



Digital practices in everyday lives of 4 to 6 years old Romanian children

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Abstract

The purpose of this study is to present some findings of a broader research called Digital literacy and multimodal practices of young children from Romania. The mentioned research was part of the EU COST Action IS1410 involving similar endeavours from over 30 countries (COST 2014; Bakó, 2016: p. 146). In our research we used several sources for data collection such as children and their parents, as well as kindergarten educators. We collected qualitative data using three methods: the visual method of drawing, semi-structured interviews and observation. In this study we present digital practices of 4 to 6 years old Romanian children based on interviews made with the children's parents. We found similar results to other Romanian (Velicu, Mitarcă, 2016) and European (Chaudron, 2015) research such as: the access and use of digital technology is present but not dominant in the daily routines of Romanian young children; Romanian young children's favourite digital devices are tablets and smartphones; Romanian young children's familiar digital activities are watching YouTube videos, playing games, making or watching photos and videos about themselves and their families; Romanian young children learn the use of digital devices by observation and imitation, and through testing; the level of Romanian young children's digital skills is basic; the digitally inexperienced Romanian parents are not supportive with children's digital endeavours.

Keywords

Romanian young children, daily routines, access to digital technology, usage of digital technology, digital practices

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Introduction

The diffusion of digital technologies has led to big changes in the communication landscape of our societies. This paradigm shift has changed the routines of everyday life and has altered the cultural and social values which shape life. The changed technological, cultural and social context demands different literacies from children, teenagers and adults (COST, 2014). Smartphones, tablets and wearable technologies become mobile, portable, personalized, and so part of the everyday routine and privacy.

Research has been conducted about the use and practices involving new media technology in young and adult life. Due to *EU Kids Online* (2006-2014) and *Net Children Go Mobile* (2014-2015) international projects, we know about the use of new technology and digital practices of teenagers, but there is a lack of knowledge regarding the digital practices of young children under eight years.

The aim of this study is to present some preliminary findings regarding digital practices of 4 to 6 years old children in Romania. The review of the Romanian scientific literature revealed the national research gap in this domain (Bakó, Tóké, 2015; Bakó, 2016: p. 149). We reviewed 55 Romanian scientific journals in the field of social and communication sciences for the last ten years (2005-2015), and we did not find any article presenting Romanian under-eight's new technology use and digital practices based on original empirical research (Bakó, Tóké, 2015). Since 2015 one research report has been published about Romanian young children under eight and digital technology usage conducted by Anca Velicu and Monica Mitarcă (2016).

The results of this study provide insight on how 4 to 6 years old Romanian children engage with new technologies and integrate digital practices into the routines of their everyday life. In our exploration we addressed the following issues: the role of digital technology in everyday lives of young children; the relationship between offline/online activities of young children; young children's access to and use of digital devices; young children's favourite digital devices (smartphone, tablet, consoles or computers) and adopted digital activities (games, applications); the level of digital skills of young children; the risks of using digital devices by young children; the attitudes of adults toward the relationship between young children and digital technology.

In the design of our exploratory research we followed the theoretical and methodological approach of Velicu and Mitarcă (2016) on several points. We used several sources for data collection (Greene, Hill, 2005: p. 4), such as children and their parents, as well as kindergarten educators. We corroborated our research results with the data of Velicu and Mitarcă (2016), analysing whether our results were consistent with the Romanian trends.

Our research is part of the EU COST Action IS1410 involving similar endeavours from over 30 countries (COST 2014; Bakó, 2016: p. 146). Our research called *Digital literacy and multimodal practices of young children from Romania* was funded by the Institute for Research Programmes of the Sapientia Foundation from 1 March 2015 to 31 August 2016.

Digital practices of young children

Young children live in an extra rich media environment where parents – many of them also digital natives – have smartphones, tablets, laptops and other digital devices. Children aged between zero to eight years old have access to and use a wide variety of new technologies (Holloway, Green & Livingstone, 2013: p. 4). Many children access online sites or apps to play games, to watch videos, to visit virtual worlds or just to draw and paint (COST, 2014: p. 5). “The everyday use of digital technologies is the norm” even for young children under eight (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 3).

There are serious concerns among parents, educators, other adults near children, as well as researchers about how young children receive the presence of new technology and the digital environment in their everyday lives. It is obvious that young children’s daily practices, their learning, the followed norms and assumptions about how they should grow up is changing (Sefton-Green, Marsh, Erstad, & Flewitt, 2016: p. 6). Some of the most obvious consequences of present technological, cultural and social change lie in how children are considered, how they are socialized, and “how they grow up in sets of both physical and virtual relationships” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 7).

