Challenges of United Nations Guiding Principles on Business and Human Rights in Technological Contexts: a View from the Evolution of Human Rights

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ABSTRACT

This contribution aims to study and address the implications of the development of new technologies for the realization of human rights, under the UNGPs and the regulatory frameworks established within national and regional contexts, as well as on the comprehension and realization of the obligations and responsibilities of the actors involved, especially of the States, companies, and even individuals as customers. For this, some examples of risks and impacts of technological businesses developments will be analyzed in the light of three groups of rights: i. civil and political rights, ii. economic, social, and cultural rights, and iii. collective rights. This will lead to understand existing challenges to optimize digital transformation and the need to rethink the effectiveness of mandatory human rights due diligence as it is known up to now, considering *Human Rights* as an open catalog that should be considered as the *ultima ratio* in contexts where tensions between technology and human rights are present.

Keywords: human rights; globalization; scientific development; UN Guiding Principles; business.

Desafíos de los Principios Rectores de las Naciones Unidas sobre las Empresas y los Derechos Humanos en contextos tecnológicos: una visión desde la evolución de los derechos humanos

RESUMEN

Esta contribución pretende estudiar y abordar las implicaciones del desarrollo de las nuevas tecnologías en la realización de los derechos humanos, bajo los UNGP y los marcos normativos establecidos en los contextos nacionales y regionales, así como en la comprensión y realización de las obligaciones y responsabilidades de los actores involucrados, especialmente de los Estados, las empresas, e incluso los individuos como clientes. Para ello, se analizarán algunos ejemplos de riesgos e impactos de la evolución de los negocios tecnológicos a la luz de tres grupos de derechos: i. derechos civiles y políticos, ii. derechos económicos, sociales y culturales, y iii. derechos colectivos. Esto llevará a comprender los retos existentes para optimizar la transformación digital y la necesidad de repensar la eficacia de la diligencia debida obligatoria en materia de derechos humanos tal y como se conoce hasta ahora, considerando los Derechos Humanos como un catálogo abierto que debe ser considerado como la *ultima ratio* en contextos donde las tensiones entre tecnología y derechos humanos están presentes.

P*alabras clave*: derechos humanos; globalización; desarrollo científico; Principios Rectores de la ONU; empresas.

Os desafios dos Princípios Orientadores das Nações Unidas sobre as Empresas e os Direitos Humanos em contextos tecnológicos: uma visão desde a evolução dos direitos humanos

RESUMO

Este trabalho visa estudar e abordar as implicações das novas tecnologias na realização dos direitos humanos, sob os UNGP e os marcos normativos estabelecidos nos contextos nacionais e regionais, bem como na compreensão e realização das obrigações e responsabilidades dos autores envolvidos, especialmente dos Estados, as empresas, e até mesmo os indivíduos como clientes. Para isso, serão analisados alguns exemplos de riscos e impactos da evolução dos negócios tecnológicos à luz de três grupos de direitos: i. direitos civis e políticos, ii. direitos econômicos, sociais e culturais, iii. direitos coletivos. Isso levará a compreender os desafios existentes para otimizar a transformação digital e a necessidade de reconsiderar a eficácia da diligencia devida obrigatória em matéria de direitos humanos tal e como se conhece até agora, considerando os Direitos Humanos como um catálogo aberto que deve ser considerado como a *ultima ratio* em contextos onde as tensões entre tecnologia e direitos humanos estão presentes.

P*alavras-chave*: direitos humanos; globalização; desenvolvimento científico; Princípios Orientadores da ONU; empresas.

Introduction

This article is the result of the authors' academic and research activities concerning human rights and business, conducted through the Latin American Observatory on Human Rights and Business trajectory, within the Externado University in Colombia. One of the biggest efforts made by this group has been to disclose the contemporary challenges existing in the different areas where business activities meet human rights. On this occasion, this relationship will be analyzed from the point of view of the United Nations Guiding Principles on business and human rights (UNGPs), mainly the principle of protection and respect, and its approach to digital and technological developments.

