BEE SECURE RADAR 2023

CURRENT TRENDS IN YOUNG PEOPLE'S USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

BEE SECURE

Service national de la jeunesse

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TABLE OF CONTENTS

INTRODUCTION

BEE SECURE is a government initiative that aims to promote safer, more responsible and positive use of information and communication technologies (ICT). To ensure that its activities are well targeted, BEE SECURE needs to monitor developments in ICT use and assess related risks. The aim of the BEE SECURE Radar report is to gather data on how children and young people use ICT and to document the trends that BEE SECURE has observed in its activities.

The internet, with its many opportunities and types of use, has become an indispensable part of our society, both for adults and for adolescents and children. How do children and young people use ICT? What are the benefits of using ICT, especially for children and young people? What are the risks and dangers? And how can potential harm be prevented? What measures can be taken to enable children and young people to safely participate in digital society? These are all important questions that an increasingly digitalised society needs to ask itself, especially if the aim is to enable children and young people to participate in it in a safe and secure manner.

This second edition of BEE SECURE Radar covers the school year 2021/2022, from 1 September 2021 to 31 August 2022.

It includes survey results on children and young people's use of the internet and digital media (from the perspective of parents and the young people themselves), feedback from BEE SECURE training courses and the DigiRallye, data on requests for advice from the BEE SECURE Helpline, and data on reports of illegal content provided by the BEE SECURE Stopline. The chapter on public perception gives insight into dominant topics in public debate.

Compared to the previous edition, several new features have been added:

➡ Outstanding results compared to the previous year;

➡ Opinions of teachers who attended BEE SECURE training sessions and of participants in the two editions of the DigiRallye;

➡ Additional questions concerning:

▶ The age at which young people first came into contact with ICT;

▶ The age at which young people received their first smartphone, their own social media account or a personal email address ;

▶ Assessment and experience of certain risks ;

▶ Specific themes: screen time, problematic use of ICT and pornographic material ;

▶ Assessment of young people's and parents' own capacities to deal with the dangers and risks associated with ICT use ;

▶ Contact persons when young people need help or support with ICT use.

For this BEE SECURE Radar, several limitations have to be considered, such as the relatively small amount of data from young people aged 12–16. In future studies, it would be interesting to interview a larger number of young people in this age group.

Another limitation is that the parents and young people who participated in the surveys do not necessarily belong to the same household.

In addition, in surveys addressed to parents on the one hand and to young people on the other, it should be noted that the questions and response options could differ from one questionnaire to the next. Thus, the views of the two parties cannot be directly related.

In order to overcome the limitations described above, the collected results were complemented with extracts from similar studies (conducted abroad, but also in Luxembourg).

The results raise new questions (e.g., intensity of screen time) that will need to be addressed in the next edition of BEE SECURE Radar.

In order to make the graphs more readable, decimals have been omitted in various figures; as a result, the sum of the responses does not always equal 100%.

In order to facilitate the reading of this publication, the masculine gender has been used as a neutral gender to refer to the whole population.

I. RESULTS OF SURVEYS ON ICT USE IN LUXEMBOURG

One of the tasks of BEE SECURE is to monitor how children and young people use ICT. To this end, as coordinator of the governmental initiative BEE SECURE, the National Youth Service (SNJ) conducts two annual online surveys in order to get an overview of the use of digital ICT by children and young people in Luxembourg and to better assess the opportunities and risks associated with it.

Basic data on ICT use, such as those collected annually in Germany as part of the KIM study and the JIM study, are interesting in this regard[1]. The general questions on the use of digital devices included in the SNJ surveys are based on these and other similar international surveys. Both surveys also included a series of questions on the assessment of online risks and how to manage them.

In order to obtain information on how children and young people use ICT, the first survey was distributed to young people themselves. The second survey was distributed to parents of children and young people. It is important to mention that the parents and young people surveyed were not part of the same household, and there was—to our knowledge—no relationship among them.

Youth survey: The youth survey, conducted by the SNJ, was launched at the beginning of June 2022 via social networks and posters sent to youth centres and psycho-social and school support centres (CEPAS) in Luxembourg. A total of 277 children and young people participated in this online survey. After reviewing and cleaning the data, the responses of 255 young people aged 12–30 were included in the results presented below.

Due to the weighting system, the results are presented by age group. Thus, young people aged 12–16 represent 22.35% of the survey participants (i.e., 57 people) and young people aged 17–30 77.65% (i.e., 198 people). The average age of the 12–16-year-olds was 14.5 years and that of the 17–30-year-olds was 23 years.

Parent survey: The second survey, conducted by the SNJ in collaboration with the TNS ILRES Institute, was launched in July 2022. It was not aimed at young people themselves, but rather at parents of children aged 3–16. The aim of this survey was to evaluate the use of ICT by children and young people in Luxembourg from a parental perspective. In total, 500 people

(parents or legal guardians of children[2]) responded to the survey, including 249 parents with children aged 3–11 and 251 parents with children aged 12–16[3].

The following is a presentation of the most important results of the two surveys. It should be noted that the two surveys did not always ask the same questions, so the results are not always available for both target groups. For some topics, these results are supplemented by other data collected by BEE SECURE in the 2021/2022 school year, by data from the BEE SECURE Helpline and the BEE SECURE Stopline, and by an analysis of the Zenter fir exzessiivt Verhalen a Verhalenssucht (ZEV - Centre for Excessive Behaviour and Behavioural Addictions).

The additional data collected by BEE SECURE are as follows:

Questionnaire during BEE SECURE awareness training for children and young people: In training sessions in primary and secondary schools and extracurricular groups in Luxembourg, organised throughout the 2021/2022 school year, more than 20,000 pupils were reached, of whom 11,900 participated in the anonymous survey.

Teacher survey: New this year, BEE SECURE Radar 2023 also includes a survey of teachers, who were asked to give their opinion on their pupils' internet use. A total of 45 primary school teachers and 41 secondary school teachers participated in this online survey.

DigiRallye interviews with children: Also new in BEE SECURE Radar 2023 is the collection of data from children aged 8–12 at the DigiRallye. As the name suggests, this rally is all about navigating the digital world. In 2021/2022, two editions of the DigiRallye took place (winter and summer). A total of 146 children took part in the verbal survey: 72 children in the first DigiRallye and 74 in the second.

[1] The Jugend, Internet, Medien (JIM) study has been examining the media behaviour of 12–19-year-olds in Germany every year since 1998. The Kinder, Internet, Medien (KIM) study has been examining the media behaviour of 6–12-year-olds since 1999, particularly the intensity of use. Both the JIM and KIM studies provide a representative picture of media use by children and young people and are now considered important international references in the field.

[2] The term 'parents' is used in this publication as a substitute for all legal guardians of children.

[3] The concrete age distribution is as follows:
101 parents of children aged 3-5,
54 parents of children aged 6-7,
72 parents of children aged 8-10,
119 parents of children aged 11-13
and 154 parents of children aged 14-16.

1 CONTACT WITH THE DIGITAL WORLD

1.1 First contact with the digital world

Children are coming into contact with the digital world at a younger and younger age, as the annual miniKim survey in Germany shows. According to this 2020 data, the average age of first contact with a smartphone is 2.7 years. The average age of first contact with a computer or laptop is around 3.1 years, while the age of first contact with a tablet is around 2.9 years—just after contact with the smartphone (Kieninger et al., 2021, p. 34).
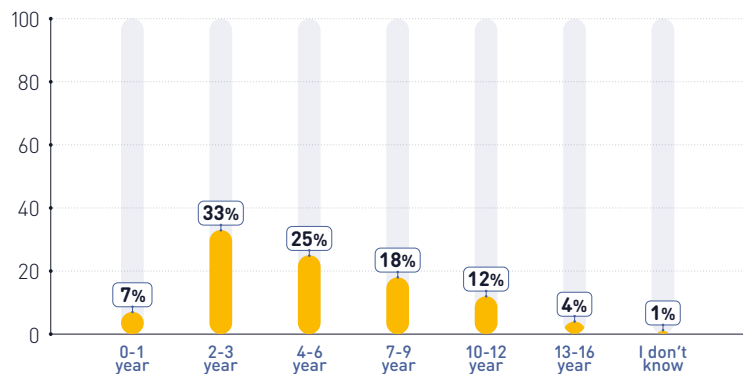

Figure 2. Parents – How old was your child when he/she first encountered a device with Internet access ? **(n =500)**

The trends towards early internet access can also be inferred from the results of the parent survey, which indicate, for example, that almost one in ten children (7%) had their first contact with a digital device before the age of one (e.g., by participating in a family video chat or looking at photos/videos on a device). **For 40% of**

Figure 1 gives an overview of the average age at which children and young people first come into contact with various digital devices.

- Parents (3 - 16 years)
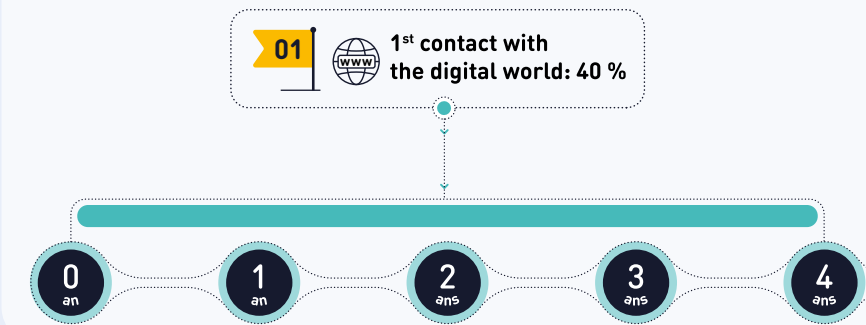- DigiRallye (8 - 12 years)
- Young people (12-30 years)

01 1st contact with the digital world: 40 %

0 an · 1 an · 2 ans · 3 ans · 4 ans

Figure 1. Average age of contact with the digital world - overview

children, their first contact with internet-connected devices, and thus with **the digital world, was before the age of 4,** and 83% had their first contact before the age of 10 (Figure 2).

1.2 First smartphone

After a general analysis of the age of first contact with internet-connected devices, the smartphone in particular is going to be the center of attention.

The miniKim study shows that 4% of children aged 2-5 in Germany have their own mobile phone/smartphone (Kieninger et al., 2021, p. 6). According to this study, almost one in ten children (7%) had their first experience with a smartphone at the age of one, 37% at the age of two and a quarter (26%) at the age of three. 14% used a smartphone for the first time at the age of four and only 8% at the age of five. This means that 70% of children had their first contact with a smartphone at the age of three at the latest (Kieninger et al., 2021, p. 30).

In Luxembourg, children are also getting their first smartphone at an increasingly younger age.

02 1st tablet	**03** 1st smartphone	**04** 1st personal email address	**05** 1st social media account

5 ans · 6 ans · 7 ans · 8 ans · 9 ans · 10 ans · 11 ans · 12 ans · 13 ans · 14 ans · 15 ans
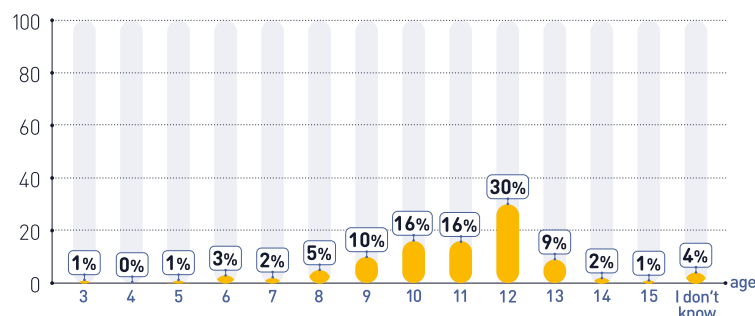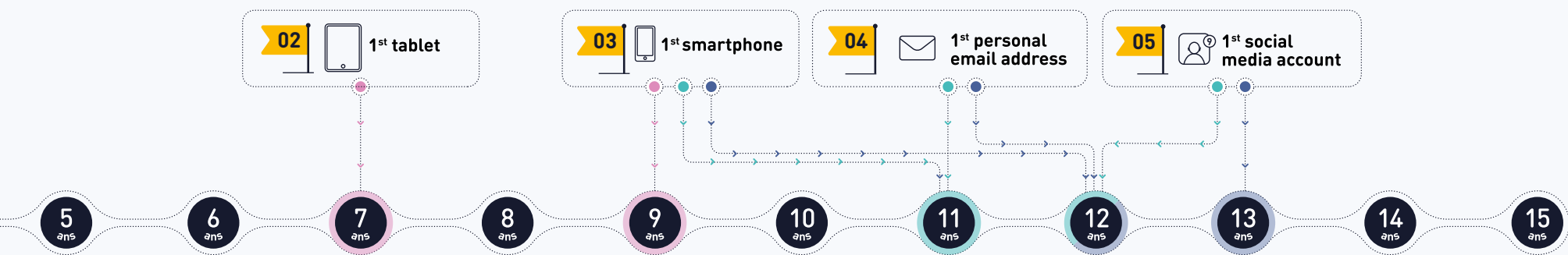
Figure 3. Parents – How old was your child when he/she received his/her first smartphone? **(n=289)**
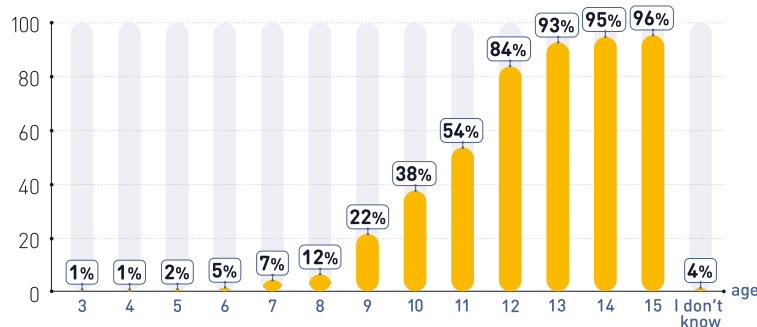

Figure 4. Parents – Child's age at first smartphone (cumulative) **(n=289)**

Of the parents surveyed, 289 indicated that their child has their own smartphone. **The average age for receiving their first smartphone was around 11 years.** This average is the same as it was last year. Most children (30%) would get a smartphone at the age of 12 (Figure 3). **Figure 4 shows that 84% of children receive their first smartphone by the age of 12.** This differs somewhat from the data published by STATEC, according to which half of the under-25s received their first smartphone at an age older than 12. This difference could be explained by the fact that BEE SECURE Radar results only considers the responses of parents of young people under 16 years of age and that the latter probably received their smartphone at a younger age than the over-16s.

Regarding the reasons why children have received or should receive a smartphone, **the parents' choice is primarily motivated by reasons of safety and accessibility.** In general, children often receive a smartphone when they enter secondary school in order to be reachable at school or, for example, when they go on a school trip. It is interesting to note that 15% of parents of 3–11-year-olds and almost half (48%) of parents of 12–16-year-olds reported tracking the location of their child's smartphone using geolocation tools (see Figure 33 p.33).

