

## Research Article

# THE CONCEPT OF HUMAN RIGHTS IN THE DIGITAL ERA: CHANGES AND CONSEQUENCES FOR JUDICIAL PRACTICE

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Submitted on 1 May 2022 / Revised 12 Jun 2022 / Approved **29 Jul 2022**

Published: **15 Aug 2022**

**Summary:** 1. Introduction. – 2. Human Rights under the Influence of Digital Technologies: Fundamental Changes. – 3. The Horizontal Concept of Human Rights and New Addressees of Human Rights Obligations. – 4. Artificial Intelligence and Expanding the Range of Fundamental Rights Holders. – 5. The Implications for Judicial Practice. – 6. Conclusions.

**Keywords:** *human rights; digital rights; digital technologies; artificial intelligence; judicial practice*

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**Co-author**, responsible for project administration, methodology and writing. **Competing interests:** The author declares there is no conflict of interest. **Disclaimer:** The author declares that his opinion and views expressed in this manuscript are free of any impact of any organizations.  
**Translation:** The content of this article was translated by authors.  
**Funding:** The authors received no financial support for the research, authorship, and/or publication of this article. The Journal provides funding for this article publication.  
**Managing editor** – Dr. Tetiana Tsvina. English Editor – Dr. Sarah White.  
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**How to cite:** Razmetaeva Yu, Barabash Yu, Lukianov D 'The Concept of Human Rights in the Digital Era: Changes and Consequences for Judicial Practice' 2022 3(15) Access to Justice in Eastern Europe 41–56. DOI: 10.33327/AJEE-18-5.3-a000327

## ABSTRACT

**Background:** *The digital age has led to conceptual changes in human rights and their content, understanding, implementation, and protection. Discussions about expanding the range of both addressees and subjects of human rights are a consequence and, at the same time, a breeding ground for change. New challenges for rights related to technological development, the increasing influence of companies and organisations, the growing use of solutions based on artificial intelligence, and the habit of relying on such solutions have led to the need for a substantial revision of such aspects as the content of individual rights and their catalogue, the definition of the fourth generation of rights as bio-information, and the clarification of the concept of digital rights. Digitalisation, which in a broad sense represents the legal, political, economic, cultural, social, and political changes caused by the use of digital tools and technologies, covers the private and public spheres, revives our understanding of and research into human rights in a horizontal dimension, and influences the revision of their anthropological foundations.*

**Methods:** *The general philosophical framework of this research consisted of axiological and hermeneutic approaches, which allowed us to conduct a value analysis of fundamental human rights and changes in their perception, as well as to apply in-depth study and interpretation of legal texts. The study also relied on the comparative law method in terms of comparing legal regulation and law enforcement practice in different legal systems. The method of legal modelling was used to highlight the bio-information generation of human rights as the fourth generation of rights, as well as some scientific predictions in the field of human rights.*

**Results and Conclusions:** *The article argues that it is necessary to change our approach to human rights in the digital era, to widen the circle of addressees of human rights obligations to include companies and organisations, and to be ready potentially recognise artificial intelligence as a subject in public relations and fundamental rights. The term ‘spectrum of algorithm-based digital technologies’ is proposed, which can more accurately describe those phenomena that are covered by the synonymous terms ‘artificial intelligence’ and ‘algorithm’. The article proposes to consider digital rights in three dimensions, as well as to take into account the subtle structural consequences of changing the concept of human rights in the digital era for judicial practice.*

## 1 INTRODUCTION

Digital technologies are increasingly defining our lives, including through the mixing of analogue space with cyberspace. While technologies are designed to improve people’s lives and the well-being of communities and to promote the development of society, they also contain obvious and hidden risks and threats, creating challenges for all mankind. At the same time, human rights must be recognised and ensured in all areas and be protected both online and offline. In this context, it is becoming increasingly difficult to reconcile human rights and digital technologies.

The existence of threats to human rights due to rapid and unpredictable technological development determines the growing importance of certain fundamental rights, such as freedom of expression and privacy, which are particularly important for the exercise and protection of other types of rights, values, and legitimate interests. Privacy, as C. Nyst and T. Falchetta noted, is at the top of the agenda of regional and international human rights

mechanisms.<sup>4</sup> It seems to us that this stems not only from the extremely broad content of this right but also from efforts to preserve some areas free from interference by governments, companies, or individuals. Freedom of expression is gaining new tools for implementation, such as online platforms with extremely wide audiences, almost instantaneous dissemination of information in cyberspace, or eloquent works of digital art. At the same time, it is becoming increasingly clear that the exercise and protection of fundamental rights today cannot be approached with 'traditional', well-established measures, as rights face threats that are (1) unpredictable, (2) rapidly changing, and (3) may lead to extremely serious negative consequences.

The expanding content and catalogue of fundamental rights, the controversial status of new individual rights exercised in the digital environment or in connection with the use of digital technologies, and jurisdictional conflicts and the complex balance between rights and legitimate interests all have produced much debate and led to changes in the legislation and judicial practice of most states. The very concept of human rights in the digital era may need to be revised. Discussions about the inconsistency of the existing understanding and scope of rights and the prospects for the emergence of new or changes in fundamental rights and freedoms are reflected in the works of many scholars, including those whose work has become key to this study. In particular, T. Kerikmäe, O. Hamulák, and A. Chochia focused on the expansive development of a doctrinal approach to the interpretation of human rights and the essence of their standards.<sup>5</sup> S. Eskens, N. Helberger, and J. Moeller developed a new theoretical basis for the right to information in the light of its personalisation.<sup>6</sup> I. Duy showed how the judiciary today sets new standards for hate speech and online expressions on social networks.<sup>7</sup> F. Fabbrini considered the judicial model to confirm and update the right to privacy in the digital age.<sup>8</sup> C. Padovani, F. Musiani, and E. Pavan proposed to consider human rights as a general system of rights and freedoms related to communication processes and related problems in societies around the world.<sup>9</sup> M. Horowitz, H. Nieminen, and A. Schejter pointed out the lack of consensus on what human rights are in the digital sphere and who should guide them in the increasingly complex media and communication landscape.<sup>10</sup> J. Tasioulas argued that international human rights law has departed from its goals of formation and emphasised the need to review approaches to rights.<sup>11</sup> The first part of our research is devoted to the question of what caused such conceptual changes, what they are, and how they have affected the justification of rights. We also address the concept of 'digital human rights' in the context of these conceptual changes, as well as the theory of generations of rights.