The transition to new technological globalization has pushed society to transform all its processes to be faster and easier. Business and human rights issues are not an exception to this evolution, as digital technologies have opened many new possibilities to identify, manage and remedy human rights risks and impacts. For instance, the mechanisms for verification data, reliability of findings for business decision-making, external reporting, and even predicting human rights risks and impacts in supply chains, to prevent and mitigate them, among others (Fiedler, 2018).

This evolution also represents a challenge for the regulation of the relationship between business and human rights, especially when the main means of business are digital technologies, which are tools that, due to their constant evolution, make their scope concerning human rights still unknown. Nevertheless, the international community has recognized in different instruments, such as the report of the Special Rapporteur on the right to culture, as well as the International Covenant on Economic, Social, and Cultural rights (1966), the right to enjoy the benefits of scientific progress and its applications.

From this precept arises one of the major concerns of the international community, during the last decade, which is the effective protection and guarantee of human rights, such as neurorights, from threats that may arise from this scientific and technological progress, and which are still unknown. Or what is more, there are risks and impacts on human rights that are already known but lack effective protection mechanisms, as they appear to be intangible.

Besides these paradigms, the evolution in the conception of human rights through time makes its protection much more difficult. In that sense, society has conceived a new generation of rights related to the protection of personal data and the guarantee of digital rights (Human *et al*., 2022). And what is more, it has been an increasingly more in-depth study of the so-called "neurorights"[1], whose analysis go beyond

[1] The neurorights are part of a new generation of human rights, which purpose is to protect the mental states of humans from possible intrusions and manipulations. For instance, the right to mental privacy, the right to cognitive freedom, the right to mental integrity, and the right to personal identity, among others. (Ausín, et al., 2020). For this purpose, the White House BRAIN initiative and the Neurotechnology

technologies conceived as an agent extrinsic to human nature. Accordingly, the lack of effective legal regulation to accompany digital evolution has resulted in the undermining of human rights by phenomena such as the extension of inequalities and the gradual supplanting of individuals' identity by the projection of digital footprint and artificial intelligence, among others (Barrio, 2021).

For this reason, the international community has tried to develop different regulatory frameworks to address those challenges on different fronts, depending on the nature of the main actors involved, i.e., the States, companies, and individuals. Within the UNGPs framework, the UN Office of the High Commissioner for Human Rights (OHCHR) has followed up on the status of business respect for human rights in the technology sector, through the UN Human Rights B-Tech Project (OHCHR, 2021a). Furthermore, this constitutes an important point of the UNGPs agenda for the next decade on business and human rights (UNGPs 10+) (UN Working Group on Business and Human Rights, 2021), considering the role of digital technologies in the achievement of the goals established to regulate this relation.

From this point of view, the UNGPs establish the framework of *protection* and *respect*, mainly aimed at the States and companies, aiming to manage the gap between the rapid change of technologies and the capacity of society to manage its consequences (UN Working Group on Business and Human Rights, 2021). Nevertheless, facing the challenges of this new digital and technological era, the question that arises is: does the due diligence and the content of the UNGPs as they currently stand, allow to address, prevent, and effectively mitigate such risks and impacts on human rights?

To address this question, it will be exposed in the first place the existing UNGPs framework, as well as the human rights international regulatory framework on this matter and its application within national context; then, the issue will be approached from the three ranges or generations of recognized human rights, namely: i) individual and political rights, ii) economic, social, and cultural rights, and iii) collective rights. For this purpose, the study of some examples focusing on some specific rights will allow presenting an overview of the actual relation between technological and digital advances and human rights, highlighting the successes and failures that have been made so far, along with the existing gaps to achieve such protection of human rights in the digital and technological era.

1. State of the Art of the UNGPs Regulatory Framework and Technologies

The regulatory framework on business and human rights began with the UNGPs, made by the Special Representative of the Secretary General of the United Nations for Human Rights and Business, John Ruggie, and approved by the Human Rights Council

Center of Columbia University, have launched initiatives focused on revolutionizing the understanding of the human brain through the application of innovative technologies (White House President Barack Obama, n. d.).

through the Resolution 17/4 of 2011 (United Nations Organization, 2011). From this, other international organizations and regional systems of human rights, such as the OECD and REDESCA, built up an increasingly specific framework for the implementation of the UNGPs in national contexts.

