

ARTICLES

Children's vulnerability, right to the city, digital culture, and education in the context of the COVID-19 pandemic

Vulnerabilidade de crianças, direito à cidade, à cultura digital e à educação no contexto da pandemia da covid-19

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Abstract

The COVID-19 pandemic demanded emergency measures for the continuity of family dynamics, educational processes, and work. Several rights traditionally upheld by social movements were threatened, such as the right to the city, health care, and education. A context characterized by social isolation saw increased children's vulnerability related to digital culture. This article aims to discuss how to address children's vulnerability, relating it to the right to the city and education in the context of the COVID-19 pandemic. This is an online and analytical qualitative, exploratory research using bibliographic research and institutional documents and reports. The results indicate the importance of the roles of public authorities, the school (through teacher training and curriculum), and the family as elements that propose, facilitate, and enable strategies for addressing this issue.

Keywords: children's vulnerability, digital culture, right to the city, pandemic, education

Resumo

A pandemia de covid-19 exigiu ações emergenciais para a continuidade da dinâmica familiar, de processos educacionais e de trabalho. Muitas questões tradicionalmente reivindicadas pelos movimentos sociais foram ameaçadas, tais como o direito à cidade, à saúde e à educação. Em um contexto caracterizado pelo isolamento social, houve o aumento da vulnerabilidade de crianças relacionada à cultura digital. Este artigo objetiva discutir o enfrentamento da vulnerabilidade de crianças, tecendo relações com o direito à cidade e à educação no contexto da pandemia de covid-19. Trata-se de uma investigação qualitativa, exploratória online e analítica, com a utilização da pesquisa bibliográfica, além da consulta a relatórios e a documentos institucionais. Os resultados apontam para a importância do papel do poder público, da escola (através da formação de professores e do currículo) e da família, como elementos propositores, facilitadores e potencializadores das estratégias de enfrentamento desta problemática.

Palavras-chave: vulnerabilidade de crianças, cultura digital, direito à cidade, pandemia, educação

Chart 1

List of abbreviations and acronyms

VLE	Virtual Learning Environment
Cetic.br	Regional Center for Studies on the Development of the Information Society
COVID-19	Coronavirus Disease 2019
ECA	Statute of the Child and Adolescent
EOE	Emergency Online Education
ERE	Emergency Remote Education
PHEIC	Public Health Emergency of International Concern
AI	Artificial Intelligence
IBGE	Brazilian Institute of Geography and Statistics
INEP	Anísio Teixeira National Institute for Educational Study and Research
ITU	International Telecommunication Union
LGPD	General Data Protection Law
WHO	World Health Organization
PAHO	Pan American Health Organization
PNAD	Annual Household Sample Survey
HDA	Health in the Digital Age
SBP	Brazilian Society of Pediatrics
DICT	Digital Information and Communication Technologies
ICT	Information and Communication Technologies
UNICEF	United Nations Children's Fund

Introduction

Several rights, traditionally claimed by social movements, were threatened by the COVID-19 pandemic, such as the right to the city, health care, and education. Social distancing, established as a necessity during periods of worsening of the pandemic, led children to spend more time at home with their immediate family, which, in principle and from a certain perspective, implied a denial of their right to the city. At the same time, depending on the family structure and the quality of the bond in relationships, in any socioeconomic class, the increased time at home became proportional to the increased susceptibility to vulnerability. In these cases, access to digital culture, instead of representing higher exposure to situations of vulnerability, represented a protective tool, as it reduced isolation and enabled a degree of social surveillance of situations of vulnerability. Even from a broader perspective, access to digital culture during the pandemic provided other means of exercising the children's right to the city. We take as a concrete example the possibility of continuity of classes in online mode and, consequently, creation of a relationship between school and family, between child and city, and, in a way, "surveillance" of their (physical, existential, moral, etc.) health. However, we know that access to digital culture was very unequal, through the different socioeconomic situation of families, which was widely questioned by social movements in general.

In a country where several children have precarious access to housing, lacking elementary rights such as basic sanitation, internet access may seem secondary to these families. However, during the pandemic, the internet enabled access to education and the exercise of the right to the city from an expanded perspective of digital culture.

We note that, specifically referring to the right to the city, this notion developed in a historical context marked by social movements in 1968 in France. That was the year in which the Marxist philosopher and French sociologist Henri Lefebvre (1901–1991) wrote the book *Droit à la ville* (Lefebvre, 2001).

