IJERLAS
International Journal of Educational Review, Law And Social Sciences

ARTIFICIAL INTELLIGENCE AND THE RIGHT TO LIFE: A PERSPECTIVE FROM SELECTED AFRICAN COUNTRIES

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Abstract

This article explores the intricate relationship between artificial intelligence (AI) and the fundamental human right to life, with a specific focus on the context of a few African countries. The article begins by establishing a contextual understanding of both AI and the right to life, examining their theoretical underpinnings and historical development. It then looks at the relationship between AI and the right to life and how AI technologies are being deployed in the selected African countries, particularly in contexts relevant to the right to life, such as healthcare, criminal justice, transportation and disaster response. The article then looks at the ethical considerations that arise from the intersection of AI and the right to life in African contexts particularly in the context of three contentious issues that the right raises, namely, the death penalty, abortion and euthanasia. This is followed by an overview of the legal and policy frameworks governing AI in these countries, and how they address concerns related to the right to life. The article concludes with lessons from the experiences of South Africa, Mauritius, Egypt, and Kenya in navigating the ethical challenges of AI governance, and recommendations on what these countries can learn from each other on one hand and what they can learn together, on the other.

Keywords: Artificial intelligence, human rights, right to life, death penalty, abortion, euthanasia, regulatory frameworks, African countries.

1. INTRODUCTION

Artificial intelligence (AI) has become a global force that is transforming many facets of human life. AI technologies are being incorporated into a wider range of societal domains, including healthcare, finance, education, and transportation, with the potential to bring about efficiency, innovation, and advancement (Jha, 2023). Despite the developments and the promises, however, there are important moral and legal issues to be aware of, especially in relation to fundamental human rights. The right to life is one of these rights and is widely acknowledged as a fundamental value. It is protected by many international treaties and national constitutions. The influence of AI systems on the right to life is a topic that is becoming more and more relevant as these systems grow in sophistication and autonomy.

Although much of the discourse on AI ethics and human rights has been dominated by Western perspectives, it is essential to examine how these technologies impact on the right to life in the context of African countries. With its wide range of legal systems, cultural practices, and socioeconomic conditions, Africa offers a unique setting for examining the moral and legal implications of artificial intelligence in the specific context of the right to life. In doing this, the article takes a comparative approach by examining the perspectives and practices of four African countries – South Africa, Mauritius, Egypt, and Kenya – towards AI and the right to life. The choice of these countries for discussion and comparison is based on a number of factors. South Africa, often considered a regional leader in technology and human rights, provides a compelling case study for understanding how AI intersects with the right to life. With a robust legal framework grounded in the constitution and a history of grappling with issues of equality and justice, South Africa offers insights into how AI governance can uphold fundamental rights while fostering innovation. South Africa has

been particularly innovative in providing for the right to life in its constitution and the courts have also risen to the challenge in interpreting it.

Mauritius, a small island nation with a burgeoning technology sector, offers a contrasting perspective, demonstrating how countries with limited resources can navigate the ethical challenges posed by AI. Egypt is a key player in the North African AI scene, with aspirations to become the continent's preeminent center for AI innovation. But the authoritarian political climate in Egypt raises questions about how AI surveillance technologies might be abused and how that might affect people's freedom and right to life. And lastly, Kenya, a country renowned for its thriving digital startup environment and cutting-edge mobile money networks, offers a fascinating case study of how AI is being used to address urgent societal issues while also posing issues with algorithmic bias and data privacy.

Against this backdrop, this article begins with a historical and conceptual context of artificial intelligence and the right to life. It then looks at the relationship between AI and the right to life and how AI technologies are being deployed in the selected African countries, particularly in contexts relevant to the right to life, such as healthcare, criminal justice, and disaster response. The paper then looks at the ethical considerations that arise from the intersection of AI and the right to life in African contexts particularly in the context of three contentious issues that the right raises, namely, the death penalty, abortion and euthanasia. This is followed by an overview of the legal and policy frameworks governing AI in these countries, and how they address concerns related to the right to life. The article concludes with lessons from the experiences of South Africa, Mauritius, Egypt, and Kenya in navigating the ethical challenges of AI governance, and recommendations on what these countries can learn from each other on one hand and what they can learn together, on the other.

2. RESEARCH METHODOLOGY

Given the nature of this study, the research methodology employed was the doctrinal research method. This approach primarily involves the examination of existing legal materials, such as statutes, case law, regulations, and legal commentaries. It focuses on analyzing, interpreting, and synthesizing these sources to address legal questions or develop legal theories (Sepaha, 2023). According to Hutchinson and Duncan, doctrinal research "…provides a systematic exposition of the rules governing a particular legal category, analyses the relationship between rules, explains areas of difficulty and, perhaps, predicts future developments." (Hutchinsson, Duncan, 2012: 101). The main advantage of the doctrinal research methodology is its suitability for comparative studies. In this instance, it is particularly appropriate for comparing the approaches, perspectives and practices of four African countries – South Africa, Mauritius, Egypt, and Kenya – towards AI and the right to life.