New knowledge is required on the issues like young children’s access to and use of smartphones and tablets or other gadgets in home or community spaces. Empirical research is also needed in relation to the role of digital literacy and multimodal practices in promoting learning or rather development in this age group (COST, 2014: p. 7).

Young children are engaged in using digital devices, in consuming multimodal contents, although there are differences in families due to socio-economic status and family history (Plowman et al., 2012). For some children “kindergarten and school may be the portal to the digital century” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 3).

The most frequent question addresses the balance between opportunities and disadvantages of the new technology usage. Children’s “engagement with age-appropriate apps and games on tablets can develop their knowledge and skills in digital communication” (COST, 2014: p. 6). On the other hand little is known about the level of awareness, digital literacy and digital practices of young children, and so about risks of new technology use at this early age. One of the most important concerns is “the individualised nature of media use, and the way that the child now stands in an even more immediate and direct relationship with the outside world” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 7). Nowadays the problem is not the unsupervised outdoor recreation, but the “retreat from peer-led activity towards more solitary screen-based relationships” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 9).

There are concerns around the risks and threat “present in screen-based entertainment” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 9). The risk is moderate if children have digital literacy skills and understand the characteristics of online information. Although children appear to consider the difference between online and offline world, “on the other hand young children seem to be more likely to believe that information online is true” (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 10).

The importance of researching 4 to 6 years old children's digital practices

Adults acknowledge with admiration the almost naturally appearing digital skills of young children, but the issue is much more complex. Children born in the 21st century grow up in digitally equipped households, but the existing research (Chaudron, 2015; Velicu-Mitarcă, 2016; Sefton-Green, Marsh, Erstad & Flewitt, 2016) does not confirm young children's high-level digital literacy and dominant participation in digital life.

In most households there are touchscreen devices – tablets, smartphones, touchscreen laptops – which facilitate the digital device usage of young children. Research proves that mobile devices, specifically tablets and smartphones, are some of the favourite devices of young children (Velicu, Mitarcă, 2016; Jaros, 2016; Chaudron, 2015). Analysing the digital habits of Romanian families, Velicu and Mitarcă (2016: p. 4) have found that smartphones were the privilege of the parents, while children receive their personal tablets as gifts at a very early age. Children most often use the tablets on their own. Chaudron (2015) reports the same results on European level.

Young children most often play videogames, and watch videoclips about games or cartoons. Sometimes they watch cartoon channels online. Children are also active in content production, they like making and watching photos and videos about themselves or their family and friends (Velicu, Mitarcă, 2016: p. 4; Jaros, 2016; Chaudron, 2015). Young children rarely use online communication channels (e.g. Skype, WhatsApp, etc.).

Young children know a lot about how to operate touchscreen devices, but they are not as skilful in operating laptops and desktops. Young children imitate adults and their peers, but they are actually not very literate in handling the phenomena of the digital world. Parents consider touchscreen devices instruments of entertainment, and tend to ignore their educational-instructional possibilities. For this reason parents limit the use of digital devices, therefore children spend relatively little time online. Young children do not even understand the difference between online and offline. Parents often restrict the online activity of young children as a measure of discipline (Velicu, Mitarcă, 2016; Chaudron, 2015).

Because of their developmental characteristics, young children are more exposed to online risks (such as seeing inappropriate photos and videos, harassment by strangers, etc.), as they do not recognize the risks and do not possess the digital skills to cope them.

In order to be able to guide young children from early ages to develop beneficial digital practices we have to describe and understand in thorough the relationship between young children and digital technologies.

Methodology

Sampling procedure

In selecting the participant children we aimed to achieve diversity regarding the place of residence, the socio-economic situation of children and gender. Therefore we selected the participants from kindergartens of two Transylvanian settlements. One kindergarten is situated in Cluj-Napoca (Cluj County), the other one in Miercurea Nirajului (Mureș

County). The kindergartens are financed by the local government. Cluj-Napoca is the seat of Cluj County and a very populous city having around 400000 inhabitants. Miercurea Nirajului is a small town in Mureş County having around 5500 inhabitants.

The participant children were aged from 4 to 6 years. They attended the middle group in the mentioned kindergartens. From the kindergarten of Cluj Napoca we selected 10 children, 5 girls and 5 boys. From the kindergarten of Miercurea Nirajului we selected 8 children, 5 boys and 3 girls.

In the research also participated one of the parents of the selected children.

Research ethics

The data gathering happened in the area of the two kindergartens. We asked the written permission of the kindergartens' directors to conduct the research in their institutions. We asked for the permission of the children's parents to observe and to have practical activities with their children, respectively to have interviews with them. The participation of children and adults in the research was voluntary.

