
Children, mobile technologies and parental mediation

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Abstract

In this article, we analyze parental mediation in relation to mobile technologies and the internet during the Covid-19 pandemic. We carried out a descriptive-analytical study based on qualitative research, through semi-structured interviews with eighteen children and one member of their families. The results point to the intensified use of mobile technologies (cell phones, notebooks, and tablets), and the internet during the Covid-19 pandemic, a fact that represented a challenge for parental mediation. Families have adopted different strategies to mediate children's digital media experiences, ranging from more restrictive or more active actions, based on guidance and dialog, to accompanying or being present during children's activities on the internet. For this reason, it is essential for families to be aware of how to guide their children in online activities and for schools to promote children's media education.

Keywords: Internet. Mobile technologies. Children. Parental mediation.

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Crianças, tecnologias móveis e a mediação parental

Resumo

Neste artigo, analisamos a mediação parental quanto às tecnologias móveis e a internet no período da pandemia de Covid-19. Foi desenvolvido um estudo descritivo-analítico amparado na pesquisa qualitativa, por meio de entrevistas semiestruturadas com dezoito crianças e um membro de suas famílias. Os resultados apontam para a intensificação da utilização de tecnologias móveis (telefones celulares, *notebooks* e *tablets*) e da internet durante a pandemia de Covid-19, fato que representou um desafio para a mediação parental. As famílias adotaram diferentes estratégias para mediar as experiências em meios digitais das crianças, desde ações mais restritivas ou as mais ativas, pautadas na orientação e no diálogo, até o acompanhamento ou estar presente durante as atividades das crianças na internet. Por esse motivo, torna-se imprescindível a conscientização das famílias sobre os meios de orientação de seus filhos nas atividades *online* e da escola em promover a educação midiática das crianças.

Palavras-chave: Internet. Tecnologias móveis. Crianças. Mediação parental.

Niños, tecnologías móviles y mediación parental

Resumen

En este artículo, analizamos la mediación parental en relación con las tecnologías móviles e internet durante la pandemia de Covid-19. Realizamos un estudio descriptivo-analítico basado en la investigación cualitativa, mediante entrevistas semiestructuradas con dieciocho niños y un miembro de sus familias. Los resultados apuntan a la intensificación del uso de las tecnologías móviles (teléfonos móviles, ordenadores portátiles y tabletas) e internet durante la pandemia Covid-19, hecho que ha supuesto un reto para la mediación parental. Las familias han adoptado diferentes estrategias para mediar en las experiencias de los niños con los medios digitales, desde acciones más restrictivas o más activas, basadas en la orientación y el diálogo, hasta el acompañamiento o la presencia física durante las actividades de los niños en la internet. Por esta razón, es esencial la concienciación de las familias sobre los medios para orientar a sus hijos en las actividades en línea y de la escuela en la promoción de la educación mediática de los niños.

Palabras clave: Internet. Tecnologías Móviles. Niños. Mediación parental.

Introduction

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The expansion of the internet contributed to the development of a digitalized society with changes in the forms of communication, interaction, expression, education, among others, caused by the intensive presence of digital information and communication technologies. In the digital age, children's contact with technologies such as smartphones, tablets, notebooks and video games occurs at an increasingly earlier age. Smartphones, due to characteristics such as mobility and portability, are present in various moments of children's lives, such as at home, at school, on the street, etc.

As a result of this scenario, it is more common to see the presence of these technologies in the family space in different ways. This leads to concern among adults, especially fathers and mothers, regarding their children's screen time, safety and digital well-being, as it is their duty to ensure that they use digital technologies safely and responsibly, in order to provide guidance and supervise the appropriate use of the internet.

In this context, we understand childhood as a social construction insofar as "it is historically, culturally and socially variable" (Buckingham, 2006, p. 10) and we agree with Sarmiento (2008, p. 5) when he states that it is

necessary to review the concept of socialization, as today's children must be analyzed as “[...] actors in the socialization process and not as passive recipients of adult socialization”.

