CHILDHOOD, ADOLESCENCE, AND DIGITAL WELL-BEING

An approach from the perspective of health, coexistence, and social responsibility

Qualitative Study

infancia digital

GOBIERNO DE ESPAÑA — MINISTERIO PARA LA TRANSFORMACIÓN DIGITAL Y DE LA FUNCIÓN PÚBLICA — SECRETARIA DE ESTADO DE DIGITALIZACIÓN E INTELIGENCIA ARTIFICIAL

red.es

unicef
para cada infancia

USC UNIVERSIDADE DE SANTIAGO DE COMPOSTELA

INGENIERÍA INFORMÁTICA
CONSEJO GENERAL DE COLEGIOS PROFESIONALES · CCII

infancia digital

Childhood, adolescence, and digital well-being. An approach from the perspective of health, coexistence, and social responsibility. Qualitative Study. Developed by UNICEF Spain, the University of Santiago de Compostela (USC), the Spanish General Council of Informatics Engineering (CCII), and the Public Business Entity Red.es.

infancia digital

CHILDHOOD, ADOLESCENCE, AND DIGITAL WELL-BEING

An approach from the perspective of health, coexistence, and social responsibility.

AUTHORSHIP

Scientific Direction:
Antonio Rial Boubeta (University of Santiago de Compostela)
Joël Billieux (University of Lausanne)

Coordination UNICEF Spain:
Belén Andrade Pérez
Ignacio Guadix García

Coordination Spanish General Council of Informatics Engineering (CCII):
Fernando Suárez Lorenzo
Francisco Javier Rodríguez (University of Vigo)

Coordination Public Business Entity Red.es:
Juan Miguel Márquez Fernández

With the collaboration of:
Rosa Díaz Moles
José Julio Fernández Rodríguez
Álvaro Fernández Theotonio
Arancha García Lozano
Patricia Gómez Salgado
Joaquín González Cabrera
Pilar González Nieto
Jesús Herrero Poza
Iraida Ledesma Cantero
Juan Manuel Machimbarrena Garagorri
Abel Nogueira López
Rafael Pichel Mira
Sandra Sanmartín Feijóo
José Antonio Seco Arnegas

Index

ESTUDIO CUALITATIVO

01 INTRODUCTION

INTRODUCTION

Ensuring the well-being of children and adolescents in digital environments involves complex challenges in practice. The risks associated with technology in childhood are not new. As early as 2014, the World Health Organization (2014) drew attention to the excessive use of the Internet, computers, and smartphones, considering it a public health problem. Their early, intensive, and unsupervised use has repercussions on child development (Christakis & Hale, 2025) that invite us to consider the issue as a matter of public health, especially since its magnitude and diversity have multiplied in recent years.

The online world combines entertainment and socialization in an environment designed to capture our attention, activate our reward system, and sometimes make us lose track of the time spent online. A tablet or smartphone is a window to enriching, fun, and stimulating content for children and adolescents, but also to hate speech and violent, sexist, racist, or xenophobic content, which can easily shape their attitudes and values. Videogames and social media are excellent channels for creating emotional bonds and a sense of belonging to a group, but they are also the scene of power dynamics and violence, which can translate into situations of cyberbullying or technology-facilitated gender-based violence. Constant exposure to and comparison with retouched and hypersexualized images of others can affect body acceptance and self-esteem, and early access to pornographic content can even impact the experience of their sexuality. The use of digital technologies involves an opportunity cost, so certain patterns of use can have an impact on their overall health (influencing lifestyles, sleep hygiene, sedentary behaviors, etc.), as well as on their emotional well-being and mental health.

For this reason, access to the Internet is now recognized as an enabling right, essential for exercising other fundamental rights. The United Nations Committee on the Rights of the Child, in its General Comment No. 25 (2021), emphasizes that digital environments must be designed and managed in such a way that children and adolescents can develop holistically, taking as a guide the best interests of children and adolescents and the necessary balance between the areas of access, protection, education, and child participation.

In Spain, more than 90% of citizens express concern about the risks faced by minors in digital environments (European Commission, 2025). In order to implement adequate prevention and response mechanisms to address the challenges of digital environments, it is necessary to understand them accurately.

For this reason, UNICEF Spain, the University of Santiago de Compostela (USC), the Spanish General Council of Informatics Engineering (CCII) and the public business entity Red.es, depending on the Ministry for Digital Transformation and Public Service, have produced three reports designed as a comprehensive tool to better understand the lives of children and adolescents in digital environments. The first report was a qualitative study using focus groups and in-depth interviews, examining the perspectives of all stakeholders: families, adolescents, professionals, and experts. The second was a quantitative study capturing the views of thousands of teachers. The third was a large-scale survey of nearly 100,000 children and adolescents, reflecting their habits and experiences in a digital world.

The report presented below corresponds to the results of the first study, and builds on the previous study conducted by UNICEF Spain, USC and CCII, in 2021 on the Impact of Technology on Adolescence, focused on exploring the perceptions and attitudes of different stakeholders. The report is structured into four sections. Firstly, the objectives of the study are established. Next, the methodology section details the technical design of the research. The central part of the report presents the results of the qualitative study, grouped into two main blocks: the results of focus groups with adolescents, teachers, and families, and the results of in-depth interviews with experts. The document ends with a section of conclusions, which synthesizes the most relevant findings of the study.

WHY A QUALITATIVE APPROACH?

Deepening

Discovering

Understanding
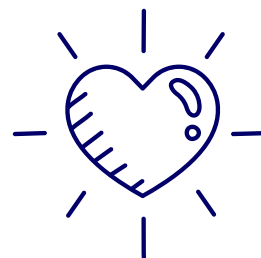
For this new project, it was considered necessary to delve into the perceptions and opinions of the key stakeholder groups through a qualitative study, that would directly give voice to children and adolescents themselves, their families, the teachers who accompany them, and national and international experts.

This approach was chosen, as a complement to the quantitative study conducted with a sample of nearly 100,000 students, given the expressive richness that provides and the possibilities it offers for uncovering and deepening the discourse of each group. This methodology has been used in various research studies (Geurts et al., 2022; Hernán-García et al., 2021) and previous reports (Gómez et al., 2023; Gómez & Calderón, 2023; Smahel & Wright, 2014), although none of them have simultaneously explored the opinions and perceptions of all four target groups of interest in this study.
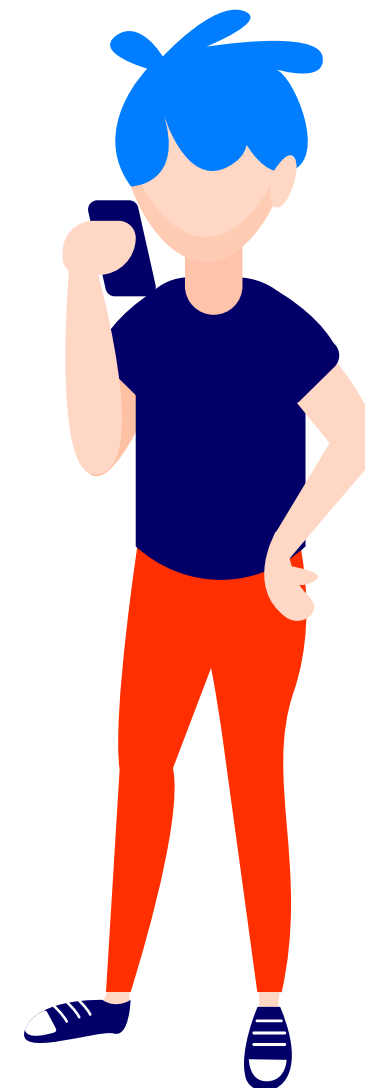
02 OBJECTIVES AND METHODOLOGY

infancia digital

OBJECTIVES

infancia digital

MAIN OBJECTIVE

This qualitative study was designed with a dual objective: (1) on the one hand, to gain first-hand insight into the feelings, attitudes, and perceptions of the different target groups (adolescents, parents, and professionals regarding the topic under study; and (2 on the other hand, to identify potential areas of interest for each group, beyond the information gathered in the literature, that should be addressed in the quantitative study.

SPECIFIC OBJECTIVES

To qualitatively explore the potential implications that the use of digital devices and engagement in the digital environment may have for girls and boys.

To explore the different views, attitudes, and perceptions that families, teachers, and professionals might have regarding the challenges currently posed by early access to digital devices.

To explore the role that different social agents can play in prevention, identifying possible complementary courses of action.

To guide the development of the questionnaire used in the quantitative phase, based on the identification of topics not highlighted in the scientific literature.

METHODOLOGY
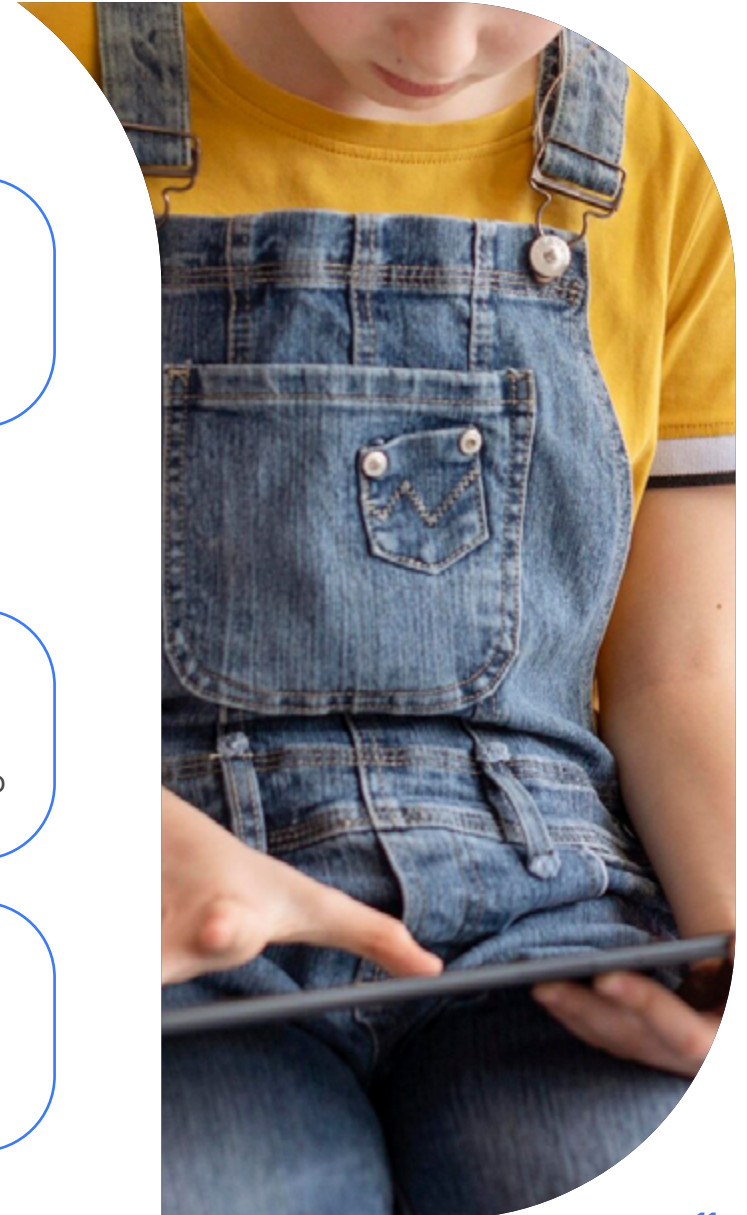
8 FOCUS GROUPS
(IN-PERSON)

- FG 1 **MADRID**
- FG 2 **SANTIAGO**

ADOLESCENTS

- FG 3 **MADRID**
- FG 4 **SANTIAGO**

PARENTS
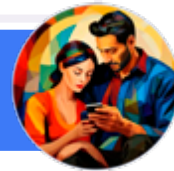
- FG 5 & 6 **MADRID**
- FG 7 & 8 **SANTIAGO**

TEACHERS

10 IN-DEPTH INTERVIEWS
(ONLINE)

- **IN-DEPTH INTERVIEWS**

EXPERT PROFESSIONALS

5 national experts

5 international experts

infancia digital

12

METHODOLOGY

FOCUS GROUPS - Procedure

Eight focus groups were conducted (four in Madrid and four in Santiago de Compostela) during May and June 2024. Each session lasted between 90 and 120 minutes.

A total of 54 participants: 14 adolescents, 13 parents, and 27 teachers. Between six and seven people participated in each session.

The sessions with adolescents included students from Compulsory Secondary Education (ESO), Basic Vocational Training (FP Básica), and Upper Secondary Education (Bachillerato), of both sexes, aged 16 to 18 years.

The sessions with parents included mothers and fathers with children in adolescence (aged 12 to 18 years).

The sessions with teachers (and educational professionals) included primary and secondary school teachers, FP and Bachillerato instructors, as well as guidance counselors, coordinators of coexistence and well-being, and special education professionals.

METHODOLOGY

FOCUS GROUPS - Procedure

A topic guide was developed for each target group (adolescents, parents, and teachers). Each session was structured into different thematic blocks, which addressed the issues of interest through a semi-structured script.

Various materials and tasks were used to support the discussion, enabling participant engagement, balancing participation, and fostering greater dynamism throughout the sessions.

A whiteboard or flipchart was used, on which the moderator periodically summarized the opinions expressed, capturing the most relevant ideas and encouraging discussion.

The sessions were audio-recorded with the participants' consent (or that of parents or legal guardians in the case of minors) and were subsequently transcribed.

The thematic analysis was conducted in pairs, with the support of Nvivo software, in four phases:
(1) familiarization with the data;
(2) generation of initial codes;
(3) identification of themes and subthemes; and
(4) review, definition, and categorization of the information. Relevant verbatim quotes were extracted for the presentation of results.

METHODOLOGY

TASK 1: Adolescents

TASK 1: Parents/Teachers

In an initial individual task, participants analyzed the potential consequences associated with the use of social media, video games, gambling and betting online, and online pornography. For adolescents, the analysis included both positive and negative aspects.

METHODOLOGY

infancia digital

TASK 2: All groups

- To identify potential actions for prevention, a second task was conducted in groups of 2–3 participants, with the purpose of facilitating interaction and the discussion of different proposals.

- The task consisted of carrying out a particular strategic investment for potential preventive measures. A sheet with four sections was used, in which participants had to distribute 10 coins according to their priorities: (1) School-Based Prevention, (2) Family-Based Prevention, (3) Environmental Prevention, and (4) Other Actions. Participants were also asked to specify which specific measures they would invest the limited available resources in.

- The information was compiled by the moderator on the board, encouraging each group to share and justify their proposals.

METHODOLOGY

FOCUS GROUPS - Adolescents and parents

TARGET 1: ADOLESCENTS

GROUP 1 (Madrid – May 2024)

PARTICIPANT	SEX	AGE	GRADE*
1	F	16	4th ESO
2	F	17	1st BACH
3	M	16	1st BACH
4	M	17	1st BACH
5	M	17	1st BACH
6	M	18	3rd ESO
7	M	18	2nd BACH

GROUP 2 (Santiago de Compostela – June 2024

PARTICIPANT	SEX	AGE	GRADE*
1	F	16	4th ESO
2	F	16	4th ESO
3	F	17	2nd FP Básica
4	F	18	2nd BACH
5	M	16	2nd FP Básica
6	M	17	2nd BACH
7	M	18	2nd BACH

TARGET 2: PARENTS

GROUP 3 (Madrid – June 2024)

PARTICIPANT	SEX	No. CHILDREN (age)
1	F	1 (14)
2	F	2 (10 & 12)
3	F	2 (16 & 20)
4	F	3 (10, 13 & 16)
5	M	2 (15 & 17)
6	M	2 (16 & 20)

GROUP 4 (Santiago de Compostela – June 2024)

PARTICIPANT	SEX	No. CHILDREN (age)
1	F	2 (15 & 32)
2	F	2 (15 & 26)
3	F	2 (18 & 21)
4	F	3 (18, 23 & 25)
5	M	2 (5 & 12)
6	M	2 (13 & 18)
7	M	2 (15 & 18)

* For further context, see National Classification of Education. CNED-2014 at: https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736177034&menu=ultiDatos&idp=1254735976614

METHODOLOGY

infancia digital

FOCUS GROUPS - Teachers

TARGET 3: TEACHING STAFF

GROUP 5 (Madrid – June 2024)

PARTICIPANT	SEX	GRADE*
1	F	Integrator
2	F	ESO & BACH
3	F	ESO & BACH
4	F	Pre-school
5	F	Primary, ESO & BACH
6	M	ESO & BACH

GROUP 6 (Santiago de Compostela – June 2024)

PARTICIPANT	SEX	GRADE*
1	F	Special Needs
2	F	Ciclos Formativos de FP
3	F	Special Needs
4	F	School Counselor (ESO)
5	M	Ciclos Formativos de FP
6	M	FP Básica
7	M	Ciclos Formativos de FP

TARGET 3: TEACHING STAFF

GROUP 7 (Madrid – June 2024)

PARTICIPANT	SEX	GRADE*
1	F	Coexistence Coordinator
2	F	Coexistence and Wellbeing Coordinator
3	F	Special Education
4	F	School Counselor and School for Families Coordinator
5	M	Primary
6	M	School Counselor (Primary)
7	M	Principal (Secondary)

GROUP 8 (Santiago de Compostela – June 2024)

PARTICIPANT	SEX	GRADE*
1	F	ESO
2	F	ESO
3	F	Primary
4	F	Primary
5	M	School Counselor (ESO)
6	M	ESO
7	M	Wellbeing Coordinator

* For further context, see National Classification of Education. CNED-2014 at: https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736177034&menu=ultiDatos&idp=1254735976614

METHODOLOGY

infancia digital

INTERVIEWS - Procedure

Online interviews were conducted via Microsoft Teams (USC license), each lasting approximately 90 minutes.

A total of 10 expert interviews were carried out (5 national and 5 international) in May and June 2024.

A specific topic guide was developed for each interview, structured into a series of thematic blocks to address the issues of interest through a semi-structured script.

The interviews were recorded (with each participant's consent) and automatically transcribed for subsequent analysis.

The thematic analysis was conducted in pairs, using Nvivo software, in four phases: (1) familiarization with the data; (2) generation of initial codes; (3) identification of themes and subthemes; and (4) review, definition, and categorization of the information.

The most relevant verbatim quotes were extracted for the presentation of results.