The youth survey data shows that 12–15-year-olds all received their first smartphone at under 13 years old, while 27–30-year-olds mostly received their first smartphone at over 13 years old.

> **i**
> The average age for receiving a first smartphone reported in the DigiRallye (8 to 12 years) is about 9 years old (n=99).

4 The 'n' indicates the number of people who answered the corresponding question.
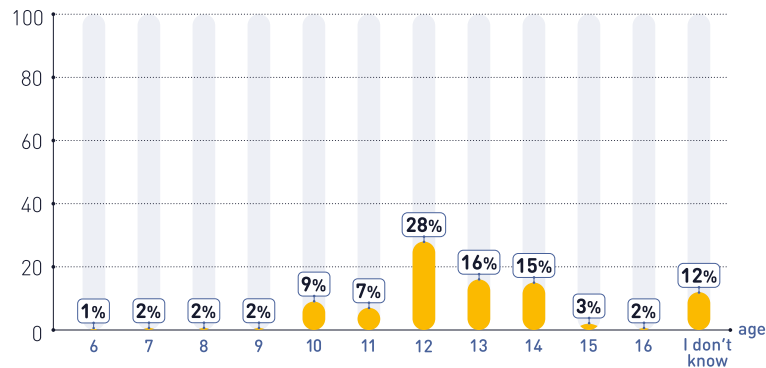
1.3 First social media account

Figure 5. Parents – How old was your child when he/she created his/her first social media account ? **(n=260)**
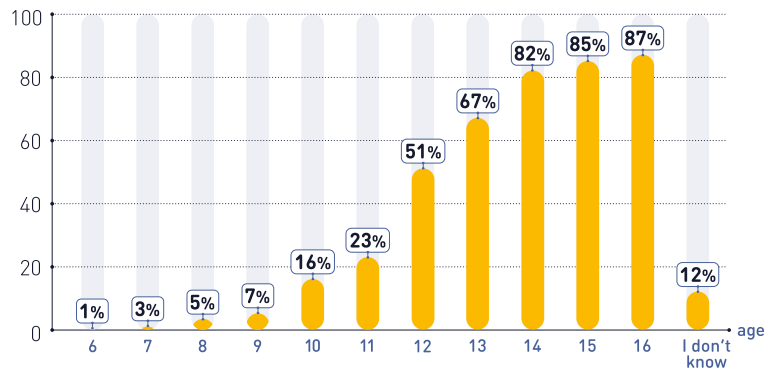
Figure 6. Parents – Child's age at first social media account (cumulative) **(n=260)**

Figure 6 shows that, according to parents whose children have their own social media accounts, half of the children had their first account by the age of 12. According to parents and young people themselves, **the average age of the first social media account is 12.**

1.4 Types of digital devices

After specifying the age at which young people first come into contact with the digital world, this chapter offers an overview of the various digital devices available to them—both those that children and young people own themselves (1.4.1.) and those that are connected to the internet in their households (1.4.2.).

1.4.1 Possession of digital devices

3 - 11 years **(n=249)**   12 - 16 years **(n=251)**

Figure 7. Parents – Your child has his/her own… **(n=500)**

First personal e-mail address:

According to parents, 31% of 3-11-year-olds and 92% of 12-16-year-olds have their own email address. 76% of 3-11-year-olds obtained it before the age of 9; 65% of 12-16-year-olds obtained it before the age of 12.

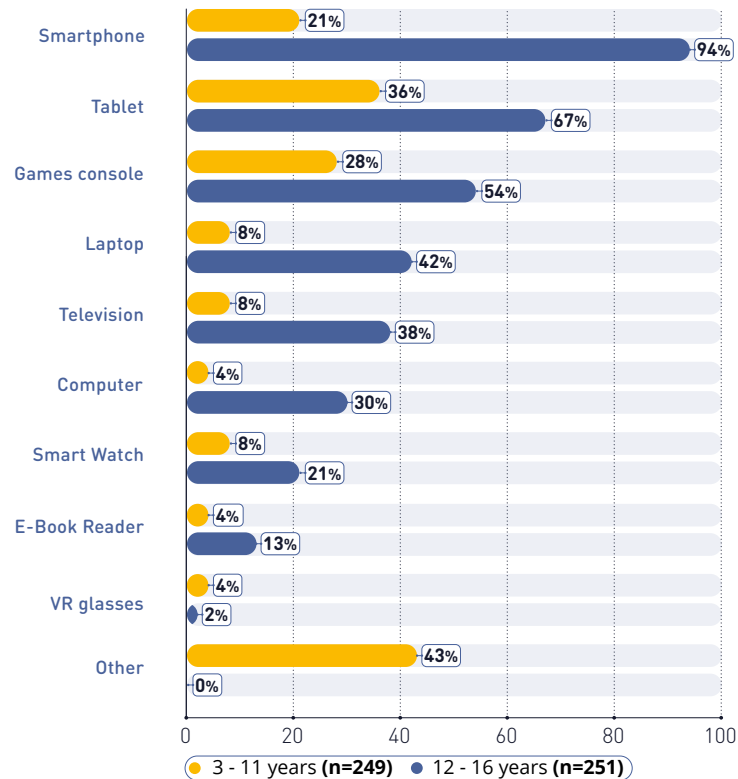According to parents of 3–11-year-olds, 21% (2021: 17%) of children have their own smartphone, 36% have their own tablet (2021: 33%) and 28% have their own games console (2021: 22%).

Among 12–16-year-olds, almost all have their own smartphone, two thirds have their own tablet and more than half have their own games console.

1.4.2 **Internet of Things (IoT) in the household**

Nowadays, children are growing up in households where not just traditional screen media are used, but also (household) devices connected to the internet are increasingly important.

Device	%
Smartphone	90%
Computer/printer/scanner	80%
Television	80%
Smart watch	47%
Car	33%
Light fixtures	21%
Digital assistant	15%
Vacuum cleaner	11%
Heating	10%
Lawn mower	8%
Toys	7%
Washing machine	6%
Refrigerator	5%
Coffee machine	5%
Automatic alarm	2%
None	4%
No device of this kind	2%
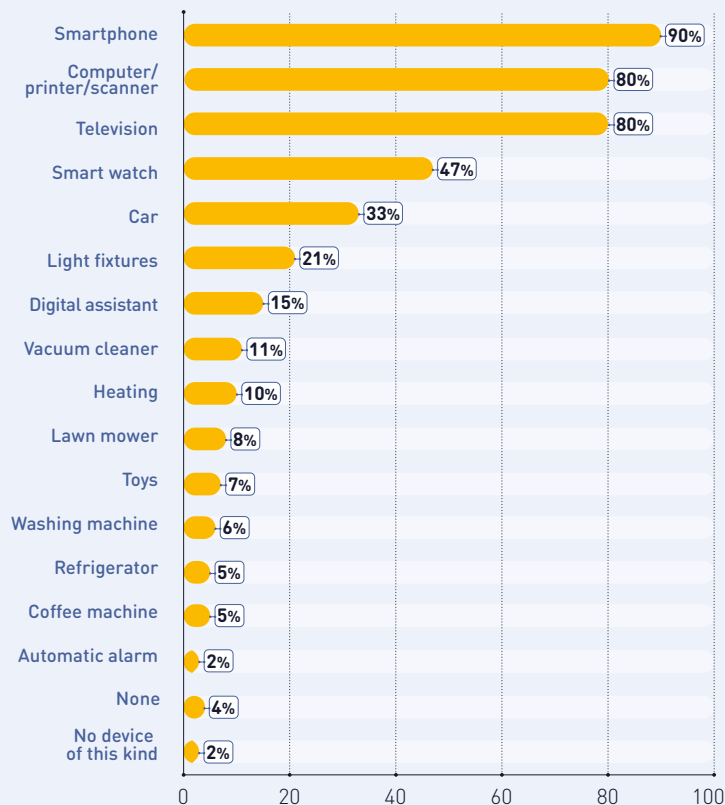
Figure 8. Parents – Which Internet-connected devices do you use in your home? **(n=500)**

For example, 33% of parents reported owning an internet-connected car, 21% use connected lights, 15% have a digital assistant at home and 7% **use connected toys** (Figure 8). When it comes to children's online safety, such technological developments should also be taken into account.

In Germany, 96% of 12-19-year-olds have their own smartphone, 51% have their own tablet, and 61% their own a games console (Feierabend et al., 2022, p. 7).

Globally, 15.2% of internet users aged 16-64 own some type of smart home device.

(DataReportal, 2022, p. 81).

② ACTIVITIES AND APPLICATIONS ON THE SMARTPHONE

2.1 Activities on the smartphone

In addition to knowing when children receive their first smartphone, it is also interesting to know what they use it for.

	3 - 11 years (perspective parents)	12 - 16 years (perspective parents)	12 - 16 years (perspective youth)	17 - 30 years (perspective youth)
1	Watching a video	Chatting/communicating	Chatting/communicating	Chatting/communicating
2	Listening to music	Listening to music	Accessing social media	Accessing social media
3	Chatting/communicating	Watching a video	Listening to music	Browsing the internet
4	Making phone calls	Browsing the internet	Browsing the internet	Listening to music
5	Browsing the internet	Accessing social media	Watching a video	Searching for information

Table 9. Top 5 activities on the smartphone.[5]

The most frequently mentioned smartphone activities by both parents and young people are related to communication ('chatting/communicating').

According to parents, **64% of children aged 3–11 watch a video at least once a day**—the most frequently listed activity for this age group.

Listening to music on the smartphone is also cited many times, both by parents and by young people themselves.

According to the responses of parents of 12–16-year-olds, **'accessing social networks'** comes in fifth, while according to the 12–16-year-olds themselves, this activity comes second. 79% of parents of 12–16-year-olds said that social media is used at least once a day. This figure is slightly higher among young people (89%).

'Making phone calls' as an activity only appears in the top 5 of 3–11-year-olds. The previous year, 'making phone calls' was still in third place among young people, both among 12–16-year-olds and 17–30-year-olds.

In short, it appears that **parents of 12–16-year-olds have a good understanding of what their children's top-5 activities on their smartphone are.** There were, however, differences in the young people's statements regarding the degree of importance attributed to these activities.

ⓘ According to STATEC data, the preferred smartphone activities among 16-24-year-olds are listening to music (90%), accessing instant messaging (WhatsApp, Viber, Snapchat...) (89%), and accessing social networks (Facebook, Twitter, Instagram...) (85%). 84% use sharing platforms (YouTube, TikTok...).

(STATEC, 2022a).

ⓘ In Germany, 89% of 12-19-year-olds listen to music regularly, and 62% every day (Feierabend and al., 2022, p. 20).

ⓘ According to data from the Luxembourg study Health Behavior in School-aged Children (HBSC) 2018, which surveyed 8,687 young people aged 11-18, the frequency of problematic social media use is 5.9%. The risk is higher among younger students.

Globally, male internet users aged 16-24 spend an average of 02h39mins per day on social media, whereas their female counterparts spend 03h10min (DataReportal, 2022, p. 103).

[5] Only parents whose children possess a smartphone are included in Table 9.

2.2 Most used applications

In order to carry out these activities on the smartphone, children and young people often use specific apps. Therefore, it was relevant to survey children and young people about the applications they use.

	3 - 11 years (perspective parents)	12 - 16 years (perspective parents)	12 - 16 years (perspective youth)	17 - 30 years (perspective youth)
1	Youtube (**52 %**)	WhatsApp (**87 %**)	Instagram (**91 %**)	WhatsApp (**93 %**)
2	None (**34 %**)	Youtube (**78 %**)	Youtube (**87 %**) et Snapchat (**87 %**)	Instagram (**91 %**)
3	WhatsApp (**16 %**)	Snapchat (**73 %**)		Facebook (**90 %**)
4	Facetime (**14 %**)	TikTok (**67 %**)	WhatsApp (**85 %**)	Messenger (**88 %**)
5	TikTok (**11 %**)	Instagram (**60 %**)	TikTok (**79 %**)	Youtube (**87 %**)

Table 10. Top 5 most frequently used applications.

Table 10 shows that **according to parents, more than half of the 3–11-year-olds use YouTube,** while 34% do not use any of the applications mentioned.

It is interesting to note that the five applications mentioned by young people (12–16 years old) are also in the top 5 of the parent survey, although the order is partly different. While Instagram is in first place according to the young people themselves, this social network is in fifth place according to the parents. In general, however, it appears that **parents of 12 to 16-year-olds know which social media applications their children use the most.**

For the 17 to 30-year-olds, the most popular applications are WhatsApp, Instagram and Facebook. In the previous year, Instagram, Facebook and YouTube were in the top three.

In addition to the above-mentioned results from the parent and youth surveys, BEE SECURE also asked young people during the training sessions about which apps they use most often to share photos and videos.

According to STATEC data, 85% of internet users aged 16-24 used instant messaging such as WhatsApp, Facebook Messenger and Snapchat in 2021, and 83% participated in one or more social networks. TikTok has the largest following among young people and especially the very young (16-17 years old), with 74% using it.

(STATEC, 2022b & 2022c).

It should be noted that these applications are not necessarily used on the smartphone.

The most used mobile applications in the world (ranked by duration of use) are YouTube, Facebook and WhatsApp (DataReportal, 2022, p. 226).
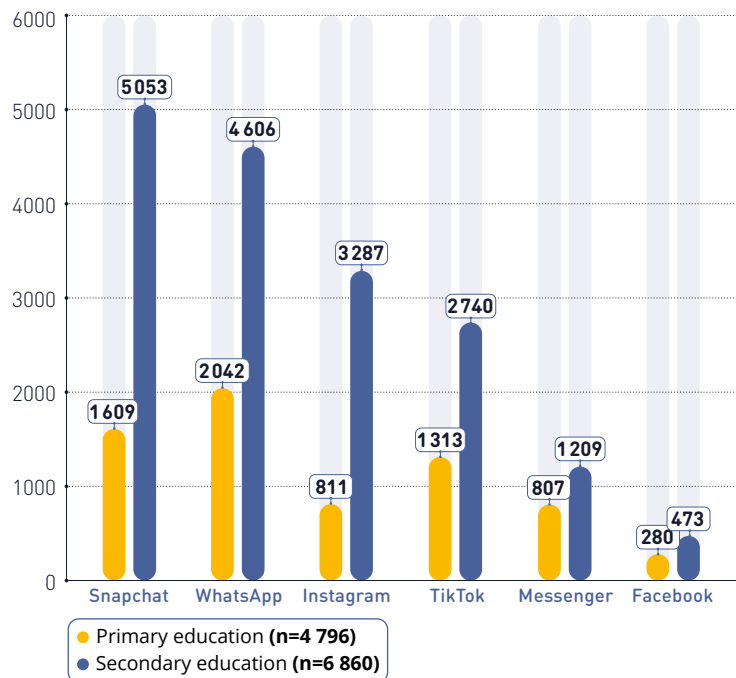
Figure 11. Pupils – Applications used to share photos and videos with others

Figure 11 shows that among **primary school** students, **WhatsApp (42.5%), Snapchat (33.5%) and TikTok (27.3%)** are the three most used applications for sharing photos and videos. This same top 3 was found in the DigiRallye surveys.

