

The Right to Human Dignity in the Age of Artificial Intelligence: Addressing Emerging Forms of Algorithmic Discrimination Under International Human Rights Law

Dr. Kwebe Augustine Nkwiir^{1*}, Ebai Arrey Vanessa², Dr. Akwe Ngole Ray Junior³

¹ Research Fellow, University of Buea, Cameroon

² Graduate Teaching Assistant, University of Yaounde II Soa, Cameroon

³ Magistrate and Lecturer in Law, Cameroon

* Correspondence: Research Fellow, University of Buea, Cameroon.

<https://doi.org/10.53104/curr.res.law.pract.2026.06002>

Citation: Nkwiir, K. A., Vanessa, E. A., & Junior, A. N. R. (2026). The Right to Human Dignity in the Age of Artificial Intelligence: Addressing Emerging Forms of Algorithmic Discrimination Under International Human Rights Law. *Current Research in Law & Practice*, 4(2), 35-55.

Copyright: © 2026 by the authors. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: The rapid development and deployment of artificial intelligence (AI) has transformed decision-making in employment, healthcare, education, finance, policing and public administration. While AI offers opportunities for efficiency and innovation, its reliance on algorithms and large datasets has created emerging forms of algorithmic discrimination that may undermine equality, autonomy and human dignity. This study examines the right to human dignity in the age of AI, focusing on addressing algorithmic discrimination under international human rights law. It considers discrimination arising from biased datasets, discriminatory proxies, automated profiling and opaque decision-making. Using a doctrinal legal research methodology, the study analyses relevant international and regional human rights instruments, scholarly literature and emerging AI governance frameworks. It finds that principles of equality, non-discrimination, human dignity, transparency, accountability and effective remedies provide a foundation for addressing algorithmic discrimination, but require progressive interpretation and stronger implementation. The study further finds that algorithmic discrimination may undermine dignity by reducing individuals to data profiles, statistical classifications or automated scores, while limiting their ability to understand and challenge decisions affecting their rights. It recommends stronger international standards, mandatory human-rights and algorithmic impact assessments, transparency and explainability, meaningful human oversight, effective remedies and stronger African regional standards on AI. The study concludes that AI development must remain human-centred and rights-respecting, ensuring that technological advancement does not compromise the inherent dignity and equal worth of every human being.

Keywords: artificial intelligence; algorithm; algorithmic discrimination; human dignity; international human rights law; non-discrimination

1. Introduction

Artificial intelligence (AI) has become one of the most transformative technologies of the twenty-first century, increasingly influencing decisions in employment, healthcare, banking, policing, migration, education and social welfare. Although algorithmic systems promise efficiency, accuracy and objectivity, they can also reproduce or amplify existing social inequalities. Algorithmic discrimination may arise from biased training data, historical inequalities, discriminatory proxies, flawed system design or feedback loops, even where there is no explicit intention to discriminate.¹ Consequently, AI-driven decision-making presents an emerging challenge to the protection of fundamental human rights. At the center of this challenge is the right to human dignity, a foundational principle of international human rights law. The Universal Declaration of Human Rights (UDHR) recognizes the inherent dignity and equal and inalienable rights of all members of the human family and affirms that all human beings are born free and equal in dignity and rights.² Human dignity therefore encompasses the inherent worth, autonomy and equal status of every person. When individuals are subjected to consequential decisions generated by opaque algorithms that they cannot adequately understand, challenge or correct, discriminatory outcomes may undermine not only equality but also their dignity as autonomous and equal members of society.

Algorithmic discrimination can manifest through racial and ethnic profiling, gender bias, disability discrimination, socioeconomic exclusion and discriminatory treatment of migrants and other vulnerable groups. Research has demonstrated, for

example, that automated systems can reproduce historical patterns of discrimination and that some facial-recognition technologies have exhibited significant disparities in accuracy across demographic groups.³ These developments demonstrate that discriminatory outcomes may become embedded within technological systems rather than arising solely from deliberate human prejudice. As Barocas and Selbst observe, data-driven decision-making can produce discriminatory effects even where decision-makers lack an intention to discriminate.⁴

The human rights implications are substantial because AI increasingly operates in areas directly affecting fundamental rights. Automated employment decisions may affect equality and the right to work; predictive policing may interfere with privacy and liberty; algorithmic credit assessments may influence access to economic opportunities; and automated migration systems may affect the rights of migrants and asylum seekers. The Human Rights Council has consequently emphasized the importance of ensuring that technological development, including artificial intelligence, remains consistent with human rights obligations.⁵ Algorithmic discrimination must therefore be understood not merely as a technological or ethical problem but as an emerging international human rights concern.

Existing international human rights law provides an important normative foundation for addressing these challenges. The International Covenant on Civil and Political Rights (ICCPR) protects privacy, equality and non-discrimination, while article 26 establishes the right to equal protection of the law without discrimination.⁶ The International Covenant on Economic, Social and Cultural Rights

¹ Solon Barocas and Andrew D Selbst, 'Big Data's Disparate Impact' (2016) 104 *California Law Review* 671; Inioluwa Deborah Raji and others, 'Closing the AI Accountability Gap: Defining an End-to-End Framework for Internal Algorithmic Auditing' (2020) 3 *FAT* 33.

² *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), arts. 1–2.

³ Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research*, 81, 1.

⁴ Barocas, S., & Selbst, A. D. (2016). Big data's disparate impact. *California Law Review*, 104, 671.

⁵ Human Rights Council. (2024, June 28). *The right to privacy in the digital age* (UN Doc A/HRC/RES/56/5).

⁶ *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, arts. 17 and 26. Entered into force March 23, 1976.

(ICESCR) similarly prohibits discrimination in the enjoyment of the rights recognized therein.¹ Regional instruments, including the European Convention on Human Rights, American Convention on Human Rights and African Charter on Human and Peoples' Rights, reinforce these guarantees.² Although these instruments predate contemporary AI technologies, their principles are sufficiently broad to apply to technologically mediated forms of discrimination.

A further difficulty is the opacity of algorithmic decision-making. Machine-learning systems can operate through complex processes that are difficult for affected individuals and regulators to understand. This "black box" problem may prevent individuals from knowing why an adverse decision was made and may complicate efforts to establish discrimination or identify the responsible actor.³ The fragmentation of responsibility among developers, data providers, technology companies, public authorities and users further creates an algorithmic accountability gap.⁴ Effective human rights protection therefore requires mechanisms capable of ensuring transparency, meaningful human oversight and access to effective remedies. The issue is particularly important for developing countries and African states, where AI adoption may progress more rapidly than regulatory and institutional capacity. The African human rights framework, with its strong emphasis on dignity, equality and non-discrimination, provides an important foundation for developing a distinctly human-rights-centered approach to AI governance.⁵ African states should therefore not merely replicate regulatory approaches developed elsewhere but should contribute to the development of governance

models responsive to their own technological, socio-economic and institutional realities.

Although existing scholarship has extensively examined AI ethics, privacy, data protection, surveillance and algorithmic bias, a significant doctrinal gap remains concerning the relationship between algorithmic discrimination and human dignity under international human rights law. This article addresses that gap by examining algorithmic discrimination as not merely a technical defect but as a potential infringement of the inherent dignity and equal worth of the human person. This article further argues that AI governance must ultimately be measured by its capacity to preserve human dignity, equality and fundamental rights. It examines the principal forms of algorithmic discrimination, analyses their compatibility with international and regional human rights standards, evaluates the accountability challenges created by automated decision-making and considers the responsibilities of states and private actors.

