

Screen Time is Cool But Friends and Family are More Important: Children's Daily Life During Lockdown in Austria

Christine Trültzsch-Wijnen

Salzburg University of Education Stefan Zweig, Austria, & Charles University, Czech Republic

ORCID: <https://orcid.org/0000-0003-1959-2571>

Sascha Trültzsch-Wijnen

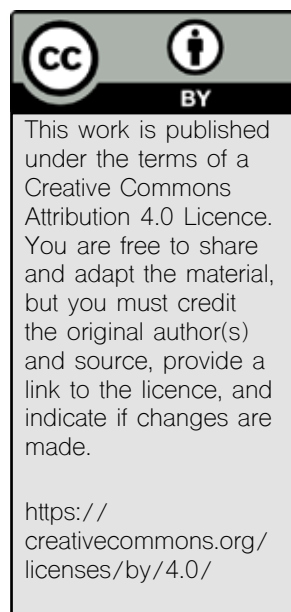
University of Salzburg, Austria

ORCID: <https://orcid.org/0000-0002-9458-1816>

Abstract

This paper discusses the use of digital and online media in Austrian families during the Covid-19 lockdown in spring 2020. As part of a wider European research network, two studies were conducted in Austria: a representative quantitative survey (N=510) and a qualitative study (10 families with children between 6 and 12 years). We provide an overview of how digital media were used by children between ten and 18 years, but focus more on the situation of families with children between six and twelve years. We give an insight into how daily life was affected by the lockdown, and how children engaged with digital technologies during this specific time. Further, we discuss whether digital media were used to cope with specific challenges; and if a more frequent use of digital media led to more or better digital skills.

Keywords: Covid-19, screen time, daily media routines, digital literacy, remote schooling



Introduction

The year 2022 is the third year that is affected by Covid-19. Meanwhile children and adults are used to wearing masks and recurring lockdown periods, and families have developed routines in dealing with remote work and schooling. The unexpected and harsh change to strict social distancing strongly affected children's daily lives (Blaskó et al., 2021; Engzell et al., 2021; Lobe et al., 2021). Families have been challenged in various ways during the pandemic and this has been addressed from different academic perspectives. In the following, we will focus on experiences of Austrian children and their families during the lockdown periods in spring and early summer 2020.

Despite emerging routines, children's experiences of the first lockdown periods are still relevant for the discussion of the pandemic's effect on their media activities, especially if we look at what has changed and how media could help (or not) to cope with various challenges.

After a brief literature review, we will describe our study as well as the situation in Austria during the time when the data were collected. In presenting our results, we start with an overview of how digital media were used by children between ten and 18 years and then focus on the situation of families with children between six and twelve years. We will look on how daily life was affected by the lockdown, and how children engaged with digital technologies during this specific time. Finally, we will discuss how far digital media were used to cope with specific challenges; and if a more frequent use of digital media led to more or better digital skills.

Literature review

Children's life-worlds are, particularly in the Global North, media worlds to a great extent. Different kinds of media and media content, alongside other institutions of socialization, serve as a means of self-affirmation, and of exploring the self and the social environment (Trültzsch-Wijnen, 2020). From an early age on, children develop skills, abilities, and knowledge about media (Chaudron et al., 2018; Rideout, 2017; Marsh, 2016). They engage in all kinds of media ranging from books to television and touch screens. The latter serve as "digital toy box" (Huber et al, 2018) and offer various apps and kinds of play and interaction. Studies show that the use of screen media increases with age; this was confirmed before (Huber et al, 2018; Ofcom, 2019; Smahel et al., 2020) as well as during the pandemic (Ofcom, 2021). For children between nine and 16 years the EU Kids Online surveys state that the proportion of smartphone use as well as the amount of internet use increased substantially, and that the time that children spend online each day had almost doubled in the past ten years. Before the advent of Covid-19, watching videos, listening to music, communicating with friends and family, visiting social networking sites and playing online games were the most common daily activities, when children were using digital devices (Smahel et al., 2020).

Since the beginning of the pandemic, a variety of research on the life of children and their families has been conducted worldwide; the digital media environment is often, but not always, considered within these studies. Particular regard was given to remote schooling and how media were used in this context. While some studies focus on teachers' (e.g. Hamilton & Ercikan, 2022; Shanin, 2021) or on parents' perspectives (e.g. Bol, 2020), others explore learning outcomes (e.g. Wise et al., 2020). Differences in international comparisons might have cultural or social reasons. For example, Egyptian (Shanin, 2021) as well as Austrian (Trültzsch-Wijnen & Trültzsch-Wijnen, 2021) pupils were

motivated in following online classes. Egyptian teachers with a deep knowledge of tools for online teaching were motivated and engaged in finding effective methods and tools for remote schooling. Austrian teachers conversely were less well-trained in digital tools and were used to relying on (at this time non-existing) guidelines from the Ministry of Education or similar institutions. Therefore, they felt somewhat abandoned. They were less motivated in trying out tools and adapting to the situation of emergency remote schooling (Trültzsch-Wijnen & Sturm, 2021). Although Austrian pupils were motivated to take part in online learning activities, they had much less support and contact with their teachers in comparison to other European countries (Lobe et al, 2020).