The UNGPs offer guidelines for preventing, addressing, and remediating human rights violations concerning operations within the technology sector, and more recently, in 2021, the UN Human Rights B-Tech Project launched the B-Tech Company Community of Practice (CoP), as an initiative to advance in the respect of human rights in the technology industry. According to this project, "many telecommunications and technology companies, have published human rights policy commitments (...) and addressing actual and potential adverse impacts related to the use of their products and services" (OHCHR, 2021b, p. 2), as an expression of compliment of its responsibility to respect human rights[2].

Moreover, many of these companies are conducting human rights risks and impacts assessments, which evidence the status of their due diligence processes, by integrating the results of these assessments into their processes to improve their human rights performance. For instance, the report highlights the assessments of some companies that have made them public, such as Google's Celebrity Recognition API Human Rights Assessment (2019), Facebook's Asian country-focused Assessment (OHCHR, 2021c), and Microsoft´s Human Rights Assessment of Artificial Intelligence (OHCHR, 2021c).

Even though these findings might seem like positive advances for the relationship between technological business and human rights management, it is important to address the challenges that society still has to face, which correspond mainly to those risks and impacts on human rights, that do not seem to have a responsible party behind. Besides, the regulation of cyberspace and new digital technologies must address the competing interests of multiple stakeholders such as the States, companies, regional organizations, non-governmental organizations, and individuals.

Furthermore, in the face of the social "mutation" that this technological era represents worldwide, a change of perspective and of instruments to re-think human rights regulation is required (Julios-Campuzano, 2018). For this reason, it was also considered the risk that the deliberate misuse of these means represents for this aim, becoming

[2] The responsibility of companies to respect human rights implies a due diligence process, which has been developed further by the Organisation for Economic Co-operation and Development (OECD) through its due diligence for responsible business conduct guide, as well as the ones issued for specific economic sectors, such as the extractive, agricultural, and textile sectors, and its supply chains. Furthermore, OCDE has addressed a report which analyses the opportunities and risks of digital transformation in different countries through a set of thirty-three indicators covering the dimensions of well-being and recommending making the best use of digital technologies self-control and a critical approach to them.

a new challenge for the protection and guarantee of human rights (UN Working Group on Business and Human Rights, 2021).

Consequently, the UNGPs 10+ roadmap for the next decade of business and human rights has set as its 1.3. goal to "O*ptimize digital transformation through respect for human rights*", recognizing some of the challenges of the use of digital technologies and the impact on some human rights, including individual and political rights; economic, social, and cultural rights; and collective human rights. For instance, hate speech through social media, misinformation, mass surveillance and undermining democratic processes, and privacy infringements, among others.

To address these situations so far, the efforts made by the States to regulate these issues, which are mainly legislative measures, have not been enough to prevent impacts on human rights caused by technologies, as they lack robust enforcement and monitoring mechanisms aligned with technological advances (Beduschi, 2022). This phenomenon was predicted in 1996 by professors Johnson and Post, who argued that the new cyberspace would be completely beyond the regulatory oversight of the States, as they would lack the necessary democratic legitimacy in a global network (Johnson & Post, 1996).

Moreover, the human rights regulatory framework for States is compounded by their obligations under international treaties on human rights, which they are part of. For instance, the International Covenant on Civil and Political Rights (ICCPR) (1996), the International Covenant on Economic, Social and Cultural Rights (ICESCR) (1966), as well as other human rights treaties.

On the other hand, the UNGPs regulatory framework (United Nations Organization, 2011) has also been recognized by States, in developing National Action Plans (NAPs)[3], due diligence legislations, and by the national and regional courts, as the Interamerican Court of Human Rights (IACHR), which in multiple cases has mentioned this framework as reasonable references to assess the performance of States and companies in relation to the obligation to protect and respect human rights. For instance, the case of P*ueblos Kaliña y Lokoño vs*. S*urinam* (2015), the *los* B*uzos Miskitos vs*. H*onduras* (2021) case, and most recently, M*artina Veracruz vs*. C*hile* (2021).