In addition to the doctrinal research methodology, this study utilized desktop and library-based research. This involved gathering information from mainly secondary sources such as international, regional, and national laws, encompassing international treaties, United Nations human rights instruments, and case law. The resources consulted for this information included Google Scholar, Taylor and Francis, Wiley Online Library, Science Direct, and ResearchGate. Keywords used in the search included terms such as artificial intelligence, human rights, right to life, death penalty, abortion, euthanasia, regulatory frameworks, and AI technologies. Other resources comprised books, articles, and online scholarly publications. Both physical and online libraries were utilized to access the necessary information for the study.

3. HISTORICAL AND CONCEPTUAL CONTEXT

The term "artificial intelligence" is widely used but often lacks a precise and universally agreed-upon definition. Its conceptual boundaries are frequently subject to interpretation, resulting in diverse and disparate definitions with nuanced connotations. Originating from the seminal 1956 Dartmouth College Conference on Artificial Intelligence, convened by John McCarthy, the term and the field it represents were officially coined during this pivotal event (Moor, 2006). This conference,

the inaugural and most extensive gathering on the subject, established a framework for an ambitious vision that has since permeated research and development across various disciplines. At the time, Marvin Minsky, then affiliated with Carnegie-Mellon University, defined AI as "the construction of computer programs that engage in tasks that are currently more satisfactorily performed by human beings because they require high-level mental processes such as: perceptual learning, memory organization and critical reasoning (Romanchuk & Romanchuk, 2021: 148).

Between 1957 and 1974, the field of artificial intelligence (AI) experienced a period of significant advancement characterized by notable progress. This era witnessed substantial enhancements in computer capabilities, marked by increased storage capacity, heightened processing speed, reduced costs, and enhanced accessibility (Anyoha, 2017). Concurrently, advancements in machine learning algorithms contributed to the refinement of methodologies, enabling practitioners to discern more effectively the optimal algorithmic approach for specific problem domains.

The resurgence of interest in AI during the 1980s can be attributed to two main reasons, namely, "an expansion of the algorithmic toolkit, and a boost of funds" (Anyoha, 2017). This period saw a revitalization of research efforts, propelled by a broader array of computational tools and augmented funding opportunities. The subsequent decades, spanning the 1990s and 2000s, witnessed the realization of many of the landmark goals of artificial intelligence. Today, society finds itself immersed in the era of "big data" – "an age in which we have the capacity to collect huge sums of information too cumbersome for a person to process" (Anyoha, 2017).

Contemporary dictionary definitions typically situate AI within the domain of computer science and emphasize its capacity for machines to mimic human intelligence. For instance, the *English Oxford Living Dictionary* defines AI as "The theory and development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages" (Marr, 2018). Similarly, the *Collins English Dictionary* defines it as "the ability of a machine, such as a computer, to imitate intelligent human behaviour" (Crozier, 2006: 83). According to the *Encyclopaedia Britannica*, artificial intelligence is "the ability of a digital computer or computer-controlled robot to perform tasks commonly associated with intelligent beings" (Copeland, 2022). Essentially therefore, it can be said that "AI refers to a set of technologies that allow machines to function intelligently and mimic human sensing, comprehension, and action" (Ade-Ibijola & Okonkwo, 2023).

The concept of the right to life has a rich historical context characterized by a complex interplay of religious, philosophical, legal, and social factors, reflecting humanity's evolving understanding of the value and sanctity of human life. The idea of the sanctity of life can be traced back to ancient civilizations and societies which often had legal and moral codes that recognized the value of human life, though the extent and application of these principles varied (Clarke, 2023: 33). Religious traditions, including Judaism, Christianity, and Islam, also played a significant role in shaping beliefs about the sanctity of life (Clarke, 2023: 33). In these faiths, human life is often considered sacred and inviolable, with moral teachings emphasizing the protection of life from conception to natural death. Throughout history, social movements such as abolitionism, civil rights, and the anti-war movement have also advocated for the protection of human life and dignity. These movements have often challenged existing legal and social structures to advance principles of equality, justice, and human rights.

The modern concept of the right to life is enshrined in various legal documents, including national constitutions, international treaties, and declarations of human rights. In 1948, the Universal Declaration of Human Rights was the first international human rights instrument to recognise the right to life by providing that "everyone has the right to life, liberty, and security of person" (Article 3). The more binding 1966 International Covenant on Civil and Political Rights (ICCPR) stipulates under Article 6(1) that:

> "Every human being has the inherent right to life. This right shall be protected by law. No one shall be arbitrarily deprived of his life."

Other international human rights instruments that protect this right include the United Nations Convention on the Prevention and Punishment of the Crime of Genocide (the Genocide Convention) which contains "explicit legal obligations to prevent and repress widespread violations of the right to life when committed with the requisite intent to destroy, in whole or in part, a minority." They also include the four 1949 Geneva Conventions which prohibit the wilful killing of "protected persons" in situations of international armed conflict. Regional human rights instruments such as the 1981 African Charter on Human and Peoples Rights also contain the right to life (Article 4). So too do many national constitutions across the globe.

The right to life is perceived as the most fundamental of all human rights. Although all rights are important, "the right to life is seen as the most important and the source of all other human rights, because without life no one can enjoy any rights" (Mubangizi, 2013: 92). According to Johann Vasel, it "is presumably the most essential guarantee of any constitution, as it forms a '*conditio sine qua non*' for all other fundamental freedoms" (Vasel, 2022). Conceptually therefore, the right to life entails the idea that every human being has the right to live and that one's life should not be taken away by anyone else or another entity.

