

Introduction

Tiina Pajuste

We are living in an era where the boundaries between the physical and digital worlds have blurred, as our interactions, communications, and expressions have increasingly migrated to the virtual realm. Digital technologies have transformed nearly every facet of human life, from how we communicate and work to how we learn, govern, and assert our rights. Our lives are now entwined with data, algorithms, and platforms, which shape our experiences and influence our choices (whether we are aware of this or not). This transformation has been rapid, pervasive, and, at times, deeply disruptive. While digital tools offer unprecedented opportunities for connection, innovation, and empowerment, they also challenge existing legal, ethical, and social frameworks, particularly in the realm of human rights. The United Nations (UN) Secretary-General has emphasised that '[t]echnologies provide new means to advocate, defend and exercise human rights, but they can also be used to suppress, limit and violate human rights'.¹

Digital technologies can also magnify existing inequalities and create new vulnerabilities. The internet, artificial intelligence, and other digital tools are not neutral. They are shaped by the intentions of their creators, the dynamics of global markets, and the priorities of states and corporations. These technologies increasingly mediate fundamental rights such as privacy, freedom of expression, access to education, and equality. Yet our legal and ethical frameworks often lag behind, struggling to address the challenges posed by algorithmic bias, mass surveillance, online disinformation, and the commodification of personal data.

In order to competently traverse the vast landscape of the digital domain, we need to be aware of questions of ethics, privacy, security, and justice that arise in this context and have the potential to significantly impact the enjoyment of our human rights. Against this backdrop, this book explores the intersection of human rights and the digital environment, examining how to adapt our understanding,

¹ UN Secretary-General, 'Road map for digital cooperation: implementation of the recommendations of the High-level Panel on Digital Cooperation. Report of the Secretary-General', UN Doc. A/74/821, 29 May 2020, para. 38.

application, and governance of human rights in the digital age. The authors aim to provide a balanced view of human rights in the digital realm, addressing both the challenges to and opportunities for human rights protection stemming from the digital reality.

EXPERTISE FROM THE GLOBAL DIGITAL HUMAN RIGHTS NETWORK

This book was developed over the course of four years by scholars taking part in the European Cooperation in Science and Technology (COST) Action Global Digital Human Rights Network (GDHRNet).² GDHRNet investigates the theoretical and practical challenges to the protection of human rights posed by the online context and engages with the role of national governments and private online companies in addressing these challenges. The network explores whether international human rights law is sufficiently detailed to enable governments and private online companies to understand their respective obligations vis-à-vis the protection of human rights online. It also evaluates how national governments have responded to the task of providing a regulatory framework for online companies and how these companies have transposed the obligation to protect human rights and combat hate speech online into their community standards.

The network is composed of over 120 academics from diverse disciplines,³ who examine the impact of digital technology on people (e.g., law, business and management, philosophy, information and communications technology, and health informatics). Each chapter and author benefited from interdisciplinary feedback and input from other members of the network during dedicated workshops and meetings. The network's cross-disciplinary engagement is reflected in the book's interdisciplinary approach. Human rights in the digital age cannot be understood through legal analysis alone; it requires insights from ethics, political science, sociology, and technology studies. While the book's primary focus is international (human rights) law, it also incorporates perspectives from other disciplines, such as ethics, environmental education, and medical research. This integrative approach enriches the analysis, offering readers a more comprehensive understanding of the challenges posed by digital technologies and actionable pathways for addressing them. By drawing on

² COST is a funding organisation for the creation of research networks, called COST Actions. These networks offer an open space for collaboration among scientists across Europe (and beyond) and thereby provide the impetus for research advancements and innovation (COST, 'About COST', www.cost.eu/about/about-cost/). Detailed information about COST Action CA19143 is available on the network website: Global Digital Human Rights Network, 'Objectives', <https://gdhrnet.eu/overview/objectives/>.

³ The full list of participants is available at the COST website: www.cost.eu/actions/CA19143/#tabs+Name:Working%20Groups%20and%20Membership. Although the COST Action has ended, GDHRNet continues in the form of informal collaboration between people and institutions.

diverse expertise, the book underscores the need for interdisciplinary collaboration to navigate the intersection of human rights and digital transformation effectively.

FOCUS ON CORE QUESTIONS

Central to the coherence of the book's narrative is the innovative use of fundamental questions, each forming the cornerstones of the parts of the volume. These core questions serve as a scaffold for examining human rights in the digital domain, leading readers on a journey through diverse dimensions of the topic. This unique approach nurtures intellectual curiosity and encourages an active exploration of human rights in the context of the digital reality. Owing to the pervasive nature of digitalisation, not all aspects of human rights can be covered in one book. Therefore, the choice was made to focus on fundamental questions and provide different (non-exhaustive) perspectives on issues that are attached to each question.