The IACHR took the UNGPs as interpretation guidelines to analyze the responsibility of the State in those cases, together with other binding international instruments for human rights. Nevertheless, in cases related to technology business these discussions go beyond the generations or ranges of rights recognized to date, which have

[3] NAPs are a key instrument in the development of good practices and due diligence in different economic sectors, including the digital technologies sector, within national contexts. During the life cycle of these, it has been highlighted the necessity of mapping and ensuring stakeholder participation, as well as prioritize at-risk groups according to their vulnerability, conduct a national baseline assessment to identify regulatory and political gaps in the implementation of the UNGPs, with a special approach to the technological sector and its responsibility of respecting human rights.

had a fragmentary and partial conception associated with the territorial and actual damage causation (Julios-Campuzano, 2018).

Consequently, it will be important to adapt the rights already in force and recognized in the different national contexts, to the situations raised in cyberspace (Barrio, 2021, p. 32). In that way, the review of the human rights legal frameworks and the establishment of principles and basic rules, will enhance digital transformation and guarantee the free exercise of individual and collective rights.

On the other hand, the role of business and economic activities has been regulated by the principle of *respect*, defined by the UNGPs as the responsibility to "avoid infringing on the human rights of others and address adverse human rights impacts with which they are involved" (United Nations Organization, 2011, para. 6). From this, arises the responsibility of acting with due diligence to effectively manage associated risks to people, which should not be understood as a simplistic compliance exercise (OHCHR, 2021b).

However, the challenges of a globalized society have been transforming as faster as technological advances appear, which implies a greater effort from societies, especially from companies, to prevent and mitigate the impacts of its operations on human rights. For the companies to meet their responsibility, the OHCHR has established the necessity of having in place appropriate policies commitment, and due diligence processes, which imply identifying and addressing potential and actual adverse impacts.

Nevertheless, for the next decade, the role and effectiveness of due diligence processes in digital technological business will be decisive. That is why the key to this process will be in how human rights due diligence is supported and acted on in business strategy decisions and integrated into enterprise-level risk management (OHCHR, 2021b, p. 6).

That is why it is still difficult to fully anticipate the impact that technological advances can have on human rights, but it is necessary to know how to manage it from different perspectives (Lucena-Cid, 2019). Consequently, one of the possibilities to anticipate to those risks is to understand how technologies have impacted those rights and analyze the roles of the main stakeholders involved in their protection (State, companies, and individuals themselves).

For this purpose, some rights of each group of human rights recognized up to now will be addressed (i. civil and political rights, ii. Economic, social, and cultural rights, and iii. Collective rights), to determine the ways in which new technologies have impacted them.

2. Civil and Political Rights

Technology has created a completely new scenario for human interaction. As a consequence, the way people exercise their political and civil rights has also changed. In this scenario, the challenges for States to guarantee the free exercise of these rights have created new debates regarding a complex interaction between technology users, enterprises, and States.

This complex relationship found a critical moment during the Covid-19 pandemic. The impossibility of conventional interaction forced humans to relate through technology channels as a rule, and the risks of these challenges did not take long to come to light. The misinformation about the virus and different political disputes that took place during this period showed that the current legislative tools are not sufficient for these unexpected scenarios.

One of the discussions that arise in this context is the complex exchange between freedom of speech, as one of the keystones of political and civil rights, and the need to establish limits to the hatred speech. The Rabat Plan of Action, back in 2012, already identified that there was a need to appeal to a "larger toolbox" in order to respond to the defiance of the hatred speech, proposing the application of not only a legal (State) approach but a plurality of policies where other actors of the society "geared towards a plurality of policies and public discussion". (UN General Assembly, 2013, p. 12).

Furthermore, the aforementioned Plan of Action highlighted the role of political and religious leaders as key actors facing the negative impacts of hate speech, "serving as a practical tool to combat incitement to hatred" (OHCHR, 2021a, p. 8). Their responsibility and duties do not end with the negative approach of not using discriminatory and violent messages as political tools, but to a more active role speaking out firmly against it.

Despite the precise conclusions that the regional expert workshop proposed, it is fair to affirm, that they could not imagine the US Capitol events on January 6th, 2021. In that scenario, one key factor that was not considered back then, the social media interaction, represented and still represents an unprecedented challenge.

