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On My Own: Acquiring Technical Digital Skills for Mobile Phone Use in Chile. Parents-children Perceptions

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Abstract

Despite its relevance, the difficulty in reaching consensus on the definition of digital competence slows down its implementation. The need of prior development of specific skills to advance in digital development has been recently reported. The acquisition of skills involves making the most of the opportunities offered by the digital environment. This article shows the results from a research conducted on 501 parent-child dyads in Chile in which minors aged 10 to 14 reported their self-perceptions on who (parents, siblings and peers) taught them certain technical and operational digital skills on mobile devices. Parents were also surveyed to know their perception about this children's social mediation. Socio-demographic variables are also analysed. Chilean minors have a clear perception of autonomy in the acquisition of digital competence, parents underestimate their ability to influence, and other socialization agents such as siblings play a significant role. Age, gender and socioeconomic level to a lesser extent mark differences in the acquisition of these skills. In addition to providing a comparison on the perception parents and children have on the extent to which minors are accompanied while on their mobile phone, the article goes beyond parental mediation strategies and collects parental reflections on types of mediation.

Keywords: digital competence, technical skills, safety skills, mobile phone, children.

1. Introduction

Access to and use of internet and the appropriation of different digital devices among Chilean families, as is happening in other Western societies has increased significantly in recent years. Not surprisingly, 87.4 % of Chilean households have paid access to the internet and reaches 94 % in those households in which there are children going to school, a trade school or university (Subtel, 2017). On the other hand, the study developed in 2016 by *Kids Online Chile*, coinciding with the tendency of our results, shows that 92 % of children aged 9 to 17 could access the Internet at home via a mobile phone (Cabello et al., 2017). This new digitalised household has had an impact on children's uses and practises and on their digital skills development both, as individual internet users as well as individuals influenced by different social mediators such as the family or peers.

Digital competences and digital skills acquisition by children has been identified as an essential precondition for minors' development and their general well-being (Livingstone et al., 2018; Smahel et al., 2020). A research developed in Chile (Cabello et al., 2018) shows that sociodemographic factors such as age and socioeconomic status are significantly associated with different level of skills with

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children showing higher levels of digital competence as their age increases and among those with the highest socioeconomic status. Evidence also shows that children owning a mobile phone with internet access developed higher digital skills (Cabello et al., 2018).

Parents, as social mediators of their children's online activities try to find a difficult balance between their children's online safety while aiming to maximise their digital opportunities and digital skills. We consider essential to analyse under children and parents perspectives how children acquire specific safety and other digital skills regarding the smartphones use, with special focus on their level of autonomy performing these skills as well as the implication of different individuals (parents, siblings and peers) with teaching them these skills.

In sum, this article aims to understand how children have adopted smartphones in the household and how involved parents get in this process, the most frequent activities developed on their smartphones and the perceptions that parents and children have about the same minor's technical and operational digital skills on these devices.

2. Materials and methods

The aim of this study is to determine children's digital skills regarding online safety and privacy in using smartphones, namely children's and parents' self-reported ability to manage various aspects related to smartphone configuration and online safety, as well as other operational skills implicit in their use. Other elements implicit in the process of acquisition and development of these skills have also been taken into account, such as internet connection features, smartphone ownership, range of minors' online activities, as well as the influence of sociodemographic factors (age, gender and socioeconomic status.)

To answer this objective, the following research questions were proposed:

1) What abilities do children self-report and what abilities do parents perceive their children as having regarding the operational digital skills required to configure mobile phones, install applications, and protect themselves from advertising messages?

2) What abilities do children self-report and what abilities do parents perceive their children as having regarding their children's operational digital skills with regard to online safety and privacy on smartphones?

3) Are there significant differences in the responses among minors based on individual sociodemographic factors (age, gender and socioeconomic status)?

Quantitative methodology with data collected in face-to-face surveys was used. The universe selected for this study were households with minors ages 10 to 14 in the Metropolitan Area of Santiago de Chile. A 501 households sample size was defined for the survey, each home of which was to include and survey a residing child who met the sought profile and one of their parents or legal guardian (501 minors and 501 adults.)