The methodology for choosing the questions and the chapter focus areas was based on the following elements:

- (a) *involving interdisciplinary expertise* – by involving experts from different backgrounds (leveraging the collective expertise of GDHRNet members in fields such as law, technology, sociology, ethics, and political science), the questions (and issues addressed in the chapters) would better capture the breadth of challenges posed by digital technologies.
- (b) *having both practical and theoretical significance* – the questions should balance theoretical depth with practical relevance, addressing both foundational issues in human rights and actionable governance challenges. This balance ensures the questions are meaningful to academics, policymakers, and practitioners alike, bridging the gaps between theory and practice.
- (c) *considering global and context-specific relevance* – the book should address universal human rights challenges while accounting for regional and contextual nuances. Digitalisation can sometimes impact regions differently, depending on socio-economic, legal, and technological contexts. Accordingly, the insights from the different focus areas should have broad applicability while recognising diverse experiences.
- (d) *being collaborative and consensus-driven* – the questions should be selected and refined by network members collaboratively through iterative discussions, workshops, and consensus-building exercises.
- (e) *including issues regarding vulnerability* – the process should include a focus on vulnerable populations, as their needs and experiences are often not addressed in policy documents and scholarship regarding human rights and digitalisation, even though they tend to be disproportionately affected by digitalisation. Addressing vulnerability ensures that structural inequalities and underrepresented perspectives are addressed.

The selection of the core questions was a collaborative process involving members of GDHRNet. The process began with scoping and brainstorming, where members identified both fundamental and pressing challenges in relation to human rights in the digital domain. These ideas were then organised into thematic categories such as governance, freedom of expression, right to privacy, inclusion, and regulatory adaptation. Next, through prioritisation exercises, members selected the most pressing and globally relevant issues. This was followed by an iterative refinement process, where draft questions were circulated for feedback to ensure clarity and relevance. Finally, the questions were validated against real-world cases to confirm their practical and theoretical significance. This rigorous process resulted in four core questions that address some of the most foundational and complex human rights challenges in the digital age, providing the foundation for the book's structure and discussions.

STRUCTURE OF THE BOOK

This volume is organised into four parts, each addressing a core question that reflects a distinct dimension of the human rights challenges in the digital age. The parts begin with an introduction that describes the relevance of the question and the focus areas of the chapters, provides an overview of the substance of the chapters and how the authors respond to the core question, and draws parallels between the different chapters and the themes addressed in them.

The first part focuses on how to adapt human rights to the digital world and responds to the question: *What difference does it make to move online?* The seven chapters in that part examine how the digital environment fundamentally changes the nature and scope of human rights. Moving online amplifies risks, such as disinformation and privacy violations, while also creating new rights dilemmas, such as the 'right to disconnect' or the governance of algorithmic decision-making. These challenges demand a re-evaluation of how rights are understood, protected, and enforced in a rapidly evolving digital landscape. The chapters explore these transformations through theoretical, legal, and practical lenses, offering insights into how courts, regulators, and individuals can adapt to these changes. This section is important because it lays the groundwork for understanding the broader themes addressed throughout the book. It underscores the importance of adapting human rights frameworks to ensure they remain effective and relevant in the digital age.

The second part addresses the question: *How should freedom of expression be applied in the digital environment?* The chapters in this part engage with one of the most complex areas of human rights in the digital age: freedom of expression. Digital platforms have transformed public discourse, enabling unprecedented access to information and empowered individuals to participate in global conversations. However, they have also amplified harmful phenomena such as

disinformation, hate speech, and manipulation, posing serious risks to democratic values, social cohesion, and individual dignity. This section addresses the delicate balance between preserving the right to free speech and implementing safeguards to prevent harm in the digital space. Without clear guidance and accountability mechanisms, digital platforms risk becoming unregulated arenas where abuses of speech undermine trust, democratic integrity, and human rights. At the same time, over-regulation can stifle expression and innovation, creating a need for nuanced, rights-based approaches to this complex issue.

The third part focuses on the question: *How should human rights law respond to the challenges of digital technologies?* As digital technologies, such as artificial intelligence, drones, and surveillance systems become deeply embedded in governance, commerce, and daily life, they introduce new challenges to human rights. These technologies often outpace existing legal frameworks, raising urgent questions about how to protect privacy, ensure accountability, and promote equity in an increasingly digitised world. Addressing this question is particularly important because it helps understand the evolving relationship between human rights law and technological innovation at a time when the stakes for individual freedoms and societal well-being are higher than ever. Without proactive legal frameworks, the rapid advancement of these technologies risks deepening inequalities, eroding public trust, and enabling unchecked surveillance and exploitation. The four chapters in this section analyse both the theoretical and practical dimensions of these challenges and provide insights into how human rights law can adapt to balance the benefits of innovation with the protection of fundamental rights. They emphasise the need for global harmonisation to avoid fragmented governance, which can lead to inconsistencies and loopholes that undermine the protection of rights.

