64.

condemned for both ethical and practical consequences it potentially poses.<sup>112</sup> The autonomous weapon systems are also opposed on the claims that they are disproportional, indiscriminate and irresponsible.<sup>113</sup>

## 2.5. International Regulatory Developments on AI

International regulatory responses towards AI and other emerging technology is mostly event based that comes when new development is available to market. This mainly is attributed to the unpredictable nature of these technologies and partly due to prioritization of business and market opportunities over human rights.<sup>114</sup> However, many AI governance frameworks are coming up under UN System and other initiatives from other international organizations.

AI governance frameworks can be broadly classified as hard and soft means of regulation.<sup>115</sup> However, the hard law which imposes commendable obligations on the states is not achieved at international level thus far.<sup>116</sup> Many international initiatives stress the ethical implication of AI such as privacy, autonomy, place of human dignity, rights for non-sentient beings like robots, and intellectual properties.<sup>117</sup> Ethical dimension of AI governance is not warrantable if there are no comprehensive implementation mechanisms and interventions for its practical application.<sup>118</sup> The ethical approach to AI mainly is about the moral goodness or badness of AI than formulating binding regulatory frameworks although ethics and human rights are sometimes similar to each other.<sup>119</sup> As AI HLEG states, the central concern of AI ethics is on the issues of how AI can advance or deals with human decencies centering on notions such as freedom, autonomy and quality of life necessary for a democratic society.<sup>120</sup>

---

<sup>112</sup> Ibid, 67.

<sup>113</sup> Christoph Bartneck and others (n 87) 96.

<sup>114</sup> Joel Bergenfalk (n 13) 5.

<sup>115</sup> African Union Development Agency (AUDA) ‘White Paper on the Regulation and Responsible Adoption of AI for Africa towards Achievement of AU Agenda 2063’ (June 2023) ( hereinafter cited as, AU White Paper) 122.

<sup>116</sup> Lottie Lane( n 2) 927.

<sup>117</sup> UNESCO, Recommendation on the Ethics of Artificial Intelligence, (2021), para.3. UNESCO, in its recommendation on the ethics of AI, gives keen attention to the ethical implication of AI systems through the perspectives of education, science, culture, communication and information. See also, UNESCO, 'Report of World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) on Robotics Ethics' (2017) Para. 201.

<sup>118</sup> AU White Paper on AI (n 115) 118.

<sup>119</sup> National Artificial Intelligence Strategies and Human Rights: A Review ’(Second edition, Stanford April 2021), 28.

<sup>120</sup> European Commission High Level Expert Group on AI (n 29) 11.

On the other hand, the law clearly puts each aspect of obligations since it prohibits certain actions alongside enabling others to take place.<sup>121</sup> More specifically, IHRL provides the fundamental frameworks that underline the design, implementation and operation of governance instruments, mechanisms, institutions and processes.<sup>122</sup> Ethical frameworks have their own advantages and disadvantages. On one hand, ethics is holistic by nature since it equally applies to human beings, societies, environment and ecosystem.<sup>123</sup> As UN White Paper on AI underscored, AI is potentially impactful on all aspects of humanity due to its multi-sectorial settings and its horizontal nature and traversal effects.<sup>124</sup> Considering these facts, ethics is better employed to guide AI activities. Not only that, ethics is elastic and dynamic which helps for the normative guidance of AI technologies.<sup>125</sup> On the other hand, ethics is replete with considerable difficulties such as absence of clarified rules to develop, implement and apply the inspiration of the frameworks.<sup>126</sup> Yet, ethics and human rights differ on many points. Human rights can be incorporated in the AI regulation through different mechanisms of which one is implicating them in ethical frameworks.<sup>127</sup> There were the known trends that prioritize and owe particular attentions for some specific human rights.<sup>128</sup> There are tendencies in which the rights to privacy, equality, non-discrimination and others such as the right to work are accepted as principles but without mentioning them as human rights.<sup>129</sup> Under such scheme, ethical impositions and human rights are blurred and interjected since the documents which are primarily adopted for ethical consideration of AI also incorporate the concern of human rights.<sup>130</sup>

Be that as it may, human rights approach towards the regulation of AI is preferred to the other for a various reasons. Firstly, human rights are universal and binding that is enshrined in a body of international law.<sup>131</sup> Hence, violating human rights costs political and global reputation which

---

<sup>121</sup> Ibid 6.

<sup>122</sup> United Nations System White Paper on AI Governance: an Analysis of the UN System's Institutional Models, Functions, and Existing International Normative Frameworks Applicable to AI Governance (16 April 2024)( hereinafter cited as UN White Paper on AI), para. 39

<sup>123</sup> UNESCO Recommendations (n 117) para.3

<sup>124</sup> UN White paper on AI (n 122) para. 4.

<sup>125</sup> UNESCO Recommendations (n 117) para.1.

<sup>126</sup> National Artificial Intelligence Strategy and AI (n 119) 27.

<sup>127</sup> For instance, European Commission HLEG on AI ( n 29) 35.

<sup>128</sup> National Artificial Intelligence Strategy and Artificial Intelligence (n 119) 29.

<sup>129</sup> Ibid, 29; See also, UNESCO Recommendations (n 117) para. 32.

<sup>130</sup> UNESCO Recommendations (n 117) para 13 and 14.

<sup>131</sup> Access Now (n 27) 17.

entails naming and shaming of the violators.<sup>132</sup> Secondly, IHRL provides internationally accepted and systematized guidelines for predicting, preventing and redressing the AI oriented risks and harms.<sup>133</sup> Nowadays, human rights are institutionally established laws capable of putting the wrongdoers on the chair of liability.<sup>134</sup> In addition to that, both governments and companies are expected to respect human rights, in addition to governments' obligations to protect and fulfill human rights.<sup>135</sup> More importantly, human rights explicitly set the risks to redress and the goals to achieve laying down prioritization of risks and actions.<sup>136</sup>

Therefore, there are strong reasons to prefer human rights based governance framework over ethics based approach. UN Committee on Economic Social and Cultural Rights has established that “decisions concerning the development and use of emerging technologies should be taken within a human rights framework and from a holistic and inclusive perspective.”<sup>137</sup> Ultimately, giving strong focus on ethics diverts attention away from IHRL which in turn entails confusion.<sup>138</sup>

### 2.5.1. AI in War and Armed Conflicts

Autonomous Weapon Systems (AWS) is becoming a key concern of international laws.<sup>139</sup> Further, the development of sophisticated technology such as AI equips machines to perform increasingly complex tasks.<sup>140</sup> UN Special Rapporteur on *extrajudicial, summary or arbitrary executions* submitted a report to the UN Human Rights Council describing the intensity of

---

<sup>132</sup> Ibid.

<sup>133</sup> Michael (n 30) 145, 161. See also, UN Development Programme, ‘The Impact of Digital Technology on Human Rights in Europe and Central Asia: Trends and Challenges Related to Data Protection, Artificial Intelligence, and Other Digital Technology Issues’ (Istanbul, 2023), 11.

<sup>134</sup> Access Now (n 27) 17.

<sup>135</sup> Ibid.

<sup>136</sup> UN White Paper on AI (n 122) para.33

<sup>137</sup> UN Committee on Economic Social and Cultural Rights (CESCR), ‘General Comment No 25 on Science and Economic, Social and Cultural Rights (article 15(1)(b), (2), (3) and (4) of the International Covenant on Economic, Social and Cultural Rights)’(2021) E/C.12/GC/25, Para.75.

<sup>138</sup> Lottie Lane (n 2) 927.

<sup>139</sup> For instance, ICRC, *Autonomous Weapon Systems Implications of Increasing Autonomy in the Critical Functions of Weapons*,(Expert Meeting, 2016), 15;see also, Human Rights Watch, ‘Mind The Gap: The Lack of Accountability for Killer Robots’ (2015) (IHRC), 4.

<sup>140</sup> Nathalie Weizmann, ‘Autonomous Weapon Systems under International Law’ (2014) Geneva Academy of International Humanitarian Law and Human Rights (Academy Briefing No. 8), 3.; see also, See J. Thurnher, ‘Examining Autonomous Weapon Systems from a Law of Armed Conflict Perspective’, in H. Nasu and R. McLaughlin (eds.), *New Technologies and the Law of Armed Conflict*, TMS Asser Press, 2014 213–18.

robotics as a new challenge and next major revolution in military affairs.<sup>141</sup> These autonomous weapons are such complicated agents to which issues such as military distinction, proportionality and legal responsibility are not yet established within existing legal system.<sup>142</sup> The upcoming instruments are concerned with ranges of debatable issues related to employing AI in weapon systems.<sup>143</sup> However, the recently emerged legal debate concerning AWS has considerably marginalized human rights out of the view, and focused largely on International Humanitarian Law.<sup>144</sup> On the other hand, AWS is more antithetical to human rights law than even IHL since it poses immediate concerns under human rights law.<sup>145</sup> AI driven emerging technologies in the military domain further exacerbate human rights abuses since they could easily be owned by non-state actors.<sup>146</sup> Introducing such powerful autonomous weapons poses immense threat to the right to life.<sup>147</sup> Therefore, many instruments are calling for the total ban of these weapons noting their seriousness and indeterminate nature of their fatality.<sup>148</sup> UNGA secretary General also reports that urgent action is to be taken to ban Lethal Autonomous Weapons (LAWs) asserting that such machines are politically unacceptable and morally repugnant.<sup>149</sup> However, the question of total banning or limiting these weapons still depends on the degree of autonomy and the extent of human control of these weapon systems. Reports assert that it is necessary to adopt legally binding instrument prohibiting LAWs that function without human control and that cannot be used in compliance with IHL when regulating all other types of AWS.<sup>150</sup>

Ultimately, the need for new, binding international law and human control over the effects of autonomous weapon system is strongly prescribed.<sup>151</sup> There is a firm belief that the deployment of intelligent machines necessitates a reassessment of currently functioning legal frameworks to

---

<sup>141</sup> Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns(A/HRC/23/47) para.28.

<sup>142</sup> Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions (n 141) para.67, 70 and 75.

<sup>143</sup> Nathalie Weizmann (n 140) 4.

<sup>144</sup> Christof Heyns, Autonomous weapons systems and human rights law, Presentation made at the informal expert meeting organized by the state parties to the Convention on Certain Conventional Weapons (Geneva, 13 – 16 May 2014) para.1

<sup>145</sup> Ibid para. 7.

<sup>146</sup> UNGA, Resolution on Human Rights Implications of New and Emerging Technologies in the Military Domain, A/HRC/RES/51/22, preamble.

<sup>147</sup> Report of the Special Rapporteur on Extrajudicial, Summary or Arbitrary Executions (n 141) para.30.

<sup>148</sup> Human Rights Watch, ‘Mind the Gap: The Lack of Accountability for Killer Robots’ (2015) (IHRC) 4.

<sup>149</sup> UNGA, Report of the Secretary-General, ‘Lethal autonomous weapons systems’ (2024) UN Doc A/79/88, para. 89.

<sup>150</sup> Ibid para. 90.

<sup>151</sup> ICRC, Submission on Autonomous Weapon Systems to the United Nations Secretary General, (2024), 1 and 2.

mitigate potential risks and ensure responsible innovations.<sup>152</sup> In addition, it is also necessary to strength national legislation, policies and solid measures to execute international frameworks at national basis.<sup>153</sup> Particularly, the prohibition and restrictions of these weapons should also be applicable on non-state armed groups and internal armed conflicts occurring in the territory of one or more states.<sup>154</sup>

### 2.5.2. AI and Corporate Accountability

Accountability of AI in business traces two distinctive bodies which are private enterprises and governments. Hence, different initiations equally raise the concern and recommend them to respect and protect human rights.<sup>155</sup> OECD, for instance, reminds that emerging technology by nature spans multiple jurisdictions and needs the engagement of multiple sectors and stake holders.<sup>156</sup> As International Commission of Jurists asserts, the obligation to protect IHRL is extraterritorial.<sup>157</sup> Hence, many initiations recommended enterprises to maintain transparency and encourage the adoption of responsible data governance frameworks in all data value cycle.<sup>158</sup> In addition, they call on enterprises to have policy which is committed to respect human rights, carryout human rights due diligence throughout its activities and remedying the victims in case their human rights is violated.<sup>159</sup> The OECD guidelines explicitly recommends business sectors developing and deploying new technology or new applications of existing tools to address ethical, legal, labor, social and environmental challenges raised by emerging technology.<sup>160</sup>

UN Guiding Principles on Business and Human Rights (UNGPR) emphasizes the roles of governments and private sectors focusing on three pivotal issues. Firstly, it underline that states must protect human rights from violations within their jurisdictions by third parties, including

---

<sup>152</sup> Report of the Special Rapporteur on extrajudicial, summary or arbitrary execution (n 141) para. 35.

