



An Interface between Digital Privacy and Human Rights: The Challenges Ahead

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Abstract

In the contemporary digital era, the intricate equilibrium between digital privacy and fundamental human rights has risen to the forefront of societal concerns. This paper delves into the multifaceted dimensions of this intricate nexus, offering a comprehensive analysis of the myriad challenges, legal frameworks, advocacy endeavors, ethical contemplations, and forthcoming trends that shape the intersection of digital privacy and human rights. Privacy assumes a position of paramount significance as it serves as a bulwark safeguarding an individual's most intimate sphere, encompassing their physical being, familial ties, interpersonal relationships, material possessions, and personal information from unwarranted or unforeseen external encroachments. Privacy is the foundational prerequisite for the enjoyment of other hard-earned liberties, including the right to unfettered expression and protection against discrimination predicated on variables such as gender, race, sexual orientation, political affiliations, and religious beliefs. This fundamental verity is undergoing scrutiny in an era where individuals involuntarily reveal substantial facets of their lives due to their participation in the digital landscape. However, in a world where participation in the digital society and economy has become virtually ubiquitous and, essentially, obligatory, the privilege of privacy must not be a domain solely for those possessing the means to secure it. In a milieu where the collective memory of the monumental human-made catastrophes of the twentieth century slowly fades, the demand for safeguards against unwarranted intrusions into the private domains of individuals by influential state entities and corporate conglomerates has never been more pronounced. The convergence of political malevolence

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and technological omnipotence poses a palpable and immediate threat. This article encapsulates the rationale behind preserving privacy and introduces emerging legal principles, such as accountability and individual autonomy in the management of their personal data. It advocates for the establishment of a global coalition comprising willing regulators, erudite scholars, and representatives of civil society, all dedicated to vigilant oversight and unwavering resistance against any endeavors aimed at gradually eroding the cherished liberties of the global populace.

Keywords: Human Rights, Digital Rights, Digitalization, Digital Technologies, Digital Privacy

1. Introduction

Numerous notable transformations have unfolded in contemporary society since the advent of digital technology. These phenomena are epitomized by the ubiquitous integration of state-of-the-art digital technology across all facets of human existence, commonly referred to as the digital metamorphosis of societal dynamics. Serving as a catalytic impetus for change, the digital revolution has given rise to several momentous developments, including the establishment of a digital economy, the refinement of the fundamental principles of digital jurisprudence, and a restructured social milieu underpinned by the Internet, social media platforms, and other information and communication technologies (ICTs).¹ Fundamentally, contemporary digital technologies have given rise to a novel mode of production and paved the way for a transition to a fresh social paradigm. Concurrently, the legal framework governing interpersonal interactions is undergoing a transformation due to this prevailing trend of digitization. The evolution into a digital society exerts a profound influence on individuals' capacity to assert their fundamental human rights. This progression also

¹Hyliaka, S. (2021). Human rights in the digital age: Challenges, threats and prospects. *Journal of the National Academy of Legal Sciences of Ukraine*28(1), 16.

contributes to the advancement of new civil and human rights within the global realm of information and digital domains.²

A profound understanding of the ramifications of digitalization, coupled with the establishment of a highly effective legal infrastructure for the governance, preservation, and implementation of both existing and emergent human rights, becomes imperative. The overarching objectives of this undertaking encompass the assurance of sustained socio-economic progression and the preservation and enforcement of the fundamental civil and human rights enshrined within the constitutional framework. The realm of digital interactions stands out for its virtuosity and global dynamism. Given that participants in this milieu frequently assume roles akin to virtual representations, and the demarcation between individual rights and external interventions often appears blurred, it is imperative to accord heightened attention to the safeguarding of basic human rights within this intricate context.³ The concept of digital rights is progressively permeating both the realm of abstract philosophical discourse and the corridors of legal deliberation within the contemporary landscape of legal evolution. It has assumed a pivotal role in delineating an individual's legal standing within the vast expanse of the internet.⁴

Nonetheless, it is imperative to underscore that the categorization of digital rights still lacks universal consensus, both in the practical realm of legal application and within the realm of scholarly discourse. The challenge of establishing a consensus on how to

² Aston, Valerie. 2017. 'State Surveillance of Protest and The Rights to Privacy and Freedom of Assembly: A Comparison of Judicial and Protester Perspectives.' *European Journal of Law and Technology* 8(1).