According to Lefebvre (2001), the city is a space of contradictions in modernity (and in the present), inherent to the dynamics of capitalist (and neo-capitalist) production. For the philosopher, the most relevant aspect of the city is not its material product, but the fact that it is a historical work, produced by people and social groups within historical conditions. "If there is a production of the city, and of social relations in the city, it is a production and reproduction

of human beings by human beings, more than a production of objects” (Lefebvre, 2001, p. 52, our translation). According to Vasconcelos et al. (2022, p. 207, our translation):

Lefebvre criticized the capitalist mode of production, which reproduced an urban space oriented toward profit, guided by market relations, and which concealed the nature of the city as a place for encounter, discovery, leisure, art, and sociability. Hence, which promoted the reification of people, turning them into objects and commodities.

From this perspective, and emphasizing the importance of the right to the city as a legitimate agenda for social movements, the “right to the city is manifested as a superior form of rights: the right to freedom, to individualization in socialization, to the habitat and to inhabiting” (Lefebvre, 2001, p. 134, our translation). This perspective also includes the right to its production (“the right to the work,” “to participatory activity”) and the right to appropriation (“distinct from the right to property”) (Lefebvre, 2001).

Digital culture can provide children, through the interaction between families and schools, the possibility of expanding the right to the city, especially during periods of social isolation. On the other hand, we present the position that digital culture, even in the pandemic context, can have positive and negative aspects in children’s development, depending on how it is used and experienced by family members, with parental practices as a fundamental protective dimension.

Digital information and communication technologies (DICT) and the internet as an interactive space, in particular, have become basic tools for communication and access to information in facing the demand for social isolation imposed by the COVID-19 pandemic. At the same time, this pandemic context increased the impact of children’s vulnerability to digital culture. These impacts, albeit intensified, were already known before the pandemic, including threats to personal data protection and privacy, harassment and cyberbullying, harmful online content, sexual grooming and exploitation (International Telecommunication Union [ITU], 2021).

Considering such issue, this article aims to discuss how to address children’s vulnerability within the scope of digital culture, the right to the city, and education in the context of the COVID-19 pandemic. The reflections presented here initially arose from observation and lived experience of the COVID-19 pandemic, subsequently unfolding into the analysis of

official institutional documents. The adopted methodology was characterized as qualitative, from an online exploratory and analytical perspective (Braun et al., 2017; Kramer et al., 2019; Nind et al., 2016; Taquette & Caldas, 2012), in addition to the use of bibliographic research and research in official reports and institutional documents.

Vulnerability, conceptual developments, and legal frameworks

This section presents the concept of vulnerability and its derivations, in addition to the frameworks in Brazilian legislation related to the protection of children within the scope of digital culture.

The concept of *vulnerability* is relevant for discussing the importance of parental practices as a protective dimension in child development in the pandemic context, as, according to Macedo et al. (2012, p. 116, our translation), it is a concept that generates “a spectrum of situations in which there is the possibility of an individual being harmed in their rights or interests.”

The altered social dynamics imposed by the COVID-19 pandemic worsened situations of socioeconomic vulnerability, as well as others, including in particular the increased immoderate use of DICTs and inadequate exposure to digital culture. There was also increased additional damage for those considered *vulnerable*, as in the case of children who were already exposed to excessive domestic work, before social isolation, which was intensified.

Therefore, it is appropriate to make an important distinction between *vulnerable* and *susceptible*, or, in other words, between *susceptibility* and *vulnerability*. According to Schramm (2012), *susceptibility* is situated between mere *vulnerability* and effective *vulnerability*, indicating something that can be considered responsible for (or the cause of) a probable *vulnerability*. It would also be the case of youth who find themselves forced, due to the imposition of social isolation, to spend more time with their abusers.

The term *vulnerability*, in turn, also needs to be differentiated from the term *vulnerability*, as it distinguishes something that is in potential from something that is in act. Schramm (2012, p. 38) clarifies: “‘Vulnerability’ refers to the condition of one who *can be* ‘hurt’ (or ‘traumatized’),

whereas ‘vulneration’ specifically refers to the condition of one who *is already* hurt (or traumatized).”

Regarding the distinction, for children, between *vulnerable subjects* and *incapable subjects*, Rego and Palácios (2012, p. 136, our translation) consider that “this distinction is important, since, if we consider them incapable, we remove from them the possibility of determining which actions they will undertake.” Except for preschoolers, whose developmental stage makes autonomous choices impossible, in the use of DICT, for example, the gradual development of child autonomy should be considered. It is precisely the assumption that human development undergoes progressive autonomy that allows us to think about the concept of *digital literacy*, which refers to the acquisition of skills that can mitigate vulnerability in the sphere of digital culture.