According to the 2017 Chilean Census, the latest available, the Metropolitan Area has 373,129 homes with children ages 10 to 14 distributed as follows in the geographic sectors or macrozones commonly and locally used: Center = 47,148 homes; North = 50,553; East = 69,954; West = 73,877; South = 131,597.

Each macrozone was assigned 100 cases and the sample was distributed proportionally according to the percentage of households with children ages 10 to 14 per borough (locally known as "comuna") that make up each macrozone. This distribution resulted in a probabilistic design by areas (macrozones) with an error of ± 4.4 % under the assumptions of simple random sampling and 95 % confidence. The field work was performed between May and July 2018.

A close-ended question with a multiple responses answer was designed for this study. The question was "Who taught you to do the following activities?", and SPSS analyzable multiple responses were: Never done it (1), Don't know how to (2), Learned by myself (3), A parent (4), A sibling (5), A friend (6), Another person [another relative: uncle/aunt, grandparents, cousins; at school/teacher] (88), DK / NA (99).

During the visit to each household, and prior to surveying the adult and the minor separately, parents signed a parental consent form previously approved by the Ethics Committee of the University seconding this research project. With regards to format, both groups answered the same survey; in relation to the question, both groups were asked the same questions, but from different approaches. Given the object of research in this study is minors, the questionnaire was aimed at them, and thus, they were asked about their own habits and experiences with mobile devices.

Contrastingly, parents/guardians were requested to answer according to their perception of the same reality. Specifically, children and adults were asked about the items listed in Table 1.

Table 1. Descriptive statistics of the elements of the analysis

Item	Minors (α=.803)				Adults (α=.915)			
	N	M.	S²	DT	N	M.	S²	DT
Phone settings configuration	485	3.44	1.37	1.17	467	3.48	1.43	2.04
Privacy settings configuration	491	2.81	1.94	1.39	442	2.76	1.62	1.27
Adblockers activation	490	2.33	1.72	1.31	427	2.55	1.54	1.24
Email account creation	472	3.09	2.15	1.47	457	2.88	1.62	1.27
Social media sign-up	484	3.22	1.92	1.39	465	3.11	1.29	1.14
App store management	491	2.63	1.79	1.34	457	3.04	1.13	1.06
Apps installation	485	3.19	.93	.96	474	3.23	.92	.96

The Bonferroni test was used to determine the existence of significant differences when working with different bases, between the responses of the two samples established and on which the surveys were applied. The statistical data presented in this analysis belong to the first phase of a broader investigation collected in the Fondecyt Initiation N ° 11170336, financed by the National Commission for Scientific and Technological Research (CONICYT) of the Government of Chile.

This article aims to contribute to a better understanding of role children have in the mechanisms of media, considering at all times their developmental state and moment in their education and striving to respect and defend their dignity and rights as a human beings. To safeguard the integrity of participants and researchers prior to collecting the data here analyzed. Written authorization was requested from the guardian who signed an informed consent and the minors themselves were also asked for their assent. These documents were reviewed and validated by the Ethics Committee of the university to which this research project is linked (Universidad de los Andes, Chile).

3. Discussion

Concerns have been raised due to the intensiveness of the use of screens, mainly with regard to the sheer amount of time devoted to them (Chassiakos et al., 2016) while the potential negative effect of screen time over youngster' wellbeing has been recently questioned (Orben, Przybylski, 2019). It is what young people do while enjoying themselves with these screens rather than the amount of time spent on them that seems to be worthy of analysis (Blum-Ross, Livingstone, 2018, 2016).

Besides this, the current lack of common definitions and understanding among the scientific community of concepts such as digital skills, digital competence and digital literacy increases the difficulty for the design of global and systematic strategies that can help in the development of these concepts among minors (Donoso et al., 2021; Haddon et al., 2020). Evidence shows that the level of digital skills of minors is positively associated with the frequency and variety of activities (Livingstone et al., 2019) in which minors get involved online (Cabello et al., 2018).