Data collection steps

We collected qualitative data using the following methods in the order presented below:

- Visual research – we asked the children to draw two pictures: a) their favourite digital device and b) their favourite online application, c) we asked them to interpret their drawings;
- Observation – we observed each child using a tablet for 30 minutes;
- Interviews – a) we interviewed the children regarding their digital practices in the presence of their kindergarten teachers, b) we made interviews with their parents about children's digital practices at home, c) we made interviews with the kindergarten teachers about the children's digital skills and digital devices used in the educational activities.

In both kindergartens the data gathering steps were the same.

In this study we present the results of the interviews made with the parents of the children from the target group. We interviewed 18 parents. The length of interviews were about 30 minutes with each parent. We transcribed and coded the interviews. We processed the interviews through thematic analysis.

Findings

The daily routines of young children

The White Paper of the COST Action IS1410 *Establishing a Research Agenda for the Digital Literacy Practices of Young Children* (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 6) lists four factors which strongly influence the life, development and learning of young children, including their digital practices. The first of these factors is the transformation of the family in the 21st century. In European societies there is an increasing number of

children who do not grow up in a whole family in the classical sense. Some of them are raised by one of their parents because the other works abroad, others live together with parents and grandparents because the parents are unable to ensure the economic independence of a nuclear family.

The children of our target group lived in nuclear families, only one child from Miercurea Nirajului had his father working abroad. All the other children lived in nuclear families with both their parents in their own household. As to the education and occupation of the parents, all families belonged to the middle class. However, middle class situation did not imply similar life conditions as well, since some of the families lived in a large town (Cluj-Napoca), while others in a small one (Miercurea Nirajului). Despite these differences, we found that the children of the target group all lived in good family circumstances and a balanced family environment.

We asked the parents about the children's daily routine to find out when and in what form they accessed and used digital devices.

The thematic analysis of the interviews revealed that the children had spent the most part of their day in the company of their mother and siblings, and the kindergarten community. Watching cartoons on television is typical in the morning, especially during breakfast and morning preparations. Kindergarten kept children busy till 5 in the afternoon. The afternoon routine at home usually involved playing, which could be of many kinds. In the warm season (late spring, summer, and early autumn) and in fine weather the parents and children chose outdoor activities:

“He sometimes turns on the TV in the morning. Then [he] watches some cartoons, while I dress up the little one. Then, if there is some really favourite cartoon, we watch it. I let [him] watch it when we're not late. When we come home... if the weather's nice, we don't even go inside. So we don't care what's inside. We are busy outside, they love being outside. Either we go to my parents, or at home.” (MS2_Ti).

Among children from Miercurea Nirajului playing outside in the yard or in the street with other children was more frequent:

“E. plays very much outside, very much, I can hardly take [him] inside before going to bed. But when [he] comes inside, [his] little brain is timed to watch two cartoons on TV... [He]'s riding [his] bike, there are children outside in the street, and they ride their bikes, their scooters, and play balls, run around, play tag.” (MS7_E)

“[He] Plays with Lego, ninjas, plays football, plays with cars, climbs trees, rides [his] bike, out in the street, on the playground, draws, meets friends, that's how [he] has fun...” (MS5_R)

“He draws a lot, paints a lot, models with clay a lot, sometimes plays with cars, but usually [he] is outside. So, when [he] has the time and the weather is fine, [he]'s outside. [He]'s riding [his] bike, we took out the roller skates, they play in the sand, in the puddles, with the dog, [he]'s outside. Inside, he draws, we do exercises, or play board games...” (MS6_G).

In an urban environment (Cluj-Napoca) playing at the playground and meeting other children there was the more frequent outdoor activity. The urban environment gave less possibilities for day-long outdoor activities, or for children to stay outside on their own. In a large town young children go to the playground or on a walk with their parents or grandparents. Children living in large towns spend more time indoors, which favours the use of digital devices.

Both in rural or in urban environments in the warm season or in fine weather, the use of digital devices was an evening program. Evening activities included using the computer, the tablet or playing with the parents' smartphone. Another evening amusement was watching cartoons on TV. Fathers, who rarely spent time with the children during the day, also took part in the evening schedule:

“[his] father comes home in the evening, takes a shower, and [they] play after dinner a game of rummy...” (MS1_Zs)

“... if I ask [him] what [he] wants to do, [he] will surely want to play on the tablet... In the evening before bedtime there is one hour of internet use, anything, except if the weather is bad. If the weather is bad, and we cannot go outside, then it is perhaps two hours, divided...” (MS4_B).

The interviews with the parents also revealed that during the day computers or tablets were used mostly when outdoor activities were not appropriate (Velicu, Mitarcă, 2016: p. 56):

“[he] plays on the computer, this is rather a winter activity...” (MS2_Ti).