In principle, protection, according to Schramm (2012, p. 52, our translation) “would always be in conflict with the autonomy and capacity (or empowerment) of people, who should always be given the competence to make free and autonomous decisions about their lives – a fundamental human right.” But, as children’s autonomy is respected, the protective attitude ceases to be limited only to restrictive behaviors and also comes to mean the development of successive ethical decisions. “For ethical decision-making, we need not only freedom of choice, but also the capacity for reflection and knowledge of the situation – conditions that allow us to exercise autonomy and the consequent responsibility for the choices made” (Macedo et al., 2012, p. 122, our translation).

The discussion of the conception of vulnerability and its derivations is important for thinking about the notion of protection, which is one of the most important characteristics of parental practices. However, the protection intended in parental practices should not be confused with mere paternalism, which in theory would increase, for example, the vulnerability of the vulnerable subject within digital culture. The protective attitude of parenting practices should contribute to the development of autonomy in children and adolescents, so they become ethically responsible adults, that is, with the capacity for reflection to make ethical decisions.

One of the issues that interferes with the effective implementation of the protective attitude of parental practices within the digital culture is that parents do not always have the knowledge and skills to deal with situations of vulnerability, compromising the protection of

those they should protect. In these cases, we can speak of *double vulnerability*. According to Macedo et al. (2012, p. 119, our translation): “If the one who should care for the child is also vulnerable, unable to do so, the child becomes doubly vulnerable.”

Although the scope of the concept of *double vulnerability* is expanding to the protective attitude within the sphere of digital culture, this is a condition in which other vulnerability factors, such as “family unemployment, poverty, and lack of political, social, cultural, and/or economic power, are often found among those responsible for needy children” (Macedo et al., 2012, p. 118, our translation).

In Brazil, the child protection legal framework is the Statute of the Child and Adolescent (ECA) (Law No. 8.069 of July 13, 1990), which is based on the Brazilian Federal Constitution (1988), which ensures, in Article No. 227, the integral protection of children and adolescents as a priority.

The ECA establishes that children and adolescents have the right to protection of life and health, with healthy and harmonious development (art. 7). At the same time, it establishes that the family, the community, society in general, and public authorities have the duty of ensuring the effectuation of their rights (Article 4). Thus, parental care and protection practices in relation to the vulnerability of children and adolescents in the digital culture environment must be understood within a support network, which involves the community, with the school as an important entity, and the State, through public policies.

The main Brazilian legal frameworks related to the protection of children and adolescents in the digital culture are based on the Brazilian Constitution of 1988. The ECA has article 241, which addresses crimes related to internet use, whose text was provided by Law no. 11,829 of November 25, 2008. The Internet Civil Framework (Law No. 12,965 of April 23, 2014), in Article 29, addresses the exercise of parental control over digital content for minors. In the lack of a specific law to characterize cyberbullying, Law No. 13,185 of November 6, 2015, which addresses bullying, is used as a reference. Finally, Law No. 13,709 of August 14, 2018, known as the General Data Protection Law (LGPD), in Article No. 14 addresses the processing of personal data of children.

Recently, Brazil approved historic legislation that updates the Statute of the Child and Adolescent for the virtual environment: Law No. 15.211/2025. Popularly known as the Digital

ECA (Digital Statute of the Child and Adolescent), it came into effect in March 2026, placing Brazil at the forefront of digital protection. In practice, the focus has shifted from the exclusive duty of parents to a shared responsibility among family, the State, and companies that provide information technology products and services. With the objective of protection in the digital environment, there was the establishment of norms for preventing and addressing the violation of children and adolescents, rules for the operation of social networks, protection against commercial exploitation, mandatory control tools for parental supervision, as well as accountability for platforms that allow child exploitation and adultification.

Contextualizations about the COVID-19 pandemic: social isolation, family, school, right to the city

This section presents a contextualization of the social transformations, with implications in the family sphere, arising from the COVID-19 pandemic. Emphasis is placed on the implications of social isolation within the family, the lack of right to the city in this context, and the changes in education with the suspension of in-person classes for children.

The year 2020 marked human history with a public health emergency of global proportions. In January of that year, a new type of human coronavirus was confirmed, responsible for the disease designated as COVID-19. On January 30, the World Health Organization (WHO) declared the outbreak a Public Health Emergency of International Concern (PHEIC). In early March, due to the geographical distribution of the disease, the WHO characterized the situation arising from the disease as a pandemic (Pan American Health Organization [PAHO], 2020).