4. DISCUSSION

4.1 Relationship between AI and the right to life

Before discussing the relationship between artificial intelligence and the right to life, it is important to first understand the relationship between artificial intelligence and human rights, particularly civil and political rights, the category to which the right to life belongs. It is generally acknowledged that "[a]rtificial intelligence can significantly impact human rights – both positively and negatively" (Gaumond & Régis, 2023). AI technologies have the potential to enhance the enjoyment of human rights in various ways. For example, it can be used to improve access to healthcare, education, and information, thereby promoting the right to health, education, and freedom of expression. On the other hand, however, AI may negatively affect various civil and political rights such as the right to privacy, the right to equality, the right to a fair trial, and freedom of expression to mention but a few.

Undoubtedly, the advent of AI presents substantial privacy and data protection challenges, including the need for informed consent, concerns about surveillance, and the potential infringement upon individuals' data protection rights. These rights include the right to access personal data, the right to prevent processing likely to cause harm or distress, and the right not to be subjected to decisions solely based on automated processing (Gardner, 2016). One of the most profound impacts of AI on human rights lies in its influence on the prohibition of discrimination and the right to equal treatment. This influence is particularly evident in instances of automatic algorithmic decision-making. Furthermore, AI can impact upon the right to freedom of expression. Artificial intelligence systems have the capacity to curtail individuals' freedom of expression by profiling, identifying, and tracking them, thereby shaping their behaviour and influencing their actions. Regarding rights relating to detention and fair trial, it has been argued that the rights to liberty and security, as well as the right to a fair trial, are vulnerable in situations where physical freedom or personal security are at risk. Examples include predictive policing, recidivism risk determination, and sentencing (Muller, 2020).

AI also has an impact on socio-economic rights, such as workers' rights, the right to social security and the right to health care services. In so far as the latter is concerned, it is important to remember that AI systems have been widely applied in health care to aid in disease diagnosis, provide more patient treatment recommendations and improve access to health services. Another socio-economic right that can easily be negatively impacted by artificial intelligence is the right of access to water. This could happen through algorithmic water allocation and profiling of water users.

It is against the background of the relationship between artificial intelligence and human rights generally that the relationship between artificial intelligence and the right to life specifically must be seen. Just as with all human rights, artificial intelligence can impact the enjoyment of the

right to life in various ways, both positively and negatively. As mentioned above, artificial intelligence systems have found extensive use in healthcare, assisting in disease diagnosis and patient treatment, and improving access to healthcare services. This is one of the positive impacts of AI on the right to life. The other is its use in emergency situations. AI-powered systems can analyse data in real-time to improve emergency response times and help in disaster management, reducing casualties (Bari *et al*, 2023).

Thirdly, AI algorithms can analyse vast amounts of data to predict and prevent accidents, crimes, or natural disasters, thus enhancing safety and saving lives (Bari et al, 2023). On the negative side however, AI has a number of far-reaching impacts on the right to life. For example, AI systems that collect and analyse personal data could potentially lead to situations where people's lives are put at risk due to unauthorized access to sensitive information (Sher, Benchlouch: 2023). That said, it is perhaps in the field of weapons for military use, that AI risks mainly impact the right to life. According to Fatima Roumate, "[t]he right to life is central in the debates surrounding the potential impact of AI and autonomous weapon systems…[and]…the introduction of autonomous weapons systems (AWS) has created a controversial discussion between states…because they are real risks to the right to life" (Roumate, 2021: 2). Roumate further argues that AWS "are currently the most dangerous threat to the right to life, peace, and security" (Roumate, 2021: 2). This argument is supported by a report by Access Now (an international NGO that engages on a wide range of issues at the intersection of human rights and technology) which points out that the increasing use of drones and similar weaponry mean that autonomous weapons are likely to be accessible to non-state actors that are not bound by traditional laws of armed conflict. Moreover, Access Now further argues that because autonomous weapons are, in future, "likely to suffer from AI's inability to deal with nuance or unexpected events…this could result in the death or injury of innocent civilians that a human operator may have been able to avoid" (Access Now, 2018).

In so far as African countries are concerned, the impact of AI on the right to life can mainly be seen in the context of the way AI technologies are deployed in areas such as healthcare, criminal justice, transportation and disaster response. It should first be acknowledged however, that "in Africa, AI development and deployment are still in the early stages and face a number of challenges before AI can be a transformative force in society" (Jaldi, 2023). However, with more than 2400 companies specialising in AI (Jaldi, 2023), the technology is growing fast on the continent. Indeed, AI technologies are increasingly being deployed across various sectors in the selected countries under discussion. In the South African healthcare system AI is used for medical imaging analysis, disease diagnosis, and personalized treatment recommendations, among other things (Behara, K. (2022). For example, AI algorithms analyse medical images such as X-rays and MRI scans to detect abnormalities and assist healthcare professionals in making accurate diagnoses. Similarly, in Mauritius, Egypt and Kenya, AI-driven healthcare applications include telemedicine platforms for remote consultations, predictive analytics for disease outbreak forecasting, and personalized medicine based on genetic data analysis. As mentioned earlier, unauthorized access to personal health information could compromise patients' safety and potentially their lives if sensitive health data is not properly protected and it falls into the wrong hands. It could also be argued that while AI can enhance healthcare delivery, overreliance on AI technologies could potentially lead to a reduction in human oversight and intervention. If healthcare providers become too dependent on AI systems and fail to critically evaluate their outputs, there's a risk of overlooking crucial information or misinterpreting AI-generated recommendations, potentially endangering patients' lives.