³ Wingfield, Richard. 2019a. 'A human rights based approach to disinformation.' Digital Partners Online, 15 October 2019. Available at: <https://www.gp-digital.org/a-human-rightsbased-approach-to-disinformation/> (last visited on April 23, 2023).

⁴Yayboke, Erol& Samuel Brannen. 2020. 'Promote and Build: A Strategic Approach to Digital Authoritarianism.' CSIS.org, 15 October 2020. Available at: <https://www.csis.org/analysis/promoteand-build-strategic-approach-digitalauthoritarianism> (last visited on May 2, 2023).

safeguard and advance human rights in the digital domain is a relatively recent subject, which may account for the prevailing lack of consensus. A forthcoming obstacle within the legal landscape might lie in the resolution of this ongoing contention. In the contemporary era marked by the rapid inception and proliferation of new technologies, threats to privacy are mounting at an alarming pace. Among the most fundamental rights enshrined in international law is the right to privacy. However, the preservation of this essential right has become increasingly intricate as digitization pervades every facet of modern existence. The privacy of individuals is routinely encroached upon by both governmental and non-governmental entities.

Despite the existence of legislative measures designed to curtail such intrusions and delineate the circumstances under which competent authorities may grant authorization for such activities, legal frameworks often grapple with the breakneck velocity of technological innovation. The protective provisions established by current law frequently prove insufficient to address the exigencies of our contemporary society. Consequently, in response to these evolving pressures, there arises an urgent necessity to reevaluate the structures of legal regulation and enhance the overall levels of legal literacy.

2. Issues and Challenges

It is presently comprehensively acknowledged that the availability of the global internet ecosystem may engender challenges concerning the perpetration of human rights transgressions through the utilization of digital technologies. These challenges typically emanate from the conduct of individuals situated in diverse jurisdictions, each characterized by distinct legal, political, and informational norms. Scholarly investigations have demonstrated that the expansive proliferation of the Internet has not engendered entirely novel modes of conduct but largely mirrors pre-existing behavioral conventions. Nevertheless, the ramifications of these activities and the intricacies surrounding their

legal regulation have undergone a process of evolution and refinement.⁵ In this nascent environment, substantial responsibilities fall upon both governmental bodies and society at large. Their collective imperative involves the discernment of novel rights and the anticipation of evolutionary trajectories for well-established ones. Legislators, scholars, and information and communication technology (ICT) experts bear the weighty duty of devising and promulgating comprehensive, widely accepted solutions to address these complexities. The undertaking of human rights impact assessments concerning emerging technologies is an intricate endeavor. Two paramount factors necessitate consideration. Firstly, the initial factor hinges on the prevalent disparity often observed between technological advancements and their legal codification. This incongruity is particularly conspicuous in the realm of digital technologies, wherein national and international legal frameworks have displayed a sluggish adaptation to the rapid pace of scientific and technological progress. The second facet involves the overarching global trend of technological advancement. The objectives associated with safeguarding human rights should be guided by these twin determinants: firstly, the imperative to reinterpret traditional human rights within the context of scientific and technological evolution, and secondly, the emergence of new human rights that can be categorized as *sui generis*—a novel generation of digital rights.⁶

The trend of digitization is progressively erasing the demarcation lines among the various subdomains of jurisprudence. With information and technology's pervasive infiltration across all sectors, they may ultimately play a pivotal role in the formation of a homogeneous legal framework. Consequently, legal theory is commencing to mirror the reality that discrete legal domains are

⁵Kolieb, Jonathan and Poblet, Marta, Responding to Human Rights Abuses in the Digital Era: New Tools, Old Challenges (June 4, 2018). *Stanford Journal of International Law* Vol. 52, No. 2, Available at SSRN: <https://ssrn.com/abstract=3859873>.