METHODOLOGY

In-depth interviews (online) – National experts

José Ignacio Aguaded Gómez
Chair Professor of Education and Communication at the University of Huelva

Lluís Ballester Brage
Full Professor at the University of the Balearic Islands

José Antonio Luengo Latorre
Vice President of the General Council of the Spanish Psychological Association. Dean of the Official College of Psychology of Madrid

María del Pilar Mallada Viana
Vice President of the Primary Care Pediatrics Association of Aragón

Julián Prieto Hergueta
Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD)

Non-substance addictions, Gender Perspective

Pornography Consumption, Affective-Sex Education

Digital Rights

Digital Rights, Children's Rights

Education, Communication, Media Literacy

Childhood, Health, Technology

Childhood, Technology, Digital Rights

Minors, Digital Rights, Child Sexual Abuse

Data protection, Privacy, Childhood and Adolescence

Mental Health, Coexistence

METHODOLOGY

infancia digital

In-depth interviews (online) – International experts

Leonardo Cervera Navas
Director–Secretary General of the European Data Protection Supervisor

Daniel Kardefelt-Winther
Director of the research programme on children and technology at the UNICEF Office of Research – Innocenti. PI of Global Kids Online

Fulvia Prever
An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

Emilio Puccio
Secretary-General of the European Parliament's Intergroup on Children's Rights. Member of the Advisory Board of the International Association of Internet Hotlines, dedicated to combating child sexual abuse.

Andrea Tognoni
DSA Enforcement Officer at the European Commission. Specialist in EU policies for the protection of minors in the digital sphere

Non-substance addictions, Gender Perspective

Pornography Consumption, Affective-Sex Education

Digital Rights

Digital Rights, Children's Rights

Education, Communication, Media Literacy

Childhood, Health, Technology

Childhood, Technology, Digital Rights

Minors, Digital Rights, Child Sexual Abuse

Data protection, Privacy, Childhood and Adolescence

Mental Health, Coexistence

METHODOLOGY

DATA TRIANGULATION

To provide the results and conclusions with greater objectivity, a dual triangulation strategy was used: data triangulation and researcher triangulation:

a On the one hand, data triangulation was achieved through the perspectives of different stakeholders (adolescents, parents, teachers, and expert professionals). Additionally, complementing the thematic analysis of the discourse, information from individual and group tasks was used, analyzed both quantitatively and qualitatively, balancing participant engagement and mitigating potential biases.

b On the other hand, researcher triangulation was achieved through the direct involvement of several researchers in the preparation of the sessions and the analysis of the results. Two researchers individually analyzed the transcripts and independently coded the information. Subsequently, a team of four researchers reviewed the established themes and their interpretation. Differences were discussed until consensus was reached. This process provides concurrent validity to the identified themes and subthemes, as well as to the conclusions drawn.

infancia
digital

FOCUS GROUPS:

- the adolescent voice
- the parental fear
- the teachers' vision
- the convergence of perspectives
- proposals

FOCUS GROUPS

- the adolescent voice

FOCUS GROUPS • the adolescent voice

infancia digital

digital onset increasingly earlier

● Adolescents report receiving their first personal mobile phone between the ages of 9 and 12. They note a trend toward increasingly earlier access to technology.

"My sister is 17 now, and she got her phone at 15. I got mine at 12."

"I think now, as soon as they have their First Communion, they get a phone. The phone comes with the Communion. That's just how it is."

"Now the kids, when you go to a primary school and they're in 3rd or 4th grade, they already have Instagram, all the social media, and little by little it's becoming the standard. I don't know if... we're already generalizing it so much that, who knows... soon a newborn will get a phone."

● They clarify that the start of technology use is not marked by the first personal phone, but by the tablet.

"And it doesn't have to be the phone. Many times, younger children are given a tablet first. The tablet comes first, and there they have access to the same things as on a phone. Then they get a phone later, but they already had access to social media beforehand."

26

FOCUS GROUPS • the adolescent voice

digital onset increasingly earlier

risks

- Adolescents themselves identify several risks associated with early access to technology, including potential addictive use, interference with sleep and rest patterns, social isolation, exposure to and access to inappropriate content (mainly pornography), and the non-consensual sharing of photos or personal information.

> "They get hooked on their phones and lose sleep and rest hours."
>
> "Horrible, because they lock themselves in their room all day and don't come out."
>
> "They are exposed to so many things they aren't aware of, because they're just kids."
>
> "My sister was in 6th grade last year, and of course... they used it to talk to each other, it was Snapchat. Then they added her to a group, and the kids started talking nonsense, sending links to sites that aren't for 6th graders. And they acted like it was completely normal, as if it was the most natural thing in the world."
>
> "It can cause serious problems, for example, sending a photo and having it spread around."

FOCUS GROUPS • the adolescent voice

utilities

● They do not overlook the potential benefits or expectations associated with technology use, most notably the possibility of forming friendships, romantic or sexual relationships, or earning money (by selling second-hand items, creating content, gambling, or investing in cryptocurrencies).

"For example, I have two friends from Galicia whom I've never met, but I do video calls with them, and we're working on projects because they're also in participation groups, and I've never seen them in person."

"A girl I know in Madrid met her boyfriend on Instagram. They started talking on Discord because they were in a gaming group, then exchanged Instagrams. They started chatting, and it went really well. Now she sometimes goes to Seville to see him."

"- Through clothing. Selling clothes, of course. With Wallapop or Vinted, I pay for all my coffees that way."

"- Sure, by creating content too. In the end, it's a way to sell your image, right? And you can end up making a lot of money, even becoming a millionaire."

"Gambling, of course."

"Now many people are investing in Bitcoin, putting in a lot of money... In the future, a Bitcoin might be worth a lot. So they're investing in it to sell it later for more money."

FOCUS GROUPS • the adolescent voice

video games

● Regarding video games, they highlight *Brawl Stars, Fortnite, FIFA*, and *Call of Duty* as the most popular, while others like GTA are considered "overplayed." They acknowledge the presence of violence in the games they play, although they are skeptical about a direct link between consumed and enacted violence. They do agree, however, that gaming can become addictive and, as a consequence, may trigger violent reactions.

"And now the trendiest game is Brawl Stars. It's a mobile game."

"(GTA) is online now. Its popularity has dropped because it's a game that's kind of overplayed. Let's see... in 2013. It's been around for more than... Well, it's overplayed, but people still play it, and in fact, there are some who get hooked, playing... 10 hours, for example."

"At my school, using phones is prohibited. But during breaks, they go to a corner. They need to play a round because of how hooked they are."

"It's not like the usual thing people say, that if you put two kids fighting in front of a child, they'll start hitting their classmates. For example, this year in psychology I taught about how children repeat behaviors, etc., but I don't think it's that straightforward."

"I know people who have broken a TV. I've even broken a controller myself."

FOCUS GROUPS • the adolescent voice

infancia digital

social media

- The social media platforms they primarily use are Instagram (for more relational purposes, with one main profile and another private one) and TikTok (for entertainment and information). BeReal is no longer in its prime. Although they create content, adolescents are primarily active consumers. They openly acknowledge the addictive potential of social media and the significant influence it has on their behavior.

"If you want to talk to someone, then Instagram or WhatsApp. But if you want to have fun, pass the time, then TikTok, because it hooks you, hooks you, hooks you."

"There are so many topics you can see on TikTok."

"I had BeReal, but I quit because it bored me."

"If you watch a movie or play a game, I don't think it influences you as much as when you see a TikTok and people are doing it. For example, this year in 1st ESO, what's popular are 'mataleones.' Basically, it's an attempt to make someone unconscious."

"They're not challenges per se, like, for example, a supposedly funny video. You see people doing it and think, 'Okay, I'll do it with my friends.' Or, for example, the typical thing where someone sits down—this is more done by boys—they give each other slaps to see whose neck turns the reddest."

FOCUS GROUPS • the adolescent voice

infancia digital

pornography

● They identify increasingly earlier access to pornography, linked to involuntary early exposure. They acknowledge its addictive potential, facilitated by its accessibility and free availability, and report that consumption even occurs within the school context.

"- Because the ages have changed a lot now."

- And because it's very accessible. I mean, you click a link. You accept without knowing what you're agreeing to, being so young, and then you can access all that content.

- And, on top of that, for free.

- So of course, that group they added my sister to in 6th grade, they were sending that kind of links."

"- Listen, in class, when they play a movie and turn off the lights, the back row has a great time. That already tells you everything. In class, I mean, we get to the point of things that...".

FOCUS GROUPS • the adolescent voice
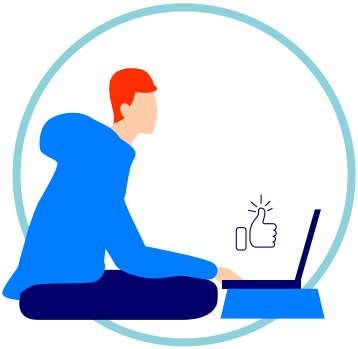
mental health and coexistence

● They also observe the precocity of the digital sphere in the offline world, for example, in the age of onset into substance use. They are concerned that mental health of many adolescents is poor (stress, anxiety, depression...) and link it to academic and family issues, as well as to bullying and cyberbullying. At the same time, they believe that nowadays there is less stigmatization and greater awareness around these topics.

"Now smoking, drinking, partying... at 11 years old, in 1st year of ESO."

"When we were in 1st year, I didn't see people smoking or drinking... smoking after school. But now..."

"- Some people are doing really badly.
- Mental health in adolescents is declining. It's getting worse and worse.
- It's also becoming more visible. I mean, it's normal that if you give voice to mental health issues, more people will try to see a psychologist. Before, it was more taboo; you only went to a psychologist if it was urgent."

"- Stress, anxiety, mostly.
- Depression, from exams, social issues, to academic matters. Academics influence a lot. The environment you grow up in also has a big impact."

"At least in my experience, before, when phones were given later in ESO, bullying was more face-to-face. Now that phones are given at an earlier age, like 4th grade, kids tend to dare more through the phone."

FOCUS GROUPS • the adolescent voice

infancia digital
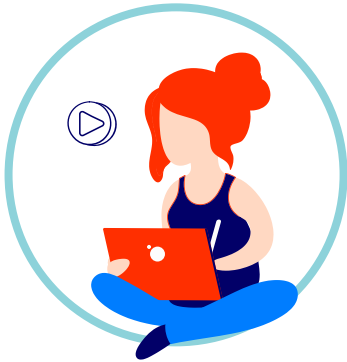
need for limits

● On several occasions, they emphasize the need for limits and rules regarding technology use, both at school and at home, even considering the convenience of some digital disconnection. They are, however, aware that they bypass the barriers or restrictions set by the apps they commonly use.

"I suddenly talk to my friends during recreation time."

"At first it will be hard, but later there will be other ways to have fun. I have friends who don't have Instagram."

"For example, during the school year, well, I did this year, I deleted TikTok because I realized I was getting way too hooked."

*"- Yes, it's for 18+. But you can just say you're older, and that's it.
- I always, when I create an account, whatever it is, I say that I was born in 2000.
- Me too. But do you know why? Because many apps even Instagram ask for your birthdate, and supposedly you can't use it until 16. I'm 15, and I have it anyway."*

FOCUS GROUPS • the adolescent voice

infancia digital
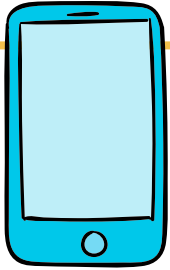
transversal aspects

hooked

- Throughout their discourse, they repeatedly refer to the addictive or hooking potential of various elements of the digital sphere, especially video games, social media, and pornography.

> "Video games, a lot, especially for boys... some don't even shower because they're playing. If you run out of time and it's time to go to class, then no shower."
>
> "During class, they can take out their phone while sitting in a corner at the back, and the teacher doesn't see them..."
>
> "Instagram and WhatsApp. There's a friend who, if you take her phone, wow, she freaks out in a way..."
>
> "TikTok, because it hooks you, hooks you, hooks you."
>
> "- They send them as a joke (pornography links), but then you click, accept...And then you get hooked."

FOCUS GROUPS • the adolescent voice

infancia digital
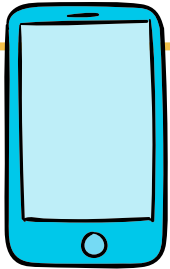
transversal aspects

gender differences

● There are repeated references to the differences in digital experiences between boys and girls, reflecting an underlying differential gender socialization. Boys are more often associated with entertainment-oriented uses (video games, recreating "funny" or violent videos) and with pornography consumption. Girls, on the other hand, experience sexual harassment more frequently, receiving unsolicited and unwanted sexual images (sometimes from boys they do not even know) and sexual requests from adults. The phenomenon of OnlyFans also emerges spontaneously in their discussions.

""Boys play video games a lot, some so much that they don't even shower because of it."

"It's typical that they sit one guy down the boys do this more and start slapping each other to see who ends up with the reddest neck."

"Girls get more attention than boys: more requests, more messages, more replies to their stories..."

"The photos that many boys send to girls... Girls don't send those to boys.
Yeah, boys are kind of creepy.
A guy can just text you with that kind of picture, even if you've never met him."

"A lot of Sugar Daddies message me."

"On OnlyFans, it's mostly girls who create content and boys who consume it."

FOCUS GROUPS • the adolescent voice

infancia digital
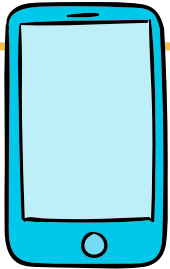
transversal aspects

lack of accompaniment

- Girls and boys express a lack of supervision and guidance from adults, both in the digital sphere (for example, when learning to assess the credibility of online content or facing cyberbullying) and in the offline world (such as substance use or school bullying). Adolescents report not feeling supported or accompanied, neither at home nor in educational settings.

"*Nobody has taught us how to manage the information we receive. In the end, we learn on our own... well, depending on the person, we learn how to handle it.*"

"*- Do parents know about all that (substance use)? -No, not at all.– And teachers? – Well, teachers might see them, maybe when they go out, and just look the other way.*"

"*I've been saying for quite some time that teachers shouldn't only care about the academic side of a student, but also their personal and emotional life, right? If a child is emotionally or personally struggling or doing things they shouldn't be doing at their age, it will eventually affect their academic performance.*"

"*There isn't enough trust between adults and children for kids to open up to them.*"

"*It's essential to have a figure, as she said, of trust and safety. At school it could perfectly be the counselor or a psychologist. But maybe in a high school with 800 students, they don't even know half of them because they can't keep up, and in the end, how the kids are doing isn't a priority, not because they don't care, but because they don't have the resources.*"

FOCUS GROUPS • the adolescent voice

infancia digital

TASK 1 (individual): The good and the not-so-good about...

SOCIAL MEDIA

POSITIVE

1. **Meeting people and making friends**
2. Entertainment or hobby
3. Communication
4. Earning money
5. Staying informed and up to date with trends
6. Sharing interests and passions
7. Keeping in touch with people who are far away
8. Source of inspiration

NEGATIVE

1. Addiction
2. Bullying and cyberbullying
3. Contact with strangers
4. Inappropriate content
5. Exposure and lack of privacy
6. Negative effects on self-esteem
7. Fake news, misinformation
8. Grooming and pedophilia

VIDEO GAMES

POSITIVE

1. **Fun and entertainment**
2. Skill development
3. Socializing and making friends
4. Creativity
5. Stress relief
6. Earning money
7. Acquiring knowledge
8. Problem solving

NEGATIVE

1. Addiction
2. Violence and aggression
3. Losing track of time
4. Inappropriate content
5. Neglecting other activities
6. Family conflicts
7. Loss of friendships
8. Loss of money

As emerged in the spontaneous discussion, among the positive aspects, the possibility of using social media and video games for entertainment and socializing stands out, without forgetting the option of earning money through these means. On the negative side, they are aware of the risk of addiction, exposure to inappropriate content, and the violence generated (in the form of cyberbullying on social media or linked to "heat of the moment" in video games).

FOCUS GROUPS • the adolescent voice

TASK 1 (individual): The good and the not-so-good about...

ONLINE GAMBLING AND BETTING

POSITIVE

1. **Earning money**
2. Entertainment
3. Acquiring skills
4. Investment

NEGATIVE

1. **Losing money, being ruined**
2. Addiction
3. Violent behavior
4. Considering it a "job"
5. Loss of control
6. Wasted time

PORNOGRAPHY

POSITIVE

1. **Earning money**
2. Source of pleasure
3. The only place where you can see sex
4. Making intimate discoveries

NEGATIVE

1. **Reality distortion**
2. Addiction
3. Aggressive sexual behavior
4. Inappropriate for minors
5. Toxic standards
6. Normalization of unrealistic acts
7. Machismo and misogynistic behavior
8. Poor sex education

Girls and boys perceive very few advantages or positive aspects in gambling and pornography, although they are aware of the possibility of earning money. Entertainment is the main attraction in gambling, and sexual pleasure and curiosity in pornography. On the negative side, they clearly perceive the risks of addiction and the promotion of violent behavior, although in online gambling there is a greater perception of the fear of losing money, and in pornography, the distortion of sexual reality and the normalization of sexist behavior.

FOCUS GROUPS

• the parental fear

FOCUS GROUPS • the parental fear

overwhelmed

- Spontaneously, mothers and fathers say they feel overwhelmed by technology. This fear stems from the lack of knowledge they express about digital environment. They can not avoid comparing their childhood and adolescence, free of technology, with that of their sons and daughters. They feel that their parental work in this field overwhelms them and makes them feel a low perceived self-efficacy that is not always easy to manage.

"Something has to be done, we are helpless"

"The truth is that the brutal number of resources, technological tools... make me feel overwhelmed and, on many occasions, it does not let me think positively about it. (...) Sometimes, we can't respond to everything that comes to us and everything that children handle. And it even gives us that frustration and it makes us afraid, of what we have and of what may come."

"The problem with this is that, we, the insecurity we have is because we do not know, at least I do not know, how far my son goes and I do not know if there are things that are hidden."

"The problem is that we are illiterate... well, I consider myself a technological illiterate. I have been very good at instilling values, because I have had the great luck and the great fortune of living them, but I have not experienced this. This has come to me like a beast. (...) In fact, honestly, it overwhelms me. This often scares me a lot."

"I remember that, when I was a child, what happened was that we children went out to play (...) in the street and in the park, and the mothers stayed doing things at home and looked out the window. Meanwhile, the kids would pick up the skateboard and start rolling, and they would open their heads... And other times they took the bikes and came back to eat... Now we control them more and, on the other hand, they are involved in a world that we do not know... It scares us, because we were not born in that world."