In so far as criminal justice is concerned, AI-powered predictive analytics are utilized in South Africa to forecast crime hotspots, optimize resource allocation for law enforcement, and identify patterns in criminal behaviour (Singh, 2022: 42). This helps in proactive policing and crime prevention efforts. Similarly in Mauritius, Egypt and Kenya, AI is applied in crime mapping and analysis, suspect identification through facial recognition, and forensic analysis for solving criminal cases. It is also employed in surveillance systems for monitoring public spaces, analysing security footage, and identifying suspicious activities or individuals. The use of AI technologies in criminal

justice could have negative implications for the right to life. AI technologies used for predictive policing or risk assessment may, for example, produce inaccurate or unreliable predictions, leading to unwarranted surveillance, arrests, or harsher sentencing for individuals who pose little actual risk to society. This can result in the wrongful deprivation of liberty and violations of the right to life and personal freedom, especially in countries like Egypt and Kenya where the death penalty has not yet been abolished.

In the area of transportation, AI is employed in South Africa, Mauritius, Egypt and Kenya in traffic management systems for optimizing traffic flow, reducing congestion, and improving road safety (Luke et al, 2024). Additionally, ride-hailing services may use AI algorithms for matching drivers with passengers and predicting demand. Moreover, as in many other countries, AI is integrated into public transportation systems of South Africa, Mauritius, Egypt and Kenya for route optimization, scheduling, and predictive maintenance of vehicles to ensure reliable and efficient services (Abduljabbar *et al*, 2019: 8). Whereas AI technologies can enhance safety through features like autonomous braking and collision avoidance systems, there have been instances of accidents involving autonomous vehicles. These sometimes result in death and violation of the right to life.

In South Africa AI technologies are used in disaster response and management for analysing social media data to identify real-time emergency situations, coordinate response efforts, and disseminate critical information to affected populations. Similarly, in Mauritius AI technologies are used for early warning systems, disaster risk mapping, and coordinating emergency responses during natural disasters such as cyclones and floods (Capri Partnership/United Nations, 2020). In Egypt and Kenya, AI is utilized for analysing satellite imagery to assess the extent of damage caused by natural disasters, facilitating faster response and recovery efforts. Among the negative implications of the use of AI technologies in disaster response and management is the fact that biased algorithms could result in unequal treatment or neglect of certain populations, violating their right to life. Moreover, AI systems may make decisions based on flawed or incomplete data, leading to unintended consequences that could endanger lives rather than save them.

These are but a few examples illustrating how AI technologies are being leveraged across different sectors in South Africa, Mauritius, Egypt, and Kenya and the implications for the right to life. It is against that background that the ethical considerations that arise from the intersection of AI and the right to life in the context of those African countries should be seen, a discussion to which we now turn our attention.

4.2 Ethical considerations

Ethical considerations in artificial intelligence (AI) are crucial due to the profound impact AI technologies can have on society, individuals, and the environment. This discussion focuses on ethical considerations that arise from the intersection of AI and the right to life in African contexts. The specific African contexts must be taken into account because "[t]here is a general belief that socio-cultural and political contexts shape expectations of AI and the challenges and risks it poses" (Eke, Wakunuma, & Akintoye, 2023: 2). It is also because "AI ethics concepts such as 'bias', 'human rights', 'privacy', 'justice', 'solidarity', 'trust', 'transparency', 'openness' and 'fairness' mean different things to different people" (Eke, Wakunuma, & Akintoye, 2023: 2). The ethical considerations that arise from the intersection of AI and the right to life are also discussed in the context of the death penalty, abortion and euthanasia because these issues are not only controversial, but they also attempt "to define life by 'defining' its limits, its beginning and end" (Riger, 1981: 39).

There are significant ethical considerations surrounding the use of AI in capital punishment. Critics argue that allowing machines to make decisions about life and death raises serious moral questions about accountability, transparency, and the value of human judgment (Human Rights Watch, 2016). There are also concerns about the potential for automation bias or the delegation of moral responsibility to machines.

In South Africa, the death penalty was declared unconstitutional and abolished in 1995 (*S v Makwanyane & Another* 1995 3 SA 391 (CC)). It was around the same time that the death penalty was abolished in Mauritius following that country's adoption of the Abolition of Death Penalty Act (No. 31 of 1995). On the other hand, Egypt is one of those countries notorious for its death penalty. According to Amnesty International, Egypt carried out 43 executions in 2018, 32 in 2019, 107 in 2020, 83 in 2021, and 24 in 2022 (Amnesty International, 2023). Overall, Egypt is ranked fifth globally for executions (Basyouni, 2021). Kenya also still has the death penalty. Although the Supreme Court of Kenya declared the mandatory death penalty for murder unconstitutional in December 2017, judicial discretion is still used to determine whether the death sentence should be imposed in a particular case or not (Hoyle, 2024). As a result, the courts do still hand down death sentences. Although "Kenya hasn't carried out an execution since 1987, …by the end of 2021 there were 601 people on death row and 14 death sentences had been passed that year" (Hoyle, 2024). It may well be argued that if AI systems are employed in assessing evidence or making decisions related to death penalty cases, there's a risk of perpetuating existing biases or introducing new ones. In countries like Egypt and Kenya, where concerns about fairness in the legal system exist, the use of AI could exacerbate these issues.

