

The Content of the Right to Internet Access

Submitted: 15 January 2023

Reviewed: 21 January 2023

Revised: 31 January 2023

Accepted: 1 February 2023

Clara-Luz Alvarez*

<https://orcid.org/0000-0002-5906-4450>

Jose Maria Soberanes Díez**

<https://orcid.org/0000-0001-7400-8302>

Article submitted to blind peer review

Licensed under a Creative Commons Attribution 4.0 International

DOI: <https://doi.org/10.26512/lstr.v15i1.46859>

Abstract

[Purpose] Having internet access is essential for the full enjoyment of many human rights. Therefore, this Article aims to determine the minimum essential content of the right to the internet in order to both understand the extent to which it deserves protection and to verify compliance with the obligations it entails. We describe the evolving nature of internet and broadband access due to technological developments and social needs. We also present the different positions regarding internet access as a human right or not, as well as how this right is acknowledged in the Mexican Constitution.

[Methodology/Approach/Design] The methodology was the review and analysis of norms, case law, academic and public policy documents, as well as references to relevant statistical data. The scope of the paper is framed in the discussion of fundamental and human rights.

[Findings] The right to internet access has both a negative dimension and a positive one. The negative dimension consists of a State obligation not to limit or restrict the right to internet access. The positive dimension must be determined using the economic, social, and cultural rights standard of the four As, namely, availability, accessibility, acceptability, and adaptability. Finally, we propose the minimum essential content of the right to internet access on those four characteristics.

[Practical Implications] - This Article provides arguments and bases for the minimum essential content of the right to internet access and broadband which are relevant for policymakers, judicial decisions, and civil society. Also, the academic debate is and will be open on the subject matter of this paper insofar as the evolutionary nature of technology, demands a constant review and update of the minimum essential content of the right.

[Originality/Value] There is currently no literature regarding what a right to internet access and broadband would include as obligations to States and other parties.

Keywords: Right to the Internet. Broadband. Human Rights. Minimum Essential Content. Digital Divide.

* Researcher at Universidad Panamericana, Facultad de Derecho, and member of the Mexican National Research Institute. Address: Augusto Rodin 498, Ciudad de México, 03920, México. E-mail: calvarezg@up.edu.mx. Website: www.claraluzalvarez.org.

** Researcher at Universidad Panamericana, Facultad de Derecho, and member of the Mexican National Research Institute. Address: Augusto Rodin 498, Ciudad de México, 03920, México. E-mail: jmsobranes@up.edu.mx.

INTRODUCTION

The SARS-CoV-2 pandemic confined a large part of the population to their homes. Yet, because so many were able to continue their activities online, it did not paralyze the world. This spread awareness about the fact that the fulfillment of many human rights depends on online networks, thus undoubtedly making them a necessary good today.

Seen in this light, internet access guarantees human rights, allowing them to be put into effect. Indeed, the internet allows people to exercise their right to education, their freedom of expression, or their right to information, among other things. However, it can also be considered a right on its own, as recognized by the Mexican Constitution's June 11, 2013 amendment, to offer one example.

Leaving aside the interesting debate about whether internet access merely guarantees other freedoms or if it is a right on its own, the need to specify the content of the right to internet access remains in order to understand the scope of related protection, which is essential for evaluating both compliance and how effective other rights are. Indeed, we could ask whether quality education is achieved when students lack internet access; whether there can be true political participation or access to justice if only a few people have access to online networks; or whether broadband access should be included as an indicator in poverty measurements.

Therefore, this paper aims to determine the minimum essential content of the right to internet and broadband access in order to understand the extent to which it deserves protection, as well as to evaluate related compliance. This will be done in light of the consideration that it is an open and dynamic concept that depends on factors such as technological evolution and society's growing dependence on online networks.

To do so, we will first analyze the meta-legal concepts needed to understand the content of rights like those related to internet access, broadband, and digital divides; subsequently, we will discuss the inclusion of the right to internet access and, finally, we will study the minimum essential elements found in this right both from a negative perspective and a positive one using the scheme of the four As, namely, availability, accessibility, acceptability, and adaptability.

INTERNET ACCESS, BROADBAND, AND DIGITAL DIVIDES

What are Internet, Broadband, and Internet Access?

“The internet is a collection of thousands of networks linked through a series of shared technical protocols that allow users of any of these networks to communicate with or use the services of any of the other networks” (Networking Group, 1994).

The internet (Alvarez, 2011) is made up of telecommunications networks of various types (access networks, transport networks) and of different natures (fixed networks, mobile networks, satellite networks), which are located all over the world and, by using common languages (protocols), enable the sending and receiving of communication and interactions as if there were just a single telecommunications network.¹

The ‘broadband’ concept refers to a network that can send, transport, and receive communications at high speeds.² Depending on the level at which a given country deploys widespread broadband, the criteria for defining broadband may vary.³ Broadband is typically measured based on speed,⁴ but what is considered high when it comes to speed? No specific speed defines broadband since technological advances require updates to speed (Instituto Federal de Telecomunicaciones, 2021).⁵ Moreover, the European Electronic Communications Code (2018) mentions that latency, availability, and reliability of communications are increasingly relevant parameters today when determining what can be considered broadband.

Speed-related broadband measurements are made considering both upload and download functions. To be considered broadband, the minimum speed varies from country to country (Instituto Federal de Telecomunicaciones, 2021). In

¹ The Mexican Federal Telecommunications and Broadcasting Law defines internet as “The group of decentralized telecommunication networks throughout the world, interconnected between them, that provide several communication services and uses internationally coordinated protocols and addressing for routing and processing data packages from each of the services. These protocols and addressing guarantee that the physical networks that form Internet, will function as a unique logical network”, Article 3 section XXXIII.

² The Mexican Federal Telecommunications and Broadcasting Law defines broadband as the “High capacity access that enables the offering of diverse and convergent services through infrastructure of a reliable network, regardless of the technology that is employed, and which parameters will be updated by the Institute from time to time”, Article 3 section V.

³ In connection with broadband speed/capacity, what is acceptable in one country may be currently unattainable by another country. This due to the connectivity and broadband disparity between regions and countries.

⁴ The speeds are measured by bits per second: kilobits per second (kbps), Mega bits per second (Mbps), Giga bits per second (Gbps).

⁵ The International Telecommunications Union had -for several years- 256 kbps as the broadband speed which is currently outdated. Please note that 5G technology for mobile services offers to provide speed of 100 Gbps.

Mexico, parameters that differentiate between wired access (e.g., via fiber optics) and wireless access (e.g., via cell phone) have been defined as follows: for wired access, the upload speed must be at least 5 Mbps, while the download speed must be 25 Mbps; wireless access must be at least 1 Mbps for upload and 4 Mbps for download (Instituto Federal de Telecomunicaciones, 2021).⁶ Therefore, broadband is a generic concept that avoids determinations of specific speed or capacity so that it can be updated over time, which also allows for the incorporation of new parameters such as those suggested in the European Electronic Communications Code.