In a comparative survey of children and parents (Pozas et al., 2021) remote schooling was seen as an opportunity by lower income-families in Mexico, but it was experienced as a challenge by middle class German families because parents had to invest more time in their children's education and to fulfil their other duties at the same time. A Dutch study (Bol, 2020) revealed that income was a crucial factor in how parents were able to support their children during remote schooling (e.g. lack of space, devices, access, and education of parents). Also in the US, social economic status and the social environment seem to have an influence on remote schooling activities. Hamilton and Ercikan (2022) report that schools with more pupils being reliant on public welfare and higher numbers of "non-white" students were more likely to switch to remote schooling and at the same time offered less support for teachers and pupils. Hence, a lower social economic status seems to have a negative impact on the quality of education during emergency remote schooling. Nevertheless, remote schooling can also create an opportunity for greater access to education, as in the case of Mexico.

In a meta-analysis of 97 studies on remote schooling in Germany, Austria and Switzerland Helm et al. (2021) found that many studies stressed pupils' difficulties in following online classes or catching up with learning activities, and reported negative effects regarding learning outcomes (e.g. Anger et al., 2020, Refle et al., 2020, Schwerzmann & Frenzel, 2020). According to the studies analysed, young people spent three to five hours a day for remote schooling, and their motivation in taking part in learning activities ranged from 37% to 55% (Helm et al, 2021).

The UK Ofcom studies focussed less on remote schooling but on daily media activities in general. A qualitative study with children between nine and 16 years (Ofcom, 2020) demonstrates that children have been spending more time than ever with screen media. Online activities often filled in the time that was used for other activities before the lockdown. Video-sharing platforms were used more often (Ofcom, 2021) and communication with friends had moved online, but was often done in conjunction with other activities such as gaming (Ofcom, 2020).

Other studies focussed less on media use but more on mental health and mental conditions of families (Liu & Doan, 2020; Morgül et al., 2020; Prime & Browne, 2020; Spinelli et al., 2020; Testa & Fahmy, 2021). They illustrate the challenges of staying at home together, particularly for lower SES families. These challenges also increased violence in some families (e.g. Humphreys et al., 2020, Usher, 2020, Xue et al., 2020). Coller and Webber (2020) report as a result of Covid-19, losses in food supplies and lost health insurance in the US, which affected families' everyday life and uncertainties. Beyond that, Silva et al. (2020) show that in Brazil the pandemic widened the gap between families with lower and higher income. In addition, Fisher et al. (2020) stress that families in the Global South are challenged most by the social effects of Covid-19.

Hence, when discussing children's use of digital media during the pandemic, not only the actual media activity, but also the wider context of the lockdown such as remote schooling, the challenges, that children and their families were confronted with, and potential inequalities must be considered. This was the focus of our study.

Studying children's use of digital media during the pandemic

Our study is strongly connected to the Kids Digital Lives in Covid-19 Times (KiDiCoTi) research project led by the Joint Research Centre (JRC) of the European Commission. In this project, two comparative studies were conducted in spring and summer 2020:

(1) In a quantitative survey in eleven countries¹ at least 500 families with children between ten and 18 years took part in each country. Computer assisted web interviews (CAWI) were conducted with a parent as well as one child of the family. In total, 6195 children and 6195 parents participated in this representative survey.

(2) Additionally, a qualitative interview study was conducted in ten countries² with at least ten families with children between six and twelve years per country. In total 105 families were interviewed. Guided interviews were conducted separately with parents as well as with children (two specific interview guides). For children additional material (activity book and 'time capsule' as self-report) was developed to serve as an icebreaker and to prompt them to start talking about their experiences.

In Austria 510 families took part in the quantitative survey and 10 families participated in the qualitative study. From those children that par-

¹ Austria, France, Germany, Ireland, Italy, Norway, Portugal, Romania, Slovenia, Spain and Switzerland

² Austria, Croatia, Denmark, France, Italy, Norway, Portugal, Romania, Slovenia and Spain

ticipated in the qualitative study³, three were in their last year of nursery school (compulsory pre-school year) and seven attended primary school. In the following, we will focus on the situation of Austrian families and give primary attention to the results of these national studies.

The Austrian context: lockdown and social distancing in spring and summer 2020

Our data collection took place in June 2020. During this time children had experienced a harsh and long lockdown. All secondary schools were closed on March 16th and primary schools followed on March 18th. A full lockdown was announced with supermarkets and pharmacies the only shops that remained open. Strict regulations followed for public spaces including the closure of public gardens, sports facilities and playgrounds. People were banned from entering public spaces and were only allowed to be together with people living in the same household. Leaving home was restricted to reasonable or important duties and non-observance was penalized.

By May 18th 2020 the majority of children returned to school again. Still, some of them stayed at home because parents were able to exercise discretion when deciding whether to send their children to school. At schools masks were mandatory in the buildings. Classes were divided into smaller groups and children went to school every second day. On the other day they stayed at home and remote schooling continued. This situation continued until the end of the school year in the beginning of July when some Covid-19 restrictions were relieved, but wearing masks in shops and public transport, as well as social distancing remained obligatory. Sports facilities like swimming pools opened on May 29th. By the time the interviews were conducted, many parents still worked from home and life was far from normal.

