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Original article

# Regulation of algorithmic discrimination in international law: structural assessment and effectiveness of individual legal remedies from a human rights perspective

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***Abstract***

**Introduction.** Due to rapid technological development, artificial intelligence systems (AI) are increasingly used in various social and legal domains, such as recruitment, judicial decisions, and credit scoring. Although these technologies may appear neutral, the data they rely on and their learning processes often replicate and reinforce pre-existing structural biases, resulting in both direct and indirect discrimination against certain social groups.

**Purpose.** To analyze the issue of algorithmic discrimination arising in the decision-making processes of AI systems from the perspective of international law and human rights.

**Theoretical Basis.** The article explores the legal and technical dimensions of algorithmic discrimination. Legally, such discrimination does not align with traditional concepts, as the focus shifts from "intent" to "impact." This complicates legal assessment and the burden of proof. Technically, many algorithms function as "black boxes," meaning their decision-making processes are opaque, making legal intervention more difficult.

**Results and Conclusions**. It is argued that the current international human rights framework – including instruments such as the ICCPR and ICERD – is insufficient to address this issue. These normative gaps are due not only to technical complexity but also to weak state compliance and the absence of specific legal standards.

Individual legal protection mechanisms – such as the European Court of Human Rights (ECtHR), UN Treaty Bodies, and the Inter-American Court of Human Rights – are currently ill-equipped to respond effectively due to limited technological expertise and procedural barriers.

The article highlights the European Union's relatively advanced approach through instruments like the AI Act and GDPR, while pointing out the significant gaps that remain in the United States and Global South countries. The article concludes with recommendations, including strengthening the international legal framework, aligning national legislation, establishing specialized institutions, and mandating algorithmic impact assessment.

***Keywords:*** Algorithmic discrimination, Artificial intelligence, Black box problem, International law, Human rights, Structural bias, Individual protection mechanisms, ICCPR, ICERD, GDPR, AI Act, Disproportionate impact, Algorithmic impact assessment

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# Регулирование алгоритмической дискриминации в международном праве: структурная оценка и эффективность индивидуальных средств правовой защиты с точки зрения прав человека

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***Аннотация***

**Введение.** В связи с быстрым развитием технологий системы искусственного интеллекта (ИИ) широко применяются в различных социальных и правовых сферах: от найма сотрудников до вынесения судебных решений и оценки кредитоспособности. Несмотря на кажущуюся нейтральность этих технологий, они часто воспроизводят и усиливают существующие структурные предубеждения, что приводит к прямой или косвенной дискриминации определённых социальных групп.

**Цель.** Рассмотреть проблему алгоритмической дискриминации, возникающую в процессе принятия решений системами искусственного интеллекта, с точки зрения международного права и прав человека.

**Теоретические основы.** Статья раскрывает юридические и технические аспекты алгоритмической дискриминации. С юридической точки зрения акцент смещается с «намерения» на «последствие», что усложняет правовую оценку и распределение бремени доказывания. С технической стороны, многие алгоритмы действуют как «чёрный ящик», то есть процессы принятия решений непрозрачны, что затрудняет правовое вмешательство.

**Результаты и выводы.** Автор утверждает, что действующая система международного права в области прав человека – включая Международный пакт о гражданских и политических правах (ICCPR) и Международную конвенцию о ликвидации всех форм расовой дискриминации (ICERD) – не способна эффективно регулировать проблему. Причины этого кроются как в технической сложности, так и в низком уровне обязательств государств и отсутствии конкретных правовых стандартов.

Существующие механизмы индивидуальной правовой защиты – Европейский суд по правам человека, договорные органы ООН и Межамериканский суд по правам человека – в настоящее время не обладают достаточными техническими знаниями и процессуальными возможностями для эффективного реагирования.

Отмечен относительно прогрессивный подход ЕС через Акт об ИИ и Общий регламент по защите данных (GDPR), в то время как в США и странах Глобального Юга сохраняются значительные пробелы. В завершение приводятся рекомендации по усилению международной правовой базы, адаптации национального законодательства, созданию специализированных институтов и обязательной оценке воздействия алгоритмов.