In contrast, **secondary school** students use **Snapchat (73.6%), WhatsApp (67.1%) and Instagram (47.9%)** most often. TikTok is also very popular (39.9%). Messenger (17%) and especially Facebook (6.8%) are less used.

3 ASSESSMENT AND MANAGEMENT OF RISKS RELATED TO THE USE OF ICT

This chapter compares different perspectives on the assessment and management of risk issues related to the use of ICT.

Risk typology

The CO:RE typology of risks (the 4 Cs)[6] illustrates the wide range of multifaceted issues that, based on the assessment of international experts, play a role in the safe use of ICT by children and young people.

Conceptually, risk must be distinguished from harm: **"Risk is the probability of harm,** while harm includes a range of negative consequences to the child's emotional, physical or mental wellbeing"** (Livingstone, 2021). For example, exposure to pornography represents a risk for a child, but it is not clear that this exposure leads to adverse consequences.

The Gefährdungsatlas (risk atlas) of the Federal Office for the Control of Media Harmful to Young People (dt. Bundesprüfstelle für jugendgefährdende Medien) provides a comprehensive analysis and classification of the risks "that stand in the way of children and young people being able to peacefully participate in digital media because there may be risks to their personal or informational integrity, or because their development or education to become responsible and socially capable personalities may be hindered or threatened" (Brüggen et al, 2022a, p. 96) and **complements the CO:RE typology with a detailed analysis of current and concrete online phenomena.**

In addition to the CO:RE risk typology, the BEE SECURE Radar also uses the risk atlas classification (Gefährdungsatlas) to assess and analyse the different risks.

CONTENT	CONTACT	CONDUCT	CONTRACT
Child engages with or is exposed to potentially harmful content	Child experiences or is targeted by potentially harmful *adult* contact	Child witnesses, participates in or is a victim of potentially harmful *peer* conduct	Child is party to or exploited by potentially harmful contract
Aggressive — Violent, gory, graphic, racist, hateful or extremist information and communication	Harassment, stalking, hateful behaviour, unwanted or excessive surveillance	Bullying, hateful or hostile communication or peer activity e.g. trolling, exclusion, shaming	Identity theft, fraud, phishing, scams, hacking, blackmail, security risks
Sexual — Pornography (harmful or illegal), sexualization of culture, oppresive body image norms	Sexual harassment, sexual grooming, sextortion, the generation and sharing of child sexual abuse material	Sexual harassment, non-consensual sexual messaging, adverse sexual pressures	Trafficking for purposes of sexual exploitation, streaming (paid for) child sexual abuse
Values — Mis/disinformation, age-inappropriate marketing or user-generated content	Ideological persuasion or manipulation, radicalisation and extremist recruitment	Potentially harmful user communities e.g. self-harm, anti-vaccine, adverse peer pressures	Gambling, filter bubbles, micro-targeting, dark patterns shaping persuasion or purchase

Cross-cutting

Privacy violations (interpersonal, institutional, commercial)

Physical and mental health risks (e.g. sedentary lifestyle, excessive screen use, isolation, anxiety)

Inequalities and discrimination (in/exclusion, exploiting vulnerability, algorithmic bias/predictive analytics)

Table 12. The CO:RE risk classification (the 4 Cs) online for children.
Source: Graphical representation based on Livingstone & Stoilova, 2021.

[6] Children Online: Research and Evidence (CO:RE) : *The 4 Cs of online risk* (https://core-evidence.eu/posts/4-cs-of-online-risk)

3.1 Online risks of greatest concern

The following overview compares the five risks mentioned most frequently by the different groups of respondents, in descending order.[7]

	3 - 11 years (perspective parents) n=249	12 - 16 years (perspective parents) n=251	12 - 16 years (perspective youth) n=36	17 - 30 years (perspective youth) n=166
1	Spending too much time online (**45 %**)	Spending too much time online (**55 %**)	Cyberbullying (**51 %**) and Stalking (**51 %**)	Disinformation and Fake news (**49 %**)
2	Age inappropriate content (**44 %**)	Disinformation and Fake news (**40 %**)		Cyberbullying (**48 %**)
3	Influence of online role models (e.g. influencers) (**25 %**)	Collecting personal data without your children's knowledge (**38 %**)	Collecting personal data without your knowledge (**45 %**)	Collecting personal data without your knowledge (**47 %**)
4	Violent or hateful content (**21 %**)	Influence of online role models (e.g. influencers) (**32 %**)	Sexual content (pornography, CSAM) (**31 %**) and Violent or hateful content (**31 %**)	Violent or hateful content (**37 %**) and Influence of online role models (e.g. influencers) (**37 %**)
5	Disinformation and Fake news (**21 %**)	Age inappropriate content (**24 %**) and Sexual content (pornography, CSAM) (**24 %**)		

Table 13. Top 5 risks and dangers on the internet.

[7] Parents of children aged 3–16 were given a selection of 16 dangers and risks from which they could tick a maximum of 5 that they think their child is currently most exposed to on the internet. Young people aged 12–30 were given a choice of 14 dangers and risks. List of dangers and risks: violent or hateful content; sexual content; content not suitable for the age of the child; disinformation and fake news; cyberbullying; harassment or stalking; danger due to contact with pedophiles; pressure on the child to behave in a certain way; fear of missing out when not online; spending too much time online; encouraging harm to yourself; pressuring your child to share something intimate; collecting personal data without your children's knowledge; viruses and malware; e-crime; influence of online role models (e.g., influencers).

Parents' perspective: Spending too much time online is the risk/danger that parents feel children are currently most exposed to.

Compared to last year, it seems that parents of 3–11-year-olds are more concerned about violent and hateful content (21%), which has been added to the top 5 risks this year. The other most frequently cited risks are the same as last year's.

Among parents of 12–16-year-olds, the themes, as well as their order, remained the same as the previous year.

Youth perspective: The survey of young people shows that cyberbullying is seen as the greatest danger online by 12–16-year-olds and as the second greatest danger by 17–30-year-olds.

Like 12- to 16-year-olds, 17- to 30-year-olds cite cyberbullying and stalking (48%) and data collection (47%) as things they worry about online. However, unlike younger participants, this age group sees disinformation and fake news as the most worrying risk (49%).

Among 12–16-year-olds, the issue of data collection/protection is the third most important issue for both young people and parents. The same applies to sexual/pornographic content, which is mentioned both by the young people themselves (12–16-year-olds) and by the parents of children aged 12–16.

Furthermore, there are also differences between the perspectives of the young people (12–16-year-olds) themselves and the parents of 12–16-year-olds. Disinformation and the influence of online role models are both mentioned by the parents as significant risks, but they do not make it into the top 5 for young people. The topic of cyberbullying was mentioned by half of the young people surveyed and ranked first in their assessment. In contrast, only 18% of parents evaluated cyberbullying as a risk. Stalking, which young people considered another major risk, was mentioned by only 19% of parents.

77% of parents in Germany are concerned about their children's online safety, especially parents of children aged 11-14. Interaction risks, scary content and hours of use are the main concerns.

(Representative survey in Germany of parents and their children (9-16 years), n=805)

(Brüggen et al., 2022b).

In Germany, children and young people are most concerned about being victims of gossip, insults or hate messages.

(Brüggen et al., 2022b).

Secondary school teachers' perspective on risks to their students (n=38) :

1. Screen time
2. Cyberbullying
3. Disinformation
4. Pressure to behave in a certain way
5. Sexual content (pornography, CSAM)

It is interesting to note that only teachers mention 'pressure to behave in a certain way' in the top 5, not parents or students themselves.

3.2 Experience with risks and dangers

In addition to the online risks that they were the most concerned about, parents and young people were asked how often they had experienced risky situations themselves. Young people were also asked how often they think dangerous situations occur among their peers while using ICT. Their answers were also intended to serve as a rough indication of trends **in order to better assess the real prevalence** of certain risky encounters or behaviours **in Luxembourg,** namely contact with cyberbullying, pornography, sexting, and violent videos.

Cyberbullying [8]

As the issue of cyberbullying has often been cited as a risk when using ICT, the prevalence of this phenomenon is elaborated in more detail below.
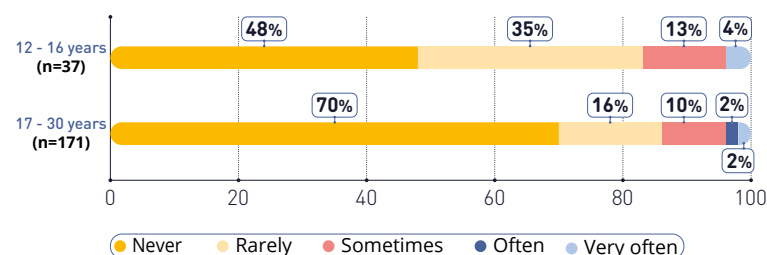
YOUTH

Figure 14. Youth – How many times have you been the victim of cyberbullying

Just over half of 12–16-year-olds and 30% of 17–30-year-olds said they have been cyberbullied themselves at least once. Less than half (48%) of 12–16-year-olds said they have never been cyberbullied.

One reason for the difference between the results of the BEE SECURE Radar and the HBSC surveys could be that, unlike BEE SECURE Radar, the HBSC survey only covered the last few months. In contrast, the BEE SECURE Radar survey asked young people whether they had ever been a victim of cyberbullying at any time in their lives. In addition, the HBSC study was conducted in 2018, while the BEE SECURE Radar data was collected in 2022.
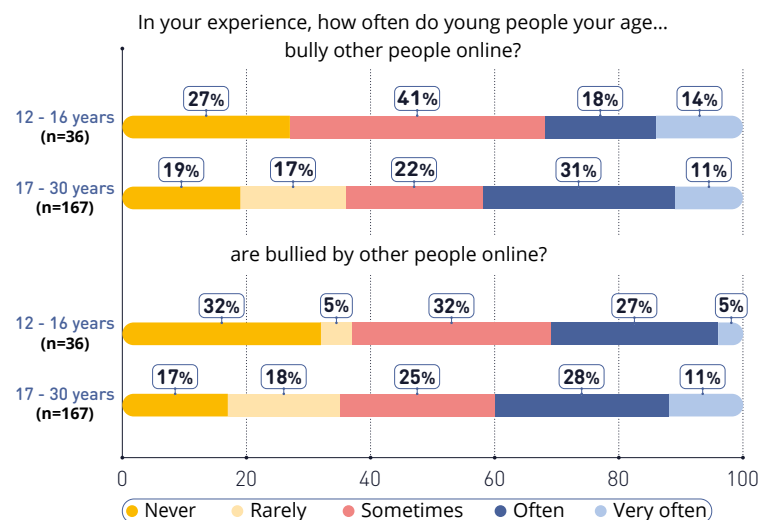

Figure 15. Youth – In your experience, how often do young people your age…

With regard to cyberbullying, young people were asked not only about their own experiences, but also about those of their peers. This possibility suggests that young people are more likely to have answered the questions openly than when talking about themselves. Figure 15 shows that 73% of the 12–16-year-olds indicated that their peers are at least 'sometimes' the perpetrators

> The HBSC study conducted in 2018 (Heinz et al., 2020, p. 75) found that 8.5% of the 8,687 pupils aged 11–18 surveyed in Luxembourg had been victims of cyberbullying in recent months (as of 2018).

> The HBSC study in Luxembourg (Heinz et al., 2020, p. 75) indicates that 10.6 % of pupils aged 11–18 reported having harassed others online in recent months (as of 2018).

[8] "Cyberbullying" was defined in the surveys as "being insulted, threatened, or harassed online for a long period of time".

of cyberbullying. More than half of 12–16-year-olds reported that their peers are at least 'sometimes' victims of cyberbullying on the internet. The figures are also quite high among 17–30-year-olds: 42% reported that their peers harass other people (very) often, and 39% said they are harassed by other people on the internet (very) often.

According to these results, the prevalence of cyberbullying also tends to be relatively high. The risk atlas summarises the incidence of cyberstalking by saying that the results in the frequency of occurrence vary according to different ideas of what cyberbullying is, but they all prove the great quantitative importance of the phenomenon (Brüggen et al., 2022a). An evaluation by the Organisation for Economic Co-operation and Development (OECD) also concludes that estimates of the prevalence of cyberbullying tend to vary widely from one study or survey to another, for example depending on the groups surveyed and the way in which the questions are formulated (Gottschalk, 2022, p. 30).

In the German Youth Media Protection Index (dt. Jugendmedienschutzindex), 18% of the 9–16-year-olds surveyed reported having been cyberbullied by others, and 27% reported similar incidents in their environment (Brüggen et al., 2022b, p. 113).

According to a recent online survey conducted by the Bündnis gegen Cybermobbing in Germany, 16.7% of 3,000 pupils surveyed reported having been cyberbullied at least once in the school year 2021/2022 (Beitzinger et al., 2022).

PARENTS
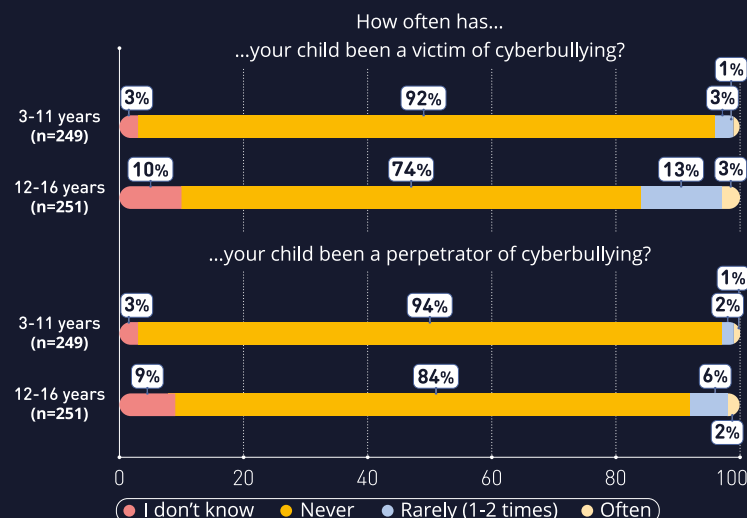
Figure 16. Parents – How often has….

It can be seen that parents reported a relatively low rate of cyberbullying compared to youth in the 12–16 age group. For this age group, only 16% of parents reported that their child has been cyberbullied at least once, and 8% reported that their child has been a perpetrator of cyberbullying.

The reason for the difference between the statements of parents and young people (12–16 years) cannot be clearly explained. However, it can be assumed that the fact that children become more independent with age, especially during adolescence, plays a role. This goes hand in hand with the fact that parents are generally less aware of their children's negative experiences or problems, such as cyberbullying.