Daily routine of older children: remote schooling and communicating with friends

On average, children between ten and 18 years, who attended secondary education, spent 6.2 hours online or used digital technologies on a typical weekday during the Covid-19 lockdown in spring 2020. Half of the time online was spent for learning or doing homework. The majority of Austrian families were rather well equipped for these activities, but 20% only had slow internet access and a quarter had insufficient digital devices for enabling every family member to fulfil his or her responsibilities (e.g. children's remote schooling and parents' remote work).

Only half of secondary school children reported weekly contact with their teachers and 41% had daily contact; 36% experienced online learning activities (e.g. video conferencing, online classes) at least once a week.

³ The Austrian study was funded by the Austrian Ministry of Education, Science and Research.

Compared to the overall sample of the international quantitative study these figures are very low (Vuorikari et al., 2020). Instead of on-line learning activities, digital media were rather used for distributing work assignments and collecting homework in Austria (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020a). In this respect, hardly any differences between age groups can be found. The oldest (16-18 years) spent a little more time on schoolwork and used digital media about one hour longer than the younger age groups. About half of secondary school children perceived the amount of schoolwork during the lockdown as more than before. This feeling was strongest among those 16 to 18-years-old (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020a).

During this time, 60% of children between ten and 18 years used computers and laptops more than before and 11% started to use these particularly for remote schooling. Nearly one third used their smartphone more often, especially for communication with friends and for staying in contact with family members. About two third watched films and videos more than usual, and half of them played online games more often. 42% of this age group also reported producing more of their own digital media content (Trültzsch-Wijnen & Trültzsch-Wijnen, 2022a).

This heavily increased screen time due to remote schooling, but also for staying in contact with friends, and for recreation, led to different experiences. While on the one hand 22% of parents reported more stress and conflicts, and 28% felt general fatigue among family members due to increased screen time, on the other hand half of the parents did not mention any negative consequences (Trültzsch-Wijnen & Trültzsch-Wijnen, 2022a, b). One third of parents also reported that digital media had brought family members closer together and another third agreed at least partly. Further, 41% of parents stressed that they had learned more about the online interests of their children during lockdown. Similarly, three quarters reported that their family discovered new digital tools and used digital media more creatively (Trültzsch-Wijnen & Trültzsch-Wijnen, 2022b).

Total screen time was perceived as too much by many children between ten and 18 years. In all of the countries, that participated in the European comparative survey, three quarters of this age group reported to have the feeling of spending too much time online more often than they had before the lockdown. One third also reported that they had unsuccessfully tried to spend less time on the internet (Lobe et al., 2021). These international results are confirmed by the Austrian sample (Trültzsch-Wijnen & Trültzsch-Wijnen, 2022b).

Spending more time online can offer more chances but also raise the potential to encounter risks. Regarding potential risks related to cyber bullying, it appears that the vast majority of children above the age of ten had never experienced others misusing their passwords or personal

data in any way. Nearly two thirds had never experienced encountering offensive content. Nevertheless, among those 30% who had experienced different kinds of cyber bullying, 17% had the sense that this had occurred more often during lockdown. With regard to other potentially risky content (violence, eating disorders, self-harm) our data show that among those, who reported to have encountered such content, between 16% and 20% had the feeling that this had happened more often during lockdown. The remainder felt that this had happened to a similar or lesser degree (Trültzsch-Wijnen & Trültzsch-Wijnen, 2022a). Thus, encountering risks related to cyber bullying was rather low both before and during the pandemic. However, in cases, where different kinds of cyber bullying were established, it seems to have increased during lockdown. It cannot be attested that the potential of encountering other risky content has increased due to more time spent with digital media, because of a great variety in young people's responses.

Younger children during lockdown: more screen time, more family time, but no friends

While the results presented above are based on the representative survey, the qualitative study gives a more detailed insight into perceptions and feelings of younger children and specific challenges of families with children between six and twelve years. In the following we will particularly focus on children that attended pre-school (the compulsory last year of nursery school), who had just turned six at the time when they were interviewed, as well as on primary school children between six and ten years old. We will do this in a comparative way across cases. When referring to a specific family, we will indicate this by country code and case number (e.g. AT01 for 'Austria, family 01').

In the reviewed literature (e.g. Bol, 2020; Hamilton & Ercikan, 2022; Liu & Doan, 2020; Silva et al. etc.) social economic status and income are addressed as factors that negatively influence education activities and other challenges connected with Covid-19 lockdowns (e.g. access to digital media, stress, violence, loss of income etc.) However, we could hardly find such effects in our sample, which was composed to reflect diversity in terms of socio-demographic factors. Most families were well equipped with digital devices and internet broadband connection, and parents were able to help their children with remote learning activities. However, single parents felt that lockdown was more stressful; they had to stick to a strict timetable for the whole family and organize remote work, remote schooling, housework, and recreation activities.