Discussions about the importance of parental mediation are taking place, especially in a scenario where children have started to use digital technologies and the internet for longer periods of time, as in the case of the health crisis resulting from the covid-19 pandemic.

Parental mediation is understood as the strategies adopted by adults (family members) in order to restrict, supervise, control or guide their children regarding the use of digital media. Even with children who have greater dexterity in operating equipment, the role of parents is fundamental in guiding them to take advantage of the opportunities of the digital world and protecting themselves from online risks.

Research such as TIC Kids Online Brasil (CGI.BR, 2020), conducted by the Regional Center for Studies for the Development of the Information Society (CETIC.BR) already pointed to an increase in the time that children remained connected to the internet through mobile devices. In 2019 the rate was 89%, that is, 24 million children with internet access (CGI.BR, 2020). During the period of the covid-19 pandemic there was a significant increase in these numbers, reaching 93% in 2021 and 93% in 2022, and the cell phone continued to be the main device adopted to access the network among internet users in the 9-17 age group and for 56% of these users, the only means of accessing the digital world (CGI.BR, 2022; 2023).

With the pandemic, children remained indoors longer due to social isolation and the interruption of face-to-face classes, and we observed an increase in the use of mobile devices and internet-connected TV (CGI.BR, 2022). In this sense, this article outlines some reflections about the family's parental mediation with children during the period of the covid-19 pandemic in 2020 and 2021, as well as the repercussions of this process in the post-pandemic period.

This text is organized as follows: brief characterization of the relationship between children, mobile technologies and parental mediation; the study methodology; discussion and analysis of data; final considerations and references.

Theoretical Foundation

In the digital age, children are increasingly in daily contact with mobile technologies connected to the internet. According to Buckingham (2010, p. 42), “[...] the advent of digital technology has produced and has been accompanied by some significant changes in children’s media experiences”. Through mobile devices, they have access to the most varied types of game applications, videos, music, social networks and use them for the most diverse purposes.

Furthermore, the convergence of mobile technologies has significantly changed the way in which digital environments are accessed, as in a single device such as a smartphone it is possible to combine various media, not to mention the socio-technical transformations resulting from this appropriation that have impacted the way of being a child in the 21st century (Fortuna, 2018).

If at first the parents' concern was with the use of computers that should be used in the living room or in common spaces of the house, with portable and mobile equipment (Nascimento, 2021) with “[...] individualization of digital screens such as tablets, smartphones, notebooks and game consoles, their use has become personal and private” (Duek; Moguillansky, 2020, p. 55).

In this context, we analyzed mothers' parental mediation during the Covid-19 pandemic, in 2020 and 2021. Interest thus arose in discussing parental mediation understood as “[...] a process through which parents influence, with their conduct, valuations and verbalizations the modalities of use and meanings that children have regarding the media” (Maidel; Vieira, 2015, p. 1). Livingstone and Kardefelt-Winther (2020, p. 97) consider it as “[...] the first line of defense in supporting children and adolescents in maximizing their online opportunities and minimizing the risks they are exposed to”.

There are three types of parental mediation. For Livingstone and Kardefelt-Winther (2020, p. 97), restrictive mediation (RM) is “[...] establishment and use of explicit rules for the use of technologies and the internet, without providing guidance to the child”. Thus, there is a limitation of time, content and online activities, as well as the use of tools that filter, restrict or control these activities. Monitoring internet use consists of checking devices,

platforms and websites in order to find out what the child or adolescent accesses (Nascimento, 2021; Maidel; Vieira, 2015).

Active mediation (AM) “[...] designates a type of mediation in which there is a conversation, guidance or critically discussion between parents and the child with respect to the content or activity [...]”, especially while they use the media (Livingstone; Kardefelt-Winther, 2020, p. 97), and involves ways of instructing children about what they do or see on the internet.