<sup>153</sup> ICRC, Submission On Autonomous Weapon Systems To The United Nations Secretary General, (2024), 6

<sup>154</sup> Ibid 4.

<sup>155</sup> For instance, Amnesty International & Access Now, ‘The Toronto Declaration: Protecting the right to equality and non-discrimination in machine learning systems’ (16 May 2018) para. 8.

<sup>156</sup> OECD, Rights in the Digital Age: Challenges and Ways Forward, (OECD Digital Economy Papers No.347) (2022) 7.

<sup>157</sup> <sup>157</sup> International Committee of Jurists (ICJ), ‘Digital Technologies and Human Rights: a Legal Framework’, A Briefing Paper (May 2022) 13.

<sup>158</sup> OECD, *Guidelines for Multinational Enterprises on Responsible Business Conduct*, (OECD Publishing, Paris 2023) para 110.

<sup>159</sup> Ibid para 45 and 51.

<sup>160</sup> Ibid para. 113.

business enterprises.<sup>161</sup> Secondly, private enterprises must respect human rights and should avoid violation on the human rights of others and should tackle negative human rights consequences are participating in.<sup>162</sup> Thirdly, states must take effective measures to ensure that those affected have access to proper remedy, in case the violations happen within their territory and/or jurisdiction.<sup>163</sup>

UNGA resolution on AI also calls upon AI developing private sectors “to adhere to applicable international and domestic laws and act in line with the UNGPs on Business and Human Rights.”<sup>164</sup> Furthermore, in order to maintain safe, secure and trustworthy AI systems, the resolution reminded business sectors to implement the United Nations “Protect, Respect and Remedy” framework.<sup>165</sup> In addition to that, the resolution urges state parties to develop policies and regulations to ensure competition in safe, secure and trustworthy AI systems.<sup>166</sup>

### 2.5.3. AI and Child Rights

Although Child Rights Convention did not explicitly incorporate the impact AI potentially have on children, it enshrined relevant issues that have certain entitlements on digital rights.<sup>167</sup> Nevertheless, the convention didn’t foresee the other side impact of digital information on children; neither had it conceived the future possibility of AI. However, subsequent initiations have foreseen the perpetual evolution of communication technologies such as AI.<sup>168</sup> UNICEF also reminded global community that children are being exposed to AI technology which is not designed for them due to the fact that majority of the existing technologies are made disregarding the interests and welfares of children.<sup>169</sup> Therefore, it underscored, AI policies and strategies should centralize the impact of AI on children through the lenses of respect, protection, provision

---

<sup>161</sup> Guiding Principles on Business and Human Rights (n 7) para. 1.

<sup>162</sup> *ibid* para. 11

<sup>163</sup> *Ibid* para. 25. The means could be through judicial, administrative, legislative or other appropriate means.

<sup>164</sup> UNGA, ‘Resolution on Seizing the Opportunities of Safe, Secure and Trustworthy Artificial Intelligence Systems for Sustainable Development’ (A/RES/78/265) (1 April 2024) UN Doc A/RES/78/265. para.9.

<sup>165</sup> *Ibid*.

<sup>166</sup> *Ibid*; see also, OECD, Recommendation of the council on Artificial Intelligence, OECD/LEGAL 0449 (Adopted on 2019), section 1 and 2.

<sup>167</sup> Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS, art.13.

<sup>168</sup> For example, Convention on the Rights of the Child, General Comment No. 25 (2021) on Children’s Rights in Relation to the Digital Environment, para 2 and 4.

<sup>169</sup> UNICEF, Policy Guidance on AI for children (November, 2021) 11.

and participation.<sup>170</sup> In addition, “governance frameworks, including ethical guidelines, laws, standards and regulatory bodies, should be established and adjusted to oversee processes which ensure that the application of AI systems does not infringe child rights.”<sup>171</sup> Furthermore, a children’s rights-based approach should be conceived in the way it can safeguard children as dignified human beings with agency and a distinct set of rights and entitlements instead of considering them as passive objects of care and charity.<sup>172</sup>

#### 2.5.4. Artificial Intelligence on Discrimination

The impact of AI on equality and non-discrimination is contagious to various groups and social strata. For example, racial discrimination is an aspect of AI risks which is recurrently accused across the globe.<sup>173</sup> Therefore, states are duty bound to train AI experts and officials who interpret data to have a clear understanding of fundamental rights in order to restrict the insertion of racially biased data.<sup>174</sup> States should also ensure that algorithmic profiling systems used for law enforcement purposes are made in line with iterations of IHRL.<sup>175</sup> Furthermore, Report of the Special Rapporteur on *Contemporary forms of Racism, Racial Discrimination, Xenophobia and Related Intolerances* urges states to “enshrine a legally binding obligation, within regulatory frameworks, to conduct comprehensive human rights due diligence assessments, including explicit criteria to assess racial and ethnic bias, in the development and deployment of all AI technologies.”<sup>176</sup>

The Toronto declaration also put that throughout the lifecycle of machine learning systems, states and private sectors must be cognizant of diversity and equity as key components upholding the right to equality and non-discrimination.<sup>177</sup> The declaration demonstrates that since emerging technology offers new challenges for the rights of equality and non-discrimination, stakeholders

---

<sup>170</sup> Ibid 20

<sup>171</sup> Ibid 39.

<sup>172</sup> *ibid.*

<sup>173</sup> UN Committee on the Elimination of Racial Discrimination, General Recommendation 36 on Preventing and Combating Racial Profiling by Law Enforcement, UN Doc. CERD/C/GC/36 (24 November 2020) para. 12.

Committee on the Elimination of Racial Discrimination stated that using new technological tools, including AI, in many governance areas has the potential to deepen racism, racial discrimination, xenophobia and other forms of exclusion.

<sup>174</sup> Ibid para 43.

<sup>175</sup> Ibid, 58.

<sup>176</sup> UNGA, Report of the Special Rapporteur on Contemporary Forms of Racism, Racial Discrimination, Xenophobia and Related Intolerance, Ashwini K.P(A/HRC/56/68)(2024), para 68(d).

<sup>177</sup> Amnesty International & Access Now, ‘The Toronto Declaration: Protecting the Right to Equality and Non-discrimination in Machine Learning Systems’ (16 May 2018) para. 18.

must seek for novel ways to protect human rights and calls for the development of effective remedial mechanisms.<sup>178</sup> The declaration outlined three remarkable points on the regulation of machine learning technologies which are identification of risks, ensuring transparency and accountability, and enforcing oversight.<sup>179</sup>

## 2.6. African Human Rights Developments on AI

The role of African continent in the race of developing human rights regulation of AI is limited in the global arena.<sup>180</sup> The position of African Union with regard to the regulation of AI is much weaker when compared to that of other continents like Europe. In contrast, European Commission and Council have employed robust approaches such as ethical, risk-based, due diligence and human rights-based approaches for inclusive development and proper regulation of AI.<sup>181</sup> Further, European Commission has clearly underscored strong assessment of existing human rights frameworks as to whether they properly address the risks of AI or new legislations are needed.<sup>182</sup> African Union couldn't have achieved to adopt AI related treaty body while European council has already championed to have one even outweighing UN System.<sup>183</sup> As of writing, there are only soft instruments in Africa which render unbinding recommendations merely rested upon the volition of states to be executed.

The African Commission in its *Resolution 473* has recognized that there is no systematic framework regulating their operations to ensure that they comply with human rights obligations in Africa.<sup>184</sup> Having admitted that, the commission therefore urges member states to adopt comprehensive legal frameworks in order to ensure transparency for AI and other emerging technologies in compliance with regional treaties, specifically African Charter.<sup>185</sup>

---

<sup>178</sup> Ibid, para.15.

<sup>179</sup> Ibid, para. 30.

<sup>180</sup> Gaffley M, Adams R & Shyllon (n 5) 3.

<sup>181</sup> Council of Europe, 'Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law' (5 September 2024) CETS No 225, preamble cw art. 4; European Commission HLEG on AI (n 29), 14.

<sup>182</sup> European Commission, 'White Paper on Artificial Intelligence: A European Approach to Excellence and Trust' COM (2020) 65 final, 11.

<sup>183</sup> Council of Europe Convention on AI (n 181).

<sup>184</sup> African Commission, Resolution on the Need to Undertake a Study on Human and Peoples' Rights and Artificial Intelligence (AI), Robotics and Other New and Emerging Technologies in Africa (2019) ACHPR/Res. 456 (LXVI) 1.

<sup>185</sup> Ibid, 4.

The White Paper on the *Regulation and Responsible Adoption of AI for Africa*, recommended governments, companies and African researchers on how to mitigate and ensure safety and long term development through various means such as policy formulation.<sup>186</sup> Continental AI strategy adopted in July 2024 also identified the potential risks attached to AI in the continent underscoring that inclusive approach which participates all the stakeholders are needed to address these risks.<sup>187</sup> The strategy further added that regulative mechanisms are necessary to mitigate the risks of harm these technologies pose throughout the AI lifecycle and maintain a culture of responsible AI development and use across the continent.<sup>188</sup> The strategy sorted out the multidimensional nature of the potential risks throughout AI cycles in Africa.<sup>189</sup> However, in spite of confirming the existence of potential risks and the need for mechanisms, African Union has neither effectively lay down the mechanisms as to how to remedying the victims of these violations nor come up with binding legislatives to avoid or mitigate these risks thus far. Further, there is no specified instrument which systematically clarifies the intensity and nature of these risks in the continent. Moreover, though the strategy enumerated laws which necessarily invite strong concern due to their nature of high exposure to AI technology; hitherto, none of these laws are scrutinized and reformulated at AU level.<sup>190</sup>

In addition to initiations that directly discuss on AI, there are also declaration, general comment and convention on specific issues like communication, autonomous weapons, data protection, and others in the continent that did not address the concerns of AI in light of human rights regulation of AI. For instance, The Sharm El Sheikh Declaration reminds the necessity of cyber security and personal data protection to secure African cyberspace and foster trust in digital services.<sup>191</sup> However, the declaration didn't genuinely addressed AI, rather it loosely urged member states to establish AI think tank to scrutinize and recommend projects to cooperate in accordance with Agenda 2063 and SDGs.<sup>192</sup> In a similar vein, African Union Convention on

---

<sup>186</sup> AU 'White Paper: Regulation and Responsible Adoption of AI for Africa towards Achievement of AU Agenda 2063' (June 2023), 159.

<sup>187</sup> AU, Continental Artificial Intelligence strategy: Harnessing AI for Africa's Development and Prosperity, (July 2024) 26.

<sup>188</sup> Ibid 35.

<sup>189</sup> Ibid 26. The strategy classified the potential risks of AI in the continent as: System-Level Risks, Environmental Risks, Structural Risks, and Risks to African Values.

<sup>190</sup> Ibid 32.

<sup>191</sup> AU, Sharm El Sheikh Declaration, Specialized Technical Committee on Communication and Information Technologies (Stc-Cict) Third Ordinary Session, 22 - 26 October 2019, Au/Stc-Cict-3/Min//Decl., 3

<sup>192</sup> Ibid 5.

Cyber Security and Personal Data Protection has also required states to establish governance frameworks for the protection of fundamental rights and freedoms and redress the violations of rights thereof.<sup>193</sup> African Commission has also tried to underpin the need to control autonomous weapons without however stressing on AI.<sup>194</sup> It iterates that it is incumbent upon law enforcement officials to ensure respect for the rights of individuals and general public through strict personal control of the employment of advanced technology.<sup>195</sup> Furthermore, the commission in a submission to the UNSG regarding AI and LAWs emphasizes three crucial points which are: the necessity of a new convention on LAWs, meaningful human control, and the role of IHRL in the regulation of LAWs.<sup>196</sup>

Nonetheless, apart from recommending states to have regulations and policy for AI regulation, AU didn't show much advancement and effective measures to govern AI across the continent. In contrast, the European Union has opted to regulate AI in the continent directly through regulations such as the Digital Services Act (DSA) and the General Data Protection Regulation (GDPR). Moreover, unlike many European states which have made long strides in AI regulation, only a few African countries have achieved to own communication surveillance laws which even lack to comply with the standards of international human rights law.<sup>197</sup>

Conversely, the impact of AI on Africa can be worse than others for various reasons. For instance, the acceptance of many black people in academic institutions dominated by whites can be restricted by racially biased AI solutions in the education sector.<sup>198</sup> Racial discrimination in the work places and labors in relation to employments and performance assessments could also hinder the salary growth and promotion of many Africans.<sup>199</sup> In addition, many of AI System innovations are alien to Africa which in turn compelled the continent to be dependent upon these techno savvy states and continents.