In so far as abortion is concerned, although AI technologies can assist medical professionals in decision-making processes related to abortion, there are ethical concerns regarding the potential for biases in AI algorithms, which could result in unequal treatment or decisions that do not fully respect individual autonomy (Bezinger, 2023: 5). Moreover, there are concerns about the quality and neutrality of the information provided by AI technologies and the potential misuse of personal data, particularly in sensitive and stigmatized contexts like abortion (Mehrnezhad & Almeida, 2021).

In South Africa, abortion is legal by virtue of the Choice on Termination of Pregnancy Act (92 of 1996) which "widens the grounds of abortion, particularly during the first 12 weeks of pregnancy (Mubangizi, 2013: 95). The legislation also permits women to access abortions up to 20 weeks under specific circumstances, such as cases of rape, incest, or economic hardship, contingent upon the consensus of two healthcare providers. In Egypt, abortion is prohibited according to Articles 260 – 264 of the Penal Code of 1937. Nevertheless, Article 61 of the Penal Code allows for exceptions under circumstances of necessity, commonly understood to include situations where an abortion is essential to safeguard the life of the pregnant woman. Egypt ranks among the most restrictive countries worldwide in so far as abortion is concerned. Its laws strictly prohibit the abortion, offering no exceptions for survivors of rape or incest seeking to terminate unwanted pregnancies (Hodali, 2023). The only legal justification for abortion is when there is a threat to the life of the expectant mother or foetus. Even then, the woman must be married.

As in Egypt, abortion in Mauritius is illegal. The law does not permit it on any grounds, stating that: "Any person who… procures the miscarriage of any woman … or supplies the means of procuring such miscarriage, whether the woman consents or not, shall be punished by penal servitude for a term not exceeding 10 years" (Mauritius Criminal Code Cap 195). Under Article 235(2), "The like punishment shall be pronounced against any woman who procures her own miscarriage…" and under Article 235(3), "Any physician, surgeon, or pharmacist who points out, facilitates or administers the means of miscarriage shall, where miscarriage has ensued, be liable, on conviction, to penal servitude."

The situation in Kenya is not different from that in Egypt and Mauritius. Under Article 26(4) of the Constitution of Kenya: "Abortion is not permitted unless, in the opinion of a trained health professional, there is need for emergency treatment, or the life or health of the mother is in danger, or if permitted by any other written law." Articles 158 – 160 of the Kenya Penal Code also prohibit abortion almost in the same terms as Article 235 of the Mauritius Criminal Code.

There are a number of ethical considerations surrounding artificial intelligence (AI) and abortion in a country like South Africa, where abortion is legal. Firstly, AI systems involved in abortion-related services must ensure the privacy and confidentiality of individuals seeking these services (WHO, 2024). Secondly, AI systems should respect individuals' autonomy and ensure that

they have access to accurate and unbiased information about their reproductive options. Thirdly, there should be transparency around the development, deployment, and use of AI systems in abortion-related services. Individuals should have a clear understanding of how AI technologies are being used in their healthcare and should have avenues for recourse if they believe that these technologies are being used inappropriately or are producing biased outcomes. Moreover, AI systems used in abortion-related services must be culturally sensitive and respectful of diverse perspectives on reproductive rights and abortion (WHO, 2024). It is rather difficult to assess the ethical considerations surrounding artificial intelligence and abortion in countries like Egypt, Mauritius, and Kenya where abortion is illegal. Suffice to say that there is a risk that AI technologies could be misused for purposes such as surveillance or enforcement of anti-abortion laws, leading to violations of privacy and human rights (Ortutay, 2022). The other contentious issue relating to the right to life is euthanasia. In order to understand the legal position of various countries on euthanasia, a distinction has to be made between active and passive euthanasia. Active euthanasia entails ending a person's life, whether by the individual themselves, a doctor, or another party who assists them in doing so. Passive euthanasia, on the other hand, refers to the patient declining medical treatment or a doctor opting not to administer such treatment, recognizing that this refusal or choice may lead to the patient's death. In South Africa, active euthanasia is unlawful whereas passive euthanasia is not. In Mauritius, euthanasia is totally illegal. The predominant cultural and religious values in Mauritius, which include a strong emphasis on the sanctity of life, influence the legal stance on euthanasia. The same applies to Egypt which is predominantly a Muslim country. According to Zahra Hamedani and Seyed Javaheri,

> "Muslims are against euthanasia. They believe that all human life is sacred because it is given by Allah, and that Allah chooses how long each person will live. Human beings should not interfere in this" (Hamedani & Javaheri, 2014: 231).

There are two scenarios, however, that could be viewed as passive euthanasia, which would align with Islamic law: Providing analgesic agents that may potentially shorten the patient's life, with the intention of alleviating physical pain or mental distress, and discontinuing futile treatment based on informed consent (from immediate family members who follow the guidance of the attending physicians), thereby permitting natural death to occur (Hamedani & Javaheri, 2014: 231).

