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BETWEEN ETHICS AND ALGORITHMS: PROTECTING RIGHTS IN THE DIGITAL ERA

ABSTRACT

This paper looks into ethics and algorithmic governance in the digital era, with a focus on the risks and opportunities associated with the digitalization of public services. As governments increasingly adopt digital technologies to deliver administrative services, including artificial intelligence (AI)-driven tools, new challenges emerge regarding the protection of fundamental rights, transparency, and inclusion. The purpose of this study is to examine how digital transformation affects human rights, particularly in developing democracies, and what regulatory responses are needed to ensure that innovation does not undermine individual freedoms.

The analysis adopts a qualitative and interdisciplinary approach, combining legal review, policy analysis, and illustrative case studies. International instruments such as UNESCO's AI Ethics Recommendation, the EU's Artificial Intelligence Act, and the Council of Europe's Framework Convention on AI are reviewed and compared with national initiatives.

Albania is used as a case study to illustrate the rapid digitalization of public administration. The country has transitioned to a fully electronic model for public service delivery, with 95% of services now offered online. However, the study finds significant legal and ethical gaps, including a lack of binding rules on algorithmic transparency, accountability, and anti-discrimination safeguards. Vulnerable groups face barriers in accessing digital services due to limited digital literacy and absence of alternative access options.

The discussion highlights the urgent need for a rights-based digital governance framework that integrates ethical safeguards from the outset. While Albania's reforms demonstrate strong institutional progress, they risk excluding citizens without sufficient digital skills or connectivity. To ensure fairness and legitimacy in public decision-making, both legal protections and inclusive service design are essential.

KEYWORDS: *Artificial Intelligence, Digital Rights, E-Government, Algorithmic Accountability, Human Rights Protection*

INTRODUCTION

The digital revolution has brought a transformative relation between technological innovation and ethical principles, fundamentally challenging traditional mechanisms of human rights protection. AI-driven systems and big data analytics are now influencing decisions in more and more areas of our daily life, governance, security, healthcare, finance, etc. These technologies offer new

tools to advance human welfare – for example, AI has helped human rights organizations document war crimes (Adie, 2020, p.1). However, they also pose serious concerns: automated decisions can be opaque and unaccountable, and they may encode or even amplify societal biases (Angwin et al., 2016; Boulamwini & Gebru, 2018).

Leading human rights authorities have warned of the potential for AI to cause catastrophic harm if left unchecked. United Nations High Commissioner for Human Rights Michelle Bachelet, for instance, urged a moratorium on AI applications that cannot comply with international rights standards, warning that AI's power to do good is matched by its capacity to enable harm on a vast scale if left unchecked (United Nations, 2021). Similarly, the Council of Europe's Commissioner for Human Rights, Dunja Mijatovic, cautioned that portraying AI as too technical and *mysterious* to be controlled is a dangerous myth, a misconception that has led to reluctance at the highest levels to seriously address AI's risks (Mijatovic, 2022). These warnings highlight a global challenge: how to balance algorithmic innovation with fundamental ethical and legal principles, ensuring that technology serves as a tool to advance rights rather than a threat to them.

In response to this challenge, stakeholders worldwide are increasingly recognizing that a proactive interdisciplinary approach is necessary. Ethical guidelines and human rights – based frameworks for AI are emerging from international organizations, and some jurisdictions have begun crafting laws to govern AI development and use. Yet, critical questions remain about how effectively these principles are being translated into concrete, enforceable measures and every day practices in the tech industry. This paper aims to explore the intersection of ethics and algorithms in the digital era. It examines how AI-driven transformations are reshaping the human rights landscape, and evaluates the policy and regulatory responses requires to safeguard rights in an age of autonomous decision – making.

Integrating ethics into the design and deployment of AI systems is increasingly seen as imperative to protect human rights. Rather than treating ethics as an afterthought, developers and organizations are called to adopt a *human rights by design* approach, building considerations of fairness, accountability and transparency into AI from the outset. In 2022, the Netherlands became

the first member state to introduce mandatory HRIAs for public institutions before using algorithms to make evaluations or decisions about people (Council of Europe (2022), p.11).