***Ключевые слова:*** алгоритмическая дискриминация, искусственный интеллект, проблема чёрного ящика, международное право, права человека, структурные предубеждения, индивидуальные правовые механизмы, Международный пакт о гражданских и политических правах, Международная конвенция о ликвидации всех форм расовой дискриминации, Акт об искусственном интеллекте, непропорциональное воздействие, оценка воздействия алгоритмов

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## I. Introduction

The rapid development of artificial intelligence (AI) technologies and their integration into various aspects of daily life have significantly increased the role of algorithms and big data in decision-making processes. These systems, applied in a wide range from court decisions to recruitment processes and credit application evaluations, on the one hand, increase efficiency, but on the other hand, create serious legal and ethical problems. One of the most significant problems is algorithmic discrimination, which can lead to unfair treatment against certain groups by replicating and reinforcing existing social, historical, and political discrimination patterns [1].

Algorithmic Impact Assessment (AIA) is a systematic process used to identify, evaluate, and mitigate the potential negative impacts of artificial intelligence systems on society, individuals, and human rights. These assessments are carried out before AI systems are implemented and help in early risk detection, increasing transparency, and ensuring accountability. Models such as the Canadian Government's Algorithmic Impact Assessment Model (TBS, 2020) and the Organization for Economic Co-operation and Development's (OECD) AI System Classification Framework (2022) provide detailed guidelines on how AIA should be conducted. These models include questions that determine the impact level of AI systems and strategies to reduce risks [36–38].

Algorithmic discrimination occurs when automated systems cause unfair differential treatment or impacts based on race, color, gender, or other protected characteristics [6]. Such discrimination, despite the assumption of technological neutrality, can perpetuate social inequalities and create new patterns of discrimination [2]. For example, in 2017, Amazon's algorithm for filtering resumes used in its recruitment process was canceled because it disproportionately filtered out female candidates. This system was trained on 10 years of resumes previously submitted to Amazon and replicated a pattern where the company favored men [6]. Similarly, facial recognition algorithms showing higher error rates in dark-skinned women demonstrate how bias in databases can lead to real-life discrimination [6].

International law, especially human rights treaties, generally establishes the principle of non-discrimination, but does not specifically cover new generation forms of discrimination created by artificial intelligence systems [1]. Article 26 of the International Covenant on Civil and Political Rights (ICCPR) ensures non-discrimination by providing equal protection before the law [1]. However, the complexity of algorithmic decision-making processes, especially their "black box" nature, makes the application of these treaties difficult [1]. Algorithms make decisions in a black box, and it is almost impossible for even their designers to understand how decisions are made [1]. This indicates that the existing human rights framework is insufficient to effectively regulate algorithmic discrimination.

Furthermore, domestic AI regulations are also insufficient in addressing the shortcomings of international human rights legislation. The idea of "AI nationalism" arises from the concern that normative values will be coded into these applications, thereby shaping their functioning and also the way users think [1]. AI nationalism encourages governments to promote the interests of companies located in their territories instead of developing fair AI regulatory policies that promote the ethical use of new technology [1]. This situation further complicates the creation of a unified and effective regulatory framework at the international level.

This article aims to evaluate the existing gaps in the regulation of algorithmic discrimination in international law and the structure and effectiveness of individual legal protection mechanisms from a human rights perspective. The article will examine the legal definition and technical reality of algorithmic discrimination, analyze normative gaps in international law, assess the legal compliance of individual protection mechanisms, comparatively analyze the experiences of the EU, US, and Global South, and present alternative legal approaches and model recommendations. Consequently, the article will provide normative conclusions and recommendations for future research.

## II. Algorithmic Discrimination: Legal Definition and Technical Reality

Algorithmic discrimination is characterized by artificial intelligence systems creating unfair or biased outcomes against certain groups in decision-making processes. This discrimination can arise even without direct intent, due to existing biases in the data on which the system is trained [4]. From a legal perspective, discrimination is usually measured by intent, and the burden of proof falls on the party claiming discrimination. However, in AI systems, impact rather than intent plays a key role [7]. Therefore, the "intent versus impact" dilemma makes it difficult to evaluate technology-based discrimination on legal grounds [7].

The technical reality of algorithmic discrimination is important for understanding how it arises and in what forms it manifests. Algorithms process large volumes of data (big data) to identify certain patterns and use these patterns to make predictions or decisions when new data is entered [6]. In this process, algorithms reflect the social, historical, and political conditions of the data they learn from. As a result, existing structural discrimination patterns are replicated and reinforced in the use of these AI technologies [1].