FOCUS GROUPS • the parental fear

infancia digital
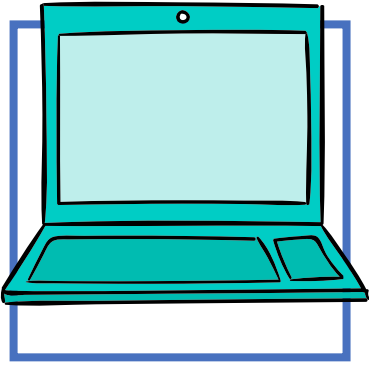
overwhelmed

digital onset increasingly earlier

● They note an increasingly earlier onset in the digital environment, something they generally observe when reflecting on the differences between their eldest children and their younger ones. Some parents acknowledge having felt a certain initial fascination with how their children used technology, and they make a mea culpa.

" And children are accessing things they shouldn't, the internet, having a mobile phone, at increasingly younger ages..."

"The problem I see is that they get devices earlier and earlier, and they're not prepared, and I see it... In my case, I have a little one in the family who hadn't even turned 2 yet, and they were already given a tablet."

"There's a big age gap. In the case of the eldest, they got a mobile very late because they weren't interested either; they were very focused on sports, studies, and hanging out with friends... And when they got a mobile, I think they were a bit more mature, maybe around 18. But their sister got a mobile at 12, at an age when they're not mature... so I see a huge difference there."

"It was our fault, because I remember when they started using mobiles and tablets, it was cute, and I would say, 'Look how funny! Look how they manage the screens! Look how they search... how clever they are!' We found it so amusing... Of course, then this backfired on us, we didn't know how to control it."

"I also think the adults are to blame. When my son had his first communion, everyone asked, 'What do you want as a gift? A tablet?' 90% of the blame is ours for allowing it."

FOCUS GROUPS • the parental fear

infancia digital

individual impact

● This unfamiliar environment, which is arriving at increasingly earlier ages, raises multiple concerns for them. Among these are the impact on cognitive development and academic performance, the opportunity cost of overshadowing other interests and hobbies, the early access to inappropriate content, and, above all, its addictive potential.

"

"I'm especially concerned about the impact on development during those years, which are fundamental in life. In terms of academic skills, concentration, interest, appreciation for art, leisure, and sports... And perhaps another fear is addiction, right? Developing addictive behaviors."

"I've had to approach parents twice at school because, through conversations with my students, I detected that their children were viewing pornography. It happened with my daughter when she was eight; she came to me and brought up a topic... She asked me if girls 'suck their parts,' the vulva... Luckily, I had unfortunately read that this existed, but I hadn't imagined it. Then with my son, a classmate of his, I noticed it again through what my son told me. The mother said, 'Look, really, forgive me'...And she told me 'thank you' and started crying because the child couldn't stop looking at it, at ten years old, couldn't stop accessing that content... I've witnessed it myself: at eight, nine, ten, some kids in the class are already talking about sexual content in the playground. They're quite advanced, we'd say."

"Pornography, extreme ideologies... they think everyone is like that because Instagram pushes content based on what they like... In the end, it ends up guiding them to where certain media want them to go."

"

FOCUS GROUPS • the parental fear

impact on their relationships

• The impact on the relationships their children form, as well as on their social skills, is also a source of concern. Peer relationships, non-consensual sharing of images, contact with strangers, and the effect on family life are recurring and transversal issues.

""They socialize much less. I have a child who, before COVID, had relationships with friends, with the world, going out to the playground, playing in the garden... (...) And since then, we go out less, we're constantly stuck in the room, I get bored, we don't want to do sports... (...) We've greatly reduced our social interactions. And then, you see them—when they meet up, my children's meetups are six kids, on two benches, playing online with each other."

"There are things that are being held back. Even giving a kiss to your own child sometimes makes them uncomfortable, right? (...) Many times, when we did something like that before, they would read us, I mean, they knew what we were saying. Now it's harder for children, right? (...) They struggle. They struggle to interpret gestures."

"My daughter is already 20, but she has met or known guys through Instagram. That, in my time, seems... people would meet through Insta. (...) She meets a boy or girl she doesn't know."

"The impact of, for example, a child sending a nude photo to a boyfriend or girlfriend and one day that boyfriend gets angry and shares it with the entire school... That's the real problem."

FOCUS GROUPS • the parental fear

infancia digital

influence received

- They are particularly concerned about their children's use of social media, as they see this activity as a gateway to other risks. In addition, they believe that the content their children consume on these platforms reinforces certain values of a consumerist and instant-gratification society. They are uneasy knowing that influencers and YouTubers serve as aspirational role models for their daughters and sons.

"

"- I think (where I see the biggest problem is) on social media, because everything is linked... On social media, you get ads and promotions for games, and consumption, one thing leads to another... Online gaming is closely tied to your internet consumption."

"- For example, now my daughter's old phone wasn't good enough. It had to be the one that costs €600.That's because the society we live in is a consumer society, a hardcore consumer society. They don't value money, they don't know where it comes from... (...) They want things immediately and don't appreciate their value. She wants an iPhone, and she doesn't care how much it costs..."

"- When you ask them, 'What do you want to be when you grow up?' they say, 'I want to be an influencer.' Why? Because you see influencers... you see how many millions of views they get, that they earn a lot of money, and they earn it easily without having to study a university degree. That's what they want to be. At my house, the kids want to be YouTubers."

"

FOCUS GROUPS • the parental fear

infancia digital

gender differences

They clearly observe a different pattern of social media use between girls and boys: girls tend to post more content, while boys are more often consumers. They also perceive relatively different risks, which are more pronounced for girls, something they associate with societal sexism, the esthetic pressure placed on them, and an increasingly early sexualization/hypersexualization.

"My nieces are completely obsessed with TikTok, with dancing. I post dance videos, and they're uploading photos all day... My children have never posted anything, they just watch. From what I see, they only watch videos, and the girls post a lot: videos, photos, makeup... That's why I think they're more exposed than boys."

"Yes, spending hours glued to live streams playing games, that happens with my son. He's watching TikTok and at the same time spends an hour and a half watching some guy play live."

"I have a teenage daughter, and she's much more concerned about her appearance than my son, who doesn't care as much. (...) I don't think it's so much about technology use, but in the end, that's society itself. Society is like that. There are still more risks for a woman than for a man. And ultimately, technology use reflects that."

"One of the struggles I have with my teenage daughter is the way she dresses. (...) She tells me no, that she dresses that way because she likes it, but in the end, it's because she sees it. (...) Nowadays the role models are much more exaggerated. I think so, you see it a lot online, even from a very young age."

"I think women, in general, are at much greater risk. (...) I work in a courthouse (...) and I've seen many things... child pornography... all these kinds of issues. And at least professionally, I see much more risk for girls; they're more socially influenced."

FOCUS GROUPS • the parental fear

infancia digital

parenting & technology
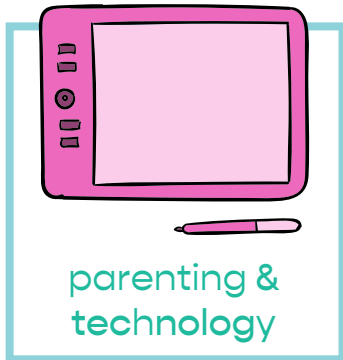
barriers

work-life balance issues

individualistic parenting

● Another recurring topic is the influence of technology on parenting itself. They share the view that technology is convenient in the short term, but they warn of a certain delegation of responsibilities and emphasize the need for responsible adults to be more present. As barriers to achieving this, they point to difficulties in balancing work and family life and the "loss of community" for raising children in today's society.

" *It seems that, instead of parents educating, which I believe they should, sometimes you delegate, and I give them the tablet. They stay calm, don't talk, I put on anything... And in the end, we're encouraging something that little by little...*"

"*There are ages when you just want to get the child out of the way. Raising a child without giving them technology takes a lot of effort.*"

"*Sometimes they want the tablet because they don't have another option. I mean, with my children we did activities together, baked cookies, went for walks, played cards... Not everything has to be tablet after tablet.*"

"*Before, all the doors in the building were open, like in my house. So we would go from one house to another. It was a community that doesn't exist now.*"

"*The biggest problem for not being able to interact with your children is work. Right now I work shifts, and my wife works from 9 a.m. to 9 p.m. She spends one day a week many hours with the children, and the rest of the week, she can't. And when you're working, the kids are at home, but do you know what your children are doing? No. Can you interact with them? Much less, far less.*"

FOCUS GROUPS • the parental fear

parental mediation strategies

● Faced with this reality, parents suggest different parental mediation strategies, both restrictive and enabling: delaying the age at which children are allowed access to screens (especially mobile phones and tablets), using parental control tools, active supervision, or accompaniment.

" *My daughter is one of the two who doesn't have a mobile phone. She's in 1st year of secondary school. She sometimes cryis, saying that I'm isolating her, which, obviously, has made me set up a gradual approach to this, with a lot of conversation. But I haven't taken the step yet (...) She even told me she agrees with me, but says, 'Mom, I have to have it at least so they see I'm like everyone else, even if I don't use it.' When you talk to other mothers, everyone has given up. Some don't put any pressure.*"

"*I have control, Family Link, where I tell my son, 'No more YouTube,' and I cut it off.*"

"*I'm one of those psychotic parents who have complete control over my children's phones: I turn them off, turn them on, restrict apps, set time limits... (...) In my house, there are two basic rules regarding phones: the password cannot be changed, and I read all my children's chats.*"
"*When they first started using a mobile, we did set parental controls and such. But then they all removed them, and we realized they weren't very effective.*"

"*My son and I spend a lot of time alone at home, so sometimes we watch Bridgerton and other times Ibai Llanos. I watch the live streams, and my son explains. (...) Even if it seems silly, if you sit with your children to watch content, some of it is silly, but some of it can give them guidance and even positive lessons for life.*"

FOCUS GROUPS • the parental fear

● Finally, it is highlighted that some parents use the mobile phone as a control tool, to know their children's location, what they are doing, etc., which helps them manage certain concerns. However, they are aware that this may not be very appropriate and is more a reflection of their own fears.

" My son does have a mobile, and he has it because, for me, it's a resource. Since 1st year of secondary school, he goes to school alone, so I needed to know where he was going."

"I gave them mobiles in 1st year of secondary school, partly because of schedules, since they go alone, to football, and I appreciate having GPS to know where my 16-year-old son is and when he leaves... honestly, it gives me a lot of peace of mind."

"I choose to let my daughter walk without a mobile. And I said, 'I did this.' I was scared and looked for resources. The route is 13 minutes in a safe area, no subway, walking... And I told her, 'Look, there's a pharmacy. You know the people. If something happens, run, go into the pharmacy, tell them what's happening.' But when I talk to parents in my circle, everyone has a GPS watch to see where the child is, out of fear. And I, who am also worried about my daughter, told myself, 'Control this fear, control it.'"

FOCUS GROUPS • the parental fear

infancia digital

TASK 1 (individual): Possible problems or negative consequences associated with...

SOCIAL MEDIA

1. **Cyberbullying and sexting**
2. Viral challenges and dangerous trends
3. Self-esteem issues
4. Mental health issues
5. Extortion and manipulation
6. Social isolation
7. Addiction
8. Perception of a false social reality

VIDEO GAMES

1. **Addiction**
2. Loss of track of time
3. Playing with strangers
4. Physical problems and sedentary lifestyle
5. Aggression and violence
6. Mental health issues
7. Vision problems
8. Social isolation

ONLINE GAMBLING & BETTING

1. **Addiction**
2. Loss of money
3. Thinking you can make easy money
4. Identity fraud
5. Family conflicts
6. Mental health issues

PORNOGRAPHY

1. **Normalizing a false sexual reality**
2. Machismo and violence against women
3. Violent sexual behavior
4. Attacking the innocence of childhood
5. Encouraging sexual abuse and assault
6. Addiction
7. Shaping sexual desire
8. Mental health issues

FOCUS GROUPS • the parental fear

infancia digital

TASK 1 (individual): Possible problems or negative consequences associated with...

... with **social media**. They highlight consequences related to their children's social interactions, both specifically in the form of cyberbullying or sexting, and more generally in terms of impacts on self-esteem, body acceptance, or the development of social skills.

... with **video games**. Parents perceive the main problems as addiction, aggression arising from heated gameplay, and loss of track of time, along with physical health consequences and the risks of contact with strangers.

... with **online gambling and betting**. The most concerning negative consequences they underline are the potential for addiction and the financial losses that may result.

... with **online pornography**. The main perceived problems include the normalization of an unrealistic sexuality based on sexist behavioral standards, the shaping of sexual desire, the trivialization and normalization of sexual violence, and the frustration it may cause adolescents.

FOCUS GROUPS

- the teachers' vision

FOCUS GROUPS • the teachers' vision

infancia digital

digital onset increasingly earlier

parental ignorance

● Teachers are observing increasingly earlier access to technology, initially as a facilitator of child-raising and, subsequently, as a tool for location control, given the difficulties families face in balancing work and family life. They highlight a certain lack of knowledge on the part of parents regarding the cost-benefit associated with the use of digital devices.

"The problem starts in three years, or even earlier, when you're in a meeting and the parents are there. And so that the child doesn't get up or cause any trouble, they already have their mobile phone. Then they reach fifth and sixth grade, and "well, they're going to start going out, so we have to give them a mobile phone without data...". Yes, but the mobile phone isn't just a way of controlling where they are, like GPS, it's that you give it to them and don't teach them what's inside".

"Young children are often given mobile phones so they don't bother anyone".

"You arrive, take first communion, and they give you a mobile phone, they give you a tablet, and at 9 years old, you're on your own. And without any control. Parental control, often due to ignorance, parents sometimes don't know how to do it, or due to apathy".

"That's how they keep them under control. Because they tell you that they don't live near the school, that they need the route they have, the journey they have from home to school, that the children can be located in case something happens to them, especially the younger ones".

"We have a society of parents who are extremely concerned, but not involved".

"Today's society has no filter. Parents are extremely well informed and, at the same time, misinformed".

"You talk to parents and all the children are studying or working in the evenings. And then you talk to the children or listen to them and they run out of class with their mobile phones, playing, and spend the evening playing".

FOCUS GROUPS • the teachers' vision

infancia digital

inability to
self-regulate

- Teachers are very concerned about the impact of technology use on their students, especially adolescents, aware that self-regulation is not possible at this stage of development, which is particularly vulnerable.

"

"Them is the issue, because they can be more out of control, because in the end they are, well, 13-14 years old... The impact is on everyone, but the thing is that they are teenagers and the way they use it is like how they do with absolutely everything".

"We have to teach them. Otherwise, they'll do it wrong, because everything about them is intensity, and whatever they do will be intense".

"I believe that a 13-year-old child is not able to regulate themselves. You have to set limits, you have to know what they're watching".

"We were working on a video about the problems caused by social media. And I said, 'Come on, let's all see how many hours we spend on our phones.' They were shocked, I mean, some of them were spending 12 hours a day on their phones. But there aren't that many hours in the day! If I do the math: class time, sleep time, and so on... I'm missing hours, guys. They're not conscious of it, kids aren't capable of regulating themselves. It's impossible, never".

"The consequences of me making mistakes at my age are not the same as the consequences they may face for making mistakes at their age. I think they're more vulnerable".

"

FOCUS GROUPS • the teachers' vision

infancia digital
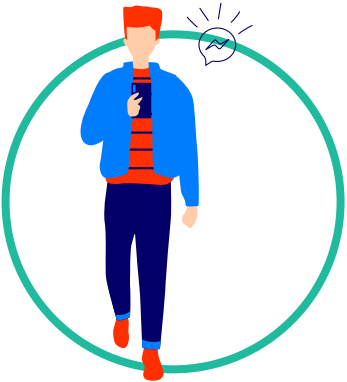
individual impact

● They warn of the cognitive impact (overstimulation, attention difficulties, low frustration tolerance, language development, etc.) and the opportunity cost this represents, even affecting sleep hygiene. They also highlight the addictive potential associated with screens.

"Overstimulation and immediacy and the 'I want it now, right now, just like that' attitude, because they are used to everything coming right here, right now. I see zero tolerance for frustration when they don't get what they want right away, the way they want it (which is how their mobile phone, computer, video game, contacting whoever, searching for information here, watching porn videos, or whatever else they want works)".

"We realized when they came back from lockdown that they had a huge addiction problem. In the 2nd year of Bachillerato, they weren't able to follow the class. It was impossible".

" Mobile phones and social media are the "slot machines" of young people. I am concerned about the loss of concentration and addiction to mobile phones".

"I went to a course, and there were people from the UACO (Center Care and Counselling Unit), and many of them said they were treating children who didn't leave their homes because they were hooked on video games".

"I ask them a lot about what they do during the weekend: 'What are you going to do this weekend? ' Then they tell me, 'I'm going to smoke seven joints, watch out! I'm going to get home and take a time to get video games fix...' There are kids who arrive without having slept, and you ask them, 'What have you been doing?' and they say, 'Playing, teacher, playing all night'".

I would say the amount of time spent on screens in general, whether it be mobile phones, tablets, computers, or television... and attention capacity. They spend their evenings doing nothing. "What have you been doing?" "Four hours on TikTok, two on Instagram, and three on YouTube".

FOCUS GROUPS • the teachers' vision

infancia digital
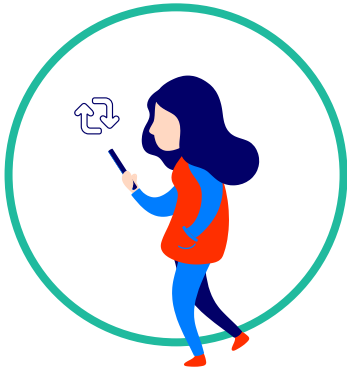
content influence and impact on their relationships

● They also highlight the influence of social media networks and influencers. They warn against early consumption of inappropriate content (especially pornography) and peer conflicts resulting from widespread use of digital devices.

"

This is very strong because it's in everything, it's pandemic, it's everywhere, in all the ways they relate to each other and discover the world. This is Plato's cave: you have a lot of references that never become real, from when you're very young and you're watching Dora the Explorer on the big screen. And you keep growing up, and you see the TikTokers, and you see Llados...".

"It's what's at the core, meaning it is transversal to every level (school, family, etc.). What's inside, at the center, impregnating everything, are new technologies. You have them at home, you have them at school...".