This article combines legal analysis, comparative review of international and European regulatory frameworks, and a contextual case study of Albania's digital governance reforms. The research relies on analysis of international instruments (UNESCO, Council of Europe, EU law), national legislation, policy documents, and indicators on digitalization and digital skills. The central working hypothesis is that rapid digitalization without corresponding legal safeguards creates structural risks for fundamental rights, particularly regarding transparency, equality, and access to public services. A second hypothesis is that alignment with European human rights standards requires not only data protection reforms but a broader rights-based framework for algorithmic governance and digital inclusion.

DIGITAL GOVERNANCE AND THE RISE OF ALGORITHMIC DECISION-MAKING

Because technology evolves rapidly, legal systems have often struggled to keep pace with the challenges posed by AI. In recent years, however, there has been a concerted worldwide effort to develop regulatory frameworks that govern AI in line with human rights principles. The goal of these frameworks is to provide clear rules and accountability mechanisms for the design, deployment, and use of AI, ensuring that innovations do not come at the expense of fundamental rights. At the international level, a landmark initiative has been the first global normative instrument on AI ethics: UNESCO's *Recommendation on the Ethics of Artificial Intelligence* (2021). It sets out human-rights-based principles, including fairness, transparency, and accountability, that AI systems should respect. The Recommendation urges member states to put these principles into practice, for example by establishing oversight mechanisms, requiring algorithmic transparency, and protecting data privacy (UNESCO, 2022). Moving from principles to binding law, the European Union has taken a pioneering role with its comprehensive proposal for an *Artificial*

Intelligence Act. Introduced by the European Commission in 2021, the AI Act adopts a risk-based approach (European Commission, 2021). It would prohibit certain *unacceptable* AI uses outright (for example, social scoring of citizens) and impose strict obligations on *high-risk* systems in fields like employment, credit, education, or law enforcement. Providers of high-risk AI would be required to ensure transparency, conduct rigorous bias testing, maintain human oversight, and register their systems. The law also aims to empower individuals by granting a right to explanation for significant automated decisions and avenues for redress (European Commission, 2021; Veale & Binns, 2018).

Another milestone is the Council of Europe's *Framework Convention on Artificial Intelligence, Human Rights, Democracy, and the Rule of Law* – the world's first binding international treaty on AI and human rights (Council of Europe, 2023). Adopted in 2024, this Convention is open globally and deliberately technology-neutral. It enshrines requirements to ensure AI is developed and used in ways that uphold human dignity, non-discrimination, transparency, and accountability. Parties must take steps to prevent AI-driven discrimination, provide appropriate transparency and human oversight for AI systems (especially those with significant individual impact), and enable people to challenge and seek redress against harmful automated decisions. The Convention also obliges developers to perform human rights impact assessments for high-risk AI and allows states to restrict or ban applications that pose a serious threat to rights or democratic values.

Other legal measures are also emerging. The EU's Digital Services Act (2022) requires major online platforms to be transparent about their content recommendation algorithms, and data protection regimes like the GDPR give individuals certain rights over automated decision-making. International cooperation is also growing. The OECD's AI Principles (2019) – emphasizing transparency, fairness, and accountability – have been endorsed by dozens of countries. Initiatives like the World Economic Forum's global AI action agenda seek to coordinate policies for trustworthy AI (World Economic Forum, 2021). United Nations agencies are involved as well: for example, UNICRI issued principles for responsible AI innovation in 2024, focusing on the ethical use of AI in areas such as law enforcement (UNICRI, 2024).

CASE STUDY: ALBANIA'S DIGITAL TRANSFORMATION AND ITS HUMAN RIGHTS IMPLICATIONS

In the digital era, governments are using technology to offer public services efficiently and transparently. Public service digitalization or *e-government*, has obvious benefits, such as easier citizen's access in documents and official information, less administrative costs and increase of the administration's efficiency, etc (Azizi, 2024). Albania has undertaken a deep reform in this regard, by transferring almost every public service in digital platforms. In the last few years, the Albanian government has considered this as a *digital revolution* in public administration, with the aim to fight corruption and make the life of citizens easier (Pjetri, 2023).