Active mediation in supervised/shared internet use refers to a type of mediation that involves the engagement of parents when they are together or interact with the child or monitor what they do when they access the internet.

There is a distinction between facilitating parental mediation (encouraging, discussing, providing guidance) and restrictive mediation (developing rules, establishing limits, prohibiting certain activities). More active mediation requires the digital literacy or alphabetization of the parents and “[...] is associated with a lower risk of harm, more online opportunities and the children developing skills” (Castro; Ponte; Jorge; Batista, 2017). As they become acquainted with and use digital media in their daily lives, they will be better equipped to promote better mediation with their children (Nascimento, 2021). On the other hand, the imposition of more severe restrictions represents, according to Castro (2021, p. 6), the denial of a fundamental right that is provided for in the United Nations (UN) that disturbs their “[...] beneficial cognitive and psychosocial development, available in the online social world”.

Livingstone and Kardefelt-Winther (2020) warn that families from wealthier classes are better equipped to provide guidance to their children with respect to the use of digital technologies and the internet. There are several problems to be faced, among which we highlight: children do not always present their concerns to their parents and the fact that the internet is a constantly evolving environment, which makes it more difficult to understand what children need to know to use it safely.

As a result of the individualization of digital screens, new demands for research in relation to parental mediation arise. In Europe, five parental mediation strategies are being considered, namely: active mediation of internet use, referring to dialogues about how to use it and the content; active mediation on internet security, with recommendations for safe and responsible use; restrictive mediation of time, content and online activities; technical mediation relating to

the use of software or applications to filter and restrict access to certain content; supervision and monitoring which consists of checking the activities they carry out on the internet during and after use (Livingstone; Byrne, 2018).

It is worth highlighting that this individualization represents a great challenge for fathers and mothers, especially for those who do not master these technologies or lack time to supervise the activities carried out by their children.

Study methodology

The study conducted is characterized as descriptive-analytical based on qualitative research. Data collection took place through a semi-structured interview completed by 18 children aged between six and eleven, as well as by their respective parents/guardians, residing in the states of São Paulo, Paraná, Goiás and Mato Grosso do Sul in the period from April to August of 2021. Among the family members responsible for the children, there were 16 women and two men. The interviewees were named as follows: Mother 1, Mother 2, etc.

Due to the pandemic, data was collected using Google Meet (recorded on the application platform itself and saved on Drive) and WhatsApp. Regarding the schooling level, most have completed higher education and two of them are studying for a degree. Regarding the social class self-declared by the participants, it was observed that six belonged to class B, six to class C, two to class D and two to class E.

Image 1: Identification of the interviewees

Identification	Age	Occupation
Mother 1 – 6 – year old girl	31	Artisan
Mother 2 – boy aged 6 years and one month	43	Housewife
Mother 3 – boy aged 6 years and 2 months	28	Saleswoman
Mother 4 – 7-year-old girl	39	Teacher
Mother 5 – boy aged 7 years and 1 month	39	Teacher
Mother 6 – boy aged 7 years and 2 months	40	Teacher
Mother 7 – 8-year-old girl	34	Housewife
Mother 8 – boy aged 8 years and 1 month	34	Bank employee
Mother 9 – boy aged 8 years and 2 months	41	Financial Assistant
Mother 10 – boy aged 8 years and 3 months	41	Teacher
Mother 11 – boy aged 9 years and 1 month	41	Teacher
Mother 12 – 10-year-old girl	40	Health Assistant
Mother 13 – 10-year-old boy	45	Teacher
Mother 14 – 11-year-old girl	40	Housewife
Mother 15 – 11-year-old boy	45	Teacher
Grandmother 1 – 9-year-old girl	56	Cleaner

Source: Organized by the author (2022).