Ultimately, it proposes a human-dignity-centered framework for AI governance, founded upon equality, non-discrimination, transparency, meaningful human oversight, accountability and effective remedy. The central proposition is that technological progress must remain subordinate to the fundamental principle that artificial intelligence should serve humanity without diminishing the dignity and equal worth of the human person.

2. Lexical and Conceptual Clarification

This section clarifies the principal concepts underpinning the study, namely right, human dignity, artificial intelligence, algorithm, algorithmic discrimination, and international

¹ *International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3, art. 2(2). Entered into force January 3, 1976.

² *Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights)*, arts. 8 and 14; *American Convention on Human Rights*. (1969, November 22). 1144 UNTS 123, arts. 1(1) and 24. Entered into force July 1, 1978; *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217, arts. 2 and 5. Entered into force October 21, 1986.

³ Burrell, J. (2016). How the machine "thinks": Understanding opacity in machine learning algorithms. *Big Data & Society*, 3, 1; Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.

⁴ Raji, I. D., et al. (2020). Closing the AI accountability gap: Defining an end-to-end framework for internal algorithmic auditing. *FAT*, 3, 33.

⁵ *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217. Entered into force October 21, 1986; African Union. (2022). *Data policy framework*. African Union.

human rights law. Each concept is examined from its etymological origin and lexical meaning before considering its contemporary legal or technical significance and relevance to the present study.

2.1 Right

The concept of right is fundamental to determining the entitlements protected in this study and therefore requires brief lexical and conceptual clarification.

Lexically, the word right is derived from the Old English *riht*, meaning “just”, “proper”, “correct” or “fair”. It is historically associated with the idea of straightness, correctness and conformity to an accepted standard. Its meaning subsequently developed to encompass notions of justice, entitlement and what is legally or morally owed to a person.¹

Conceptually, in legal discourse, a right denotes a legally or morally recognized entitlement, claim, liberty or interest belonging to an individual or group. Hohfeld’s classical analysis demonstrates that legal rights may assume different forms, including claims, liberties, powers and immunities.² Within this study, *right* refers principally to an entitlement protected by international human rights law, particularly rights relating to equality, non-discrimination, privacy, autonomy and human dignity. The Universal Declaration of Human Rights (UDHR) recognizes the inherent dignity and equal and inalienable rights of all members of the human family.³ The concept is particularly relevant because algorithmic discrimination may interfere with rights such as equality, non-discrimination, privacy, employment, education and access to essential services. The study therefore examines whether AI-driven decision-making respects or undermines legally protected human entitlements.

2.2 Human Dignity

The concept of human dignity provides the normative foundation for examining how algorithmic discrimination may affect the inherent worth of individuals.

The word dignity derives from the Latin *dignitas*, meaning “worthiness”, “merit”, “esteem” or “honour”, and is associated with *dignus*, meaning “worthy” or “fitting”. Historically, *dignitas* could signify elevated social standing or honour. Its modern human rights meaning has developed towards the idea of intrinsic worth possessed equally by every human being.⁴

From a conceptual lens, human dignity denotes the inherent worth and equal status of every human person. The UDHR recognizes the inherent dignity of all members of the human family and declares that all human beings are born free and equal in dignity and rights.⁵ Kant’s influential philosophy further associates dignity with intrinsic human worth and the principle that persons should never be treated merely as means to an end.⁶

In this present study, human dignity constitutes the central normative value against which the use of artificial intelligence is assessed. Algorithmic discrimination may undermine dignity where individuals are stereotyped, categorized, excluded or subjected to consequential decisions without adequate regard for their inherent worth and equal status. The study therefore treats dignity as requiring AI systems and their human operators to respect individuals as autonomous and equal rights-bearing persons.

2.3 Artificial Intelligence

Artificial intelligence is central to this study because it constitutes the technological context within which algorithmic discrimination may occur.

¹ Oxford English Dictionary. (n.d.). Right, adj and n. In *OED Online*. Oxford University Press.

² Hohfeld, W. N. (1913). Some fundamental legal conceptions as applied in judicial reasoning. *Yale Law Journal*, 23, 16.

³ *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), preamble.

⁴ McCrudden, C. (2008). Human dignity and judicial interpretation of human rights. *European Journal of International Law*, 19, 655.

⁵ *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), art. 1.

⁶ Kant, I. (1997). *Groundwork of the metaphysics of morals* (M. Gregor, Trans.). Cambridge University Press.

The expression artificial intelligence combines *artificial*, derived from Latin *artificialis*, associated with something produced through human skill or craftsmanship, and *intelligence*, derived from Latin *intelligentia* and *intelligere*, meaning to understand, comprehend or discern. Lexically, the expression therefore conveys the idea of human-made or artificially produced capacity for intellectual activity.¹

Contemporary artificial intelligence refers to computational systems capable of performing functions associated with human intelligence, including learning, reasoning, prediction, classification, recognition and decision-making. The OECD defines an AI system as a machine-based system that generates outputs such as predictions, content, recommendations or decisions capable of influencing physical or virtual environments.²

For this study, artificial intelligence refers to computational systems capable of processing information and generating predictions, classifications, recommendations or decisions capable of affecting the rights, opportunities or welfare of individuals. Its relevance lies in the increasing use of AI in consequential areas such as recruitment, credit assessment, policing, healthcare, education and public administration. The study consequently examines how the deployment of AI in such contexts may affect human dignity and the enjoyment of internationally protected rights.

2.4 Algorithm

The concept of an algorithm is essential because it represents the computational mechanism through which data are processed and outputs are generated.

The word algorithm derives ultimately from the name of the ninth-century Persian mathematician Muhammad ibn Musa al-Khwarizmi. His Latinized name, *Algoritmi*, became associated with methods of calculation and eventually developed into the

modern term “algorithm”.³ The term subsequently evolved from numerical calculation to the broader idea of a systematic procedure for solving a problem or accomplishing a task.

In computer science, an algorithm is generally understood as a structured set of instructions or rules for processing inputs and producing a specified output.⁴ An algorithm should nevertheless be distinguished from AI: not every algorithm constitutes artificial intelligence, although AI systems depend upon algorithms.

For purposes of this study, an algorithm refers to a structured computational procedure through which data or other inputs are processed to generate an output, prediction, classification, recommendation or decision.

The concept is relevant because the design, training, data inputs and operation of algorithms may reproduce existing social inequalities or generate new forms of unequal treatment. The algorithm is therefore examined as a potential mechanism through which discrimination can become technologically embedded.

2.5 Algorithmic Discrimination

Algorithmic discrimination constitutes the central problem examined in this research and connects technological processes with the principle of equality and non-discrimination.

Lexically, the expression algorithmic discrimination combines *algorithmic*, relating to an algorithm, and *discrimination*, which derives from the Latin *discriminare*, meaning “to distinguish”, “separate” or “divide”. Although discrimination originally carried a neutral meaning of distinction, its contemporary legal usage generally denotes

¹ Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.

² OECD. (2019). *Recommendation of the Council on Artificial Intelligence* (OECD/LEGAL/0449; adopted May 22, 2019; amended 2024).