Consequently, the UN Human Rights B-Tech Project, using as the main source the United Nations Guiding Principles on Business and Human Rights, proposed a series of "Guiding Principles" that could help to clarify the role that actors such as technology companies should play in this new way of exercising political and civil rights.

One of the main conclusions was that those companies are meant to prevent and mitigate any kind of human right harm that could be conducted or facilitated through the resources that these companies offer. Thus, they are expected to implement "human rights due diligence" (pp. 2-3), identifying any risk of harm and implementing any means to stop it, including, for example, codes of conduct or terms of use

policies, accompanied by strong leadership and governance structures to respect human rights (including civil rights) in their business (OHCHR, 2021c).

On the other hand, the Covid–19 pandemic increased the risks to privacy and access to information. This represents a new risk for human rights. The interaction across the internet admitted the access to misinformation over the spread of the virus. Additionally, the entrance to private information of citizens became an important asset for governments that were facing the problem of infection, and thus, the need to control people (Wingfield et al, 2020, p. 4).

Considering the fact that the definition of democracy relies on the possibility of citizens taking part, and therefore, obtaining information over public matters, the new interaction spaces notwithstanding they create impressive opportunities for deliberation, they can also undermine the free exercise of political and civil rights, and with it, the democracy as a political system that, as a general rule, defines most of the current societies.

Following the defiance of misinformation and its connection with human rights, digitalization and new spaces of interaction have amplified the field of action to State and non-State actors to limit the freedom of speech. Misinformation, "threatens a number of human rights and elements of democratic politics". (Colomina *et al*., 2021, p. 10). For instance, an interesting contrast is the case of Obama´s 2008 presidential campaign, which was favored by the facilities offered by new information technologies, in the words of Ballinas:

> Information technologies made possible the seemingly contradictory double function of better centralizing certain decisions while distributing and delegating others to different regions of the country and lower-level positions. Above all, this possibility gave the campaign a dynamism and flexibility that had been lacking in other electoral organizations (González, 2018) (Own translation).

On the other hand, the controversy of the 2016 elections, which was reportedly heavily influenced by social media, raised tensions between Russia and the U.S., and became a reference point to understand the relationship between democracy and technology[4], specifically social networks and misinformation, as a counterpoint to the exercise of freedom of opinion (Madrigal, 2017).

Consequently, during the presidential elections of 2020 the executive directors of Facebook, Twitter, YouTube, and other technologic companies, decided to put in action teams to block fraud and false declarations that might interfere with or otherwise affect the results of the elections. Nevertheless, some leaked posts and videos

[4] This dispute was evidenced recently with the called "Facebook papers", which are the result of a collective work of approximately 17 U.S. press organizations, following Frances Haugen´s public denunciation, a former Facebook employee, who alleged that the company was aware that its platforms have negative effects on mental health, foster social division and undermine democracy.

were enough to become a tendency in America, which raised theories or conspiracies to undermine confidence in the final results (Roose, 2020).

Hence, the impact over "rights such as, the right to freedom of thought and the right to hold opinions without interference, the right to privacy, and the right to freedom of expression" (Castells, 2000), among others, directly affects and weakens the trust in democratic institutions and limits the effective participation in the public affairs and elections process. In that sense, as pointed out by Castells (2000), to comprehend the relationship between technology and society, the role of the State is a decisive factor as the one who organizes dominant social forces within its territory.

Nevertheless, the digital and technological transformation has broken barriers of space and time, representing a bigger challenge that, at a certain point, exceeds state capacities to regulate, prevent, and mitigate all the impacts against human rights caused by technological companies. Consequently, for some authors, such as Randolph (2000) or Beck (1998), the conception of the State gets blurred, as the reach of technologies transcends territorial boundaries, as well as the human rights obligations acquired by the States.

At this point, UNGPs +10 emphasize the necessity to start materializing the existing multi-stakeholder initiatives, with each assuming its proper role, its obligations, and responsibilities. These recommendations include States, national human rights institutions (NHRIs), business enterprises, business organizations, investment ecosystem actors, regional and international organizations, and civil society (UN Working Group on Business and Human Rights, 2021).