The study was submitted to the Ethics Committee for Research Involving Human Beings at Universidade Estadual Paulista, Presidente Prudente campus – São Paulo, respecting Resolution No. 510/16 of the National Health Council and approved on April 15, 2021 under number of substantiated opinion no. 4,651,534, CAAE: 45114221.5.0000.5402. Research participants signed terms of consent, assent and authorization for the use of image and voice.

Data analysis and discussion

The data presented in this text refers to the opinions of the interviewees regarding their children's contact with internet-connected mobile technologies. Initially, we sought to identify the main devices used by the children, with notebooks/laptops and cell phones being most frequently mentioned.

When asked about what they thought about their children's contact with the internet, digital technologies and cell phones, we observed the prevalence of negative aspects in the interviewees' responses. For mother 2, there are no public policies to regulate platforms and applications aimed at children, as children have contact with a large amount of content:

Look, I think it does a lot of damage. It's a lot, there's a lot of stimulus coming, a lot of stimulus, little filter, there's no public policy that would control this. This material that is reaching children in a very free way [...] (Mother 2, 2021).

For this reason, she states that it is necessary to think about ways to control her son's contact with the internet: "The fact of not having this control makes us double control at home" (Mother 2, 2021).

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Mothers 3, 8 and 13 referred to technological dependence caused by excessive smartphone use:

I think it loses a little in other things. Staying for a long time, because whether you like it or not, the more you consume the internet, the more content is generated" (Mother 2, 2021).

[...]

The smartphone falls into their hands and stays there, you know what I mean? We can't work in a positive way (Mother 13, 2021).

[...]

He must be using it about four hours a day, but he used to use it more. There were days when he would sit at the table to eat with the smartphone in his hands. And I realized that it wasn't doing him any good (Mother 8, 2021).

Based on these reports, one notices the concern, above all, with screen time, with this being the family members' main concern, followed by technological dependence that hinders social interaction. Thus, Fantin and

Santos (2020, p. 108), consider that it is necessary to take a critical look at how children use mobile devices, as “[...] they are present in the daily lives of many of them [...]” and are used for different purposes, as in the case of the pandemic, in which it began to be adopted for school activities.

We observed situations in which mothers report the intensification of time spent with digital technologies, especially during the period of social isolation.

The technological world is huge, everything is there, the information is in the palm of your hand. These are different times, it's difficult for you to say “you won't use it”. When he was younger I used to say: son, don't spend so much time on the smartphone, but nowadays it's inevitable, because of the pandemic (Mother 6, 2021).

[...]

I think that today prohibiting is not feasible, and even more so in view of the period of pandemic we are experiencing [...] before this period we used to spend so much time at home, we were able to maintain a greater distance because they could meet other children (Mother 4, 2021).

Mother 4 stated that she has been using technology to carry out school activities “[...] it helps too, and, mainly, the issue of searching school content and reading texts” (Mother 4, 2021).

Another point highlighted by the interviewees concerns the fact that children did not have access to smartphones in the pre-pandemic period, as the device was purchased, mainly during remote classes, to entertain the children and to facilitate communication with friends and family members.

Before, no, she didn't use it, for example, in the past, when she had some school research to do, we always turned on the desktop computer and went there and did it with her, and even during the first online classes I had to sit next to her [...] I had to go back to work, she had to learn to fend for herself (Mother 7, 2021).

[...]

That was a rule of the house, smartphone, computer, only after turning 12. With the arrival of the pandemic we had to change completely because all of a sudden they were at home all the time. After six months at home, I thought that they desperately needed

to socialize. I gave each of them a smartphone [...] (Mother 15, 2021).

[...]

It's just that they got video games now during the pandemic. They didn't have a video game. The pandemic came and there came a time when we thought it would be good. We had to invent a lot of things, I said, I need to work (Mother 11, 2021).