---

<sup>193</sup> African Union, Convention on Cyber Security and Personal Data Protection (Malabo Convention) (adopted 27 June 2014) art 8(1).

<sup>194</sup> African Commission on Human and Peoples' Rights, 'General Comment No. 3 on the African Charter on Human and Peoples' Rights: The Right to Life' (18 November 2015) para.35.

<sup>195</sup> Ibid para. 31.

<sup>196</sup> African Commission, 'Focal Point on the ACHPR Study on AI and Other Technologies on Lethal Autonomous Weapon Systems: Submission to the United Nations Secretary-General in Terms of UN General Assembly Resolution 78/241' (May 2024) 2.

<sup>197</sup> T Ilori 'Protecting digital rights through Soft Law: Ensuring the implementation of the revised Declaration of Principles on Freedom of Expression and Access to Information in Africa' (2024) 24 African Human Rights Law Journal 1, 5.

<sup>198</sup> Oyenyi Abe and Akinyi J. Eurallyah (n 89) 10.

<sup>199</sup> Ibid 11.

## CHAPTER THREE

### HUMAN RIGHTS AND ARTIFICIAL INTELLIGENCE IN ETHIOPIA

#### 3.1. Introduction

The disruptive change brought by Artificial Intelligence (AI) system and the need to regulate it are not limited to global level. The impact of AI is abruptly entering into domestic affairs, affecting the functions of states and the implementation of human rights. AI also brings benefits and helps the implementation of human rights. Although the benefits of AI might be slightly similar for all states, the challenge it poses and the level of protection it needs differs from country to country.<sup>200</sup> Therefore, negative impacts of AI require comprehensive regulatory responses at national level. Ethiopia has recognized the significance of AI in many development sectors. However, the potential challenges of AI on human rights necessitate timely response before it entails violations of rights in Ethiopia.

This chapter focuses on the regulation of AI in Ethiopia to avert any negative consequence on human rights. The chapter discusses current Ethiopian governance frameworks including policies, strategies and legislations that are expected to have robust regulatory implications on AI. It also highlights the potential impacts of AI on specific human rights, and role of Ethiopian governments and private sectors. The quest as to whether Ethiopian AI governance systems accept human rights based regulatory approach is the pillar theme of this chapter. Finally, the chapter analyses the data collected from institutions that are working on and employing emerging technologies including AI and evaluate their impact on human rights.

#### 3.2. Ethiopian Regulatory Landscape on AI

##### 3.2.1. Ethiopian Artificial Intelligence Policy

Ethiopia has adopted Artificial Intelligence Policy in June 2024 with the vision of making Ethiopia the center of AI development excellence in Africa by 2035. The policy has demonstrated the challenges posed by AI alongside its immense contribution in the development of a state. Furthermore, it is stated in the policy that the lack of a regulatory framework and absence of monitoring system are challenges to areas such as data privacy, ethical AI use, and

---

<sup>200</sup> Frehiwot Gebrekrstos (n 16) 159.

legal accountability.<sup>201</sup> Therefore, Ethiopian AI Policy underpins the necessity of establishing legal frameworks which can mitigate risks and challenges of AI such as biases in AI products and services, discrimination, data privacy breaches, security threats, and adverse environmental impacts.<sup>202</sup> The policy has given certain attention to the risks AI may potentially pose on human rights. It touches upon, among others, the need for the protection of rights like privacy, autonomy, non-discrimination, job security and equality. The policy incorporates the principles such as ethicality, efficiency, accountability, transparency, inclusiveness and cooperation and partnership.<sup>203</sup> Furthermore, it also calls for the implementation of the policy in line with the principles enshrined in the constitution and other laws.<sup>204</sup>

Even though the policy states that aligning AI with human rights is necessary, it does not state how this can be ensured. The policy conceives the collaboration and partnership with many sectors. The policy states that to overcome legal and ethical challenges concerning individual rights, data protection, cultural and religious values, and other essential societal principles, collaboration and partnerships be made among scientists, researchers, data engineers, and industry stakeholders.<sup>205</sup> The policy has explicitly listed, in its Policy Implementation Strategy, the organs which implement the policy with their respective responsibilities. Under this scheme, the policy designated organs such as Ethiopian Artificial Intelligence Institute, Ministry of Innovation and Technology, Ministry of Health, Ministry of Education, Ministry of Agriculture, Biotechnology Institute, Information Network Security Administration, Ministry of Labor and Skills and Customs Commission.<sup>206</sup>

In the portion dedicated to the regulations of AI, the policy also enshrined the need of owning legal framework in line with recognized AI ethical industry. In this case, the language and purpose that are used is the protection of the ethical violations than human rights violations. It is established that giving strong focus on the ethical implication of AI in its regulatory mechanism may divert attention away from IHRL and result in confusion particularly when human rights

---

<sup>201</sup> The Federal Democratic Republic of Ethiopia, Ethiopian Artificial Intelligence Policy, Addis Ababa (June 2024) 1.

<sup>202</sup> Ibid 2.

<sup>203</sup> Ibid 3.

<sup>204</sup> Ibid.

<sup>205</sup> Ibid 11.

<sup>206</sup> Ibid 17.

law and ethics varies or even conflicting with each other.<sup>207</sup> Obviously, there are many situations when IHRL and tenets of ethics are overlapping. Nonetheless, there are also many occasions in which human rights and ethics are found to be standing in contrast to one another.

The policy also provides incentives for AI developer private sectors stating that respecting national security, sovereignty, and the cultural values of society as parameters.<sup>208</sup> This shows that the policy prioritizes other values instead of the respect and protection for human rights.

### 3.2.2. Other Related Policy and Strategy

Ethiopia has adopted different policies and strategies which would have close interaction with AI system in one way or another. For instance, the 2016 Ethiopian Information Communication Technology Policy aspires to transform the state into a leading technological destination in the region. The policy provides proactive strategy and regulatory frameworks which fits contemporary technological dynamisms. This shows that it has firm commitment to adapt to the global technological changes. In the portion dedicated to legal and regulatory environment of the policy, it affirmed that inaccurate information can rapidly be disseminated through Information and Communication Technology (ICT) networks which easily distorts individuals, firms and organizations.<sup>209</sup> It also states that there are ever increasing threats from hackers, attackers and other malicious online behaviors.<sup>210</sup> The policy deals with how these malicious acts could impair businesses and government functions. The policy expressly addresses intellectual property rights, data integrity and access to information. However, the policy did not mention the role and fate of AI in ICT sector. It is also left without demonstrating the impacts of emerging technology on human rights.

Government of Ethiopia has also launched the National Digital Transformation Strategy, Digital Ethiopia 2025 that embraces the Fourth Industrial Revolution with its center of axis on AI. The objective of the Digital Transformation Strategy was to enhance the socio-economic situation of the country by leveraging AI, big data and digital identity systems. The Digital Transformation Strategy is highly optimistic and too ambitious about the positive outcomes emerging digital

---

<sup>207</sup> Lottie Lane (n 2) 927.

<sup>208</sup> Ethiopian AI Policy, 16.

<sup>209</sup> The Federal Democratic Republic of Ethiopia, The National Information and Communication Technology Policy and Strategy, Addis Ababa (September 2016) 12

<sup>210</sup> Ibid 12

technologies would potentially bring. It is committed to back agriculture, services, tourism, manufacturing, industry, education, health and financial system with digital technology.

One of the main enabling systems which digital strategy conceived is the necessity of National Digital Identification (ID) Systems across the country. The digital strategy appeals to the usefulness of digital ID for the purpose of attesting uniqueness and conferring proper services for individuals in all sectors. The Digital Strategy affirms that having identity is an individual's right.<sup>211</sup>

The Digital Strategy, however, did not thoroughly deal with the negative implications which having a biometrically registered national digital ID would bring on human rights. Despite the fact that the government is setting out to support every sector with digital technology, the consideration given to human rights implications of these technologies on the individuals is insignificant.

### 3.2.3. Legislative Frameworks

#### 3.2.3.1. Personal Data Protection Proclamation No.1321/2024

Ethiopia has adopted personal data proclamation on 24 July 2024 with the aim of preventing violations of personal data during its collection and processing. The proclamation is applicable to the data processed through both automated and non-automated means.<sup>212</sup> The proclamation regulates personal data classifying as the activities which are totally prohibited from being processed, data which are prohibited from being processed but allowed under exceptional circumstances and the data which are processed following the rules and principles stated under the proclamation. For example, the processing of personal data of a minor for the purposes of marketing, profiling, or merging of profiles is prohibited.<sup>213</sup> The proclamation also prohibits the processing of sensitive personal data, allowing their processing under exceptional circumstances.<sup>214</sup> The proclamation further states that whatever automated processing of personal data in order to evaluate certain personal aspects of that individual shall not be based on

---

<sup>211</sup>, The Federal Democratic Republic of Ethiopia, Digital Ethiopia 2025: A Strategy for Ethiopia Inclusive Prosperity (June 2020) 57.

<sup>212</sup> Personal Data Protection Proclamation No.1321, Federa Negarit Gazette, year 30, No. 35, 24 July 2024, art. 3(1).

<sup>213</sup> Ibid, art.11(4).

<sup>214</sup> Ibid, art. 10.

sensitive personal data.<sup>215</sup> Furthermore, it stipulates the duties and obligations of data processors and controllers along with the rights of data subjects.<sup>216</sup>

Nevertheless, the proclamation does not explicitly incorporate issues of AI in itself. However, there are hints which appeal to the consideration of emerging technologies by implication in the proclamation. For instance, '*Automated Device*' which is defined under the definitional article of the proclamation mainly includes the devices which many of their functioning rests on the assistance of AI.<sup>217</sup> The geographical applicability of the proclamation is also limited to only data controllers or processors established in Ethiopia, not established in Ethiopia but uses equipment in Ethiopia for data processing or has representative established in Ethiopia.<sup>218</sup> When observed in light of the ubiquitous and the trans-boundary nature of AI and data processing, the Personal Data Protection Proclamation exhibits gaps to cover data processed outside Ethiopia with regard to Ethiopians or data generated from Ethiopia.

The impact of data processing on human rights is also not stressed in the proclamation. As it is envisaged in UN White Paper and other instruments, strong focus should be given to potential human rights impacts of data collection, retention, processing, and transfer for AI-driven tools.<sup>219</sup> Moreover, the proclamation gives the power to monitor the utilization of personal data for Ethiopian Communications Authority.<sup>220</sup> According to article 7 of Ethiopian Communications Service Proclamation, the appointment of Director General and Deputy Director Generals of Ethiopian Communication Authority shall be made by the Prime Minister.<sup>221</sup> Members of the board shall also be selected by the Prime Minister from various fields based on their personal qualities.<sup>222</sup> This may show that the independency of this authority is in doubt. Conferring power to monitor personal data unto an executive branch can compromise the effective protection of human rights on the privacy of personal data. As African Union Convention on Cyber Security and Personal Data Protection (Malabo Convention) stated, national authority that is authorized for personal data protection should be impartial and independent administrative

---

<sup>215</sup> Ibid, art. 31(3).

<sup>216</sup> Ibid, art. 24, 25, 27, 28, 29, 30, 31 and 32.

<sup>217</sup> Ibid, art.2 (26).

<sup>218</sup> Ibid , art. 2( a and b).

<sup>219</sup> United Nations System White Paper on AI Governance (n 122) para. 30.

<sup>220</sup> Personal Data Protection Proclamation, art. 5(6).