⁶Hyliaika, S. (2021). Human rights in the digital age: Challenges, threats and prospects. *Науковий юридичний журнал*, 28(1), 16.

losing significance in practical application. The notion of digital rights is gaining global, regional, and national recognition. On occasion, human rights find acknowledgment within the context of regulating specific entitlements, particularly those intertwined with digital or communication technologies. In other instances, a more expansive vantage point is adopted, leading to the delineation of an extensive catalog of such rights.⁷

It is imperative to underscore that the concept of digital rights has not yet garnered unanimous concurrence within the legal or scholarly spheres. This incongruity can be attributed, in part, to the exigency of dedicating a significant temporal span to adequately contend with the relatively nascent challenge of identifying and delineating the unique attributes inherent to fundamental human rights, encompassing their essence and applicability, within the digital milieu.⁸ Nonetheless, the present endeavor necessitates a comprehensive comprehension of the myriad conceptualizations surrounding digital rights, encompassing inquiries into their ownership, intrinsic value, imperative need for safeguarding, and intricate interplay with fundamental liberties and entitlements. When contextualized within the framework of an information-driven society, digital rights may be construed as an organic extension of the foundational human rights. As posited by the author of this scholarly investigation, an exhaustive grasp of digital rights mandates a meticulous consideration of the idiosyncrasies inherent to the digital domain wherein they find expression. These fundamental digital rights are rooted in, albeit not confined to, the domain of information rights.⁹

⁷ Brad Smith, The Need for a Digital Geneva Convention, MICROSOFT, available at: <https://blogs.microsoft.com/on-the-issues/2017/02/14/need-digital-geneva-convention/>. (last visited on February 14, 2019).

⁸*Ibid.*

⁹Tkacheva, Olesya, Lowell H. Schwartz, Martin C. Libicki, Julie E. Taylor, Jeffrey Martini & Caroline Baxter. 2013. Internet Freedom and Political Space. Santa Monica, Calif.: RAND Corporation, RR-295-DOS. Available

Currently, various digital rights are actively being distinguished, including but not limited to:

- a) The right of receiving and using data.
- b) The freedom to use any and all types of electronic communication and storage media.
- c) Individual and biometric privacy is a fundamental human right.
- d) The guarantee of privacy and anonymity while interacting with others online.
- e) The freedom to pursue and get an education in the digital realm.
- f) Legal protections for individuals' genetic data.
- g) The legal ability to buy and sell property online.
- h) The right to be forgotten.
- i) The expansion of opportunities for the free enjoyment of civil, political, economic, social, and cultural rights made possible by technology advancements.

Traditional, universally acknowledged rights are in a state of flux, undergoing a process of evolution, expansion, and diversification to encompass rights that are inherent to the process of digitization. The legality of imposing restrictions on individuals' access to the Internet remains a contentious and actively debated issue. Some scholars contend that the right to Internet access should be regarded as a distinct and separate category, falling under the purview of digital rights. Conversely, others argue that theological deliberations must precede the establishment of the right to Internet access as a settled matter. Certain academics posit that not everyone possesses an innate entitlement to Internet usage by virtue of their humanity. They point out that the human species has endured and thrived for extended periods without the Internet, and if this technology becomes obsolete due to advancements in more sophisticated technological avenues, human existence may once

at: https://www.rand.org/pubs/research_reports/RR295.html. (last visited on April 23, 2023).

again adapt accordingly.¹⁰ The legal significance of internet accessibility, while not inherently profound, assumes a pivotal role in enabling the comprehensive realization of the spectrum of innate human rights, as it serves as a catalytic enabler for the exercise of various foundational human rights and liberties. The tapestry of human freedom has found expression across diverse historical contexts and modalities, with the contemporary landscape witnessing an escalating trajectory toward heightened technological sophistication and an increasing interdependence on technological infrastructures.¹¹ The pervasiveness and requisition for internet connectivity exemplify this paradigm. The spectrum of human rights may, within legitimacy, encompass an extensive array of methodologies for materializing individual agency, influenced by variables including societal constructs, historical contexts, cultural factors, and technological dynamics. It is noteworthy to emphasize that the exercise of virtually all human rights remains feasible even in the absence of internet access; however, such practice occurs with reduced efficiency.¹²