Among the children participating in the research, only four had their own cell phones and the rest shared the cell phones with their guardians (mothers, fathers, grandparents). The sharing of devices by parents and children can also be considered as a "parental mediation strategy as they have greater control over what children do when they use it" (Máximo; Sampaio, 2020, p. 63). This issue was also seen among mothers who allowed the use of devices during the pandemic for both school activities and entertainment.

Some responses from the interviewees point to a critical view of the internet, when thinking about its positive and/or negative aspects, reminding us of the importance of investing in active mediation:

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I think it is good, as long as you know how to use it, it is very good because they learn. Sometimes he comes up with a word like that, where did you see it, son? [...] they end up learning, they learn to stimulate imagination, creativity. I think that it has a very positive part, but you must know how to filter (Mother 8, 2021).

[...]

There are positive points and negative points, you have to know how to manage time, what is being researched, what is being done by the child, but you cannot let children do as they please. You've got to see what is going on with the child, not staying there all the time, interacting with other children. And you can't escape the socialization part (Mother 5, 2021).

Thus, active mediation takes place both through dialogue with the child and also through the search for reflection, explanation and understanding regarding the way they use the internet, including the critical evaluation of digital media (Nascimento, 2021; Maidel; Vieira, 2015).

Mother 4's report goes in this direction, because at the same time that she imposed a time limit for her daughter to use technology, she also encouraged her to play or do other activities:

[...] I usually allow her to use it a little. Suddenly I realize that she's been on her smartphone for a little too long. I take out the smartphone. She never agrees, of course. She always wants to stay a little longer, but I say no, that's it. Now let's do something else, let's play (Mother 4, 2021).

This account points to some elements of active mediation, due to the fact that it also provides guidance to the children and encourages them to do other activities, corroborating the ideas of Castro; Ponte; Jorge; Batista (2017) when analyzing that this type of mediation represents less risk of harm and, therefore, greater opportunities to develop children's digital skills.

Restrictive mediation concerns the establishment of rules in order to restrict or limit the use of digital technologies and the internet (Nascimento, 2021; Maidel; Vieira, 2015). The restriction is linked to the duration, content or activity performed. We observed, thus, some accounts that converge towards this type of mediation:

I complain to him, I tell him not to use it, I tell him to use it less (Mother 3, 2021).

[...]

But we try to avoid leaving the smartphone with him. We block the device so he doesn't have access, he doesn't have access to the smartphone (Mother 2, 2021).

[...]

I restrict it, but every day she accesses it a little [...] here at home it is still very much controlled (Mother 12, 2021).

[...]

He's allowed to use it for two hours, but once he went beyond that, two hours in a row, so we cut it. But it was a joint action taken by the mother and father (Mother 13, 2021).

In order to help families restrict internet content and screen time and monitor children, some technology companies have applications that help in this process. Mother 2, in addition to the restriction, activated the kids' mode on her smartphone and mothers 8 and 13 activated a feature called Google Family Link that allows for synchronization and tracking of activities carried out on their children's cell phone: "On his smartphone I have a feature called Google Family. So, everything he downloads on his cell phone, I receive on

mine" (Mother 9, 2021). "Everything is synchronized, everything that is in his is in mine. I synchronized it so that we know what he is doing" (Mother 12, 2021).

Mother 15 reported that she did not restrict the use of the internet during the week, but only controlled games on the Playstation "They're free to use the internet, but that's what I mentioned, they are allowed to play games on the PlayStation only on weekends." In addition, she says that she can control the content's indicative rating. The age range is limited, so they can't even find anything that isn't in their age range" (Mother 15, 2021).

Other mothers revealed the difficulties in controlling screen time:

[...] he plays a little in the morning and after he gets home from school, I think it is three hours total (Mother 6, 2021).

[...]

I try to control. In the morning, I don't allow him to spend much time on the smartphone, but sometimes it ends up slipping away (Mother 5, 2021).

[...]

He's allowed to stay on the computer only at night, when I'm at home (Mother 9, 2021).

[...]