One of the main types of algorithmic discrimination is "indirect discrimination." This occurs when neutral rules or criteria are applied that disproportionately affect certain groups, even without direct discriminatory intent [4]. For example, recruitment algorithms, when trained on data from previous employees, may be biased against certain demographic groups because these groups were underrepresented in recruitment in the past [6]. In such cases, even if the algorithm itself does not intend to discriminate, its results create discrimination.

Another technical reality is the concept of "structural bias." When algorithms are trained on pre-existing data, the transfer of historically existing discrimination into the system is widespread [7]. This, from a legal perspective, requires the re-linking of the concept of "structural bias" with law in a technological context [7]. Sandra Wachter's scientific article "Why Fairness Cannot Be Automated" emphasizes that the concept of fairness cannot be automatically ensured in technological systems and highlights the importance of legal intervention [8].

Algorithmic discrimination is also related to the "black box problem." This problem is related to the lack of transparency in the algorithm's decision-making process and the difficulty of understanding its internal working mechanisms [1]. The "black box" nature of algorithms makes it difficult to determine legal responsibility due to the lack of transparency in their decision-making mechanisms. In this context, the European Union's General Data Protection Regulation (GDPR) gives individuals the right to demand an explanation of automated decisions (Article 22, Recital 71). However, the practical application of this right, especially due to the complexity of AI systems, is still a subject of discussion. In legal assessment, relying on impact (disparate impact) instead of intent is accepted as the main approach in proving discrimination caused by AI [24–26].

This lack of transparency makes it difficult to identify the source of discrimination and take legal measures to eliminate it. Data input is the only part of the algorithms' decision-making process that can be regulated. Data input may not outwardly appear discriminatory, but it can reflect existing structural discrimination patterns [1]. Due to the complexity of the issue, it cannot be solved with broad and vague definitions of human rights [1].

As a result, algorithmic discrimination is a technically and legally complex problem. Its solution requires not only a review of legal frameworks but also the adoption of more transparent and fair approaches in the design and application of technological systems. The ability of artificial intelligence systems to make autonomous decisions creates serious problems related to determining legal responsibility. Due to the "black box" nature of AI, it remains uncertain who will be held responsible in case of harm or discrimination [34–35]. Should the programmer, manufacturer, user, or the AI system itself be recognized as a legal entity? Although the European Parliament rejected the idea of giving AI legal personality, the necessity of creating responsibility mechanisms for damages caused by AI remains relevant. Existing legal systems struggle to adapt to the complex and

dynamic nature of AI, which requires new legislation and regulatory approaches. Existing legal mechanisms struggle to fully cover the dynamism and complexity of this new type of discrimination, which reduces the effectiveness of individual legal protection.

## III. Normative Gaps in International Law

The problem of algorithmic discrimination is not fully regulated by normative bases in the current international legal framework. Existing human rights treaties – especially the International Covenant on Civil and Political Rights (ICCPR) and the International Covenant on Economic, Social and Cultural Rights (ICESCR) – generally establish the principle of non-discrimination, but do not specifically cover new generation forms of discrimination created by artificial intelligence systems [1]. Normative gaps in this area are even more pronounced [1].

The International Convention on the Elimination of All Forms of Racial Discrimination (ICERD) ensures the right of racial and ethnic groups to enjoy human rights and fundamental freedoms equally [1]. Article 1 of ICERD defines racial discrimination as "any distinction, exclusion, restriction or preference based on race, color, descent, or national or ethnic origin which has the purpose or effect of nullifying or impairing the recognition, enjoyment or exercise, on an equal footing, of human rights and fundamental freedoms in the political, economic, social, cultural or any other field of public life" [1]. This definition covers both direct discrimination related to the purpose of the behavior and indirect discrimination related to the effect of the behavior [1]. According to this definition, algorithmic discrimination will violate protected rights even if such discrimination is not intended [1].