Technological digital tools affect every individual, including those who, for a number of reasons, do not use them. This impact occurs indirectly through individuals, corporations,

- 4 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.
- 5 T Kerikmäe, O Hamulák, A Chochia, 'A historical study of contemporary human rights: Deviation or extinction' (2016) 4(2) *Acta Baltica Historiae et Philosophiae Scientiarum* 98-115.
- 6 S Eskens, N Helberger, J Moeller, 'Challenged by news personalisation: Five perspectives on the right to receive information' (2017) 9(2) *Journal of Media Law* 259-284. doi: 10.1080/17577632.2017.1387353.
- 7 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.
- 8 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.
- 9 C Padovani, F Musiani, E Pavan, 'Investigating evolving discourses on human rights in the digital age' (2010) 72(4-5) *International Communication Gazette* 359-378. doi: 10.1177/1748048510362618.
- 10 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.
- 11 J Tasioulas, 'Saving human rights from human rights law' (2019) 52(4) *Vanderbilt Journal of Transnational Law* 1167-1207.

and states that are creators, users, or beneficiaries of technology. This impact is also due to how digital technologies are transforming the world as such. In particular, the Internet has become not only a space for interaction and a tool for finding information but also an integral part of the lives of many. The Internet has simultaneously become a tool for governments and corporations. For today's states, it is a 'forum for geopolitical struggle', despite the fact that its infrastructure 'belongs and is operated by transnational technology companies'.<sup>12</sup> This raises a range of questions about whether the addressees of obligations stem from human rights implemented in the digital environment or are closely related to it, as well as the responsibility for their violation.

The new challenges are related to the activities of corporations, especially those that M. van Druenen calls platforms' control over the way users access content.<sup>13</sup> Because data information and digital traces of any activity have increased astronomically, the problem of control has become particularly acute. At the same time, the proliferation of communications through business-related tools and networks has pushed companies to the forefront of control and given them unwarranted power. If corporations have a wide margin of appreciation as to which statements to block or which positions to make popular, then perhaps they should have responsibilities. The second part of our study is devoted to the horizontal concept of human rights, the potential expansion of the range of holders of rights, and joint control over their observance in the digital era.

Critical changes in human rights are leading to debate over who should be the subject of such rights in the digital age. In particular, the possibility of granting rights or imposing responsibilities on weak and strong artificial intelligence is discussed.<sup>14</sup> The third part of this study is devoted to this possibility, as well as to the legal and ethical issues that are constantly growing in the field of artificial intelligence, the use of human-like robots, automation of production, and the algorithmisation of decision-making.

Many advances in the doctrinal interpretation and realisation of human rights do not need to be reinvented. At the same time, there are a number of problems in interpreting the idea of rights or their individual manifestations, the proper application and observance of the requirements and values arising from the content of rights, and balancing some rights with others, as well as legitimate interests. The digital age is significantly changing the approaches used in judicial practice, and the use of some technologies leads to such changes that are sometimes difficult to track. The fourth part of our study is devoted to these issues.

Digitalisation, which can be broadly described as the legal, political, economic, cultural, social, and political changes brought about by the use of digital tools and technologies, covers both the private and public spheres and exacerbates all these problems. Such changes seem to require a substantial, paradigmatic review of human rights. Thus, the aim of this research is to show what conceptual changes human rights are under the influence of the digital age and what the prospects are for the range of addressees and holders of fundamental rights. As part of the aim of the study, we focus primarily on the challenges that technology poses to legal values and the practice of their implementations and justify the need for a paradigmatic revision of existing theoretical approaches to fundamental rights.

The general philosophical framework of this study consisted of axiological and hermeneutical approaches, which allowed us to conduct a value analysis of fundamental human rights and

12 M Mann, A Daly, 'Geopolitics, jurisdiction and surveillance' (2020) 9(3) *Internet Policy Review*. doi: 10.14763/2020.3.1501.

13 MZ van Druenen, 'The post-editorial control era: How EU media law matches platforms' organisational control with cooperative responsibility' (2020) 12(2) *Journal of Media Law* 180.

14 RD Brown, 'Property ownership and the legal personhood of artificial intelligence' (2021) 30(2) *Information & Communications Technology Law* 208-234. doi: 10.1080/13600834.2020.1861714.

changes in their perception, explore their normative axiological foundations, and apply in-depth study and interpretation of legal, philosophical, and ethical texts. The study also relied on a comparative legal method in comparing the legal regulation and law enforcement practices of different jurisdictions, as well as legal doctrines formed in legal systems, but showing significant convergence in this regard. The method of legal modelling allowed us to propose the allocation of the bio-information generation of human rights as the fourth generation of rights, as well as to make some scientific predictions in the field of human rights. The empirical and legal basis of the study was the practice of authoritative judicial institutions, especially the European Court of Human Rights (ECtHR) and the Court of Justice of the European Union, as well as the leading courts of various national legal systems.