I control it, two hours a day, that's the rule, but sometimes he spends three hours a day (Mother 1, 2021).

We can notice that restrictive mediation can guarantee greater protection for children, but it leads to fewer opportunities in the digital world. We point out that even when families restrict or monitor children's use of technology, it is important to clarify the reasons for this attitude so that they know how to protect themselves if they face unpleasant situations or situations that put them at risk.

Technological dependence has been a recurring concern when talking about the inclusion of children in the digital culture, as it can cause

[...] disorders in language, in cognitive development, causing problems with memory, concentration during learning and associated with the future emergence of attention and hyperactivity disorders, such as ADHD (Rosa; Souza, 2021).

Fortuna (2018) points out that childhood in the digital age is increasingly lived in closed spaces. Furthermore, the excessive use of digital technologies hinders the establishment of social relationships and coexistence with other people. Thus, mother 10 believes that childhood should be lived in contact with family and nature and stated that she seeks to encourage her children to carry out other activities “It is trying to encourage this more artistic, bodily formation” (Mother 10, 2021). For this reason, she argues that there needs to be a limitation in the use of smartphones:

I think you have to restrict because the use of smartphones hinders children's creativity, I think it takes away their childhood. I always tell my boys that it (referring to childhood) is so short, you'll have the rest of your life to use your smartphone (Mother 10, 2021).

In this context, the Brazilian Society of Pediatrics (2020) highlights that it is important

[...] to create healthy rules for the use of digital equipment and applications, in addition to security rules, passwords and filters appropriate for the whole family, including moments of disconnection and more family coexistence (Sociedade Brasileira de Pediatria, 2020, p. 7).

It is worth highlighting that the most authoritarian mediations disregard children's individuality and expression, whereas the most permissive ones leave the child free to choose the time, content or activity to be carried out, although expose them to more vulnerable situations (Castro; Ponte; Jorge; Batista, 2017). However, when the family imposes restrictions, it makes it impossible for the child to participate in the digital world and to take advantage of the benefits of the potentialities of digital technologies (Castro; Ponte; Jorge; Batista, 2017; Castro, 2021).

All mothers who were interviewed stated that they were aware of the applications installed on their children's devices, which, according to accounts, are aimed at entertaining them, and playing games is the main activity:

Yes I know. I put limits on some of them, as is the case with Free Fire, because he sometimes plays with his school friends (Mother 5, 2021).

[...]

It's just entertainment. Ah, there are their games and only these games. Every day there is a different application in their lives, they download, finish one, discard one and download another (Mother 11, 2021).

[...]

[...] just a little game, just his game. Here TikTok, YouTube, those things, no (Mother 6, 2021).

[...]

Just for fun, sometimes they play chess with their friends [...] he has YouTube because he likes making videos (Mother 8, 2021).

Based on these accounts, one observes that the interviewees are aware of the applications and content accessed, but do not monitor the activities that their children carry out. In addition, the concern that emerges from the statements revolves around the use of the TikTok social network, but this concern is not aimed at online games that can cause technological dependence or at YouTube, which is capable of exposing children to inappropriate content, advertisements, etc.

14 We observed some examples of mediation of supervised or shared use whereby mothers were always present when children engaged in some online activity. In addition, they tried to prevent their children from being alone with the device in the bedroom:

Yes, I pay attention to what he's watching, sometimes, for example, he goes to his bedroom to watch something [...] "why did you go and watch it there?" He sometimes watched videos that he wasn't supposed to watch (Mother 3, 2021).

[...]

On her father's smartphone, she installed TikTok. And there are always some games that she downloads [...], but I pay attention to everything she is watching so she doesn't spend too much time alone (Mother 4, 2021).

[...]

No, just some, which are the games I watch, all of them. These are games and I watch everything, understand? And I started following him on his channel (Mother 12, 2021).

[...]