Corresponding trends are seen in the responses of young people (aged 12–16), only 15% of whom said they seek help from their parents when they have had an unpleasant experience online (see information on p. 33).

It should be noted that the experience of cyberbullying among children and young people can be accompanied by different levels of harm and that not all experiences of cyberbullying have negative or harmful consequences (Gottschalk, 2022, p. 25).

It is possible that young people of this age tend to turn to their own parents only in serious cases of cyberbullying. In addition, a different understanding of cyberbullying may play a role in the different response patterns.

According to the current German risk atlas, exposure to pornography on the internet affects relatively few children: according to parental reports, 2-6% (depending on age) of 6–13-year-olds have already been exposed to pornography on the internet (Brüggen et al., 2022a, p. 175).

In the same publication, the statements of the young people themselves are comparable. Among teenagers, viewing pornographic content is not uncommon: 32% of 14–15-year-olds and 47% of 16–17-year-olds said they have viewed such material. The proportion of boys is significantly higher than that of girls. Of the 14–17-year-olds who have been exposed to pornography, about one third view it regularly. Use is most often via the smartphone or computer/laptop. The reported age of first contact with pornography—which often takes place with friends—is on average 12.7 years for 14–15-year-olds and 14.1 years for 16–17-year-olds. For half of the 14–20-year-olds surveyed, the first contact was intentional (Brüggen et al., 2022a, pp. 175–176).

YOUTH

	Never	Rarely	Sometimes	Often	Very often
12-16 years (n=36)	23%	5%	14%	36%	23%
17-30 years (n=165)	10%	12%	18%	35%	25%

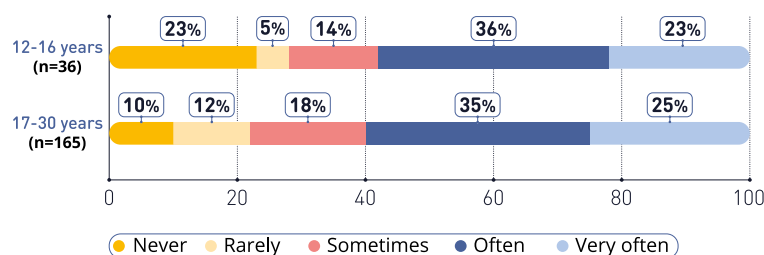Never • Rarely • Sometimes • Often • Very often

Figure 17. Youth – In your experience, how often do young people your age come into contact with pornographic content (photos, videos)?

73% of 12–16-year-olds said that young people their age come into contact with pornographic material at least 'sometimes' (23% said it happens 'very often'). Among 17–30-year-olds, 78% said that their peers come into contact with pornographic material at least 'sometimes' (25% said it happens 'very often').
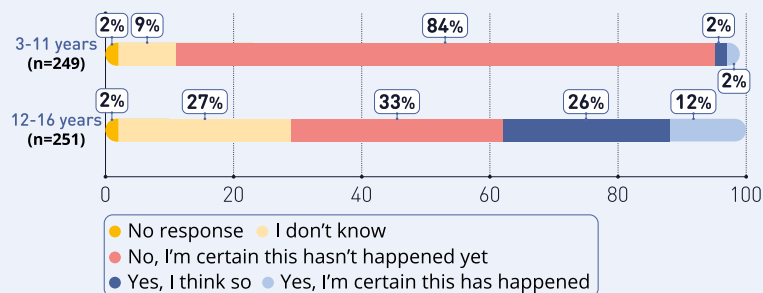
Figure 18. Parents – Has your child already encountered pornographic content (photos/videos) online?

Figure 18 shows that 33% of the parents of children aged 12–16 said that they were sure that their child had not yet come into contact with pornographic material. On the other hand, **38% of parents thought or knew for sure that their child had already been in contact with pornographic material.**

4% of the parents of children aged 3–11 said that they suspected or knew for sure that their child had already been in contact with pornographic material. Half of the parents in this age group said they did not know at what age this first contact took place, the earliest age cited being 7 years. Among the parents of 12–16-year-olds, 43% said they did not know at what age this first contact took place, the earliest age cited being 8 years. From their responses, it appears that one third of children (whose parents know or suspect contact with pornography) had this contact before the age of 12.

Sexting

A 2018 meta-analysis on the prevalence of sexting[9] among young people concluded that it has increased in recent years and also increases with age (Madigan, 2018). According to this analysis, in 2018, one in seven young people sent nude photos of themselves to others. According to a survey conducted by ECPAT Sweden in 2021 (Karlsson & Josephson, 2021), 48% of young people aged 10 to 17 have already sent nude photos of themselves to other people.
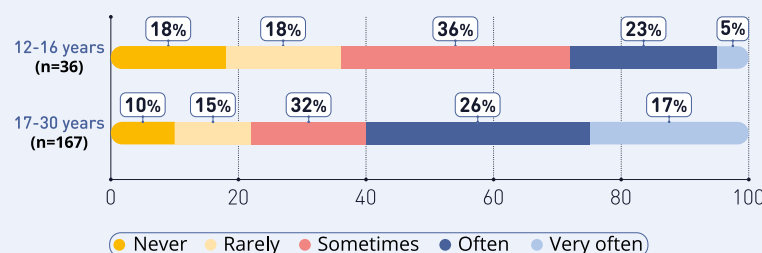
Figure 19. Youth – In your experience, how often do young people your age send intimate photos or videos of themselves to others?

Young people's responses regarding the frequency with which their peers sext confirm BEE SECURE's general observations and feedback that sexting is not uncommon among adolescents and young adults in Luxembourg. Almost two thirds (64%) of 12–16-year-olds reported that their peers at least 'sometimes' send intimate photos or videos to other people.

Among 17–30-year-olds, sexting seems to be even more widespread: **three out of four (75%) said their peers send intimate photos or videos of themselves to other people at least 'sometimes'.** Almost a fifth (17%) said this happens 'very often' and only 10% said it 'never' happens.

[9] For the purposes of this analysis, sexting is defined as 'the sharing of sexually explicit images, videos, or messages through electronic means' (Madigan et al., 2018).
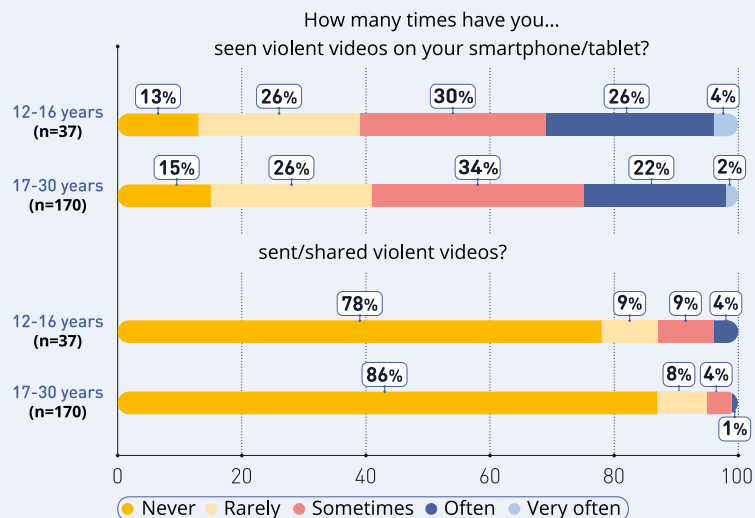
Violent videos

How many times have you...
seen violent videos on your smartphone/tablet?

12-16 years
(n=37)
13% | 26% | 30% | 26% | 4%

17-30 years
(n=170)
15% | 26% | 34% | 22% | 2%

sent/shared violent videos?

12-16 years
(n=37)
78% | 9% | 9% | 4%

17-30 years
(n=170)
86% | 8% | 4% | 1%

0   20   40   60   80   100

● Never ● Rarely ● Sometimes ● Often ● Very often

Figure 20. Youth – How many times have you....

How many times has your child...
watched violent videos?

3-11 years
(n=249)
7% | 81% | 11% | 1%

12-16 years
(n=251)
27% | 46% | 22% | 5%

sent videos in which other people
are being mistreated?

3-11 years
(n=249)
4% | 94% | 1%

12-16 years
(n=251)
16% | 77% | 5% | 1% | 2%

0   20   40   60   80   100

● I don't know ● Never ● Rarely ● Often

Figure 21. Parents – How many times has your child...

86% of 12–16-year-olds reported having watched violent videos on their smartphone/online (with more than half (60%) reporting that they at least 'sometimes' watch such content). 18% of 12–16-year-olds 'rarely' or 'sometimes' shared such content, while 78% said they have 'never' shared such content.

85% of 17–30-year-olds said they have seen videos showing violence at least once on their smartphone/online and 13% said they have shared such videos online.
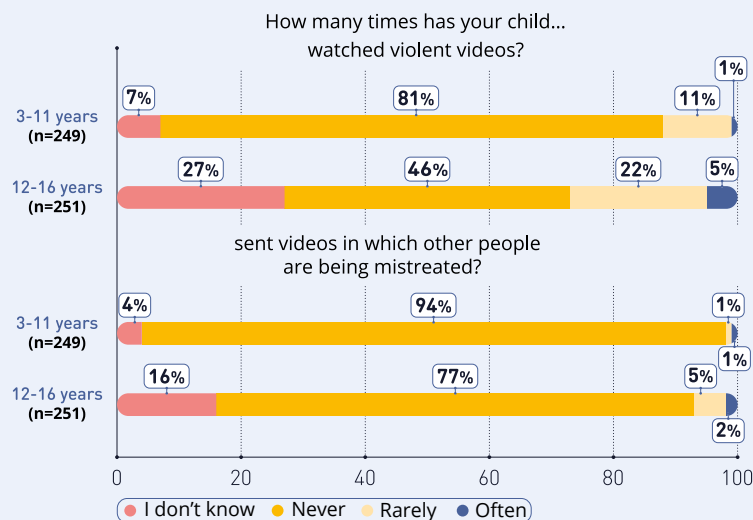
According to Figure 21, 12% of parents of children aged 3–11 and 27% of parents of children aged 12–16 reported that their child has seen videos showing violence on their smartphone/online. 2% of parents (3–11-year-olds) and 7% of parents (12–16-year-olds) reported that their child has sent videos in which others are abused. In the previous year, none of the parents surveyed indicated that their child had sent such videos.

Data protection/privacy online

The results of the various surveys show that, overall, the topic of data protection is of great importance to all respondents (see Chapter 4.1.).
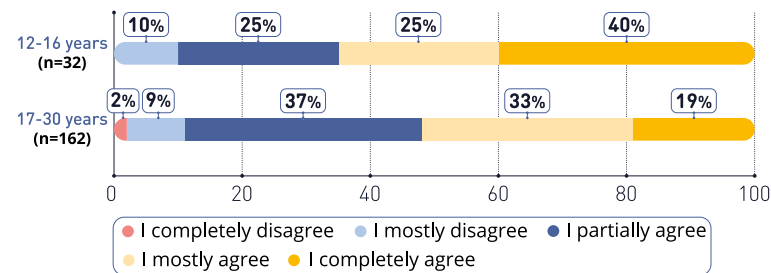
YOUTH

Figure 22. Youth – I am in control of my privacy/my personal data online

The survey of young people thus asked to what extent the respondent agreed with the following statement: "I am in control of my privacy/my personal data online". Among the 12–16-year-olds, 65% '(somewhat) agreed' with this statement. Among 17–30-year-olds, only 19% strongly agreed that they have control over their privacy/data online.

ⓘ

According to the 12-16-year-olds, 78% have experienced a photo or video of themselves shared online without their permission at least once, 35% have experienced it (very) often. Among 17-30-year-olds, 63% have experienced it at least once, 9% have experienced it (very) often.

3.3 Risk management

After elaborating on the different risks associated with the use of ICT, the **500 parents assessed their own and their child's ability** to manage the risks and dangers that the child faces when using ICT.
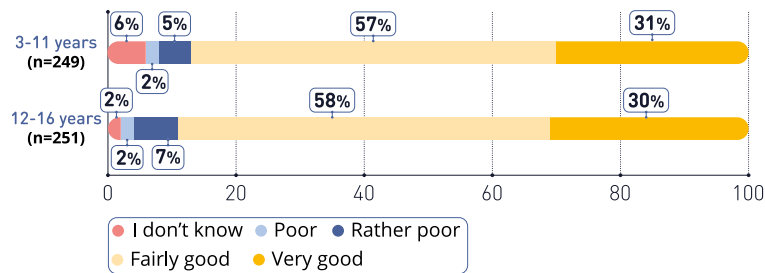

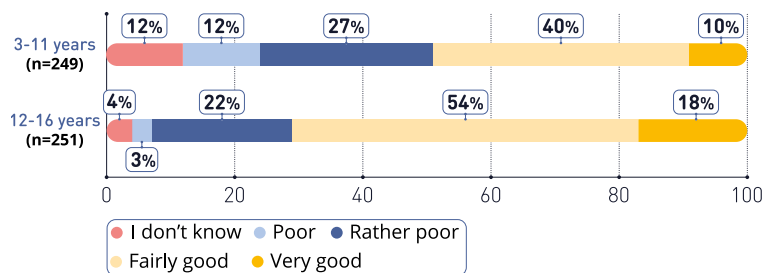**Figure 23.** Parents – Own capacity to face dangers and risks

Figure 24. Parents – Child's capacity to face dangers and risks

About a third (31%) of the parents indicated that they have very good skills in this area and more than half (57%) rated their skills as fairly good. In contrast, 5% rated their skills as rather poor and 2% as poor.

When it comes to their children's ability to deal with the risks and dangers of the online world, parents of younger children rated their children's abilities less highly overall than parents of 12–16-year-olds. In total, 50% of children aged 3–11 years can, according to parents, manage the risks and dangers of the online world well or very well, while 39% can manage these risks poorly or very poorly (12% said they could not judge).

Almost three in four (72%) 12–16-year-olds are rated by their parents as having at least good (54%) or very good (18%) ability to manage risks and dangers. One in four young people had rather poor (22%) or very poor (3%) skills, and 4% of parents said they could not judge.
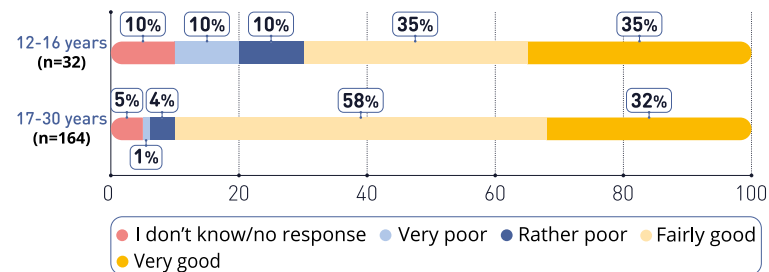
Figure 25. Youth – How would you evaluate your own capacity to manage dangers and risks associated with internet use ?

Not only parents but also the vast majority of young people themselves indicated that they have (very) good capacities to deal with the dangers and risks of using the internet.