## 2 HUMAN RIGHTS UNDER THE INFLUENCE OF DIGITAL TECHNOLOGIES: FUNDAMENTAL CHANGES

In the digital era, the challenges that technology creates for fundamental legal values, democratic institutions and processes, the just life of societies, and the lives of everyone are growing exponentially. Firstly, the scope of recognised fundamental rights is changing in an unpredictable way, both because they are under attack and because they are crucial to protecting other rights. For example, mass surveillance and its threat to human rights have been the subject of ECtHR cases, which have since been referred to the Grand Chamber, such as the case of *Centrum för Rättvisa v. Sweden*, which raised the question of whether Swedish national law satisfies the privacy requirements outlined in Art. 8 of the Convention for the Protection of Human Rights and Fundamental Freedoms (the Convention),<sup>15</sup> and the case of *Big Brother Watch and others v. the UK*, which referred to a violation of Arts. 8 and 10 of the Convention,<sup>16</sup> that is, privacy and freedom of expression. Both decisions have provoked serious discussions, both on the difficult balance of rights and interests and on the need to revise the criteria for assessing whether the Convention has been violated in light of significant technological developments and the emergence of tools for mass interception and data processing.

The weight and importance of certain fundamental rights are becoming extraordinary. For example, privacy grows from a human right to a synthetic concept of control over one's own life. On the UN level, privacy is recognised today as the right needed to allow individuals to enjoy other rights, such as the right to assemble and express their views.<sup>17</sup> The protection of privacy is of particular importance in light of data protection, which includes not only the proper handling of information but also a well-designed system of legal instruments that minimises risks.

Adverse effects on human rights may be the result of ill-conceived legislation on the storage and processing of data in the provision of communication services. As the Court of Justice points out in the landmark Digital Rights Ireland case, such data, taken as a whole, can allow very accurate conclusions to be drawn about individuals' private lives, such as daily life habits, permanent or temporary residence, daily or other movements, the social relations of

15 Judgement of the European Court of Human Rights No 35252/08 'Case of Centrum för Rättvisa v. Sweden' (May 2021) <<https://hudoc.echr.coe.int/eng#%7B%22appno%22:%2235252/08%22,%22itemid%22:%22001-210078%22%7D>> accessed 17 February 2022.

16 Judgement of the European Court of Human Rights Nos 58170/13, 62322/14, 24960/15 'Case of Big Brother Watch and others v. UK' (May 2021) <<https://hudoc.echr.coe.int/eng#%7B%22fulltext%22:%22Big%20Brother%20Watch%20and%20others%20v.%20UK%22,%22itemid%22:%22001-210077%22%7D>> accessed 17 February 2022.

17 Report of the Human Rights Council No A/HRC/43/52 'Right to privacy' (March 2020) <<https://undocs.org/A/HRC/43/52>> accessed 16 January 2021.

these people, and the social environment they often visit.<sup>18</sup> This example illustrates a feature of the digital era, when technology is evolving much faster than it is being regulated and when information exchange is reaching a level that allows today to link data that seemed completely fragmented yesterday.

Secondly, the boundaries between actions in physical reality and digital space are gradually blurred, and, accordingly, the application of various criteria to such activities ceases. In connection with the punishment imposed by the Norwegian Supreme Court for hate speech online, I. Duy writes that the communication medium used did not matter here – a person is potentially responsible for the same statement that they make on social networks or in person in front of a large group of people.<sup>19</sup> In other words, it can be predicted that in further controversial cases, legal practice will be more inclined to a substantive assessment than a formal one because it is impossible to reproduce the conditions for traditional conflicts in the field of rights or to imagine in advance where the development of digital technologies will lead us. Moreover, in everyday life, it has become a habit to consider individuals as existing both in some real place and in the virtual world, successfully combining different acts of interaction. It is possible to obtain and successfully process information in such a parallel, both offline and online. Being in several information flows at the same time is of the characteristic states of the individual in the digital age.

Thirdly, human rights cease to be embedded in existing theoretical constructions and legal doctrines. Thus, it is rightly noted that the concept of human rights needs to be clarified, especially because more and more rights cannot be described by three generations.<sup>20</sup> Despite the fact that scientific discussions suggest the existence of the fourth generation of rights, there is no agreement on their content. In the most general terms, the fourth generation is referred to as related to scientific and technological progress, but this criterion is too vague to integrate the relevant rights into a logical structure. This criterion, moreover, is not one that allows us to put a prohibition on cloning, the right not to be subjected to automatic processing, the freedom to change sex, and the right to erase data all in one category.

Therefore, we propose to consider bio-information rights as the fourth generation of human rights because (1) each generation of rights was established at the turn of the era, in such socio-political and economic conditions that occurred at the bifurcation of social systems; (3) the time limits of the fourth generation of rights should be taken into account from the two scientific revolutions – biotechnology and the revolution in information technology; (2) from a strategic perspective, it is biotechnology and information technology that will determine the further development of mankind.

The discussion on understanding human rights in the digital era includes views that offer a review of the idea of human rights from different perspectives. In particular, it is proposed to consider them as a general structure that includes fundamental rights and freedoms related to communication processes and related problems in societies around the world.<sup>21</sup> If we define human rights as universal moral rights, then, as J. Tasioulas writes, they are constantly

18 Court of Justice of the European Union joined cases Nos C-293/12 and C-594/12 ‘Digital Rights Ireland Ltd v Minister for Communications, Marine and Natural Resources and Others and Kärntner Landesregierung and Others’ (April 2014) <<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A62012CJ0293>> accessed 11 January 2021.

19 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.

20 S Domaradzki, M Khvostova, D Pupovac, ‘Karel Vasak’s generations of rights and the contemporary human rights discourse’ (2019) 20 *Human Rights Review* 423-443. doi: 10.1007/s12142-019-00565-x.