In the beginning, she started using TikTok, I was on a leave of absence, I was at home. I was able to follow it more closely, I provided my daughter with a lot of guidance (Mother 7, 2021).

According to Nascimento (2021, p. 45), “[...] shared use and participatory learning concern the sharing of activities and experiences on the Internet between parents and children for recreational purposes or the acquisition of new skills”. However, in the present study it was not possible to verify whether there was interaction between children and adults during the use of mobile devices and the internet.

During the pandemic, various guidelines were disseminated on the use of digital technologies and screens, pointing to the harmful and beneficial aspects of these devices when many families were in social isolation. One of them refers to this atypical moment in contemporary times. “An important moment to multiply positive and healthier use and make it a more widely used tool to seek solutions to the limitations imposed by these new times” (Sociedade Brasileira de Pediatria, 2020, p. 2).

We highlight, however, that in the midst of all this, most Brazilian families kept their face-to-face work routines (essential services/commerce/service providers, etc.) or in home office, which resulted in overload of work and in the role of caring and assisting children with their school assignments. These situations prevented the reduction of screen time and the adoption of different activities by families.

Thus, mediation by socialization actors must seek to maximize opportunities and minimize risks and possible damage to the well-being of children and adolescents, favoring online opportunities linked to communication, education and leisure (CGI.BR, 2016). Parents play the key role of mediators between technologies and the individuals for whom they are intended. Therefore, it is necessary to establish a dialogue between parents and children with a view to promoting children's training and learning (Fantin; Santos, 2020). The pessimistic scenario regarding the use of technology by children was heightened by the presence of mobile devices. In addition to children becoming more autonomous and having peculiar interests, continuously-connected portable devices make it difficult for parents and/or guardians to manage them.

When it comes to mothers' concerns when their children watch TV, use the internet and smartphones, we observe contact with unknown people on the

internet and with content inappropriate for their age group and the invasion of children's privacy and exposure of their data.

I'm scared to death because there are a lot of crazy people, pedophiles, whatever, who pretend to be children, play the game, but they're not children (Mother 14, 2021).

[...]

The negative thing that worries me is her exposure, she is still very young. And I'm worried that she talks to people whom she doesn't know (Mother 4, 2021).

[...]

I'm a little wary about this issue, suddenly someone is invading their privacy. Whether they want it or not, they are children, they are innocent and they may share some information, I'm more worried about that (Mother 8, 2021).

[...]

Yes, depending on the business, if you type something incorrectly, several options will appear for the child. So, the smartphone is much more dangerous than the TV or the computer, but the child wants the smartphone, it's fashionable (Mother 8, 2021).

[...]

You can't trust 100% because they don't yet know how dangerous this relationship with the world is (Mother 13, 2021).

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One observes that mothers recognize the importance of being attentive to the content that children access on the internet and of providing them with guidance, as they are not yet mature enough to deal with everything that is presented to them in the digital world, to recognize the intentions of messages, how social networks work, the action of recommendation algorithms, etc., as we observe in the following statements:

To provide your children with guidance, you can't take them away from the world and place them in a bubble because our lives are online now, so you really have to provide them with guidance (Mother 1, 2021).

[...]

It's caring [...]. They don't have this notion, it's challenging for them (Mother 13, 2021).

[...]

I always try to warn them that we can't talk to people whom we don't know, that on smartphones, there are all kinds of people [...] that if this happens one day, she has to come to me to talk (Mother 4, 2021).

We agree, thus, with Fantin (2018, p. 77) when considering that the discussion goes beyond “[...] simplification and renunciation of the temptations to ‘idealize or demonize’ technologies”. It is important that parents and educators know “[...] the media and their devices, so that they can discuss with children, teaching them to distinguish contexts and situations” (Fantin, 2018, p. 77).

With respect to the contact with digital content that mothers consider inappropriate, we found few examples, such as some YouTubers or cartoons:

[...] I pay attention because there is some content that is definitely not appropriate for their age group and they are not mature, they see all that stuff but they can't filter it and absorb everything (Mother 6, 2021).