As it is an infectious respiratory disease, initially without a developed vaccine, one of the main strategies adopted, in addition to widespread testing and the use of protective masks, was social distancing. It presented an ambiguous connotation in its socioeconomic profile. For the part of the world population with internet access, social isolation paradoxically implied greater social exposure and an expansion of social relationships through digital tools. Therefore, internet access has come to be seen as an important parameter of social inclusion.

The right to the city is an issue that is traditionally addressed by social movements, and it was not silenced in the face of just claims for the right to health and education during the COVID-19 pandemic. Because it was a period of greater social vulnerability, this claim became even more urgent (Araújo et al., 2020; Falcão, 2022; Freitas, 2021; Farage & Barros, 2022; Pacheco & Pacheco, 2024; Ruschel et al., 2022).

An important issue to be addressed when discussing the COVID-19 pandemic and the periods when social distancing was necessary is the right to the city, while also maintaining the just claims as to the right to health and education. Studies such as Pimenta and Martins (2022) present technological devices as having an important role in initiatives to address the conditions imposed by the pandemic, including those that relate to the right to the city. The study of Nóbrega (2020) addresses the right to the city during a life stage that naturally presents a character of vulnerability: old age.

We think that the urban is not something external to who we are; on the contrary, it is part of and constitutes who we are, because, according to Lefebvre (2001, p. 117, our translation): “Urban ones carry the urban with them, even if they do not carry urbanity!” It is important to emphasize that the author refers to the relation between the city and the countryside. However, his statement makes us reflect: how much of the city, translated into needs, adults, adolescents, and children, leads to social isolation, in pandemic situations that tend to repeat on a global scale at other historical moments? Thus, it seems fundamental to us the idea that the right to the city “can only be formulated as a *right to urban life*, transformed, renewed” (Lefebvre, 2001, pp. 117-118, our translation).

The fact is that this production of the city and its contradictions were not suspended by social distancing and the limitation of physical access to the city. And what happened is that this production of the city continued functioning in other dimensions of social functioning, including digital culture. Thus, in the case of families who did not have internet access during social isolation in the COVID-19 pandemic, we can speak of a double denial of the right to the city.

The pandemic context required adaptations and experimentation with strategies at various levels – economic, familial, and educational. Families felt from the economic impact and its repercussions to increased family togetherness, which was not always followed by closer

bonds. However, one of the changes that most impacted them occurred in the educational aspect, with the closure of in-person classes, as, according to the Regional Center for Studies on the Development of the Information Society (Cetic, 2020a, p. 9, our translation):

The health emergency generated by the pandemic caused the closure of schools throughout the national territory, with significant impacts on the development of teaching and learning processes. The isolation measures and remote classes moved the classroom into the homes of students and teachers, while digital resources became the main means of interaction between schools and families. In most states and municipalities, classes were converted to non-classroom activities.

According to data from the Datafolha Institute, 4 million Brazilians dropped out of school, at some level of education, during the pandemic. The poorest segment of the surveyed population cited financial reasons and lack of access to technological means that enable remote learning (Souza, 2021). The Continuous National Household Sample Survey indicated that, before the pandemic, 25.4% of Brazilian households did not have internet access due to the high cost of the service (Brazilian Institute of Geography and Statistics [IBGE], 2018).

Data from the Datafolha Institute, collected between November and December 2020, indicated that, specifically regarding elementary school, about 4.6% of students interrupted their school routine during the pandemic (Souza, 2021). During the two years of the pandemic, according to data from the Anísio Teixeira National Institute for Educational Study and Research (INEP), approximately 38 million students from public institutions were without access to education for the equivalent of one and a half school years, or 287 days (National Confederation of Education Workers [CNTE], 2022).

Contradictorily, children, by spending more time at home, become more vulnerable to domestic violence, especially girls. The closure of schools, resulting from the pandemic context, increased the vulnerability of children and adolescents precisely because they started to spend more time at home. The implementation of so-called emergency remote education (ERE), or emergency online education (EOE), reduced the isolation of these families, as it maintained contact with the school, an important social institution. Thus, the maintenance of the protective support network became even more necessary.

The greater the socioeconomic vulnerability of families with children and adolescents, the less access they have to school education. In general, in the pandemic context, especially during quarantine periods, these children and adolescents did not have access to the formal education system, mainly when it prioritized access to education through DICTs, requiring internet access equipment.