21 C Padovani, F Musiani, E Pavan, ‘Investigating evolving discourses on human rights in the digital age’ (2010) 72(4-5) *International Communication Gazette* 359-378. doi: 10.1177/1748048510362618.

under pressure both in our understanding of them and in our success in upholding them.<sup>22</sup> Criticising the uncertainty of the very concept of human rights, J. Dwyer believes that it is necessary to dwell on the concept of rights 'that is optimal on normative grounds'.<sup>23</sup> Such revision attempts underscore the fact that human rights do not fit into the existing framework, neither in terms of theoretical understanding nor in terms of effective protection.

Many of the concepts discussed in the wake of the digital age can 'echo the age-old challenges of media democratization',<sup>24</sup> as aptly stated in the preface to the special issue of the *Journal on Information Policy*. Simultaneously, growing general uncertainty, the inability to assess the long-term and hidden effects of technological solutions, the lack of control over business, and the widening digital divide all suggest that change in human rights is staggering, and the challenges are fundamentally new.

Fourthly, one of the conceptual changes is the introduction and dissemination of the 'digital human rights' concept, which, at the same time, remains ambiguous. Digital rights are often associated with new rights. In this case, they include the right to be forgotten, the right to the Internet, and the right to anonymity. These new rights have formed unexpectedly quickly.<sup>25</sup> They are also seen as a potential new catalogue of human rights. In particular, B. Custers offered to discuss new digital rights, in particular the right to be offline, the right to internet access, the right not to know, the right to change your mind, the right to start over with a clean (digital) slate, the right to expiry dates for data, the right to know the value of your data, the right to a clean digital environment, and the right to a safe digital environment.<sup>26</sup>

To remove the ambiguity in the understanding of digital rights, it seems they should be considered in three dimensions. These three dimensions of understanding the relevant rights include: 1) the interpretation of them as special rights arising from fundamental and formed in the digital age (in that case, there may be disputes as to whether they belong to 'human rights' or to other rights, values, or interests); 2) identifying as 'digital' those fundamental rights that are especially important today in connection with the development of information and communication technologies; 3) human rights when they are realised in the digital environment. Therefore, privacy and freedom of expression, the right to be forgotten, the right not to be automatically processed, the right to information, and the right to the Internet could all be digital.

### 3 THE HORIZONTAL CONCEPT OF HUMAN RIGHTS AND NEW ADDRESSEES OF HUMAN RIGHTS OBLIGATIONS

Our understanding of human rights and their implementation and protection is based on the vertical and horizontal dimensions of relevant rights and freedoms. The first presupposes the addressing of rights to the state, which means that the state is the subject to which the requirements are made in case of disrespect for rights, obstacles to their implementation,

22 J Tasioulas, 'Saving human rights from human rights law' (2019) 52(4) *Vanderbilt Journal of Transnational Law* 1167.

23 JG Dwyer, 'Clarifying questions about the nature of rights' (2021) 12(1) *Jurisprudence* 47-68. doi: 10.1080/20403313.2020.1836905.

24 M Horowitz, H Nieminen, A Schejter, 'Introduction: Communication rights in the digital age' (2020) 10(1) *Journal of Information Policy* 302.

25 Y Razmetaeva, 'The right to be forgotten in the European perspective' (2020) 10(1) *TalTech Journal of European Studies* 61.

26 B Custers, 'New digital rights: Imagining additional fundamental rights for the digital era' (2022) 44(105636) *Computer Law & Security Review*. doi: 10.1016/j.clsr.2021.105636.

and violation. For instance, recourse to international courts often involves a lawsuit against the state, even if the violator is an individual and not always a representative of a government institution. This stems from the responsibility of the state to ensure appropriate minimum standards in the field of rights and the existence of positive and negative obligations. The horizontal dimension of human rights implies the existence of direct links between individuals – holders of rights, or between individuals and companies, organisations, or institutions. This means that the relevant responsibilities, in whole or in part, may be borne by all other parties to the relationship. It also means that not every conflict of rights requires the participation of the state as the guarantor of its just resolution and of those who monopolistically, legally, and legitimately use force and power when necessary.

Until recently, the human rights agenda mostly recognised the vertical dimension of the concept of human rights, while the horizontal dimension was the work of scholars, usually lawyers and philosophers. However, the dramatic changes that the digital era has ushered in have revived the idea that connections and responsibilities can be multilevel. First of all, it is about reducing the doubt that every right has the potential to have both effects. A right with vertical effect, as noted, ‘applies only between citizens and the state, and not directly between citizens and private entities. A right with horizontal effect applies between private parties, such as between two citizens, or between a consumer and a company’.<sup>27</sup> The horizontal effect is intended more for the private sphere. However, a distinctive feature of the digital era is that it is becoming increasingly difficult to distinguish between the private and the public. For example, this could occur if we tried to define the status of the statement of a public figure in a private social network account, which in turn belongs to a private company that provides free opportunities to register such an account in order to promote public dialogue in society. The confusion is exacerbated by the fact that regulations do not keep pace with technological developments, and legal practice, especially court decisions, often uses a situational balance of rights and legitimate interests of the subjects of legal relations.

Second, the prospect is emerging that those who, like governments, concentrate power and influence in their hands are now responsible for human rights violations. Before the digital age, they could be considered international organisations and transnational corporations, that is, the owners of economic resources and political influence. Today, the range of human rights obligations addressees is expanding. The voices of those who support what G. Brenrert calls the ‘revisionist view’ are growing louder, that business is also responsible for human rights,<sup>28</sup> meaning business in the broadest sense – not just giant corporations, but any company. In fact, we are talking about the owners of ‘digital resources’, which today can be data, technology, tools for manipulating decisions, thoughts, behaviour, and so on. Although the main beneficiaries are still big tech companies such as Facebook, Google, or Amazon, other businesses are rapidly catching up with them and also becoming the beneficiaries.