“The best of lockdown is being together.” (AT02, girl 7 years)

During the lockdown in spring and summer 2020, nearly all parents of the families that participated in the study worked from home. Only in one family both parents had to continue work at their workplace

(AT04); their nine-year-old daughter had to stay at home together with her eleven-year-old sister. In another family (AT01) the mother stayed at home while the father worked partly from home and partly at his workplace. Hence, the biggest challenge for parents was to manage working from home, housework, taking care of their children and helping them with remote schooling. At the same time, parents did not always find it easy to be constantly together, especially if the family lived in a flat with limited space. As Austria had a rather warm spring and early summer in 2020, all families spent a lot of time outside, walking, cycling or just playing in the courtyard or on the streets, which were virtually without traffic due to the strict Covid-19 regulations. Even if playgrounds and public parks were closed, families found activities to do outside. From the children's perspective this intensive time together was wonderful and the best of Covid-19. Many described in detail the activities with their parents and siblings. Some also mentioned using media together (e.g. watching TV in the evening), but the time together was more important for them than the screen time or the media content (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

“Mummy and daddy do so much for me...but they are not friends.” (AT07, girl 6 years)

Despite enjoying the intensive time with their parents, all interviewed children between six and ten years missed their friends very much. Those who were used to regular contact with their grandparents, reported missing them as well. The longer the lockdown lasted, the more they missed them, and the less activities with parents and siblings could compensate for the absence of play and communication with their peers.

“I don't like it, I feel sad ... it's not real.” (AT06, girl 6 years)

Here a big difference between younger and older children and adolescents emerged. While older girls and boys used digital devices, and in particular their smartphones, for video calls, chatting or playing online games together with friends and for staying in contact with distant family members, this did not work for younger children. Even children that were used to video calls with distant family members before the lockdown, did not experience this mediated communication as satisfying (e.g. AT06, AT07, AT08; Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

Parents reported that their children either quickly lost interest when they started a video call with distant others, or hardly talked or reacted at all. In one family (AT03) that established a weekly video chat with grandparents living in another country and that had regular video calls with an older sister that was studying abroad, this kind of communication was very much enjoyed by the parents. They also reported that they planned to go on with these regular family video calls after the lockdown. However, their ten-year-old daughter used these video calls just

for quickly saying hello and soon lost interest in a deeper conversation.

With regard to friends of the same age, parents reported that this effect was even stronger. Many told stories about trying to establish video calls between their children and their friends, or that some teachers or parents had organized a video conference with the whole class. All of the interviewed children mentioned these experiences as unsatisfying, demotivating or even sad. They did not like video conferences with the whole class because they often found it chaotic because everybody was talking at the same time, or because they were not able to say something while others were talking. Others sadly mentioned not having been able to see their closest friends among all the webcam windows, or to talk to a specific friend. Some children just felt sad seeing their friends, but not being able to hug them and to play with them (e.g. AT02, AT03, AT07). The latter was also mentioned by parents as main reason why video calls between friends did not work well with this age group. They reported that the children did not really talk with each other during video calls. Some parents noticed that it worked better for their children to send each other video messages instead (AT03, AT07). All of the interviewed children stressed, that it was at the one hand good to have at least some contact, but that it did not feel real on the other hand. What they missed most was not talking, but playing and having physical contact with each other – mediated communication was not a substitute for this (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

“It is weekend every day.” (AT03, girl 10 years)

Even if children valued family time more than screen time, and if media could not replace their friends, six-to-ten-year-old children spent much more time with media than they used to do before the lockdown. Children’s screen time increased in all of the interviewed families, even if most parents were concerned or even felt guilty about it. Particularly, the time for watching TV or videos was extended and children were more often allowed to play video games. Former special weekend regulations for screen time were applied every day. Often parents allowed their children to use screen media so that they were able to fulfil their tasks for their remote work. All interviewed children enjoyed having more screen time, but as mentioned above, spending more time together with their parents was valued even more. In this respect, also having more family screen time together was positively mentioned by some children.

A tendency could be found, that parents with higher formal education were more aware of their children’s use of digital devices as well as the content accessed, and more often established specific rules. Educational apps or games were hardly used and only two mothers (AT06, AT08), reported to have searched for apps that could support their children’s

learning. Many children between six and ten liked drawing apps. Some younger children (6-8 years) also discovered smartphones for making photos with filters and for creating slideshows (AT03, AT07). Older girls between nine and ten reported making many videos and photos of themselves and experimenting with different kinds of posing (e.g. AT03, AT04). However, the majority of children's media use was rather receptive than creative (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

“I had not expected that it would work that well.” (AT07, mother)

While digital media were used for remote learning activities in secondary schools, this was not the case in primary education. There, teachers hardly made use of digital platforms or any other digital media. The interviewed parents reported that in most cases work sheets had to be picked up and returned physically at the school. Some teachers sent work assignments as e-mail to parents. Often work sheets had to be printed and the work of the children had to be sent back as a photo via email or instant messaging. This was different with regard to extracurricular activities. Institutions that offered after school classes like music or ballet used digital media also for younger children. Parents reported that video conferencing tools and video chat were used for instrument lessons, or for continuing speech therapy; and videos were used for dancing classes (e.g. AT 01, AT07). It is interesting that, despite the reported difficulties regarding mediated communication with friends, children remembered these online interactions in a very positive way. A possible explanation therefore is that communication with teachers of after-school classes differs a lot from playing with friends. In this regard, children might not have felt that physical interaction was as important as for the communication with girls and boys of their age. Hence, children perceived this kind of exchange with their teachers satisfying and as fun. Because of these positive experiences, parents criticised the rare use of digital technologies in primary schools (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