3. Economic, Social, and Cultural Rights

New technologies and digital developments can represent an improvement on the access and quality of many essential services and products for the realization of this range of rights, recognized on the ICESCR and beyond. Nevertheless, they involve, at the same time, significant risks which might create new gaps, as its benefits are not distributed equally across and within the society, generating patterns of discrimination and other impacts that may affect economic, social, and cultural rights (Human Rights Council, 2020).

For instance, among others, the right to health is one of the most influenced and favored by artificial intelligence and other technological advances, facilitating the coverage in its provision, the quality of health services, the provision of new treatments and medicines, and an expansion of the access to preventive, diagnostic, and treatment services (Human Rights Council, 2020).

However, the effective enjoyment of these advances also implies a set of gaps in the protection of other guarantees, related for example, to the places where these

advances actually arrive and the number of people that have access to these technologies, especially in so-called third world societies, where access to these services will probably be unaffordable for a large part of the population.

Another right that has been impacted in positive and negative ways by technological advances is the right to work[5], recognized in article 6.1 of the International Covenant on Economic, Social, and Cultural Rights. This is probably one of the contexts where most advantages have been obtained from digital advances and technologies, due to the automation of processes, the facilitation of searching tools and the systematization of information, as well as the creation of new employment opportunities in a digital marketplace (Human Rights Council, 2020). But, at the same time, these same advantages have, as a counterpart, new challenges for the realization of the right to work.

For this reason, States, international organizations, and even trade union associations have lobbied for the creation of ethical guidelines to achieve an artificial intelligence respectful of human rights. That is the case of the European Commission, which created a high-level group for this purpose, and determined that technologies, specifically artificial intelligence, must be in accordance with the law and must respect ethical principles (Rojo Torrecilla, 2020).

Following, the automation and the creation of new job opportunities also involve the elimination and disappearance of others. Besides, the changing nature of jobs requires new technological domain skills, which represent the necessity of adaptation and retraining of people qualified as inexperienced or unsuitable for managing digital technologies (Human Rights Council, 2020).

The creation of growing employment forms, including the work of people linked through digital remote service platforms and e-commerce, such as food delivery apps and transport apps, represents a major protection gap, related to working conditions[6] guarantees. In that sense, the employment arrangements of digital service platforms are often temporary and impede or restrict some other rights, such as the freedom of association, as they do not know their colleagues and, commonly, have precarious working conditions (Human Rights Council, 2020).

Working conditions and labor rights will be always changing as technological advances continue appearing, especially after social phenomena such as the Covid-19 pandemic, which completely transformed the way services are provided and the way

[5] The Right to work is understood as the set of guarantees and fundamental principles and rights established by the International Labor Organization (ILO), among which the following stand out the freedom of association and effective recognition of the right to collective bargaining, the elimination of all forms of forced labor, the abolition of child labor and the elimination of discrimination in respect of deployment and occupation (ILO, n.d.).

[6] Working conditions should be comprehended as the core of paid work and employment relationships, which cover minimum rights, such as working hours, rest periods, minimum wages, social security, among others. (ILO, 2022)

work is done. It forced societies to switch from face-to-face to remote work, and also changed the way in which productivity is assessed.

This also implies that international organizations and the States as regulatory entities, issue guidelines and regulatory frameworks to update and consider new forms of protection of economic, social, and cultural rights. Or what is more, adapt the rights already recognized to preserve its essence and achievements (Rojo Torrecilla, 2020). For instance, the International Labor Organization (ILO) has been issuing recommendations regarding physical and mental health and safe telework and other ways of remote work (ILO, 2022).

Furthermore, it is necessary to rethink human rights due diligence to adapt companies' processes to the new ways of working (Rojo Torrecilla, 2020). For this reason, under the B-Tech Project, the UNGPs has strengthened the recommendations for businesses to conduct human rights due diligence in the technological field. Moreover, the gaps remains in effectively engaging with technology companies and achieving the acknowledgment of the mandatory human rights due diligence practical application on these contexts where potential harms go beyond territorial boundaries.