Therefore, it can be concluded that most young people are aware of the dangers of using the internet and that their capacities to manage these risks are sufficiently well assessed by themselves, as well as by parents.

A representative German study (Brüggen et al., 2022b) concludes that 13-14-year-olds rate their own ability to cope with negative online experiences higher than their parents' ability to support them.

Children's and young people's ability to deal with the dangers and risks of using the internet can be promoted by, among other things, talking to their parents. Parents were therefore asked about the extent to which they explain to their children how the internet works and the dangers it presents.
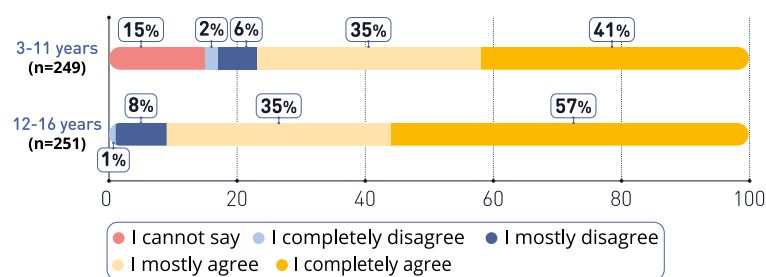
Figure 26. Parents – I have talked to my child about the Internet and its dangers

Three out of four parents (76%) of children aged 3–11 said they talk to their child about the internet and its dangers, while just under one in ten (8%) said they do not. Among parents of children aged 12–16, as many as 92% said they talk to their child about it.
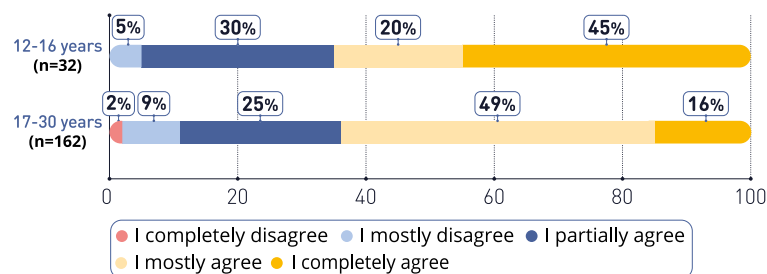
Figure 27. Youth – I feel safe when I use the internet/smartphone

Although children and young people are exposed to different risks on the internet, two thirds of 12–16-year-olds and 17–30-year-olds said they feel safe when using the internet.

> **ⓘ**
>
> **84% of parents of 3-11-year-olds and 94% of parents of 12-16-year-olds say they understand how the internet works and the dangers it presents.**
>
> **Among young people, 85% of 12-16-year-olds and 80% of 17-30-year-olds say they understand how the internet works and the dangers it presents.**

3.4 Use of support measures

In addition to the ability to deal with the risks and dangers of the internet, young people were asked (survey of pupils in BEE SECURE training programmes) who they turn to when they have unpleasant experiences online.

The survey of 11,900 children and young people shows how important family and friends are for children and young people when it comes to seeking help for negative online experiences.

The results show that for more than half of the pupils surveyed, the family (parents/siblings) is the main point of contact for problems or unpleasant or negative experiences on the internet. This is even more true for primary school pupils (65%) than for secondary school pupils (54%). 14% of secondary school pupils and almost one in ten primary school pupils said that they handle negative online experiences on their own.

Figure 28. Pupils – Where do you turn for help when you've had an unpleasant experience online?

60% of 12-16-year-olds and almost half of 17-30-year-olds say that their parents are (very) well informed about their children's internet activities.

26

To conclude this chapter, it can be said that children and young people are exposed to certain dangers when using the internet. Risky behaviour such as sexting, experiencing and/or practising cyberbullying, contact with content such as pornography or violent videos, and/or data protection risks, may in one way or another become a concern for many children and young people.

However, the results also indicate that a large proportion of parents, as well as a large proportion of children, are good at managing these risks. The majority of parents talk about these risks with their children and state that they understand how the internet works and what they need to be aware of. These factors probably contribute to the fact that the majority of children feel safe when using the internet and that more than half of them talk to their parents in case of negative experiences.

SPAM

4 SCREEN TIME AND PROBLEMATIC USE

The topic of 'screen time/excessive use' is proving to be a topic of general interest and was highlighted in 2021 as one of the biggest concerns of parents. For this reason, this topic has received special attention in this year's surveys. **The Zenter fir exzessiivt Verhalen a Verhalenssucht** (ZEV, Centre for Excessive Behaviour and Behavioural Addictions) **has carried out a detailed analysis of the results, which will be summarised in a simplified and abbreviated form** for the purposes of this publication (Chapters 4.1. and 4.2.).

In 2022, in addition to the frequency and duration of use, young people were also asked about their own use and behaviour. This manner of collecting data made it possible to draw conclusions regarding excessive behaviour. These questions were also recommended and analysed by ZEV.

4.1 Duration and frequency of use

As in the previous year, young people and parents were asked about the duration and frequency of their ICT use.
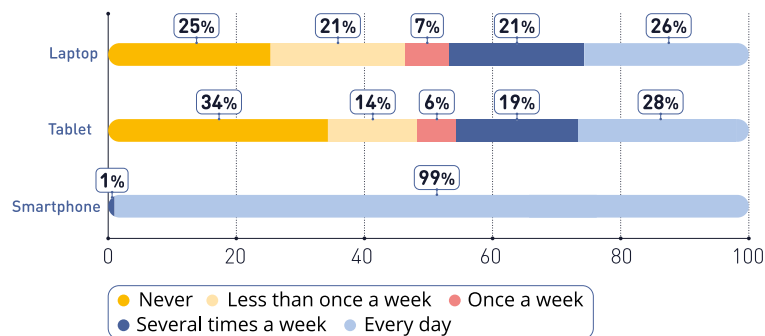
Figure 29. Youth – How often do you use these devices per week? **(n=226)**

The results in Figure 29 underline that with **99% of young people using smartphones daily, these devices have become the essential gateway to the online world**—a trend that can also be observed in other countries, for example Germany. In the first systematic study in Luxembourg by König and Steffgen (2015), this rate was still 71.3%.
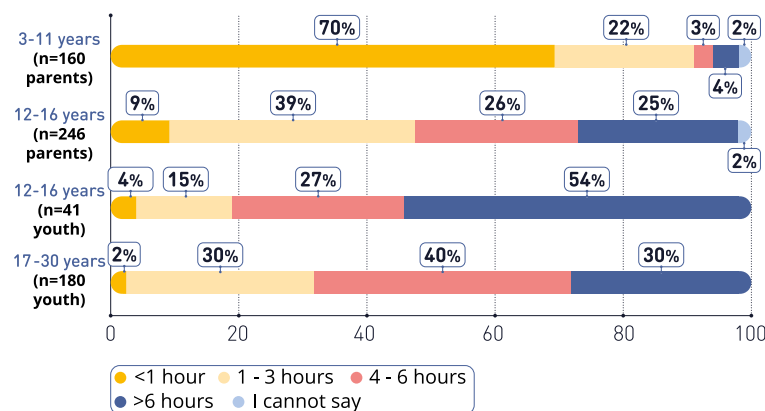
Figure 30. Duration of daily smartphone use – week

Overall, the data on duration of use is more or less in line with developments in other countries. Given the increasing importance of online activities during the COVID-19 health crisis, including online communication, it is hardly surprising that in 2022, 70% of all young people use their smartphone more than 3 hours a day during the week (weekend: 75%). In 2015, only 10% spent more than 3 hours a day on their smartphone during the week (König & Steffgen, 2015).

The German JIM study shows that 96% of 12-19-year-olds use their smartphone every day (92%) or several times a week (Feierabend et al., 2022, p. 14).

The share of young people who reported intensive use stands out in comparison: 54% (weekend: 68%) of 12–16-year-olds and 30% of 17–30-year-olds (weekend: 39%) reported using their smartphone for more than 6 hours a day.

At first sight, these figures seem quite high. However, if one analyses other figures available on this topic, for example those of the DataReportal 2022, which includes data on a global scale, one sees similar trends. These data indicate that globally, more than 90% of internet users (16–24 years old) access the internet via a smartphone. On average, the amount of time spent on the internet among 16–24-year-olds is 7 hours 41 minutes per day for females and 7 hours 07 minutes for males (DataReportal, 2022, p. 31)[10].

Another international survey, conducted in nine European countries, found that half of 16–19-year-olds spend between 4 and 7 hours a day online (with around 4 in 10 spending more than 8 hours), mainly on the smartphone (Davidson et al., 2022).

The JIM 2022 study found that the overall amount of time young people in Germany spend online has decreased from the previous year (during the COVID-19 pandemic) and has returned to a pre-pandemic level. However, the average time young people spend playing digital games each day is still at the level of the previous year (2021: 100 minutes) and significantly higher than in 2019 (81 minutes).

In this BEE SECURE Radar survey, 'duration of use' has not been precisely defined and is open to different interpretations. For example, some people may include listening to music through a mobile application as use, even though they are not necessarily active on their smartphone during this time. This is a limitation in this context.

ZEV comment: *"While it is true that other countries have also seen a steady increase in screen time since the COVID-19 pandemic, the increase in screen time of children and young people requires further attention."*

More than 90% of parents of children aged 3–11 years reported a maximum of 3 hours of use per day during the week. The extent to which this is appropriate depends strongly on the content used and the child's level of development. Recent studies show that most parents do not correctly assess their child's screen time: one third of parents of primary school-age children estimate this time approximately correctly, while one third overestimate or underestimate it by an average of 60 minutes (Radesky et al., 2020). An underestimation of the time of use was also found among older children and adolescents. The reasons for this are probably primarily the increase in children's mobile use and the reduced possibilities for parental supervision.

[10] It should be noted that the data from DataReportal 2022 includes all internet-enabled devices, and that BEE SECURE Radar explicitly asked about time spent on the smartphone.

4.2 Problematic usage

The Short CIUS[11] questionnaire is a well-established tool for detecting internet use disorders (IUD) and for finding early signs/anomalies for such behaviour. However, the tool is not designed to comprehensively diagnose internet use disorders. Nor is it possible to distinguish between risky, abusive or addictive[12] patterns of use. The following results should therefore be interpreted with caution.

The evaluation revealed that, at 51%, **every second young person in the sample** (62.5% of 12–16 -year-olds, 48.4% of 17–30-year-olds) **exceeds the threshold of an internet use disorder.** This notion covers both mild forms of disorder and risky patterns of use, which do not constitute the full profile of internet addiction, but which can be considered as a preliminary form of a pronounced disorder. It can also involve continuous harmful or abusive use, associated with negative consequences, but which does not (yet) fulfil the criteria for an addiction. This means that half of the young people gave indications of their use pattern which, according to the Short CIUS logic, are overall considered risky[13.]
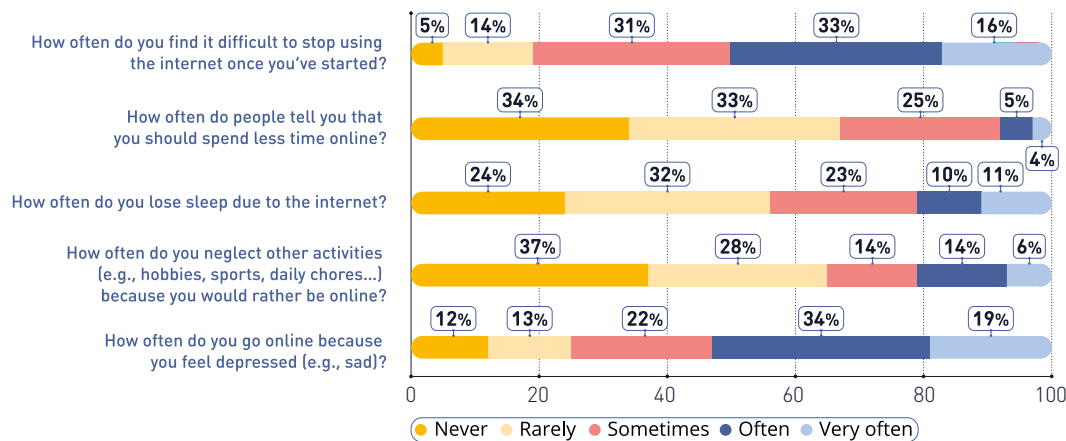

Figure 31. Youth – Problematic use of the internet- results of the Short CIUS **(n=212)**

In concrete terms, the following situations occur (very) frequently:

- ▶ One in two young people find it difficult to stop using the internet on their own.

....

- ▶ Only one in twelve young people is (very) often asked by others to use the internet less: for 67% of all respondents and 45.8% of 12–16-year-olds, this never or rarely happens. Given the high proportion of hours of use, this raises questions about parents' knowledge or reasons for their reluctance in this respect.

....

- ▶ Almost one in five young people do not get enough sleep because of their internet use. Another quarter of the young people surveyed lose sleep at least sometimes. Given the short and long-term consequences of sleep deprivation, a permanent state would entail high personal and social costs.

....

- ▶ One in five young people neglects activities (e.g. hobbies, sports, daily duties) in favour of using the internet, thus risking developing subsequent problems.

....

- ▶ Almost one in two young people use the internet (very) often when they have unpleasant emotions. While it is true that the internet can provide support for productive emotional management, such behaviour is generally also considered a risk factor for subsequent psychosocial problems.

ZEV comment: *"A short questionnaire on internet-related disorders is not a substitute for individual diagnosis. Furthermore, as a trend-finding instrument, the BEE SECURE Radar is not primarily designed to optimise representativeness and raises some new questions with its data.*

To this extent, an interpretation should only be made with caution and reservation.

It should also be mentioned that increasing usage rates in the context of social changes, i.e., the way digital devices are increasingly used is not necessarily a problem and may also be a sign that they can potentially be productive.

*However, **a general—and hopefully temporary—shift in (statistical) norms should not be confused with a shift in target values,** as long as the increase in usage is accompanied by an increase in the proportion of young people who engage in problematic or excessive or even addictive usage behaviour, with all the consequences this implies in terms of performance, social relationships and psychological well-being.*

*If the results were to be roughly representative for young people in Luxembourg, **they suggest an additional need for information and awareness-raising,** not only for the young people themselves, but also for their guardians and professional support staff in and out of school."*

Overall, it can be seen that children and young people spend a lot of time behind the screen (especially on smartphones) and that the internet is a natural part of the living environment, with all the facets and welfare implications that can have a major influence on the daily lives and well-being of many young people. **These trends will need to be monitored and analysed in further studies,** particularly to determine whether they are still consequences of the COVID-19 crisis or whether they are developing trends.

The next chapter will show what measures are already being taken at home to accompany internet use.

[11] Compulsive internet use scale – Short Form: https://psycnet.apa.org/doiLanding?doi=10.1037%2Ft76683-000.

....