However, there are problems with the application of these treaties. The commitment of the main state parties to these treaties is weak. Despite the existence of international legal norms, significant differences are observed between their national level application and enforcement. Many states do not fully comply with the human rights conventions they have ratified or do not adequately integrate the provisions of these conventions into their domestic legal systems. This is particularly evident in the context of new legal problems created by artificial intelligence. The differing approaches of states to AI regulation and weak compliance with international obligations make it difficult to effectively regulate the impact of AI on human rights. Reports by the UN Human Rights High Commissioner also highlight these implementation gaps and call on states to adopt legislation in line with international standards [31–33]. Many technologically advanced state parties have either not ratified fundamental human rights treaties or have not fully incorporated them into their domestic legal systems [1]. For example, China, despite signing the ICCPR on October 5, 1998, has not yet ratified it [1]. The US, on the other hand, ratified ICERD with a number of reservations, understandings, and declarations (RUDs), which implies that the US will not accept any obligation to restrict freedom of speech, expression, and association and will not adopt any regulation that attempts to regulate private conduct more strictly than what exists in US law [1].

Principles and recommendations on artificial intelligence adopted by various international organizations – for example, OECD recommendations, UNESCO's AI ethics document, and the European Union's ethical principles on AI – are not legally binding and are more in the status of "soft law" [9]. This significantly weakens individuals' legal protection opportunities as it does not impose obligations on states. This situation is also emphasized in the reports on artificial intelligence and human rights presented by the UN Human Rights High Commissioner in 2021 and 2023 [10]. These reports called on states and technology companies to develop and implement stricter legal frameworks [10].

In Global South countries, artificial intelligence regulations, in most cases, face institutional and resource limitations. This further complicates the fight against discrimination problems created by AI. For example, in countries like Nigeria, India, and Brazil, AI-related legislation is still in the development stage or existing laws do not fully cover the specific risks of AI. Although the application of AI is rapidly increasing in these countries, the lack of adequate legal frameworks and enforcement mechanisms for the protection of human rights, increases the potential negative impacts of AI. This situation further deepens the "digital divide" in AI regulation between the Global North and Global South.

Normative gaps are also related to the technical complexity of algorithmic systems. The "black box" nature of algorithms, the lack of transparency in their decision-making processes, leads to existing agreements not providing sufficient guidance on how to apply them to such complex problems [1]. This limits the ability of international law to effectively regulate algorithmic discrimination.

In conclusion, there are serious normative gaps related to algorithmic discrimination in international law. These gaps are related to the general nature of existing agreements, the weak commitment of state parties, and the technical complexity of AI systems. This situation makes it difficult for individuals to obtain effective legal protection against algorithmic discrimination and emphasizes the necessity of a stronger and more specific regulatory framework at the international level.

## IV. Legal Compliance of Individual Protection Mechanisms

The extent to which legal protection avenues are accessible and effective at the international level for individuals subjected to discrimination arising from artificial intelligence systems is a separate research topic. In particular, the practical and legal response capacity of instances such as the European Court of Human Rights (ECtHR), UN Treaty Bodies (e.g., the Human Rights Committee), and the Inter-American Court of Human Rights is still limited [11].

Due to the technical and legal complexity of the issue, these instances face difficulties in identifying algorithmic systems and proving that individuals have been subjected to discrimination. The existing procedures, which place the burden of proof on the victim and require a high technical level of expertise, complicate discrimination claims [11]. Also, the lack of specialized mechanisms for technology in these instances hinders effective legal protection [11].

Although the case law of the European Court of Human Rights (ECtHR) has not directly dealt with cases related to algorithmic discrimination, its decisions on privacy and data protection can serve as a basis for future approaches in this area. For example, the case of Lopez Ribalda v. Spain raised the issue of balancing privacy and labor rights related to video surveillance systems [12]. In this case, the impact of technology on human rights was seriously discussed for the first time. This approach can also be extrapolated to the context of artificial intelligence [12].

The case of "Big Brother Watch and Others v. UK" (2021) confirmed that mass data collection programs violated Articles 8 (right to respect for private and family life) and 10 (right to freedom of expression) of the European Convention on Human Rights, emphasizing the importance of transparency and control mechanisms in states' intelligence activities. This decision plays a precedent role for the protection of human rights in large-scale data processing and decision-making processes of artificial intelligence systems [23].

UN Treaty Bodies monitor the implementation of human rights treaties and require regular reports from state parties [1]. Treaty bodies such as the UN Human Rights Committee (HRC) and the Committee on the Elimination of Racial Discrimination (CERD) have expressed concerns about the impact of artificial intelligence systems on human rights and have given specific recommendations to states. For example, CERD requires algorithmic profiling systems to be fully compliant with international human rights standards and calls on states to assess the risks that AI may cause racial discrimination. These recommendations emphasize the importance of a human rights-based approach in the development and application of AI [27–30]. Based on these reports, committees give recommendations to state parties to ensure the implementation of the treaties [1]. However, the lack of specific guidelines from these bodies regarding algorithmic discrimination limits their effectiveness. Existing agreements are insufficient to address algorithmic discrimination because they do not provide sufficient guidance on how to apply them to complex problems created by technological developments [1].