Finally, when reference is made to internet or broadband access, it involves a person being able to make use of the internet and if a certain speed or capacity is in place only then is it considered broadband.⁷ Internet use can take on many forms, such as surfing the World Wide Web, interacting with applications on a cell phone, communicating with other people by videoconference or e-mail, interacting through social networks, carrying out commerce on platforms for the exchange of goods, accessing audiovisual content via streaming, and so on. The European Union states that broadband internet access should support, at the very least, e-mail, search engines that allow one to browse for and obtain all kinds of information, basic online training and education tools, online press or news, the purchasing or ordering of goods or services online, job searches and job search tools, professional networking, internet banking, the use of e-government services, social networks and instant messaging, and telephone or video calls (standard quality) (European Electronic Communications Code, 2018).

The Relationship between Internet Access and Human Rights

Regardless of whether or not internet access is conceived of as a human or constitutional right, it is widely recognized as indispensable for the full exercise and enjoyment of multiple human rights. The relationship between internet access and each of these rights would merit an Article in itself, nevertheless, here, we will briefly highlight this relationship, as this is also the reason for suggesting the essential elements found in the right to internet access.

Freedom of expression and the right to information are the best examples of human rights when emphasizing the importance of internet access in the

⁶ The IFT additionally created an advanced broadband parameter as an incentive for operators to advertise it as such. Advanced broadband is of at least 10 Mbps for upload and 50 Mbps of download of wired access and 3 Mbps for upload and 10 Mbps for download in wireless access.

⁷ In the European Union there is reference to “broadband internet” based on the European Electronic Communications Code. Nonetheless, we want to highlight that for developing countries there is still a long way to go to achieve internet access to their population, a much longer way is that such access is a broadband access.

exercise and enjoyment of such rights (Alvarez, 2011; Anzures, 2020; García-Mora and Mora-Rivera, 2007; Pérez, 2005; Pouillet, 2000 & Voitsikhovskiyi, *et al.* 2021). Mexico's Supreme Court of Justice of the Nation (*Suprema Corte de Justicia de la Nación* or SCJN) stated that "the Internet has become a fundamental means for people to exercise their right to freedom of opinion and expression" (Mexican Supreme Court of Justice, 2017b) while setting a precedent for the exercise of the right to freedom of expression. At the same time, it set a precedent regarding public servants' use of digital social networks by ruling against one public servant's blocking of a citizen's Twitter account; there, the SCJN considered it a violation of the right to access public information (Mexican Supreme Court of Justice, 2019). In addition, when ruling on situations in which blocking a website would be appropriate and those in which it would not, the court mentioned the internet as "a fundamental means for people to exercise their right to freedom of opinion and expression" (Mexican Supreme Court of Justice, 2017a & Mexican Supreme Court of Justice, 2017b).

Internet use has enhanced the freedom of association in multiple political and social manifestations around the world, while socio-digital networks favor the association of people with common interests. Thus, internet access enables new ways of association (Skepy, 2012 & Brown, 2016), including across borders.

In addition, with a growing human presence in cyberspace, internet access also promotes the free development of one's personality, which allows for greater autonomy in defining one's own life project (Alvarez, 2022; Anzures, 2020 & UNESCO, 2003). An instrument that guarantees lifelong learning, rather than just that which takes place during childhood, internet access is required when exercising the right to education in contemporary society (Becerra *et al.*, 2015; Voitsikhovskiyi *et al.*, 2021 & García-Mora and Mora-Rivera, 2007). As for the right to health, internet access enables the fulfillment of various functions, such as a network of telemedicine and telehealth services and the dissemination of and access to relevant health information (Alvarez, 2011 & García-Mora and Mora-Rivera, 2007). For their part, political participation and democracy are related to internet access⁸ (Lucena, 2014; Pouillet, 2000 & Voitsikhovskiyi *et al.*, 2021) while, at the same time, it allows for the freedom to work and engage in commerce in contemporary society (Anzures, 2020).

Digital Divides

At the dawn of the internet boom, mention was made of the digital divide in the singular form, which sought to differentiate those with internet access from

⁸ Lucena highlights that there is currently a virtual agora which is of the essence for democracy.

those without it.⁹ However, over time, it has become clear that multiple gaps and various factors produce a variety of divides. Moreover, inequalities in the real world translate into cyberspace (Alvarez, 2011 & Becerra *et al*, 2015). These digital divides highlight the need to clearly identify the essential elements of the right to internet access, as well as the obligations that are derived therefrom.

Digital divides can be grouped into different types, including urban/rural or regional (INEGI, 2015 & INEGI, 2020),¹⁰ generational (older adults), gender (e.g., use by women or girls) (Centro México Digital, 2022), disability, economic (individual or household income levels),¹¹ local context (Galperin, 2020), and so on.

These divides can be established according to degrees. The first degree corresponds to physical access to telecommunications networks and devices. The second degree pertains to digital skills, and the third involves evaluating the benefits of internet use (Scheerder, van Deursen, and van Dijk, 2017; van Deursen and van Dijk, 2014). According to this classification, not all digital divides fall within the essential content of the right to internet access, as will be explored later in this Article.

In short, Martínez identified older age, low-skilled occupations (e.g., day workers), and geographic location as the factors that increase digital divides in Mexico, while those that reduce them include higher education levels, digital skills, and higher income (Martínez, 2018). At the same time, van Dijk refers to biographical categories (age, gender, ethnicity, intelligence, health, ability) and positional categories (work, education, home, networks), and ultimately considers personal categories to have the greatest impact on the extent to which one experiences a digital divide (van Dijk, 2020).

⁹ For more information on digital divide of the first decade of the XXI century, the types of divides and its causes, see Alvarez (2011), *Internet y derechos fundamentales*, p. 60-74.

¹⁰ The existence of urban/rural divide has been thoroughly documented and for the Mexican case, the National Survey on Availability and Use of Information Technologies in Dwellings (Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares, ENDUTIH) has evidenced it year after year.

García-Mora and Mora-Rivera (2021) additionally demonstrated that in the Mexican Republic there are profound differences between regions within Mexico that must be taken into account for public policy design.

¹¹ See the annual surveys of the National Survey on Availability and Use of Information Technologies in Dwellings, since 2015 (INEGI, 2015, INEGI, 2016, INEGI, 2017, INEGI, 2018, INEGI, 2019, INEGI, 2020 & INEGI, 2021).

THE RIGHT TO INTERNET ACCESS

Debate exists over whether or not the right to internet access can be considered a human right, although opposing positions agree that internet access is necessary for the exercise of human rights.

Vinton Cerf, recognized as one of the fathers of the internet, opposes the existence of a human right to the internet because human rights are inherent to human dignity, and no matter how much contemporary society may depend on the internet, it is not thereby made a human right. He accepts that the right to internet access may be formulated as a civil right, but maintains his belief that internet access should be considered an enabling and instrumental technology rather than a right (Cerf, 2012).

Custers suggests that the right to internet access is among the new and so-called digital rights (Custers, 2022). Brown argues that the human rights provided for in the Universal Declaration of Human Rights must include new technologies, while Skepys rejects internet access as a human right (Skepys, 2012). Cotino states that, instead of creating a new constitutional right to internet access, it would be better to update informational freedoms based on new guarantees that emanate from the internet (Cotino, 2020).