[12] BEE SECURE Radar is certainly not designed to provide reliable information on the prevalence of problematic or addictive use, and the short questionnaire used (Short CIUS) does not fully reflect the official ICD-11 diagnostic criteria for behavioural addictions. It is, however, considered an established instrument for capturing internet-related disorders, which, in addition to marked internet addiction, also encompass mild forms of disorder, such as risky patterns of use that are considered preformative and only meet certain criteria (Bischof et al., 2016).

....

[13] This behaviour can become more problematic if it is maintained over a long period of time, particularly if it is used as a mechanism for coping with stress (Quinones & Griffiths, 2019).

4.3 Parental rules and measures

To find out more about how parents manage screen time, BEE Radar asked them about the rules for internet use at home and what measures they have taken to control their child's online activity.

3 - 11 years (n=249) **12 - 16 years (n=251)**
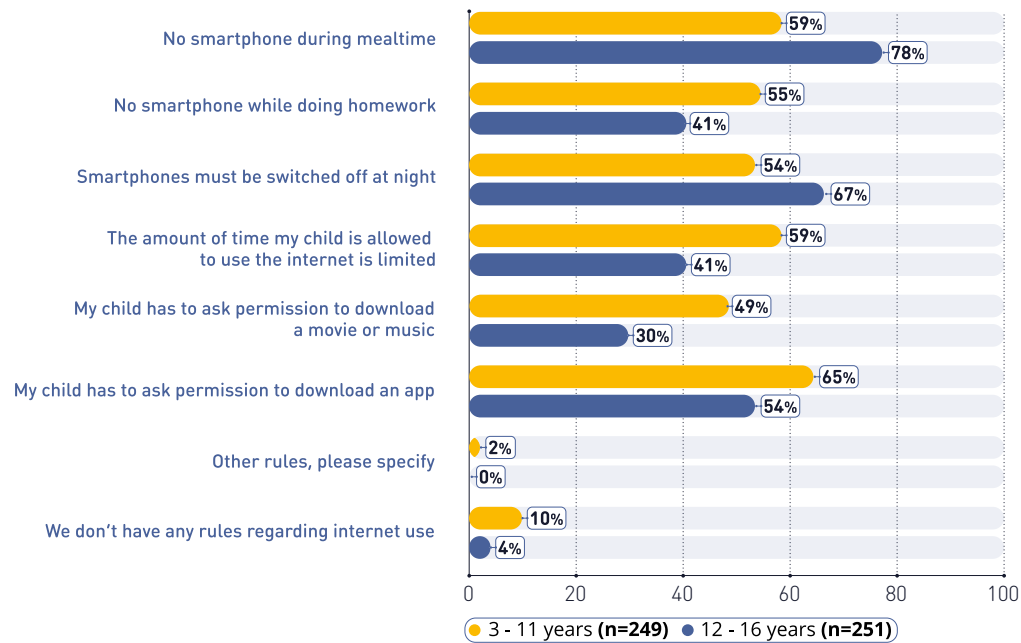
Figure 32. Parents – Which of the following rules regarding internet use are applied in your home?

59% of parents of children aged 3–11 and 41% of parents of children aged 12–16 indicated that they limit their child's internet use. Last year's BEE SECURE Radar surveys showed similar rates, namely 61% (parents of children aged 3–11) and 37% (parents of children aged 12–16). This year, 10% of parents of 3–11-year-olds (compared to 12% last year) and 4% of parents of 12–16-year-olds (same as the previous year) said they do not enforce any rules regarding internet use at home.

More than half of the parents said that children were not allowed to use their smartphone during meals and at night.

In addition to parents, young people were also asked about the rules for internet use at home. They agreed with parents' statements that smartphones should not be used during meals (58% of 12–16-year-olds and half of 17–30-year-olds). However, only a quarter of 12–16-year-olds and 12% of 17–30-year-olds said that smartphones had to be switched off at night. Of the 12–16-year-olds surveyed, **32% said that there are no rules for internet use at home,** while 16% said that their internet use is limited by their parents.

Among other measures, the regulation of screen time is a particularly important way for parents to control children's digital activities. Thus, about **half of the parents indicated that they manage screen time.**

In addition to regulating screen time, more than half of the parents required parental permission to install an application, and almost half of the parents had activated a filter based on the user's age.

Another interesting finding was that **smartphone geolocation tools were used by almost half of the parents of children aged 12–16.**

In sum, it is evident that parents are taking different actions to regulate their children's digital activities.
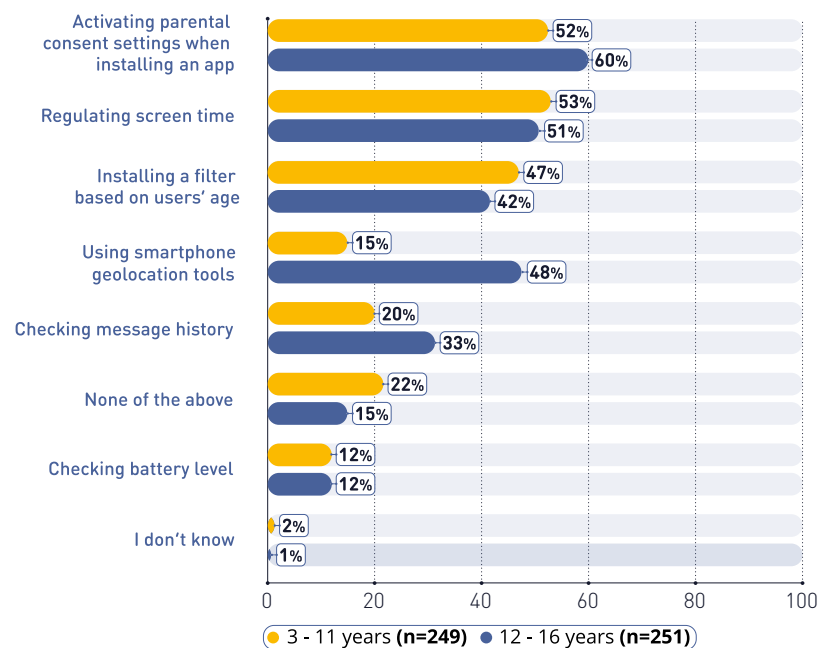
Figure 33. Parents – What actions have you already taken to control your child's activity?

5 EXPERIENCES ONLINE

5.1 Negative experiences online
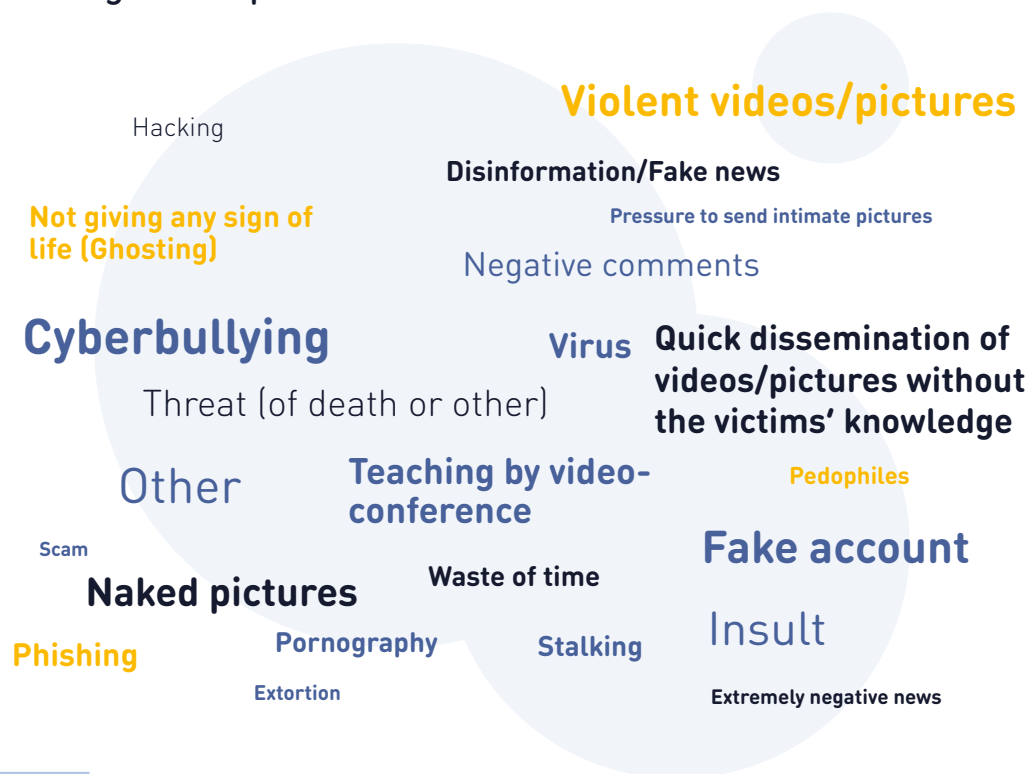
Figure 34. The most negative experience online

Similar to last year, the most negative online experiences cited by young people were related to violence. Last year (survey of 17–30-year-olds only), experiences of hate speech still topped the list. This year, experiences related to cyberbullying and violent videos/pictures dominated (12–30-year-olds).

Categories	Frequency
Cyberbullying / Harassment	18
Violent videos/pictures	14
Naked pictures	12
Quick dissemination of videos/pictures without the victims' knowledge	11
Disinformation/Fake news	7
Fake account	7
Hacking	4
Pressure to send intimate pictures	3
Other	3
Pedophiles	2
Teaching by video-conference	2
Not giving any sign of life (Ghosting)	2
Virus	2
Threat (of death or other)	2
Negative comments	1
Phishing	2
Insult	1
Scam	1
Stalking	1
Extremely negative news	1
Pornography	1
Waste of time	1
Extortion	1

5.2 Positive experiences online

Figure 35. The most positive experience online.

Similar to last year, the most positive online experiences of young people were generally related to meeting (new) people and the resulting positive friendships/relationships.

Categories	Frequency
New friends/meetings	50
Research/information	14
Increasing knowledge	12
Communication	10
Contact with people who live far away	9
Finding a partner	5
Support in community groups	5
Social media	4
Nice to get likes/compliments	3
Support/help	2
Other	3
Being up to date	2
Distraction	1
Online games	1
Movies and videos	1
Avoiding boredom	1
Winning a game	1
Naked video	1
Positive self-image	1
Finding photos	1
Collecting donations	1
Control by the Luxembourg police	1

II. BEE SECURE HELPLINE

The BEE SECURE Helpline—hereafter referred to as the Helpline—offers a free, anonymous and confidential telephone helpline that any citizen of any age can contact. It is run by the KJT counselling service, a partner in the BEE SECURE initiative. The Helpline provides personalised information, advice and support on online safety and responsible use of ICT, for example on computer security and cyberbullying, social networking, data protection rights, technical security and more. The Helpline can be contacted by phone or in writing via an online contact form.

In July 2022[14], the national awareness of the BEE SECURE Helpline in Luxembourg was 33% (2021: 26%).

Data from the BEE SECURE Helpline have been analysed and processed for this publication with a special focus on children and youth.
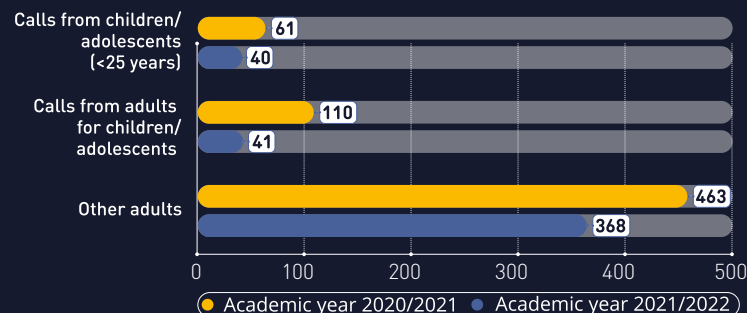
Figure 36. Calls to the BEE SECURE Helpline (n(2020/2021)= 634 calls; n(2021/2022)= 449 calls)

Of the 449 people who contacted the Helpline in 2021/2022, the majority of calls were from adults calling either for themselves or for children/adolescents. Forty of them were under 25 years old and called for personal reasons. In general, children and young people rarely call the Helpline themselves.

Overall, the Helpline was contacted less often than in the previous year (634 calls in 2020/2021). This decrease in calls could be explained by a decrease in calls concerning cybercrime, media literacy, technical parameters, cyberbullying and sexting. On the other hand, calls concerning data protection have slightly increased.

Figure 37. Main subjects discussed in calls related to children and youth

Of the enquiries concerning children and young people (n=81 calls), the topic of e-crime was most frequently raised on the Helpline, both by young people themselves (30%) and by adults. Other topics mentioned by callers were cyberbullying and media literacy.[15]

Last year, calls from adults were primarily about expert media use and cybercrime. Calls from young people were mainly about cybercrime and data protection.

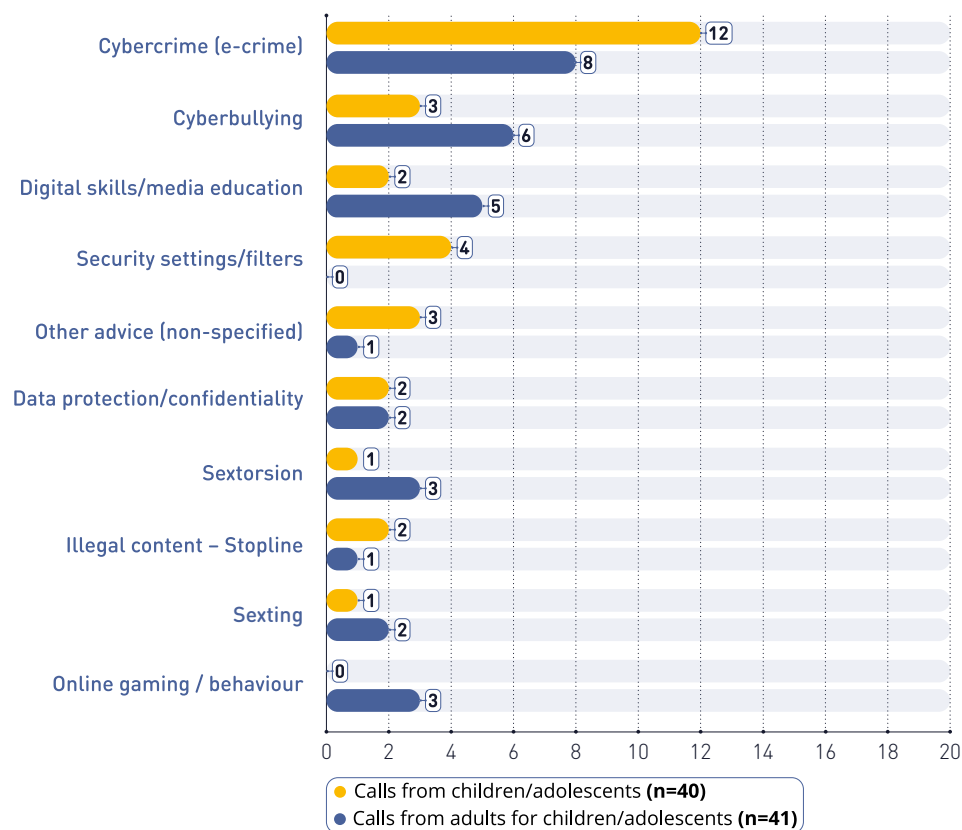The classification of topics is based on the European standard applied by Insafe[16]. The Insafe network regularly publishes updated statistics that show trends in requests for advice from the Helpline in Luxembourg and from Helpline structures in more than 40 other European countries.