In Kenya, euthanasia is totally illegal. The Kenya Penal Code "categorically criminalises assisted suicide under the headings of murder and manslaughter." Both active and passive forms are prohibited. Moreover, under section 209 of the Penal Code any agreements between individuals aimed at causing death are not recognized. The legal position equating euthanasia to murder in Kenya was stated in *Republic v Leting* ([2009] eKLR 11) as follows:

> "…a person who commits euthanasia out of motives of mercy or compassion to alleviate suffering may, nevertheless, be guilty of murder, just as a person who kills in the 'heat of the moment' without prior planning may also be guilty of murder."

There are a number of ethical considerations surrounding the use of AI in euthanasia. Whereas proponents of AI in euthanasia argue that it could potentially lead to more precise and painless procedures and reduce suffering, critics raise concerns about the potential for errors or misuse of AI systems, leading to unintended harm. According to Adetayo Obasa, "the question here…would be whether an AI powered robot should ever be given autonomous power to assist in ending a life" (Obasa, 2023). There is also the issue of patient autonomy. According to Florian Funer and Urban Wiesing, "[u]sing AI in the medical decision-making process has an impact on informed consent and shared decision-making" (Funer & Wiesing, 2024). In the context of euthanasia, this raises questions about whether AI can accurately gauge a patient's wishes and whether the patient is

capable of providing informed consent (Funer & Wiesing, 2024). It could also be argued that introducing AI into the decision-making process for euthanasia raises questions about who bears responsibility for the decisions made and how to ensure transparency and accountability in the process (Balasubramanian, 2023: 169). Moreover, introducing AI into complex ethical decisions like euthanasia may have unintended consequences, such as desensitizing society to the value of human life, or shifting the focus away from palliative care and other forms of support for terminally ill patients.

The ethical considerations and implications of the use of AI in euthanasia in South Africa, Mauritius, Egypt and Kenya are rather minimal because euthanasia is largely illegal in those countries. However, it could be argued that although healthcare professionals in those countries are bound by professional ethics and legal obligations that prohibit them from assisting in euthanasia, the availability of AI systems that facilitate euthanasia could pressure them to act against their professional integrity or even facilitate covert euthanasia, leading to ethical dilemmas and potential harm to patients. Moreover, the ethical considerations surrounding the use of AI in euthanasia discussed earlier are relevant to countries like South Africa and Egypt where passive euthanasia is not entirely illegal.

4.3. Legal and policy regulation

4.3.1 South Africa

As with many other African countries, South Africa lacks a dedicated legislative or policy framework specifically aimed at the regulation of artificial intelligence (AI). However, some existing statutes deal with certain aspects of artificial intelligence. The Protection of Personal Information Act (4 of 2013) (POPIA) for example, "does regulate some activities conducted by organisations using AI, by preventing the unlawful processing of personal information" (Boda & Ntuli, 2024). Section 71(1) of POPIA which deals with automated decision-making, protects data subjects from decisions "based solely on the basis of the automated processing of personal information intended to provide a profile of such person including his or her performance at work, or his, her or its credit worthiness, reliability, location, health, personal preferences or conduct." Similarly, section 57(1)(a) requires a responsible entity to secure prior authorization from the Information Regulator before processing unique identifiers of data subjects for purposes beyond those originally intended or for linking such data with information processed by other responsible entities.

Other statutes that are relevant to artificial intelligence, particularly within the domain of cybercrime, include the Regulation of Interception of Communications and Provision of Communication-Related Information Act (70 of 2002) (RICA) and the Electronic Communications and Transactions Act (25 of 2002) (ECTA). RICA prohibits unauthorized interception of communications and the illicit provision of real-time or archived communication-related data. It also regulates the application and authorization of directives concerning communication interception and related data (Chitumira & Ncube, 2021: 15). Furthermore, RICA empowers regulatory and enforcement bodies to identify unlawful mobile phone users and pursue cybercriminals leveraging mobile numbers for illicit activities (Chitumira & Ncube, 2021: 15).

On the other hand, ECTA provides for, among other things, "the facilitation and regulation of electronic communications and transactions…to prevent abuse of information systems" (Long title). Notably, section 20 of ECTA sets out parameters for the valid conclusion of an automated transaction Section 1 defines an automated transaction as "an electronic transaction conducted or performed, in whole or in part, by means of data messages in which the conduct or data messages of one or both parties are not reviewed by a natural person in the ordinary course of such natural person's business or employment."

Although South Africa has not fully developed a specific AI Strategy, it has a Digital and Future Skills Strategy which "addresses the need for mechanisms to foster digital skills development across South Africa… recognising that digital skills are necessary for economic growth, social

development and cultural enrichment across all sectors of our society and economy…" (SA Government, 2020).

4.3.2 Mauritius

Like South Africa and many other African countries, Mauritius does not have any specific laws regulating artificial intelligence. One existing relevant statute, however, is the Mauritius Emerging Technologies Council Act (No. 10 of 2021) which provides "for the establishment of the Mauritius Emerging Technologies Council, to promote high quality research in Emerging Technologies in the national interest, and for related matters" (Long title). In addition, there is the Data Protection Act (20/2017) which was enacted to "to strengthen the control and personal autonomy of data subjects over their personal data, in line with… relevant international standards" (Long title).