<sup>221</sup> Ethiopian Communications Service Proclamation No. 1148/2019, Federal Negarit Gazette, year 25, no. 82, 12 August 2019, art.7

<sup>222</sup> Ibid, art.10.

authority.<sup>223</sup> Further, the convention underlines that membership to government shall outlaw the membership of the national data protection authority.<sup>224</sup>

Therefore, in line with the obligations set under this convention, Ethiopia did not give the power to monitor and authorize personal data to an independent body. On the other hand, there are indications which show the government is moving to solely own the personal data of each individual. The government is under initiation to build data centers for the cloud solutions in which all personal data are to be accumulated.<sup>225</sup> Moreover, the government is linking every service and activity to national ID which is detrimental for those who have low level of digital awareness. Concentration of all data into one spot is also the concentration of power into handful actors in a very subtle way. In the long run, it can facilitate the federal government to control and surveillance its citizen by AI driven technology. Moreover, when individuals are forced to have national ID for every service and job, they are also at the same time losing their rights to self-determination at different levels which may ranges from region down to individuals. To put it otherwise, collecting data at one center and making every person to have national ID may stands against the principle of federalism which is self-ruling at respective levels and vitiate the right to self-determination recognized at various levels.

### 3.2.3.2 Ethiopian Computer Crimes Proclamation No. 958/2016

The proclamation upholds the immense role information and communication technology play in the economic, social and political development of the state.<sup>226</sup> In addition, it addresses that technology without appropriate protection and security measures would entails various computer crimes and other security threats which can jeopardize individual rights and retard comprehensive development of the country.<sup>227</sup> The proclamation stresses its necessity underlining the inadequacy of previously existing laws to deal with the dynamism of technologies and their lack of prosecuting the suspect of computer crimes.<sup>228</sup> Therefore, the Computer Crimes Proclamation underpins the need for new legal framework in order to prevent,

---

<sup>223</sup> African Union, Convention on Cyber Security and Personal Data Protection (Malabo Convention) (adopted 27 June 2014) art 11(1b).

<sup>224</sup> Personal Data Protection Proclamation No. 1321, art. 11(6).

<sup>225</sup> Ethiopian Digital strategy, 62.

<sup>226</sup> Computer Crime Proclamation, Proclamation No.958/2016, Federal Negarit Gazette, year 22, no. 83, 7 July 2016, preamble.

<sup>227</sup> Ibid.

<sup>228</sup> Ibid.

control, investigate and prosecute computer crimes and enhance the collection of evidences through electronic apparatuses.<sup>229</sup>

The proclamation has broadly defined computer crimes as crimes committed against computer, by computer and illegal data content disseminated through the assistance of computer.<sup>230</sup> This definition is serviceable for AI regulation since many of AI oriented challenges and risks are made by and dependent on the work of computers. However, the proclamation did not say anything about the impact of AI on the crimes committed by computer and computer systems than hinting it in the definition of ‘computer’ or ‘computer system’.<sup>231</sup> Therefore, reading the definition given under ‘computer system’, we may extend the coverage that computer system in this legislation may also include other software based activities like that of AI.

On the other hand, AI is playing a significant role in amplifying crimes enshrined under the legislation by manifolds. Particularly, crimes committed by computers and illegal contents of data are the main challenges of present day AI systems. Surprisingly, during the proclamation adopted, the issue of AI at global and even national arena was becoming a hot and topical issue which should have not been lost from the sight of the makers of this legislation. Therefore, lack of giving due consideration for the works and challenges of AI in computer system is one of the typical pitfalls of the proclamation. African Union White Paper on AI recalls that AI systems, just like any other computer system, are vulnerable to cyber threats, thereby urging African governments to enact data protection and cyber security laws to protect human rights and privacy.<sup>232</sup>

Moreover, the proclamation clearly falls short of stressing human rights and fundamental principles throughout its dealing rather than generic reference to the Constitution of the Federal Democratic Republic of Ethiopia.<sup>233</sup> This is far less than what is expected from the Computer Crimes Proclamation since no human rights language is explicated in the proclamation. It did not identify human rights which can fundamentally be violated by crimes made by and against

---

<sup>229</sup> Ibid.

<sup>230</sup> Ibid art.2(1).

<sup>231</sup> Ibid art.2 (3).

<sup>232</sup> African Union White Paper on AI (n, 115) 125.

<sup>233</sup> Computer Crime Proclamation, art. 21. It states “the prevention, investigation and evidence procedures provided in this proclamation shall be implemented and applied in a manner that ensure protection for human and democratic rights guaranteed under the Constitution of the Federal Democratic Republic of Ethiopia and all international agreements ratified by the country.”

computers. In addition to that, there are no specific fundamental principles relating to the prevention of crimes stated in the proclamation. Rather the proclamation focuses on the criminalization of criminals than protection and prevention of crimes and fundamental rights.

Moreover, the proclamation is enacted in such a way that human rights of service takers, mostly the privacy and freedom of expression, are exposed to violations.<sup>234</sup> It specifically imposes the duty to report on the service providers whenever the doubt of a computer crime rises. Under such a privilege, the service provider may intrude into personal data of individuals they have at hand using AI systems. The proclamation didn't say a word about the potential derogation of privacy and freedom of expression. Further, the degree of access, seizure and search of a computer data stipulated in the legislation is also not proportional. It generously bestows investigative body with the power to search or access other computer systems without requesting separate search warrant once search warrant is secured on the suspected computer system.<sup>235</sup> This can pave a way for investigating body to access and search into many computer systems under the pretext of having judicial warrant on the previous computer system. The proclamation imposes the production of personal computer data to investigatory organ even when the person in concern is not present.<sup>236</sup> The proclamation potentially helps the government to suppress the privacy of individuals under the guise of protecting computer crimes.

The computer crimes law would have been the legislative to tackle AI oriented illegal activities ranging from intellectual property rights-related cybercrimes to discrimination and privacy issues. Nonetheless, the legislation was unable to incorporate such decisive issues.

### 3.2.3.3 Digital Identification Proclamation No. 1284/2023

Following the adoption of Digital Strategy, Ethiopia enacted Digital Identification (ID) Proclamation No. 1284/2023 in 2023.<sup>237</sup> The proclamation includes the registration of biometric data and geographic data which incorporates physical attributes of an individual like fingerprint, iris, facial recognition, photos and the like.<sup>238</sup> From the factual point of view, Digital ID employs AI driven applications such as voice and facial identification and utilize data analytics to mine

---

<sup>234</sup> Ibid art.27.

<sup>235</sup> Ibid art. 32(2).

<sup>236</sup> Ibid art. 31(2).

<sup>237</sup> Federal Negarit Gazette, 18 April 2023, year 29, no. 19.

<sup>238</sup> Ethiopian Digital Identification Proclamation No. 1284/2023, art.9(5) cw 2(5 and 6)

outcomes from databases.<sup>239</sup> In Ethiopia, the “Fayda platform” which is biometrically functioning is thought to execute this purpose. This platform needs five demographic information which are full name, nationality, address, gender, and date of birth when the registration made through biometric system requires both hands fingerprints, two iris scans, and a face photograph for enrollment.<sup>240</sup> The only exceptions to such parameters are only minors and people with disabilities.<sup>241</sup>

In the near future, it is asserted that this platform is meant to be used in almost all services and productions programmed to take place in the country.<sup>242</sup> Such a holistic move of wearing every activity with digital technology may indicates that the government is recklessly imposing his whims and what it thinks fits on its own society without proper public participation and prior informed consent.

In general, what is being observed from the move of the state to empower prominent sectors, activities and products with emerging technology exhibits the techno-deterministic approach of Ethiopian government. Such an approach stems from having attitudes that either technology is indispensable to solve all potential problems or a belief that technology is something that is impossible to keep at bay since it is inevitable. Such a singularly looking at technology may have its own advantages and negative impacts. The negative impact of being unquestionably optimistic to emerging technology becomes particularly exponential when a state is not backed by strong regulatory mechanism against them.

### 3.3. AI and Human Rights

Human rights are prone to violation by AI systems. Ethiopia is adopting internet and digital related laws. Nevertheless, the main motivating agenda of its adoption is the enhancement of socio-economic developments. At the same time, several human rights organizations avail their concern against the potential human rights violations of Ethiopian government using the latest technological innovation which obviously includes AI. Human Rights Watch, in its one of the reports on ‘Telecom and Internet Surveillance in Ethiopia’ states that the state’s ability to further

---

<sup>239</sup> Melody Musoni, Ennatu Domingo and Elvis Ogah, ‘Digital ID systems in Africa: Challenges, risks and opportunities’ 2023 (Discussion Paper No. 360) 6.

<sup>240</sup> The Federal Democratic Republic of Ethiopia, Office of the Prime Minister National ID Program, Stakeholder Engagement Plan (September 2023) 1.

<sup>241</sup> Ibid.

<sup>242</sup> Ethiopian Digital Strategy, 57.

obstruct rights such as freedoms of expression, the right to privacy, access to information, peaceful assembly, and right to association will precipitate as their capacity to empower these sophisticated technologies develops.<sup>243</sup>

Private sectors and tech-companies can also facilitate the violation of human rights using collected data. In Ethiopia, personal data is biometrically collected not only for the purpose of having Digital ID, but also for registration of SIM cards by telecommunication operators like Ethio-Telecom and Safaricom. These organs collect enormous amount of data taking fingerprints, thumbprints, facial photo taking and iris registration. Introducing private telecommunication center is useful to maintain pluralism, expand digital access, mobile banking, and connectivity. However, in the situation when there is not well established protective mechanism, it can also bring potential risks in data privacy, freedom of movement, freedom of expression and AI-driven discrimination. The malicious or reckless use of these data can entail the suppression of human rights and fundamental principles such as equality, privacy, political participation and socioeconomic and cultural rights.

Therefore, it is possible to expect that these centers can use personal data for other purposes different from the purpose of data collection. Some Ethiopian laws also impose the duty to handover personal information on these communication service centers. For instance, the Proclamation for Prevention and Suppression of Terrorism Crimes explicitly states that “any communication service provider shall cooperate when it is requested by the police to conduct the interception by ensuring the court’s authorization order.”<sup>244</sup>

### 3.3.1. AI and the Right to Life

The use of AI in areas such as surgical robots and lethal autonomous weapons are those which are threatening the world and have direct bearing on the right to life. Ethiopian AI Policy does not address full or partial use of autonomous weapons for security purposes. It only proposes to develop AI based monitoring and regulatory technologies that can be used in relation to services rendered by security institutions and prevent dangers to national security.<sup>245</sup> The policy also

---

<sup>243</sup> Human Rights Watch, “They Know Everything We Do”: Telecom and Internet Surveillance in Ethiopia’ (2014) Human Rights Watch, 99.

<sup>244</sup> Proclamation on the Prevention and Suppression of Terrorism Crimes, Proclamation No. 1176, Federal Negarit Gazette, year 26, no.20, 25 March 2020, art 42(5).

<sup>245</sup> Ethiopian AI Policy, 5.

urges the government to use AI-driven technology to predict and prevent man-made and natural disasters.<sup>246</sup>

Ethiopian government has started using drones, which is unmanned aerial vehicles before the adoption of AI Policy. Ethiopian government deployed drones purchased from the United Arab Emirates, Turkey and Iran during the armed conflict with Tigray People's Liberation Front (TPLF).<sup>247</sup> Ethiopia used three varieties of drones that can contain different types of warheads with considerable degree of impacts and technological designs to ensure accuracy.<sup>248</sup> Drones and other lethal autonomous weapons which operate by AI technology are severely harmful for the right to life since in many cases they defy the principles of proportionality, distinction, military target and precautionary in attack.

### 3.3.2. AI and the Right to Privacy

Ethiopia has ratified several international human rights instruments of which some of them incorporated the right to privacy. Moreover, the FDRE Constitution has clearly recognized that everybody has the right to privacy which “includes the right not to be subjected to searches of his home, person or property, or the seizure of any property under his personal possession.”<sup>249</sup>

More specifically, Ethiopian constitution puts “everyone has the right to the inviolability of his notes and correspondence including postal letters, and communications made by means of telephone, telecommunications and electronic devices.”<sup>250</sup> This provision is relevant to the privacy which individuals and citizens have over the newly emerging digital technologies. Although the constitution unequivocally stated the privacy against some digital devices, the subsequent legislations didn't seem to be sufficiently stressing the right to privacy.

Ethiopia has also become a possessor of few of the world's advanced surveillance technologies.<sup>251</sup> Many incidents also attest that Ethiopian intelligence services deploy these surveillance technologies to break encryption and find patterns in social media posts in order to

---

<sup>246</sup> Ibid, 8

<sup>247</sup> Ferdinand Baune, Jessica Fenger and Darya Shiryaeva , *Study Guide for Zurich Model United Nations*, UN Security Council, (2022) 9.