"I do see a problem because the Internet has no doors, there are no doors at all. So, from time to time, there are cases of sexual abuse of minors... A 6-year-old girl and they were putting sand inside her school friend's vagina. Do they know what they are doing? No, but they have seen content that has reached them, who knows how...".

"I see a problem in how they talk to each other on social media, because many of the problems we have at school are that a mother comes and says, 'My daughter is getting messages every day asking, "Why aren't you answering me?" or "Why don't whatever?".

"And technology has made them lose the limit between reality and the screen. And they make that leap immediately. You just have to see how they treat each other now... I mean, before you would have been embarrassed to tell someone to their face a series of stupid things that are said on social media. And now they've skipped that, and you hear them talking among themselves and sometimes shrink your stomach".

"Mobile phones amplify problems. Things that children do in small groups, which would otherwise be forgotten, are recorded and remain on the Internet forever, potentially causing serious, long-term problems".

"

FOCUS GROUPS • the teachers' vision

infancia digital

school community & technology

late digital education

without supervision or parental control

lack of accompaniment

- They believe that there is a lack of coordination between families and teachers. With regard to parents, they observe general overprotection, but little parental control in the digital environment and a lack of accompaniment. As far as schools are concerned, they agree that they are late in responding, that the focus has been placed on digital skills, but that there is a huge gap in terms of relational ethics and human skills, both inside and outside the digital environment.

"There is no coordination between parents and teachers, and it is possible that teaching staff are not setting the best example".

"- They start adolescence earlier, but they are treated like children until later. They are infantilized.
- They are overprotected until I don't know what...".

"There is very early access to new technologies, and families do not effectively control or limit this access".

"It is very rare for a child to have a parental control who says 'The phone stays in the living room; when you're done, I'll give it back to you.' That's it. It's that easy".

"Neither young people nor parents have the tools to manage new technologies".

"The education system is starting to take action, but it's starting too late. In other words, the education system needs to be aware that adolescence has started earlier nowadays".

"At the end of the day, we are governed by a curriculum; our subjects are established. We cannot go out and educate. There are so many things to cover: sex education, social media... There comes a point where you no longer know what to focus on. (...) How do we do it?".

"We are not addressing ethics within new technologies in schools, and it is a dimension of digital skills".

FOCUS GROUPS • the teachers' vision

infancia digital

family-school coordination

● In response, they call for greater coordination between families and schools, pointing out the need to supervise, monitor, and educate children in the digital environment from an early age and to actively preserve technology-free times and spaces, both at school and at home.

"Families and schools have to be one on this issue. And either we accept that, or it won't work."

"Start earlier, not even during adolescence, but when they are children, in preschool. Educate them in this use, because it will stay with them for the rest of their lives. That's all".

"And they need to have screen-free time, it's very important".

"If you limit mobile phone use, children go back to doing childish things".

"I go around with the fruit basket. At first they find it difficult, but now they thank you. When the school year ends, they thank you because they realize that they pay much more attention if you take their mobile phones away. But they find it difficult".

"It's no longer just a question of controlling where they go online, but also how much time they spend doing so. That's what I try to explain to parents, because usually the children who find it hardest to control their use of technology and mobile phones are those who don't have much supervision at home".

"You come home and say, 'My son's phone is connected to mine, and I'm going to set a timer because he has several hours of screen time and needs to distribute them accordingly'".

FOCUS GROUPS • the teachers' vision

infancia digital

TASK 1 (individual): Possible problems or negative consequences associated with...

SOCIAL MEDIA

1. Mental health issues
2. Cyberbullying
3. Social isolation
4. Addiction
5. Frustration and anxiety
6. Contact with strangers
7. Fake news, misinformation, disinformation
8. Loss of privacy

VIDEO GAMES

1. **Addiction**
2. Isolation and social exclusion
3. Sleep problems
4. Aggression and violence
5. Sedentary lifestyle
6. Loss of track of time
7. Frustration and anxiety
8. Vision problems, eye strain

ONLINE GAMBLING & BETTING

1. **Addiction**
2. Loss of money
3. Thinking you can make easy money
4. Stealing from family members
5. Thinking your actions have no consequences
6. Obsession with money
7. Aggressions to family and friends
8. Misuse of social time with friends

PORNOGRAPHY

1. **Idealizing risky sexual practices**
2. Disrespect within the couple
3. Distortion of sexual reality
4. Gender violence and machismo
5. Encouraging sexual assault
6. Encouraging aggression and harassment
7. Addiction
8. Objectification of human beings

FOCUS GROUPS • the teachers' vision

infancia digital

TASK 1 (individual): Possible problems or negative consequences associated with...

... with **social media**. Teachers detect the greatest consequences in the emotional well-being, self-esteem, and mental health of their students (symptoms of depression, anxiety, eating disorders, etc.), although they also refer to social isolation, cyberbullying, and their addictive potential.

... with **video games**. In this case, teachers perceive the addictive potential of video games and the possible isolation or social exclusion they can cause as the biggest problem. They are also concerned about the aggression and violence they can provoke and their impact on students' sleep hygiene.

... with **online gambling and betting**. Among the problems perceived in this area, addiction, the economic damage it can cause, and the resulting family conflicts stand out.

... with **online pornography**. The consequences highlighted focus on the idealization of risky sexual practices and the distortion of how emotional and sexual relationships and sexuality itself are understood from an early age. They also link its consumption with a loss of respect for one's partner and even sexual violence.

FOCUS GROUPS

• the convergence of perspectives

FOCUS GROUPS • the conjunction of perspectives

infancia digital

Shared ideas

Adolescents, families, and teachers are seeing **increasingly earlier access** to digital devices, with not just smartphones but tablets serving as the gateway.

They are all concerned about what this implies: **early access to inappropriate content**, potential **addictive use, impact on their social interactions and emotional and sexual relationships**, a scenario of **gender inequality**, and influence on their **well-being and mental health**.

There is consensus in considering that **parents lack certain knowledge** about the digital environment, feeling **deprived of the tools** they need to exercise their parental role adequately. The approach taken by **schools** also has **deficiencies**: it comes too late and is not addressed properly, with too much emphasis on technical digital skills. **There is a lack of coordination between families and schools. Teenagers feel alone** and, in general, do **not turn to their adult role models** when they have problems in the digital environment, which affects many areas of their lives on a daily basis.

All three emphasize the **need for adults to be trained to supervise and guide children and adolescents** in the proper use of screens, while also **safeguarding spaces and moments where technology is not present**, both so that learning is not impaired and to make room for other leisure, social, and personal development activities.

FOCUS GROUPS

- proposals

FOCUS GROUPS • proposals

Preventive proposals (TASK 2)

Percentage of resources assigned to each prevention area according to the target

● Adolescents   ● Parents   ● Teachers

School-based prevention: Adolescents 37%, Parents 30%, Teachers 30%

Family-based prevention: Adolescents 33%, Parents 26%, Teachers 25%

Environmental prevention: Adolescents 28%, Parents 42%, Teachers 41%

Others: Adolescents 2%, Parents 2%, Teachers 4%
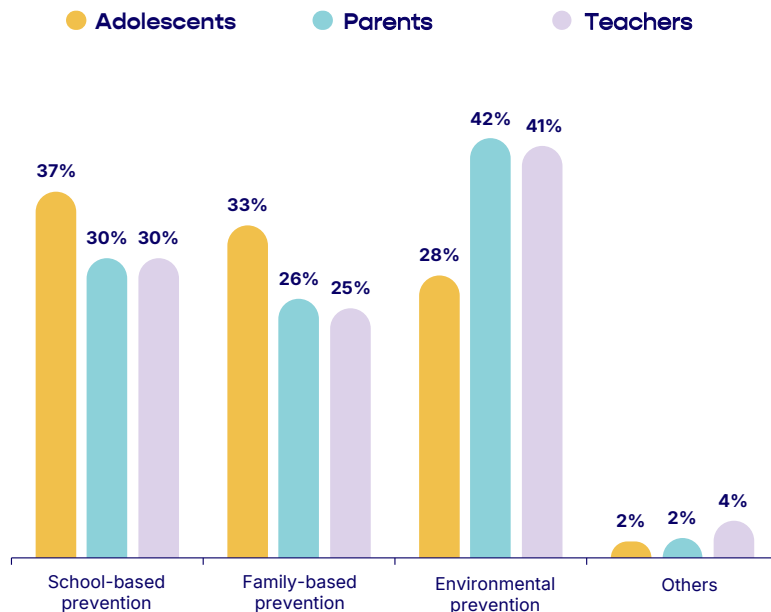
After describing their perspectives through spontaneous dialogue, participants in the different sessions compared their own proposals for prevention, specifying where efforts and available resources should be focused.

School-based prevention: joint and planned preventive actions in the educational community aimed at preventing problems arising from the use of digital devices.

Family-based prevention: preventive actions aimed at creating family conditions that promote healthy, responsible, and critical use of digital devices.

Environmental prevention: preventive actions aimed at altering the immediate cultural, social, physical, and economic environments in which children use digital devices.

It is interesting to note that adolescents are the least likely to advocate for environmental prevention, focusing instead on areas that are closer to them, such as school and family.

Teachers and families place greater emphasis on environmental prevention than on school-based and family-based prevention.

FOCUS GROUPS • proposals

infancia digital

Preventive proposals (TASK 2)

1. **Teacher training**
2. Sex education talks
3. Strategies to limit social media use
4. Talks to raise awareness about technology
5. A wellbeing consultant in all schools
6. Encouraging interaction between children
7. Counselors in all schools.

1. **Promoting family psychological therapy**
2. Training for parents
3. Greater parental control
4. More involved parents
5. Raising awareness among families about the inappropriate use of digital technologies
6. Greater control over mobile phone access
7. Regular meetings between parents and the school counselor

school-based prevention

family-based prevention

adolescents

1. **Laws to prevent access to pornography**
2. Controlling access to applications
3. Greater content regulation on social media
4. Updating anti-stalking laws
5. More general surveys
6. Comprehensive training for everybody
7. Limiting minors' access to gambling websites

environmental prevention

other actions

1. **Promoting educational sports activities**

Adolescents once again suggest the need for training for teachers, families, and themselves; greater involvement of the education system in the digital sphere; and the establishment of limits on the use of mobile phones, social media, and other applications. They also expressly demand greater attention to mental health, more sex education, and leisure alternatives.

FOCUS GROUPS • proposals

infancia digital

Preventive proposals (TASK 2)

parents

school-based prevention

1. **Emotional education and mental health subjects**
2. Regular training in digital risk prevention
3. More education on social media and sexuality
4. Encouraging sports and leisure activities
5. Giving teachers more authority
6. Disseminating prevention tools
7. More resources and counselors

family-based prevention

1. **Greater work-life balance**
2. Social media education for parents
3. Providing tools to encourage critical thinking
4. Training on intra-family agreements for dialogue
5. Greater involvement with the school
6. Providing positive parenting tools
7. Greater involvement in associations

environmental prevention

1. **Rigorous identity verification control**
2. Information campaigns on digital risks
3. Promotion of alternative outdoor leisure activities
4. Limiting the effect of digital footprints on social media
5. Financial assistance for work-life balance
6. Removal of dangerous websites
7. Greater investment in education

other actions

1. **Greater awareness of the consequences of the Internet**
2. Greater privacy for the digital footprint

Mothers and fathers are demanding more emotional and sex education, mental health support in schools, and training on digital risks for all students. They are calling for progress in work-life balance, so they can actively accompany their children on their digital journey, and more training for families. They are expressly requesting effective age restrictions for access to certain content, campaigns on digital risks, and attractive leisure alternatives.

FOCUS GROUPS • proposals

infancia digital

Preventive proposals (TASK 2)

1. **Teacher training**
2. Subjects on digital risk prevention
3. Workshops on emotional management, social media, and sexuality for students
4. Real mediation between families and schools
5. Promoting coordination between schools and parent's associations
6. More protocols for prevention
7. Promoting Service-Learning

1. **Training for families**
2. Facilitating the use of parental controls
3. Encouraging family involvement in schools
4. Family bonding activities without digital devices
5. Encouraging parents to pay more attention to their children
6. Greater coordination with social services
7. Regular mentoring for families on the use of digital devices

1. **Control of inappropriate and dangerous content**
2. Regulatory laws for content creators
3. Age verification system
4. More investment in mental health, prevention, and treatment
5. Awareness advertising campaigns
6. Resources for families to manage digital devices
7. Promoting outdoor leisure activities

1. **Greater awareness of the consequences of the Internet**
2. Greater privacy for the digital footprint

teachers

- school-based prevention
- family-based prevention
- environmental prevention
- other actions

Teachers are demanding more training for themselves and for families. They assert the need for digital education to be definitively consolidated in the educational policy agenda, forming part of the curriculum, to continue advancing in emotional and sex education, to promote greater collaboration and coordination between families and schools, the use of parental control tools and age verification systems, as well as laws regulating the creation of digital content.

IN-DEPTH INTERVIEWS

- national experts
- international experts

IN-DEPTH INTERVIEWS

- national experts

José Ignacio Aguaded Gómez

Chair Professor of Education and Communication at the University of Huelva. He served as Editor-in-Chief of the scientific journal *Comunicar* for 30 years. He is President of the *Comunicar* Group and Director of the "Ágora" Research Group within the Andalusian Research Plan. He directs the International Master's Degree in Communication and Education (UNIA/UHU) and coordinates the Interuniversity Doctoral Programme in Communication (US, UMA, UCA, UHU).

1 Digital devices are now an extension of the human body, shaping mental frameworks and acting as powerful agents of primary socialization. They are everywhere, and everything is in them. Their omnipresence makes them invisible, and educating people about them is as essential as it is difficult.

"The media function as extensions of the person; just as we have arms and legs, we have the media, practically as prolongations of our own body, and this occurs in early childhood, from the very first ages".

"The screen, at first, provides visual and auditory stimuli, but little by little it begins to construct a discourse, a narrative that ultimately shapes the mind, as many psychologists point out, and enables a construction of the world, so that practically from early childhood a large part of our knowledge is shaped by the media, by screens. I often say that we live in the generation of screens, because there is nothing that frames you more".

"Our worldview of reality is no longer mediated exclusively by personal, family, and school relationships, but fundamentally by the media. And of course, with the emergence of the mobile phone, this has grown exponentially. (...) The mobile phone's main characteristic is its capacity for omnipresence, but also for its omnipotence".

"That interaction (with the media) is so widespread that it has practically become invisible. And invisibility carries its risks. Invisibility eliminates the perceived need for learning. (...) The problem is that there is no education for media consumption".

José Ignacio Aguaded Gómez

Chair Professor of Education and Communication at the University of Huelva

2 Digital media should not be excluded or ignored. We must learn to live with them. They are tools that facilitate different areas of human development (education, coexistence, social development, etc.), if used intelligently and critically. If both premises are not met, two major problems arise: hyperconsumption and distortion of reality.

"Coexisting with the media means using them in a rational, intelligent, creative, critical, and playful way... but with an awareness of their codes, their languages, their structures, their mental constructs... so that we are somehow able to (...) extract the good that the media offer while filtering out the bad they also contain".

"Not coexisting with the media is not an alternative. Ignoring the existence of the media, ignoring that the media are present in the streets and have a strong influence on children, young people, and adults, is neither a viable alternative nor a good strategy for media education".

"We could say that the media are neutral. The media themselves are not harmful. At most, their content could be, but never the media per se. The media can be fantastic tools for education, coexistence, and personal and social development... but when consumed in a non-constructive way, they do generate, on one hand, overconsumption, a consumption beyond balance, beyond a healthy media diet. (...) On the other hand, it is not only a problem of consumption; it is a problem of constructing reality".

"To the extent that you have less contrast with reality, virtual reality becomes the only reality, which is the problem for children, whose direct experiences are so limited that virtual experience becomes everything".

"One of the major problems we face today is that, in the face of compulsive or excessive consumption, there is no critical reflection on that consumption".

José Ignacio Aguaded Gómez

Chair Professor of Education and Communication at the University of Huelva

3 Fear of technological advancement is something that has been repeated throughout history, more pronounced among those who have a greater lack of knowledge. A certain audiovisual illiteracy persists in society. Paradoxically, those who consume the most may be the ones who have the most difficulty in making critical consumption choices. There is a gap in the digital training of families.

"Whenever there is a new way, whenever there is a significant technological breakthrough, such as Artificial Intelligence, which goes beyond video games, the Internet, and social media, an immediate reaction occurs, usually among the most uninformed sectors. Fear is always closely linked to ignorance".

"There is a quite blatant visual illiteracy at the social level, which is not limited, as some might think, to children and young people, although it is more pronounced there since their direct knowledge of reality is more limited, and therefore the penetration of the virtual is stronger".

"In contrast to reading, for example, where it has been shown that the more you read, the more reading skills you acquire and, consequently, the greater your ability to understand the written code, in omnipresent audiovisual media such as social media and television, it can happen that those who consume the most are the ones who have the greatest difficulty distancing themselves from the medium and engaging in critical understanding of it".

"What happens? There is an absolute disparity between more capable parents and less capable parents, which coincides with the well-known digital divide. Parents with better economical situation, whose children have stronger offline alternatives (such as gym, golf club, etc.), experience less dependence on the media than families where television, the Internet, and the mobile phone are the only affordable, and supposedly innocent and harmless, means of connecting with the world".

infancia
digital

José Ignacio Aguaded Gómez

Chair Professor of Education and Communication at the University of Huelva

4 Media literacy is the key mediator of the effects of the digital environment on individuals. It must be channeled through schools, even though we are aware that digital media are elements of individual consumption. To encourage the active participation of adolescents, it would be advisable to use strategies such as reverse mediation.

"I am very critical of the concept of digital competence. (...) I align more with UNESCO, which adopts the concept of MIL (Media and Information Literacy). Digital competence focuses more on agency, that is, on how to use the tools, how to operate them. (...) The emphasis of media literacy is not on the devices, but on the audience. It is not so much the device itself, but how the audience interprets it, how it impacts them, how it affects them. The key lies in empowering the audience, especially children".

"Media education is like a communicative revolution that focuses on the audience. To the extent that we have more critical, more active audiences, the power of fake news, misinformation, and information manipulation declines. A critical audience implies critical interpretation, and therefore the power of the media diminishes. A critical audience is the key to ensuring that citizens' interaction with the media is an intelligent one".