More importantly, Mauritius is one of those few African countries that have an AI Strategy. Developed in 2018, the Mauritius AI Strategy "sets out the government's approach to making AI the cornerstone of the country's next development model" (The Commonwealth, 2018). To achieve this, the Strategy outlines a roadmap that defines key factors for establishing the necessary ecosystem for Mauritius to embrace new technologies as catalysts for growth. It presents various recommendations to guarantee that AI and other emerging technologies yield the desired economic and social benefits. Additionally, it proposes several projects to bolster the AI Strategy and underscores significant considerations regarding the legal and regulatory landscape, ethics, and data protection concerning AI in Mauritius. According to Jake Effoduh, "the Mauritius Artificial Intelligence Strategy marks the country's dedication towards making AI a cornerstone of its next development model (Effoduh, 2020).

4.3.3 Egypt

Similar to South Africa and Mauritius, Egypt lacks specific legislation addressing artificial intelligence. However, there are existing laws, such as the Telecommunication Regulation Law (Law No. 10 of 2003) that indirectly regulate certain aspects of AI. Although this statute is "primarily focused on telecommunication services, [it] also touches upon digital data management, an essential component of AI operations" (Law No. 10 of 2003). In addition, Egypt has enacted laws similar to South Africa's Protection of Personal Information Act, such as the Personal Data Protection Law (Law No 151 of 2020), which plays an important role in the regulation of AI. This law has an indirect but important bearing on the use of AI within the country as it "sets standards for data privacy and security, directly impacting AI systems that process vast amounts of personal data" (Iskander, 2024). To mitigate the invasion of privacy associated with artificial intelligence systems Article 2 outlines permissible grounds for processing personal information with explicit consent from individuals. Moreover, Article 24 provides that any instance of data breach must be reported within 72 hours, or immediately if it pertains to security protection. It also prohibits and deems unlawful the cross-border transfer of data unless the receiving country guarantees a level of protection that aligns with Egypt's Personal Data Protection Law. Additionally, according to Article 12, such data transfers can only be made by individuals who have obtained the necessary licence.

Egypt is also one of those African countries that have a National Artificial Intelligence Strategy. The Strategy was developed in 2020, in recognition of "the importance of AI to advance human knowledge and technical capabilities and to encourage the digital transformation in Egypt, both of which are crucial for the country's development" (Government of Egypt, 2020). It aims to create "an AI Industry in Egypt, including the development of skills, technology, ecosystem, infrastructure, and governance mechanisms to ensure its sustainability and competitiveness (Government of Egypt, 2020). This strategy focuses on developing skills, technology, ecosystems, infrastructure, and governance mechanisms to ensure the sustainability and competitiveness of the AI sector. Recognizing the pivotal role of AI in advancing human knowledge and technical capabilities, as well as promoting digital transformation, Egypt's strategy emphasizes two main components: the

establishment of a specialized AI academy and the utilization of AI for governance and business enterprises driven by data science (Government of Egypt, 2020).

4.3.4 Kenya

The legislative and policy framework regulating artificial intelligence in Kenya is not very different from that of the other countries under discussion. As in those countries, AI currently lacks a regulatory framework in Kenya. As in those countries, however, there are existing laws that have a bearing on the regulation of AI. One such a statute is the Data Protection Act (No. 4 of 2019) which "can be relied on in terms of protection of data processed by AI systems" (Akello et al, 2022). For example, automated decision-making is defined in section 35 of the Act as the "ability to make decisions by technological means without human involvement." Section 35 also explains consumers' rights to refuse to be subjected to harm caused by automated decisions. Several other provisions of the Act aim to protect individuals from potentially harmful practices involving data processing. For example, section 30(1) stipulates that personal data should not be processed by data controllers or processors without the individual's consent. Additional provisions in the Act relevant to AI operators include Section 28, which emphasizes the importance of lawful and non-misuse of data. They also include section 31 which provides that if the processing operations are likely to result in a risk to the rights of the subject, "by virtue of its nature, scope, context, and purposes," the data controller or data processor must carry out a data protection impact assessment. Kenya is one of those African countries that do not have a National Artificial Intelligence Strategy. The process of developing one is still under way.

It can be seen from the foregoing discussion that none of the countries under discussion has a specific legislative framework to regulate artificial intelligence. Instead, there are existing laws that indirectly regulate certain aspects of IA. Some of the countries have national artificial intelligence policies, others do not. The existing legal and policy frameworks indirectly governing artificial intelligence typically address concerns related to the right to life through various mechanisms aimed at ensuring the responsible development, deployment, and use of AI systems. For example, some of the existing laws emphasize adherence to ethical principles, including respect for human rights such as the right to life. AI developers and users are often encouraged to prioritize safety, security, and human well-being in the design and implementation of AI systems.

Some of the existing laws and policies allude to safety standards and regulations for AI systems to mitigate risks to human life. These standards may cover areas such as product safety, reliability, and robustness, particularly for AI applications in critical domains like healthcare, transportation, and public safety. Moreover, they also require risk assessments to identify potential hazards associated with AI systems and to implement measures to mitigate these risks (Chan, 2023). This may involve testing, validation, and certification processes to ensure that AI technologies meet safety requirements.

Some countries have established regulatory bodies or agencies responsible for overseeing the development, deployment, and use of AI technologies. A good example is the Mauritius Emerging Technologies Council. Such bodies may have the authority to set guidelines, investigate complaints, enforce compliance with regulations, and impose sanctions for non-compliance. It can, therefore, be argued that legal and policy frameworks governing AI aim to strike a balance between fostering innovation and protecting fundamental human rights, including the right to life. These frameworks evolve in response to technological advancements and societal concerns, reflecting ongoing efforts to ensure that AI serves humanity's best interests.