In the contemplation of safeguarding rights, the salient concern of internet security remains highly relevant. Central to this concern is the quandary surrounding the potential infringement upon users' individual domains while engaging in the utilization of the internet for informational retrieval and the uninhibited expression of their thoughts. The widespread deployment of information retrieval mechanisms and the automation thereof has significantly

¹⁰ Van Veen, Christiaan. 2019. 'Why the Digitization of Welfare States is a Pressing Human Rights Issue.' Oxford Human Rights Hub, available at: <https://ohrh.law.ox.ac.uk/why-the-digitizationof-welfare-states-is-a-pressing-human-rightsissue/> (last visited on May 30, 2023).

¹¹ F Fabbrini, 'Human rights in the digital age: The European court of justice ruling in the data retention case and its lessons for privacy and surveillance in the United States' (2015) 28 *Harvard Human Rights Journal* 65-95.

¹² Ethan Zuckerman, *Cute Cats to the Rescue? Participatory Media and Political Expression*, in *From Voice to Influence: Understanding Citizenship in a Digital Age* 151.

augmented individuals' accessibility to the abundant troves of knowledge disseminated across the online expanse. Nevertheless, this newfound convenience has precipitated a confluence of concerns, notably pertaining to issues of personal privacy, the opacity characterizing the utilization of information, and the relinquishment of user agency in this digital milieu.¹³ Information pertaining to a user's proclivities, behavioral patterns, and predilections can be readily ascertained by virtually anyone, thanks to the search queries and accompanying metadata. Furthermore, there exists the potential that specific inquiries might encompass identities or quasi-identifiers, which possess the capability to be harnessed for the purpose of tracing an individual of particular interest. The responsibilities assigned to internet intermediaries constitute yet another pivotal subject matter, both in the realm of theoretical discourse and in the practical application of legal governance. An extensive body of research has been undertaken to delineate the confines of these responsibilities and to assess them from the vantage point of various branches of law, rendering this a topic of established significance. The overarching objective is to establish a standardized set of principles that will govern conflicts entailing the emerging generation of internet intermediaries.

The academic community is deeply engrossed in the quest for solutions to the myriad challenges with which internet intermediaries are entrusted. Nevertheless, it is imperative to acknowledge that heightening the demands imposed upon internet intermediaries and augmenting their duties may inadvertently yield adverse repercussions for enterprises engaged in data-related activities. Thus, it is of paramount importance to ensure that the imposition of such obligations does not unduly disrupt established business models.¹⁴

¹³Hyliaka, S. (2021). Human rights in the digital age: Challenges, threats and prospects. *Науковий юридичний журнал*, 28(1), 16.

¹⁴ Stephen Tully, A Human Right to Access the Internet? Problems and Prospects, 14 *HUMAN RTS. L. REV.* 175 (2014).

Policymakers and legislators ought to employ a judicious and fitting methodology when delineating the sphere of accountability within domains such as intellectual property, data security, the principle of net neutrality, service infrastructure, and regulations pertaining to competition. The obligations and prerogatives of intermediaries in the realm of the internet have been meticulously expounded upon in a proposition presented by the Ministerial Committee of the Council of Europe. In scenarios where nations impose restrictions on the operations of internet intermediaries, including actions like the proscription and eradication of content, this document succinctly encapsulates the international human rights standards that should be invoked and upheld.

This suggestion urges governments to:

- a) Evaluate the impact of proposed measures on human rights, and implement only those measures that can be empirically demonstrated to achieve their stated objectives while imposing the least possible encumbrances on those rights.
- b) Ensure the existence of safeguards, including the establishment of judicial procedures for adjudicating matters pertaining to content restrictions and legal redress.
- c) Abstain from assigning the responsibility to internet service providers for comprehensive monitoring of all data transmitted or stored on their servers.
- d) Excessively stringent regulations may compel internet intermediaries to unilaterally censor permissible content; therefore, it is imperative to maintain a proportional approach to liability measures.
- e) Avoid placing the onus on websites for the content posted on their servers by users who are not their clientele. Failure on the part of an internet intermediary to take corrective action to curtail the dissemination of illegal information may result in legal repercussions.
- f) Foster the proliferation of self-regulation and co-regulation mechanisms throughout online platforms.