“Every time she came and told me about cool things to buy.” (AT03, father)

As is known from other studies (Smahel et al., 2020) more media use can lead to more potential risks. Among the families that participated in our study, two kinds of potential risks could be identified for children between six and ten years. Children more often used screen media alone, while parents were busy with other tasks. In this regard, some parents reported that by accident children turned off the offline mode of smartphones and tablets and suddenly were confronted with in-app advertisements and advertising videos that were not suited for their age. However, this did not translate into harm because in all

reported cases, children reacted with confusion and consulted their parents to “make these things go away” (AT07, girl 6 years). Another potential risk addressed by parents was that older girls from nine onwards enjoyed watching videos of influencers on YouTube and did this much more due to the extended screen time (e.g. AT 03). Parents recognized that their children were very vulnerable to hidden product placements and advertising in these videos; they reported that they were constantly asking to buy products they had discovered by watching videos. As this was a reason for concerned parents to talk with their children about advertising and the monetarization of influencers, these experiences did not result in harm but in enhanced media education.

Gaining new skills

There was some positive impact of the lockdown in 2020 on children and their families. As emphasised with regard to families with younger children, one of the most positive effects was that despite the management of remote working and schooling, families had more time together. Although remote schooling was perceived as demanding particularly by older children that attended secondary school, the majority of pupils between ten and 18 years felt they had improved their digital skills as an effect of digital learning activities. The majority reported to have learned quickly to participate in online activities and to use new tools. Therefore, their motivation to participate in online activities was high (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020a). In addition, half of the parents with children of this age group reported that their children gained more overall autonomy and more self-regulation with their school activities, and became better at using digital media for learning activities (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020a).

“He needed just a little help in the beginning. But then...it was astounding to watch him doing everything on his own.”
(AT01, father)

Younger children gained new skills as well. Those children between six and eight years that had discovered photography using filters, photo stickers, and creating photo slideshows, did this first and foremost on their own and surprised their parents with new skills. Other children under ten were reported to have learned to use audio search on tablets and smartphones for finding their favourite videos as well as audio dramas without the help of their parents. Parents also reported that their children learned to draw on a tablet, or gained basic reading skills in order to identify their favourite media content (mostly videos). Some primary school children gained basic computer skills related to their remote schooling like using an email programme, processing a word files, printing material that had been sent to their parent’s email address, or taking photos of their exercises in order to send them to their teacher (Trültzsch-Wijnen & Trültzsch-Wijnen, 2020b).

Discussion

As media are an initial part of children's lives, there is a long history of research on young audiences. International comparative studies in Europe have been conducted for older (e.g. EU Kids Online: nine to 16 years; Smahel et al., 2020) and for younger children (e.g. Young children (0-8) and digital technology; Chaudron et al., 2018). This research attests that the use of digital devices and the internet by children has risen during the last decade, and that the amount of use increases by age. This general trend was boosted by several lockdowns causing social distancing, remote schooling, and spare time that was filled by using media, since other leisure activities were not possible anymore (Ofcom, 2020). Most research on how media were used by children during lockdown addresses children older than nine years (e.g. Ofcom, 2020; 2021), and many studies focus on media use for remote schooling (e.g. Bol, 2020; Wise et al., 2020; Helm et al., 2021).

Our paper adds the perspective of younger children that are at the beginning of primary school or attending the last year of nursery school. In presenting results of two studies (families with children from ten to 18 years; families with children from six to twelve years), we are also able to compare differences in how older and younger children used media to cope with challenges of the pandemic. We address media activities in the context of remote schooling but also beyond, and put them into a wider context of families' daily lives during the pandemic in order to take account of social inequalities.

This paper gives insights into the situation in Austria. From the perspective of a European comparative project, which our national studies have been part of, we can state that the national results are in large part in accordance with the situation in other European countries. The information on families with children between ten and 18 years comes from a representative survey while the study of families with younger children was qualitative. Its explanatory power is therefore limited, but it gives more in-depth results on how the daily life of primary and pre-school children was affected by the lockdown periods of spring and summer 2020. Hence, this information is illuminating and relevant for our discussion. In comparison with the qualitative data of the European project (Cachia et al., 2021) we can confirm that the Austrian results are in accordance with the information from other countries.

We are able to identify differences in the use of digital media during the pandemic. Particular children from ten years onwards, who attended secondary school, spent a lot of their time with digital media for remote schooling activities. Hence, to some extent, digital media helped in coping with the situation of remote schooling as pupils were motivated in attending digital learning activities; but digital media were hardly used by primary school teachers. Nevertheless, teachers

of after school classes successfully used digital media with children that attended nursery or primary school. In line with Ofcom's (2021) data for the UK, our study shows that although the majority was well equipped, access to digital devices and poor internet access was a problem for a quarter of families with children at school age. This is in line with other studies (Bol, 2020; Hamilton & Ercikan, 2022; Silva et al., 2020; Fisher et al., 2020) that demonstrate how families with low income, and in many cases also with a lower social-economic status, were much more challenged by the effects of Covid-19.