The Inter-American Court of Human Rights has also discussed issues related to the impact of AI on human rights. For example, the Inter-American Commission on Human Rights (IACHR) considered the impact of AI when discussing issues such as discrimination, xenophobia, and related intolerance [13]. However, this court has not yet formed specific case law related to algorithmic discrimination.

The legal non-compliance of individual protection mechanisms is also related to the burden of proof falling on the victim. Due to the non-transparent nature of algorithmic systems' decision-making processes, it becomes difficult for individuals to prove that they have been subjected to discrimination [1]. This is a complex process that requires legal assistance and expertise. Also, the lack of technological knowledge in judicial systems hinders the proper evaluation of such cases.

Existing individual protection mechanisms at the international level are insufficient in combating the complexity and dynamism of algorithmic discrimination. This indicates the necessity of creating new legal approaches and specialized mechanisms so that individuals can obtain effective legal protection against algorithmic discrimination.

## V. Comparative Analysis: EU – US – Global South

Significant differences emerge when comparing the approaches of different legal systems to algorithmic discrimination and the effectiveness of these approaches. The European Union (EU) can be considered relatively advanced in this area. For example, within the framework of the EU AI Act, which is expected to be implemented, and GDPR, there are guarantees such as the individual's right to protection against profiling and the right to receive an explanation about how data is processed [2, 14]. One of the main objectives of the AI Act is to reduce discrimination and bias in the development, application, and use of "high-risk AI systems" [14]. The AI Act prohibits AI systems that mine facial images from the internet or CCTV footage, and identify emotions in the workplace or educational institutions [14].

GDPR provides serious guarantees in the field of data protection and increases individuals' control over their personal data. Article 22 of GDPR ensures individuals' right not to be subject to decisions based solely on automated decision-making, including profiling [7]. However, this provision does not cover broad areas of AI and mainly focuses on automated decisions that have legal consequences [7]. GDPR allows the processing of specific data for the detection of bias, but this is more restrictive than the AI Act [14].

In contrast, legislation against discrimination in the US is mainly based on principles from the civil rights movement era, and technology-focused modern approaches are weakly reflected in the legal system [6]. A specific normative basis for the legal explanation and intervention of structural distortions causing differences in AI systems has not yet been fully formed [6]. Discrimination laws in the US are mainly aimed at combating intentional discrimination, but algorithmic discrimination often occurs indirectly and does not require proof of intent [6]. Nevertheless, some states and local governments in the US have begun to adopt laws to regulate algorithmic discrimination. For example, Colorado became the first state to adopt an algorithmic discrimination law in May 2024 [15].

In Global South countries, the situation is more difficult. Here, due to weak technological infrastructure, low levels of digital literacy, and weak legal protection mechanisms, algorithmic discrimination leads to deeper social stratification [16]. Global South countries are trying to align AI regulations with international standards on human rights, justice, and accountability [16]. However, the development and application of AI in these countries mainly depend on the technologies of Global North countries, which creates regulatory difficulties.

Article 5 of the European Union's AI Act and the recommendations of the Working Party 29 on Data Protection play a reliable legal basis for comparative approaches in this area [17]. The AI Act applies a risk-based approach to minimize the impact of AI systems on human rights and imposes strict requirements for high-risk systems [18]. This can be a model for other countries, but each country's specific context and legal framework must be taken into account.

Significant differences exist in regulatory approaches to algorithmic discrimination among the EU, US, and Global South countries. While the EU adopts a more comprehensive and risk-based approach, serious gaps and difficulties still remain in the US and Global South countries. This emphasizes the importance of international cooperation and the creation of unified standards.

## VI. Alternative Legal Approaches and Model Recommendation

The limited access to courts, the difficulty of adapting technological issues to legal systems, and the burden of proof problem indicate that traditional legal protection avenues against algorithmic discrimination are insufficient [19]. Therefore, the proposal of alternative mechanisms is becoming increasingly relevant.