4. Collective Rights

Lastly, it is important to consider human rights from a collective perspective, focusing on two rights that have been strongly impacted by new digital and technological advances: customers rights and environmental rights. This analysis is made under the consideration that, as established before, technological advances represent many advantages for the protection of human rights. Nevertheless, it is the purpose of this contribution to highlight the existing gaps to achieve an effective level of protection and respect of human rights in the digital and technological era within the UNGPs regulatory framework.

Regarding the first group of rights, customers as the end users of all supply chains existing in the market are the ones exposed to commercial changes in world trade, particularly, E-commerce. In part, the risks over its rights are represented by the lack of knowledge of its position and their judicial possibilities to address grievances, and access to justice in cases where products or services cause damages (Tabares & Tamayo, 2019).

Even the regulation of customer protection began since the 70s through non-governmental organizations in America. Today, the consequences of digital globalization increase the risks, especially when it is about technological and digital services (Garzón & Osuna, 2019). This is generated not only for acquiring an electronic device, but for being customers of digital services of which they are not aware of receiving a service, nor the magnitude of the conditions they accept each time they access to new applications.

Basically, the user is used to access to a large variety of facilities, services, and products through a "click", but legally, they are continuously signing contracts granting a series of permissions to the apps, to have access to your bank accounts, and other personal information (Tabares & Tamayo, 2019). Besides, technologic companies have created algorithms or artificial intelligence systems advances to persuade customers to make purchase decisions or service subscriptions that they did not intend to make.

The above is also called "dark patterns", which are defined as "user interfaces whose designers knowingly confuse users, make it difficult for them to express their actual preferences, or manipulate them into taking certain actions" (Luguri & Strahilevitz, 2021, p. 43). For instance, the way in which advertisements are made to convince customers, the options presented when canceling a subscription or turn off notifications, and also, when apps use the current location permissions to have access and identify where is "home" or "work", among others.

Nowadays, there are a considerable number of dark patterns, classified by different authors, such as Brignull (2018), Conti & Sobiesk (2010), Zagal *et al*. (2013), Lewis (2014), Lacey & Caudwell (2019), among others, depending on the type and the purpose. Even when all those dark patterns have been studied in relation to the individual welfare, the diminishing of collective customer welfare has been an under-analyzed perspective, which actually has big consequences regarding competence, price transparency, trust in the market, and unanticipated societal consequences matters (Mathur, Mayer & Kshirsagar, 2021).

For the above, it is important to establish regulations that guide the behavior of all the stakeholders involved in technological commercial relations, namely, companies, their supply chains, States, international organizations, and customers. In that sense, the UN has established guidelines for customer protection to be applied on commercial operations between customers and companies, including those owned by the States.

For this purpose, some principles guiding good business practices were established, such as fair and equitable y treatment for all customers, legal business conduct, transparency on the information disclosed, education and sensibilization, privacy protection and customer grievances mechanisms (UNCTAD, 2016). Among other guidelines, the UN highlights that even States have the obligation of establishing public policies for customer protection, companies are responsible of building confidence through their practices.

Nevertheless, the world is witnessing situations where cyberspace is the perfect means to impact human rights and promote crimes, such as violence against women. As the Committee on the Elimination of Discrimination Against Women (CEDAW) has

established, traffickers and abusers use social media and other web pages to have access to their victims, favoring sexual exploitation (UN News, 2020).

Furthermore, virtual reality programs have reached another level of risk to human rights, as the recent news of a woman claiming she was virtually "groped" in Meta's virtual reality metaverse, which has sparked debate about the scope of such applications, the possibilities of avatars and the rights of avatars being controlled by human beings.

On the other hand, environmental rights have been also impacted by technologic advances, especially regarding the use of natural resources due to its overuse and climate change (OECD, 2016). This consideration must be made, as the society implicitly sees technology as an inevitable consequence of scientific progress (Herrera, n. d.). Nevertheless, environmental damage caused by the use of technologies is a direct consequence of human misuse, unbridled consumerism, and poor environmental practices.