"The school is precisely the place where there can be greater control and mediation, because there is no other space with a formally trained mediator who can guide children and say, 'look, this is how it should be done, be careful with this.' It is precisely in school where learning must take place, because outside of school they will not learn. It is a space for reflecting and learning, and therefore the appropriate place to promote critical media consumption".

José Ignacio Aguaded Gómez

Chair Professor of Education and Communication at the University of Huelva

4 Media literacy is the key mediator of the effects of the digital environment on individuals. It must be channeled through schools, even though we are aware that digital media are elements of individual consumption. To encourage the active participation of adolescents, it would be advisable to use strategies such as reverse mediation.

"The family sector is strategic because consumption primarily takes place at home. And if it does not happen at home, the responsible party is the parent, because the teacher does not buy the mobile phone. Family mediation used to be very important, but with the mobile phone it does not exist, because it is a device for individualized consumption. It is designed, by its size and interaction, for personal use. And especially in private spaces, under the pillow, at night... with all that implies of zero mediation. There is a lot to be done in this area".

"Inverted mediation: instead of parents teaching children, which we have already seen often fails... why can't we create programs where children teach their parents about critical and intelligent media use? (...) Research also shows that when someone is given a leading role, they learn much better than when they are passive".

Lluís Ballester Brage

Full Professor at the University of the Balearic Islands. One of the leading figures in Spain in the study of the impact of pornography consumption on children and adolescents. Author of books such as *New Pornography and Changes in Interpersonal Relationships*, *Pornography and Affective-Sexual Education*, and *The Online Pornography Industry: Characteristics and Consequences*.

1 The last decade has seen a shift in so-called fourth-generation technologies, with endless possibilities for screen culture and an unprecedented power of attraction, especially among young people.

"We are not aware that a 9-year-old spends more than five hours a day in front of a screen, facilitated by parents and even by the school itself. Through this, they are exposed to thousands of people you do not know and whose intentions are unclear".

"Some people have learned a great deal about how to generate appeal and capture attention... and the audience that should have set limits lacked the mindset and capacity to know where and how to set them. All of this creates the perfect storm we are facing today".

"The new business opportunities have legitimized a powerful socialization space in the digital environment, giving rise to a problem for which we were unprepared and which we have failed to understand".

2 Pornography is colonizing the digital environment, where new generations interact, socialize, and grow up.

"Pornography has colonized the entirety of Internet products, from the perspective of consumption, the encouragement of production, or the capturing of images. On Telegram and WhatsApp, pornographic videos, groups, and young people involved in sexual violence and gang rapes by minors under 14 are circulating. They imitate everything they see in pornography and record it. It is a very toxic model. The disconnection from empathy is so intense that they are not even aware of the harm they cause, which is severe both emotional and physical".

infancia digital

Lluís Ballester Brage

Full Professor at the University of the Balearic Islands

2 Pornography is colonizing the digital environment, where new generations interact, socialize, and grow up.

"There is also a pornification of video games occurring, with the increasing presence of women and background images everywhere. The industry knows it must diversify, and invitations are appearing in video games and on social media, seemingly normalized, to capture images using various technologies. It is a fact that the Internet has become pornified".

3 The risks associated with pornography consumption are undeniable and already constitute a public health issue.

"Access to pornography is occurring at very early ages, even before puberty, sometimes at 7 or 8 years old. The construction of the sexual imagination is clearly distorted by pornographic content".

"Pornography is a behavior-modifying machine. An essential component of sexuality involves words, communication, seduction... the encounter between people, the construction of intimacy. None of this exists in pornography".

"Behavioral changes have been documented by scientific societies, such as the increase in sexually transmitted diseases at very early ages, as noted by the Spanish Society of Adolescent Medicine and the Spanish Association of Pediatrics".

Lluís Ballester Brage

Full Professor at the University of the Balearic Islands

3 The risks associated with pornography consumption are undeniable and already constitute a public health issue.

"Another concerning issue is the subtle introduction of violence into our sexual lives. Empathy is disconnected, and there is an inability to identify many situations as violent, leading them to be perceived as part of sexual rituals".

"Research is documenting a growing discomfort with one's own body. A boy or girl without a consolidated body self-esteem is no longer comparing themselves to peers at the beach, but to pornography, because it is the medium in which genitals are shown up close. In comparing themselves, they believe they need other things: pills, surgery; anything goes".

"Fortunately, in recent years many researchers have seriously examined what was happening, and the truth is that the current body of scientific evidence leaves little room for doubt. It is known that pornography consumption from ages 7 or 8 can have neurological consequences, which manifest as an increase in violence, clearly documented. Even neurological research confirms that this is a public health issue".

"Scientific evidence is telling us that there is evidence of risk and evidence of harm, with good traceability, based on sound research and rigorous methodologies. Scientific evidence is telling us things that we may not want to hear, but that are undeniable".

Lluís Ballester Brage

Full Professor at the University of the Balearic Islands

4 It is urgent to raise awareness and act as a community.

"The fact that new generations are initiating sexual relationships earlier than previous generations, and that reference models are not provided by the family, the educational center, or even peers, but by a very diffuse and questionable entity such as the Internet, social networks, and pornography, is in itself a problem".

"Girls aged 13–14 come to perceive as expected or even desirable, in their first sexual experiences, patterns in which they are clearly being abused. Research has shown that pornography consumption clearly increases victimization. Pornography is a problem. It causes otherwise good people, who do not intend to harm, to end up causing harm, because they do not read the emotions of the other person and do not recognize boundaries. The other person becomes a consumable object".

"There is very little social awareness: neither among families, politicians, nor the industry itself. Many parents deny that the problem concerns their children, or even themselves. A risk does not mobilize us until we perceive it as a personal threat. Parents have the responsibility to be aware, start asking questions, and be willing to listen to the answers, whatever they may be".

"Many policymakers believe we are dealing with a debate from the 1970s, regarding pornographic magazines. That has nothing to do with the current situation. There has been great naivety toward the industry. Practically 90% of advertisements in pornography are for prostitution. Prostitution is changing; very young people are being targeted. Recruitment channels are becoming more sophisticated, and the process of normalization is advancing. This is being driven by one of the major economic-financial pillars of this era, the technology industry, without age limits. A 14-year-old should not be bombarded with this type of content. We are all responsible, including professionals in Education, Psychology, Mental Health, and Social Services... We are not aware of what is happening or of its significance".

"The distribution of violent videos and depictions of violent practices goes against the protection of children, against equality laws, and against laws in general. A PEGI 18 video game with explicit violence cannot be categorized under the label of cultural industry".

infancia digital

Lluís Ballester Brage

Full Professor at the University of the Balearic Islands

5 Supporting comprehensive, evidence-based prevention is crucial.

"The problem goes beyond what we think. It is not possible to implement effective equality policies if we do not address all of this. An integral policy is needed, which requires a comprehensive understanding of this set of phenomena that screen culture has intensified".

"This cannot be solved by modifying the Minor's Law to lower criminal responsibility to under 14 years. We cannot hold minors accountable for something for which adults are primarily responsible. We need to improve educational activity to compensate for everything they are exposed to on the Internet, not only through schools but across society as a whole. We face a generational challenge to recover part of what has been lost during this period of irresponsibility".

"The educational system must take a stance. The space devoted to comprehensive education on sexuality, affectivity, relationships, and emotions must be much broader and more consistent, as recommended by UNESCO. However, it must be based on scientific knowledge and properly protocolized, carried out by trained professionals with the necessary accreditation and continuity, not occasional short talks. It is also important to have a state body ensuring that programs are well-calibrated and adapted to each age group. And it is essential to evaluate what is being done, with thorough periodic assessments, since it has been observed that some sexual education programs can produce counterproductive effects".

"Much more could be done at the technological level. First, implement effective age verifiers. With the technology currently available, this could be done perfectly, without infringing on anyone's privacy. Second, parental controls, which are very easy to install or even preinstalled on mobile devices, as recommended by the European Union. Third, the responsibility that the General Audiovisual Communication Law assigns to the regional audiovisual councils, advisory bodies, should be shared with an entity that has executive capacity. The type of content delivered through screens must be someone's responsibility and must be controlled. The administration must start taking action".

José Antonio Luengo Latorre

Vice President of the General Council of the Spanish Psychological Association. Dean of the Official College of Psychology of Madrid. An expert in mental health and coexistence. Author of numerous books and articles on the emotional problems of children and adolescents, and one of the leading figures in Spain in the prevention of school bullying and cyberbullying.

1 We really do have a problem with screens, a problem that affects different life areas of childhood and adolescence (physical health, mental health, coexistence, etc.).

"Personally, I believe there is a problem. A big problem, one with a history, with roots, which has been growing and will continue to grow... a problem closely related to people's health, particularly mental health. Until we see it as one of society's major challenges, we will not find a solution".

"The hyperconnectivity that adolescents are currently subjected to is very harmful, especially regarding its impact on sleep, rest, health... the need to disconnect. Then there is access to inappropriate content, such as pornography, which, combined with the lack of proper affective-sexual education, is creating significant problems, resulting in a generation moving away from healthy practices concerning gender policies, respect, etc. We have been warning about all of this for a long time".

"I am not exaggerating. Children arrive at school after little sleep, after being connected, having generated in their nervous system a kind of routine with rest that is utterly abnormal. This undoubtedly leads to a series of dysfunctional neurological processes that are now being studied. In the case of pornography, the effects are terrible. The Prosecutor's Office itself has confirmed this. I have taken a clear stance: I believe this is a public health issue".

"And then there are all the social ailments that have emerged, such as social envy generated by this constant comparison of my life with the lives others show us on social media, and the frustration and dissatisfaction it produces, something very difficult for adolescents to manage because this type of social recognition or validation is a fundamental need".

José Antonio Luengo Latorre

Vice President of the General Council of the Spanish Psychological Association.
Dean of the Official College of Psychology of Madrid

1 We really do have a problem with screens, a problem that affects different life areas of childhood and adolescence (physical health, mental health, coexistence, etc.).

"Permanent presence on social media correlates with greater emotional vulnerability in our adolescents. The construction of personal identity, self-concept, and self-esteem in our boys and girls is significantly hindered by a world of lies and falsehoods, an inflated and hypertrophied world in which it is difficult to discern anything. Influencers on social media, for example, often pose a risk".

"Family and school coexistence is significantly affected. The social learning that occurs among peers at school generates more tension than in previous times. The mobile phone itself is an element that distorts communication and interpersonal relationships. Even at the school level, conflicts are increasingly visible. For instance, a child has activated a mobile phone when they were not allowed to and even recorded a teacher... yet the parent says, 'You cannot touch my phone because there is private information on it.' This is madness".

José Antonio Luengo Latorre

Vice President of the General Council of the Spanish Psychological Association.
Dean of the Official College of Psychology of Madrid

2 The problem must be approached from a rights-based perspective and away from ideologies. Prohibition is not the solution.

"I am concerned about seeing sterile debates between those who believe there is scientific evidence to affirm that screens cause psychological disorders and those who believe there is not. We need to reach understanding; we cannot take extreme positions. There may not be a direct cause-and-effect relationship, but there is sufficient correlation to recognize that things are getting out of hand".

"The problem with the digital environment is that children immerse themselves in it without any supervision or control and with a level of maturity that does not enable them to manage, process, and digest everything they encounter. However, these are complementary and compatible scenarios, as human beings are maturing, developing, and constructing our identity and way of relating to the world by integrating both contexts. Therefore, we must view it from a child rights perspective, which should make us reflect. Children have every right to engage in an orderly manner, with good digital education. If we think prohibition is the solution, we may lose the reference point".

"I am of the opinion that mobile phones should not be active during the school day. This is something parents should support and that children should understand. A series of problems have arisen, not only regarding coexistence but also terrible disciplinary procedures involving students, parents, and teachers... But one thing is the mobile device itself, and another is the use of digital devices for teaching. I particularly believe they should continue to be used, in a very controlled manner and from the perspective of rights. I do not like the word 'prohibit'".

José Antonio Luengo Latorre

Vice President of the General Council of the Spanish Psychological Association.
Dean of the Official College of Psychology of Madrid.

3 Working on prevention: from schools, families, and institutions.

"More work needs to be done on school-based prevention, continuing to improve efforts at the educational, family, and institutional levels".

"If we then look at the family and educational environments and do nothing... it is in the family environment where attitudes, routines, methods, and models are formed. Parents must be very rigorous about certain matters, but always operate through dialogue, conversation, and leading by example. This is how we must build and furnish our children's minds, because they will make mistakes; now more likely than ever. We must guide them so that they can recognize the psychological pitfalls they might encounter".

"It is very important that we work with parents. Parent schools have generally not worked. Only those who are already interested attend. Today's parents believe they know everything and expect to be lectured. Some schools have managed to correct this drift, particularly through tutorial actions, because you are talking about their specific child, not just their grades or the events in their lives... about something that directly involves them".

"We also cannot say that this is solely a matter of home education, that children come to school with their own backpacks, and that as a teacher I can do nothing or do not have time. The educational system must balance time to educate for good digital citizenship, implementing projects in which the students take an active role".

"Some schools have successfully developed a fantastic partnership throughout the school year, with activities in which students, parents, and teachers discuss topics as equals, resulting in significant improvements".

José Antonio Luengo Latorre

Vice President of the General Council of the Spanish Psychological Association.
Dean of the Official College of Psychology of Madrid

4 Responsible public policies must be implemented.

"Questions are being raised and decisions made from various organizational contexts, units, agencies, citizen movements... and from the Government itself, which are very timely. We are at a critical moment, and this cannot get as out of control as it has. We have been doing things poorly for 20 years. We need to take the bull by the horns".

"We should start with that broader framework, that umbrella called the Administration. Many processes can be regulated through the Administration. However, administrations, when using legal frameworks, almost always end up opting for restrictive policies, focusing on what cannot be done, on prohibition".

"Regulation must involve the industry itself. It should not frighten us at times when the government says that something cannot be done, that it must be controlled, because it is generating distortive effects on people's lives and development".

"The solution also has much to do with how we design cities and neighborhoods. Municipal policies are very important here. In places where friendly environments have been created for children to go outside and play together, things have improved. Streets have been reclaimed as educational spaces, generating balance and reducing the dominance of screens. I am not referring to organized, scheduled activities, but to spaces where children can interact and have fun".

María del Pilar Mallada Viana

Vice President of the Primary Care Pediatrics Association of Aragón. Specialist in childhood, health, and technology. Expert in primary care pediatrics.

1 The early use of digital devices is undoubtedly a problem. It has increased with the pandemic and starts earlier than we think. Beyond scientific evidence, professional evidence confirms this.

"Obviously, we see the problem at age 12. Studies are focusing on what happens during adolescence, but I would dare to say that the problem does not really start there; it begins much earlier".

"In 2022, in the same week, I saw in my practice three 2-year-old children who were not speaking. Two-year-olds speak—they are supposed to speak, construct small sentences... but none of these three children spoke. What did these three children have in common? Screens. They had no perinatal problems, no developmental issues; their only problem was screens. These were children born and raised with screens all day, children born in 2020 who experienced the pandemic... parents working from home, screens placed in front of them, and this was the result".

"During the pandemic, many factors coincided: many more hours in front of screens and, technologically, we all have 5G and use mobile phones like computers, at a reasonable price. We have moved to having enormous accessibility and, since the screen calms them...".

"More and more, children are being brought to us with tantrums, which is a matter of child and adolescent mental health, because they are uncontrollable. We truly have a growing problem. In recent years, we have begun to address it. A small guide, a brochure, a poster... to try to reach families and train those who work with families. If you explain that it harms their child's brain, they may understand; otherwise, they will do nothing, because it is clear that the electronic babysitter is very convenient. The mobile phone, the tablet, and that's it... starting from six months of age".

"Then there is the problem of gambling addiction, children addicted to computers, social media, video games, isolation, digital autism, access to inappropriate content, bullying, and digital violence...".

María del Pilar Mallada Viana

Vice President of the Primary Care Pediatrics Association of Aragón

2 It might have serious consequences for the development of children, but also when exercising parenthood.

"It is a problem that is evident from childhood in many areas: language development, attachment... there are many parents who, instead of focusing on their child, are looking at their mobile phone, and if the child cries, they seek the answer on the phone. We have countless breastfeeding apps, countless parenting apps, but if you do not listen to your child, look them in the face...".

"New parents have grown up with mobile phones; as adolescents, they already had access to the Internet. They see it as completely normal to ask a device all their questions instead of listening to their baby, looking them in the face, or singing them a lullaby. We are seeing parents feeding their baby, either bottle or breast, while checking WhatsApp. A child's brain does not develop the same way when stimulated by a screen as it does when playing with them".

"We are seeing real attachment problems. When a child fell in the park, parents used to be able to explain why. Now, if you ask, they do not know, because they are focused on the mobile phone. There is an impressive disconnection between parents and children because screens have been inserted in the middle".

"From six months, when children can begin to grasp objects, their development increases and they start interacting more with the world. To keep them quiet, we give them screens. The same applies to feeding. There are even strollers with mounts for mobile phones or tablets. This is a time for enjoying, playing, and touching... we have a developing reward system, but we are stimulating it incorrectly, with a reward that leads to a cycle of addiction starting at around eighteen months".

"When it comes to language development, it is a complete disaster, not to mention empathy. A child needs interaction with an adult to learn to speak, to have responses through eye contact, to be talked to... a screen does not provide any of this. What empathy can they have with a machine? How can they learn to express their feelings with a device?".

"At eighteen months, children enter the play stage. They learn to interact with other children, to experience frustration... how can they learn to handle frustration if we give them a screen to prevent it? And this is not the same as a video game. Not to mention psychomotor development or obesity. We have a growing obesity problem, bone density issues, muscle problems... because they are not moving, back problems, postural issues".

María del Pilar Mallada Viana

Vice President of the Primary Care Pediatrics Association of Aragón

3 The solution requires comprehensive strategies and a community-based approach: involving families, the healthcare system, and the education system. Institutions must promote measures that ensure good digital hygiene and a courageous regulatory framework that protects the integral development of children and adolescents.

"We have been sold the idea that technology is always good, but it is not. It must be used wisely, in the right measure, at the appropriate age, and knowing how to use it. This is what we are not teaching. The digital competencies so often discussed are not just about knowing how to use a computer, but about having judgment, learning to verify information... and having good digital empathy. There is much to be done at the educational level... especially now with AI".

"The healthcare sector is aware that the problem exists, but now it will be necessary to create units that can work with children who have issues, starting from early care. Early intervention units are overwhelmed and are asking that `please, children not be exposed to screens".