Mathiesen upholds that there is a human right to the internet, but views it as a secondary right, meaning that it is more specific than a primary human right (e.g., freedom of expression is a primary human right, while the right to internet access is a secondary human right) (Mathiesen, 2012).

Anzures, meanwhile, seems to accept that internet access is a human right, and confirms that it is instrumental to the exercise of human rights (Anzures, 2020),¹² with which García-Mora and Mora-Rivera also agree (García-Mora and Mora-Rivera, 2007). Voitsikhovsky et al. conclude that the right to internet access is a human right that is

“fundamental to ensure dignified existence to all and social development under the formational and developmental conditions proper to the information society” (Voitsikhovsky et al, 2021).

In the case of Mexico, there is no need to enter into the discussion of whether or not internet access is a human right since it is already a constitutional right provided for in the Mexican Constitution, and, therefore, a definition of its essential content is required. Determining its essential content is relevant

¹² Anzures also argues that some fundamental rights must be exercised exclusively in Internet which he refers to as *rights to be digitally exercised*.

regardless of the designation or category that internet access may be granted in a given country.

Internet and Broadband Access in the Mexican Constitution

As a result of the 2013 reform in telecommunications, the Mexican Constitution establishes the right to internet access and broadband in the following terms:

“The State shall guarantee the right of access to information and communication technologies, as well as to broadcasting and telecommunications services, including broadband and internet. For such purposes, the State shall establish effective competition conditions regarding the provision of such services”. (Article 6, Third Paragraph, of the Mexican Constitution)

The inclusion of this right within the chapter on Human Rights was controversial, but the political moment in which it was established gave the impression that, by being in the Constitution, the population would automatically have internet and broadband access. Nothing could be further from the truth. In terms of internet users and fixed and mobile broadband connections, Bravo demonstrated that six years after said constitutional reform, Mexico performed modestly and worse compared to other Latin American countries that did not reform their constitutions (Bravo, 2020). Almost a decade after this right was established in Mexico, more than 28 million people aged six years and older still lack internet access (INEGI, 2021).

However, to date, there is no precise or generally accepted definition of the elements that make up the right to internet access (Papakonstantinou, 2022).¹³ Álvarez argues that this right obliges the Mexican State to

(1) establish an environment that enables the private sector to provide internet and broadband services, (2) implement mechanisms so the population can receive services where the private sector does not provide them (because, for example, they are not profitable or they are in remote areas), (3) carry out specific and affirmative actions for access among those in vulnerable situations (e.g., the poor or elderly), (4) implement necessary measures to provide equal access to persons with disabilities, and (5) promote digital skills (Alvarez, 2018).

Meanwhile, Bravo (Bravo, 2020) points out that the right to internet access and broadband is linked to Mexico’s constitutional obligation to integrate the

¹³ By analogy, Papakonstantinou argues that to identify the components of a new right to cybersecurity helps to understand the minimum content of the right, besides empowering persons in the digital arena.

population into the information and knowledge society through a universal digital inclusion policy.¹⁴

If the right to internet access and broadband is provided for in the constitution, as in the case of Mexico, determining its essential content goes beyond an academic concern and becomes a legal necessity, as this Article addresses.

THE ESSENTIAL CONTENT OF THE RIGHT TO INTERNET ACCESS

Following the 2013 reform of the Mexican Constitution, Article 6 recognizes the right to broadband and internet access, ordering the establishment of “effective competition conditions in the provision of such services.” The first statement establishes the right itself, while the second can be interpreted as a constitutionally recognized right that requires lawmakers to intervene to regulate the conditions required for its exercise (Anzures, 2020).

Regarding the second statement related to the creation of effective competition conditions, these are the type of rights that require a law to provide them with content (Jimenez, 1999 & Pérez, 2004), and therefore cannot be exercised in the absence of law (Díez-Picazo, 2005). This means that, constitutionally, the only obligation corresponds to creating a proper legal environment that establishes the bases to guarantee full internet access and use, without having its own constitutional definition (Anzures, 2020). It is a programmatic right to the extent to which the public authorities’ obligations arise from the law, not from the Constitution (Fossas, 1993).

However, rights classified as constitutionally recognized are considered to have minimum constitutional content that lawmakers cannot freely dispose of, but which, on the contrary, must be both respected and provided for in the law. In this regard, they do not lack constitutional content, and, when compared to other rights, there is only a difference in quantity, rather than quality, i.e., those related to development would need more intervention than others (Díez-Picazo, 2005).

Thus, for example, in the case of due process, a typical right that requires further development, although a law is required to define the formalities of notifications, there is a minimum constitutional content that lawmakers cannot change. For example, the defendant must receive a summons, otherwise, he or she would be left defenseless (Soberanes, 2018).

¹⁴ The Mexican Constitution states that “The State will guarantee the integration of the population to the information and knowledge society through a universal digital inclusion policy with annual and six-year goals”, article 6, paragraph B section I.

Thus, the right to internet access has a minimum constitutional content, which must be guaranteed by public authorities (Papakonstantinou, 2022).¹⁵ It is this specific object of the right that we will try to clarify in the next section.

The Negative Dimension of the Right to Internet Access

In his classic work, Alexy argues that the analytical foundation of rights is based on a threefold division, consisting of rights to something, freedoms, and capabilities (Alexy, 1991). Internet access is a right to something, as it allows its holders to demand action from someone and, therefore, does not imply the possibility of choosing between doing or not doing something without state interference, as happens with freedom-based rights (Alexy, 1991); or the permission to change one's legal status, as happens with capabilities. (Alexy, 1991).

Rights to something, as Alexy himself explains, can involve negative or positive actions (Alexy, 1991). Negative actions translate into the agent's duty not to do something, a duty not to hinder the exercise of a given right or status. Positive actions, on the other hand, entail the agent's duty to do or provide something, so that a new status is created. The German author explains this by referring to the right to life. Its negative side obliges the State not to kill, while from the positive viewpoint, it imposes the obligation to protect the life of the holder with respect to arbitrary interventions from third parties (Alexy, 1991).

When it comes to the right to internet access, which allows for use of the internet, its negative side implies the state's duty of restraint, which consists in neither limiting a given service nor restricting it (Alvarez, 2018; Skepys, 2012 & Voitsikhovskti *et al.* 2021). The Mexican Constitution declares that the State shall guarantee open internet access without arbitrary interference (Article 6 Paragraph B Section II of the Mexican Constitution). Voitsikhovskiy *et al.* suggest that the content of the right to internet access is found in the possibility that individuals have of accessing the internet through an internet service provider (Voitsikhovskiy *et al.*, 2021). At the same time, Skepys states that governments should also refrain from interfering "with the propagation of ICTs [Information and Communications Technologies] and with the infrastructure required to access the internet" (Skepys, 2012). Undoubtedly, the notion of restricting the exercise of state power is one of the dimensions of the right to internet access that derives from the obligation to respect human rights (Corte Interamericana de Derechos Humanos, 1988).

¹⁵ The need to identify the minimum content is not just for the internet access right, in connection with the proposal of Papakonstantinou to recognize a cybersecurity right he proposes that it must be developed also to enable persons that deem to be affected by an infringement of such right, to be able to exercise legal actions, for example.