In the winter or in bad weather, indoor activities dominated: drawing, modelling clay, playing with cars, dolls, Lego. On these occasions digital devices were more frequently used and digital activities occupied an important place among the other toys and games.

Researchers have been reporting about withdrawal from social activities of children and the spreading of individual screen-based activities (Sefton-Green, Marsh, Erstad & Flewitt, 2016: p. 9), but this was not valid yet for children from the target group. Chaudron and his colleagues (2015: p. 7) conducted a survey on the relation of young children and the use of digital technologies in seven European countries and he reached the conclusion that digital devices were important but cannot be considered dominant in the life of young children. Our research revealed the same results in the case of the target group: the use of digital devices was indeed part of the children's daily routines, but it did not replace the activities of real-life and other playing habits.

Children's media use routines

Traditional or digital media?

The first condition of any relations with the digital world is for children to have access to digital devices. International research has found that more and more children have access to digital devices, the most popular of these being touchscreen devices (Rideout, 2013: p. 10) such as tablets and smartphones (Chaudron, 2015: p. 8). A touchscreen device is easy to handle for a child with developing motor skills and coordination abilities, or without reading and writing abilities. Children start and use these devices independently, without the help of parents, touching the icons and buttons. Tablets and smartphones are also popular because there are thousands of mobile applications and games especially for preschool-aged children, which capture the attention of young children being dynamic, colourful, always updated, and adjusted to the developmental stage of young children in their operation (Holloway, Green & Livingstone, 2013: p. 8).

It is obvious that children are born and raised in a media-rich environment (Chaudron, 2015: p. 7). This was true both for children from Cluj-Napoca and Miercurea Nirajului. Internet access was natural, every family of the target group had internet connection at home. According to 2015 Eurostat data, 68% of Romanian households were connected to the internet, and 38% of the population aged 16 to 74 used their smartphones for mobile net. These rates are much higher in case of urban environment and young families with children (Eurostat, 2015).

The parents of children from the target group had smartphones, but none of the children had their own smartphones. The literature claims that children have their own phone from school age. Other digital devices were variably present in the target families. In Miercurea Nirajului desktop computers and laptops were widespread, these were present in every family, and only few children had tablets. In Cluj-Napoca in the most cases children had tablets, and desktops were no longer in use. Parents from Cluj-Napoca used laptops as their instrument of work, and usually did not let their children play with these. However, in both places parents often gave their smartphones to children, who played with these like with the tablets. The situations in both locations were similar to the Romanian trend that desktops and laptops are the most frequent digital devices in the households (Velicu, Mitarcă, 2016: p. 40). Children tended to like mobile devices, which means that they more frequently performed digital activities if they had tablets of their own or were regularly given their parents' smartphones. Parents usually lent their smartphones on specific occasions, when they wanted the children to busy themselves and stay calm, for instance when they had to wait somewhere, when they travelled, or at home, when the parent was busy (Chaudron, 2015: p. 7).

Television was a more popular medium than the computer in young children's daily routine in Romania (Velicu, Mitarcă, 2016: p. 41; Rideout, 2013). Children often watched cartoons on TV instead of tablets or desktops because they were attracted by the television's large screen and the louder sound. TV watching as a secondary activity was also widespread, when the child was playing something and the TV was on in the

background (MS7_E). Fixed media devices (TV, desktop) were not located in the children's bedroom, but in the living room.

“They watch TV, I let them watch it, I don't really limit it. So on weekends [he] may stay in bed as late as noon, and watch TV” (MS2_Ti).

If parents let them, children used every kind of digital device available to them:

“they use absolutely everything... the computer, for that Minecraft stuff, they play in turns... [he]'s doing fine with [his] tablet... Well, it's a good thing that [he]'s playing games suitable for [his] age, surprisingly... Two hours in the weekend, one hour during the week, because there's nursery school... In the weekend it's two hours, but if they just finish it in one breath, then... We have tablets, too. [He] uses the computer, watches cartoons, and plays these constructive games which I find useful, because they develop [his] logic and creativity a bit...” (MS1_Zs)

Romanian children 4 to 6 years from the target group could not figure out yet how the internet connection worked, but they noticed if the games were not working. They asked their parents then to fix the problem (MS7_E; MS10_Zs; MS2_Ti). European children also did not fully understand what the internet was about or the meaning of being online, therefore they did not sense its risks (Chaudron, 2015: p. 7).

Digital activities

The interviews with parents revealed children's digital activities. The children surveyed used their digital devices for an average of one hour a day during the week and two hours a day on weekends. This amount can be regarded as moderate, because a representative survey conducted in the US in 2013 (Rideout, 2013) found that the average time an American young child (0-8 years) spends with digital media is two hours a day.