The understanding of the state as the main addressee of human rights obligations, as noted, initially ‘was owing to the fact that the state was seen as the main threat to human rights, and therefore it was the addressee to whom the requirement to respect human rights is addressed’.<sup>29</sup> Today the axiological paradigm may well have changed, and quite significantly. If, in the past, the struggle was centred on enshrining regulatory restrictions and protecting the private sphere from government interference, today, in many legal systems, the constitution

27 S Eskens, N Helberger, J Moeller, ‘Challenged by news personalisation: Five perspectives on the right to receive information’ (2017) 9(2) *Journal of Media Law* 262.

28 GG Brenrert, ‘Business ethics and human rights: An overview’ (2016) 1(2) *Business and Human Rights Journal* 278.

29 O Uvarova, ‘Business and human rights in times of global emergencies: A comparative perspective’ (2020) 26 *Comparative Law Review* 228.



is an 'axiological basis' that reflects or should reflect the values shared by society.<sup>30</sup> What has already been missed in many regulations and legal practices and is becoming increasingly important in the digital era is the need for rational restrictions on new influential players in society, especially companies.

Making businesses responsible for human rights is a challenge because existing doctrines and mechanisms are made for governments. In particular, as noted, 'all the basic international texts on human rights have been prepared taking into account the main human rights and freedoms within state jurisdiction.'<sup>31</sup> This is problematic also because the successful economic model in the digital age is largely based on vulnerabilities – whether gaps in regulation or irrational decision-making by individuals, as well as the lack of effective control over new areas or activities. Therefore, companies do not want to lose a favourable position and be exposed to additional burdens.

Another obstacle to making a business truly human rights-based is the choice of responsibility strategy. New approaches to the responsibilities of companies, especially Internet intermediaries, are proposed, with an emphasis on their voluntary action.<sup>32</sup> Alternatively, a mandatory mechanism is discussed, which will include a basic treaty or a series of agreements and will be implemented as a direct international or mediated by national legal systems. In particular, the mandatory model has recently come to the fore. Similarly, more and more researchers and experts are in favour of the international covenant on business and human rights (BHR). For instance, it is proposed to make this agreement a progressive model of accountability that combines the ambitious development of international law with realistic prospects for state support.<sup>33</sup>

As S. Ito asks, 'Does this mean that new challenges brought by corporations render traditional state-focused human rights treaties outdated and irrelevant in the context of BHR?'<sup>34</sup> This may be partly the case, given the urgent need to include businesses in those who not only enjoy the protection of legal instruments but also ensure that they are properly applied. There is also the problem of free choice of jurisdiction by corporations, which usually optimise the tax burden and economic costs, but at the same time, can choose the least burdensome human rights order. This situation makes regulation of these issues by individual states ineffective unless they synchronise efforts with the international community.

Companies, and sometimes organisations, are in fact already active players in the legal field and those who often dictate the terms of the game. Given the dependence of modern life on algorithmic solutions and solutions based on open data, mobile applications, and synchronisation equipment, their impact will only increase. At the same time, individuals, as bearers of human rights, find themselves in a position of gradual loss of influence. For example, we may still refuse to use Internet platforms as part of an act of personal choice, but this will make it more difficult to access goods and services, participate in socially important decisions, interpersonal communication, and so on. If we continue to use them, the choice will be reduced. In the case of platforms, as noted, it happens 'because users must rely on the ways in which platforms organise content, simply informing them does not necessarily

30 Yu Barabash, H Berchenko, 'Freedom of speech militant democracy: The history of struggle against separatism and communism in Ukraine' (2019) 9(3) *Baltic Journal of European Studies* 18.

31 T Kerikmäe, O Hamulák, A Chochia, 'A historical study of contemporary human rights: Deviation or extinction' (2016) 4(2) *Acta Baltica Historiae et Philosophiae Scientiarum* 111.

32 DM Sithigh, 'The road to responsibilities: New attitudes towards Internet intermediaries' (2020) 29(1) *Information & Communications Technology Law* 1-21. doi: 10.1080/13600834.2020.1677369.

33 N Bernaz, 'Conceptualizing corporate accountability in international law: Models for a business and human rights treaty' (2021) 22 *Human Rights Review* 45-64. doi: 10.1007/s12142-020-00606-w.

34 S Ito, 'Taking the Social rights covenant more seriously in business and human rights: A global governance perspective' (2020) 12(2) *European Journal of Legal Studies* 215.

enable them to access or avoid specific content on a platform.<sup>35</sup> That is, organisational control exercised by companies and tuning algorithms regulate the behaviour of individuals, pushing some choices and complicating others.

An additional problem that reflects the deepening dependence on business is the closure of corporations that own digital tools or control part of the digital space. In particular, in the event of a hypothetical crash or the disappearance of Facebook or Google, the existing management framework is insufficient to address the risks of platform failure, especially for individuals' personal data.<sup>36</sup> Technology corporations seem so powerful that they can silence the president of a powerful state in 24 hours. At the same time, the growing interdependence and lack of elements of transparency and accountability inherent in traditional rights protection mechanisms can lead to negative global consequences. A small mistake in the algorithm can stop the automated transport system, a small data leak could put millions of users at risk, and a lack of attention to a single gap in the legal field could make democratic institutions vulnerable to large-scale voter manipulation.