³ Campbell-Kelly, M., et al. (2003). *The history of mathematical tables: From Sumer to spreadsheets*. Oxford University Press.

⁴ Cormen, T. H., et al. (2022). *Introduction to algorithms* (4th ed.). MIT Press.

unjustified differential treatment, exclusion, restriction or disadvantage.¹

Algorithmic discrimination occurs where an algorithm or AI system produces unjustified differential treatment, exclusion or disadvantage. It may be direct or indirect, intentional or unintentional, and may arise from biased datasets, historical inequalities, proxy variables, system design or deployment.²

Barocas and Selbst demonstrate that data-driven systems can generate discriminatory effects even where decision-makers do not intentionally discriminate.³ Buolamwini and Gebru similarly identified significant demographic disparities in certain commercial facial-analysis systems.⁴

For this study, algorithmic discrimination means unjustified direct or indirect differential treatment, exclusion, restriction or disadvantage produced or facilitated by an algorithm or AI system, particularly where such outcomes impair the equal enjoyment of human rights.

This is the central phenomenon investigated by the article. The study examines whether discriminatory algorithmic outcomes constitute violations of equality and non-discrimination and, more broadly, whether they undermine the inherent dignity of affected persons. It consequently moves beyond viewing algorithmic bias as merely a technical defect and examines it as a potential international human rights concern.

2.6 International Human Rights Law

International human rights law provides the principal legal framework through which the

human rights implications of algorithmic discrimination are assessed.

The expression international human rights law consists of four interconnected terms. *International* derives from *inter* (“between” or “among”) and *national*; *human* derives from the Latin *humanus*, meaning relating to human beings; *right* carries associations with justice, propriety and entitlement; and *law* derives from Old English *lagu*, referring to an established rule. Collectively, the expression conveys the idea of rules operating beyond the national sphere for the protection of human entitlements.

International human rights law constitutes the body of international legal norms designed to protect the inherent rights and freedoms of individuals and groups and to establish corresponding obligations upon states. Its foundations include the UDHR, international human rights treaties, customary international law and regional human rights instruments.

The International Covenant on Civil and Political Rights protects equality and non-discrimination, including through article 26, while the International Covenant on Economic, Social and Cultural Rights prohibits discrimination in the enjoyment of the rights recognized therein.⁵ Regional instruments, including the European Convention on Human Rights, the American Convention on Human Rights and the African Charter on Human and Peoples’ Rights, provide additional safeguards.⁶

For purposes of this study, international human rights law refers to the body of international and regional legal norms through which the

¹ Oxford English Dictionary. (n.d.). Discrimination, n. In *OED Online*. Oxford University Press.

² Raji, I. D., et al. (2020). Closing the AI accountability gap: Defining an end-to-end framework for internal algorithmic auditing. *FAT*, 3, 33.

³ Barocas, S., & Selbst, A. D. (2016). Big data’s disparate impact. *California Law Review*, 104, 671.

⁴ Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research*, 81, 1.

⁵ *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, arts. 2 and 26. Entered into force March 23, 1976; *International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3, art. 2(2). Entered into force January 3, 1976.

⁶ *Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights, as amended)*, arts. 8 and 14; *American Convention on Human Rights*. (1969, November 22). 1144 UNTS 123, arts. 1(1) and 24. Entered into force July 18, 1978; *African Charter on Human and Peoples’ Rights*. (1981, June 27). 1520 UNTS 217, arts. 2 and 5. Entered into force October 21, 1986.

development, deployment and consequences of AI and algorithmic decision-making are assessed against human dignity, equality, non-discrimination and other fundamental rights.

Its relevance is therefore direct: IHRL provides the normative and legal standards against which discriminatory AI practices can be evaluated. The present study consequently investigates whether existing international human rights norms are sufficiently capable of regulating AI-related discrimination and protecting individuals from technologically mediated violations of their dignity and fundamental rights.

The six concepts are closely interconnected. A right constitutes the legally protected entitlement; human dignity supplies its foundational value; artificial intelligence represents the technological environment; an algorithm provides the computational mechanism; algorithmic discrimination identifies the potential harmful consequence; and international human rights law provides the legal framework through which such harm is evaluated. Accordingly, the present study does not treat algorithmic discrimination merely as a technological or computational problem. Rather, it examines it as a contemporary manifestation of unequal treatment capable of affecting the inherent dignity and fundamental rights of individuals. The concepts collectively provide the analytical foundation for determining whether, and to what extent, international human rights law can effectively address discriminatory outcomes produced by artificial intelligence.

3. Problem Statement

The rapid deployment of artificial intelligence (AI) across different sectors has created new forms of discrimination that may threaten human dignity and fundamental rights. In employment, Amazon's experimental recruitment algorithm was reported to disadvantage women because it learned from

historically male-dominated recruitment data.¹ In healthcare, an algorithm used to allocate medical resources was found to underestimate the healthcare needs of Black patients.² In criminal justice, the COMPAS risk-assessment system raised concerns about racial disparities in predicting recidivism.³ Similarly, facial-recognition technologies have demonstrated significant differences in accuracy across demographic groups, particularly affecting darker-skinned women.⁴ These examples demonstrate that algorithms presented as objective and neutral may reproduce existing social inequalities or generate discriminatory outcomes. Such outcomes can affect access to employment, healthcare, liberty, education, finance and public services, thereby implicating equality, non-discrimination and human dignity.

Although international human rights law protects these fundamental values, most existing instruments predate contemporary AI and do not expressly regulate algorithmic decision-making. The central problem is therefore whether existing international human rights law is sufficiently equipped to prevent and remedy algorithmic discrimination while protecting the inherent dignity and equal rights of affected individuals.

4. Theoretical Framework

This study is anchored principally in Human Dignity Theory, supported by Equality and Non-Discrimination Theory and the Human Rights-Based Approach. These perspectives provide complementary lenses for examining whether algorithmic decision-making can produce discriminatory outcomes that undermine the dignity and fundamental rights of individuals.

4.1 Human Dignity Theory

Although human dignity has ancient philosophical origins, its modern philosophical formulation is

¹ Dastin, J. (2018, October 10). Amazon scraps secret AI recruiting tool that showed bias against women. *Reuters*.

² Obermeyer, Z., et al. (2019). Dissecting racial bias in an algorithm used to manage the health of populations. *Science*, 366, 447.

³ Angwin, J., et al. (2016, May 23). Machine bias. *ProPublica*.

⁴ Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research*, 81, 1.

most strongly associated with Immanuel Kant (1785), particularly his *Groundwork of the Metaphysics of Morals*. Kant distinguished between things possessing a price and persons possessing dignity, arguing that rational human beings must always be treated as ends in themselves and never merely as means.¹

The concept subsequently developed from a philosophical principle into a central normative principle of modern human rights law. Its importance is reflected in the Universal Declaration of Human Rights (1948), which begins by recognizing the 'inherent dignity' of all members of the human family.²

Human Dignity Theory provides the principal theoretical foundation of this research. AI systems may reduce individuals to data points, risk scores, behavioral profiles or statistical categories. Where such classifications determine access to employment, healthcare, education, credit or public services without adequate regard for individual circumstances, the individual's autonomy and inherent worth may be compromised. The theory therefore enables this study to examine whether algorithmic discrimination constitutes not merely unequal treatment but a deeper interference with the intrinsic worth, autonomy and equal status of human beings.