The fourth and final part aims to address the question: *What challenges do vulnerable groups face in the digital realm?* The chapters draw attention to the problem that vulnerable groups are often the ones most affected by the negative aspects of digitalisation. The authors highlight the unequal impact of digitalisation, focusing on vulnerable groups such as children, minority-language communities, precarious workers, and broadly those affected by the digital divide. They emphasise the intersectional nature of digital exclusion, advocating for inclusive policies and rights-based approaches that address the compounded vulnerabilities faced by marginalised populations. Including a section on vulnerable groups in a book about human rights in the digital realm is essential because digital technologies often amplify existing inequalities and create new forms of exclusion. Vulnerable groups face unique challenges in accessing and benefiting from digital tools and services. Highlighting their experiences ensures that human rights discussions go beyond general principles and address the specific barriers these groups encounter, such as affordability, digital literacy gaps, and online discrimination. This focus is critical for promoting inclusive digital policies that uphold the rights of all individuals.

CLARIFICATIONS REGARDING SCOPE

The primary focus of this book is on civil and political rights, as these rights are particularly challenged and redefined in the digital age. Issues such as privacy, freedom of expression, and the right to information are at the forefront of debates surrounding digital governance, platform regulation, and technological innovation. These rights are deeply intertwined with the mechanisms of democracy, individual autonomy, and accountability, making them central to understanding the impact of digital technologies on human rights frameworks.

However, the book does not neglect economic, social, and cultural rights. Several chapters address issues such as the right to education and the right to health, particularly in the context of vulnerable groups. For example, discussions of precarious labour in digital economies, internet addiction, and the digital divide highlight how economic, social and cultural rights are also deeply affected by technological advancements. This dual focus ensures that the book provides a well-rounded exploration of human rights challenges in the digital realm, acknowledging both the immediate political concerns and the broader social implications of digitalisation.

The book offers global perspectives, but places special emphasis on Europe. The prominent place of Europe in this book is not intended to suggest a Eurocentric perspective but rather to acknowledge Europe's role as a forerunner in digital governance. The General Data Protection Regulation (GDPR), for example, has shaped global debates on data protection, inspiring similar laws in jurisdictions as diverse as Brazil, South Africa, and California. Similarly, the Artificial Intelligence Act offers a proactive approach to regulating artificial intelligence that could serve as a blueprint for other regions. By analysing these frameworks, this book seeks to explore how rights-based digital governance strategies can be developed and adapted to other cultural, legal, and political contexts.

At the same time, the book takes a deliberately global approach, integrating perspectives from Africa, Asia, and the Americas to ensure that the discussion extends beyond European experiences. Chapters (co-)authored by scholars from Japan, South Africa, Brazil, and Argentina offer insights into how digital technologies intersect with human rights in different settings, addressing some of the unique challenges faced by the Global South and other under-represented contexts, and bridging regional experiences to highlight shared challenges and opportunities.

While the book acknowledges Europe's influence in shaping global digital policy, it does so within a broader effort to foster a more inclusive dialogue on digital human rights. The focus on Europe serves as a springboard for understanding how robust governance frameworks can emerge and evolve. However, the ultimate aim of this book is to provide a comprehensive and diverse exploration of digital rights that reflects the needs and perspectives of a global audience. In this way, Europe's place in the book is balanced by contributions that highlight the voices,

experiences, and innovations of other regions, ensuring that the analyses resonate with a truly international readership.

The book sets out to provide a holistic perspective on the ways digital technologies reshape rights, responsibilities, and governance structures. It offers a panoramic view of the profound implications and challenges that accompany our move into the digital realm. The reader is led on a journey through a landscape that requires a delicate balance between freedom and responsibility. It is our hope that this broad examination of human rights in the digital domain will not only shed light on the complexities of our digital age but also inspire thoughtful discourse, further research, policy development, and advocacy, as well as to empower individuals, policymakers, and institutions to uphold and protect human rights in the digital era, ensuring a human-centric and ethically grounded technological landscape.

The digital transformation is still unfolding, and its full implications for human rights remain uncertain. However, what is clear is that the stakes are high. Without deliberate, inclusive, and rights-based approaches to governance, the digital environment risks deepening inequalities, eroding trust, and undermining democratic values. This book is not just an exploration of current challenges but a call to action – an invitation to rethink how we protect human rights in a rapidly changing world.