Having that on mind, and notwithstanding that, technological advancements are a key tool for achieving a greater level of respect and protection of human rights, it is necessary to point out the fact that the life cycle of a cell phone weighing 80gr, demands 44.4 kg of resources, which are mainly raw materials, for instance, tantalum, tungsten, tin, gold, cobalt, among others (Tecnología Libre de Conflicto, n.d.). Besides, the mass production of last-generation smartphones requires the extraction of each time more tons of raw materials per year, combined with millions of liters of water, chemicals, and fuels.

As in this example, all electronic devices demand significant quantities of natural resources and raw materials, which after its useful life are discarded by customers[7], who are unaware of the ways in which this waste could be used. Additionally, many studies indicate that the use of technologies consumes a considerable amount of energy, resulting in the emission of greenhouse gases, due to their high dependence on fossil fuels (Tucho, Vicente & Garcia, 2017).

The above-mentioned situations are just some examples of the impact that technologies have on the environment and, consequently, over the right to enjoy a healthy environment conceived as an individual, as a collective right. Actually, there are risks generated by the unbridled consumption of technological devices and applications, of which there is no record of which have not even been addressed by States and companies in their daily operations.

For this reason, in response to the technological advances that have become an inherent part of human development, it is necessary to take measures to raise awareness of individuals, as consumers of these technologies. Nevertheless, as anticipated

[7] The UN conducted the first study about electronic waste, which revealed that in 2019, 13 countries in the region generated 1.3 megatons of this type of waste.

in the first part of this contribution, there are other stakeholders that play an important role in the relationship between technology and human rights. Thus, it is important to understand the need for each one to assume their responsibilities, according to their position and their capabilities to prevent human rights impacts or failing at mitigating the damages caused.

Conclusions

After analyzing the influence of technologies on three groups of recognized human rights (i. civil and political rights, ii. economic, social, and cultural rights, and iii. collective rights), as well as the role of UNGPs and the challenges for the next decade, the following conclusions can be drawn in order to answer the question initially posed: do the due diligence and the content of the UNGP as they currently stand, allow to address, prevent, and effectively mitigate such risks and impacts over human rights?

The UN regulatory framework to protect, respect, and remedy the damages caused to human rights by business has been a milestone in history that changed the perspectives of States and companies on economics and business. In fact, it is currently impossible to conceive any undertaking, initiative, or project, whether public or private, without including a human rights approach. Nonetheless, a decade after the adoption of the UNGPs by the Human Rights Council, the world still faces big challenges to achieve a greater level of its implementation, especially within the companies´ operations.

Considering goal 1.3. "O*ptimize digital transformation through respect for human rights*", is evident that there is a necessity to apply different regulatory frameworks within national, regional, and international contexts, which may include a regulatory section on the responsible use of technologies in the existing ones, hand in hand with self-regulation and self-governance by its users, or what the B-Tech Project named a "smart-mix" of measures. For instance, public policies, especially the NAPs, as well as mandatory measures in general contexts and in specific contexts of the application of certain technologies.

Besides, the UNGPs 10+ have established illustrative actions by actor, to support progress toward the goal of optimizing digital transformation through respect for human rights. Even so, along with the necessity of strengthening the governance on behalf of the States and build multilateral alliances to promote respect, it recommends business enterprises to execute and strengthen due diligence processes, engaging users of technologies and use leverage to prevent and address human rights risks and impacts.

For the above, it is important to re-think the human rights culture in technological business contexts, given that the due diligence process, as known up to now, should be adapted to close the gaps identified and to prevent the risks that the fourth revolution represent. In that sense, all areas of technological and digital developments such

as neuroscience, artificial intelligence, robotics, virtual reality, e-commerce, among others, must be considered, not only as advantages of evolution to favor human activities and facilitate the protection of their rights, but as potential causes of risks or impacts over human rights.

Finally, those gaps identified in the protection of human rights require a change in the perspective in which they are considered. For one side, as an open catalog of rights, the determination of which will continue to change as technology advances, and as what is defined within the category of *subjects or rights holders*. For the other side, it is necessary to see human rights as the *ultima ratio* or the limit that technology should have, since, in some cases, it dehumanizes the rights holders. This would imply talking about *transhumanism*, that is, overcoming the natural limits of humanity through technological improvement and, eventually, the separation of the mind from the human body. Hence, the question that remains is: what makes us human?

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