The deployment of digital instruments exhibits a dual potentiality, with the capacity to either ameliorate or exacerbate prejudices. These tools can extend the reach of financial services through the establishment of mobile money systems, thereby mitigating bias, or conversely, perpetuate biased behaviors by operating contrarily. The Committee of Ministers of the Council of Europe underscores the discriminatory propensities inherent in algorithmic procedures, underscoring how contemporary technology affords the adept creation of comprehensive individual profiles by leveraging easily accessible data, thereby fortifying preexistent schisms rooted in social, cultural, religious, legal, and economic realms.¹⁵

This methodology enables the categorization of individuals based on their digital profiles, a practice that can have profound implications for various aspects of their lives, encompassing their eligibility for financial arrangements, such as obtaining a mortgage, and their access to healthcare. Security expert H. Abelson also delves into privacy concerns, emphasizing the substantial risks associated with granting exclusive information access to law enforcement entities, primarily due to technological complexities and the overarching legal framework. The assurance that fundamental legal principles and human rights will be upheld under such circumstances remains uncertain, leaving sensitive information in a precarious state. As people increasingly allocate a significant portion of their time to online activities and governments endeavor to restrict access to publicly shared information, the issue of privacy has emerged as an urgent challenge. Pervasive governmental surveillance poses a detriment to the very foundation of a democratic society, curbing citizens' rights to unhampered expression. The implications for society at large stem from the extensive surveillance and analysis of publicly accessible data, particularly affecting marginalized communities and those who dissent from the prevailing status quo. Consequently, there is a compelling necessity for both federal and state regulations to

¹⁵ Edward Hall and Dimitrios Tsarapatsanis, Human Rights, Legitimacy, Political Judgement, 27 *RESPUBLICA* 171, 172 (2021).

govern the application of cutting-edge surveillance technologies in the public domain. The safeguarding of individuals against intrusive government surveillance of social media and other publicly accessible information demands the establishment of national-level regulations.

Scholars from diverse legal disciplines are increasingly recognizing the impact of new technologies on human rights. Notably, the advent of digital technology has prompted substantial amendments to labor laws, enabling work to be conducted remotely from home or non-traditional settings. While workers in less-developed economies tend to embrace the expectation of continual accessibility imposed by their employers, those in advanced economies may perceive this expectation as conflicting with conventional values like the right to leisure and privacy. For instance, in August 2016, France passed legislation ensuring that workers can enjoy their time away from the workplace without being intrusively interrupted by work-related digital communications such as emails and phone calls. France has pioneered the incorporation of such protections into workplace legislation.¹⁶ Certain employees may potentially allocate an increased portion of their leisure hours to the exploration of social media platforms such as Facebook, YouTube, and Twitter, should their non-working intervals become exempt from employer-induced disruptions. The domain of digital labor could conceivably supplant the traditional professional temporal commitments, particularly within the micro-technology service domain, exemplified by Amazon Mechanical Turk.

Digitalization holds the potential to yield advantages for the field of environmental law. Legal concerns associated with environmental circumstances might experience expedited resolution, facilitated by the seamless real-time transmission of pollution data to the general populace. Furthermore, technology has exerted its influence on

¹⁶Marcellolenc & Roberto Andorno, Towards New Human Rights in the Age of Neuro science and Neuro technology,13 *LIFE SCI.SOC.POL'Y*1,11–15(2017).