Similarly to European (Chaudron, 2015: p. 7) and Romanian (Velicu, Mitarcă, 2016: p. 42) children, the most popular digital practices of the young children surveyed in our research were: watching cartoons on YouTube, playing downloaded or online games, making and watching photos or home-made videos. They rarely used digital devices for communication or searching for information. They downloaded games to the mobile devices in their own use. Computer video games lost their attractiveness, young children much rather played on their touchscreen devices. Velicu and Mitarcă (2016) also observed this phenomenon when they labelled the tablet as the new toy of children.

Just like European children (Chaudron, 2015, 7), the Romanian children from our target group used digital devices and performed digital activities on their own, parents only occasionally controlled or supervised their activity.

European research has reported on young children's participation in the virtual world or in online social networks (Holloway, Green & Livingstone, 2013: p. 12, p. 15), but in our target group these activities were not familiar. Young Americans (0-8) used to watch educational videos (Rideout, 2013: p. 11), but for our target group this was not prevalent.

Use of YouTube

Cartoons watched on YouTube were an alternative to watching TV. Children rarely used desktops or laptops, they most often watched cartoons on tablets or on their parents' smartphone. Digital devices were popular because they offered the possibility to choose the cartoons they want to watch, whereas on TV they could only watch what was broadcast. Parents also supported this form of digital activity:

"I downloaded a bunch of cartoons for [her], Snow White, Sleeping Beauty, Rapunzel ... Always new ones ... her friend comes, and in the end, when they stop playing, they want to watch a fairy tale." (MS5_Bi)

Children also watched other contents on YouTube, like recorded episodes of familiar games. There was an interesting difference in the attitude towards commercials compared to the Velicu-report (Velicu, Mitarcă, 2016: p. 43). The children aged 4 to 6 in our target group were reluctant to watch commercials, and when these automatically started on YouTube, they stood up or noted that there was a commercial they could not stop. However, before downloading a game, first they watched the game's trailer, and only downloaded the game if they liked the trailer.

Games and gaming

Both the literature and our research experience stress the importance of playing in the life of young children. Portable devices make digital games easily accessible to children, the supply of free game applications has also increased. Many online games can be accessed free on the internet, which young children can play individually or in groups. In Google Play there is a great variety of free games for any target group to be downloaded on tablets and smartphones. For children digital technology primarily means gaming (Holloway, Green & Livingstone, 2013: p. 12).

For Romanian children aged 4 to 5 in our target group playing on portable digital devices was part of their daily routine. Older children aged 5 to 6 years played more often on desktops and laptops, but this needed finer physical coordination and a longer span of attention. The game mentioned most often was Minecraft, played by boys on desktop or laptop. This is a network game, which young children played together with siblings or friends of an older age group. Children who played Minecraft also frequently watched game videos about this shared on YouTube and also found them very entertaining. The same habits of Romanian children were reported by Velicu and Mitarcă (2016: p. 42).

Games appropriate for children aged 4 to 5 are simpler, more colourful, and are well adjusted to the thinking and learning characteristics of children and the way of functioning of mobile devices. Girls from our target group preferred to play caring games (e.g. Talking Angela, Talking Tom), dress-up games (e.g. Dress Up Princess, Fashion Nail Art), cooking games (e.g. Cooking Fever), while boys tended to play more dynamic escape or obstacle games (Temple Run, Sub Surfer, etc.). When downloading games, children were aware that they must only download free games. When choosing the

game, they recognized on the screen the symbols of price of a paid application, the amount of payment, and in this case they abandoned the download process. This is valid for Romanian children in general (Velicu, Mitarcă, 2016: p. 50).

Making and watching photos and home-made videos

Similarly to Romanian children in general (Velicu, Mitarcă, 2016: p. 44), children aged 4 to 6 from our target group also liked to take photos and make videos of themselves and their family, and they liked watching these. In most cases, the families had a digital photo camera, but the children preferred to use the parents' smartphones for making photos and videos. The photos and videos that the children took were often low quality, and after a while the parents deleted them, but children liked to take pictures and shoot videos, therefore the parents allowed them to have fun. Children were also keen on watching photos taken of them at important events or moments.

Use of drawing programs

Children of ages 4 to 6 in the target group liked to draw, and they mostly did it with paper and coloured pencils. In our target group none of the children used regularly a drawing program on the computer or tablet, but each of them were able to eagerly use the program after it was introduced to them during a joint activity.

We also found that parents and children alike considered the use of digital devices as an opportunity for entertainment (Holloway, Green & Livingstone, 2013: p. 12). Velicu and Mitarcă (2016: p. 51) got the same results. Two out of 18 interviewed parents mentioned that digital activities could also have developmental and educational purpose and they encouraged their children to use such applications.

Who do young children learn to use digital devices from?