Along these lines, cutting off entire populations or certain segments thereof from internet access has been considered a human rights violation, as well as imposing an obligation to register with service providers, which cannot even be justified based on public order or national security (United Nations *et al*, 2011). Therefore, the United Nations considers measures that prevent or disrupt a person's ability to search for, receive, or transmit information online a violation of this right (United Nations and Human Rights Council, 2018).

But the inability to obtain access to part of the internet, blocking content based on political criteria through what García Mexía calls 'veils' (García, 2012) would also contravene this negative side. The same author explains that this can happen through authorities' direct action, such as Iran's bottleneck, or through service providers that follow the government's political instructions, as in China (García, 2012).

It is clear that there is a growing recognition of the responsibility that large internet platforms have in terms of internet users' exercise and enjoyment of their human rights. However, this merits an investigation in itself, which goes beyond the scope of this Article (European Union, 2022; García, 2012 & Observacom *et al.*, 2020)¹⁶

To conclude this section, it is important to note that violations of the right to internet access are also violations of other human rights that can be exercised through the internet, such as freedom of expression, since, as the Council of Europe indicates, "disconnecting individuals from the Internet, as a general rule, represents a disproportionate restriction of the right to freedom of expression" (European Union, 2016).

The Positive Dimension of the Right to Internet Access

In addition to the obligation to respect, another general obligation that all rights impose is that of guarantee, which implies the existence of conduct that ensures the full exercise of these rights (Corte Interamericana de Derechos Humanos, 1988). The European Court of Human Rights has recognized the obligation that States have to guarantee internet access as part of the right of

¹⁶ Observacom *et al.* published recommendations about the principles, standards and measures to protect freedom of expression of internet users, and to guarantee a free and open internet vis a vis the big online platforms.

García Mexía argues that internet access right would be infringed if the big online platforms -for economical reasons- prevent contents to travel without obstacles through the internet. Such action is known as "fences".

The European Union recently enacted the Digital Markets Act which regulates online gatekeepers that provide core online platforms operations (e.g., search engines), enjoy an entrenched and durable position, and have significant impact on European Union's markets.

access to information to ensure participation in the information society (Voitsikhovsky *et. al.*, 2021, referring to the case of Ahmet Yildirim v. Turkey).

In the case of the right to internet access provided for in Article 6 of the Mexican Constitution, the State's duty is recognized by the express statement that the "State shall guarantee," thus emphasizing this obligation.

Therefore, while implying duties of restraint, prohibiting interference in people's connection to and in the deployment of networks, the right to internet access also implies the power to demand (Alvarez, 2018; Anzures, 2020; Becerra *et al* 2015 & Mathiesen, 2012) real positive action towards a new social right (Cotino, 2020).

Thus, we are dealing with a right that is uniquely carried out by the State provider, and this requires making organizational and procedural forms available to people to make it effective (Orbegoso, 2021). Thus, the State must ensure the existence of necessary telecommunication infrastructure so that everyone can connect to the internet.

Because this statement may be somewhat intangible, as is the case with rights to benefits stated as principles, it needs to be made somewhat more concrete. It has been said that everyone should be guaranteed an available and accessible connection to the internet (Anzures, 2020). Similarly, the European Electronic Communications Code (2018) specify the right in terms of minimum services, of a certain quality, available to all users at an affordable price (Articles 84 and 85, and Annex V).

The characteristics described below (availability, accessibility, acceptability, affordability) seem to fit into the scheme of the 'Four As', which the United Nations Committee on Economic, Social and Cultural Rights considers to be 'commonplace' when documenting and monitoring social rights (Tomasevski, 2004). They are referred to as the 'Four As' because they refer to four characteristics that begin with the letter 'A', namely availability, accessibility, acceptability, and adaptability.

These characteristics help define the content of the right to internet access and, therefore, will be analyzed below.

Availability

Availability is the first requirement to be provided regarding the right to internet access, e.g., the existence of the necessary infrastructure to allow for connection. It is limited to the system's existence and does not touch on qualitative assessment. Infrastructure and internet access services may be provided by the public or private sector, yet it must be highlighted that it would be a violation of this right for a person not to have -within easy reach-, wired, wireless, or satellite connection points.

Thus, the right to internet access requires the existence of the infrastructure without which the right would not exist and, therefore, is part of its essential content. In Mexico, the right to internet access and broadband establishes the State's constitutional obligation to provide an environment of effective competition that allows for its fulfillment. An environment that enables the expansion and availability of infrastructure is a positive government obligation (Alvarez, 2018 & Skepys, 2012).

From the perspective of service providers, investment in certain areas may not be attractive due to technical difficulties and low profitability. In these cases, the competitive mechanism mandated by Article 6 of the Mexican Constitution to effectively implement this right is not ideal. The corresponding right of people living in remote areas where this infrastructure has been impossible to install is violated.

In this regard, the right to internet access is a constitutional right and a right related to the effectiveness of human rights (Alvarez, 2011; Alvarez, 2018 & Skepys, 2012), and, therefore, internet access is an essential public service.

A ruling rendered by Costa Rica's Constitutional Chamber serves as an illustrative example. The Chamber considered it a violation of the right to internet access for a housing development to lack internet coverage without the Costa Rican Electricity Institute having any project to allow for access (Costa Rica's Supreme Court of Justice, 2010).

Another decision by the Constitutional Chamber of Costa Rica's Supreme Court of Justice is also enlightening. It indicates that conditions such as the remoteness of an area or a lack of profitability in the construction of the necessary infrastructure are not valid justifications, as internet access is a public service associated with constitutional rights that obliges both the State and provider companies (Boza, 2015).¹⁷

This obligation cannot be fulfilled overnight. It is a right to which the progressive principle applies, as established in the International Covenant on Economic, Social and Cultural Rights and in the Mexican Constitution. Accordingly, in all social rights, a minimum basis must be met, upon which progress must be made (Vazquez, 2011). This means that deliberate, concrete measures must be launched (United Nations-Committee on Economic, Social and Cultural Rights, 1990), in favor of the establishment of universal availability, which implies using all the resources available to the State (Abramovich, 2004 & Limburg Principles, 1986).

Therefore, in areas where it may be physically difficult to implement the infrastructure necessary to guarantee universal internet access, certain public

¹⁷ The resolution of the Sentence 010627-2010 [2010] can be found at Giselle Boza.

internet access points should at least be established, such as at post offices, schools, libraries, and others (Anzures, 2020).

Accessibility

Strictly speaking, accessibility implies that internet connection should be possible for everyone, without discrimination. Custers, when suggesting a right to internet access as part of the new digital rights, states that it must be a right for all because if some lack access to the internet or have limited access, they will be at a clear disadvantage compared to the rest of the population (Custers, 2022). Therefore, everyone who wants to connect should be able to do so. While, according to availability, there must be an infrastructure that guarantees the existence of a network, accessibility gives rise to issues regarding the device(s) needed to connect, the affordability of services, and the skills that people must have in order to access the internet.