administrative law by enhancing the communication channels between state institutions and generating instruments for public involvement in governance processes.¹⁷ Nevertheless, there exists a contingent of individuals who express apprehension that the internet and the realm of social media pose a potential threat to the integrity of democratic systems and the principles of the rule of law. As a response to these concerns, governments worldwide have increasingly immersed themselves in the intricacies of the Internet. Contemporary legal frameworks often grapple with the intricacies of issues stemming from rapid technological progress, leading to a gradual adjustment of both national and international legal prerequisites to regulate the realm of cutting-edge technology and research. In acknowledgment of these complexities, the United Nations passed Resolution 2450 (XXIII), which encourages the pursuit of interdisciplinary research on both national and international scales, with the aim of formulating protective measures for the preservation of individual rights and liberties in the context of ever-evolving technological advancements. The resolution underscores the necessity of maintaining equilibrium between scientific and technical progress and the cultivation of a nation's intellectual, spiritual, cultural, and moral assets.¹⁸ The impact of emerging technologies on human rights across various legal jurisdictions has been a subject of concern and scrutiny within the Council of Europe. This organization regularly convenes conferences and conducts scholarly inquiries into the legislative frameworks and operational practices surrounding internet freedom in its member states. Both the Committee of Ministers and the Parliamentary Assembly of the Council of Europe have issued formal statements and recommendations pertaining to this domain. When adjudicating matters pertaining to the application of the

¹⁷Mansoor, S. I. U. (2021). *Globalization and Role of WTO in Bridging the Inequalities between Member Countries*.

¹⁸ UN (United Nations). 2021. 'The Universal Declaration of Human Rights.' The United Nations, available at: <https://www.un.org/en/universal-declaration-human-rights/> (last visited on June 3, 2023).

European Convention for the Protection of Human Rights and Fundamental Freedoms (ECHR), the European Court of Human Rights (ECtHR) meticulously considers the prevailing human rights dynamics. A significant proportion of legal cases revolving around Article 8 of the ECHR, which safeguards the right to privacy, are rooted in concerns about government surveillance practices and the accumulation of personal data. The European Court of Human Rights has recognized the potential perils to human rights posed by technologies designed for the extensive collection and storage of data.

The ECtHR has observed that many nations are increasingly harnessing cutting-edge technology for data acquisition, including the widespread surveillance of communication channels, particularly in their efforts to combat contemporary terrorism. Nevertheless, governments must adopt precautionary measures to ensure that the laws governing the utilization of such technology are formulated in a manner that precludes any potential for misuse. The court determined that this prerequisite was unmet in one specific case, as surveillance techniques were deemed legal in Hungary and could be applied to virtually any individual, regardless of their status as targets of the operation. Furthermore, executive entities retained the authority to issue such surveillance orders, and their determinations were immune to judicial challenge. Since digital technologies are inherently impartial and accessible to everybody, they mesh well with the concept of universal human rights.¹⁹ In spite of the advent of digitalization, the intrinsic nature of human beings remains fundamentally constant, replete with unchanging desires and foundational convictions. An assessment of the diverse technological innovations and their impact on individuals' entitlements, liberties, integrity, and prestige can be synthesized within the overarching framework of human rights. The intricacies of the digital realm may perplex scholars and

¹⁹Mansoor, S. I. U. (2021). Trips Agreement's Obligations and their Repercussion on Developing Countries During Emergency Situations. *Ilkogretim Online*, 20(1), 6021-6031.

practitioners alike, rendering this concept endowed with substantial potential.²⁰

3. Indian Perspective

The perspective held by India regarding digital rights is intricately intertwined with the democratic ethos of the nation and the perpetually evolving technological landscape. In this context, Article 19 of the Indian Constitution stands as a safeguard, assuring the preservation of the freedom of speech and expression for all Indian citizens. Notably, the Supreme Court has recently reaffirmed the sacrosanct status of the right to privacy as a fundamental prerogative. Furthermore, Article 21 of the Indian Constitution serves as a bastion, safeguarding the right to life and personal liberty. The Indian stance on digital rights is firmly rooted in the aegis provided by these constitutional protections.²¹

The widespread use of computers and the internet has had a major impact on the protection and enjoyment of fundamental rights. The relevance of digital rights has been brought to the forefront as more and more people have access to the internet.

- a) **Right to Freedom of Speech and Expression:** People are able to voice their views, ideas, and beliefs via the internet. It's no secret that people are increasingly using social media, weblogs, and online forums as important platforms for public conversation. However, problems with hate speech, false information, and cyberbullying have emerged as a result. Regulation to limit harmful material is a concern, but it must be balanced with the right to free expression.²²

²⁰ Special Rapporteur on Extreme Poverty and Human Rights. 2019. Digital welfare states and human rights. Geneva: United Nations Human Rights Council,

²¹ Bloomer, P. (2020). Technology and human rights. The Business & Human Rights Resource Centre,

²² IN Duy, 'The limits to free speech on social media: On two recent decisions of the supreme court of Norway' (2020) 38(3) *Nordic Journal of Human Rights* 237-245. doi: 10.1080/18918131.2021.1872762.