It is a common opinion, especially in daily life, that the use of digital devices is simply coded into the genes of today's children. This is not the case; even so children today are born in a media-rich environment where the presence and use of digital devices is natural.

Romanian young children from the target group were not afraid of these devices, they easily learnt to use them by imitation, as they saw their parents and other adults, other children, or young people in their environment using digital devices on a daily basis. They learnt also observing advertisements about digital devices or applications showed on cartoon channels. They saw many commercials on TV which presented the digital devices and games suitable for children. They could not read and write yet, so they read "visually" from signs, forms, icons, symbols and colours.

Preschool children learn through observation and imitation (Chaudron, 2015: p. 7). Romanian young children from our target group mostly imitated their parents:

"[he] learnt it by [himself]. [He] saw me push the buttons and he asked me let him push them too..." (MS5_R).

“[He] learnt it from me [mom]... slowly, gradually I showed [him] one or two things, than [he] found out three or four things by [himself]. And slowly, gradually [he] learnt it.” (MS10_Zs).

Velicu and Mitarcă (2016: p. 66, p. 69) reported the same results about Romanian children. The first steps in using the devices are learnt from parents, who further on did not consider their responsibility to guide the child in the ever more complex digital activities. In most cases it was the child who got interested and asked for the help of the parent in concrete tasks.

Children did not always learn to use the devices from their parents, sometimes they imitated older children in their environment:

“To tell the truth, I don’t know, because we never showed [him]... at my sister-in-law, our neighbour, there is an older, ninth-grade girl, she might have, but for instance on my husband’s phone ... [He] recorded [his] own voice and set it as ringtone, now we cannot remove it or change it...” (MS7_E).

Children also learnt a lot through testing, but the first step was to observe it somewhere or received some guidance about operating the devices:

“If we show [him] once, [he] usually knows. [He] just simply downloads games, by the time I notice a game is downloaded. [He] downloads it, tries it, doesn’t like it, deletes it and downloads the next game.” (MS5_Bi);

“I showed [him] once how to do it... not showed [him] really, but [he] asked me to download a game. I did. And [he] sat next to me, and the following morning [he] came and said ‘look, mom, what I’ve downloaded’” (MS4_B);

“Well, at first I searched for [him], now he’s searching by [himself]. ... [He]’s starting to outgrow us.” (MS2_Ti)

The parents surveyed in our research, similarly to Romanian parents in general (Velicu, Mitarcă, 2016: p. 67) were more active in mediating their children’s digital experiences if they were themselves experienced in the use of digital devices and regularly engaged in digital activities.

Family rules in the use of digital devices

The interviewed Romanian parents thought that for children under 8 years old there was no need for limitation in the use of digital devices. They considered that for children who could not read or write the use of digital devices was innocent (Velicu, Mitarcă, 2016: p. 59). Velicu and Mitarcă (2016: p. 60, p. 77) interviewed children aged 6 to 8, and this age group was more connected to online social networks, if not otherwise, then following or using their parents’ Facebook profile. There was one important difference between the digital activities of the two age groups. Our target group of children aged 4 to 6 did not yet use online social networks, and the parents (usually mothers) also did not involve them into their activities on Facebook or other online social networks.

The majority of parents we interviewed wanted to regulate the length of their children's device use, e.g. playing on tablet or laptop, watching cartoons, online, etc. For young children the usual time allowance for digital device use was one hour a day, which might extend to a longer time in special situations:

“they are always checked to see what they are doing. There is a limit for them, how long they can use the computer. There's a certain period, like you can play half an hour, or two games, or you can dress the doll twice...” (MS10_Zs)

The digital devices were usually not placed in the children's room, but in the common family space, where the parents could keep a better eye on the child's activity:

“They asked me to move the computer to their room, but I don't allow it, because like this I can control it better.” (MS10_Zs)

It is a rule for the Romanian situation that children could not download paid applications (Velicu, Mitarcă, 2016: p. 59). The children in our target group also interiorized this rule, because when they met the option of payment on Google Play during our joint activity, they stopped.

In our target group the punishment system included the restriction of using digital devices (Velicu, Mitarcă, 2016: p. 65; Chaudron, 2015: p. 8), although it did not work as a reward:

“So it is a punishment. The punishment is always that there is no smartphone, no internet.” (MS10_Zs);

“It shouldn't be so that they can play on the computer because they did something well... but, when I see the time's up, I tell them it's enough of that.” (MS5_B);

“As punishment, yes, sure, it's the worst for [him] when [he] cannot watch [his] tales. Sometimes, when [he] does some mischief, I tell [him], there's no cartoon tonight, and then [he] starts behaving [himself]. So it works for us.” (MS6_G)

The interviewed parents were not familiar with the application of monitoring software or using settings which regulate the use of smartphones or other digital devices. One parent said that she set up wireless access at home based on a certain schedule.