4.2 Equality and Non-Discrimination Theory

Unlike Kant's Human Dignity Theory, Equality and Non-Discrimination Theory does not have a single universally recognized founder. Its intellectual foundations can be traced to classical theories of equality, particularly Aristotle's conception of distributive and corrective justice in the fourth century BC, which distinguished between treating equals equally and unequals proportionately.³

In modern constitutional and human rights discourse, the theory was significantly developed through the work of scholars such as Ronald Dworkin (1977), particularly his conception of equality as a fundamental political right.⁴ Contemporary anti-discrimination scholarship has further developed distinctions between direct and indirect discrimination, formal and substantive equality, and equality of treatment and opportunity. The theory is directly relevant because algorithmic systems may produce discriminatory outcomes even where they do not expressly use protected characteristics. Variables such as geographical location, purchasing behavior, employment history or educational background may function as proxies for race, sex, disability or socioeconomic status.

The theory therefore provides the analytical basis for determining whether apparently neutral AI systems produce direct or indirect discrimination, and whether differential outcomes can be objectively and reasonably justified under international human rights standards.

4.3 Human Rights-Based Approach

The Human Rights-Based Approach (HRBA) does not have a single individual founder in the same manner as a philosophical theory. Rather, it developed progressively within the United Nations system during the 1990s and early 2000s, particularly through the integration of human rights principles into development policies and programming. Its institutional consolidation followed the 1997 UN reform program, while the United Nations Development Group's *Common Understanding on Human Rights-Based Approaches to Development Cooperation* in 2003 provided an important framework for its application.⁵

The approach is grounded in the principle that development, governance and institutional

¹ Kant, I. (1997). *Groundwork of the metaphysics of morals* (M. Gregor, Trans.). Cambridge University Press. (Original work published 1785)

² *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), preamble and art. 1.

³ Aristotle. (2000). *Nicomachean ethics* (R. Crisp, Trans.; V.3–5). Cambridge University Press. (Original work written ca. 350 BC)

⁴ Dworkin, R. (1977). *Taking rights seriously*. Harvard University Press.

⁵ United Nations Development Group. (2003). *The human rights based approach to development cooperation: Towards a common understanding among UN agencies*.

decision-making should be directed towards the realization of internationally recognized human rights and guided by principles including universality, participation, accountability, equality and non-discrimination. The HRBA is particularly relevant to AI because technological development should not be assessed solely according to efficiency, innovation or economic utility. AI systems must also be designed, deployed and governed in ways that respect human rights.¹

Applied to algorithmic discrimination, the HRBA requires attention to transparency, accountability, participation, non-discrimination, human oversight and effective remedies. It consequently assists this study in determining what obligations should be imposed upon states and other relevant actors to prevent and remedy discriminatory AI outcomes.

Taken together, these theories enable the study to move beyond the technical question of whether an algorithm is accurate and examine the more fundamental legal question of whether AI-driven decision-making respects the equal dignity, autonomy and fundamental rights of every human being.

5. Methodology

This study adopts a qualitative doctrinal legal research methodology, complemented by a critical and analytical approach. The methodology is appropriate because the research examines international legal norms, principles, jurisprudence and scholarly literature concerning human dignity, equality, non-discrimination and artificial intelligence.

5.1 Research Approach

The study employs a doctrinal approach to identify, interpret and synthesize relevant legal rules and principles. Doctrinal legal research principally investigates legal doctrines, concepts, principles, cases and other authoritative legal materials.² The

approach enables the study to determine the existing legal position concerning the protection of human dignity and equality in the context of algorithmic discrimination. The research also adopts a critical analytical approach to examine whether existing international human rights standards are sufficiently capable of addressing discriminatory outcomes generated by AI.

5.2 Sources of Data

The study relies primarily on primary and secondary legal materials. Primary sources include international human rights treaties, declarations, resolutions, regional human rights instruments, judicial and quasi-judicial decisions, and relevant international standards on AI.

Secondary sources comprise scholarly books, peer-reviewed journal articles, institutional reports, policy documents and authoritative academic commentary on AI, algorithmic discrimination, human dignity and human rights. The UNESCO Recommendation on the Ethics of Artificial Intelligence (2021) is particularly relevant because it expressly places human dignity and human rights at the centre of AI governance and emphasizes fairness, transparency, accountability and human oversight.³

5.3 Method of Analysis

The materials collected are subjected to legal interpretation, content analysis and critical analysis. Relevant international legal provisions and jurisprudence are examined to establish the scope of protection afforded to dignity, equality and non-discrimination. Documented examples of algorithmic discrimination in employment, healthcare, criminal justice and facial recognition are then used to demonstrate the practical implications of the legal problem.

The study consequently moves from identification of the applicable law, through interpretation and

¹ McCrudden, C. (2008). Human dignity and judicial interpretation of human rights. *European Journal of International Law*, 19, 655.

² Hutchinson, T., & Duncan, N. (2012). Defining and describing what we do: Doctrinal legal research. *Deakin Law Review*, 17(1), 83.

³ UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021).

critical evaluation, to assessment of its adequacy in addressing AI-related discrimination.

5.4 Scope and Limitations

The study focuses specifically on algorithmic discrimination and its implications for human dignity under international human rights law. It does not undertake a technical examination of machine-learning architecture, programming or algorithmic engineering. National and regional examples are considered principally to illustrate the practical manifestation of the problem and to inform the broader international human rights analysis.

5.5 Justification of the Methodology

The methodology is appropriate because the central question is fundamentally legal: whether existing international human rights law adequately protects human dignity against discriminatory outcomes produced by AI systems. A doctrinal methodology permits systematic examination of existing legal standards, while the critical analytical component enables the study to identify gaps and limitations within those standards.

The methodology also permits the study to engage with emerging international AI governance frameworks. For example, UNESCO's 2021 Recommendation adopts a human-rights-centred approach and emphasises that AI governance should incorporate human dignity, fairness, transparency, accountability and human oversight.¹

6. Literature Review

The literature on artificial intelligence and human rights has expanded considerably, particularly around algorithmic bias, discrimination, dignity, transparency and accountability. However, the literature remains fragmented between technological, ethical and legal perspectives. The following ten materials are particularly relevant to the present study because, collectively, they provide

the foundation for examining algorithmic discrimination specifically through the lens of human dignity and international human rights law. Barocas and Selbst provide one of the foundational legal analyses of how data-driven systems can generate discriminatory outcomes. They demonstrate that apparently neutral data-processing practices may produce disparate impacts because of historical inequalities embedded in datasets, the selection of variables and the structure of decision-making systems. Their work is particularly important because it challenges the assumption that discrimination requires intentional human bias.

The major contribution of this work to the present study lies in demonstrating the structural nature of algorithmic discrimination. However, its primary focus is on discrimination and legal doctrine rather than the human dignity implications of algorithmic decision-making under international human rights law. The present study builds upon this gap by connecting discriminatory algorithmic outcomes with dignity and broader international human rights obligations.²

Joy Buolamwini and Timnit Gebru, 'Gender Shades' (2018) Buolamwini and Gebru provide important empirical evidence of discriminatory performance in commercial facial-analysis technologies. Their study revealed significant differences in classification accuracy across gender and skin-tone groups, with particularly poor performance for darker-skinned women.³

The importance of this study to the present research is that it demonstrates that algorithmic discrimination is not merely theoretical. It can be empirically observed in technologies capable of affecting people's identity, privacy and participation in society. Nevertheless, the study is primarily technical and empirical. It does not comprehensively examine the implications of these disparities under international human rights law or

¹ *Ibid.*

² Barocas, S., & Selbst, A. D. (2016). Big data's disparate impact. *California Law Review*, 104, 671.

³ Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research*, 81, 1.

analyze them through the broader concept of human dignity.

Obermeyer and his co-authors examine racial bias in a healthcare algorithm used to allocate healthcare resources. The study found that the algorithm underestimated the health needs of Black patients because it relied on healthcare expenditure as a proxy for healthcare need.¹

This contribution is particularly relevant because it demonstrates how seemingly neutral variables can function as proxies for protected characteristics, thereby producing discriminatory outcomes. The study provides strong evidence of the human consequences of algorithmic bias. Its limitation for the present research is that it primarily approaches the issue from a medical and algorithmic perspective rather than examining the consequences through the normative framework of international human rights and human dignity.

Angwin and others examined the COMPAS criminal justice risk-assessment system and reported racial disparities in predictions of recidivism.² The work became influential in discussions concerning algorithmic transparency, fairness and the use of automated systems in criminal justice.

Its relevance to the present study lies in demonstrating that algorithmic decision-making can affect fundamental interests such as liberty and equal treatment. However, the work is principally concerned with criminal justice and algorithmic fairness. The present study adopts a broader international human rights perspective by examining how such discriminatory systems may implicate dignity, equality and non-discrimination across multiple sectors.

Borgesius provides a recent and particularly important examination of discrimination generated by AI and algorithmic decision-making. His analysis considers how existing anti-discrimination law can

address algorithmic discrimination and identifies weaknesses in the application and enforcement of existing legal frameworks.³

The work is highly relevant because it demonstrates that existing discrimination law can address many forms of algorithmic discrimination, particularly through the concept of indirect discrimination, but also identifies significant limitations. Its principal focus, however, is European anti-discrimination law. The present study extends the inquiry by focusing specifically on international human rights law and the right to human dignity, thereby providing a broader normative and international dimension.

Teo provides one of the most directly relevant theoretical contributions to the present study. She identifies four understandings of human dignity in the AI context: non-instrumentalization of the human person, protection of vulnerable persons, recognition of inherent self-worth and autonomy, and protection of humanity as a whole.⁴

This work is particularly valuable because it demonstrates that human dignity can address AI-related challenges that may not fit neatly within individual rights such as privacy or non-discrimination. Nevertheless, its emphasis is broader than algorithmic discrimination specifically. The present study builds upon Teo's analysis by applying dignity more directly to discriminatory algorithmic outcomes and situating the analysis within international human rights law. The UNESCO, Recommendation on the Ethics of Artificial Intelligence (2021)-although not a conventional academic article, constitutes an important normative contribution to the literature on AI and human rights. It places human rights and fundamental freedoms, human dignity, fairness, transparency, accountability and human oversight at the center of AI governance.⁵

¹ Obermeyer, Z., et al. (2019). Dissecting racial bias in an algorithm used to manage the health of populations. *Science*, 366, 447.

² Angwin, J., et al. (2016, May 23). Machine bias. *ProPublica*.

³ Zuiderveen Borgesius, F. J. (2025). *Discrimination, artificial intelligence, and algorithmic decision-making*. Council of Europe.

⁴ Teo, S. A. (2023). Human dignity and AI: Mapping the contours and utility of human dignity in addressing challenges presented by AI. *Law, Innovation and Technology*, 15, 223.

⁵ UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021).

Its significance for the present study is substantial because it demonstrates growing international recognition that AI must remain consistent with human rights principles. Nevertheless, the Recommendation is a soft-law instrument and does not, by itself, establish a comprehensive binding international regime specifically addressing algorithmic discrimination. This creates an important question for the present research concerning the adequacy and enforceability of existing international human rights mechanisms.

The Council of Europe, Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law (2024) represents an important development in international AI governance. It adopts a human-rights-centered framework and expressly connects AI governance with human dignity, individual autonomy, equality and non-discrimination.¹

The Convention is particularly relevant because it demonstrates a movement from voluntary ethical principles towards legally binding international regulation. However, questions remain concerning its global reach, implementation and capacity to address the rapidly evolving forms of algorithmic discrimination generated by AI systems operating across jurisdictions. The present study therefore considers whether developments such as the Framework Convention are sufficient to close existing gaps in international human rights protection.

The reviewed literature establishes that algorithmic discrimination is a real and demonstrable phenomenon affecting areas such as employment, healthcare, criminal justice and biometric identification. It also demonstrates that AI can threaten autonomy, equality, privacy and human dignity. However, the literature remains divided into three principal strands: technical studies examining algorithmic bias; legal scholarship examining discrimination and regulation; and

philosophical scholarship examining human dignity and AI.

The principal gap identified by this study is the insufficient integration of these three strands within a single international human rights analysis. Existing scholarship has not sufficiently examined how algorithmic discrimination specifically affects the right to human dignity, nor has it adequately interrogated whether existing international human rights law provides effective mechanisms for preventing, addressing and remedying such discrimination.

This study therefore seeks to fill the gap by placing human dignity at the center of the legal analysis of algorithmic discrimination, while examining equality, non-discrimination, autonomy, accountability and effective remedies within the broader framework of international human rights law.

7. Legal Framework

The legal framework of this study is examined at two principal levels: the international and regional African levels. The international framework establishes universal standards relating to human dignity, equality, non-discrimination, privacy and socio-economic rights, while the African regional framework gives these principles regional legal expression. Because most foundational human rights instruments predate contemporary artificial intelligence, the analysis also considers emerging AI-specific international standards to determine how established human rights norms can be applied to algorithmic decision-making.

7.1 International Legal Framework

The international legal framework provides the foundational normative basis for examining whether algorithmic decision-making is compatible with human dignity and fundamental rights. It consists principally of universal human rights

¹ Council of Europe. (2024). *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law* (adopted May 17, 2024; opened for signature September 5, 2024).

instruments, supplemented by emerging international standards specifically addressing artificial intelligence.

7.1.1 Universal Declaration of Human Rights, 1948

The Universal Declaration of Human Rights (UDHR), adopted in 1948, constitutes the foundational international instrument for the protection of human dignity and equality. Article 1 provides that all human beings are born free and equal in dignity and rights, while article 2 guarantees the enjoyment of the rights and freedoms proclaimed in the Declaration without distinction based on grounds including race, colour, sex, language, religion, national or social origin, property, birth or other status.¹ These provisions are directly relevant to algorithmic discrimination because an AI system that systematically disadvantages individuals or groups on the basis of protected characteristics may undermine the principles of equal dignity and non-discrimination. The UDHR therefore provides the normative starting point for examining whether technological decision-making respects the equal worth of every human being.

7.1.2 International Covenant on Civil and Political Rights, 1966

The International Covenant on Civil and Political Rights (ICCPR), adopted in 1966, transforms several of the UDHR's principles into binding treaty obligations for States Parties. Article 2(1) requires States to respect and ensure the rights recognized in the Covenant without distinction, while article 17 protects individuals against arbitrary or unlawful interference with their privacy, family, home or correspondence.² Of particular importance is article 26, which guarantees equality before the law and equal protection of the law and prohibits

discrimination.³ These provisions are relevant where AI is deployed in policing, surveillance, immigration, employment or public administration. For example, an algorithmic profiling system that disproportionately targets a racial or ethnic group may raise concerns under both the non-discrimination guarantee in article 26 and the privacy protection in article 17.