The case of Albania provides an illustrative example of how the digital transformation of public administration is evolving towards the use of automated decision-making. Although currently Albania's e-government system (through the e-Albania portal) does not use artificial intelligence on a large scale to make decisions for citizens, the Digital Strategy 2022-2026 clearly foresees the integration of AI-based platforms and *proactive service* models aimed at personalizing and automating state-citizen interactions. The document states that it aims to create a *High Performance Computing Center* within 2026, to analyze massive amounts of data and enable predictive and decision-making algorithms (National Agency for Information Society, 2022, p.17). Furthermore, the Albanian government plans to develop regulatory policies for the ethical use of artificial intelligence in public administration, citing the need for transparency, accountability, and fairness in the outcomes that AI produces.

These plans place Albania at a crucial juncture in the transition from digitalization to algorithmic automation of administration, which necessitates a critical assessment of the compatibility of these developments with international human rights principles and AI ethics. This is why Albania constitutes a useful mini-case study to examine how a developing country embraces digital technology while striving to maintain a balance between innovation and fundamental rights.

Transitioning towards a completely electronic model raises important questions related to protection of human rights in digital era, ethics related

to the use of algorithms and the principle of *leaving no one behind* from the technology innovations. Leaving no one behind is recognized as the overarching motto of the Sustainable Development Goals (SDGs), expressing the commitment to ensure that all people, regardless of status or background, benefit from development and progress. As FRA Director Michael O’Flaherty stated, *access to public services is a fundamental right*. The right to access and receive public services is widely linked to the enjoyment of fundamental rights, as the inability to access digital services constitutes a threat to fundamental rights, for example for the elderly it limits access to healthcare and pensions (European Union Agency for Fundamental Rights, 2024).

In the European Regional Level, the EU Charter of Fundamental Rights (article 41) recognizes the right to good administration, which implies the obligation of administrations to treat citizens impartially, fairly and within reasonable time limits. Although Albania is not yet part of the EU, the integration process has pushed towards unification with these principles. In the internal legal regime of Albania, the constitution does not explicitly protect or mention the right to good administration, at the level specified by the EU Agency for Fundamental Rights (FRA).

Albania has undertaken an ambitious reform to modernize public administration through technology. During the years 2014-2022, the necessary infrastructures and institutional framework for e-government were created, with the National Agency for the Information Society (NAISA) as the key institution responsible for the development of ICT systems in the administration. The *Digital Agenda 2015-2020* strategy set concrete objectives for increasing online services, expanding broadband internet and increasing their usability by citizens (Kamberi & Xhindi, 2021). Furthermore, the Albanian government approved the *Digital Agenda 2022-2026* through Decision of the Council of Ministers no. 370, dated 1 June 2022, which defines a national digital vision focused on people-centric and inclusive transformation. The strategy promotes inclusive digital transformation by aligning Albania with EU standards, ensuring access, security, and digital skills for all, especially vulnerable groups. The reform particularly accelerated during the years of the COVID-19 pandemic. During the lockdown, many services went online out of necessity. The Albanian Prime Minister Edi Rama declared in March 2021 that Albania was finalizing

the *digital revolution* and that *around 95% of public services are today provided through the online system* emphasizing that citizens no longer need to physically appear at counters, but can use their phone or computer to receive the necessary services. In May 2022, the government took the final step by closing traditional counters and ordering the provision of all administrative services only through the e-Albania portal. This decision marked the transition to a de facto fully electronic model of public service provision (Pjetri, 2023).

This *digital revolution* rapidly improved Albania's standing in global e-government rankings. For instance, Albania's UN E-Government Development Index score climbed from near-zero in 2003 to above 0.85 by 2022, placing the country among high-performing states in online service provision (United Nations, 2024).

While this growth demonstrates significant institutional and technological advancement, it also marks a turning point where the focus must increasingly shift from expansion to inclusion, ensuring that digital services are not only available but also accessible, equitable, and secure for all citizens, including the most vulnerable. Therefore, beyond the enthusiasm and impressive figures, implementation on the ground has encountered considerable challenges.