"Anyone working with children must understand the problem, its origins, and its consequences, but also communicate it properly, because it is necessary to reach families for change to happen. It is a matter of pedagogy and health education. If you push me further, even prenatal preparation should involve working with mothers and fathers".

"In well-child care, during routine check-ups, in addition to asking about diet, sleep, and free time, we already ask about screen use. This is essential. The well-child program exists nationally. All regions implement it reasonably well, but sometimes we lack sufficient time, training, or tools".

"I would ask families to ensure that their children have no access to technology before age three. Once they do have access, it must be controlled, with close supervision and guidance. The first to be unaware of how many hours children use mobile phones are their parents".

"At the regulatory level, more can be done. Age verification must be strictly enforced when accessing, for example, an online gaming site meant for those over 18, pornography, or certain video games. We must protect childhood and adolescence".

"And of course, investment in prevention is essential, and prevention must be accompanied by information; not alarmist, but evidence-based information".

María del Pilar Mallada Viana

Vice President of the Primary Care Pediatrics Association of Aragón

4 The great challenge of prevention starts with the work with families and should include Early Detection and Intervention.

"No one doubts the importance of oral health, but at this moment digital health is even more important. Therefore, in addition to promoting dental hygiene, I would promote Digital Hygiene. With poor oral health, you can get an implant, but with poor digital health, you cannot get a new brain. There is little awareness of the importance of establishing good digital hygiene from early childhood".

"Just as we emphasize brushing teeth, we must pressure schools to be responsible and use technology in a balanced way".

"We are facing a public health problem, without a doubt, which has reached epidemic proportions and is difficult to solve. Digitalization affects absolutely everyone and everything from birth. It impacts lifestyle, cognitive and psychomotor development, language, brain development, musculoskeletal development, social skills, and child and adolescent mental health".

"This is a priority issue that must be taken seriously, certainly within pediatrics, but also in many other areas: education, justice, Internet regulation, major technology lobbies... The administration could, if it wanted, control Internet content, access ages, advertising, and more. More can and should be done".

"Families must take responsibility for parenting. We are sold the idea of the happy baby who sleeps eight hours, eats every three hours, cries when you want, and stops when you want. This must be deconstructed. Parenting has been idealized. In fact, for the brain to develop properly, I often have to learn to say NO. Many centers have parenting groups; this should be addressed just as breastfeeding is".

"The pediatrician's role is, during all check-ups and consultations, to plant seeds. Just as a child comes in eating a lollipop and you throw it away, they come in with a mobile phone; you take it away and nothing happens".

"Another strategy to promote would be Early Detection and Intervention for all problems related to screen use, with training, resources, dedicated time, and proper referral pathways. But the problem is that Early Intervention services are overwhelmed, Child and Adolescent Mental Health services are saturated...".

Julián Prieto Hergueta

Law graduate from the Complutense University of Madrid. He has held various positions within the Ministry of the Interior and is currently Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD), where he is also Head of the minors area

1 The link between children and technology is raising concerns that we cannot ignore. The tech industry has managed to create a huge business around children's data, monetizing it and influencing their consumption habits, personal development, and lives. Protecting the best interests of children means addressing all of these issues.

"The risk may be greater or lesser, but it exists, and it is an integral risk. I do not know the exact order, but it is seen in family relationships, at school, in cognitive development, mental health, access to adult content, pornography, gambling... These are issues that often do not reach us directly, but we are informed through reports that warn about all of this. It is an integral problem that goes beyond data protection or cybersecurity".

"At the AEPD (Spanish Agency for Data Protection), we try to guarantee the fundamental rights of minors, their privacy, through data protection. What we are seeing is that they are dependent on the digital environment, buying into and following the instructions of YouTubers and influencers... Social media targets and profiles minors, monetizing them in the medium or long term. We should be concerned about the possibility of entities or companies profiling a child's entire school life while their personality develops and using that information to influence their behavior and consumption habits through personal data".

"What we aim to guarantee through the right to Data Protection are the rights and freedoms of the population, in this case, minors, which even extend to the right to health (recognized by the Convention on the Rights of the Child, including mental health problems caused by excessive screen use) and the right to education. This is not just about data protection; it is about the very lives of children, which are sacred".

Julián Prieto Hergueta

Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD)

2 This is an issue that requires a multidisciplinary approach. We must make progress in legislative and cybersecurity work (establishing controls and limits on the industry), but also at the educational and family levels.

"I also believe that companies bear significant responsibility. They are deeply involved in the situation we have reached. Let us not forget that behind this industry there are economic interests, and the cashflows involved are enormous. We must act, not only in terms of data protection but also regarding digital services. The industry's commitment must be greater. Fireworks are not enough; we need to address the issue more thoroughly".

"The regulatory framework always lags behind reality, but for years there have been initiatives from the European Union, the AEPD (Spanish Agency for Data Protection), parental controls, and age verification systems... The 2016 General Data Protection Regulation itself is an example of regulatory work establishing a framework of guarantees as technology evolves. The AEPD is here to assist in all this because we believe data protection is a safeguard of rights and freedoms. We have the ability to suspend services or block content, but perhaps a more ambitious global regulation is needed".

"One area I find very important is the family environment. Families have not given the issue sufficient attention; we have either lacked time or have simply been too busy or tired. I do not think it is a matter of the digital divide, nor do I agree with the term 'digital natives.' Rather, I believe families have neglected the issue somewhat, prioritizing convenience, entertainment, and peace and quiet without being disturbed by children".

"One father said he had a 14-year-old daughter who took his phone and saw through WhatsApp that she was being humiliated and degraded... all kinds of things. It was his own daughter who confronted him, telling him that this was normal, that it is the current way of interacting. There is a digital violence so normalized that it must alert us, make us aware, and prompt us to act. I believe we are finally realizing the situation".

"One of the major challenges concerns the family sphere. We must work with mothers and fathers so they can accompany their children in their digital lives and gain a broader perspective. Parent schools need to be strengthened".

Julián Prieto Hergueta

Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD)

3 Although we have a good legal framework, there is still room for improvement. The regulations must be expanded, consensual, and implemented. It is necessary to raise awareness of existing regulations and, above all, to coordinate the promotion and highlighting of everything that is being done by institutions so that citizens can take advantage of it and it can be effective.

"We have a solid legal framework, a global regulation. The 1989 Convention on the Rights of the Child emphasizes the best interests of the child. There are 196 signatory states, and therefore they are bound by this convention".

"I joined the AEPD in 2011 with an educational and training project based on the Irish Data Protection Authority's approach for minors. Later, a unit dedicated to the protection of minors in the digital sphere was created, and in 2015 we launched a specific channel aimed at parents, guardians, instructors, sports clubs... everyone involved with minors. We still maintain the consultation channel. Last year, about 4,000 inquiries were received. But we would like to be better known, without a doubt".

"Various materials were also developed and disseminated, along with a specific URL for minors' education ('You Decide on the Internet'), aimed at raising awareness and promoting healthy Internet use... videos, materials on cyberbullying, addictive behaviors, grooming, sexting... With the 2018 Data Protection Law and the introduction of the right to digital education, a repository of materials and content was created to carry out the digital education mandated by Article 83 of the Law, supporting both teachers and families".

"A working group on minors, digital health, and privacy was also established, focusing on addictive behaviors, how to prevent, detect, and address them... We have collaborated on the Family Digital Plan of the Spanish Association of Pediatrics. The priority channel has been implemented... A huge effort has been made, but perhaps we are not well known enough. We need to improve communication, dissemination, and social outreach so that people can turn to us and take advantage of what we offer. The priority channel has involved the Attorney General's Office, the General Council of the Bar, yet many agents of the National Police Corps and staff of the Director Plan are surprised when they hear about it because they do not know it. An effective and rights-guaranteeing age verification system has been developed... A lot of work has gone into it".

Julián Prieto Hergueta

Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD)

3 Although we have a good legal framework, there is still room for improvement. The regulations must be expanded, consensual, and implemented. It is necessary to raise awareness of existing regulations and, above all, to coordinate the promotion and highlighting of everything that is being done by institutions so that citizens can take advantage of it and it can be effective.

"There should be better coordination between institutions, between the agencies and organizations working on this. We need to be more coordinated, understanding what each one does in order to be a good complementary prescriber. This is an area for improvement, because very good work is being done in different parts of the public sector. What we lack is reach, reach and reach".

4 It is everybody's responsibility and a challenge for society as a whole.

"I would like all that we have developed to be applied, which would eliminate a good part of the problems related to minors, such as age verification tools. I am convinced that many problems would be avoided".

"In the educational field, issues related to Data Protection with technological products and services, and with learning platforms, require strict compliance with the regulations, because the educational sphere is not to be taken lightly, and the education of girls and boys cannot be compromised".

Julián Prieto Hergueta

Deputy Director General for Promotion and Authorisations at the Spanish Data Protection Agency (AEPD)

4 It is everybody's responsibility and a challenge for society as a whole.

"Families need to be made aware, to move beyond the comfort that screens provide... and to be on guard before problems arise. I believe we must recognize that a 10- or 11-year-old child cannot go to bed with a mobile phone and chat until late at night. In this cultural aspect, getting the message through to families, we still have a long way to go. There is much to do and contribute. We would like to be known for this as well, not just for enforcement or punitive actions, but also for preventive work".

"The current moment we are experiencing is very important; it is a key moment, full of urgencies and controversies. Solid strategies are necessary, public policies based on evidence, guiding regulatory measures, education, and prevention, beyond prohibitions, limitations, and restrictions that may be temporary".

"It cannot be that opinions are formed, or public opinion is built, through X, a social network, or a video, with all its capacity to shape behavior, especially in minors. That is why promoting critical thinking is so important".

"We still have much to do and must do much more. In the educational sphere and in raising family awareness, we must reach much further. It is everyone's responsibility. We must remain vigilant and committed to fostering a healthier generation in the digital world".

IN-DEPTH INTERVIEWS

- international experts

Leonardo Cervera Navas

Director–Secretary General of the European Data Protection Supervisor. Expert in Digital Rights and Data Protection

1 There is no doubt that technology can pose risks to minors, especially due to its addictive potential, the access it provides to inappropriate content, and the cognitive impact it can have. Behind all this lies a certain lack of ethics in the design of the applications themselves and in the underlying business model.

"The first issue is the addictive element of technology, which keeps us glued to our phones or screens all day, because they are designed in a way that... there is a science behind it. They are made to capture attention, and we cannot break away from it".

"We are adults and educated people; we enter Facebook and five minutes turn into thirty... for someone with less self-control, someone less mature, a child, naturally those thirty minutes become three hours. There is a lack of ethics in app design because they are intentionally created to capture the attention of vulnerable groups. The design is criminal".

"The second issue is the unlimited access of young people to inappropriate content. Tools to limit access could have been implemented many years ago, but they have not, because these companies are precisely seeking traffic and volume. Any mean is useful to increase their volume. It is outrageous that today any child can access virtually all of this content. Technology companies, with all their expertise and knowledge to develop technological solutions in every field... when it comes to protecting minors, suddenly they become very clumsy and everything is very difficult. It is unacceptable that this has not been done until now".

"Early access to screens can affect children's neural development. There are serious studies that clearly warn about this".

"Digital ethics is extremely important. There has been no ethical approach to technology. Why isn't there a code of ethics for engineers in the same way there is for doctors? Why, as an engineer, would you participate in creating something you know is harmful, addictive, and toxic for the people who will use it?".

Leonardo Cervera Navas

Director–Secretary General of the European Data Protection Supervisor

2 To face the challenges of the digital environment for children and adolescents, it is necessary to work on three fronts: legislation, enforcement, and social awareness. In addition, political commitment is essential to provide resources for all three fronts. This must become a priority for the European Commission, since it is a matter of public health.

"

"Things must be done correctly, and doing them correctly requires a combination of legislation, enforcement, and social awareness; all three together".

"Legislation can be improved, but the fundamentals are already in place. The Digital Services Law makes this clear. There is also European legislation that can help tackle the problem: the General Data Protection Regulation, the new Artificial Intelligence Law, the Digital Competition Law...".

"No matter how many laws exist or how many statements of good intentions are made, if no action is taken, there is no progress. Impunity in cybercrime remains very high today. With such levels of impunity, it is extremely difficult to protect our youth, it is impossible. Security forces at both European and national levels must be provided with sufficient resources to address this".

"There must be a clear societal commitment that children should not be exposed to these things, which are toxic to their mental development. (...) And this should not only be enforced by law; it must also be supported socially, with the involvement of schools and parents".

"

infancia digital

Leonardo Cervera Navas

Director–Secretary General of the European Data Protection Supervisor

2 To face the challenges of the digital environment for children and adolescents, it is necessary to work on three fronts: legislation, enforcement, and social awareness. In addition, political commitment is essential to provide resources for all three fronts. This must become a priority for the European Commission, since it is a matter of public health.

"What needs to be done is to ensure that these tools are safe, and then let schools and parents educate children in a way that minimizes risks and maximizes opportunities. There are excellent opportunities, especially for parents with limited resources or for children in developing countries, where technology truly levels the playing field with any European child".

"This is not a question of right or wrong. It is a public health issue, affecting the health of 20% of the European population. Children are not sleeping, not concentrating, failing in their development. There is already evidence that this is a serious danger, and therefore it is a public health matter that must be a top priority for the European Commission".

"What must be done is to give it the political priority it needs, and to provide the political priority with the necessary funding".

Leonardo Cervera Navas

Director–Secretary General of the European Data Protection Supervisor

3 It is also indispensable that technology companies begin to operate under a framework of regulated self-regulation, an approach that combines self-regulation with oversight and compliance verification bodies.

"The key here is 'regulated self-regulation.' That is the crucial concept, and it works very well in many domains. I always like to use commercial aviation as an example. Commercial aviation has been successful because it operates on the basis of regulated self-regulation: they have very strong internal verification systems, inspectors... Each plane is inspected inside and out. Every pilot must pass all checks. Then there are international aviation authorities who, at the slightest sign of non-compliance with self-regulation, can ground the planes within 24 hours".

"With tech companies, we need to do the same. We should let them self-regulate, have their own verification processes. We shouldn't overwhelm them with regulations, but there should be an international body monitoring them, and at the first sign of cheating, it should shut them down".

"We have to let these companies regulate themselves and have their own verifiers... they are very capable of that. But it must be combined with strong enforcement that can act when necessary".

"There is extensive experience in many sectors. Take the food industry, for example, it operates on self-regulation because it's impossible for public authorities to inspect every carrot on the market. They have verification systems, standardization, audits... All of that has been well established. What hasn't been applied yet is the same approach in the tech sector. Right now, they operate freely. If we fine them, they'll pay... no, it's not about that. They need proper compliance mechanisms and must do things correctly, providing guarantees. That has been lacking in the tech world, and that is where we need to go".

Leonardo Cervera Navas

Director–Secretary General of the European Data Protection Supervisor

4 One of the immediate challenges is artificial intelligence. Society needs to be aware of the potential risks it may pose, but reducing the fear attributed to it.

"This AI thing is truly going to change the world. I really miss a social debate about the implications of AI, and on the other hand, people shouldn't be overly afraid, because it is a technological development. It's like when electricity arrived. Electricity came to the towns. Now we have toasters, streetlights, and that's it, nothing happens. But of course, people were afraid: wires, electrocution… And it's the same with this. People shouldn't be too scared, but they need to be aware of the risks these tools carry".

"When you go to a job interview now, if the decision is going to be made by an algorithm, and the algorithm makes decisions based on what you posted on Facebook… These are things young people need to know, because they're not aware that in such a world, their exposure can affect them more than they think. It's not just that an employer searches for you on Facebook anymore; the algorithm now has that information even without the employer looking".

"I think perhaps young people could be used as a kind of safeguard. They could help older generations ensure society doesn't go in the wrong direction. They will enter the labor market, understand these developments better, and because the social impact will be so significant, if they are aware and willing to help, they can do a lot. If we give them ownership, they can cooperate to steer this in the right direction. It's an idea that should be on the table because in five years we will be in a completely different world. Plus, the business opportunity is so huge, so much money to be made, that this is going to explode".

"I think AI is where the next battle lies. To avoid repeating past mistakes, we need to act now. Social action must happen immediately. Otherwise, we'll be too late again. And the consequences: children who have committed suicide, children who are lost… unable to read a book because screens have damaged their concentration and they no longer have the capacity to focus…".

Daniel Kardefelt-Winther

Director of the research programme on children and technology at the UNICEF Office of Research – Innocenti. Principal Investigator (PI) of Global Kids Online. His work focuses on the challenges and opportunities that children facing in the digital environment. Author of numerous high-impact scientific publications.

1 In many cases, technology has been blamed for mental health problems in children and adolescents, while ignoring the difficult circumstances of today. Simplifying the narrative in this way and exaggerating the influence of digital devices means that it will take longer to find effective solutions.

"I just want to flag that I worry a little bit about the tendency globally by many actors, to think that digital technology is kind of the determining factor for a decline in children's mental health. I think it can contribute if you have very negative experiences. But I think we have to see kind of this decline, or at least a concern about children's mental health in the context of, you know, climate change, really difficult financial circumstances for families, uncertain futures for young people, democratic decline... there are so many things right now that are, you know, mass migration...We are peppered with news all the time, showing how terrible the world is".

"All of that is stuff that children are bombarded with, causing potentially great anxiety about the future. And a lot of people seem to say, no, no, it's actually just about technology and the fact that they have an iPhone that they stare at all day. I think it's a simplification and I think we have to be careful in not overstating the negative impact. We need to understand when and how technology has a negative impact on children, not assuming that it is the be all, end all the only thing that matters. And so that is what worries me. I think it is important to really understand what it is about technology that can be bad and not overstate the impact".

"It is understandable that children do not feel very good right now, because if you look at the state of the world, I mean, I do not feel very good, right? So, it's a great point. We need to be really careful that we are not overstating. But, at the same time, we should recognize that there are some things about technology that yes, can be not good. Those are the ones we need to kind of focus on".

Daniel Kardefelt-Winther

Director of the research programme on children and technology at the UNICEF Office of Research – Innocenti. PI of Global Kids Online

2 One of the major concerns today is the fight against the sexual exploitation and sexual abuse suffered by children, considering that it is one of the most damaging experiences that minors can suffer. Technology has made it easier for perpetrators to access millions of children, resulting in constant abuse, with serious implications for their mental health.