7.1.3 International Covenant on Economic, Social and Cultural Rights, 1966

The International Covenant on Economic, Social and Cultural Rights (ICESCR), adopted in 1966, is particularly relevant to algorithmic systems used in areas affecting socio-economic rights. Article 2(2) prohibits discrimination in the enjoyment of Covenant rights, while article 3 guarantees equal rights of men and women in the enjoyment of those rights.⁴ The Covenant further protects the right to work under article 6, the right to health under article 12, and the right to education under article 13.⁵ These provisions are significant where AI systems are used in recruitment, healthcare allocation, educational admission or social protection.

An algorithm that systematically excludes or disadvantages a particular group in accessing these services may therefore implicate both substantive rights and the principle of non-discrimination.

7.1.4 Convention on the Elimination of All Forms of Discrimination Against Women, 1979

The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), adopted in 1979, provides a specialized framework for addressing gender-based discrimination. Article 1 defines discrimination against women, while article 2 requires States Parties to pursue policies aimed at eliminating discrimination against women.⁶ Article 11 specifically requires States to eliminate

¹ *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), arts. 1–2.

² *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, arts. 2(1) and 17. Entered into force March 23, 1976.

³ *Ibid*.

⁴ *International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3, arts. 2(2) and 3. Entered into force January 3, 1976.

⁵ *Ibid* art 26.

⁶ *Convention on the Elimination of All Forms of Discrimination against Women*. (1979, December 18). 1249 UNTS 13, arts. 1–2. Entered into force September 3, 1981.

discrimination against women in employment.¹ These provisions are relevant to AI systems used in recruitment, promotion and employment evaluation, particularly where historical datasets reproduce gender inequalities. Algorithmic decision-making may appear facially neutral while nevertheless reproducing patterns of discrimination embedded within historical data.

7.1.5 Convention on the Rights of Persons with Disabilities, 2006

The Convention on the Rights of Persons with Disabilities (CRPD), adopted in 2006, further strengthens the international framework against discriminatory technological practices. Article 5 guarantees equality and non-discrimination, while article 9 addresses accessibility and article 22 protects privacy.² Article 27 recognizes the right of persons with disabilities to work on an equal basis with others.³ These provisions are relevant to AI-based recruitment systems, automated healthcare technologies, facial-recognition systems and other technologies that may fail to accommodate persons with disabilities. Where technological systems systematically exclude persons with disabilities or produce adverse outcomes because of disability-related characteristics, the issue extends beyond technological inefficiency to one of legally significant discrimination.

7.1.6 UNESCO Recommendation on the Ethics of Artificial Intelligence, 2021

The UNESCO Recommendation on the Ethics of Artificial Intelligence, adopted in 2021, represents one of the most significant international normative developments specifically addressing AI. It places human rights and fundamental freedoms, human dignity, equality, fairness, transparency, accountability and human oversight at the center of

AI governance.⁴ The Recommendation recognizes that AI systems may reproduce and reinforce existing biases and inequalities, thereby generating discrimination and exclusion. Its provisions on fairness and non-discrimination require measures to prevent AI systems from producing discriminatory outcomes, while its provisions on transparency and explainability recognize the importance of enabling individuals to understand and challenge decisions affecting them.⁵ Its emphasis on responsibility and accountability is also relevant where discriminatory outcomes arise from complex AI systems involving multiple actors.⁶

Although the Recommendation is a soft-law instrument, it provides important evidence of an emerging international consensus that AI development and deployment should remain consistent with human rights and human dignity.

7.2 Regional African Human Rights Framework

The African regional framework provides an important second level of analysis because the African Charter on Human and Peoples' Rights expressly protects both human dignity and non-discrimination. This makes the African system particularly relevant to a study concerned with the relationship between algorithmic discrimination and human dignity.

7.2.1 African Charter on Human and Peoples' Rights, 1981

The African Charter on Human and Peoples' Rights, adopted in 1981, constitutes the principal regional human rights instrument. Article 2 prohibits discrimination in the enjoyment of the rights and freedoms recognized in the Charter, while article 3(1) guarantees equality before the law and article 3(2) guarantees equal protection of the law.⁷ Most importantly for this study, article 5 protects the right

¹ *Ibid* art 11.

² *Convention on the Rights of Persons with Disabilities*. (2006, December 13). 2515 UNTS 3, arts. 5, 9 and 22. Entered into force May 3, 2008.

³ *Ibid* art 27.

⁴ UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021), paras. 13, 16.

⁵ *Ibid* paras 28, 37–39.

⁶ *Ibid* paras 41–42.

⁷ *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217, arts. 2–3. Entered into force October 21, 1986.

to respect for the dignity inherent in every human being and prohibits exploitation, degradation and treatment incompatible with human dignity.¹ The combination of articles 2, 3 and 5 provides a particularly strong normative foundation for examining algorithmic discrimination in Africa because discriminatory AI outcomes can potentially be conceptualized simultaneously as unequal treatment and an affront to the inherent dignity of affected individuals.

7.2.2 African Regional Standards on Equality and Non-Discrimination

The African human rights system has progressively developed standards concerning equality and non-discrimination through the interpretative work of the African Commission and other regional mechanisms. These standards are relevant to algorithmic discrimination because discriminatory outcomes do not necessarily arise from explicit classifications. An apparently neutral algorithm may indirectly disadvantage a particular racial, ethnic, gender, socioeconomic or other group through the use of variables that operate as proxies for protected characteristics. The African human rights framework therefore provides a basis for considering both direct and indirect forms of discrimination generated through technological decision-making.

7.2.3 African Commission on Human and Peoples' Rights

The jurisprudence and interpretative practice of the African Commission on Human and Peoples' Rights provide an important mechanism for understanding the scope of rights protected under the African Charter. Although the Commission has not yet developed an extensive body of jurisprudence specifically addressing AI-generated discrimination, its interpretation of dignity, equality

and non-discrimination provides principles that can potentially be applied to emerging technological forms of rights interference. This jurisprudential gap is itself significant because the rapid deployment of automated systems creates new circumstances in which established human rights principles must be interpreted and applied.

7.2.4 African Court on Human and Peoples' Rights

The African Court on Human and Peoples' Rights provides an additional judicial mechanism for interpreting and enforcing rights contained in the African Charter and other applicable human rights instruments. Its jurisprudence concerning equality, dignity, fair treatment and effective protection of rights can contribute to the development of principles applicable to algorithmic decision-making. However, the relative absence of cases directly concerning artificial intelligence demonstrates that the African human rights system remains at an early stage of addressing technology-specific discrimination. This reinforces the need for doctrinal development capable of applying existing human rights protections to emerging AI-related harms.

7.3 Comparative Regional Development: Council of Europe

Although the Council of Europe does not form part of the African regional human rights system, its Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, adopted in 2024, constitutes an important comparative development. The Convention seeks to ensure that activities involving AI are consistent with human rights, democracy and the rule of law.² It expressly addresses human dignity and individual autonomy, equality and non-discrimination, privacy and data protection, transparency and oversight, accountability and responsibility.³ It is particularly significant because

¹ *Ibid* art 5.