<sup>248</sup> Insecurity Insight, ‘Explosive Weapons Use: The Use of Air-delivered Munitions in the Context of Humanitarian Action in Ethiopia, with a Focus on Drones’ (December 2022), 8.

<sup>249</sup> Constitution of the Federal Democratic Republic of Ethiopia, Proclamation No 1, Federal Negarit Gazette, year 1, No 1, 21 August 1995, art.26(1)

<sup>250</sup> Ibid, art 26(2).

<sup>251</sup> Human Rights Watch (n 243) 3.

monitor its citizens and trap opposition parties.<sup>252</sup> Reports reveal that “well known activists and political opponents of Ethiopians living abroad have been targeted with most advanced surveillance tools made to secretly control online actions and hack passwords and documents.”

National Intelligence and Security Service (NISS)<sup>253</sup> and Information Network Security Administration (INSA) have broad power to engage in surveillance on computer and computer systems whenever there is a threat on national security. For instance, INSA has the power to “control both the incoming and outgoing of information technology, information sensor and information attacking technologies.”<sup>254</sup> Moreover, Computer Crime Proclamation bestows INSA with the power to establish online computer crimes investigation system and provide other necessary investigation technologies.<sup>255</sup> This shows that INSA can deploy whatever kind of emerging technology including AI for the purpose of investigating computer crimes.

The Computer Crime Proclamation also confers investigatory organ to engage interception or surveillance without court warrant upon reasonable grounds and matter of urgency to enforce us accept that a computer crime that can risks decisive infrastructure is or to be committed.<sup>256</sup> In such situations, the investigatory powers are vested in INSA alongside the public prosecutor and the police.<sup>257</sup> The Computer Proclamation also gives INSA the power to access computer data for the purpose of conducting forensic investigation without warrant. The Proclamation mandates INSA the power to suddenly search into computers in case the computer is suspected. Moreover, INSA, “use AI to deter cyber-attacks proactively detecting and mitigating threats which needs a haste reactions far greater than human capability permits.”<sup>258</sup> INSA adapted AI as a crucial part of cyber security solutions to automate the capability of vulnerability management, risk analysis, mitigation, and response.<sup>259</sup> Even though, INSA calls for development of policies and procedures

---

<sup>252</sup> Frehiwot Gebrekrstos (n 16) 169.

<sup>253</sup> National Intelligence and Security Service Re-establishment Proclamation No. 804, 23 July 2013, Federal Negarit Gazette, year 19, no. 55, art. 7(1). The NISS has the power to provide intelligence and security service both inside and outside the country and has the power to follow up and investigating espionage activity, conspiracies, conduct surveillance, and collect evidences and intelligences.

<sup>254</sup> Information Network Security Agency Reestablishment Proclamation No. 808, Federal Negarit Gazette, year 20, no. 6, 2 January 2013, art. 6(11).

<sup>255</sup> Computer Crime Proclamation, art. 39.

<sup>256</sup> Ibid, art. 25(3)

<sup>257</sup> Ibid, Art. 23

<sup>258</sup> Information Network Security Agency, *Critical Mass Cyber Security Requirement Standard* (2015), 50.

<sup>259</sup> Ibid, 49.

to govern AI technology, Ethiopia does not have laws regulating AI so far. On the other hand, INSA has started use AI technology.

One of the contested issues relating to the protection of privacy of individuals on data collection is the neutrality and integrity of the authorities which are vested with information protection and national intelligence powers. The autonomy, integrity and neutrality of these information and security agencies are debatable.

The Ethiopian AI Institute should provide support and collaborates with the police and other law enforcement agencies in the prevention and investigation of crimes using AI technology.<sup>260</sup> The Ethiopian AI Institute has the mandate to provide data to relevant bodies to support the national security decision making process using AI technology. In this case, the relevant bodies include NISS and INSA.

The Prevention and Suppression of Terrorism Crimes Proclamation No 1176/2020 empowers the police to employ special investigation techniques, which may include AI driven technologies. The police may “Intercept or conduct surveillance on postal, letter, telephone, fax, radio, internet and other electronic devices exchange or communications of a person suspected of terrorism; conduct surveillance or installing camera, audio or video recording devices; create simulated communication.”<sup>261</sup> Furthermore, the police have the power to use such special investigation techniques without search warrant.<sup>262</sup>

In addition, the Registration of Vital Events and National ID Card Proclamation No 760/2012 allows disclosure of collected data for the purpose of, among others, national intelligence and security services.<sup>263</sup> This also shows that NISS can resort to this law to claim for the disclosure and collection of personal data on the ground of safeguarding national securities.

Under all these circumstances the government may use AI technologies to facilitate its functions. It is also possible to deploy these techniques for surveillance.

---

<sup>260</sup> Artificial Intelligence Institute Establishment Regulation, Council of Ministers Reg. No. 510/2022, 23 April 2022, Federal Negarit Gazette, year 28, No. 32, art.6(17)

<sup>261</sup> Prevention and Suppression of Terrorism Crimes Proclamation No 1176/2020, art. 42(1).

<sup>262</sup> Ibid, art. 42(3)

<sup>263</sup> 22 August 2012, Federal Negarit Gazette, year 18, no. 58, art.64(1).

### 3.3.3. AI and Freedom of Movement

All the challenges posed by AI to the right to privacy are also equally detrimental for the right to free movement. Gathering voluminous amount of data in the situation underdeveloped data protection frameworks and weak cyber security governance schemes in many African states exposes citizens' personal data to problem of exploitation, surveillance, and fraud.<sup>264</sup> Digital National ID can also facilitate biometrically tagged surveillance of individuals. Unless it is monitored by strong human rights based regulative mechanism, government can conduct surveillance of its citizens at any time for whatever purposes. Even though one of the objectives of the Ethiopian Digital Identification Proclamation No 1284/2023 is the protection of human rights, there are human rights which can be violated while implementing this legislation.

### 3.3.4. AI and Freedom of Expression

Fake news and hate speech are spoiling Ethiopian internet atmosphere with the assistance of AI technologies like deep-faking. AI is capable of mimicking and distorting everyone's audio-visual speeches and motions. Fake news, misinformation and disinformation are disseminated in Ethiopia with the assistance of AI on the daily basis.

There substantiated evidences that Ethiopia has possessed surveillance products developed by Chinese telecommunications firm, ZTE, which are a centralized monitoring system, made to control cell phone and the internet networks and Z-Smart, a customer management database.<sup>265</sup> Hence, Ethiopia is one of African countries which have already started to use AI technologies to control its own citizens.<sup>266</sup>

### 3.3.5. AI and the Right to Work

One of the pillars of ten year development plan of Ethiopia is building technology-based industries to improve national productivity and competitiveness.<sup>267</sup> As part of that plan, the government is also proposing to induce, among others, considerable number digital technology enterprises with range of start-up and creative initiatives to begin production and deliver

---

<sup>264</sup> Melody Musoni, Ennatu Domingo and Elvis Ogah (n 239) 6.

<sup>265</sup> Access Now, 'Submission to the United Nations Human Rights Council on the Universal Periodic Review 33rd Session for Ethiopia' (2018) para. 11.

<sup>266</sup> Arthur Gwagwa and others, 'Artificial Intelligence (AI) Deployments in Africa: Benefits, Challenges and Policy Dimensions' 2020 (16) The African Journal of Information and Communication (AJIC) 1, 4.

<sup>267</sup> Ten Year Development Plan: Pathway to Prosperity, (2020-2030) 56

services.<sup>268</sup> Global Information Society Watch reported in 2019 that Ethiopian government has invested 87 million Euros in a technology park called Ethio-ICT Village with the goal of making it a center of excellence for technological innovation and scientific research.<sup>269</sup> With the Ethiopian industrial parks, ICT parks and integrated agro-industrial parks which are actively being developed by Ethiopian government, many workers may potentially lose their jobs.

Historically, the increasing use of automation technologies, such as ICTs, led to job polarization.<sup>270</sup> Ethiopian AI Institute has stated its determination to enable AI to support decision making process on key area of administration such as urban administration, land administration and environment related issues.<sup>271</sup> In contrast, International Labor Organization (ILO) reported that there are many challenges such as digital skills, poor knowledge of English, centrality of job into definite spots and low level of internet coverage for Ethiopian job seekers to secure digitally driven jobs.<sup>272</sup>

The more services and productions become automated, the more human labor needed for production diminishes. The hasty move towards automating every production and service is devastating for a country which economy is largely dependent on agriculture and related labor-intensive productions. Replacing such sectors with the sectors rested on digital industry may create many jobless individuals for it is impossible to accommodate all jobseekers at one go. Furthermore, Ethiopia is one of the states in which digital illiteracy is prevalent. Without equipping job seekers with digital knowledge, the abrupt shift of labor-intensive jobs to automation would be fatal for a country.

### 3.3.6. AI and the Right to Equality and Non-discrimination

Ethiopian AI policy recognizes that AI systems can perpetuate and amplify existing societal biases, leading to unjust outcomes particularly in the states where social inequalities are deep-rooted. Nonetheless, there is no comprehensive legislation addressing the protection of digital non-discrimination among individuals and groups. For instance, the Personal Data Protection

---

<sup>268</sup> Ibid, 56.

<sup>269</sup> Abebe Chekol, 'The Thriving AI Landscape in Ethiopia: Its Implications for Human Rights, Social Justice and Development'(2019) Global Information Society Watch 128, 130.

<sup>270</sup> Arthur Gwagwa and others (n 266) 10.

<sup>271</sup> Artificial Intelligence Institute Establishment Regulation, art. 6(9).

<sup>272</sup> International Labour Organization (ILO), Youth Employment Opportunities in the Digital Economy in Ethiopia: Afar and Somali Regions, (ILO, 2022) 17.

Proclamation is expected to protect personal data. However, sensitive personal data related to racial or ethnic origins and religious memberships may not be hidden from being processed. The processor or data controller can easily identify the ethnic group or religious group which a data subject may belong to simply from the name of the individual. Therefore, such groups can be labeled and susceptible to attack if robust and alternative means of prevention is not sought. Hence, AI technology can add fuel to the flame exposing the labeled groups for further discrimination and segregated treatments. Particularly, on the service centered areas like employment and other kind of participation, AI, without strong data protection regulation, can amplify differential treatment amongst the citizens of the same state.

Ethiopia is the country where peoples coming from diverse backgrounds live and work together. In addition to being heterogeneous by nature, historically there were deeply entrenched social cleavages amongst those groups. Assigning roles and rendering services which based upon the empowerment of AI system aggravates the already rooted division if there is no strong regulation.

Digital divide between different segments of society also factually exists in Ethiopia. As ILO reported, almost all digitally suited works are concentrated in Addis Ababa.<sup>273</sup> Such a concentration of digital services may create digital division in different parts of society like rural and urban, remote and close, educated and uneducated and others. Ultimately, this kind of class divide entails to discriminatory treatment among the supposedly equal citizens of a country.

### 3.4. Institutional Frameworks

#### 3.4.1. Ethiopian Artificial Intelligence Institute

On 22 April 2022, Ethiopia has established Artificial Intelligence Institute by regulation no. 510/2022 as an autonomous federal government institution. One of the functions of Ethiopian AI Institute is to provide support and making collaboration with the police and other law enforcing agencies in the prevention and investigation of crimes using AI technology.<sup>274</sup> Ethiopian AI institute is also trying to leverage AI research based applications and services across various sectors such as agriculture, health, administration, security forces and others. Despite the firm commitment of the institute to mainstream AI system across areas of national developments,

---

<sup>273</sup> Ibid 20.

<sup>274</sup> Ethiopian Artificial Intelligence Institute Establishment Regulation No 510/2022, art.6(17).

there are however considerable concerns of AI on human rights. The Institute is established to implement AI, which supports national economic and social programs.<sup>275</sup> The Institute's measure, to make AI respect human rights, is not mentioned in the regulation.

However, according to the data I have gathered on 17 April 2025 from an anonymous expert working in research and development department of the Institute, Ethiopian AI Institute is empowering its effort to tackle the potential challenges of AI against human rights.