"I think there are two ways to see it. One is to look at where the public and to some extent, governmental policy priorities are. Pornography has been high on the agenda for a long time. Bullying people, worry about addiction, about mental health impacts and so on. I think that is quite clear that the public worries about this, parents worry about this. (...) and sexual exploitation and abuse, I would say are the top ones from a governmental and public policy perspective".

"In terms of our perspective, me and my team, and also colleagues in UNICEF, other kind of headquarters' locations, but also many country offices, the evidence priority is more actually quite a lot around sexual exploitation and abuse of children. And the reason for that is because it is one of the most harmful experiences a child can have, whether it's facilitated through technology or not".

"A lot of sexual abuse is perpetrated in person, but technology has added another element to this where it is either easier for perpetrators to access children or identify them through social media, but it also can make the sexual abuse permanent, because now you have video recordings and photo recordings and, you know, peers in school will take compromising photos of other students and share it online. And all of a sudden, you know, you have a whole kind of mess. So, from our end, that's where we tend to put our emphasis".

"We tend to put our priority on sexual exploitation and abuse because it is such a severe issue. And we really see in our data that it impacts children's mental health significantly. And we found that the most productive way to study these things is to look at particular experiences that happen in the digital environment, so that could be bullying, for example, it could be a potentially unwanted exposure to pornography, or sexual exploitation and abuse. That's where we see the most negative impact on children".

infancia digital

Daniel Kardefelt-Winther

Director of the research programme on children and technology at the UNICEF Office of Research – Innocenti. PI of Global Kids Online

3 Nevertheless, it would be a mistake to ignore the positive aspects that technology can offer to children and adolescents. To understand this, it is essential to listen to them, without prejudice and with attention.

"If you think, for example, of the US surgeon general who recently made a kind of blanket statement saying that social media leads to mental health problems in children, we do not think it is quite simple. I mean, the policy response to that would be, okay, we ban social media, we are done. But then you forget all the good things that happen from it. And so, what we focus on is, okay, what are the really bad experiences on social media and how do we prevent those".

"Some parents, some maybe government people, experts, whatever would say that too much gaming is bad for your mental health, then I think you are in a trickier position, because it is not always the case. For some children, a lot of gaming can be very good".

"I think if you do qualitative research, which we did a lot of in RITEC (Responsible Innovation in Technology for Children), you will hear children talk about the different ways that games in this instance contribute positively to their lives. And it is very clear that they see when they talk about it and think about games, they see them as a very positive force in life".

"It would be very nice to do kind of more child consultations to understand exactly kind of: 'What are the things that you worry about?' Like, 'What do you think we should actually try to understand?' I think it is really important".

Daniel Kardefelt-Winther

Director of the research programme on children and technology at the UNICEF Office of Research – Innocenti. PI of Global Kids Online

4 Governments must focus on legislating to ensure that platforms are safe and that children and adolescents are truly being protected. Companies must ensure that children do not have negative experiences on their platforms. Finally, all institutions and professionals working with children must be properly trained in all aspects of the digital environment and how it can affect minors. Intensive and long-lasting work with families is urgently needed.

"I think the role of the government is really to figure out where and what to legislate for. So, if you look in Australia, for example, who are probably really ahead of the game with the E-safety Commissioner they have started regulating platforms. Basically, if platforms host certain types of content, or if they allow for bullying or other kinds of abuse, then the government can basically find them. If they do not immediately take down certain pieces of content, and then the trick is to determine what kind of content is it that we should be worried about. What kind of content is not good for children. Again, sexual abuse, harassment, that's all very easy because we know it is bad. So, they regulate for that. So, I think it is about for governments, really, it is about putting in place legislation that helps keep the internet just a better place. But it is hard sometimes to know how to do that. And sometimes governments do not really dare to do it because the technology industry is powerful".

"The gaming industry needs to make sure that children do not have very negative experiences on their platform. (...) The gaming company has an obligation to make sure that children, for example, do not see pornography on their platforms, that they are not abused on their platforms, that people do not harass them.... Legislators, you put in place laws; gaming companies, you adhere to them".

"One really important point here is that the government needs to make sure that the different government institutions that serve children, whether it is school, police, psychologists, social workers, people in the justice system... that all of those people who work for the government, but they work with children, understand what digital technology means for children and how it affects their lives. Right? We need the police to understand what digital crimes are, and how they affect children, and what the consequences are. Social workers must be able to talk to children about, you know, sharing sexual images or what can happe n when you do that, and whatever, like modern stuff that children do. The government has to make sure that the people working for them are educated enough and have the skills and capacities to do that. That is really important".

"It would be probably better to invest more in helping parents understand how to help their children regulate gaming time, and what healthy gaming looks like".

Fulvia Prever

President of the Varenna Foundation (Italy), dedicated to supporting adolescent mental health. Expert in non-substance addictions. An international reference in behavioural addictions in women (European Association for the Study of Gambling; International Society for the Study of Behavioral Addictions).

1 The relation between adolescents and technology is fluid, without any barriers. They use it to feel better, to escape from problems, for a sense of belonging, or as a source of knowledge. But it is not exempt from risks or possible negative consequences: omnipresence, hooking capacity, impact at a cognitive level, physical and mental health, sleep hygiene...

"When I was thinking about the relationship between technology and young people adolescent: it is a fluid relationship, I mean, it is a continuous from themselves to technology, and it is something like little boundaries between themselves and the life and the web. (...) It's really their life, sometimes, because their life sometimes is there".

"It is a way to protect you, to enter this world, because it works as an antidepressive. It is a place where you do not think so much about the problems you have in everyday life. This is typical of adolescents. It is a way to feel more competent, to feel less lonely, to feel more self-assured, to have an identification, and sometimes it is even a way to improve your knowledge. They do not ask anymore things to parents. They don't even ask to peers. They take everything from the network".

"I would say that the most problematic period in adolescent is from the 11 to 13 years old. (...) It is so easy, even if you are very balanced, to have them hooked. Once it was just television, at the time that we have the famous television babysitting children. But now this is even worse, because at least television was at home just some hours, not all the day. This you have it all the time in your life".

"The relationship can be problematic and we see already a lot of disturbs mainly in the attention. Social media and videogames make them have a poor language, a smaller capacity for reflecting and concentrating, and a lot of symptoms like ADHD. Even neurological problems, then school problems in primary school and physical problema, as neck pain, because they are always hunched over the mobile. One main problem of the technology with young people is sleep: sleep problems impact school, their life, their balance...".

Fulvia Prever

An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

2 Significant gender differences have been observed: social media affects girls more, as a result of constant social comparison with unreachable aspirational models. In the younger generations, differences in participation in gaming and gambling are decreasing, although there are still more collateral risks for girls, and their gender-specific characteristics must be understood without fail.

"So you get in contact with the world, which is all great, glamour and nice. And so, you feel depressed because you are not up to it. Here you get in contact with a beautiful world outside not reachable for you, and the depression is connected to wanting to be like an influencer, but they are not. This is very specific also in young female population's profile".

"Some big problems are related with Instagram's over-use, mainly concerning depression linked with a very low esteem, looking at an ideal self which is never reached. Adolescents are so hungry for "likes" and approvals, so they use filters every time, even if they are beautiful girls. You never post your picture like it is, but always with filter, with manipulation, always looking for a better self and this really creates the problem: at a certain point you do not have anymore the perception of your body as it is, like it is in anorexia. This leads to possible dysmorphism, leading to another kind of addiction, the need for continuos manipulation of your body image. In the Asian countriesthis is even more evident: most girls never use their real picture and no matter how many filters they use, they never like their own image. So, this really means that our confidence coincides with the idea of your perfect body image, and other approval... all is getting crazy, going nuts".

"Internet addiction includes a wide range of behavior: social, media, gaming, and more, but if you define internet addiction only as gaming disorder, as in DSM-5, you would say the internet is predominantly male, but if you consider also social media addiction, then the female component is very evident. There is also an increase of women going online to gamble, young women".

infancia digital

Fulvia Prever

An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

2 Significant gender differences have been observed: social media affects girls more, as a result of constant social comparison with unreachable aspirational models. In the younger generations, differences in participation in gaming and gambling are decreasing, although there are still more collateral risks for girls, and their gender-specific characteristics must be understood without fail.

"Yes, gaming, OK, it's mainly male, but now it is very clear that female population, especially in Asian countries and in Korea, seem to reach the men's prevalence; even here we do not have realistic numbers since most of the female choose to use a male avatar, because if they use a female avatar they are often harassed, cyber bullied, and insulted. This happens also in gambling, but in gambling's online poker tables, they can't use a male avatar! So, women gambling online have the same risk of being attacked as they have in their real life; in gaming, they choose a male avatar, and this means that the real data on women's participation are not visible (...) Morevoer, female avatar are often very hypersexualized, and so many women don't like it. So, I would say thta the main gap is amended, but women have a lot of side problems".

"With the evolution of online gambling, we have more and more online gambling than in person, and I would say that gender differences and female profiles are getting closer as the age decreases, since female adolescents gamble online as male adolescents do".

105

Fulvia Prever

An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

3 With regard to gambling, despite the expansion of online gambling, concern should focus primarily on in-person gambling (scratch cards, betting in bars, etc.), due to its easy accessibility and the normalization it has achieved, as well as the risk posed by its link to the world of sports. With regard to gaming, it has been confirmed that hidden games of chance (such as loot boxes) are already being introduced into children's video games, although sometimes without real money involved.

"If you are a sports guy, who plays sports, you are, for example, less intruded by video games, because three times a week you have to train in the gym , but on the other hand, these guys are the more at risk when they get16-17 to make sports betting , because they think that they know better how sports work".

"Moreover, now online sports betting is encouraged by teens' preferred "influencers" that can easily get bonus to gamble for free or a link to shift on betting platform also starting from some social media, or helped by older friends".

"To go back to the adolescent, I think that at the beginning we had mostly young gamblers on physical gambling, so the problem was already there, like minors buying scratch cards. I remember I have seen young guys in the bar 11-12 years knowing much better than me how scratch cards work. How can you handle to prevent young people to look in the bar where everyone in Italy gets into, from zero to 100 years, to have a coffee, a glass of milk and a brioche? It doesn't matter what you say in words. It is important what they see. If they see that there you can have coffee, you can have croissants and then you can even gamble, what's the difference? Why this is good, and this is bad?".

"The physical gambling was so easy to approach. So easy to reach".

"Then the technology made another step with the possibility of having all this on pc and smartphone. In 2018/2019 we saw online some little slot machines without money, dedicated to kids. They had names like "My Little Pony, my little farm" ... they were up for 3-4 years. Parents would allow them to use these free apps because they seemed like innocent games, but they were really like slot machines, with three ponies and virtual prices as trigger. When you are not yet 18, in video games dedicated to minors, you find the "loot boxes", with strong similarities with gambling inside the gaming. That means that you pay something (real or virtual money) to open a surprise box where perhaps inside you can find a weapon or another useful tool to help you win, or nothing useful at all."

Fulvia Prever

An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

4 In terms of prevention, one of the priorities must be to train parents, with the aim of reducing overprotection and at the same time making them aware of the existing risks, which is no easy task. It is necessary to work on empowering young people in their relationship with technology, so it is essential to listen to them. Finally, the need to develop prevention plans at the national and international levels (designed and implemented by accredited professionals) and improve communication between families and schools is emphasized.

"

"Sometimes the parents do not want their children's cell phones taken away from them at school because they have this idea that they have always to be in contact, they must control them. The parents track them, they want always to know where they are, with this false idea that controlling them can tell them really the truth of what is happening. I really think that is something that diminish their idea of independency and building their secure bases".

"Check which kind of skill, which kind of capability this young people have that we can empower to prevent this kind of user. I mean, skills mean even relational skills with the parents, personal skills... which are the points where we can work to get a better prevention program. (...) We must see which are the points that we can empower, rather than which are the dangers that can happen".

*"We must listen to them, something that makes them feel taken into consideration. I mean, listen to them and make an intervention which is growing with the family, where we talk with them in a very capable way, not with the idea that we have the truth in mind."
"So, first of all, parents must know how to deal with it. Even this parents' generation, which is a more technological generation, sometimes they do not realize which are the risks of the web. I mean, they don't realize their children are online, but they don't know the dangers, they don't know how to use it: and the parents don't know how to protect them".*

"Maybe the focus should be in education programs, but not only for children, for families, because we need to understand that mobile phone is like other tool in our house".

"

infancia digital

Fulvia Prever

An international reference in behavioural addictions in women (International Society for the Study of Behavioral Addictions)

4 In terms of prevention, one of the priorities must be to train parents, with the aim of reducing overprotection and at the same time making them aware of the existing risks, which is no easy task. It is necessary to work on empowering young people in their relationship with technology, so it is essential to listen to them. Finally, the need to develop prevention plans at the national and international levels (designed and implemented by accredited professionals) and improve communication between families and schools is emphasized.

"Some colleagues made this project, which is the "mobile license", like driving license. The mobile license is something that you give to the parents, to try to discuss together, starting to intervene in primary school, from six years old".

"First, we must have a plan in any country. Prevention is something left to the good attitude of this teacher, of this school. Good use of technology must be included because they will meet technology in their life, in school and outside school, so it must be something that includes the family, and we must work on it within the school. (...) With a good quality of professionals capable to give advice, to make a program".

Emilio Puccio

Secretary-General of the European Parliament's Intergroup on Children's Rights. Member of the Advisory Board of the International Association of Internet Hotlines, dedicated to combating child sexual abuse. Expert in digital and children's rights.

1 For a proper analysis of the current situation, it is necessary to begin by creating a Glossary to help clarify terms and clearly identify what we are talking about. It would also be useful to identify the preventive measures that are being put in place and that can help achieve the necessary balance between protecting minors (through the necessary restrictions) and empowering them (even if this means taking certain risks).

"I think it's very important to create a kind of glossary, a glossary that identifies exactly what we are talking about. One that explains the type of content being referred to. And that will truly help us a lot at the European level, and I also believe it will greatly help the autonomous communities to identify the problem and its severity".

"No matter what, we cannot allow children to access pornography. I feel strongly about this. It's not about being repressive, or being fake, or not being progressive. It simply cannot happen, because it has been proven that access to pornography has very negative consequences later. It also increases the likelihood that a person may commit more acts of violence against women".

"It would be interesting to explore what preventive measures can be taken, and not necessarily in a single way. (…) We start from the premise that children must also be empowered; we do not want to create a world where children are relegated to a tiny corner".

"It's important to accept that being exposed to risks is part of the growth process. It would be very important to know how we can equip children to recognize these risks, even preparing them to face them, since they will inevitably encounter harmful effects and experience harmful situations. Some things, obviously, we don't want to happen. But others may be acceptable as part of children's personal growth and empowerment".

infancia
digital

Emilio Puccio

Secretary-General of the European Parliament's Intergroup on Children's Rights. Member of the Advisory Board of the International Association of Internet Hotlines, dedicated to combating child sexual abuse

2 In Europe, a great effort has been made at the legislative level, but there are still gaps and limitations. Measures have been established that companies in the digital sector must comply with. It is essential to continue working courageously at the legislative level, because self-regulation is not enough and the power of education is limited. Placing excessive emphasis on education carries a serious risk of exonerating providers from responsibility and transferring it to users.

"We have to be very honest. At the European level, there are certain measures that we will never be able to implement; simply because they are not within our competence. The approach we've taken so far has been very good: that is, identifying specific measures, specific obligations directed at companies and providers".

"I don't believe much in the power of self-regulation. That is, I don't think it should be left entirely to the companies themselves. Obviously, a certain margin of discretion is fine, but it cannot be that Facebook or Meta decide whenever they feel like it whether to implement security measures or not. I think it is precisely the role of the legislator, the decision-maker, to set specific outcome obligations that must be fulfilled".

"Default safety measures, or safety by design, are very important. People need to understand that this is the only way to truly increase prevention, and also to make clear that this is not simply about restrictive measures. It's really about creating an environment that is safe by default".

"People tend to think that education is a silver bullet, the panacea, the answer to everything. And yes, in a way it is. Clearly, the general goal has to be to empower children and equip them with the tools they need to identify risks themselves. But often, that can then be used to absolve responsibility from others, as if it were somehow the children's fault, like: 'Well, they already have everything. We've invested in these security measures, told them what to do... so if they don't follow them, it's their fault.' Education is important, but if it is not accompanied by legislative intervention that establishes specific obligations for companies and responsible parties, it will not be a solution".

Emilio Puccio

Secretary-General of the European Parliament's Intergroup on Children's Rights. Member of the Advisory Board of the International Association of Internet Hotlines, dedicated to combating child sexual abuse

3 As aspects for improvement in legislation at a national and European level, it would be advisable to focus more on the early detection of child sexual abuse material and the permanent removal of harmful content that leads to the revictimization of minors.

"The draft is being placed precisely within the European framework and is following European directives... I see all of this as very relevant. But the first phase of any kind of action must always be identifying the problem. Now we have the figures; before we didn't, and now we do, and they are truly appalling: the numbers of child sexual abuse images circulating on the internet. This is a worldwide issue, and we also have the data for Europe. So, what I think and what the draft could improve is that to really have a solution to a real problem, we must first detect it".

"The focus has to be, very importantly, on detecting pornographic material. These mandatory measures must truly compel companies to act, because the police alone won't have the capacity or even the tools to do it. We cannot avoid working together with companies, identifying obligations for them and holding them accountable. Once there is an obligation, failure to comply is itself a crime, do you understand? Detection and identification of pornographic material are therefore essential".

"And the removal of such material from the internet is also critical. When we talk about crimes, we are talking about things that have lifelong consequences for a child. If we leave this image online, where it can be redistributed, we are condemning the person in the image to a cycle of constant revictimization. So yes, I think the draft is moving in the right direction, but I feel more needs to be done, and it must include detection and removal of pornographic material, because I honestly don't see much focus on that right now".

Emilio Puccio

Secretary-General of the European Parliament's Intergroup on Children's Rights. Member of the Advisory Board of the International Association of Internet Hotlines, dedicated to combating child sexual abuse

4 At the research level, a great deal of effort has been made to analyze the addictive potential and impact on health, but it is also important to study in greater depth how knowledge is constructed in children, what the effect of misinformation is, and how all this affects their decision-making.

"How do children and adolescents nowadays obtain information? Is it exclusively via the Internet, through TikTok, or do they use other means?".