Further data on Helpline enquiries are regularly published in the BEE SECURE Annual Report and in the KJT Annual Report.

> **The cybercrime topics mentioned by children and young people differ from those typically mentioned by adults.**
>
> **Most of the calls were about hacking into social media accounts (Instagram, Facebook), fake accounts, and sometimes identity theft, as well as fake profiles with photos and links to pornographic sites.**

[15] In Figure 37, only those topics that were discussed at least 3 times are mentioned. Other call topics included requests for information about BEE SECURE, cyber-grooming, exclusion and intimidation, problems with friends, contraception, events and training, safer internet, advertising/scamming, requests for information about the body, legal issues, potentially harmful content, psychological abuse, radicalism/extremism, and relationships and sexuality.

[16] European trend monitoring in online advice: https://www.betterinternetforkids.eu/en-GB/practice/helplines/statistics.

III. BEE SECURE STOPLINE

The BEE SECURE Stopline allows anonymous and confidential reporting of potentially illegal content on the internet via the stopline.bee-secure.lu website. These reports can be divided into three main categories: child sexual abuse material (CSAM); discrimination, racism, revisionism, and hate speech; and terrorism. Reported content undergoes a provisional assessment. In the case where it is judged to be illegal (or as not clearly legal), it is forwarded to the competent authorities.

In 2022[17], the national awareness of the BEE SECURE Stopline in Luxembourg was 17% (2021: 14%).

Child sexual abuse material (CSAM)

CSAM represents sexual violence against a child who is a victim, not a participant.

Out of a total of 2,333 reports received between 1 September 2021 and 31 August 2022, 1,126 were reported via the ICCAM international partner hotline (INHOPE network) and 1,207 via the BEE SECURE Stopline.

[17] Source: TNS ILRES, representative survey commissioned by BEE SECURE in July 2022.
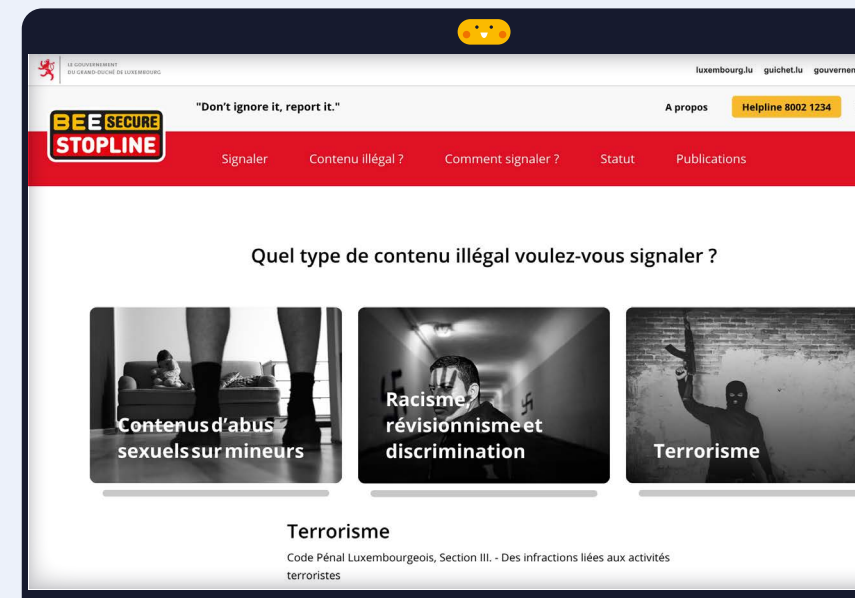
In total, 1,261 of the 2,333 reports were assessed as illegal (54.1%) and 115 as legal (4.9%) by the BEE SECURE Stopline experts. 147 URLs were reported twice (Duplicate). In 727 cases, the reported contents were no longer accessible because they had already been removed by the internet service provider (ISP) and in 83 cases, they could not be accessed (Not found).

The highest number of CSAM reports was recorded in August 2022: the number of reports doubled in that month. However, many reports were no longer accessible, i.e., they had already been deleted by the ISP. This increase is explained by the fact that the BEE SECURE Stopline received individual reports containing long lists of illegal sites. Unfortunately, the anonymity of the reporters makes it impossible to conclude whether these were multiple reports received from one person or from several people. In any case, it constituted an increase in reports received through the BEE SECURE Stopline platform (national reports). The countries of the hosts were international.

	2021				2022							
● Not found	0	2	5	0	15	7	2	1	2	18	11	20
● Not accessible	35	2	20	57	95	60	72	71	8	42	33	232
● Duplicate	10	0	88	0	2	3	20	9	0	12	1	2
● Legal	5	3	0	0	8	2	4	0	44	18	0	31
● Illegal	97	77	126	98	80	82	45	117	55	105	171	208
TOTAL	147	84	239	155	200	154	143	198	109	195	216	493
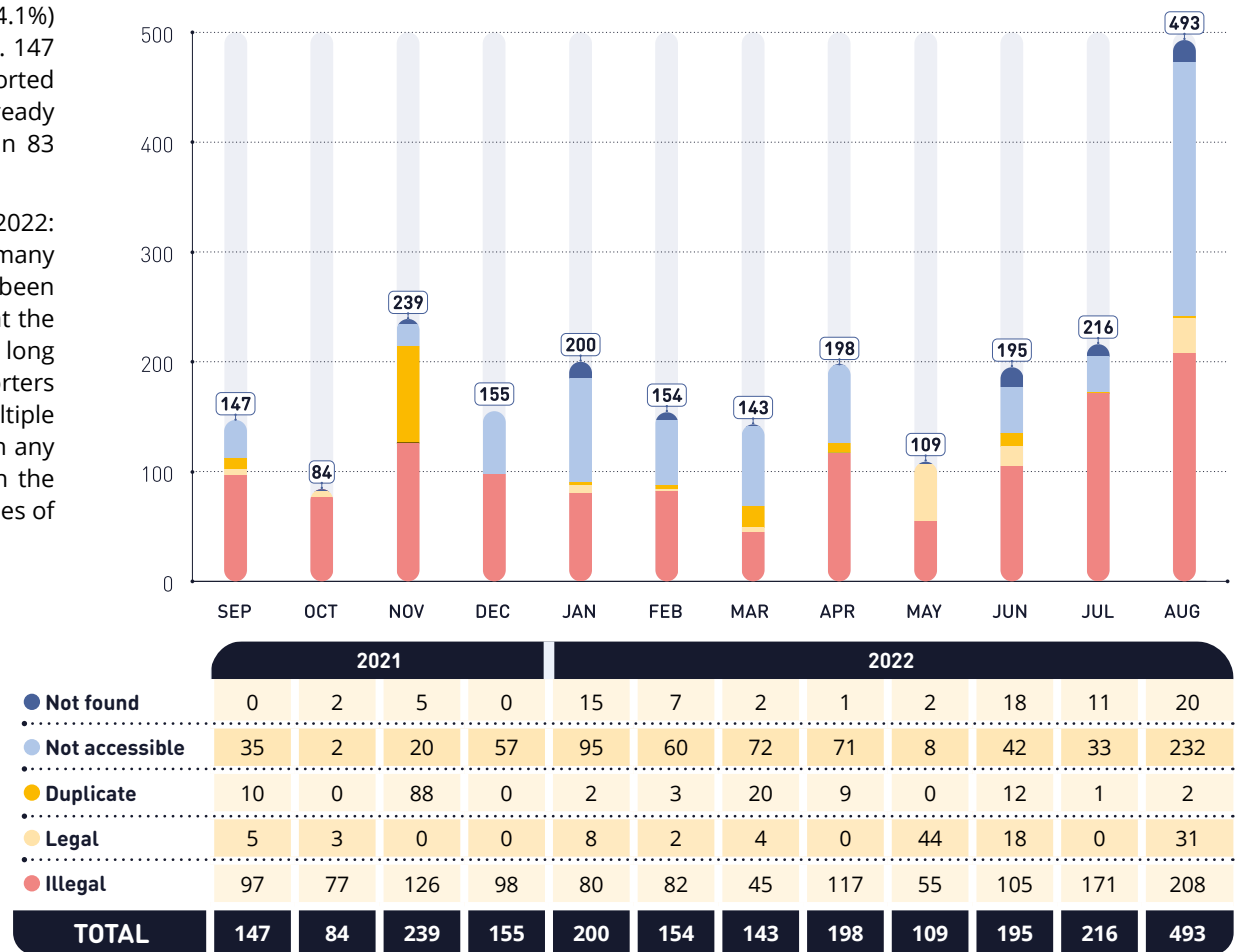
Figure 38. Child sexual abuse material (CSAM) – Reports

Racism

From 1 September 2021 to 31 August 2022, there were 266 reports of racist content, of which 161 cases were found to be illegal. It should be noted that the peak of reports in December 2021 was partially due to protests against COVID-19 restrictions and the government.

	2021				2022							
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
● Not found	1	1	5	1	4	3	1	0	0	1	0	0
● Not accessible	0	0	0	1	5	0	2	2	0	1	0	1
● Duplicate	5	4	0	16	8	2	3	1	0	0	0	0
● Legal	6	4	5	9	4	2	0	0	0	3	2	2
● Illegal	16	18	12	46	17	9	16	6	6	7	3	5
TOTAL	28	27	22	73	38	16	22	9	6	12	5	8

Figure 39. Racism – Reports

Terrorism

From 1 September 2021 to 31 August 2022, the BEE SECURE Stopline also received and processed 113 reports of terrorist content. Of these, less than half (47) were found to be illegal after expert review. 24 reports were found to be legal, 24 were duplicate reports, 5 were no longer accessible and 13 could not be traced.
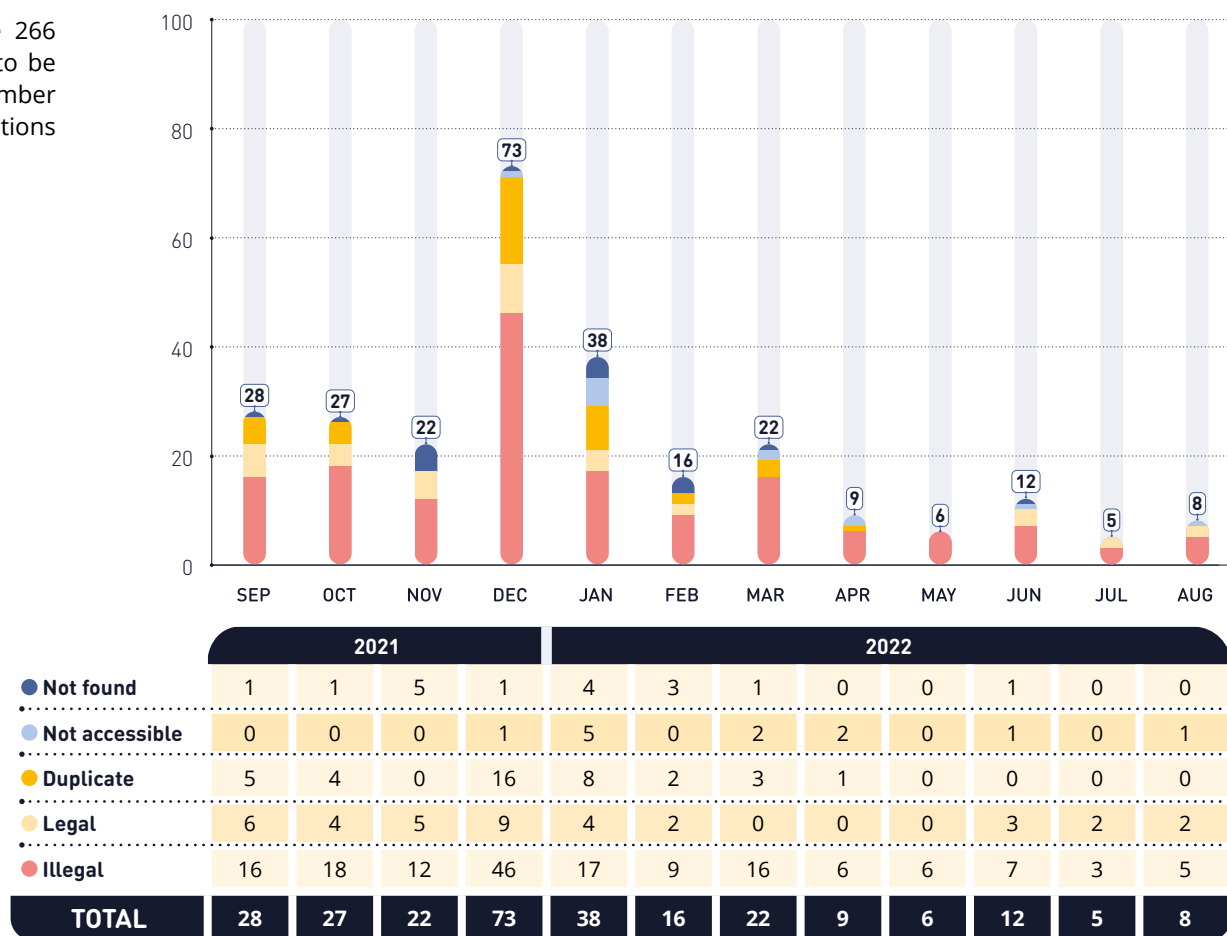
As with racism, the spike in reports on terrorism in December 2021 was partially due to the protests against the COVID-19 restrictions and the government.