If, before the COVID-19 pandemic, most schools imposed restrictions on the use of DICTs by their students, during the pandemic period these technologies became a basic condition for access to school for students and their families. Several schools, especially at the beginning, operated based on the idea of transposing the in-person teaching model to the virtual mode, which showed the contradiction between “pedagogical discourse” and “pedagogical practice,” previously masked by the school walls, and which was made explicit by the exposure of daily school routine through the use of DICTs during the quarantine period. Before the use of virtual learning environments (VLEs) or virtual platforms (like Google Classroom, Classroom, and Microsoft Teams), as a transition to these, it became very common the use of meeting applications (like Zoom or Google Meet). Due to uncertainty, schools informed that they were not “virtual classes” but “pedagogical meetings,” and later, with the requirement to count school days, these were considered virtual or remote classes.

A study by Dreesen et al. (2020) recommends that, in order to reach a larger number of families, given digital exclusion, ERE/EOE needs to occur through strategies that access various media or channels, such as radio, TV, *take-home*, family visits, and digital media itself, as found by Cetic (2020a, p. 11):

The delivery of books and workbooks by the Departments of Education was one of the strategies adopted to ensure that students – especially those from the most vulnerable segments of the population without access to devices and networks – had access to educational materials and activities during the pandemic.

This is a piece of data that clearly shows the social inequality and unequal access to information in Brazil. Studies show that among students aged 6 to 15 years enrolled in private schools, school apps were the most used; whereas among students enrolled in public schools, the use of printed materials was cited more frequently (57%) than the use of school or Department of Education apps (50%) (Cetic, 2020a).

We also understand that the lack of a structure at home, or of an adequate space, is a factor of vulnerability, as it implies a reduced boundary between public participation in classes and the private lives of users.

In fact, teaching with the use of DICTs presents an ambiguity regarding the vulnerability of children. If, on the one hand, it helps address the vulnerability of these youth who end up spending more time at home – by creating some degree of supervision by an external agent, such as the school –, on the other hand, it exposes them to another type of vulnerability, making us question the digital security of these users. According to Dreesen et al. (2020), the increasing use of the internet for remote learning increases the risks of online exposure, including sexual exploitation, harmful content, inappropriate data sharing, and cyberbullying. Due to these other types of vulnerabilities, providing ERE/EOE is not sufficient to guarantee neither the protection nor even the inclusion of school-aged children and adolescents in the context of the pandemic. It is necessary to mobilize support networks in order to encourage the participation of parents and caregivers, providing them with the necessary support to act within digital culture.

Digital culture and child protection practices

This section aims to critically situate protective practices within the context of digital culture in times of pandemic, taking the school as an important partner within the support network for families.

Parenting practices are of fundamental importance within healthy familial dynamics, in order to provide to its members the development of affective bonds in the construction of their individuality and autonomy. Parenting practices provide the first model and exercise of care, education, and protection for the development of individuals.

It is considered natural that the parents' direct action over their children gradually decreases as they develop, gain autonomy, and reach adulthood. In this period of life, parental practices influence, among other aspects, the family rhythm and the establishment of routine (Stirbulov & Laviano, 2015).

As an exercise in reflection on parental protective practices, we take the parents' role in mediating children's access to the city. The access to the city is not reduced to the citizen's interaction with public and collective physical spaces. But, above all, it concerns the social and cultural relations mediated in these spaces. In the specific case of children, beyond providing relational and cultural enrichment, it can also leave them exposed to situations of vulnerability. In this sense, and as an example of this issue, we cite article no. 75 of the ECA (*Law no. 8.069 of July 13, 1990*). At first, the law states that: "Every child or adolescent shall have access to public entertainment and shows classified as suitable for their age group" (art. 75, our translation). Immediately after, in a single paragraph, we have: "Children under ten years of age may only enter and remain in show or exhibition venues when accompanied by their parents or guardians" (art. 75, our translation). That is, given the inherent risks of public spaces, those responsible for them must act in a preventive and protective manner.

Just as access to the city, in the conventional physical mode and its social relations, can imply various risks and situations of vulnerability to children, access to the virtual world can also be fraught with threats, not always considered.

With the rise of digital culture, resulting from the development of DICTs, behaviors, values, ways of communicating, and ways of interacting have changed, such that family dynamics have been greatly influenced and transformed. This context required the adaptation of parental practices to a new context.

The influence of digital culture on family dynamics has occurred early, despite unequal access, and is not a result of the social isolation that occurred during the pandemic, although it has intensified since then. According to Pangrazio and Cardozo-Gaibisso (2020), internet use by children has grown in the last decade, occurring increasingly earlier.