- b) **Right to Privacy:** The Supreme Court's historic ruling in the Puttaswamy case established the right to privacy as a basic human entitlement, generating widespread media and public interest in the topic in recent years. Citizens have a right to anticipate that their online actions and personal data will be protected, and this has obvious repercussions for their digital rights.²³
- c) **Right to Information:** The internet is an essential tool for spreading knowledge and keeping people informed. Transparency and accountability are promoted, and people are given the means to access information held by government agencies. The government of India has launched a programme called Digital India with the goal of providing universal access to the internet and information.
- d) **Digital Inclusion and Access to Technology:** One aspect of digital rights is the guarantee of everyone's ability to use modern digital tools. The digital gap in India is a serious issue because of the disparity in the availability of the internet and other forms of modern technology. Initiatives like BharatNet and digital literacy programmes are being implemented to help close this gap.
- e) **Cybersecurity and Data Protection:** Concerns about cyber security and the privacy of sensitive personal information have increased as people spend more time online. In response to these worries, the government has proposed many pieces of legislation, including the Information Technology Act and the Personal Data Protection Bill.
- f) **E-Governance and Digital Services:** The Indian government has been pushing for e-governance programmes to improve the availability and effectiveness of public services. Protecting digital rights, however, depends on making sure these services are accessible to everyone, easy to use, and safe.

²³ C Nyst, T Falchetta, 'The right to privacy in the digital age' (2017) 9(1) *Journal of Human Rights Practice* 104-118. doi: 10.1093/jhuman/huw026.

- g) **Online Surveillance and Digital Policing:** The right to privacy must be carefully weighed against national security considerations in the context of online surveillance and digital policing. There is constant discussion on controversial topics like internet surveillance, data interception, and the use of new technology like face recognition.
- h) **Net Neutrality:** Maintaining open and unrestricted access to all forms of internet material and services relies heavily on adhering to the net neutrality ideal. Guidelines to protect net neutrality have been established by the Telecom Regulatory Authority of India (TRAI).
- i) **Freedom of Online Expression:** To strike a balance between the need to restrict hate speech and false news and the preservation of free expression is a continuing struggle, despite the fact that the right to freedom of speech and expression extends to the digital sphere and there have been instances of internet censorship and content takedowns.
- j) **Digital Identity:** Concerns regarding privacy and data security have been voiced in relation to the government's Aadhaar initiative, which issues a unique identifying number to each individual. It is essential that people's biometric and personal data be kept safe.
- k) **E-Voting and Online Political Participation:** The use of digital technology in elections and political engagement has been an area of investigation in India. The usage of EVMs and the possibility of Internet voting are examples. It's crucial to guard against cyberattacks and keep these operations running smoothly.
- l) **Digital Literacy:** The best way to ensure individuals can make educated decisions and keep their personal information safe while using the internet is to increase their digital literacy. Several government programmes aim to raise people's level of computer knowledge.
- m) **Digital Payments and Financial Inclusion:** The widespread use of digital banking might spur economic development and widen

access to credit. However, there is a need to address worries about cybersecurity and data breaches in the banking industry.²⁴

- n) **Healthcare and Telemedicine:** The spread of the COVID-19 pandemic has hastened the use of telemedicine and other forms of digital health care. It is crucial that medical records be kept private and secure in the digital healthcare environment.
- o) **Intellectual Property Rights:** Intellectual property, copyright, and fair use are all aspects of the digital world that fall under the umbrella of digital rights. Finding a happy medium between the needs of producers and consumers is difficult.²⁵
- p) **Social Media and Online Hate Speech:** Fears that hate speech, false information, and fake news would spread more easily because of the advent of social media have been voiced.²⁶ It's a hotly debated topic whether or not social media sites should be monitored and regulated while protecting users' right to free speech.²⁷
- q) **Cross-Border Data Flows:** Issues of data sovereignty, jurisdiction, and international data sharing agreements arise when data moves across boundaries. India has been thinking about how to address the regulation of international data transfers.
- r) **Digital Rights Advocacy:** Promoting digital rights is an important function for civil society groups and activists. They do advocacy

²⁴Mansoor, S. I. U., & Chopra, M. (2020). Article XX Of GATT: Territoriality Of Unilateral Trade Measure And Sustainable Development. *Ilkogretim Online*, 19(4), 7784-7792.