The hardest challenge for children was not being able to meet friends. Older children, who were used to messenger apps before the pandemic, employed these for staying in touch and communicating with their friends (also see Ofcom, 2021). However, this did not work for children under the age of ten, as meeting friends at this age is not so much about chatting, but rather playing and running around. Digital media were not able to compensate physical interaction for these younger children and therefore only partly helped in coping with social distancing.

By using more digital media, older and younger children alike gained more skills. While for young people between ten and 18 years these new skills were mostly related to learning activities, children between six and ten learned to use digital media more self-determined and some of them started to use digital media in a creative way. This confirms that a more frequent use of digital media can potentially lead to more digital skills (Chaudron et al., 2018; Marsh, 2016). However, this potential was not used to full extent, because children had to learn these new things by themselves. In particular, parents of young children did not encourage them to try something new or to use media in various creative or explorative ways. Instead, their media use was in many cases extended for bridging the time when parents had to fulfil other tasks. Also, older children and adolescents were not supported in their ways of using digital media or encouraged to try something new, besides tools for remote schooling.

Previous studies illustrate that more use of digital media can lead to encountering more risks as well (which does not automatically lead to more harm (Smahel et al., 2020)). Similar to the results of Ofcom (2021), this can partly be confirmed by our data, although there was a great variety in children's responses. Many have not encountered any potentially risky content and have not yet had experiences, which are related to cyber bullying. However, among those, who have been confronted with such experiences, nearly 20% had the feeling that this has happened more often during lockdown. From this, we are not able to conclude whether a more intensive use of digital media as a result of Covid-19 has affected vulnerable children with negative experiences to a greater extent.

Legitimate concerns regarding a successful return to pre-pandemic media rules exist among parents. Our data shows that older children suffered from too much screen time due to remote schooling. Younger children enjoyed weakened media rules and more screen time, but most appreciated shared family time. In addition, face-to-face contact with friends was sadly missed. We can only speculate in how far these experiences will influence their media activities and amount of use after overcoming Covid-19; maybe they will be more able to reflect positive and negative sides of using digital media. In this regard it would be stimulating for future research to study how children evaluate their screen time in retrospective before, during and after the pandemic.

Recommendations

Experiences during the pandemic have demonstrated the potential of digital media for education. Nevertheless, our data show that teachers would need more training to be able to make a better use of these – in particular with regard to younger children. However, Covid-19 also illustrated the potential risk of losing children from low-income households and with less support from their families. Hence, promoting the use of digital media for education also needs social awareness and guarantee that no child will be excluded from educational activities. Also parents need more support in media education. This was stressed by many fathers and mothers that participated in our studies; if they had got more recommendations or examples of how digital media could be used for supporting their children in different ways (Daneels & Vanwynsberghe, 2017), or how they could help them to gain new skills and develop media literacy, children might have been able to make more use of the potential of digital media. Also after the pandemic, parents' media literacy will become a crucial factor in mediating children's media activities and the use of media for (lifelong) learning. They could be helped in two key ways; they often are not aware of material and support of institutions that are active in the field of media education and, therefore, more information about such institutions should be provided and distributed. In addition, special material for parents has to be developed and provided via schools and other public and private institutions.

References

- Anger, S., Bernhard, S., Dietrich, H., Lerche, A., Patzina, A., Sandner, M., & Toussaint (2020). Schulschließungen wegen Corona: Regelmäßiger Kontakt zur Schule kann die schulischen Aktivitäten der Jugendlichen erhöhen. *IAB-Forum. Das Magazin des Instituts für Arbeitsmarkt- und Berufsforschung*. <https://www.iab-forum.de/schulschliessungen-wegen-corona-regelmassiger-kontakt-zur-schule-die-schulischen-aktivitaeten-der-jugendlichen-erhoehen/>
- Baier, D., & Kamenowski, M. (2020). *Wie erlebten Jugendliche den Corona-Lockdown? Ergebnisse einer Befragung im Kanton Zürich*.