² Council of Europe. (2024). *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law* (CETS No. 225; adopted May 17, 2024; opened for signature September 5, 2024).

³ *Ibid* arts 7–11.

it moves beyond general ethical principles towards a legally binding international treaty specifically addressing AI and human rights. The Convention also provides for procedural safeguards and remedies for individuals affected by AI systems.¹ Its development therefore provides a useful comparative benchmark against which the adequacy of existing international and African human rights frameworks can be assessed.

8. An Overview of Human Dignity in the Age of Artificial Intelligence

Human dignity constitutes a foundational value of international human rights law, reflecting the inherent worth and equal status of every human being. The *Universal Declaration of Human Rights* (1948) recognizes in article 1 that all human beings are born free and equal in dignity and rights.² Similarly, the *International Covenant on Civil and Political Rights* (1966) affirms in its preamble the recognition of the inherent dignity of the human person, while article 10 requires persons deprived of their liberty to be treated with humanity and with respect for their inherent dignity.³ At the African regional level, article 5 of the African Charter on Human and Peoples' Rights (1981) expressly protects the dignity inherent in every human being.⁴ These provisions establish dignity as a fundamental principle underlying rights such as equality, non-discrimination, privacy and autonomy.

The emergence of artificial intelligence (AI) presents new challenges to the preservation of human dignity because AI systems increasingly participate in decisions affecting significant aspects of human life, including employment, healthcare, education, policing, credit and access to public services. Individuals may consequently be reduced to data profiles, algorithmic scores or statistical

classifications, potentially diminishing their autonomy and agency. This concern is heightened where AI systems operate opaquely, making it difficult for individuals to understand or challenge decisions affecting them. Contemporary scholarship consequently argues that AI should be assessed not merely according to its technical efficiency but also according to its impact on human autonomy, status and inherent worth.⁵

The dignity implications become particularly significant where AI systems produce algorithmic discrimination. Apparently neutral algorithms may reproduce historical inequalities contained within datasets or generate discriminatory outcomes through proxy variables. Such outcomes may undermine not only equality but also the individual's recognition as a person deserving of equal concern and respect. UNESCO's *Recommendation on the Ethics of Artificial Intelligence* (2021) therefore places human dignity, human rights, fairness, non-discrimination, transparency, explainability and human oversight at the centre of AI governance.⁶ The protection of dignity in the AI age consequently requires that technological systems remain subject to meaningful human control and that individuals are not reduced to objects of automated classification or decision-making.

Human dignity thus provides a broader normative lens through which the impact of AI can be assessed. It requires attention not only to whether an algorithm produces discriminatory outcomes, but also to whether it respects human autonomy, agency, equality, individuality and inherent worth. The central challenge is therefore to ensure that technological advancement remains human-centered and that AI serves human beings rather than transforming individuals into mere data points within automated systems. This understanding

¹ *Ibid* arts 14–16.

² *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), art. 1.

³ *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, preamble and art. 10. Entered into force March 23, 1976.

⁴ *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217, art. 5. Entered into force October 21, 1986.

⁵ Teo, S. A. (2023). Human dignity and AI: Mapping the contours and utility of human dignity in addressing challenges presented by AI. *Law, Innovation and Technology*, 15, 223.

⁶ UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021), paras. 13–16, 28, 37–42.

provides an essential foundation for examining how algorithmic discrimination may constitute a broader threat to human dignity under international human rights law.

9. Addressing Emerging Forms of Algorithmic Discrimination Under International Human Rights Law

Artificial intelligence is increasingly used in employment, healthcare, education, policing, finance and public administration, creating new risks of discrimination through biased datasets, automated profiling, discriminatory proxies and opaque decision-making. Although existing international human rights law protects equality, non-discrimination and human dignity, the unique nature of algorithmic decision-making requires these principles to be adapted to emerging technological realities. Articles 2(1) and 26 of the ICCPR 1966, article 2(2) of the ICESCR 1966, article 1 of the UDHR 1948 and article 5 of the African Charter 1981 provide important foundations for addressing such discrimination.¹

Addressing algorithmic discrimination requires impact assessments, transparency, explainability, human oversight, accountability and effective remedies. High-risk AI systems should be assessed and regularly audited for discriminatory effects, while affected individuals should be able to understand and challenge significant automated decisions. UNESCO's 2021 Recommendation emphasizes fairness, non-discrimination, transparency and human oversight, while the Council of Europe Framework Convention provides further safeguards concerning accountability and remedies.² The ultimate objective should be to ensure that AI advances rather than undermines

human dignity and equality. International human rights law must therefore move beyond responding to discrimination after it occurs and develop a preventive, human-rights-centered approach throughout the AI lifecycle.

10. Summary of Findings

The study finds that artificial intelligence presents both opportunities and significant risks to human dignity and equality. Although AI can improve efficiency and decision-making, its reliance on large datasets and automated processes can reproduce existing biases and generate new forms of discrimination.

First, the study finds that algorithmic discrimination can occur in different forms, including biased datasets, discriminatory proxies, automated profiling and opaque decision-making. Such discrimination may affect access to employment, healthcare, education, finance, policing and other essential services.

Second, the study establishes that human dignity provides an important normative foundation for addressing algorithmic discrimination. When individuals are reduced to data profiles, scores or automated classifications without meaningful human consideration, their autonomy, agency and equal worth may be undermined.

Third, the study finds that existing international human rights law is applicable to algorithmic discrimination, particularly through the principles of equality and non-discrimination contained in the UDHR, ICCPR and ICESCR, as well as the protection of dignity under the African Charter. However, these existing frameworks require clearer interpretation and implementation in relation to AI. Fourth, the study identifies transparency, explainability, human oversight and accountability

¹ *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), art. 1; *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, arts. 2(1) and 26. Entered into force March 23, 1976; *International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3, art. 2(2). Entered into force January 3, 1976; *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217, art. 5. Entered into force October 21, 1986.

² UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021), paras. 13–16, 28 and 37–42; Council of Europe. (2024). *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law* (CETS No. 225; opened for signature September 5, 2024), arts. 9 and 14–16.

as essential safeguards. Individuals affected by significant algorithmic decisions should be able to understand, challenge and obtain human review of those decisions.

Finally, the study finds that addressing algorithmic discrimination requires a preventive rather than purely reactive approach. Human-rights impact assessments, regular algorithmic audits, effective remedies, inclusive datasets and stronger international and regional standards are necessary to ensure that AI develops in a manner consistent with human dignity, equality and non-discrimination.

11. Conclusion

Artificial intelligence is transforming modern society and creating new opportunities for human development, but its increasing role in decision-making also presents serious implications for human dignity and equality. This study has demonstrated that algorithmic systems, although often presented as objective and neutral, may reproduce existing social inequalities through biased datasets, discriminatory proxies, profiling and opaque automated decisions. Such outcomes can affect individuals in critical areas including employment, healthcare, education, policing and access to essential services.

The study further establishes that human dignity provides a fundamental normative basis for responding to algorithmic discrimination. The reduction of individuals to data profiles or algorithmic scores, particularly without transparency, human participation or meaningful avenues of challenge, may undermine autonomy, agency and equal human worth. The principles of equality and non-discrimination embodied in the UDHR, ICCPR and ICESCR, together with the

express protection of dignity under the African Charter on Human and Peoples' Rights, provide an important foundation for addressing these challenges.¹

However, existing international human rights standards must be progressively interpreted and strengthened to respond effectively to the distinctive risks posed by AI. The study therefore emphasizes the importance of algorithmic impact assessments, transparency, explainability, meaningful human oversight, accountability and effective remedies. International and regional human rights institutions must ensure that technological innovation does not create accountability gaps or permit discriminatory decisions to escape scrutiny merely because they are produced by automated systems.