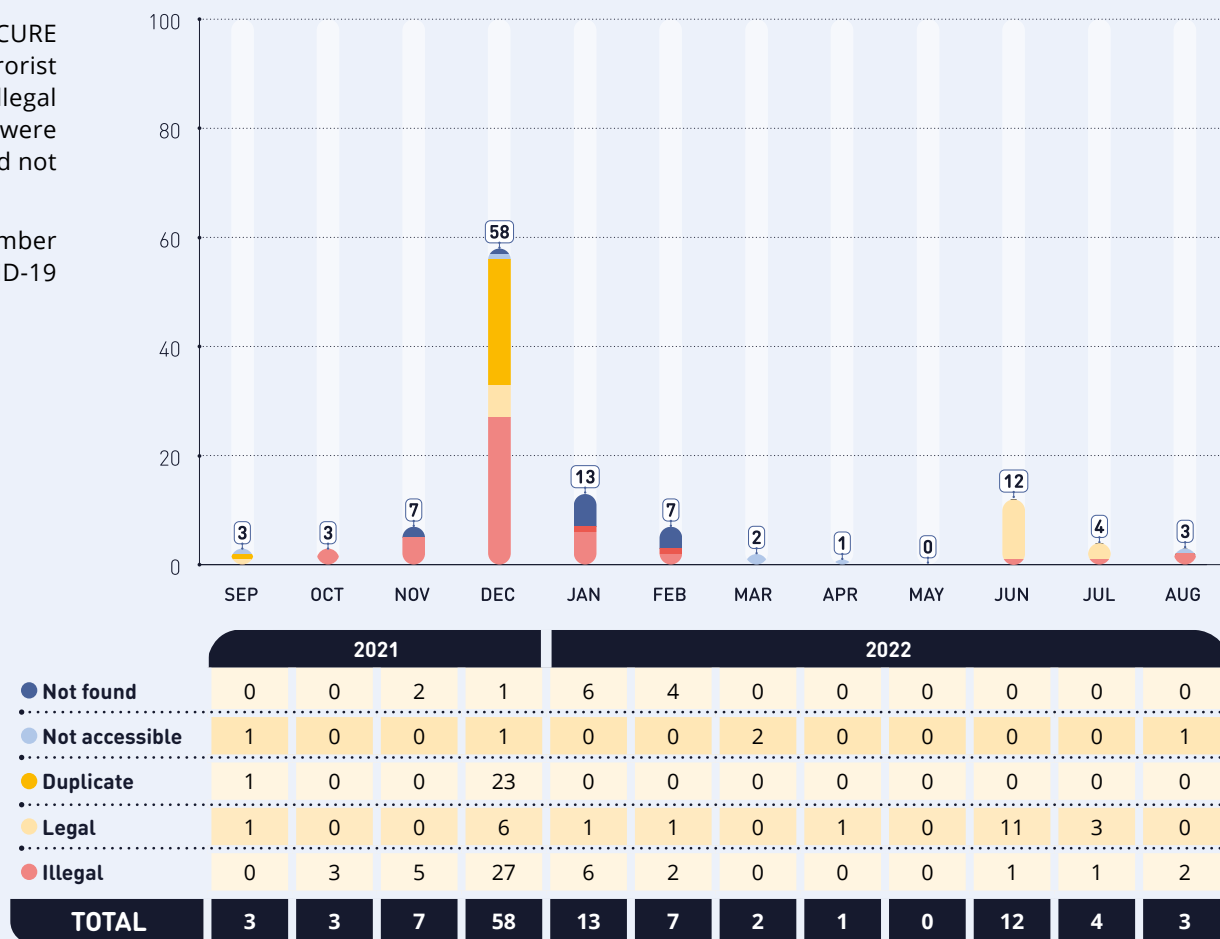|	2021				2022							
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG
● Not found	0	0	2	1	6	4	0	0	0	0	0	0
● Not accessible	1	0	0	1	0	0	2	0	0	0	0	1
● Duplicate	1	0	0	23	0	0	0	0	0	0	0	0
● Legal	1	0	0	6	1	1	0	1	0	11	3	0
● Illegal	0	3	5	27	6	2	0	0	0	1	1	2
TOTAL	**3**	**3**	**7**	**58**	**13**	**7**	**2**	**1**	**0**	**12**	**4**	**3**

Figure 40. Terrorism – Reports

IV. PUBLIC PERCEPTION

During the 2021/2022 school year, BEE SECURE contributed to the development of responses to four parliamentary questions. These questions were related to the following topics:

▶ Digital competences of young people (**QP 5830**);

▶ Grooming (**QP 6333**) ;

▶ Happy Slapping (**QP 6534**) ;

▶ Data protection on TikTok (**QP 6698**) ;

In the context of a public policy debate on an EU legislative proposal to prevent and combat online child sexual abuse on 16 June 2022, a motion was adopted by the Chamber of Deputies in which the government was asked, among other things, to increase awareness of this issue in schools and to make BEE SECURE training compulsory for classes in cycle 4.1 of primary education.

In the same school year, BEE SECURE received 52 requests from media outlets about internet-related challenges. In general, the priority topics related to these were the following:

▶ Hate speech;

▶ Data leaks and scams;

▶ Phishing, etc.

V. PREVENTION INITIATIVES BY THE MINISTRY OF EDUCATION, CHILDREN AND YOUTH

In order for children and young people to grow and develop safely in the digital world, they need to be educated to become well-informed and responsible individuals. Thus, the education sector has a particular responsibility in this regard. The Ministry of Education, Children and Youth is committed to supporting the education sector through the BEE SECURE initiative and more recently with the introduction of new school programmes under the initiative "Einfach digital - Zukunftskompetenze fir staark Kanner" ("Simply digital—future skills for strong children").

The aim of this initiative is to provide children and young people with the skills they need to develop successfully and safely in their hyper-digitalised environment; to prepare them to seize the professional opportunities generated by these changes; and to become citizens who understand the digital world.

At the primary school level, the introduction of coding at the start of the 2020/2021 school year is part of a global concept of education in and through the media, which involves all teachers and school disciplines. Teachers are supported in implementing coding into the curriculum by specialised digital competence teachers (I-CN).

In secondary schools, digital science has been a new subject in the lower classes since the start of the 2021/2022 school year, with a gradual introduction in all 7th, 6th and 5th grade classes at the secondary level. The aim is to promote and develop creative approaches to coding in areas as diverse as Big Data, artificial intelligence and automation.

BEE SECURE educates children and young people about an opportunity- and risk-oriented approach to ICT and encourages them to think critically. BEE SECURE offers more than 1,200 training programmes per year in both school and out-of-school settings. These awareness-raising activities are complemented by further training for teaching and educational staff and information sessions for parents.

The results of the BEE SECURE Radar show that digital environments have become inescapable for children and young people and that they are starting to use ICT at a younger age. In response, BEE SECURE has strengthened its training programmes in primary education. Also, at www.bee.lu, young children (aged 3 to 6) can learn, together with their parents, how to use the internet safely in a fun, playful way.

Just like non-digital spaces, digital/virtual spaces present risks that can have consequences for the development of children and adolescents. Parents, as well as teachers and educational staff, play an important role in the management of these risks. BEE SECURE offers teacher training courses and parent evenings, as well as special publications specifically aimed at parents and teachers. For example, in the "Trio of Experts" format, experts from BEE SECURE, the Police and the KJT work together to answer parents' questions about child safety on the internet. With annual awareness campaigns, BEE SECURE addresses the entire population and can thus proactively draw attention to current online risks and promote specifically adapted behaviour.

For parents, the amount of time that children spend behind the screen has become an important topic in recent years. Consequently, BEE SECURE has adapted its materials for parents on this topic, with information on appropriate amounts of screen time and how to organise media use at home in the most child-friendly way possible. The BEE SECURE guides, such as "Screens in the family" or "Risks on the Internet", are also an important part of the prevention activities.

Many topics related to internet risks and safety are also covered in BEE SECURE publications, such as the thematic articles and pedagogic material published on www.bee-secure.lu. The BEE SECURE Helpline also offers a free, anonymous and confidential telephone helpline that any citizen of any age can contact for information and advice on internet safety and responsible use of ICT.

Given the variety of factors related to online safety for children and young people, there are many organisations in Luxembourg that, with their specific areas of expertise, play an important and active role in prevention and intervention, be it through training, advice and/or support.

In terms of national collaboration, the BEE SECURE Stopline (www.stopline.bee-secure.lu), has an ongoing cooperation with the Grand Ducal Police and the Public Prosecutor's Office to combat illegal content (CSAM, racism, discrimination, revisionism and terrorism, etc.). Through the BEE SECURE Stopline, illegal online content can be reported anonymously and confidentially. These reports can be classified in one of three categories: child sexual abuse material (CSAM); discrimination, racism or revisionism; or terrorism. Reports are analysed and, where appropriate, forwarded to the competent authorities.

This ongoing exchange has also led to joint actions, such as the publication of guides on topics such as cyberbullying and sexting to inform the people concerned and those around them (parents, educational staff, teachers, etc.) about the risks and dangers of these activities and to provide them with information on useful services and relevant laws.

The BEE SECURE Annual Report gives an overview of all BEE SECURE activities, publications, events, offers and figures.[18]

[18] BEE SECURE Annual Report: www.bee-secure.lu/rapport-dactivite.

VI. CONCLUSIONS

As mentioned in the introduction, the data presented in this document should be interpreted with caution, taking into account the different contexts in which data was collected. These findings should be seen as a snapshot based on feedback from different BEE SECURE activities, analysed for this report.

The survey results are not representative for Luxembourg, but they do indicate certain trends observed in three age groups (3–11 years, 12–16 years and 17–30 years).

With these caveats in mind, the main trends in ICT use and experience and online risk management can be summarised as follows:

Children and the digital world

Contact with the digital world starts early: for 40% of children, the first contact with devices connected to the internet, and thus with the digital world, takes place before the age of 4. This percentage increases to 83% before the age of 10.

According to the information provided by parents, the average age that children received their first smartphone in 2022 was about 11, the same as in 2021.

By the age of 12, 84% had their first smartphone (2021: 79%). Parents said that this decision is usually motivated by accessibility and safety considerations, often associated with the transition from primary to secondary school.

According to parents, young people obtain their first personal email address at the average age of 10.5 and their first social media account at the age of 12.

Most popular social media

According to a survey of 11,900 students aged 8-18, Snapchat, WhatsApp and Instagram are the most popular applications for sharing photos/videos in this broad age group. According to parents, the most popular apps cited were YouTube, WhatsApp and Facetime for 3–11-year-olds, and WhatsApp, YouTube and Snapchat for 12–16-year-olds. The 17–30-year-olds cited WhatsApp, Instagram and Facebook.

Risk-related themes

➡ Focus: Screen time and problematic use

Like last year, excessive time spent online is the number-one concern mentioned by parents. However, as in the previous year, this risk does not make the top 5 for young people.

In this edition of the BEE SECURE Radar, ZEV has carried out a targeted analysis of the survey results on this topic. Overall, these results are similar to those of comparable countries.

The results on problematic use show that about half of 12–16-year-olds exceed the current threshold for "internet-related disorders". This includes both milder forms of disorder and risky patterns of use that do not quite constitute internet addiction but could be seen as preliminary forms of a disorder. In other words, the young people surveyed have provided information about patterns of use that are generally considered risky.

The analysis shows that a differentiated approach to the situation is necessary, especially with regard to the question of pathological and harmful behaviour, which can only be diagnosed individually. The trends observed, which seem to be part of a general upward shift in the amount of time spent online, will in any case require more attention in the future.

➡ Cyberbullying

The subject of cyberbullying came in first (12–16-year-olds) and second (17–30-year-olds) in the top 5 risks for young people, while it did not appear in the top 5 for parents. Almost half of the 12–16-year-olds surveyed said they had been victims of cyberbullying. In addition, among the free responses regarding the most negative online experience among 12–30-year-olds, cyberbullying and hateful and violent content were also cited.

➡ Pornography

A total of 38% of parents of children aged 12–16 assumed or knew that their child had already been in contact with pornographic material. One third of these children (whose parents knew or suspected contact with pornography) had this contact before the age of 12.

73% of 12–16-year-olds and 78% of 17–30-year-olds said that their peers access pornography at least 'sometimes'. 23% of the 12–16-year-olds and 25% of the 17–30-year-olds said that this happens even 'very often'.

➡ Sexting

Young people's responses regarding their assessment of how often their peers sext confirm BEE SECURE's general observations that sexting among teenagers and young adults is not uncommon in Luxembourg: almost two thirds of 12–16-year-olds indicated that their peers at least 'sometimes' send intimate photos or videos to other people. Three out of four 17–30-year-olds said this happens at least 'sometimes'.

➡ Violent videos

Among 17–30-year-olds, the vast majority (85%) reported having watched violent videos on their smartphone/online. 13% reported having shared such videos online. 86% of 12–16-year-olds reported having watched violent videos on their smartphone/online (with more than half reporting that they at least 'sometimes' watch such content). 18% of 12–16-year-olds rarely or sometimes shared such content, while 78% said they have never shared such content.

➡ Data protection/privacy online

Data protection/privacy online was relevant for all groups of respondents (top 3 for 12–16 and 17–30-year-olds). Parliamentary questions and press enquiries to BEE SECURE in the school year 2021/2022 also showed a high public interest in this topic. Calls from young people to the BEE SECURE Helpline were mainly about cybercrime and data protection.

Almost one in ten young people (12–16 years old) agree with the statement that they have no control over their privacy/data online. Around four out of five 12–16-year-olds said they have seen photos or videos of themselves shared without permission at least once.

Risk management

With regard to risks in general, it is important to bear in mind that "risk" does not always mean "harm". An important factor in preventing harm is having good risk recognition and risk management skills.

Parents were asked about their children's ability to manage the risks and dangers of the digital world. Overall, parents of the youngest children rated their children's abilities lower than those of parents of 12–16-year-olds. In total, half of the children aged 3–11 were good or very good at dealing with risks and dangers online, according to their parents' estimation. Nearly three out of four 12–16-year-olds had at least good skills in dealing with risks and dangers, according to their parents.

About 9 in 10 parents considered their own skills to be fairly good to very good, and about 1 in 10 parents said they were fairly bad to poor.

Perspectives

It is important to know the trends in use of ICT by children and adolescents, as they contribute to a better assessment and understanding of the realities young people in Luxembourg face. Therefore, surveys and trend analysis will be developed and refined in the future.

In short, the diversity of risks and risk-related themes shows that there is a broad social responsibility to enable, support and (co-)organise positive growth with ICT in a digitalised society. Young people need to be educated to become well-informed and responsible citizens. Naturally, the education sector bears a special responsibility in this regard. Parents/guardians also have a responsibility and play a fundamental role as a point of reference and role model for their children through their own ICT use, especially when children are young, as surveys also show: the family is the most common point of contact for children and young people when it comes to using the internet.

However, children and parents need to be supported in their concerns, questions and problems. Especially if problems or damage have already occurred. Competent services and support for children, young people, parents, educators, teachers, and other professionals involved in the education, guidance, support and/or welfare of children and young people are essential. Finally, internet developers, in particular providers of digital platforms and services, also have a responsibility to consider the protection of children and young people as digital users and to enhance online well-being through a safe and age-appropriate digital environment created in a way that respects the best interests of children[19].

Cooperation among the many stakeholders is also important if children and young people are to participate in digital life with the greatest possible confidence and safety. It is for this reason that the Advisory Board[20] was created. Thus, the aim of this report is to inform all actors and stakeholders, to raise awareness of the multiple risks of ICT use and to encourage everyone concerned to address the issue.

[19] European Commission (2022): A European Strategy for a Better Internet for Children (BIK+) (https://digital-strategy.ec.europa.eu/fr/policies/strategy-better-internet-kids).

[20] For more information on the stakeholders participating in the Advisory Board, please consult the BEE SECURE Annual Report: www.bee-secure.lu/rapport-dactivite

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