Recently, in late 2024, Albania addressed gaps in data protection framework by passing a new Data Protection Law (No. 124/2024) aligning with EU's GDPR standards. This brought improvements such as stricter consent requirements, data breach notifications, and stronger oversight by the Information Commissioner. Yet, beyond personal data, broader digital rights and AI governance remain under-regulated. As of 2023, Albania had no dedicated law or national strategy on Artificial Intelligence, and policies on algorithmic decision-making in public services were largely declarative rather than concrete (Curraj, 2024). The current *Digital Agenda 2022-2026* mentions AI but stops short of defining rules or ethics for its use, providing no explicit provisions on algorithmic transparency, accountability, or auditability in public sector AI systems. Likewise, anti-discrimination protections in digital service delivery are not well-defined in Albanian law. The Constitution and administrative laws do not yet explicitly guarantee a *right to good administration* or digital access equivalent to EU Charter Article 41 standards. Overall, the legal framework lags behind the technology rollout: while citizens are

expected to interact with automated, data-driven systems for essential services, the safeguards to protect their rights (privacy, fairness, access) are still in early development. This regulatory gap raises concerns that Albania's enthusiasm for e-governance has outpaced its preparedness to address the ethical and human rights implications of that transformation.

The Albanian case highlights several risks to fundamental rights that emerge when public services go fully digital without adequate safeguards. The shift to online services concentrates vast amounts of *personal data* in government databases, increasing the stakes for privacy breaches. Albania learned this the hard way through major data leaks. In 2021, for example, a massive breach exposed sensitive personal information of almost 1 million citizens, underscoring serious vulnerabilities in data security (Çani & Mazelliu, 2025). Similarly, in late 2021, a leaked database of more than 600,000 citizens' salaries and ID information made headlines, revealing weak cyber protection (Tirana Times, 2019). Later, in July 2022, a cyberattack shut down e-Albania services nationwide for days – a stark reminder that when all services are centralized online, a single security failure can paralyze public access (Euronews, 2022). These incidents demonstrate the high privacy risks and potential for chaos if data are mishandled or systems compromised. According to the Albanian Institute of Statistics (INSTAT) data for 2024, 99.4% of the population aged 16-74 have an account on the e-Albania digital platform, making it the dominant means of interaction with public administration. This indicates a massive dependence on the electronic system, which is already integrated into citizens' daily lives for services such as official documents, information on social benefits or healthcare services (INSTAT, 2024, p.1-2). The disruption of the platform for several days as a result of a cyberattack in July 2022 clearly illustrates the risk that extreme centralization poses: a single technical failure can block access to all basic services for an overwhelming part of the population. This combination of widespread use and the lack of offline alternatives creates a fragile ground for citizens' rights, especially when response protocols, institutional transparency, or avenues to seek redress in the event of access violations are unclear.

Eurostat data shows that, although Albania has taken great strides towards digitalization, the digital skills of the population remain limited, which puts

at risk the principle of inclusion in the provision of online public services. In 2023, only 18.8% of Albanian individuals had digital skills at the *above basic* level, while 31.1% had only basic skills. This means that over 50% of the population did not have sufficient digital skills to confidently use electronic services that often require complex navigation and secure interaction with automated platforms (Eurostat, 2024). Furthermore, a significant percentage (over 12%) are classified as having *narrow* or *limited* digital skills, while another part has no digital skills at all or cannot be assessed. This division reinforces concerns that the total digitalization of public services, without supporting measures for digital education and physical alternatives, could systematically exclude a portion of the population from accessing their fundamental rights, leading to digital exclusion and discrimination. This scenario undermines the principle of equal access to services. What was intended as a modernization can feel to vulnerable groups like bureaucratic exclusion, effectively creating a barrier for those without internet access, devices, or digital skills. Likewise, minorities facing social and educational disadvantages are at risk. In short, the digital divide in Albania – between urban and rural, young and old, rich and poor – stands to widen if the *e-government* rollout does not incorporate the *leave no one behind* principle. Ensuring that alternatives, training, or assisted digital services are available is crucial to prevent new forms of discrimination.