One of the initiations the institute undergoing is the move towards mainstreaming the awareness on AI through various means. The interviewed claims that it is informally giving the AI based orientations for different stakeholders. He attests that it is recurrently delivering different seminars and symposiums for children on the nature, impacts, revolution and evolution of AI.<sup>276</sup> In addition to that, the interviewed demonstrates that it occasionally leaks the awareness related to AI through its various social media accounts.<sup>277</sup> However, there are identifiable shortages of the institute despite the fact that it is on a good move to disseminate information on AI. The digital literacy the institute renders lacks formality, comprehensiveness and inclusivity. Spatially, the spot on which it is engaging is duly confined to big cities, specifically to Addis Ababa. On the other hand, the impact of AI touches every individual living across the state. Particularly, children living on the peripheral area but owning AI driven applications are most prone to such kind of non-inclusiveness. Not only is that, since emerging technology is impactful both online and offline situations, but also the people who even not online are vulnerable to its negative outcomes. The institute claims that it lacks efficient resources to further leverage AI literacy across the country.

Concerning the fake news, mis-information and disinformation speeches and written texts made by AI, the institute demonstrated that it is deploying the same technology to detect such malicious acts. It asserts that through the mechanism of 'fact-checking' AI is being employed to trace and identify AI generated works from human generated ones.<sup>278</sup> Although the institution claim that AI is helpful to trace AI driven materials, the necessity of legislative to formally prohibit unnecessary AI driven acts and ethical guidelines to inhibit them is commendable.

---

<sup>275</sup> Ibid art. 6(8).

<sup>276</sup> Interview made with an anonymous Research expert at Ethiopian Artificial Intelligence Institute (17 April 2025, Addis Ababa).

<sup>277</sup> Ibid.

<sup>278</sup> Ibid

Detecting AI generated undue actions may not properly serve justice to those whose rights are violated. The reason is that there are no substantially established and procedurally warranted enforcing mechanisms to ensure the gross violations of human rights.

One of the main activities which AI institute mandated to is providing research based AI services and products.<sup>279</sup> AI oriented research is one of the critical areas to which meticulous caution is needed due to the fact that unregulated research engaged to provide AI services and products are highly likely affecting human rights in severe ways. As it is stressed by many international and regional instruments, innovation may not be furthered when it is found to be violating human rights and fundamental principles. The interviewed however asserts that it is guided by ethical AI guideline to maintain inclusiveness and mitigate any kind of discrimination including gender, race and language. He particularly demonstrates that recently it has adopted a program to operate its machines with five Ethiopian languages which are Afan Oromo, Amharic, Af-Somali, Afar and Tigrigna in its activities and deliverance so as to ensure the language heterogeneity and pluralism ethos. Moreover, the institute is planning to gradually include all Ethiopian languages which by now however it could not due to lack of its capacity building.<sup>280</sup>

It is an established fact that data are immensely valuable for an AI system to function. The interviewed therefore avers that there is contended issue of trust and want of anonymity relating to data collection for its activities. He particularly puts the existence of fears relating to the data collected on health and medical purposes. He claims that the medical personnel often refuse to let AI institute have access to medical data.<sup>281</sup> As the institute clarified the healthy institutions and its personnel often doubts the credibility and confidentiality of Ethiopian AI Institute to transfer their patients' personal data to it. They even further doubt that they say "we don't even know whether the institute is seeking these personal data for the rightful purposes".

However, to solve such a problem the institute clarified that it has founded a team which include experts from medical and/health departments. According to Ethiopian Personal Data Protection Proclamation, a processed data can be lawful only when, among others, a subject has given his consent.<sup>282</sup> Although this data protection law did not say a thing about a data collected and

---

<sup>279</sup> Ethiopian AI Institute Establishment Regulation, art. 6(1).

<sup>280</sup> Interview made with an anonymous Research expert at Ethiopian Artificial Intelligence Institute (n 276).

<sup>281</sup> Ibid.

<sup>282</sup> Personal Data Protection Proclamation, article 7(2).

processed through AI driven technology, it can help as a guideline on data collection. Therefore, in light of this proclamation, it is not medical experts rather patients who must be consulted and whose consent be secured for data collection. This shows the procedural limitation of the institute to consult immediate data subjects. Moreover, the interviewed admitted that there is no human rights expert in the team who especially designated to guide ethical and right based method of data collection.<sup>283</sup> In addition, since existing data protection legislation is insufficient in the case of AI, there is manifest lack and need for comprehensive AI driven data protection frameworks. Furthermore, personal data is not the only kind of data which the institution utilizes for its activities, but also includes other non-personal and general data. In Ethiopia, there is no law which prohibits illegal collection and processing of big and non-personal data at all. Hence, in order to legally substantiate and maintain full guarantee for data subjects, the need for robust data protection legal framework which explicitly incorporates the fates of data acquired for the purpose of AI services and productions must be underpinned.

The interviewed has also revealed the position of EAII with regard to the collection of data on intellectual properties. Asserting that many AI services such as Large Language Models (LLMs) needs to have access to enormous amounts of data such as scripts and other materials, he states that they undergo strong precautionary measures and prior informed consent principle before acquiring whatever kind of repository.<sup>284</sup>

### 3.4.2. Ethiopian Bio and Emerging Technologies Institute

Ethiopian Bio and Emerging Technology (BETin), previously called Ethiopian Biotechnology Institute, is established by Ethiopian Biotechnology Council and Biotechnology Institute Establishment Council of Ministers Regulation No. 388 /2016.<sup>285</sup> As per article 2(9) of the regulation Emerging Technologies also includes AI. The main objectives of the this Institute, among others, are conducting research and development activities on biotechnology and emerging technologies, coordinating and leading bio and emerging technology related research, enable environment safety protection and maintain international standards in product quality, and ensuring emerging technologies respect societal values and morals.<sup>286</sup>

---

<sup>283</sup> Interview made with an anonymous Research Expert at Ethiopian Artificial Intelligence Institute (n 276).

<sup>284</sup> Ibid.

<sup>285</sup> Federal Negarit Gazette, 8 June 2016, year 22, no.79.

<sup>286</sup> Ibid, art. 9.

BETin has the power and duty to formulate policies and strategies on biotechnology and emerging technologies (including AI).<sup>287</sup>

However, according to the data collected through email address on 9 April 2025 from Mr. Yonas Gebremichael, *the Director of the Computational Science and Intelligent Systems Directorate at BETin*, there is no comprehensive and standalone policy and strategy that specifically address human rights implications of AI and other emerging technology thus far. In addition, there is no specific legislation to regulate bio and emerging technology in Ethiopia.<sup>288</sup> Given the relatively longer time since the establishment of the institute which allows having governance frameworks and implementation mechanism, there is considerable delay in formulating policies and laws regulating bio and emerging technology. According to the response, the interplay of various factors hindered the timely formulation of these laws which specifically address the impact of emerging technologies on human rights.

Capacity constraints are one of the reasons from which the delay of making laws on emerging technology stems. The respondent asserts that there is limited technical expertise to draft risk-proportionate laws in emerging fields like AI and advanced biotechnology.<sup>289</sup>

Lack of collaboration with other sectors is another factor that impedes them. The respondent admits that there is no systematic cooperation and collaboration with other related institutions and sectors. The interdisciplinary nature of these technologies requires collaboration between scientists, legal experts, ethicists, and policymakers.<sup>290</sup> Nevertheless, these disciplines are not yet fully organized and institutionalized which in turn retarded such arrangements and scheme of interactions. The response goes that there is no publicly documented evidence of systematic consultations with necessary stakeholders for the formulation of policies or strategies related to bio and emerging technologies.

As per Article 10(17) of Regulation 388/2016, BETin also must draft guidelines, directives, standards and manuals. So far, however, there's no publicly attested systematic engagement with organs such as Ethiopian Human Rights Commission (EHRC), civil society (e.g., digital rights groups like Addis Data Rights Initiative), Academic ethicists (e.g., Addis Ababa University's

---

<sup>287</sup> Ibid, art. 10(1).

<sup>288</sup> Response given through email by Mr. Yonas Gebremichael, the Director of the Computational Science and Intelligent Systems Directorate at BETin ( Addis Ababa, 9 April 2025)

<sup>289</sup> Ibid.

<sup>290</sup> Ibid.

Law or Bioethics departments) or any other stakeholder.<sup>291</sup> This represents a significant gap in ensuring that human rights considerations are adequately integrated into regulatory frameworks.

The other factor which constrained them to initiate for regulatory framework is the prioritization of innovation over regulation. Mr. Yonas demonstrate that the current Ethiopian governments approach towards AI and other emerging technology inclines to innovation than stringent regulatory.<sup>292</sup> This kind of approach may stems from the fear that the strong regulation of these technologies may retard or even hinder the development programs the government outlined. However, such an assumption is erroneous which possibly paves a way for the violations of human rights under the guise of furthering development.

Mr. Yonas also recalls that the overlapping of mandates from different sectors and authorities created the gaps of coordination amongst of these organs. The claim goes that BETin's mandate specifically overlaps with sectors like Ministry of Health, Ethio-Telecom, and Ministry of Justice which complicated to have unified legislation on emerging technology. There may be two possibilities on the fate of lawmaking in the situation when jurisdiction overlaps. One possibility is that these organs may set aside the idea of deliberating legislation thinking that it doesn't belong within their jurisdictions. The other is where two different laws or policies which sometimes even contradict each other on the same issue are coming up. Such an occasion can be created due to the weak and unsystematic applications and arrangements of powers and duties for each organ.

Furthermore, the quest to run after global paces also considerably retarded the institute. Mr. Yonas has clarified that it is waiting to gain experiences from other jurisdictions or nations which have already developed comprehensive regulatory frameworks on the impacts of technology. Underlining the current effort of many countries to regulate fast-evolving tech, then he states Ethiopia may wait to learn from other countries' experiences and international benchmarks such as EU AI Act before enacting its own regulations.<sup>293</sup> Such a claim may serve its own purpose particularly to develop frameworks which prominently safeguards human rights and appropriately sets procedural mechanisms of redressing violations. However, justifying the

---

<sup>291</sup> Ibid.

<sup>292</sup> Ibid.

<sup>293</sup> Ibid.

need to follow and adapt the experience of other jurisdictions may retard the timely protection of human rights violation.

Mr. Yonas also reveals the existence of deep-rooted unawareness relating to the nature and impacts of emerging technology in Ethiopia. Specifically, policymakers and stakeholders may not fully appreciate the urgency of regulating emerging technologies due to limited awareness of their ethical, legal, and societal implications. Therefore, such lacks of awareness, particularly from those who are expected to give timely responses and undergo effective initiatives, have incrementally retarded the move the government and the institute in specific make to react in time. Having said that, Mr. Yonas has demonstrated, it is currently engaging stakeholders to bridge these challenges through phased and consultative policy development.

Mr. Yonas further states that there is lack of comprehensive and uniformly set approach as the nation so that the difficulty of assenting to identifiable regulative mechanism entailed. However, from the guidance of the general approach adopted by governments and institutions globally, BETin's likely stance reflects a hybrid model which tries to strike the balance between innovation and strong regulation.<sup>294</sup> On one hand it can be said that it is enhancing the Pro-innovation bias. For instance, looking at Ethiopia's Homegrown Economic Reform emphasizes tech-driven growth, potentially derogating rights by deploying acts such as unchecked AI surveillance.<sup>295</sup> On the other hand it is also inferred from other sources such as Ethiopian National AI Policy, which underline the comprehensive AI regulatory framework, which BETin is supposed to advance balancing innovation with human rights protection.<sup>296</sup>

Even though there is no specified regulatory approach that BETin employ for law initiation and to mitigate or prohibit the potential risks faces human rights in research engagements, the respondent affirmed that the Institute follows international ethical guidelines, including the Universal Declaration on Bioethics and Human Rights, in its research oversight. Any research involving human subjects, especially genetic data, requires documented informed consent and Ethics Review Board (ERB) approval. Confidentiality is maintained using data anonymization practices and restricted access protocols. The respondent asserts that the position held by BETin mirrors Art. 3 and 4 of UNESCO's Bioethics Declaration which Prohibited research projects

---

<sup>294</sup> Ibid.

<sup>295</sup> Ibid.

<sup>296</sup> Ibid.

violating human dignity and the right to life or international norms such as prohibition of human cloning.<sup>297</sup> The response goes; BETin also requires explicit consent under Data Protection Proclamation, prohibition of processing sensitive personal data, anonymization protocols for research databases and third-party sharing limits for the collection of genetic data.<sup>298</sup>

**66**

---

<sup>297</sup> Ibid.