On personal use devices, such as cell phones or tablets that allow for roaming, connection can take place through cellular data service or Wi-Fi. Fixed-access computers, such as those available in homes and offices, for example, can also be used.

Therefore, even if a signal exists, a person without a device would not be able to access the internet and, therefore, the right to access would be violated. In this regard, a Mexican district judge ruled in a case in which a claim was made that a girl did not have the necessary equipment to continue her education during COVID-19-related stay-at-home orders, thus obliging the State to provide her with a device as a safeguard (Eighth District Court in San Luis Potosí, 2020). Similarly, another Mexican judge granted a suspension to provide a school with the necessary technologies to guarantee its students' rights (Fifth District Court in San Luis Potosí, 2021). Also in Mexico, an injunction was granted to a young student so that his school would be given information, communication technologies, and internet access to guarantee his right to education (Eighth District Court in San Luis Potosí, 2019).

Now, if a person lives in an area where access to internet services is available and also has a device, but does not know how to use it, they will also be deprived of access. For reference, not knowing how to use a computer is the number three reason in Mexico for households not to have one (INEGI, 2016; INEGI, 2017; INEGI, 2018; INEGI, 2019 & INEGI, 2020). Regarding this dimension of the right to internet access, there are three relevant factors, namely, (1) non-discrimination, especially when it comes to the most vulnerable groups, (2) economic accessibility or affordability, e.g., the costs incurred by right holders, and (3) the need for digital skills.

Access among Vulnerable Groups

Regarding the first point, it is important to point out that, as a social right, access to the internet aims toward equality (Becerra *et al*, 2015). Prieto Sanchís argues that equality promotes the integration of individuals into society so that they may enjoy effective freedom (Prieto, 1990). Therefore, the impossibility of exercising this right can cause inequalities between those with and without access. The latter would not be able to continue their education during a pandemic, as in the judicial case described above. This is why some groups should have preferential access and be the beneficiaries of actions that secure access to ICTs (Alvarez, 2018).

The principle of equality in the law is not an end in itself, but a means toward achieving material equality (Bobbio, 1993). Material inequality cannot be fixed with legal equality because those who are marginalized will always be at a disadvantage. This is the paradox of equality: To achieve material equality, there must often be formal inequality (Elósegui, 2003).

The need for unequal treatment may derive from explicit obligations of a higher order. The Mexican Constitution requires that certain persons or situations be treated exceptionally, as is the case of indigenous people, who are subject to special regulations that guarantee the devices needed to access the internet (Article 2nd of the Mexican Constitution in Section B).¹⁸

There are also cases in which, although the Mexican Constitution does not expressly order differentiated treatment, not providing it would be unreasonable. This is the case for persons with disabilities. If they are treated in the same way as other people, unjust situations that prevent them from having equal access to material opportunities can arise.

People with disabilities are one of the population's most vulnerable groups and, for this reason, agencies that provide public services are obliged to provide them with special attention in order to fully respect their rights.¹⁹

In this case, however, an international standard exists in the form of the Convention on the Rights of Persons with Disabilities (CRPD), which establishes several obligations for member states, including Mexico. Alvarez summarizes the CRPD provisions in connection with internet access as follows:

¹⁸ Article 2nd of the Mexican Constitution in Section B states that to eliminate scarcities and shortfalls that affect indigenous people, the authorities must "extend the communications networks to enable the communities integration through the construction and extension of communication and telecommunication ways" and for such purposes their must be "conditions for indigenous towns and communities to acquire, operate and manage communication media". Even if this provision does not refer expressly to internet, a sound interpretation pursuant to the goals of internet access, should be as including internet.

¹⁹ An interesting work in this respect is: Julio Cabrero Almendra, 'TICs para la igualdad: la brecha digital en la discapacidad' [2008] vol. 8 (2) *Anales de la Universidad Metropolitana* p. 15-43.

“States must adopt the necessary measures to: (1) ensure access to ICTs and emergency services for persons with disabilities under equal conditions, (2) promote access to ICTs (including the Internet) for persons with disabilities, as well as promote their accessibility in terms of design; and (3) that persons with disabilities exercise their freedom of expression and right to information under equal conditions, for which –among other things- the States must (a) facilitate information and allow for the use of accessible formats and technologies, (b) encourage the private sector to provide information and services on the Internet in accessible formats, and (c) encourage media outlets that provide information over the Internet to open up their accessibility to persons with disabilities. Additionally, in accordance with Article 4 of the CRPD, States are obliged to promote the availability and use of ICTs (authors’ translation)” (Alvarez, 2018).

When it comes to persons with disabilities, the essential content of the right to internet access includes the obligation to provide devices that allow these individuals to use the internet and thus to more fully exercise their human rights in cyberspace.

Children and teenagers are another group that should be mentioned. In this case, in addition to access, restricted access is necessary for the sake of their well-being and development. Therefore, the Mexican Supreme Court argues that recognizing them as holders of this right does not imply access to the content of any nature, but rather, given that wider access increases with maturity, the information to which they may have access should only correspond to that which positively contributes to the fulfillment of their rights (Mexican Supreme Court of Justice, 2018).

Economic Accessibility of Affordability

The second point regarding accessibility has to do with cost. Economic accessibility, or affordability, implies that a person can cover the associated cost without it being an unjustified burden or negatively impacting the user’s ability to manage their other expenses. It should be evaluated based on the region or country’s level of consumer prices (OECD, 2006 & European Electronic Communications Code, 2018). Custers refers to the fact that an effective right to internet access should prevent technological costs from becoming an insurmountable barrier (Custers, 2022).

It is important to remember that all social rights have a financial impact, which has led some to argue that they are not constitutional rights (Arango, 2004).

Regardless of this debate, which continues to exist²⁰ investment must be made to achieve universal internet access. According to the National Survey on Availability and Use of Information Technologies in Households (ENDUTIH for its initials in Spanish), which has been conducted annually since 2015, lack of economic resources is the main cause of not having a computer or internet connection in Mexican households (INEGI, 2015; INEGI, 2016; INEGI, 2017; INEGI, 2018; INEGI, 2019 & INEGI, 2020).

European Electronic Communications Code (2018) guarantee the affordability of internet service prices for the majority of the population, recognizing that certain groups will require support when broadband internet service is not affordable for them. In Mexico, the reform that recognized this right sought to reduce prices through effective competition, as provided for in Article 6 of the Constitution. In Switzerland, the State set a price (Anzures, 2020). Whether through competition, price fixing, or subsidies, internet access invariably has a price.

The right in question is different from others in that the holder, and not the entities with obligations to ensure this right, bears the cost. Indeed, while the rights to education or health protection are relevant line items in public budgets to make services free of charge for those who hold the right, in the case of the right to internet access, it is the user who must generally pay for this service. In other words, exercising this right involves a cost. The exercise of other rights may indeed involve a cost, for example, when a person decides to attend a private school or a private hospital. However, this is a personal decision, as they have the option to enroll in a public school or to be treated by the state health system. In the case of internet access, the possibilities of connecting to a free public network are scarce and, therefore, to exercise the right, a service provider must be paid.