The idea of an international ombudsman institution for AI is open for discussion in this context. Such an institution can play the role of a specialized tool for the legal evaluation of technological complaints and the protection of individuals' rights [20]. At the same time, the proposal to create a separate department for technology in the European Court of Human Rights is also on the agenda [21]. This approach can increase practical effectiveness by combining technical knowledge and expertise in human rights law.

As another mechanism, it is proposed to make "algorithmic impact assessment" (AIA) legally binding [22]. Such assessments can be a key tool for measuring the social impact of AI systems applied by the state or private sector in advance and identifying legal risks [22]. This will allow evaluating the potential impacts on human rights during the development and application of AI systems.

Strengthening the principles of transparency and explainability is also important. The "black box" nature of AI systems, the lack of transparency in their decision-making processes, makes it difficult to identify the source of discrimination [1]. Therefore, more transparency should be required to explain how algorithms work, on what data they make decisions, and what results they produce. This will allow individuals to understand and challenge automated decisions that affect them.

As a model recommendation, a multi-faceted approach to combating algorithmic discrimination is proposed. This approach should include the following elements:

1. Strengthening the International Legal Framework: Existing human rights treaties should be reviewed or new specific treaties should be developed to cover new types of discrimination created by AI. This will impose clearer obligations on states and ensure unified regulation at the international level.
2. National Legislation Harmonization: Each state should harmonize its domestic legislation with international standards and create effective protection mechanisms against algorithmic discrimination. This should cover both direct and indirect discrimination and remove the burden of proof from the victim.
3. Establishment of Specialized Institutions: Specialized institutions such as an international ombudsman institution for AI or a special department for technology in the ECtHR should be established. These institutions, by combining technical knowledge with legal expertise, will be able to handle complaints related to algorithmic discrimination more effectively.
4. Mandatory Algorithmic Impact Assessment: Mandatory algorithmic impact assessments should be conducted before the implementation of AI systems. This will allow identifying potential risks in advance and taking measures to reduce them.
5. Transparency and Explainability: More transparency should be required regarding the working mechanisms of AI systems, decision-making processes, and the data used. This will allow individuals to understand and challenge decisions that affect them.
6. Education and Awareness: Lawyers, judges, and other legal professionals should be educated about AI technologies and their impact on human rights. This will help them better handle cases related to algorithmic discrimination.

## VII. Conclusion

Algorithmic discrimination is a complex problem that arises with the rapid development of artificial intelligence technologies and poses serious threats to human rights. This article has analyzed the existing gaps in the regulation of algorithmic discrimination in international law, the effectiveness of individual legal protection mechanisms, and comparative approaches in this area. The research shows that the existing international human rights framework is insufficient to fully

cover new types of discrimination created by AI. Normative gaps, burden of proof problems, and technological complexity make it difficult for individuals to obtain effective legal protection.

Although the European Union has made progress in this area with regulations such as the AI Act and GDPR, significant gaps still remain in the US and Global South countries. These differences emphasize the necessity of a unified and coordinated approach at the international level.

As a normative conclusion, the following main principles and recommendations are put forward to combat algorithmic discrimination:

1. Review of the Legal Framework: International and national legal frameworks should be reviewed or new legislative acts should be adopted to cover specific forms of discrimination created by AI. This should cover both direct and indirect discrimination and remove the burden of proof from the victim.
2. Transparency and Explainability: The decision-making processes of AI systems should be more transparent, and individuals should be given an explanation of how decisions affecting them are made. This will help solve the "black box" problem and increase accountability.
3. Accountability Mechanisms: It is important to identify the parties responsible for discrimination cases arising during the development, application, and use of AI systems and to implement effective accountability mechanisms against them.
4. Strengthening Individual Protection: Individuals should be provided with more accessible and specialized mechanisms to obtain effective legal protection against algorithmic discrimination. This may include the establishment of institutions such as an international ombudsman institution or special court departments.
5. International Cooperation: Since algorithmic discrimination is a global problem, international cooperation and the creation of unified standards are important. This will ensure compatibility between different legal systems and promote the ethical and human rights-compliant development of AI.
6. These recommendations will play a key role in minimizing the impact of artificial intelligence on human rights and creating a stronger defense framework against algorithmic discrimination. Future research should delve deeper into the normative gaps in this area and propose innovative legal solutions that adapt to the rapid development of AI.

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