<sup>298</sup> Ibid.

## CHAPTER FOUR

### Conclusion and Recommendations

#### 4.1. Conclusion

Artificial Intelligence (AI) is intelligent system on which the future of humanity may depend. The advent of AI has received enormous appreciation from almost all areas of human endeavors, requiring examination from the perspective of human rights law.

The use of AI can contribute to the realization of human rights. It can also negatively affect the realization of human rights unless there are strong regulating mechanisms. The regulation of AI can be approached through different lenses. Using International Human Rights Law (IHRL) towards the governance of AI is one of these perspectives. However, many of international AI governance schemes revolve around their ethical dimensions. The consideration of human rights in the regulation of the impacts of AI is very low both at international and national levels.

Nevertheless, ethical rules are less effective when it comes to the accountability for human rights violations. In the first place, the regulation of AI to comply with IHRL is obligatory. It is a body of laws since human rights laws are formally recognized and institutionalized at international, regional and national levels. Hence the doctrine of rule of law also incorporates human rights. Further, human rights are even more than laws. They are the aspirational whim of every human being which contains the idea of universal justice and human dignity. Therefore, human rights are an aspect of international law and universal principles of morality, at the same time.

There are many ways in which human rights are implied in AI regulation such as generic references to the international bills of rights and constitution, listing some most affected rights in the legislations, and stating rights as ethical principles. Nonetheless, human rights based approach is preferred for AI regulation from many practical reasons. This approach underlines the notion that the deployment, development and use of AI systems must always prioritize fundamental human rights and principles in all its substantive and procedural impositions. It stresses that AI system should explicitly be considering the respect and protection of human rights in every of its cycle. Moreover, Human Rights Based approach clearly sets the mechanisms as to how the violations of rights are redressed and victims are properly remedied.

In Ethiopia, the legislative development of digital related frameworks including that of AI is at the lowest level. The close scrutiny of Ethiopian AI regulatory landscape reveals that policies and strategies which would have close interaction with AI system fail to address the concern of AI on human rights. The recent Ethiopian AI Policy however is the landmark framework that incorporates considerable issues of human rights. Nonetheless, the policy does not address collaboration of different governmental organs with human rights institutions and issues of expertise in crucial areas like research development, policy implementation strategies and programs.

Moreover, there are no comprehensive laws which can ensure the protection of individuals and groups' rights against the violations through emerging technology including AI. There is no institutionally robust enforcing mechanism to implement and monitor the safeguarding of human rights from violations while using AI. Moreover, Ethiopia did not have established effective means of redressing and remedying the victims of AI system lifecycle.

Furthermore, the level of digital literacy is extremely low in the country. The prevalence of low level of digital literacy may lead to unbridgeable gap of digital divide which in turn facilitate discrimination. In such severe situations, utilizing AI in many government sectors can further worsen the already deep-rooted violations of human rights. When it is not strongly regulated, AI facilitates the means of exploiting personal data for various organs including and even principally the government.

In the situation when there is no proper assessment and strong check and balance mechanism, digital authoritarianism and data colonization become rampant. In Ethiopia, many laws which supposed to be incorporating the risks and protective mechanisms of AI are still there without being cognizant of AI systems and emerging technology. Laws such as Data Protection Proclamation, Computer and Cyber Crimes protection Proclamation, Proclamation for the Suppression of Hate Speech, and others are totally oblivion to the incrementally prevalent use of AI in the globe and the country. In addition, the tradition of involving human rights experts and consulting human rights institutions before formulating the policies and strategies is very poor in the country.

## 4.2 Recommendations

On the findings of the thesis, the researcher makes recommendations for the government and other stakeholders as follows:

1. The government needs to adopt human rights based approach to all AI.
2. The House of Peoples' Representatives should promulgate a comprehensive law on the use of AI. The House should also amend laws related to AI technologies, including Intellectual Property laws, Electronic Communications and Transactions laws, Access to Information laws, Personal Data Protection laws, Cyber Security laws, Consumer Protection laws, Terrorism related laws, Digital ID laws and Hate Speech Protection laws.
3. The government should have effective data protection laws which explicitly prohibit both government and private bodies from undue exploitation of personal and big data using AI technology. More importantly, the government should devise systematic mechanisms of protecting sensitive personal data. To do so, the government needs to develop experience from well-established data protection regimes.
4. There must be robust implementation mechanisms of the policies, strategies and laws related to AI in Ethiopia. Given that the state is the primary and principal entity to respect, protect and fulfill human rights, the government should maintain the fair, transparent, impartial and accessible mechanisms of redressing the violations, punishing the violators and remedying the victims who suffered violations as a result of malicious deployment of AI both by public and private sectors.
5. Independent and impartial data protection authority should be established at state and regional levels. The government should assign an independent national protection authority to maintain both institutional autonomy and functional impartiality.
6. Government should make strong cooperation and genuine consultation of independent human rights institutions and human rights experts whenever intending to formulate policies and strategies and in the promulgation of legislations related to the governance of AI.
7. The government should formally deploy a countrywide digital literacy campaign to ensure equality and non-discrimination for all. Moreover, the digital literacy should be

included in curriculum alongside its impacts on human rights in order to make citizens and individuals aware of their digital rights.

- 8.** The government should allocate enough resources and deploy experienced experts to engage researches and further investigations to identify the potential impacts of AI on human rights before deploying this intelligent system.
- 9.** The regulation of AI should be neutral and acceptable in free and democratic governance systems.
- 10.** The AI developers and companies should develop policies, strategies and codes of conduct to ensure that the use of AI complies with human rights.

## Bibliography

### Books and Chapters in Edited Collections

- Visa A. J. Kurki, *Legal Personhood: Elements in the philosophy of law*, (Cambridge University Press, Cambridge 2023)
- Yuval Noah Harari, *21 lessons for 21<sup>st</sup> Century*, (Vintage, London 2018)
- Joshua C. Gellers, *Rights for Robots: Artificial Intelligence, Animal and Environmental Law* (Routledge 2021)
- Saskia Stucki, *One Rights: Human and Animal Rights in the Anthropocene*,(SpringerBriefs in Law, Switzerland 2023)
- Christoph Bartneck et al., *An Introduction to Ethics in Robotics and AI*, (SpringerBriefs in Ethics, 2021)
- Emmie Nordell, ‘Artificial Intelligence, International Human Rights And Cognitive Liberty’ (Master’s thesis, University of Gothenberg 2019)
- M. Patrão Neves and A. Betâmio de Almeida, ‘Before and Beyond Artificial Intelligence: Opportunities and Challenges’ in Henrique Sousa Antunes and others (eds), *Multidisciplinary Perspectives on Artificial Intelligence and the Law* (Springer, Lisbon 2024)
- Britta van Beers , ‘A better way of being?: Human Rights, Trans-humanism and ‘the Utopian Standpoint of Man’ in Bart Van Klink, Marta Soniewicka and Leon Vanden Broeke(eds), *Utopian thinking in law, politics, architecture and technology* (Edward Elgar Publishing, London 2022)
- Philipp Kellmeyer, ‘Neurorights’: A Human Rights Based Approach for Governing Neurotechnologies’ in Silja Voenky, et.al.(eds), *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary perspectives* (Cambridge University Press, New York 2022)
- Christiane Wendehorst, ‘Liability for Artificial Intelligence: The Need to Address Both Safety Risks and Fundamental Rights Risks’ in Silja Voenky, et.al.(eds), *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary perspectives* (Cambridge University Press, New York 2022) 189

- J. Thurnher, 'Examining Autonomous Weapon Systems from a Law of Armed Conflict Perspective', in H. Nasu and R. McLaughlin (eds.), *New Technologies and the Law of Armed Conflict*, (TMS Asser Press, 2014)

### **Journal Articles**

- Abbott R and Sarch A, 'Punishing Artificial Intelligence: Legal Fiction or Science Fiction' (2019) University of California 323
- Abe O and Eurallyah A, 'Regulating Artificial Intelligence through a human rights-based approach in Africa'(2021) 14(4) African Journal of Legal Studies 1
- Akpuokwe Ch, Adeniyi A and Bakare S, 'Legal Challenges of Artificial Intelligence and Robotics: A Comprehensive Review' (2024) 5(3) Computer Science & IT Research Journal 544
- Arinze I, 'The Place of Human Rights Ethics in the Era of Artificial Intelligence' (2024) 1(1) Estaga Journal of Philosophy, Arts and Humanities (EJOPAAH) 1
- Brand D, 'Responsible Artificial Intelligence in Government: Development of a Legal Framework for South Africa' (2022) 14(1) JeDEM 130
- Bergenfalk J, 'AI and Human Rights: an explorative analysis of upcoming Challenges' (2018) Human Rights Studies
- Chatterjee Sh and Sreenivasulu N.S, 'Evolution of artificial intelligence and its impact on human rights:from sociolegal perspective' (2021) 64(2) IJLMA 184
- Chesterman S, 'Artificial Intelligence and the Problem of Autonomy' (2020) 1(2) Journal on Emerging Technologies 210
- Dave Sh, 'Artificial Intelligence's Liability: Judging the Future-Today' (2023) 2(1) Journal of Law and Artificial Intelligence 30
- Donahoe E and Metzger M, 'Artificial Intelligence and Human Rights' (2019) 30(2) Journal of Democracy 115
- Emire A.A., 'Potentials and Possible Drawbacks of Adopting Predictive Algorithm AI in the Ethiopian Criminal Justice System: Lessons from the US Experience' (2023) 15 Jimma University law Journal 122-142.
- Erdelyi O and Erdelyi G, 'The AI Liability Puzzle and a Fund-Based Work-Around' (2021) 70 Journal of Artificial Intelligence Research 1309

- Grear A, 'Human rights and new horizons? Thoughts towards a New Juridical Ontology: Science Technology and Human Values (2018) 43 (1) ORCA 129
- Girmay F, 'Artificial Intelligence for Ethiopia: Opportunities And Challenges' (2019) 16(1) International Journal of Information and Communication Technology (ICT) 157
- Gwagwa A and others, 'Artificial Intelligence (AI) Deployments in Africa: Benefits, Challenges and Policy Dimensions' 2020 (16) The African Journal of Information and Communication (AJIC) 1
- Helberger and others, 'a Freedom Of Expression Perspective on AI in the Media: a Special Focus on Editorial Decision Making on Social Media Platforms and in the News Media' (2020) 11(3)European Journal Of Law And Technology
- Ilori T, 'Protecting digital rights through soft law: Ensuring the implementation of the revised Declaration of Principles on Freedom of Expression and Access to Information in Africa' (2024) 24 African Human Rights Law Journal 1
- Iphofen R and Kritikos M, 'Regulating Artificial Intelligence and Robotics: Ethics by Design in a Digital Society, Contemporary Social Science' (2021) 16(2) Journal of the Academy of Social Sciences 170
- Israhadi E, 'The Impact of Developments in Artificial Intelligence on Copyright And other Intellectual Property Laws'(2023) 11(11) Journal Of Law And Sustainable Development
- Johar A, 'Right to Work and Artificial Intelligence' (2024) 11(10) JETIR
- Knox J, 'Horizontal Human Rights Law' (2008) 102(1) American Journal of International Law 1
- Krausová A, 'Intersections between Law and Artificial Intelligence' (2017) 27(1) International Journal of Computer (IJC) 55
- Lane L, 'Clarifying Human Rights Standards through Artificial Intelligence Initiatives' (2022) 71(4) International and Comparative Law Quarterly 915
- Liu H and Zawieska K, 'From responsible robotics towards a human rights regime oriented to the challenges of robotics and artificial intelligence' (2017) 22 Ethics and Information Technology 321
- Livingston S and Risse M, 'The Future Impact of Artificial Intelligence on Humans and Human Rights' (2019) 33(2) Ethics & International Affairs 141