The acquisition of digital skills which lead to digital competence is an essential precondition for minors' development and general well-being (Livingstone et al., 2018; Smahel et al., 2020). Among the antecedents that can facilitate or hinder its acquisition, individual characteristics of minors such as sociodemographic factors (age and gender), social characteristics (socioeconomic status and parental mediation), characteristics of the country where they live and others related to their own use of the internet, access, as well as their perception of effectiveness in the use of the internet, and preference for online social interactions (Cabello et al., 2020; Haddon et al., 2020; Garmendia et al., 2019; Livingstone, Helsper, 2010; Mascheroni et al., 2020; Trucco, Palma, 2020).

This research devotes special attention to those skills associated with the process of acquisition and the ability of the child when using technical and safety possibilities of the smartphones, that are part of the technical and operational skills proposed in the context of the EU Kids Online project (Van Deursen et al., 2016) and later reviewed and updated (Helsper et al., 2021). Besides the technical and operational skills these authors also identified navigation and information process skills; communication and interaction skills and content creation and production skills.

Online safety skills become particularly relevant in the case of access through smartphones (Mascheroni, Ólafsson, 2014), as the use of these devices increase the degree of individualization and make it difficult to reconcile parental involvement with respect for the limits of privacy and autonomy of their children (Haddon et al., 2018). This situation becomes a challenge for parents (Berrios et al., 2015; Condeza et al., 2019) who are expected to act as "facilitating" mediators (Livingstone et al., 2017; Martínez et al., 2020; Rodríguez-de-Dios et al., 2018;) of the digital activities their children get involved in, to strengthen the development of skills for digital competence (Ferrari, 2013; Van Deursen et al., 2016) and at the same time, to be the guardians their own children's online safety and digital well-being (Smahel et al., 2020).

While the role of parents as mediators of their children's online activities has been widely studied by parental mediation specialists, with a focus on issues such as child protection and online safety (Berrios et al., 2015; Jiménez-Morales et al., 2020; Martínez et al., 2020) very few studies have considered the perception of parents about their role in the process of acquisition of digital competences or skills by the child compared with children's own perception.

4. Results

As stated in the methodology, 501 homes in the Metropolitan Area of Santiago de Chile were found to meet research criteria and accepted to participate. At each household, a minor (ages 10 to 14) and one of their parents or guardians was surveyed, which resulted in 1002 respondents.

Samples of minors can be described as follows, 300 (60 %) were ages 10 and 12, and 201 (40 %) were ages 13 to 14; 230 (46 %) were boys and 271 (54 %) girls. Most frequently, children live in households with four or more members (N = 388; 77.2 %) and socioeconomic levels were distributed as follows: upper stratum (C1): 7.2 % (N = 36); middle stratum (C2 and C3): 46.9 % (N = 235); low stratum (D): 42.9 % (N = 215); NS / NC: 3 % (N = 15). Regarding adults, most were women (N = 411; 82 %), and the child's mother (93 %).

By far smartphones (99.2 %) is the device with the highest penetration rate in Chilean homes. About 50 % of the sampled homes have a laptop and tablet, and desktop computers (40 %) are less common among the individuals surveyed.

Specific operational online safety skills are analyzed here, such as the ability to configure the device itself, privacy settings, or ad-blockers, and others such as the ability to create email accounts or sign up on social networks, download applications or manage applications stores. Three dimensions were studied in relation to the general configuration of mobile phones, and most frequently minors stated they had learned by themselves. As shown on Table 2, more than 50 % asserted having configured their mobile phone settings on their own, 35.7 % for privacy settings and 36.1 % for the activation of ad-blockers. Regarding privacy settings, it is noteworthy that one in three minors acknowledged that they have never configured the privacy settings of their phone or that they did not know how to do so, a pattern that becomes even more evident when asked about the activation of ad-blockers: practically 40 % said they had not tried to use any of such services and 11.6 % said they were unable to operate them. Beyond their self-sufficiency, for all three phone configuration actions, children indicated parents were their main reference. The accompaniment provided by siblings, in terms of percentage is higher than that of friends, for both parents and minors surveyed.