Ultimately, the future of artificial intelligence should not be measured solely by its efficiency, accuracy or technological sophistication, but also by its ability to respect and advance human rights. The central imperative is to ensure that AI remains human-centered, rights-respecting and dignity-preserving. International human rights law must therefore evolve alongside technological development, ensuring that algorithms serve humanity rather than transform human beings into mere objects of automated classification. In this way, technological progress can coexist with the fundamental principle that every human being possesses inherent dignity and is entitled to equal protection and respect.

12. Recommendations

The foregoing analysis demonstrates that algorithmic discrimination is not merely a technological problem but a significant human rights concern. The following five recommendations are therefore proposed:

¹ *Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III), art. 1; *International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171, arts. 2 and 26. Entered into force March 23, 1976; *International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3, art. 2(2). Entered into force January 3, 1976; *African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217, art. 5. Entered into force October 21, 1986.

12.1 Strengthen International Human Rights Standards on AI

International human rights bodies should clarify how human dignity, equality and non-discrimination apply to direct, indirect and systemic algorithmic discrimination. These and more are very important and if these measures are taken or put together, it will greatly help.

12.2 Make Human Rights and Algorithmic Impact Assessments Mandatory

States and organizations should conduct human-rights and algorithmic impact assessments before deploying high-risk AI and undertake regular audits, particularly in employment, healthcare, education, policing and social protection.¹

12.3 Guarantee Transparency, Explainability and Human Oversight

Individuals should know when AI substantially influences decisions affecting their rights and should receive meaningful explanations. Humans should retain the power to review, modify or overturn significant automated decisions.²

12.4 Establish Clear Accountability and Effective Remedies

AI developers, deployers and institutions should remain accountable for discriminatory outcomes. Affected individuals should have access to human review, complaints mechanisms and effective judicial or administrative remedies.³

12.5 Develop Stronger African Human Rights Standards on AI

African human rights institutions should progressively apply articles 2, 3 and 5 of the African Charter to technological discrimination and develop regional guidance on AI, human dignity, equality and non-discrimination.

The way forward is a transition from a reactive to a preventive human-rights-centered framework, ensuring that dignity, equality, transparency, accountability and human oversight remain central throughout the AI lifecycle. AI should ultimately serve humanity rather than reduce human beings to data, scores or automated classifications.

References

- African Charter on Human and Peoples' Rights*. (1981, June 27). 1520 UNTS 217. Entered into force October 21, 1986.
- African Union. (2022). *Data policy framework*. African Union.
- American Convention on Human Rights*. (1969, November 22). 1144 UNTS 123. Entered into force July 1, 1978.
- Angwin, J., et al. (2016, May 23). Machine bias. *ProPublica*.
- Aristotle. (2000). *Nicomachean ethics* (R. Crisp, Trans.). Cambridge University Press. (Original work written ca. 350 BC)
- Barocas, S., & Selbst, A. D. (2016). Big data's disparate impact. *California Law Review*, 104, 671.
- Buolamwini, J., & Gebru, T. (2018). Gender shades: Intersectional accuracy disparities in commercial gender classification. *Proceedings of Machine Learning Research*, 81, 1.
- Burrell, J. (2016). How the machine "thinks": Understanding opacity in machine learning algorithms. *Big Data & Society*, 3, 1.
- Campbell-Kelly, M., et al. (2003). *The history of mathematical tables: From Sumer to spreadsheets*. Oxford University Press.
- Convention for the Protection of Human Rights and Fundamental Freedoms (European Convention on Human Rights)*.

¹ UNESCO (n 2), paras. 26–28.

² UNESCO (n 2), paras. 37–39 and 41–42.

³ Council of Europe (n 2), arts. 14–16.

- Convention on the Elimination of All Forms of Discrimination against Women*. (1979, December 18). 1249 UNTS 13. Entered into force September 3, 1981.
- Convention on the Rights of Persons with Disabilities*. (2006, December 13). 2515 UNTS 3. Entered into force May 3, 2008.
- Cormen, T. H., et al. (2022). *Introduction to algorithms* (4th ed.). MIT Press.
- Council of Europe. (2024). *Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law* (CETS No. 225; adopted May 17, 2024; opened for signature September 5, 2024).
- Dastin, J. (2018, October 10). Amazon scraps secret AI recruiting tool that showed bias against women. *Reuters*.
- Dworkin, R. (1977). *Taking rights seriously*. Harvard University Press.
- Hohfeld, W. N. (1913). Some fundamental legal conceptions as applied in judicial reasoning. *Yale Law Journal*, 23, 16.
- Human Rights Council. (2024, June 28). *The right to privacy in the digital age* (UN Doc A/HRC/RES/56/5).
- Hutchinson, T., & Duncan, N. (2012). Defining and describing what we do: Doctrinal legal research. *Deakin Law Review*, 17(1), 83.
- International Covenant on Civil and Political Rights*. (1966, December 16). 999 UNTS 171. Entered into force March 23, 1976.
- International Covenant on Economic, Social and Cultural Rights*. (1966, December 16). 993 UNTS 3. Entered into force January 3, 1976.
- Kant, I. (1997). *Groundwork of the metaphysics of morals* (M. Gregor, Trans.). Cambridge University Press. (Original work published 1785)
- McCrudden, C. (2008). Human dignity and judicial interpretation of human rights. *European Journal of International Law*, 19, 655.
- Obermeyer, Z., et al. (2019). Dissecting racial bias in an algorithm used to manage the health of populations. *Science*, 366, 447.
- OECD. (2019). *Recommendation of the Council on Artificial Intelligence* (OECD/LEGAL/0449; adopted May 22, 2019; amended 2024).
- Oxford English Dictionary. (n.d.). Discrimination, n. In *OED Online*. Oxford University Press.
- Oxford English Dictionary. (n.d.). Right, adj and n. In *OED Online*. Oxford University Press.
- Pasquale, F. (2015). *The black box society: The secret algorithms that control money and information*. Harvard University Press.
- Raji, I. D., et al. (2020). Closing the AI accountability gap: Defining an end-to-end framework for internal algorithmic auditing. *FAT*, 3, 33.
- Russell, S., & Norvig, P. (2021). *Artificial intelligence: A modern approach* (4th ed.). Pearson.
- Teo, S. A. (2023). Human dignity and AI: Mapping the contours and utility of human dignity in addressing challenges presented by AI. *Law, Innovation and Technology*, 15, 223.
- UNESCO. (2021). *Recommendation on the ethics of artificial intelligence* (adopted November 23, 2021).
- United Nations Development Group. (2003). *The human rights based approach to development cooperation: Towards a common understanding among UN agencies*.
- Universal Declaration of Human Rights*. (1948, December 10). UNGA Res 217 A(III).
- Zuiderveen Borgesius, F. J. (2025). *Discrimination, artificial intelligence, and algorithmic decision-making*. Council of Europe.

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of Brilliance Publishing Limited and/or the editor(s).

Brilliance Publishing Limited and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.