#### 4 ARTIFICIAL INTELLIGENCE AND EXPANDING THE RANGE OF FUNDAMENTAL RIGHTS HOLDERS

One of the challenges that needs to be the focus of attention and can seriously influence the human rights agenda is the growth of algorithmic solutions and activities based on artificial intelligence. Such decisions and activities today create complex legal conflicts, both at the level of general legal discussions on specific terms and theories, and in the industry, especially in the areas of civil, commercial, financial law, and intellectual property law. For example, as noted, software endowed with artificial intelligence is 'capable of producing poetry, articles, and musical compositions by analysing and collecting existing data. Such works are unique...'<sup>37</sup> Here, we potentially have a problem with copyright in those legal systems where the uniqueness rather than the presence of a human author is a key feature to protect the rights.

Complicating legal problems is the lack of legal and consistent definitions of such concepts as 'algorithm', 'artificial intelligence', 'robot', and 'human-like robot' in the actual use of relevant technologies. Artificial intelligence, for instance, is defined as 'an autonomous self-learning and adaptively predictive technology consisting of codes that can think or act in order to exercise legal rights or perform duties'.<sup>38</sup> Among the proposed legal definitions of artificial intelligence are gradually beginning to dominate those that may include a wide range of relevant technologies. In particular, the proposal for a new EU regulatory act on artificial intelligence defines the latter as a 'family of technologies' that is rapidly evolving and can bring a wide range of economic and social benefits across a range of industries and social activities.<sup>39</sup> It seems that the most accurate term that describes these assets will be the

35 MZ van Drunen, 'The post-editorial control era: How EU media law matches platforms' organisational control with cooperative responsibility' (2020) 12(2) *Journal of Media Law* 180.

36 C Öhman, N Aggarwal, 'What if Facebook goes down? Ethical and legal considerations for the demise of big tech' (2020) 9(3) *Internet Policy Review*. doi: 10.14763/2020.3.1488.

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

38 RD Brown, 'Property ownership and the legal personhood of artificial intelligence' (2021) 30(2) *Information & Communications Technology Law* 212.

39 EU Proposal for a Regulation laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) No. COM/2021/206 final (April 2021) <<https://eur-lex.europa.eu/legal-content/ES/TXT/?uri=COM:2021:206:FIN>> accessed 10 February 2022.

‘spectrum of algorithm-based digital technologies’. However, the terms ‘artificial intelligence’ and ‘algorithm’ are commonly used and appear to be synonymous.

It is difficult to predict the pace of development of artificial intelligence and the gradation of technologies that will belong to the above concepts because, in the digital era, they all develop rapidly and unpredictably, and because qualitative leaps in development are not excluded computers, there is the ability to solve problems and calculations that are currently unattainable. From a legal point of view, algorithms are objects, but it should be noted that their subjectivity or individual elements of subjectivity are no longer merely the subject of academic debate. The use of artificial intelligence is extremely common, and the degree of its autonomy is growing, as well as the habit of relying on algorithmic solutions. This can have a positive effect. For example, the deep neural network extracts informative areas of chest X-rays to help clinicians interpret predictions.<sup>40</sup> At the same time, the effect can be negative. In particular, one of the most threatening challenges to humanity is the use of such intelligence in the military sphere as a means of destruction. Recently, for example, a surge of alarming media coverage sparked a UN Security Council report on the Libyan civil war in 2019-2021, which, among other things, contained information on the autonomous use of man-made drones with artificial intelligence<sup>41</sup> but did not contain direct indications that the lethal intervention was carried out in this way.

In the long run, artificial intelligence, algorithms, and robots may change the starting point for the concept of human rights – that they stem from belonging to the human race, based on dignity and the fact of being anthropocentric. We seem to be approaching a situation where ‘the rights that still look like science fiction, such as, for instance, the right to be saved and stored as a digital representation after death, as well as the right to use technologies for improving oneself’<sup>42</sup> may form before our eyes. Equally close may be the acquisition of advanced algorithms of consciousness and even the ‘uprising of machines’ in the struggle for equality with the people in rights.

J. Chen and P. Burgess describe a not very far-fetched hypothetical situation in which intelligence develops spontaneously, without human design, on the Internet – the emergence of spontaneous artificial intelligence.<sup>43</sup> It is difficult to predict something like this today because most scenarios are based on the human mind and may not be able to comprehend a fundamentally new way of thinking. However, the digital era has already posed the question of the potential expansion of both addressees and human rights actors: the first through existing legal entities, companies, and organisations that have gained significant influence in the changed relationship, and the second, at the expense of artificial personality and artificial intelligence. Will we be the new slave owners if we refuse to grant human rights to such subjects? Will the category of ‘human rights’ as such make sense? These and other similar questions have yet to be answered in further research.

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- 40 FE Shamout, et al, ‘An artificial intelligence system for predicting the deterioration of COVID-19 patients in the emergency department’ (2021) 4(1) Digital Medicine. doi: 10.1038/s41746-021-00453-0.
- 41 United Nations Security Council, Letter dated 8 March 2021 from the Panel of Experts on Libya established pursuant to resolution 1973 (2011) addressed to the President of the Security Council. S/2021/229 <<https://undocs.org/S/2021/229>> accessed 21 February 2022.
- 42 Y Razmetaeva, ‘The right to be forgotten in the European perspective’ (2020) 10(1) TalTech Journal of European Studies 62.
- 43 J Chen, P Burgess, ‘The boundaries of legal personhood: How spontaneous intelligence can problematise differences between humans, artificial intelligence, companies and animals’ (2019) 27 Artificial Intelligence and Law 73-92. <https://doi.org/10.1007/s10506-018-9229-x>.