With contextual data from 11 countries, published before the pandemic, in 2019, Kardefelt-Winther et al. (2019) acknowledge that the increased and expanded access to DICTs also increase exposure to online risks.

The Brazilian Society of Pediatrics (SBP) has been releasing documents aimed at promoting the health and well-being of children in constant contact with DICTs, such as smartphones, computers, and tablets. The Practical Guide for Update – Working Group: Health in the digital age – #NoAbuse #MoreHealth (SBP, 2021) guides pediatricians, parents, and

teachers about DICTs, social networks, and the internet and their influences on children's health and behaviors, and characterizes the various forms of online violence and abuse to which children are vulnerable, in the face of the

lack of digital ethics, education, and citizenship – omission, silence, abandonment, indifference, lack of “time,” lack of rules of respect in family, school, community interactions, or more broadly in a social network or internet application, it is necessary to emphasize the need for warnings by pediatricians and accountability of security, privacy, and social protection networks (SBP, 2021, p. 5, our translation).

According to the SBP (2021), children, due to their vulnerability and often lack of discernment about the consequences of their exposure, are at risk of becoming victims of online violence and abuse, such as: *nudes*, *sexting*, sextortion, virtual rape, *grooming*, pornography networks, pedophilia networks, *sharenting*, pranks, dangerous challenges, *phishing*, *deep fakes*, *porn revenge*, *flaming* or *online* provocation, *cyberstalking*, cyberbullying.

The Cetic survey (2020b), “TIC Kids Online Brasil,” on internet use by children in Brazil, with a sample of 2,954 subjects, collected from October 2018 to March 2019, before the COVID-19 pandemic, indicates a significant percentage of children exposed to situations of vulnerability. For example, in the last 12 months before the date of the survey, 22% of users aged between 11 and 17 years had been exposed to violent or very bloody scenes; 15%, to methods of committing suicide; 18% received messages with sexual content. Another striking piece of data is that 43% of these users aged between 9 and 17 years witnessed someone being discriminated against online during this period. Kardefelt-Winther, Livingstone, and Saeed (2019) note that exposure to risks in digital culture does not need to cause harm, which will depend on parental guidance and support.

Data from the “TIC Kids Online Brasil” survey (Cetic, 2020b) indicate that, although 80% of parents said they talk about what their child does on the internet, only between 50% and 55% said they perform checks related to browsing history, social media, emails, and contacts added to social networks.

The rise of a new educational environment configuration, with the use of DICTs, during quarantine showed the families' lack of guidance on limits and perception of ethical dimensions or vulnerabilities within the sphere of digital culture. However, a large part of the schools did

not have answers or guidance for families on this issue. Initially, many believed that the return to classes would occur soon, and when they realized there would be no quick return, they had to respond to the established demand without the necessary ethical preparation, as recorded by CETIC (2020a, pp. 16-17):

With the closure of schools and children and adolescents having contact with educators and other individuals responsible for their social and cognitive development by remote means, families came to assume the responsibility for monitoring the students' educational routine at home. Thus, the measures for adaptation to the period of social isolation imposed new challenges on parents or guardians in mediating the online activities of their children or wards.

There is a context of double vulnerability when, both at school and in the family, there is a lack of adoption of protective measures regarding the use of digital technologies. These are aspects related to privacy, the right to one's image, among others, as well as protection mechanisms. As children who access the internet are represented by adults who do not have a critical understanding of the risks of using DICTs, they can be considered doubly vulnerable. In other words, the condition of vulnerability is also related to the families' lack of preparation to ensure protection in the context of digital culture.

According to Pangrazio and Cardozo-Gaibisso (2020), online risks and opportunities are usually interconnected. Kardefelt-Winther et al. (2019) argue that time spent on entertainment activities or social media aids in the improvement of important digital skills. According to researchers, the goal should not be the restriction of time or specific activities, but rather to help children and adolescents become critical and resilient internet users, based on an understanding of what children are seeing and doing online, as noted by Alves and Torres (2017, p. 187, our translation):

When referring to children and adolescents, control is fundamental, but not in an authoritarian manner, but in a negotiated way, favoring the creation of interaction strategies and jointly building indicators that emerge from cultural protocols, values, interests, and desires of each family unit, rejecting the idea of pathologizing the new, the different, what we do not know, but learning to interact.