5. LESSONS AND RECOMMENDATIONS

It is clear from the foregoing discussion that the countries under discussion in this paper have a lot to learn from each other on one hand, and a lot to learn together on the other. As mentioned earlier, Mauritius has developed a comprehensive National Artificial Intelligence Strategy, which emphasizes collaboration between the government, private sector, and academia. Egypt also has a

National Artificial Intelligence Strategy. South Africa's strategy is in the form of the National Digital and Future Skills Strategy which outlines plans for fostering digital skills and innovation. Kenya can look at how Mauritius, Egypt and South Africa have structured their strategies to ensure alignment and coordinated efforts in AI development. Moreover, South Africa's approach to creating an inclusive policy framework that addresses economic disparities and promotes digital literacy could be useful for Egypt and Kenya, which face similar socio-economic challenges.

As was seen earlier, South Africa's Protection of Personal Information Act (POPIA) provides a robust framework for data protection. Egypt, Kenya, and Mauritius can draw lessons from POPIA to enhance their own data protection laws, ensuring that AI development respects user privacy and data security. On the other hand, Kenya's Data Protection Act of 2019 also offers valuable lessons in creating comprehensive data privacy laws that can support responsible AI use. South Africa and Mauritius can look into Kenya's implementation strategies to refine their data governance frameworks.

Despite the existence of legislation and policies that indirectly regulate certain aspects of AI, there is a general dearth of specific and dedicated legislative frameworks addressing AI in all the countries discussed. All the countries should develop robust, comprehensive AI regulatory frameworks that address ethical considerations, safety, accountability, and transparency. Mauritius's detailed policy approach and South Africa's legal expertise provide excellent platforms for such development.

In so far as the right to life is specifically concerned, lessons and recommendations have to be seen in the context of the ethical considerations earlier discussed, particularly with regard to the death penalty, abortion, and euthanasia. It was earlier mentioned that there is no death penalty in South Africa and Mauritius. That, however, is not the case in Kenya and Egypt with the latter having the dubious fame of being notorious for its capital punishment. There is, therefore, no impact of artificial intelligence on the death penalty in countries like South Africa and Mauritius where it doesn't exist, a lesson that Kenya and Egypt could learn. The same applies to the issue of abortion. It was mentioned earlier that South Africa the Choice on Termination of Pregnancy Act (92 of 1996) widens the grounds of abortion and makes it generally legal while it remains illegal in the other three countries, more so in Egypt and Mauritius than in Kenya. All the four countries have lessons to learn from each other as there are ethical considerations for countries where abortion is legal and for countries where it is not. The same can be said about euthanasia.

There are also lessons to be learned in the context of human rights generally and the right to life specifically. In that regard, all the countries can benefit from embedding human rights principles, particularly the right to life, into the regulation of AI. This includes adopting frameworks that explicitly protect these rights within the context of AI development and deployment. In other words, policies and legislation governing AI should incorporate human rights norms and standards. Accordingly, a human rights-based approach (HRBA) is recommended. This approach has been described as:

> "…a conceptual framework directed towards promoting and protecting human rights, based on international human rights standards. It puts human rights and corresponding state obligations at the heart of policy and can be used…as a tool to empower the most vulnerable people to participate in decision-making processes and hold duty-bearers accountable" (ENNHRI, n.d.).

According to the European Network of National Human Rights Institutions (ENNHRI), a human rights-based approach is underpinned by five key human rights principles, namely, participation; accountability and transparency; non-discrimination and equality; empowerment of rights holders; and legality (ENNHRI, n.d.). What this means is that human rights principles and institutions should be integrated into AI strategies, policies and legislation. It also means that regulating AI should be done from a human rights perspective.

A final lesson and recommendation relates to impact assessments and ethical guidelines. In developing AI policies, countries should conduct thorough impact assessments to evaluate AI technologies' implications on the right to life and other human rights (Gaumond & Catherine Régis, 2023). This practice can help mitigate risks and ensure ethical use of AI, as seen in Kenya's innovation-friendly yet cautious approach (Akello et al, 2022).

6. CONCLUSION

In conclusion, this paper has explored the intricate relationship between artificial intelligence and the right to life, focusing on selected African countries. It started with the historical and conceptual context of artificial intelligence and the right to life before examining the relationship between the two. In so doing, it highlighted the dual-edged nature of AI technologies, which offer significant potential to enhance human life through advancements in healthcare, security, and economic development, while also posing risks that could undermine fundamental human rights including the right to life. It is in that context that a number of ethical considerations were highlighted with specific reference to three contentious issues that the right to life raises, namely, the death penalty, abortion, and euthanasia.

A discussion on artificial intelligence and the right to life in selected African countries would not be complete without an overview of the legal and policy regulation of AI in those countries. This was undertaken with the overall position being that all countries under discussion lack a dedicated legal and policy framework regulating AI – choosing instead to rely on existing laws that only address certain aspects of AI. Among the lessons and recommendations is a human rights-based approach to the development and regulation of AI which requires the integration of human rights principles and institutions into AI strategies, policies and legislation to ensure that AI aligns with the right to life not only in South Africa, Mauritius, Egypt and Kenya, but in the rest of Africa and beyond.

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