- Züricher Fachhochschule für Angewandte Wissenschaften.
- Blaskó, Z., Da Costa, P., & Schnepf, S. V. (2021). *Learning Loss and Educational Inequalities in Europe: Mapping the Potential Consequences of the COVID-19 Crisis*. IZA. <https://www.iza.org/publications/dp/14298/learning-loss-and-educational-inequalities-in-europe-mapping-the-potential-consequences-of-the-covid-19-crisis>
- Bol, T. (2020). *Inequality in homeschooling during the Corona crisis in the Netherlands. First results from the LISS Panel*. <https://doi.org/10.31235/osf.io/hf32q>
- Cachia R., Velicu A., Chaudron S., Di Gioia R., & Vuorikari R. (2021). *Emergency remote schooling during COVID-19: A closer look at European families*. Publications Office of the European Union. <https://www.doi.org/10.2760/613798>
- Chaudron, S., Di Gioia, R., and Gemo, M. (2018). Young children (0-8) and digital technology, a qualitative study across Europe. Publications Office of the European Union. <https://doi.org/10.2760/294383>
- Coller, R. J., & Webber, S. (2020). COVID-19 and the well-being of children and families. *Pediatrics*, 146(4). <https://doi.org/10.1542/peds.2020-022079>
- da Silva, I. M., Lordello, S. R., Schmidt, B., & de Melo Mietto, G. S. (2020). Brazilian families facing the Covid-19 outbreak. *Journal of Comparative Family Studies*, 51(3-4), 324-336. <https://doi.org/10.3138/jcfs.51.3-4.008>
- Daneels, R., & Vanwynsberghe, H. (2017). Mediating social media use: Connecting parents' mediation strategies and social media literacy. *Cyberpsychology*, 11(3). <https://dx.doi.org/10.5817/CP2017-3-5>
- Engzell, P., Frey, A., & Verhagen, M. D. (2021). Learning loss due to school closures during the COVID-19 pandemic. *Proceedings of the National Academy of Sciences*, 118(17). <https://doi.org/10.1073/pnas.2022376118>
- Fisher, J., Languilaire, J. C., Lawthom, R., Nieuwenhuis, R., Petts, R. J., Runswick-Cole, K., & Yerkes, M. A. (2020). Community, work, and family in times of COVID-19. *Community, Work & Family*, 23(3), 247-252. <https://doi.org/10.1080/13668803.2020.1756568>
- Hamilton, L. S., & Ercikan, K. (2022). *COVID-19 and US schools: Using data to understand and mitigate inequities in instruction and learning*. In F.M. Reimers (ed.), *Primary and Secondary Education During Covid-19* (pp. 327-351). Springer. <https://doi.org/10.1007/978-3-030-81500-4>
- Helm, C., Huber, S. & Loisinger, T. (2021). Was wissen wir über schulische Lehr-Lern-Prozesse im Distanzunterricht während der Corona-Pandemie? – Evidenz aus Deutschland, Österreich und der Schweiz. *Zeitschrift für Erziehungswissenschaft*. <https://doi.org/10.1007/s11618-021-01000-z>

- Holtgrewe, U., Lindorfer, M., Siller, C., & Vana, I. (2020). *Lernen im Ausnahmezustand – Chancen und Risiken. Erste Ergebnisse der Schüler innenbefragung*. Zentrum für Soziale Innovation. <https://www.zsi.at/de/object/publication/5698>
- Huber, S. G., & Helm, C. (2020). COVID-19 and Schooling: Evaluation, Assessment and Accountability in Times of Crises— Reacting Quickly to Explore Key Issues for Policy, Practice and Research with the School Barometer. *Educational Assessment, Evaluation and Accountability*, 32, 237–270.
- Humphreys, K. L., Myint, M. T., & Zeanah, C. H. (2020). Increased risk for family violence during the COVID-19 pandemic. *Pediatrics*, 146 (1). <https://doi.org/10.1542/peds.2020-0982>
- Huber, B., Highfield, K. & Kaufmann, J. (2018). Detailing the digital experience: Parent reports of children’s media use in the home learning environment. *British Journal of Educational Technology*, 49(5). <https://doi.org/10.1111/bjet.12667>
- Liu, C. H., & Doan, S. N. (2020). Psychosocial stress contagion in children and families during the COVID-19 pandemic. *Clinical Pediatrics*, 59(9-10), 853-855. <https://doi.org/10.1177/0009922820927044>
- Lobe, B., Velicu, A., Staksrud, E., Chaudron, S., & Di Gioia, R., (2020). *How children (10-18) experienced online risks during the Covid-19 lockdown - Spring 2020*. Publications Office of the European Union. <https://doi.org/10.2760/066196>
- Marsh, J. (2016). The digital literacy skills and competences of children of pre-school age. *Media Education*, 7(2). <https://oaj.fupress.net/index.php/med/article/view/8759/8534>
- Morgül, E., Kallitsoglou, A., & Essau, C. A. E. (2020). Psychological effects of the COVID-19 lockdown on children and families in the UK. *Revista de Psicología Clínica con Niños y Adolescentes*, 7(3), 42-48. <https://doi.org/10.21134/rpcna.2020.mon.2049>
- Ofcom (2019). *Children and parents: media use and attitudes*. https://www.ofcom.org.uk/__data/assets/pdf_file/0023/190616/children-media-use-attitudes-2019-report.pdf
- Ofcom (2020). *Ofcom Children’s Media Lives. Life in Lockdown*. https://www.ofcom.org.uk/__data/assets/pdf_file/0024/200976/cml-life-in-lockdown-report.pdf
- Ofcom (2021). *Children and parents: media use and attitudes*. https://www.ofcom.org.uk/__data/assets/pdf_file/0025/217825/children-and-parents-media-use-and-attitudes-report-2020-21.pdf
- Pozas, M., Letzel, V. & Schneider, C. (2021). Homeschooling in times of corona’: exploring Mexican and German primary school students’ and parents’ chances and challenges during homeschooling, *European Journal of Special Needs Education*, 36(1), 35-50. <https://doi.org/10.1080/08856257.2021.1874152>
- Prime, H., Wade, M., & Browne, D. T. (2020). Risk and resilience