COMPLIANCE WITH INTERNATIONAL STANDARDS

When comparing Albania's approach to international standards, it becomes clear that a more cautious, rights-based strategy is recommended. For instance, the Council of Europe's new Framework Convention on Artificial Intelligence (2024) explicitly calls for ensuring that *AI systems are fully consistent with human rights, democracy and the rule of law* (Council of Europe, 2024). This first-of-its-kind treaty, which Albania is urged to sign and ratify, mandates legal safeguards throughout an AI system's lifecycle, risk assessments, and measures to minimize algorithmic harms. The Convention embodies a precautionary approach: before governments deploy AI widely, they should have binding rules for transparency, accountability, data quality, and human oversight. Similarly,

UNESCO's Recommendation on the Ethics of AI (2021), endorsed by 193 countries (including Albania), emphasizes human dignity, fairness, and inclusion in digital innovation. It underlines principles like transparency, fairness, and human oversight of algorithms, and encourages member states to adopt policies ensuring that *no one is left behind* by digital transformation. These international frameworks suggest that innovation must progress in line with ethics. Albania should develop e-governance with strong protection, conducting impact assessments for new digital services, involving independent oversight bodies or civil society in monitoring algorithms, and instituting *offline alternatives* or support for those unable to use online tools (UNESCO, 2022).

On the other hand, Albania's EU integration process is also pushing it in this direction. EU directives, and the EU Artificial Intelligence Act, stress a risk-based approach to AI – high-risk uses, like in welfare, policing or healthcare decisions, should meet strict requirements for oversight and non-discrimination (European Union Agency for Fundamental Rights, 2024). Albania will need to harmonize with these standards.

Additionally, regional good practices offer guidance. For example, Portugal's Charter of Digital Rights (Lei n.º 27/2021) explicitly guarantees citizens the option for in-person service alongside digital, to avoid excluding those not online. Article 19 of this Charter states:

Article 19

Digital rights vis-à-vis Public Administration

Everyone is entitled, in relation to public administration, to the right:

- a. *To benefit from the transition to digital administrative procedures.*
- b. *To obtain digital information regarding administrative procedures and acts, and to communicate with decision-makers.*
- c. **To personal assistance in the case of exclusively digital procedures.**
- d. *To have data provided to one public service shared with another, in cases provided for by law.*
- e. *To benefit from open data regimes that allow access to information stored in public service applications and permit its reuse, as provided by law.*
- f. *To freely use a single European digital platform for accessing information, under Regulation (EU) 2018/1724 of the European Parliament and of the Council of 2 October 2018.*

Aligning with international norms means embracing a *people-centered* digital transformation. Albania's case shows the importance of not merely counting online services and proclaiming success, but ensuring those services are ethical, equitable, and resilient. Bridging the current gaps will require political commitment to implement the legal protections, invest in cybersecurity and data protection capacity, and actively foster digital literacy among citizens. By doing so, Albania can truly realize the promise of its digital revolution *without* sacrificing the fundamental rights and trust of the people it is meant to serve.

CONCLUSIONS

This study shows that while digitalization enhances efficiency and access to public services, it also generates significant human rights concerns when not supported by strong legal and ethical safeguards. Albania illustrates this duality: rapid e-government reforms have modernized administration, yet gaps in algorithmic governance, low digital literacy, repeated data breaches, and the absence of in-person alternatives pose risks to privacy, equality, and effective access to rights.

In comparison with international standards such as the Council of Europe's AI Convention, UNESCO's Ethics Recommendation, and the EU's digital acquis, Albania's framework remains incomplete and largely reactive. Technological deployment has advanced faster than mechanisms ensuring transparency, accountability, and non-discrimination.

Several reforms are needed. A dedicated law on AI and algorithmic decision-making should define high-risk public-sector uses, require human-rights impact assessments, ensure understandable automated decisions, and provide avenues for redress. Albania should also consider recognizing a right to good administration and digital inclusion, inspired by Article 41 of the EU Charter. Ensuring offline or assisted access to essential services is crucial to prevent digital exclusion, particularly for vulnerable groups. Strengthening digital literacy policies and enhancing institutional capacities, is equally necessary.

Shifting from a technology-driven to a rights-based model of digital governance would allow Albania to fully realize the benefits of its digital transformation while aligning with European human rights standards and safeguarding public trust.

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