²⁵ A Gribincea, 'Intellectual property rights to an artificial intelligence product' (2020) 27(4) *Journal of the National Academy of Legal Sciences of Ukraine* 234.

²⁶ IN Duy 'The limits to free speech on social media: On two recent decisions of the supreme court of Norway' (2020) 38(3) *Nordic Journal of Human Rights* 244.

²⁷ M Horowitz, H Nieminen, A Schejter, 'Introduction: Communication rights in the digital age' (2020) 10(1) *Journal of Information Policy* 299-303. doi: 10.5325/jinfopoli.10.2020.0299.

work to ensure that people's internet rights are protected by both the government and business sector.

- s) **International Collaboration:** India works with other nations and international organizations to combat cybersecurity risks and improve cross-border data governance, two pressing challenges related to digital rights in today's interconnected world.²⁸

The idea of digital rights in India is fluid and changing. The rights and liberties of Indian residents in the digital age must be protected, and as technology evolves, so must the country's legal structures and regulations. The difficulty here is finding a happy medium between the need for innovation, the need for security, and the need to protect people's privacy.

4. Conclusion

In the contemporary digital era, there exists an augmented potential for individuals to exercise their inherent human and civil liberties, albeit concomitant with an escalated risk to their security. The pervasive digitization of virtually every facet of human existence introduces a potential for adverse consequences, particularly in the context of preserving fundamental human rights such as the right to privacy. Despite individuals' conscientious efforts to fortify their privacy in their utilization of digital technology and the internet, a multitude of objective and subjective variables may erode or entirely nullify the effectiveness of such precautions. Consequently, the immediate jeopardy to numerous foundational civil and human rights is discernible.

Evidently, a robust data infrastructure is imperative to uphold these fundamental civil and human rights. Simultaneously, it is apparent that the utilization of information technology in safeguarding human rights is not devoid of drawbacks. The extensive integration of digital technology yields both advantageous and detrimental

²⁸Mansoor, S. I. U., & Chopra, M. (2022). WTO and Developing Nations: Disparities in the WTO Dispute Settlement Mechanism. *International Journal of Early Childhood Special Education (INT-JECSE) DOI, 10, 4441-4449.*

consequences on human rights, facilitating their exercise while concurrently encroaching upon them. Nation-states and the international community grapple with the formidable challenge of mitigating preexisting predicaments within this domain and striking an equilibrium between the interests of individuals, societal groups, and the state.

In the backdrop of information and technology's omnipresence across all sectors, the boundaries that traditionally demarcated discrete legal domains continue to blur with remarkable celerity due to the process of digitalization. Inevitably, these factors are poised to shape legal theory as they coalesce into a unifying force capable of molding a cohesive legal framework. Across global, regional, and national spheres, the notion of digital rights is gaining traction. In certain instances, such recognition is anchored in the context of enforcing specific human rights, commonly denoted as digital or communication rights. In other scenarios, it assumes a more comprehensive scope, encompassing an entire spectrum of such rights.

A pressing need arises for a comprehensive re-evaluation of the conventional beliefs surrounding digital rights, including issues pertaining to ownership, intrinsic value, protective prerogatives, and their interrelation with other fundamental liberties. Digital rights, in their broadest connotation, constitute an extension of universal human rights tailored to the requisites of a digitally-centric society. These digital rights encompass a wide array of foundational entitlements applicable within the digital milieu, necessitating an exhaustive exploration of the unique characteristics of the cyber domain. It is crucial to recognize that while information rights underpin the essence of basic digital rights, the purview of the latter extends far beyond the confines of mere information dissemination.