In connection to what has been pointed out above, the extent to which public budgets should bear the cost of internet access should be questioned, as well as whether it should be covered for vulnerable groups or whether there should be free connection points in certain places. Other aspects that deserve analysis include ideal connection mechanisms for the disconnected and ensuring that this connection is meaningful for the exercise of human rights, without undermining the conditions of competition that the Mexican State, by constitutional mandate, must establish.

²⁰ A response to such proposition that we agree with may be seen at Juan Manuel Acuña, *Justicia constitucional y políticas públicas sociales* (México, Porrúa-Universidad Panamericana, 2012, p. 37 et seq.).

Digital Skills

There are important differences between the skills that a person must have in order to access the internet compared to other means of communication, such as print media, where one simply needs to know how to read, or radio and television, which can be accessed at the push of a button. This is not the case with the internet, which requires having some knowledge of how to use a related device, how to access the internet, and how to take advantage of its services and applications (e.g., the use of e-mail and search engines or browsers). Therefore, the concept of digital literacy has become a necessary term for identifying the minimum skills a person must have to access the internet.

As noted above, the second level of the digital divide is generally recognized as a lack of digital skills. Without them, both the availability of infrastructure and the access to a device are useless. Therefore, if a right to internet access is recognized as such, and if it is necessary for the full exercise of human rights, then it must include within its minimum essential content the obligation to provide people with the instruction they need to develop digital skills (Custers, 2022). This instruction should not in any way be limited to children, and should also include, often more emphatically, the elderly.

Acceptability

The acceptability mandate supposes that the user will experience better quality internet service. This criterion goes beyond the availability of a network or the possibility of access, and instead focuses on the provision of better service. Thus, in the field of social rights, it has been equated with the principle of quality, which is often linked to ‘corporate’ visions of new public management and efficiency (Cotino, 2012).

In many places, the challenge presented by the right to internet access may not only be in terms of coverage, but also in ensuring that services are provided under high-quality conditions, with the additional requirement that this benefit reach all citizens.

Quality, from the legal point of view, is a principle. Principles, in Alexy’s words, are optimization mandates and respond perfectly to his idea that they demand something to be carried out to the greatest extent possible within current, real legal possibilities (Alexy, 1991).

Since this right’s objective is constantly evolving and improving, it is difficult to establish quality indicators in advance. Therefore, European Electronic Communication Code (2018) states that all citizens must have access to broadband internet to enable their social and economic participation in society, although some countries, such as Finland, have established minimum connection

speeds, and in the case of Mexico, the Federal Telecommunications Institute established minimum speeds for a service to be classified as broadband.

In any case, based on percentiles regarding user access time, transmission speeds achieved, the proportion of failed data transmissions, the percentage of successful connections, and average delay, certain parameters could be established to evaluate whether or not a given service is acceptable.

Adaptability

Finally, we come to adaptability, which involves the flexibility of the right in two senses. First, it must adapt to constantly changing technologies, and second, it must adjust to the needs of people in varied cultural and social contexts.

Regarding the former, technologies are clearly in constant development, and these changes impact the content and scope of the right. This is true of all rights. For example, the adequate provision of the right to education would not exist if we follow teaching standards from sixty years ago and fail to include new realities. For example, if there were no digital education, children would be condemned to digital illiteracy. And if new immunizations were not included in the government's free and compulsory vaccination schedule, health protections would be deficient. Similarly, technological innovation has an impact on the right to internet access and, therefore, minimum connection speeds, for example, are constantly evolving.

With the advent of new functionalities through the internet, such as virtual and augmented reality--the *Internet of Things* (IoT)—, van Dijk warns that there will be new digital divides and inequalities because, while some people will have access to advanced internet applications, others will only have access to one type of application (van Dijk, 2020). There is no need to declare at this point whether or not virtual and augmented reality, for example, will be part of the right to internet access, but it is important to emphasize at this point that, within the realm of adaptability, technological evolution may be relevant.

At the same time, adaptability represents a property of utmost importance when it comes to ICT access by persons with disabilities; this is because technological evolution must comply with universal design and functional equivalence to avoid leaving out persons with disabilities and thus allow them to have access on equal footing with others (Alvarez, 2018).²¹ If the situation in which people with disabilities live is not considered, technological evolution will cause unintentional exclusion.

²¹ It is important to note that an internet access service may be accessible for persons with disabilities, but when an update or new functionality is installed without considering whether it is accessible or not, the consequence may be that such internet access turns to be unavailable for persons with certain disabilities.

Regarding the latter, it is important to emphasize that adaptability challenges the idea that people must adjust to the service conditions imposed by providers and, in contrast, demands that the latter adapt to the needs of users, considering the social and cultural context in which they live.²² As a constitutional right, the person, and not the provider, should be the focus.

CONCLUSIONS

The internet allows people to use the services of interconnected networks and is now indispensable for the exercise and fuller enjoyment of multiple human rights. Several countries have begun to consider, as in the case of the Mexican Constitution, internet access in itself a human right.

The right to internet access has essential elements that must be guaranteed since violations thereof also represent violations of other human rights. This essential content manifests itself through negative and positive obligations. The negative side involves the State's duty to refrain from certain things like limiting or restricting internet access service, interfering with the proliferation and expansion of infrastructure and equipment to provide such service, depriving the entire population or certain segments of the internet, hindering access to parts of the internet, and blocking access to internet content.

The positive side of the right to internet access entails a number of guarantees that can be identified using the 'Four As' of the United Nations Committee on Economic, Social and Cultural Rights, namely availability, accessibility, acceptability, and adaptability.

Availability requires the existence of infrastructure needed to connect to the internet, without which the right would not exist. In Mexico, based on the Constitution, the States are obliged to generate and preserve an environment that enables the expansion and availability of infrastructure throughout the country. Of course, full telecommunications infrastructure coverage cannot be fulfilled immediately, so the progressive principle must govern.

Accessibility involves at least three aspects, which include access for various social groups without discrimination, especially those in vulnerable situations, such as indigenous people, people with disabilities, children, and adolescents; affordability, which mandates that a person be able to cover the cost of internet access service without it being an unjustified burden or negatively impacting their ability to satisfy other basic needs; and the provision of digital skills training for all people regardless of age.

²² In similar terms referring to the right to education, the Constitutional Court of Colombia declared in its decision T-743/13 of October 23, 2013.

The acceptability element of the right to internet access is linked to the quality that the service must have for a person to be able to take advantage of the benefits associated with the digital era. As a principle—an optimization mandate—quality obliges its fulfillment to the greatest possible extent. Given constant evolution and technological improvement, quality indicators will change from time to time. Thus, in some countries, such as Mexico, quality is measured in terms of download and upload speed and with different parameters for wired and wireless access, while in the European Union, latency, availability, and reliability are considered elements that define broadband.

The last characteristic, adaptability, is closely related to technological advances and necessary adjustment based on the needs of individuals in varied cultural and social contexts. In the case of people with disabilities, adaptability requires the adoption of universal design and functional equivalence so that technical progress does not become a means of unintentional exclusion.