- in family well-being during the COVID-19 pandemic. *American Psychologist*, 75(5), 631. <https://psycnet.apa.org/doi/10.1037/amp0000660>
- Refle, J.-E., Voorpostel, M., Lebert, F., Kuhn, U., Klaas, H. S., Ryser, V.-A., Dasoki, N., Monsch, G.-A., Antal, E., & Tillmann, R. (2020). *First results of the Swiss household panel—Covid-19 study*. FORS University of Lausanne.
- Schwerzmann, M., & Frenzel, S. (2020). *Umfrage zum Fernunterricht. Ergebnisse der Befragung im Juni 2020*. Bildungs- und Kulturdepartement. https://www.lu.ch/-/media/Kanton/Dokumente/BKD/Aktuelles/BKD_Fernunterricht_Praesentation_Ergebnisse_an_MK_2020_10_14.pdf?la=de-CH
- Shahin, D. (2021). Evaluating Distance Learning Experience in Egyptian schools in light of the Corona crisis and its developments. *Journal of Research in Curriculum Instruction and Educational Technology*, 7(1), 57-94. <https://doi.org/10.21608/jrciet.2021.134634>
- Smahel, D., MacHackova, H., Mascheroni, G., Dedkova, L., Staksrud, E., Olafsson, K., Livingstone, S., & Hasebrink, U. (2020). *EU Kids Online 2020: survey results from 19 countries*. London School of Economics and Political Science. <https://eprints.lse.ac.uk/103294/>
- Spinelli, M., Lionetti, F., Pastore, M., & Fasolo, M. (2020). Parents' stress and children's psychological problems in families facing the COVID-19 outbreak in Italy. *Frontiers in psychology*, 11. <https://doi.org/10.3389/fpsyg.2020.01713>
- Testa, A., & Fahmy, C. (2021). Family member incarceration and coping strategies during the COVID-19 pandemic. *Health Justice*, 9(16). <https://doi.org/10.1186/s40352-021-00142-w>
- Trültzsch-Wijnen, C.W. (2020). *Media Literacy and the Effect of Socialization*. Springer.
- Trültzsch-Wijnen, C.W., & Sturm, W. (2021). *Lehren während des Covid-19 Lockdown. Die Perspektive österreichischer Lehrer*innen auf den Fernunterricht*. KiDiCoTi Teilstudie. <https://doi.org/10.25598/KiDiCoTi-AT-2020-6>
- Trültzsch-Wijnen, C.W., & Trültzsch-Wijnen, S. (2020a). *Remote Schooling During the CoVID-19 Lockdown in Austria (Spring 2020)*. KiDiCoTi National Report. <https://doi.org/10.25598/KiDiCoTi-AT-2020-1>
- Trültzsch-Wijnen, S., & Trültzsch-Wijnen, C.W. (2020b). *Kids Digital Devices in Covid-19 Times: digital practices, safety and well-being of the 6-12 years old. A qualitative study*. KiDiCoTi National Report. <https://doi.org/10.25598/KiDiCoTi-AT-2020-2>
- Trültzsch-Wijnen, S., & Trültzsch-Wijnen, C. (2021) Die Nutzung von und der Umgang mit digitalen Technologien im Kontext des Fernunterrichts in Österreich und im europäischen Vergleich. *Medien Journal*, 3, 45-64. <https://doi.org/10.24989/medienjournal.v45i3>

- Trültzsch-Wijnen, C.W., & Trültzsch-Wijnen, S. (2022a): *Der Umgang von Kindern und Jugendlichen mit Herausforderungen des Internets während des Covid-19 Lockdowns in Österreich (Frühling 2020)*. KiDiCoTi Nationaler Bericht.
- Trültzsch-Wijnen, C.W., & Trültzsch-Wijnen, S. (2022b): *Medienerziehung in österreichischen Familien während der Covid-19 Pandemie*. KiDiCoTi Nationaler Bericht.
- Usher, K., Bhullar, N., Durkin, J., Gyamfi, N., & Jackson, D. (2020). Family violence and COVID-19: Increased vulnerability and reduced options for support. *International journal of mental health*. <https://doi.org/10.1111/inm.12735>
- Vuorikari, R., Velicu, A., Chaudron, S., Cachia, R., & Di Gioia, R. (2021). *How families handled emergency remote schooling during the time of Covid lockdown in spring 2020. Summary of key findings from families with children in 11 European countries*. <https://doi.org/10.2760/31977>
- Wyse, A. E., Stickney, E. M., Butz, D., Beckler, A., & Close, C. N. (2020). The potential impact of COVID-19 on student learning and how schools can respond. *Educational Measurement: Issues and Practice*, 39(3), 60-64. <https://doi.org/10.1111/emip.12357>
- Xue, J., Chen, J., Chen, C., Hu, R., & Zhu, T. (2020). The hidden pandemic of family violence during COVID-19: unsupervised learning of tweets. *Journal of medical Internet research*, 22(11). <https://doi.org/10.2196/24361>