[...]

It's important because they don't have much understanding of what is okay and what is inappropriate, sometimes they're seeing something that isn't appropriate for their age, but they are not aware of it (Grandmother 1, 2021).

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Livingstone and Kardefelt-Winther (2020) stress that in less developed or emerging countries such as those of the Global South there are fewer coordinated efforts involving educators, parent groups, organizations that deal with child welfare, industry and law enforcement agencies. Therefore, there is a need to integrate online matters into existing programs in order to reach more parents and meet their needs holistically.

Final considerations

Based on the results achieved through the study, we concluded that there was an increase in the amount of time children use mobile devices and the internet during the pandemic, through the consumption of videos on YouTube and streaming channels, social networks such as TikTok and on

gaming platforms such as Roblox and Minecraft, among others. All of these platforms and networks are part of Big Techs such as Microsoft, Google, Roblox, which increased their reach in 2020 and 2021 due to the significant increase in the number of users.

In the midst of all this, many families maintained greater contact with their children at home, carrying out instructional and educational activities during remote and/or hybrid classes. It is worth noting that these tasks are performed mainly by women (mothers or grandmothers) who accumulate functions such as professional and domestic activities, concomitantly with caring for their children.

The results of the study demonstrate that each family adopted its own parental mediation strategies. Restrictive mediation was linked to time of use, type of content and activity carried out: total ban on TV and cell phone time or stipulation of a certain period of the day for such use and, also, of certain types of cartoons, YouTubers, games and even social networks. Active mediation combined with restrictive mediation was also verified, in cases where mothers explained the reasons for the restrictions and provided their children with guidance about certain behaviors on the internet.

18 We therefore defend a mediation model that is closer to active or supervised use, as in times when children spend more time online, it is essential to have monitoring and guidance so that they can take advantage of the potential of technologies and the internet in order to promote the development of digital skills and the handling of these devices in a responsible and ethical manner.

It is worth noting that the more parents restrict the use of devices and the internet, the child is prevented from enjoying the benefits and opportunities to interact, communicate with other people, learn and have fun in the digital world. However, allowing children to use smartphones and the internet without a minimum level of guidance is not recommended, as the digital environment has become increasingly hostile, marked by misinformation, social media algorithms, advertisements, etc.

The results of the study point, thus, to the need to discuss the importance of parental mediation regarding the use of mobile devices and the internet. These results lead us to some demands for certain social sectors and education, arising from children's technological appropriation.

The first demand refers to the implementation of public policies relating to the regulation and control of technology companies which focuses on children, as some social networks have become very popular among children, but they provide various content with inappropriate situations and violent and derogatory content. Furthermore, the main gaming platforms pose risks to children's data protection, in addition to presenting situations that induce immersion and digital dependence.

Under the pretext of having been born in another generation in which digital technologies were not so widespread in their daily lives, parents and educators tend to disregard children's experiences on the internet, in addition to being unaware of their rights linked to protection, provision and participation. Therefore, this leads to the second demand for communication and education, that is, the creation of awareness campaigns for parents and educators, bearing in mind that not everyone has enough knowledge to instruct children on how to use the internet safely and responsibly.

The third demand is linked to the role of school and education in the face of the impacts of digital technologies in contemporary times. In the National Common Curricular Base (BNCC, acronym in Portuguese) there is a skill linked to digital culture that provides for the critical and creative use of digital technologies in the most varied social practices, including school ones. In other words, children's media education and digital/informational literacy also involves the schools.

During the pandemic, it was observed that it is possible to insert technologies into pedagogical practices. To this end, it is essential to invest in the initial and continuing training of teachers, both in taking advantage of the potential of these devices in pedagogical situations, in communication and in digital protagonism, as well as in media literacy and in promoting the knowledge needed to educate for the media.

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