## 5 THE IMPLICATIONS FOR JUDICIAL PRACTICE

The changes brought about by the digital era, including for human rights, have implications for judicial practice, both direct and indirect, as well as those that can be described as mostly positive or mostly negative and those that appear to be neutral so far. In particular, the emergence of legal tech can not but affect the practice of lawyers. According to R. Whalen, 'legal technologies' implications are not deterministic. Rather, they are influenced by the affordances each technology might allow for, the choices made by users as they adopt (or ignore) each technology and the legal affordances of the jurisdictions within which they might be used.<sup>44</sup> Difficulties in determining the consequences complicate the task of scientific forecasting, including in the field of human rights.

A significant part of the discussion on the future of judicial practice is devoted to the topic of the participation of algorithmic-based technologies in the decision-making process. Judicial practice already includes the use of assistive algorithms, such as risk assessment in relation to defendants or the selection of precedents similar to the case under consideration. The next logical step might be to trust artificial intelligence to be the judge. The type of court case undoubtedly matters here. As G. Strikaitė-Latušinskaja highlighted, while easy cases 'will be the first ones assigned to artificial intelligence to resolve', hard cases 'would remain at the discretion of human judges rather than robot judges, at least until the development of technology reaches a certain level, when we can confidently delegate even cases of this scale to an AI'.<sup>45</sup> We have yet to understand whether it is right or wrong to trust artificial intelligence to handle even simple cases.

Another type of digital era and human rights implications for jurisprudence is the acceptance of digital evidence in the broad sense of the word. In particular, special Internet Courts in China 'accept the use of blockchain as a method of securing evidence, to overcome the risks that evidence stored on the Internet can be hacked or falsified'.<sup>46</sup> Despite the fact that such recognition is intended to reduce the risks of human rights violations, reliance on digital technologies can produce risks of a different kind. For instance, a study that examined the Office Horizon IT case showed that 'unquestioning belief in the veracity of software-generated evidence led to a decade of wrongful convictions'.<sup>47</sup> Remarkably, a mistake in technology in the digital era may magnify injustice many times over.

As K. Wodajo wrote, 'judicial bodies do not often adjudicate structural harms, supporting the hypothesis that the unique character of structural injustice sets barriers for victims of digitally replicated structural harms to pursue remedies through adjudicatory processes'.<sup>48</sup> Therefore 'alongside other efforts, it is necessary to rethink the adjudicative process for cases of digitally replicated structural injustices'.<sup>49</sup> The features of the digital age can be detrimental to human rights and, if enforced by bad jurisprudence, increase the negative impact. The digitalisation of judicial processes can make it almost impossible to exercise the right to access to justice for some individuals and social groups. Fixing an unfair or ineffective

44 R Whalen R, 'Defining legal technology and its implications' (2022) 30(1) *International Journal of Law and Information Technology* 59.

45 G Strikaitė-Latušinskaja 'Can We Make All Legal Norms into Legal Syllogisms and Why is That Important in Times of Artificial Intelligence?' 2022 1(13) *Access to Justice in Eastern Europe* 22.

46 H-Ch Sung, 'Can Online Courts Promote Access to Justice? A Case Study of the Internet Courts in China' (2020) 39(105461) *Computer Law & Security Review*.

47 K Renaud, I Bongiovanni, S Wilford, A Irons, 'PRECEPT-4-Justice: A bias-neutralising framework for digital forensics investigations' (2021) 61 *Science & Justice* 477.

48 K Wodajo, 'Mapping (in)visibility and structural injustice in the digital space' (2022) 9(100024) *Journal of Responsible Technology*. doi: 10.1016/j.jrt.2022.100024.

49 Ibid.

decision, in terms of protecting human rights in the digital space, in a binding precedent can literally reverse progress towards the rule of law.

One of the most significant implications of the digital era for both human rights and jurisprudence is the growing role of social media. From the fact that they can subtly shape opinions that, in turn, influence the opinions of judges, to how courts interpret the content of human rights in relation to the use of social media, such media have become firmly established in the everyday legal landscape. Here, it is important to take into account that social media in modern conditions can be considered in at least three projections. In the first place, from the point of view of democracy, these are public forums (in the interpretation of the US judiciary), where public figures can have a discussion, observing the requirements of public space. Secondly, it is a legal projection (which usually applies to the previous thesis) related to the special status of such entities endowed 'immunity' in the context of dissemination of inaccurate information under §230 Communication Decency Act: 'No provider or user of an interactive computer service shall be treated as the publisher or speaker of any information provided by another information content provider'<sup>50</sup> The third projection, economic, forces us to look at social networks as private players who use their own regulations in their internal activities and aim not so much to guarantee freedom of information as to make a profit. These points are of fundamental importance for modern legal discourse, and this was clearly evident in the consideration of two cases before the Supreme Court of the United States, which may eventually become classic, namely the cases of *Biden v. Knight First Amendment Institute at Columbia University*<sup>51</sup> and *Force v. Facebook, Inc.*<sup>52</sup> The final decision on the first case was made by the Supreme Court on the appeal of President Trump after the termination of his presidency, so it was reflected in the name under which it was officially classified.

The first case concerned the blocking of the current US president's accounts of individual contributors to his personal account @realDonaldTrump on Twitter (these contributors were the most active critics of the president). The plaintiffs, who are professional defenders of freedom of speech, raised before the US judiciary the issue of violation of such actions by the head of state of the First Amendment to the US Constitution, which guarantees freedom of speech. Federal courts sided with the plaintiffs, noting that although Twitter is a private platform, Trump nevertheless used it as a public forum, disseminating official (governmental) information under his account because it reflected his position as head of state and a public figure. Considering Trump's appeal after the inauguration of his successor, Joe Biden, the US Supreme Court has clearly demonstrated the impossibility of applying established doctrines related to the legal evaluation of private public service providers in the form of a public offer to the activities of modern Internet networks, such as social media. The Court also mentioned the almost monopolistic position of some companies that own such networks in the Internet communications market. The legal position of the Court is noteworthy. Interestingly, this preliminary issue was extremely problematic in that neither the appellate or first instance courts nor the plaintiffs were able to cite any acts that would limit Twitter's ability to block accounts, that is, acts that recognise this type of communication as 'government-controlled space'. Thus, the Court acknowledged the lack of sufficient legal grounds for the previous courts to take the ordered decisions and quashed them.