"It is important to understand how children and adolescents search for information and the ways in which the information they access may later influence them, shape their opinions, and guide their decision-making".

"We also need to consider the effects of misinformation and the lack of fact-checking, and how this can impact children when they make their own decisions".

5 The participation of children and adolescents should be as pluralistic as possible, paying attention to those who belong to minority groups or particularly vulnerable groups.

"Belonging to a minority group, or to multiple minority groups, indeed places children in a vulnerable situation, which requires specific protective measures".

"In the media, there should be representation of society as a whole. This helps children from these minority groups, as it provides positive role models they can look up to and be inspired by".

"When we talk about active participation, the range of children and adolescents involved should be highly representative. This means including minorities, individuals from vulnerable groups, different socioeconomic backgrounds, and ensuring a broadly representative sociodemographic sample".

Andrea Tognoni

DSA Enforcement Officer at the European Commission. Formerly Head of EU Affairs at 5Rights, working to advance children's rights within EU digital policies and the online environment. Specialist in EU policies for the protection of minors in the digital sphere. Expert in digital rights and children's rights.

1 Technology is omnipresent in childhood and adolescence nowadays. Its use has great potential, but this positive approach is not the predominant one. The digital environment often treats children as adults and does not always take their rights into account.

"There are many studies on the relationship adolescents have with technology. It is omnipresent in their lives. It cannot be avoided; today, a child or adolescent cannot live normally without some form of access to technology. I believe this was also an effect of COVID, which created an additional need for regular contact with technology and shifted many in-person interactions to digital devices".

"This is a relationship that also has significant positive potential, but from what we can see at the moment, technology is not being guided by regulations or standards designed to meet the needs of minors, maximizing benefits while minimizing risks".

"Until now, the focus has largely been on education providing minors with the tools to protect themselves or stay safe in an environment that is, by default and by design, dangerous and does not maximize benefits for minors as users, since it is designed with other objectives in mind. The products and services that create this digital experience do not account for the significant presence of minors and essentially treat them as if they were adults".

"If social media platforms operate by default through recommendation systems aimed at specific objectives, these objectives do not consider children's rights when they are developed, designed, and integrated into the social media".

Andrea Tognoni

DSA Enforcement Officer at the European Commission. Specialist in EU policies for the protection of minors in the digital sphere

2 The impact that misuse of technology has on minors is undeniable, as scientific evidence supports. Each product or service used presents its own risks, depending on the mechanisms used to design it and the business model behind it.

"For years, over a decade now, the impacts on minors' mental health, relationships, daily habits, and routines have been enormous. There are many studies on the topic, but we still lack a long enough temporal span to verify and evaluate medium- and long-term impacts."

"The business model and economic model of each service determine the specific types of risks involved."

"In video games, there is a higher incidence of risks linked to commercial aspects, such as exposure to gambling-like features or commercial pressures on children. On social media, there is a full spectrum of risks related to content, risks associated with the behavior of others, and contact with adults to whom children should not be exposed."

"More than the content itself, the problem is how minors are pushed toward that content, pushed toward harmful behaviors or harmful contact, and this is a consequence of the design. Social media platforms are designed to maximize the data obtained, the time children spend on the networks, the content consumed and produced and the network effect, meaning they are pushed to connect with more and more members of the social network. This results in recommendation systems proposing increasingly extreme content to minors; contacts with strangers, adults, or risky individuals are suggested, leading children to provide as much personal data as possible, which is then used for commercial purposes and passed to third parties."

"Content related to suicide, for example, could be found on Wikipedia by a minor. The essential difference is that once someone searches for information about suicide on Wikipedia, Wikipedia will not suggest going deeper, will not remind you, 'Hey, you were looking for this yesterday; you might be interested in this,' and it will not pass that information to third parties interested in capturing your attention."

Andrea Tognoni

DSA Enforcement Officer at the European Commission. Specialist in EU policies for the protection of minors in the digital sphere

3 It is not enough to focus on school-based and family-based prevention, as these do not address the root of the problem. Environmental prevention, legislation, and enforcement of laws are essential, as are ensuring that technology companies meet the standards and regulations developed, so that the digital environment is inherently respectful of children's rights. The technology industry must do much more from the point of view of social responsibility.

"This approach of 'we must give children and parents the tools to protect themselves' does not address the root of the problem. It is a structural issue: how the digital environment is structured by the many companies that have set the operational criteria".

"There are many discussions about prohibitions, and I think there are two essential problems with this. The first is that by prohibiting something that continues to exist instead of changing it, there is a risk of distracting attention from the need to actually change it".

"When we talk about policies to increase children's safety in the digital environment, literacy education is considered complementary; it has to be done but in digital policies, it should not distract from the urgent and massive need to change the environment and how it is designed. We can educate children as much as we want, but if the environment they navigate is deceptive, no level of education alone is sufficient without changing that system as well".

"Parental controls and education are part of the solution, but without changing the environment's design, they are almost useless".

"Companies are not doing enough, nor fast enough. Whenever there are changes, they are marginal, cosmetic. So far, no platform is attempting a radical change. Some actions are heading in the right direction, but they are responses to regulatory pressure. Much more could be done, especially in terms of investment and corporate commitment to finding solutions to these problems".

Andrea Tognoni

DSA Enforcement Officer at the European Commission. Specialist in EU policies for the protection of minors in the digital sphere

3 It is not enough to focus on school-based and family-based prevention, as these do not address the root of the problem. Environmental prevention, legislation, and enforcement of laws are essential, as are ensuring that technology companies meet the standards and regulations developed, so that the digital environment is inherently respectful of children's rights. The technology industry must do much more from the point of view of social responsibility.

"The General Comment No. 25 on the Convention on the Rights of the Child is the reference document that recognizes or elaborates on children's rights, as already acknowledged in the Convention, within the digital environment. We do not believe there are specific or different rights in the digital environment compared to the real world. All minors under 18 have the right to all their rights in the digital environment; not only in parts of the digital environment that one might assume are designed specifically for children, but in all areas of the digital environment where children live their lives".

"Not only states, but also companies have a responsibility regarding these rights. It should not be forgotten that the main difference between the digital environment and the real world is that the digital environment is designed, produced, and controlled by human action. The actors responsible for designing and regulating digital operations also bear responsibility for recognizing the presence of children in that environment and, consequently, for respecting their rights. Until now, this responsibility has not been fulfilled".

infancia digital

Andrea Tognoni

DSA Enforcement Officer at the European Commission. Specialist in EU policies for the protection of minors in the digital sphere

4 Research must be formulated with a purposeful goal in mind, and with regard to legislation, both global regulations and the development of technical standards are needed. The voices of boys and girls must be heard so we can have a positive outlook that points to the ideal we should strive to achieve. It is not easy, but it is urgent that we really get started.

"Research should aim to further develop the connections between risk and negative impact, linking them to specific features, functionalities, or aspects of services (...) practical changes needed in the design of the digital environment".

"At the legal level, I believe there are many positive examples. There has been substantial legislative activity, but the full impact of these regulations remains to be seen".

"The real potential of laws, in my view, lies in their ability to drive radical change of the model and design of platforms".

"We need global rules based on principles, for example, as set out in General Comment No. 25, through regulations like the European Digital Services Act (DSA), and rules to apply these principles, down to the most detailed level: technical standards for designing, developing, and evaluating digital products and services".

"You cannot achieve a fair balance without taking the voices of children into account. They provide a much more realistic perspective of their needs in the digital environment, both positive and negative".

"It is always valuable to look at what children want, not just the problems they face, at what they see as ideal; not focusing solely on what needs to be stopped, but on the digital environment children want and its characteristics. Children are best placed to inform this".

"No one said it would be easy, but the imperative to do it leaves no doubt".

04 CONCLUSIONS

infancia digital

CONCLUSIONS

ADOLESCENTS do find out

Boys and girls report an increasingly earlier onset of digital use and warn of the various risks this can represent, especially with regard to exposure to and access to age-inappropriate content, and the potential for hooking on video games, social media, and pornography.

The digital sphere is just another context to interact socially with peers, an essential matter during adolescence. In this context, old offline patterns are replicated, such as gender stereotypes and roles, which are expressed in the different forms of entertainment for boys and girls and in the inequality of their interactions.

The girls and boys themselves express their need for limits and adult accompaniment in the digital environment, both from teachers and their families, who must necessarily be trained to do so effectively.

CONCLUSIONS

**Parents too (not as much and not all of them), but they do not really know what to do**

Mothers and fathers feel overwhelmed, out of their depth, and at a loss when facing the use of technology by their children, which transversely permeates their lives.

They point out many risks, including: the cognitive impact, the opportunity cost over other interests, early exposure to and access to inappropriate content, its addictive potential, and the impact on social interactions.

The influence that digital media has on children in the construction of their personhood is also a cause for concern. This includes issues related to the values of a society based on consumption and immediacy, aspirational role models, sexism, esthetic pressure, and the hypersexualization of childhood and adolescence.

CONCLUSIONS
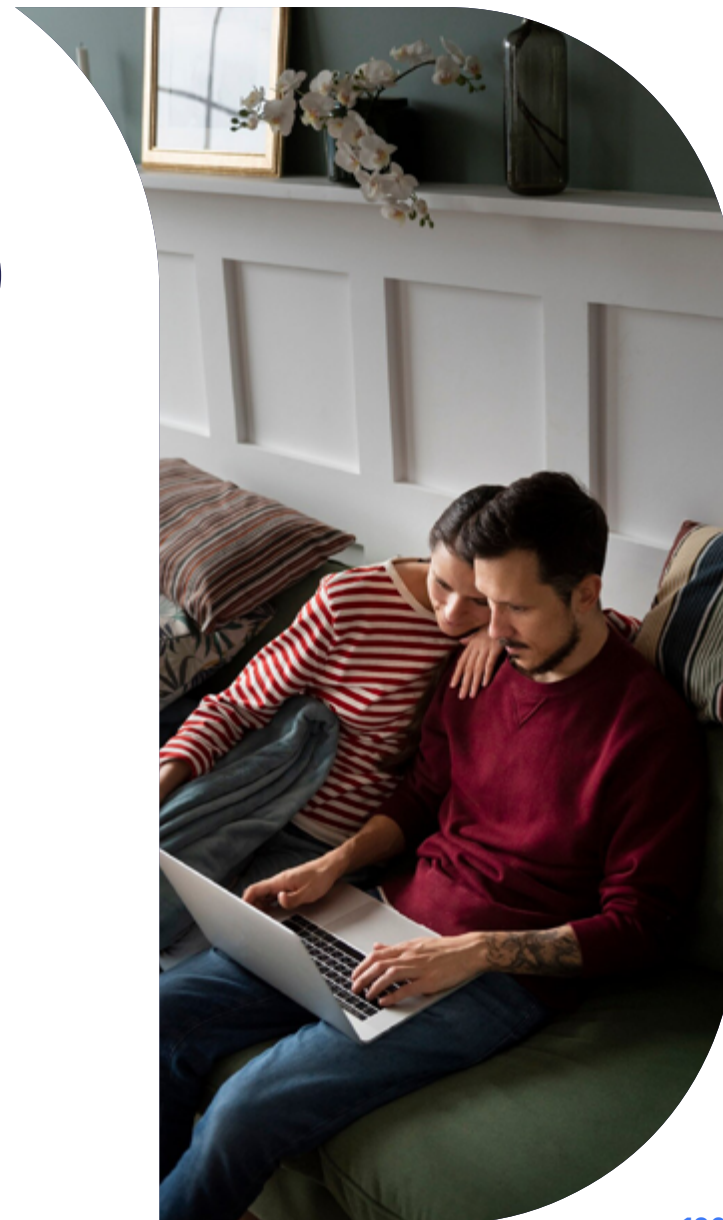
Teachers are willing to start changing, to build digital skills based on strong human skills

Teachers are noticing that their students are accessing digital devices at an increasingly earlier age and are warning of the various impacts this can have: cognitively, due to the opportunity cost it represents in terms of their personal development and due to its addictive potential, which can compromise their sleep hygiene.

They underline the impossibility of children and adolescents regulating their own use of mobile phones, social media, and video games. However, they detect a considerable lack of knowledge on the part of parents, and poor control and supervision of their children's use of these devices.

They point out that there is a lack of coordination between families and teachers in this area, although they consider it indispensable for the measures decided upon to be successful. They believe that schools are late in educating and preventing, and that actions mainly focus on technical digital skills, neglecting the more human or relational aspects.
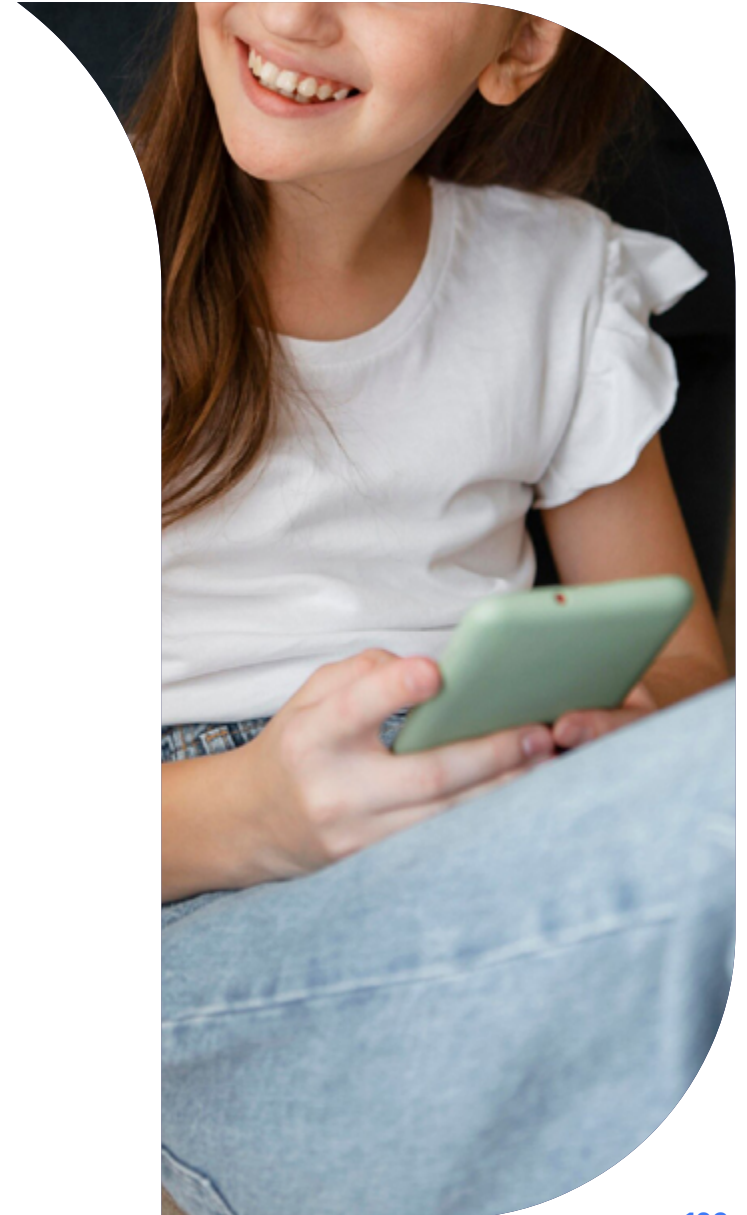
CONCLUSIONS

And the experts... are clear about it

The use of digital devices in childhood and adolescence represents a real problem, with multiple sides, interpretations, and meanings, but it has become a public health issue. Scientific evidence leaves little doubt about this.

Early access to and intensive use of screens can have serious consequences for physical and mental health, affecting neurodevelopment, language, attention, sleep... school and family coexistence, as well as their addictive potential. Social media, the content consumed (particularly pornography), and interactions in the digital environment have an unprecedented ability to shape human beings, especially in childhood and adolescence.

CONCLUSIONS

And the **experts...** are clear about it

Although we should not fall into the error of blaming technology for all the problems in today's society, urgent action is needed. Together, families, the education system, the state, institutions, and industry have a responsibility to ensure a safe digital environment for children. The technology industry has at its disposal the necessary advances, tools, and developments to ensure this and to make a real commitment to promoting children's rights in the digital environment. This rights-based approach, which goes beyond prohibitions and restrictions, ensures that all children and adolescents can benefit from the advantages and resources offered by technology, within a framework of social responsibility that protects their health and their integral development as individuals. To this end, it is essential that society as a whole commits to prevention (comprehensive and community-based), supported by three fundamental pillars: families, the education system, and a courageous effort at the legal and institutional levels.

References

• Christakis, D. A., & Hale, L. (2025). Handbook of Children and Screens. Digital media, development, and well-being from birth through adolescence. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-69362-5

• European Commission: Directorate-General for Communications Networks, Content and Technology. (2025). The digital decade 2025 : Eurobarometer report. European Commission. https://data.europa.eu/doi/10.2759/7606875.

• Geurts, S. M., Koning, I. M., Vossen, H., & Van den Eijnden, R. J. J. M. (2022). A Qualitative Study on Children's Digital Media Use and Parents' Self-interest. Journal of Child and Family Studies, 31(7), 2015–2026. https://doi.org/10.1007/s10826-021-02074-3

• Gómez, A., & Calderón, D. (2023). Videojuegos y jóvenes. Lugares, experiencias y tensiones. Centro Reina Sofía de Fad Juventud. https://doi.org/10.5281/zenodo.7970990

• Gómez, A., Kuric, S., & Sanmartín, A. (2023). Juventud y pornografía en la era digital. Consumo, percepción y efectos. Centro Reina Sofía de Fad Juventud. https://doi.org/10.5281/zenodo.10144121

• Hernán-García, M., Marcos-Marcos, J., Botello-Díaz, B., Simón-Lorda, P., & Gil García, E. (2021). Childhood, families and the Internet: a qualitative approach on health assets. Gaceta Sanitaria, 35(3), 236–242. https://doi.org/10.1016/j.gaceta.2019.07.006

• Smahel, D., & Wright, M. F. (2014). The meaning of online problematic situations for children Results of qualitative cross-cultural investigation in nine European countries. https://eprints.lse.ac.uk/56972/1/EU_Kids_Online_Report_Online_Problematic_Situations_for_Children_June2014.pdf

• World Health Organization. (2014). Public health implications of excessive use of the Internet, computers, smartphones and similar electronic devices. Meeting report. World Health Organization. https://iris.who.int/server/api/core/bitstreams/29d0c9f1-3a58-4bba-baa0-4d8848aba6c7/content

infancia digital