In their responses, parents recognized that their children essentially learn to handle mobile phones by themselves. For all three dimensions analyzed, adults mostly chose "I learned by myself", as their children's answer especially when referring to phone settings configuration (50.7 %). It is interesting to note that the role of parents tends to be more valued by minors than by the adults themselves.

Along these lines, adults considered that their largest contribution is in configuring privacy settings, which coincides with what minors also highlight. However, adults tended to overestimate their minor's ability to manage ad-blockers: statistically significant differences were found between the number of times adults and minors chose "I have never done it" and "I don't know how to do it" as answers to this dimension.

When responses from minors are segmented by gender, age and socioeconomic level, certain significant differences are found, especially those associated to age. As Table 3 shows, children ages 13 to 14 tend to perform activities on their own to a greater extent than those ages 10 to 12, who seem to rely more on their parents. Regarding gender, ad-blockers configuration is more widespread among boys than girls. With regard to socioeconomic level, although statistically

significant differences were practically absent, parental mediation seems to be more present among higher strata, while sibling mediation tends to outweigh the former in lower levels.

Table 2. Perception by adults and responses by minors on the accompaniment provided to minors while acquiring digital skills related to online safety in the use of mobile phones

		ADULT (%) (N=501)	MINOR(%) (N=501)
Phone settings configuration	Never done it	11.2	8.2
	Do not know how	1.6	1.2
	Learned by myself	50.7	50.5
	A parent*	0.2	18.8
	A sibling*	20.2	13.0
	A friend *	9.4	5.2
	Another person*	1.2	3.2
	DK/NA	5.6	0.0
Privacy settings configuration	Never done it	24.0	27.7
	Do not know how to	4.6	5.4
	Learned by myself	35.7	36.7
	A parent	16.8	16.2
	A sibling	6.8	9.4
	A friend	0.4	2.6
	Another person	1.2	2.0
	DK/NA	10.6	0.0
Adblockers activation	Never done it*	27.1	39.1
	Do not know how to*	6.2	11.4
	Learned by myself	36.1	31.9
	A parent	9.8	8.4
	A sibling	6.0	5.4
	A friend	0.0	1.6
	Another person	0.8	2.2
	DK/NA	14.0	0.0

* Statistically significant result between Adult and Minor sample. Results are based on two-sided tests with a significance level of .05. Tests are adjusted for all pairwise comparisons within a row of each subtable using the Bonferroni correction**.**

As in the previous section, the analysis of more specific actions on smartphones, such as creating email accounts or profiles on social networks, installing apps or browsing application stores, reveals the extent to which self-learning is relevant among minors. For all the dimensions studied in this section, the most frequent response was "I learned alone", especially when referring to accessing catalogs and downloading and signing up on social network apps, for which more than 40 % of the sample declared to have done these activities independently. However, for the creation of email accounts, minors stated relying more on parents (20.8 %) and siblings (14.4 %).

Indeed, for these activities, parents are the second source from which to learn, especially for creating email accounts, as 1 in 5 minors turned to them for help. Likewise, in the rest of the actions analyzed in this section, parental figures rank second. Friends play a more significant role in this type of skill acquisition, for example in the creation of profiles on social networks (6.8 %), an influence parents do not seem to be aware of. As noted in the previous section, the relevance of the role of siblings follows that of parents, especially in the creation of email accounts.