REFERENCES

- Abramovich, V. (2004). *Los derechos sociales como derechos exigibles*. Madrid: Trotta.
- Acuña, J. M. (2012). *Justicia constitucional y políticas públicas sociales*. México: Porrúa-Universidad Panamericana.
- Alexy, R. (1991). *Teoría de los derechos fundamentales*. Madrid: Centro de Estudios Constitucionales.
- Alvarez, C. (2011). *Internet y derechos fundamentales*. México: Porrúa.
- Alvarez, C. (2018). *Telecomunicaciones y radiodifusión en México*. México: UNAM Posgrado en Derecho. Available at: http://derecho.posgrado.unam.mx/site_cpd/public/publis_cpd/telecomy radiodifenMX.pdf.
- Anzures, J. (2020). Naturaleza jurídica y funciones del derecho humano a Internet. *Boletín Mexicano de Derecho Comparado*, vol. 53 (158) pp. 539.
- Arango, R. (2004). *Derechos, constitucionalismo y democracia*. Bogotá: Universidad Externado de Colombia.
- Becerra, J. (2015). Las obligaciones del estado: el nuevo derecho fundamental de acceso a internet y las garantías a partir de la redefinición de las clásicas libertades informativas. Bogotá: Universidad Católica de Colombia. Available at: https://repository.ucatolica.edu.co/bitstream/10983/23002/1/La-responsabilidad-del-Estadoy-las-TIC_A0_2.pdf
- Bobbio, N. (1993). *Igualdad y libertad*. Barcelona: Paidós.

- Boza, G. (2015). El derecho de acceso a Internet y la libertad de expresión. Cuadernos de jurisprudencia de la Sala Constitucional de Costa Rica, Compilación. (n. 4) San José: CICOM-PROLEDI.
- Bravo, J. (2020). Las telecomunicaciones y el acceso social a Internet. *A seis años de la Ley Federal de Telecomunicaciones y Radiodifusión*. México: Universidad Autónoma Metropolitana.
- Brown, G. (2016). The Evolving Understanding of Rights. Global Citizenship Commission and Open Book Publishers (Eds.). *The Universal Declaration of Human Rights in the 21st Century*, pp. 39-56 Available at: <https://www.jstor.org/stable/j.ctt1bpmb7v.10>
- Centro México Digital (2022). Panorama de la brecha de género en el acceso, asequibilidad y usos de la banda ancha y las competencias digitales en México. Available at: <https://centromexico.digital/wp-content/uploads/2022/11/reporte-brecha-de-genero.pdf>
- Cerf, V. (2012). Internet Access Is Not a Human Right. *The New York Times*. Available at: <https://www.nytimes.com/2012/01/05/opinion/internet-access-is-not-a-human-right.html>.
- Corte Interamericana de Derechos Humanos (1988). *Velásquez Rodríguez vs. Honduras*. Fondo, serie C, num. 4, parr. 165.
- Cotino, L. (2012) *El derecho a la educación como derecho fundamental*. Madrid: Centro de Estudios Políticos y Constitucionales.
- Cotino, L. (2020) Online-Offline. Las garantías para el acceso a internet y para la desconexión, bloqueo, filtrado y otras restricciones de la red y sus contenidos. *Revista de Derecho Político* (vol. 1) (108) pp. 13-40 Available at: <https://doi.org/10.5944/rdp.108.2020.27991>
- Costa Rica's Supreme Court of Justice (2010). Sentence 12790-2010. Available at: https://docs.google.com/document/d/1_n7anxwm9Cd4fJT-rP6zt1vvjHMnA0DFibTV-AMmCg0/edit.
- Custers, B. (2022). New digital rights: Imagining additional fundamental rights for the digital era. *Computer Law and Security Review*. (vol. 44) Available at: <https://doi.org/10.1016/j.clsr.2021.105636>
- Díez-Picazo, L. (2005). *Sistema de Derechos Fundamentales*. Madrid: Civitas.
- Eighth District Court in San Luis Potosí (2019). Judicial Proceeding (Amparo) 365/2019-IV.
- Eighth District Court in San Luis Potosí (2020). Sentence of the Judicial Proceeding (Amparo) 649/2020. Available at: http://sise.cjf.gob.mx/SVP/word1.aspx?arch=2071/2071000027028774027.pdf_1&sec=Diego_Galeana_Jimenez&svp=1

- Elósegui, M. (2003). *Las acciones positivas para la igualdad de oportunidades laborales entre mujeres y hombres*. Madrid: Centro de Estudios Políticos y Constitucionales.
- European Electronic Communications Code (2018). Directive (EU) 2018/1972 of 11 December 2018 establishing the European Electronic Communications Code [2018], published on the Official Journal of the European Union on December 17, 2018.
- European Union (2016). Council of Europe - Recommendation (2016) 5 of 13 April 2016 Recommendation of the Committee of Ministers to member States on Internet freedom num. 5.2. Available at: https://search.coe.int/cm/Pages/result_details.aspx?ObjectId=09000016806415fa#_ftn.
- European Union (2022). Council Regulation 2022/1925 of 14 September 2022 on contestable and fair markets in the digital sector and amending Directives (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act) [2022] OJ L265/1.
- Fossas, E. (1993). *El derecho de acceso a los cargos públicos*. Madrid: Tecnos.
- Fifth District Court in San Luis Potosí (2021). Judicial Proceeding (Amparo) 325/2021.
- Galperin, H. (2020). *Granularity: The study of digital inequalities at the local level* (LSE Department of Media and Communications). Available at: <https://www.youtube.com/watch?v=WZcqw-0uAUc&t=7s>
- García-Mora, F. & Mora-Rivera, J. (2007). Exploring The Impact Of Internet Access On Poverty: A Regional Analysis Of Rural Mexico. *New media & society journal*, vol. 25 (1) pp. 26-49 Available at: <https://journals.sagepub.com/doi/pdf/10.1177/14614448211000650>
- García, P. (2012). *El derecho de acceso a internet. Sociedad Digital y Derecho*. Madrid: Boletín Oficial del Estado.
- Instituto Federal de Telecomunicaciones (2021). Acuerdo mediante el cual el Pleno del Instituto Federal de Telecomunicaciones establece los parámetros de banda ancha. *Diario Oficial de la Federación*. (México).
- Instituto Nacional de Estadística y Geografía (2015). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2015/>
- Instituto Nacional de Estadística y Geografía (2016). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2016/>
- Instituto Nacional de Estadística y Geografía (2017). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2017/>