50 Communications Decency Act (1996) <[https://uscode.house.gov/view.xhtml?req=\(title:47%20section:230%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:47%20section:230%20edition:prelim)> accessed 17 January 2021.

51 Opinion of the US Supreme Court No 593 US \_\_\_\_ (2021) 'Biden v. Knight First Amendment Institute at Columbia University' (April 2021) <[https://www.supremecourt.gov/opinions/20pdf/20-197\\_5ie6.pdf](https://www.supremecourt.gov/opinions/20pdf/20-197_5ie6.pdf)> accessed 3 March 2022.

52 Decision of the United States Court of Appeals No 934 F.3d 53 'Force v. Facebook, Inc.' (2019) <<https://law.justia.com/cases/federal/appellate-courts/ca2/18-397/18-397-2019-07-31.html>> accessed 1 March 2022.

The second, no less significant case concerned the plaintiffs' intentions to prosecute Facebook for helping militants from the banned terrorist organisation Hamas spread their ideas, which was one of the reasons for the deaths of their loved ones at the hands of terrorists. The accusation was that not only did the company allow the leader and Hamas spokesman to have their own accounts, but also they also allowed them to use network algorithms that allowed potential terrorists to get to know each other, thus contributing to the creation of global terrorist networks.<sup>53</sup> The Supreme Court disagreed with the plaintiffs' arguments, stating that automatically recommending to other users certain content with relevant information in which they (users) express an interest does not make Facebook responsible for disseminating such information.

For the sake of completeness, we should also mention one of the decisions of the German judiciary regarding the protection of digital rights on social networks. This is the decision of the Third Chamber of Civil Cases of the Supreme Court of Germany of 29 July 2021, by which the Court forbade Facebook to block users' accounts even if they use 'hate speech' in their posts without first notifying users and justifying the decision to block.<sup>54</sup> In the age of digital technology, as F. Fabbrini rightly noted, 'legal safeguards for privacy and personal data protection must be strengthened – not weakened – and that legal doctrines must evolve – rather than stagnate – in the face of new challenges'.<sup>55</sup> This call can be extrapolated to all human rights in today's world.

## 6 CONCLUSIONS

Digital technologies directly or indirectly affect almost all aspects of private and public life, including individual communities and the well-being of society as a whole. Human rights are undergoing new interventions and new threats, and their content, scope, and understanding are changing significantly in the digital age. Conceptual changes include the fact that the scope of recognised fundamental rights is changing in an unpredictable way, the boundaries between physical and digital actions are gradually blurring, and, consequently, the application of various criteria to such activities ceases, human rights cease to be embedded in existing theoretical structures and legal doctrines, and 'digital rights' are becoming increasingly important. Comprehensive digitalisation is expanding the range of rights addresses, primarily through companies, and raises the issue of expanding the range of rights holders, primarily through a range of algorithm-based digital technologies. Instead of trying to push rights into frameworks that no longer suit them, we need to re-evaluate the very foundations of what the concept of human rights consists of and explore the potential risks associated with technology and its owners.

Today, we are witnessing a situation in which it is no longer possible to apply established approaches to the implementation and protection of human rights in the digital space. At the same time, the judiciary is not always quick to take the position of judicial activism and fill gaps in the law with its decisions, referring to the lack of adequate regulations. New

53 W Davis, 'Victims want Supreme Court to revive lawsuit against Facebook' (2020) <<https://www.mediapost.com/publications/article/345460/hamas-victims-want-supreme-court-to-revive-lawsuit.html>> accessed 1 March 2022.

54 Judgements of the Federal Court of Germany No. III ZR 179/20 and III ZR 192/20 (July 2021). <<https://www.bundesgerichtshof.de/SharedDocs/Pressemitteilungen/DE/2021/2021149.html>> accessed 17 February 2022.

55 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* 92.

approaches need to be invented that should not turn the digital space into a state-controlled one and should allow social media and digital tool owners to demonstrate to society clear 'rules of the game' consistent with the established rules of liberal democracy. Similarly, approaches to the teaching of human rights theory in law schools need to change in the light of digital realities and the emergence of a new generation of digital rights, as well as awareness and understanding of the legal reality of the legal profession.

Ensuring human rights in the implementation and use of technology is not only a task of law – it is the legal view that may be of interest to all those involved in human rights discourse. This research contributes to the principles and values that should be adhered to in the field of human rights and that scholars and experts, governments, civil society, and businesses can use as guides. This study also suggests looking at significant changes in the concept of human rights and, despite the considerable uncertainty of the future of the digital age, convincing readers of the need to reconsider the paradigm itself. It is possible that the introduction of new technologies with a global impact should lead to a preliminary examination of 'digital risks', which would take into account the possibility of human rights violations and the availability of means to prevent and minimise harm.

Human rights, fundamental values and the rule of law must remain in the spotlight and, at the same time, have a realistic embodiment. Ultimately, this is the only way to achieve a just society and strengthen individuals' confidence in technology. The task for further research may be to discuss the new catalogue of human rights, the doctrinal definition of the content and scope of digital rights, and the development of proposals for regulations at the national and international levels that would take into account conceptual changes in human rights in the digital era.

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