Table 3. Segmentation by gender, age and SES of the minor's responses about the accompaniment minors receive while acquiring digital skills related to security in the use of mobile phones

		GENDER (%)		AGE (%)		SES (%)			
		Boys	Girls	10 to 12	13 to 14	C1	C2	C3	D
Phone settings	Never done it	7.8	8.5	10.0	5.4	0.0	7.6	7.7	10.7
	Do not know how to	0.4	1.9	1.7	0.5	2.8	1.1	0.7	1.4

configuration	Learned by myself	52.4	48.9	43.8	60.4*	55.6	53.3	53.1	46.0
	A parent	19.0	18.5	22.4*	13.4	33.3	19.6	17.5	16.7
	A sibling	13.0	13.0	13.4	12.4	2.8	13.0	13.3	14.9
	A friend	4.8	5.6	5.4	5.0	0.0	4.3	5.6	6.0
	Another person	2.6	3.7	3.3	3.0	5.6	1.1	2.1	4.2
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privacy settings configuration	Never done it	28.6	27.0	33.8*	18.8	19.4	39.1* (C3)	20.3	30.7
	Do not know how to	6.9	4.1	6.7	3.5	8.3	2.2	5.6	6.5
	Learned by myself	32.9	40.0	26.4	52.0*	38.9	22.8	43.4*(C2)	36.3
	A parent	15.6	16.7	20.1*	10.4	27.8	19.6	18.2	12.1
	A sibling	10.4	8.5	8.7	10.4	2.8	13.0	7.7	10.2
	A friend	3.5	1.9	1.7	4.0	2.8	2.2	3.5	1.4
	Another person	2.2	1.9	2.7	1.0	0.0	1.1	1.4	2.8
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Adblockers activation	Never done it	36.4	41.5	44.1*	31.7	27.8	46.7	37.8	40.0
	Do not know how to	9.5	13.0	11.7	10.9	19.4	8.7	13.3	10.2
	Learned by myself	36.8*	27.8	25.8	41.1*	30.6	25.0	35.0	31.6
	A parent	9.1	7.8	10.4	5.4	13.9	9.8	8.4	7.4
	A sibling	4.3	6.3	4.7	6.4	2.8	7.6	2.8	6.5
	A friend	1.3	1.9	1.3	2.0 %	0.0	2.2	1.4	1.9
	Another person	2.6	1.9	2.0	2.5 %	5.6	0.0	1.4	2.3
	DK/NA	0.0	0.0	0.0	0.0%	0.0	0.0	0.0	0.0

* Statistically significant result between columns within the same variable (Sex, Age, SES). Results are based on two-sided tests with a significance level of, 05. Tests are adjusted for all pairwise comparisons within a row of each subtable using the Bonferroni correction.

Table 4. Perception by adults and responses by minors on the accompaniment provided to minors while learning other digital skills on their mobile phones (email account, profile in social media or management of app stores)

		ADULT (%) (N=501)	MINOR(%) (N=501)
Email account creation	Never done it	22.8	23.0
	Do not know how to	2.4	4.6
	Learned by myself *	37.7	28.3
	A parent	20.0	20.8
	A sibling *	8.0	14.4
	A friend *	.4	3.2
	Another person *	1.6	5.8
	DK/NA	7.2	0.0
Social media sign-up	Never done it	13.6	17.0
	Do not know how to	1.0	2.2
	Learned by myself *	51.9	44.1
	A parent	16.0	15.8
	A sibling	8.8	10.8
	A friend *	1.6	6.8
	Another person *	1.4	3.4
	DK/NA	5.8	0.0
App store management	Never done it *	12.6	31.3
	Do not know how to*	1.4	5.2
	Learned by myself *	56.5	41.1
	A parent	12.0	12.0
	A sibling *	8.0	5.8
	A friend	.8	2.6
	Another person	1.4	2.0
	DK/NA	7.4	0.0
Apps installing	Never done it	7.6	7.4
	Do not know how to	1.0	1.0
	Learned by myself *	58.7	66.3
	A parent*	18.0	12.2
	A sibling	8.4	7.8

	A friend	1.0	2.2
	Another person *	1.0	3.2
	DK/NA	4.4	0.0

As happened when collecting data on other dimensions, parents stated that their minors learn these skills on their own. In most of the cases analyzed, the percentage of parents who responded that minors learned on their own is greater than that declared by the minors themselves. Significant differences are indicated in Table 4, and point at parental overestimation of their children's ability to learn on their own. Similarly, adults also tended to overestimate how easily and knowledgeably minors interact with app stores.