The latest edition of the “TIC Kids Online Brasil” survey (Cetic, 2025), conducted after the pandemic, with data from 2024, shows that, in the post-pandemic context, the internet has consolidated as a space of constant use by children and adolescents, predominantly via mobile phone, in addition to the emergence of new risks and/or opportunities such as artificial intelligence (AI), disinformation, and algorithmic advertising. Regarding the access location, almost all (99%) of children and adolescents accessed the internet within their own homes, or at the homes of third parties (89%). More than 90% of the adolescents aged between 15 and 17 years (93%) report owning their own cell phone. Among internet users aged 9 to 17 years, about 83% had a profile on at least one digital platform. Regarding parental supervision, it was found that three out of ten internet users aged between 9 and 17 years have guardians who use resources to block or filter access to websites, app downloads, and contact through voice calls or messages.

The school, even in its virtual version, mediated by DICTs, is dedicated to teaching-learning and human development (Belo, 2014). Thus, in these environments, children need to feel safe and assured. Appropriate protective measures should be taken to establish an environment of trust and respect in the teaching-learning process. One issue with online classes is that the virtual learning environment extends into the students’ homes, implying that parents must be responsible for ensuring it is a safe environment not only for their children but also for those of other families. Children must be respected if they refuse to participate in classes using DICTs, and must also be respected if they refuse to keep the camera on. The recommendation is to seek to understand the motivations that lead the student to this behavior.

In general, these guidelines serve for children, considering each child’s level of knowledge and autonomy. According to Pangrazio and Cardozo-Gaibisso (2020), studies show that children and pre-adolescents need support to benefit from connectivity without risks and implications for their future or risking their digital rights. On the other hand, social media enables access to information, education, and social opportunities through a variety of contexts and inevitably involves the discovery and sharing of personal information. Thus, in their studies, the authors found that pre-teens operate a variety of platforms and websites, which means greater difficulty in monitoring the privacy settings of each one.

According to Pangrazio and Cardozo-Gaibisso (2020), with increasingly early access to social media, schools need to undo the rhetoric of cybersecurity in favor of a critical digital

approach, particularly regarding knowledge of social media, but they also need to involve teachers, making informed or evidence-based decisions in the classroom.

It seems prudent to us to think that the protection that can be given to children within the digital culture environment is not centered in isolation on the family, the school, or the State, for example. Addressing the vulnerability inherent in digital culture requires building a protective network formed by various agents, necessarily including the family and its parental practices. When it comes to networks, emphasis is placed on the interaction between these diverse agents, which enables not only the constitution of a protective structure and dynamics in the virtual sphere, but also the development of digital skills in children and adolescents, capable of minimizing their degree of vulnerability in digital culture.

We can address the need to develop knowledge about *social media literacies* and DICTs, in general or about cyberspace, in families as a means to protect children. While it is important to ensure the protection of children when they are on the internet and using DICTs for educational purposes, it is also necessary to ensure a certain degree of autonomy so the learning process can develop. However, we note that the children's exposure does not only occur in closed virtual environments; several schools, especially private schools, also share images and videos of children and their schoolwork on social media, such as Instagram, as a means of socializing with the families and ensure a certain marketing promotion for the school.

Dreesen et al. (2020) recommend supporting those who conduct ERE/EOE, that is, teachers, parents, and guardians, so they, in turn, can not only support learning but also provide psychosocial support to foster the safe use of DICTs. Therefore, it is argued that access to content is only the first step, and that teacher training needs to include the discussion of this issue.

Considering the vulnerability of children and adolescents to the immoderate use of technology, an interesting stance was recently taken through Law No. 15.100 of January 13, 2025, which restricts the use of personal portable electronic devices in basic education establishments to pedagogical or didactic purposes.

In fact, the daily use of internet-connected devices increased after the pandemic, leading to issues related to mental health. This issue has become widely discussed, taking up a relevant

space of social concern. Thus, the book of Jonathan Haidt (2024) achieved *bestseller* status, discussing how hyperconnected childhood is causing an epidemic of mental disorders.

In the dimension of the right to the city, we note that, from an educational point of view, access to spaces occurs both objectively and subjectively, so storytelling, games, and play also enable subjective access to spaces. These methodologies can be incorporated into ERE/EOE through pedagogical guidance given to parents, as in the case of Early Childhood Education developed during periods of social isolation. Using the virtual environment, it is also possible to enable children to access the city's cultural facilities, such as theaters and museums. This mediation can be conducted by the school, within the space of its formal education, as well as within the family, with the guidance of teachers.

Final considerations: recommendations

The issues addressed here should be discussed in teacher training (Belo, 2014) and included in the agendas of social movements, specifically emphasizing the fight against the vulnerability of children in the digital environment.