- Instituto Nacional de Estadística y Geografía (2018). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2018/>
- Instituto Nacional de Estadística y Geografía (2019). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2019/>
- Instituto Nacional de Estadística y Geografía (2020). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2020/>
- Instituto Nacional de Estadística y Geografía (2021). Encuesta Nacional sobre Disponibilidad y Uso de Tecnologías de la Información en los Hogares Available at: <https://www.inegi.org.mx/programas/dutih/2021/>
- Jiménez, J. (1999). Derechos fundamentales, concepto y garantías. Madrid: Trotta.
- Limburg Principles (1986). Implementation of the International Covenant on Economic, Social and Cultural Rights.
- Lucena, I. (2014). El Derecho de Acceso a Internet y el Fortalecimiento de la Democracia. *Revista Internacional de Pensamiento Político* (vol. 9) pp. 386-398 Available at: http://rabida.uhu.es/dspace/bitstream/handle/10272/10733/El_derecho_de_acceso_Internet.pdf?sequence=2
- Martínez, M. (2018). Acceso y uso de tecnologías de la información y comunicación en México: factores determinantes. *Revista de Tecnología y Sociedad*. (vol. 14) http://www.udgvirtual.udg.mx/paakat/index.php/paakat/Article/view/316/pdf_1.
- Mathiesen, K. (2012). The Human Right to Internet Access: A Philosophical Defense. *International Review of Information Ethics*. (vol. 18) Available at: <https://informationethics.ca/index.php/irie/Article/view/299/297>
- Mexican Constitution (1917, last amendment 2022). Constitución Política de los Estados Unidos Mexicanos, published on the Diario Oficial de la Federación on February 5, 1917, last amendment November 18, 2022.
- Mexican Federal Telecommunications and Broadcasting Law (2014). Ley Federal de Telecomunicaciones y Radiodifusión, published on the Diario Oficial de la Federación on July 14, 2014, last amendment May 20, 2021.
- Mexican Supreme Court of Justice (2017a). Flujo de información en red electrónica (Internet), Principio de restricción mínima posible. *Gaceta del Semanario Judicial de la Federación*, Tenth Era, June 2017, t. II, p. 1433. Thesis 2a. CII/2017 (10a).

- Mexican Supreme Court of Justice (2017b). Libertad de expresión y opinión ejercidas a través de la red electrónica (internet). Restricciones permisibles. *Gaceta del Semanario Judicial de la Federación*, Tenth Era, June 2017, t. II, p. 1439. Thesis 2ª CV/2017 (10ª).
- Mexican Supreme Court of Justice (2018). Derechos de las niñas, niños y adolescentes para el Estado de Aguascalientes. El hecho de que el artículo 13, fracción XX, de la ley relativa, reconozca a los menores el derecho de acceso a las tecnologías de la información y comunicación, no conlleva el acceso a cualquier contenido. *Gaceta del Semanario Judicial de la Federación*. Tenth Era, Book 50, January 2018, t. I, p. 534. Thesis 2a. IX/2018 (10a.).
- Mexican Supreme Court of Justice (2019). Sentence of the Judicial Proceeding Review (Amparo en Revisión) 1005/2018.
- Network Working Group, A. Marien *et al.*, (1994). *Answers to Commonly asked "New Internet User" Questions, Request for Comments 1594*. Available at:
<https://dl.acm.org/action/downloadSupplement?doi=10.17487%2FRFC1594&file=rfc1594.txt>
- Observacom *et al.* (2020). Estándares democráticos para regular las grandes plataformas de Internet. Available at: <https://www.observacom.org/wp-content/uploads/2021/02/Estandares-democraticos-para-regular-las-grandes-plataformas-de-Internet.pdf>.
- OECD (2006). Rethinking Universal Service for a Next Generation Network Environment. *OECD Digital Economy Papers*. Available at: <http://dx.doi.org/10.1787/231528858833>.
- Orbegoso, M. (2021). Realización y aseguramiento de los derechos humanos. Un análisis a partir del artículo 1º de la CPEUM. *El artículo 1º constitucional. Una teoría de los derechos humanos*. México: UNAM
- Papakonstantinou, V. (2022). Cybersecurity as praxis and as a state: The EU law path towards acknowledgement of a new right to cybersecurity? *Computer Law*. (vol. 44) Available at: <https://doi.org/10.1016/j.clsr.2022.105653>.
- Pérez, A. (2005). Derecho y Nuevas Tecnologías: Impacto en las Libertades. *Revista de la Facultad de Derecho de la Universidad de Granada*. (vol. 8) pp. 227-255.
- Pérez, P. (2004). *El recurso de Amparo*. Valencia: Tirant lo Blanch.
- Pouillet, Y. (2000). Some considerations on cyberspace law. *The International Dimensions of Cyberspace Law*. Burlington: UNESCO.
- Prieto, L. (1990). Estudios sobre derechos fundamentales. Madrid: Debate.

- Scheerder, A., van Deursen, A., van Dijk, J. (2017). Determinants of Internet skills, uses and outcomes. A systematic review of the second- and third-level digital divide. *Telematics and Informatics*. (vol. 34) (8) p. 1607-1624
- Skepeys, B. (2012). Is There a Human Right to the Internet? *Journal of Politics and Law*. vol. 5 (4) pp. 15-29 Available at: <https://www.ccsenet.org/journal/index.php/jpl/Article/view/22541>.
- Tomasevski, K. (2004) El asalto a la educación. *Colección Libros de Encuentro*. Barcelona: Intermón Oxfam Editorial.
- UNESCO (2003). Recomendación sobre la promoción y el uso del plurilingüismo y el acceso universal al ciberespacio. (aprobada en la 32ª Conferencia General de la UNESCO en París). Available at: https://es.unesco.org/sites/default/files/spa_-_recommendation_concerning_the_promotion_and_use_of_multilingualism_and_universal_access_to_cyberspace.pdf.
- United Nations (UN) Special Rapporteur on Freedom of Opinion and Expression, Organization for Security and Co-operation in Europe (OSCE) Representative on Freedom of the Media, Organization of American States (OAS) Special Rapporteur for Freedom of Expression and African Commission on Human and Peoples' Rights (ACHPR) Special Rapporteur on Freedom of Expression and Access to Information (2011). Joint Declaration on Freedom of Expression and the Internet.
- United Nations and Human Rights Council (2018). Promotion, protection and enjoyment of human rights on the Internet.
- United Nations Committee on Economic, Social and Cultural Rights (1990). The nature of States parties' obligations. (Article 2, para. 1)
- van Deursen, A. and van Dijk, J. (2014) The digital divide shifts to differences in usage. *New Media & Society* (vol. 16) (3) p. 507–526.
- van Dijk, J. (2020). Closing the Digital Divide - The Role of Digital Technologies on Social Development, Well-Being of All and the Approach of the Covid-19 Pandemic. Available at: <https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/07/Closing-the-Digital-Divide-by-Jan-A.G.M-van-Dijk-.pdf>.
- Vázquez, L. (2011). Los principios de universalidad, interdependencia y progresividad. Apuntes para su aplicación práctica. *La reforma constitucional de derechos humanos: un nuevo paradigma*. México: UNAM.
- Voitsikhovskiy, A., Bakumov, O., Ustymenko, O., and Syroid, T. (2021). The Right of Access to the Internet as Fundamental Human Right given the

Development of Global Information Society. *The Law, State and Telecommunications Review*. vol 13 (1) pp. 1-19.

The Law, State and Telecommunications Review / Revista de Direito, Estado e Telecomunicações

Contact:

de Brasília - Faculdade de Direito - Núcleo de Direito Setorial e Regulatório
Campus Universitário de Brasília
Brasília, DF, CEP 70919-970
Caixa Postal 04413

Phone: +55(61)3107-2683/2688

E-mail: getel@unb.br

Submissions are welcome at: <https://periodicos.unb.br/index.php/RDET>