As happens when parents are asked about how minors learn to configure their smartphones, and equally noteworthy is the fact that many chose not to answer the questions presented for the analysis of this dimension, either due to ignorance or for other unknown reasons (between 4.4 % and 7.4 %).

Table 5. Segmentation by gender, age and SES of the child's responses about the accompaniment minors receive while learning the digital skills stated

		GENDER (%)		AGE (%)		SES (%)			
		Boys	Girls	10 to 12	13 to 14	C1	C2	C3	D
Email account creation	Never done it	23.4	22.6	28.1*	15.3	19.4	35.9*(D)	21.7	19.1
	Do not know how to	3.9	5.2	5.7	3.0	5.6	3.3	4.9	5.1
	Learned by myself	35.9*	21.9	21.7	38.1*	30.6	22.8	32.2	27.0
	A parent	16.5	24.4*	22.7	17.8	36.1* (D)	21.7	22.4	16.7
	A sibling	13.9	14.8	13.4	15.8	0.0	14.1	11.2	19.1
	A friend	2.2	4.1	2.7	4.0	2.8	0.0	0.7	6.5* (C3)
	Another person	4.3	7.0	5.7	5.9	5.6	2.2	7.0	6.5
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Social media sign-up	Never done it	16.0	17.8	22.4*	8.9	16.7	12.0	16.8	19.1
	Do not know how to	2.6	1.9	3.0	1.0	2.8	0.0	.7	4.2
	Learned by myself	46.8	41.9	36.1	55.9*	50.0	56.5*(D)	41.3	39.5
	A parent	16.9	14.8	19.7*	9.9	19.4	16.3	18.9	13.0
	A sibling	10.4	11.1	9.7	12.4	5.6	6.5	13.3	12.1
	A friend	3.9	9.3*	6.0	7.9	5.6	7.6	4.2	8.4
	Another person	3.5	3.3	3.0	4.0	0.0	1.1	4.9	3.7
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Application store management	Never done it	21.6	39.6*	34.4	26.7	25.0	26.1	29.4	36.7
	Do not know how to	3.5	6.7	5.0	5.4	5.6	7.6	4.9	3.7
	Learned by myself	46.3*	36.7	38.8	44.6	47.2	45.7	45.5	34.9
	A parent	15.6*	8.9	12.7	10.9	13.9	14.1	14.0	10.2
	A sibling	7.4	4.4	5.4	6.4	0.0	3.3	4.2	8.8
	A friend	2.6	2.6	2.0	3.5	5.6	3.3	0.0	3.7
	Another person	3.0	1.1	1.7	2.5	2.8	0.0	2.1	1.9
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Apps installation	Never done it	6.9	7.8	9.4*	4.5	2.8	3.3	5.6	11.2
	Do not know how to	1.3	.7	1.0	1.0	0.0	0.0	0.0	2.3
	Learned by myself	67.1	65.6	61.2	73.8*	66.7	65.2	72.0	63.3
	A parent	11.7	12.6	14.7*	8.4	25.0* (D)	16.3	14.7	7.0
	A sibling	5.6	9.6	8.0	7.4	2.8	10.9	4.9	9.3
	A friend	3.5	1.1	2.0	2.5	0.0	2.2	1.4	2.8
	Another person	3.9	2.6	3.7	2.5	2.8	2.2	1.4	4.2
	DK/NA	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Segmentation by gender, age and SES reveals that age is the variable that once again marks significant differences: the older children are, the more they tend to learn on their own. As Table 5 shows, the percentage of minors ages 10 to 12 who have never created an email account, signed up on social networks or installed apps is significant. This situation changes, however in the sample ages 13 and 14 in which the percentage increases. In any case, it should be noted that 36.1 % of minors ages 10 to 12 revealed having signed up for social networks by themselves, an age at which

registration is theoretically not allowed. Signing up for social media is also the routine for which minors aged 10 to 12 declared they had had most support from their parents (19.7 %) followed by apps installations (14.7 %). Minors ages 13 and 14 confirmed having received help from their parents (17.8 %) and siblings (15.8 %) in creating an email account. However, when creating profiles on social networks, they turn to siblings (12.4 %) more than to parents (9.9 %).