- Łuków P, 'A Difficult Legacy: Human Dignity as the Founding Value of Human Rights' (2018) 19 Human Rights Review 313
- Mecaj S, 'Artificial Intelligence and Legal Challenges' (2020) 20(34) Revista Opinião Jurídica (Fortaleza) 180
- Mehr M and Baei N, 'The Impact of Artificial Intelligence on Gender Equality in the Workplace: An Economic Geography Perspective' (2024) 13(4) European Online Journal of Natural and Social Sciences 40
- Morska N, 'Ontology of human rights in today's globalized world: the philosophical dimension' (2022) 11(60) Amazonia Investiga 264
- Nagy N, 'Humanity's new frontier: Human rights implications of artificial intelligence and new technologies (2023) 64(2) Hungarian Journal of Legal Studies 236
- O'sullivan and others, 'Legal, regulatory, and ethical frameworks for development of standards in artificial intelligence (AI) and autonomous robotic surgery' (2018) International Journal of Medical Robotics and Computer Assisted Surgery 1
- Pizzi M, Romanoff M and Engelhardt T, 'AI for humanitarian action: Human rights and ethics' (2020) 102(913) International Review of the Red Cross 145
- Rawas S, 'AI: the future of humanity' (2024) 4(25) Discover Artificial Intelligence 9
- Razmetaeva Y, 'Artificial intelligence and the end of justice' (2024) 1 BioLaw Journal 345
- Roumate F, 'Artificial Intelligence, Ethics and International Human Rights Law' (2021) 29 International Review of Information Ethics 1
- Sangam Sh, 'Legal Personality for Artificial Intelligence with Special Reference to Robot: A Critical Appraisal' (2020) 6(1) Indian Journal of Law and Human Behavior 16
- Schwarz E, 'Autonomous Weapons Systems, Artificial Intelligence, and the Problem of Meaningful Human Control' (2021) 5(1) The Philosophical Journal of Conflict and Violence 51
- Skorobogatov A and Krasnov A, 'Law nature of artificial intelligence' (2023) 14(1) Problems of Information Society 3
- Tzimas T, 'Artificial Intelligence and Human Rights: Their Role in the Evolution of AI' (2020) 80 ZaöRV 553

- Zárdai I, ‘Why Autonomous Agents Should Not Be Built for War’ (2023) 13(1) Journal of Philosophy of life 64
- Zhang Y, ‘Human Rights of Cloning in Never Let Me Go: A Post-human Perspective’ (2021) 8(2) International Journal of Research in Humanities and Social Studies 31

### **United Nations Treaties and other Documents**

- International Covenant on Civil and Political Rights (ICCPR) (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171
- Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS
- Universal Declaration of Human Rights, UNGA Res 217A (III) (UDHR), UN Doc A/810 (adopted on 10 December 1948)
- United Nations Education Scientific and Cultural Organization ,‘Recommendation on the Ethics of Artificial Intelligence’(23 November 2021) SHS/BIO/PI/2021/
- United Nations International Children Emergency Funds(UNICEF), Policy Guidance on AI for children, (November, 2021)
- UN Human Rights, Guiding Principles on Business and Human Rights, New York and Geneva, 2011 (UNGPs)
- UN Human Rights Committee, Vienna Declaration and Programme of Action (1993)
- UN Development Programme, ‘the Impact of Digital Technology on Human Rights in Europe and Central Asia: Trends and Challenges Related to Data Protection, Artificial Intelligence, and Other Digital Technology Issues’ (Istanbul, 2023)
- United Nations System, United Nations System White Paper on Artificial Intelligence Governance CEB/2024/1/1
- UN Office of the High Commissioner for Human Rights (OHCHR) ‘Taxonomy of Human Rights Risks Connected to Generative AI’ Supplement to B-Tech’s Foundational Paper on the Responsible Development and Deployment of Generative AI (November, 2023)
- UNESCO, Recommendation on the Ethics of Artificial Intelligence, (2021)

### **Other International Organizations’ Documents**

- Access Now, Human Rights in the Age of Artificial Intelligence (2018)

- Amnesty International & Access Now, ‘The Toronto Declaration: Protecting the right to equality and non-discrimination in machine learning systems’ (16 May 2018)
- Access Now, ‘Submission to the United Nations Human Rights Council on the Universal Periodic Review 33<sup>rd</sup> Session for Ethiopia’(2018)
- Organization for Economic Cooperation and Development, *Rights in the Digital Age: Challenges and Ways Forward*, (OECD Digital Economy Papers No.347) (2022)
- OECD, *Guidelines for Multinational Enterprises on Responsible Business Conduct*, (OECD Publishing, Paris 2023)
- International Committee of Jurists (ICJ), ‘Digital Technologies and Human Rights: a Legal Framework’, A Briefing Paper (May 2022)
- OECD, ‘AI, Data Governance and Privacy: Synergies and Areas of International Cooperation’ (2024) OECD Artificial Intelligence Papers, No. 22

### **General Comments, Recommendations and Resolutions**

- Convention on the Rights of the Child, General Comment No. 25 (2021) on Children’s Rights in Relation to the Digital Environment.
- UN Committee on Economic Social and Cultural Rights (CESCR), ‘General Comment No 25 on Science and Economic, Social and Cultural Rights (article 15(1)(b), (2), (3) and (4) of the International Covenant on Economic, Social and Cultural Rights)’(2021) E/C.12/GC/25.
- UN Committee on the Elimination of Racial Discrimination, General Recommendation 36 on Preventing and Combating Racial Profiling by Law Enforcement, UN Doc. CERD/C/GC/36 (24 November 2020)
- UNGA, ‘Resolution on Artificial Intelligence (A/78/L.49)’ (21 March 2024) UN Doc A/78/L.49
- UNGA, ‘The Right to Privacy in the Digital Age’ Resolution adopted by the Human Rights Council on 26 September 2019 A/HRC/RES/42/15
- UNGA, ‘Resolution on Seizing the Opportunities of Safe, Secure and Trustworthy Artificial Intelligence Systems for Sustainable Development’ (A/RES/78/265) (1 April 2024) UN Doc A/RES/78/265
- UNGA, Resolution on Human rights implications of new and emerging technologies in the military domain, A/HRC/RES/51/22

## **Special Rapporteurs' Reports and other reports**

- OHCHR, 'Report on the Right to Privacy in Digital Age' (18 July 2014) UN Doc A/HRC/27/37
- David Kaye, 'Report of the Special Rapporteur on the Promotion and Protection of the Right to Freedom of Opinion and Expression' (2018) UN Doc A/73/348
- UN Special Rapporteur on the Right to Privacy. (2019), Report on Artificial Intelligence and Privacy. A/HRC/41/35
- Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, Christof Heyns(A/HRC/23/47)
- UNGA, Report of the Special Rapporteur on Contemporary Forms of Racism, Racial Discrimination, Xenophobia and Related Intolerance, Ashwini K.P(A/HRC/56/68)(2024)
- American Civil Liberties Union, 'Report: Informational Privacy in the Digital Age: A Proposal to Update General Comment 16 (Right to Privacy) to the International Covenant on Civil and Political Rights' (February 2015)
- UNESCO, 'Report of World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) on Robotics Ethics' (2017)
- UNGA, Report of the Secretary-General, 'Lethal autonomous weapons systems' (2024) UN Doc A/79/88, .
- ICRC, Submission on Autonomous Weapon Systems to the United Nations Secretary General, (2024)

## **Regional Documents**

- Council of Europe, 'Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law' (5 September 2024) CETS No 225
- Council Regulation (EU) 2016/679 of 27 April 2016 on the Protection of Natural Persons with Regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L119/1
- European Commission, 'White Paper on Artificial Intelligence: A European Approach to Excellence and Trust' COM (2020) 65 Final

- European Commission, High-Level Expert Group on Artificial Intelligence, 'Ethics Guidelines for Trustworthy AI' European Commission, Brussels (8 April 2019)
- African Union, Convention on Cyber Security and Personal Data Protection (Malabo Convention) (adopted 27 June 2014)
- European Union, The Ethics of Artificial Intelligence: Issues and Initiatives (2020) EPRS Panel for the Future of Science and Technology
- African Commission on Human and Peoples' Rights, 'General Comment No. 3 on the African Charter on Human and Peoples' Rights: The Right to Life' (18 November 2015)
- African Commission, 'Focal Point on the ACHPR Study on AI and Other Technologies on Lethal Autonomous Weapon Systems: Submission to the United Nations Secretary-General in Terms of UN General Assembly Resolution 78/241' (May 2024)
- African Union Development Agency (AUDA) 'White Paper on the Regulation and Responsible Adoption of AI for Africa towards Achievement of AU Agenda 2063' (June 2023)
- African Union, Sharm El Sheikh Declaration, Specialized Technical Committee on Communication and Information Technologies (Stc-Cict) Third Ordinary Session, 22 - 26 October 2019, Au/Stc-Cict-3/Min//Decl.
- African Commission, Resolution on the Need to Undertake a Study on Human and Peoples' Rights and Artificial Intelligence (AI), Robotics and Other New and Emerging Technologies in Africa (2019) ACHPR/Res. 456 (LXVI)

### **Domestic Legislations and other Documents**

- The Federal Democratic Republic of Ethiopia, Ethiopian Artificial Intelligence Policy, Addis Ababa (June 2024)
- The Federal Democratic Republic of Ethiopia, The National Information and Communication Technology Policy and Strategy, Addis Ababa (September 2016)
- The Federal Democratic Republic of Ethiopia, Digital Ethiopia 2025: A Strategy for Ethiopia Inclusive Prosperity (June 2020)
- Constitution of the Federal Democratic Republic of Ethiopia, 21 August 1995, Proclamation No 1, Federal Negarit Gazette, year 1, No 1
- Personal Data Protection Proclamation No.1321, 24 July 2024, Federa Negarit Gazette, year 30, no. 35

- Computer Crime Proclamation, Proclamation No.958/2016, 7 July 2016, Federal Negarit Gazette, year 22, no. 83
- Proclamation on the Prevention and Suppression of Terrorism Crimes, Proclamation No. 1176, 25 March 2020, Federal Negarit Gazette, year 26, no.20
- National Intelligence and Security Service Re-establishment Proclamation No. 804, 23 July 2013, Federal Negarit Gazette, year 19, no. 55
- Information Network Security Agency Reestablishment Proclamation No. 808, 2 January 2013, Federal Negarit Gazette, year 20, no. 6
- Ethiopian Artificial Intelligence Institute Establishment Regulation, Council of Ministers Reg. No. 510/2022, 23 April 2022, Federal Negarit Gazette, year 28, No.
- Ethiopian Biotechnology Council and Biotechnology Institute Establishment Council of Ministers Regulation No. 388 /2016, Federal Negarit Gazette, 8 June 2016, year 22, no.79
- The Federal Democratic Republic of Ethiopia, Office of the Prime Minister National ID Program, Stakeholder Engagement Plan (September 2023)
- Information Network Security Agency, *Critical Mass Cyber Security Requirement Standard* (2015)

### **Presentations, Academic briefing and Synthesis Papers**

- Abdessalam Jaldi, ‘Artificial Intelligence Revolution in Africa: Economic Opportunities and Legal Challenges’ (Policy Paper, 2023) Policy Center for the New South,
- ICRC, Autonomous Weapon Systems Implications of Increasing Autonomy in the Critical Functions of Weapons,(Expert Meeting, 2016)
- Christof Heyns, Autonomous weapons systems and human rights law, Presentation made at the informal expert meeting organized by the state parties to the Convention on Certain Conventional Weapons (Geneva, 13 – 16 May 2014)
- Insecurity Insight, ‘Explosive Weapons Use: The Use of Air-delivered Munitions in the Context of Humanitarian Action in Ethiopia, with a Focus on Drones’ (December 2022)
- Julia Haas, 'Freedom of the Media and Artificial Intelligence' (2020) Executive Summary, Global Conference for Media Freedom

- Nathalie Weizmann, ‘Autonomous Weapon Systems under International Law’ (2014) Geneva Academy of International Humanitarian Law and Human Rights (Academy Briefing No. 8)
- Melody Musoni, Ennatu Domingo and Elvis Ogah, ‘Digital ID systems in Africa: Challenges, risks and opportunities’ 2023 (Discussion Paper No. 360)
- Ferdinand Baune, Jessica Fenger and Darya Shiryaeva , *Study Guide for Zurich Model United Nations*, UN Security Council
- International Labour Organization (ILO), Youth Employment Opportunities in the Digital Economy in Ethiopia: Afar and Somali Regions, (ILO, 2022)

#### **Sources on Data collection**

- Interview made with an anonymous Research expert at Ethiopian Artificial Intelligence Institute (Addis Ababa, 17 April 2025)
- Responses obtained through email by Mr. Yonas Gebremichael, the Director of the Computational Science and Intelligent Systems Directorate at BETin ( Addis Ababa, 9 April 2025)