Historically, social movements, in their struggle to guarantee children's rights, especially education as a social right, have contributed to the understanding that the responsibility for the children's lives belongs to all of society. This notion of social responsibility for children removes their exclusivity from parental care. Legitimizing a critical view on parental care as a means to contribute to the protection of children, also understanding the role of other instances, such as the school and the State itself.

The context of the COVID-19 pandemic demanded emergency adaptations and initiatives that were often precarious in terms of privacy, pedagogical work, technological access, and family well-being for the continuity of familial dynamics, educational processes, and work. Teachers, students, and families began using online video conferencing platforms, applications, and VLEs in place of conventional school spaces and in-person classrooms. In this context of social isolation, there was an exacerbation of mental health issues, cyberbullying, difficulties in carrying out school activities, domestic violence, psychological fatigue caused by excessive exposure to tablet and computer screens, excessive use of DICTs, virtual orphanhood, mass

experimentation with technological resources in remote/online education, in addition to the undue exposure of children and adolescents.

The issues related to the vulnerability of children connected to the digital culture were made explicit and accelerated by the pandemic. These issues were already underway, according to the report of a survey conducted before the pandemic (Cetic, 2020a). This conjuncture led to implications for familial dynamics, whose analysis shows the importance of parental practices effectively participating in addressing children's vulnerability within the digital culture.

It is understood that the strategies for addressing this issue, which culminate in the family space, are within a complex support network, which necessarily involves the State, the school, and the family, among other entities. The Brazilian State, as demonstrated, has acted in the creation of laws that address this new status quo and in the development of specific public policies, which need to be implemented in preventive programs.

The significant initiatives of the Brazilian State's network operation include the incorporation of information from the Global Kids Online research network in the formulation of the National Broadband Plan proposed by the Government in 2010. Global Kids Online is a research network led by the London School of Economics and Political Science and UNICEF. Initiated in 2016, one of its objectives is to conduct studies on children's rights *online* on a global scale (Dreesen et al., 2020).

Another fundamental element in the family support network for addressing such challenges is the school, which has the role of going beyond the perspective of *cyber safety* and should encourage students to think critically about the use of social media (Pangrazio & Cardozo-Gaibisso, 2020). The findings of these authors show that schools based on digital education need to go beyond (or overcome) the protectionist discourse of digital security towards an approach that addresses the challenges and opportunities arising from everyday use of social media, as their use does not imply knowledge of their scope and risks. These *social media literacies* include: the representation of contextualized digital identities, understanding the implications of personal data generation, and the management and protection of privacy in network contexts. According to the authors, the conception of *digital literacy*, which can be understood as digital "literacy acquisition" or even as "digital curation," is complex, as it involves mechanisms inside and outside of school and requires the participation of various social

actors, such as teachers and families. For the authors, applying a critical approach implies understanding the quantity and quality of data shared within the social structure and how they are processed and used.

In December 2019, the SBP updated a manual providing guidelines on the health of children and adolescents in the digital age, whose first version dates back to 2016. The document (SBP, 2019) uses the term “digital intoxication prevention.” In general terms, the document reiterates and updates the recommendations of the previous publication. These recommendations are even more relevant after society underwent the COVID-19 experience.

We synthesized the recommendations directly related to parental practice: avoid exposing children under 2 years of age to screens; limit screen time for children and adolescents proportionally to their age; do not allow isolation in the bedroom with digital devices or with webcam use; encourage use in common areas of the house; disconnect from screens during meals and 1-2 hours before sleeping; offer leisure and sports alternatives outdoors or in contact with nature; do not post photos of children and adolescents on public social networks; create healthy rules for the use of digital equipment, as well as safety rules such as passwords and filters; include moments of “disconnection” and greater family interaction in the family routine; avoid meeting strangers *online* or *off-line*; be aware of the people your child is playing with and the content being transmitted (SBP, 2019).

We note the importance of the roles of public authorities, the school (through teacher training and curriculum) and the family, as elements that propose, facilitate, and enable the strategies for addressing the issues presented here. We also note the need for curricular enhancement regarding child protection practices in the virtual space. Regarding the children’s right to the city, we note that this right relates to the feeling of belonging associated with public spaces; however, this feeling is multiple, considering the different ways in which the many childhoods enjoy the right to the city, given the relation with the socioeconomic factor. Therefore, this issue must be addressed with broad public policies aimed at reducing social inequality. As a suggestion for new research in the field of education, we would like to encourage studies on how digital culture can expand the children’s access to the city, through pedagogical approaches using digital technologies.

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