Although the gender variable does not seem to be decisive, boys tend to be more independent than girls in acquiring digital skills. Regarding the socioeconomic level, although no statistically significant differences were found, it is once again observed that the percentage of minors who declared having learned with their parents tends to be lower in the most disadvantaged strata. I these cases, minors tend to rely more on siblings.

5. Conclusion

This paper seeks to provide evidence on the role played by next of kin, peers and others (parents, siblings, peers) in the process of acquiring an ability among Chilean children. Minors' perception was completed with the parents' view on the mediation they believe their children had received throughout the process.

According to the data, Chilean homes could be an ideal place for the development of children's digital skills given the wide variety of mobile digital devices that can be made available. Both the variety of technologies available for minors at home and the chance to access the network autonomously is related to the acquisition of digital skills (Haddon et al., 2020). Particularly noteworthy is the high penetration of smartphones, which has increased 7 percentage points compared to that reported in previous studies (Cabello et al., 2017) and now practically reaches 100 %, and is the most widely owned device among minors.

As far as operational digital skills related to smartphone online safety and privacy are concerned, most of the minors surveyed stated that they autonomously configure general and privacy aspects of their mobile phone, and activate ad-blockers. Parental involvement ranks second when it comes to more specific operational skills of the use of the smartphone, such as creating an email account, signing up on social networks or dealing with the acquisition of apps.

Interestingly, the autonomy minors perceive for themselves is shared by their parents, who seem to be aware that minors tend to learn on their own. In addition, minors mentioned parents as having been responsible for their digital learning more than the adults refer to themselves, which is consistent with previous research that showed that parents underestimate to a certain extent their self-efficacy in managing their use of internet compared to that of their children (Garmendia et al., 2019; Mascheroni et al., 2016).

The role of older siblings as digital mediators seems of interest. The data collected shows that for specific skills a higher percentage of children chose their siblings over friends for advice. This is particularly relevant in the specific field of digital competence development given that there is evidence that points to the importance of the mediating role of peers, family and schools in situations minors consider annoying or upsetting (Smahel et al., 2020; Garmendia et al., 2019).

1 in 3 minors stated not paying attention to the privacy settings of their mobile phone. These would show that, although the mobile phone access scene seems to be dominated by a perception of minors' autonomy, attention to key steps for safe and responsible browsing is not present.

The highest level of minor self-sufficiency was detected in app store management and social networks sign-up, for which almost 60 % of the sample confirmed that they had learned by themselves. It is also necessary to highlight the level of autonomy minors declare when signing up for social networks, an action to which theoretically the vast majority of respondents should not have had access since the legally required age to open an account is 13 to 14 (age varies among platforms and requires parental consent.)

Finally, as in previous studies (Mascheroni et al., 2020; Haddon et al., 2020; Trucco, Palma, 2020), age was a determining variable. In general, minors ages 13 and 14 reported having learned on their own to a greater extent than 10- to 12-year-olds, who stated they turned to their parents to perform the proposed actions. Parents are taken into account more by children ages 10 to 12; however, it is interesting to observe that siblings acquire more relevance among those 13 and 14.

Segmentation by gender reveals that more boys than girls tend to claim themselves to be independent in learning digital skills. By socioeconomic level of the household, the parental role in the acquisition of the analyzed skills in lower economic strata is less prevalent. There is a need to know to whom minors resort for their training in digital competence.

The added value of this study lies in introducing into the debate about children's' digital skills acquisition the parents perception about it and their role. However, the exploratory approach of the study and methodological limitations do not allow the authors to discern the level of trust parents place on their children's self-learning capacity, if they consider that it is applies both technically and critically and if it is sufficient. Having answers to these new research questions by applying qualitative methods and delving into the role that parents play in the development of their children's digital competence with the mobile phone would be of great advantage.

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