Risks of using digital devices by young children

Parents interviewed in this research listed the same risk factors of the internet and digital devices as Romanian parents in general (Velicu, Mitarcă, 2016: p. 56). The parents drew attention to the risks of exaggerated use and the mental hygiene problems it might cause, as well as the health problems due to sitting in one place for a long time. They were also concerned that children might get isolated if spending too much time with a tablet, for they did not have time for social activities and they even forgot about them. The parents we interviewed were not afraid that their children might come across harmful content, because they considered they always kept their eyes on the children

during digital activities, and also because they trusted the children not to look intentionally for vulgar or aggressive content.

Just like in the data collection of Velicu and Mitarcă (2016: p. 56), the parents of the children of our target group did not think these risks were relevant yet, they rather treated online risks as a future problem that may arise. The influence of parents was still strong at this age group, so they could easily distract children from digital devices by offering other options. Children of this age accepted the rules about downloading only free applications, they did not ask for purchasing paid applications. As regards content consumption, there were risks though, because children often used their parents' mobile phones to watch YouTube videos. YouTube offers new content based on earlier research options (Velicu, Mitarcă, 2016: p. 58). In this way there was a risk that on a device used both by the parent and the child, YouTube might offer content which was not suitable for a 4 to 6 years old child.

The issue of online risk is interconnected with parental mediation in the case of young children. Researchers of the *EU Kids Online* project (Livingstone, Mascheroni, Dreier, Chaudron & Lagae, 2015: p. 4) differentiate between five forms of parental mediation: active mediation, when the parent talks with the child about the online experiences and guides the child's development; safety mediation, when the parent helps children only if they have a problem; restrictive mediation, when the parent controls the situations through restriction; technical mediation, when the parent applies various filter programs to control the child's digital experiences; and monitoring, when the parent subsequently monitors the child's digital activities.

Parents of the studied children usually applied three forms of mediation out of the five: safety mediation, restrictive mediation and monitoring. They were not familiar with possibilities of technical mediation. Two parents out of 18 mentioned that they consciously monitored their young children digital activities and cared about the development of children's digital skills. In case of restrictive mediation parents set the time limits of digital device use or the number of digital activities allowed. They also limited the nature of content consumption: they did not let children watch vulgar, aggressive or sexual content. They also did not allow children to download paid applications.

Parents' attitudes toward the relationship between young children and digital technology

Previous research experience has shown (Tőkés, 2015; Velicu, Mitarcă, 2016: p. 53) that if the parents or other adults in children's environment have a positive attitude to digital technology and they are regular users themselves, then they also have a positive attitude to their children's digital device use. A negative or ambivalent parental attitude is prevalent if the parent is uncertain, inexperienced in the digital world, has no basic digital skills, and does not take part in activities which involve the use of digital devices. A parent with a negative or ambivalent attitude to the digital world tends to limit or strictly control the children's use of digital devices and activities.

In our target group many parents were less experienced regarding digital world and their insecurity was mirrored by their negative or ambivalent attitude toward digital devices and activities. The parent's attitude is an important factor of influence in forming children's digital experiences, because the values applied in the education of children are also valid in guiding their digital practices. However, we also met parents who recognized the chances offered by the beneficial use of digital devices (Chaudron, 2015: p. 8), and stressed the favourable effects rather than the risks and dangers.

The negative attitude of parents regarding digital activities resulted in unsupportive behaviour:

"I'm not this digital fan. I use Facebook in the evening, that's my entertainment ... that's my night tale, I look at who's been born, who's grown, what did Santa bring to people, what's the news... it's not a great development for my child to play simulation games or watch fairy tales, or whatever. The child develops if mom or dad cares for them... I think these devices do very little help to any kind of physical or psychological development of a 6 year old, and in a negative, rather than positive way." (MS7_R)

In other cases, even if there was no clear rejection, there was a lack of support:

"I've got no time for it, these things are far from me. I don't really know about it... I'm not against it, but I don't really support it either." (MS7_E)

There were more favourable parents' attitudes as well:

"I think if we let children do it [experience digital world] within certain limits, it does no harm... It is more harmful for a long-term development to exclude the child from it, because sooner or later we won't be able to stop [him]." (MS1_Zs);

"They must get on with the age, they must learn it, it's fine. I realize, for instance, that if I didn't make a schedule on Saturdays or Sundays [he] would really just sit there half of the day in front of the computer, I think this is bad... I think it may be harmful from this point of view." (MS5_Bi)

Some parents had a positive attitude to their children's use of digital devices, not because they were personally convinced, but because they wanted to meet social expectations. They were also aware of the possible disadvantages, but in spite of these, they were rather supportive:

"It is definitely fine, if we can keep the limits... If it is not about sitting inside 8 hours a day, with the device in hand, then it is good, because [he] develops. So [he] develops mentally too. There're lots of developing games, which develop, which I couldn't probably tell [him] verbally, but [he] finds it out by [himself]. Games of logic, even. So I really think it's okay, for when [he] gets there, [he] will not be behind. If society develops, we have to develop along with it. So if I forbid my child to use the internet, then [he] will probably not know what it is when he gets to school. And other kids will mock him, that's for sure, the most evil creature is the child. So they will definitely mock [him], and [he] will feel very bad about it, for being mocked, and for not knowing what that is, and why not knowing. So I think it causes frustration. So it is a good thing." (MS4_B)

The attitude of the parents who accepted the technological and social changes was supportive and positive, even if they were worried about the risks:

“I think they definitely shouldn’t be forbidden to use them, because you shouldn’t raise your child in a bubble. Because this ... when they leave the bubble, it can only have a bad effect. So I think we must make [him] accustomed to everything there is in this world. And they also have to be accustomed to this, so they can handle it.” (MS2_Ti);

“I think it has a good effect on the development of children in our world, for if they don’t learn it, then in 1 or 2 years they will be left off. I think this is important, although also a little harmful, because it takes up their time from playing, being together.” (MS10_Zs)

Discussion and conclusion

The discussions with parents from our target group reveal that media use, and, within it, digital device use is part of children’s daily routine, but it is not at all dominant. Children use computers, laptops, tablets or their parents’ smartphones for an average of one hour a day, and the range of digital activities is quite restricted. Children mostly watch cartoons and play games on digital devices, and more rarely make and watch home-made videos and photos. The favourite devices of children are touchscreen devices like the tablet or the smartphone.

Parents affirm they follow and closely supervise their children’s digital activities. Despite that children are seldom left alone with digital devices for a long time. Although the children’s favourite devices are tablets and smartphones, they often watch cartoons on the laptop or TV. Children very much like to use touchscreen mobile devices, which attract their attention to a high degree, and without parental control they would likely spend much more time in the digital world.

Among daily routines, using the computer or tablet is especially the option when the weather outside is bad and children cannot do outdoor activities. Parents, as much as they can, guide children to choose outdoor activities or media-free games at home. But in the cold season or in bad weather the use of digital devices is a regular home activity. Children also frequently play with digital devices together with their siblings or friends.

According to the literature, the more kinds of activities children perform on digital devices, the more developed their digital skills are. Similarly, the more kinds of digital activities they perform, the more favourable their attitude to the use of devices are. Our data reveal that a favourable parental attitude and initiation may lead to a richer digital experience of the child, which positively influences the child’s skills. The richest digital experiences belong to children whose parents are supportive and encouraging about the children’s digital activities. This is usually typical for parents who are themselves regular and conscious digital users.

Parents report with hidden pride how their children learn the use of digital devices by themselves. In fact this is not so, because the children see the use of these devices somewhere – at home, at the neighbours’, or from relatives, kindergarten, friends, older

children, TV commercials – and often the parents themselves show them the way of doing those digital activities to which they approve.

Young children perform few activities on digital devices, most often watching cartoons on YouTube, and playing games on the computer, tablet or smartphone. These skills are rapidly acquired, for it only means to learn some imitative movements. The creators of the games/applications for children take into account the development stage and abilities of this age group, thus the steps of the games follow their logic. The large and colourful icons, the flashing signs and sounds help children in finding their way in using different digital applications. Actually, children do not use digital devices consciously, they do not see the logic of their operation, they are guided by their desires and the rewards.

Parents sense it, even if not being completely aware of it, that the digital device use of their children is about having fun and be quickly satisfied, therefore they are not unconditionally supportive about the digital world capturing the attention of their children for a long time. Parents also find that children like the use of digital devices, it engages their attention, and they rapidly show signs of addiction. Since most parents are not familiar with the digital world, they cannot guide children to use appropriate applications that develop various abilities (Velicu, Mitarcă, 2016: p. 51). Therefore, in order to protect their children, most of parents see one way: they try to limit the children's digital device use and activities. Since games and cartoons played and watched on digital devices become important to children, because they can choose them as they like, and this offers great satisfaction, they take parental restrictions as punishment. However, digital device use is rarely applied as reward for good behaviour or great results of the children.

Most parents' attitude to the digital world is not unconditionally favourable, although it is not altogether unfavourable either. Adults' attitude is characterized by ambivalence, resulting in an alternating permissive and restrictive behaviour. There are digitally experienced parents as well, who are typically actively mediating their children's digital experience and have a supportive, encouraging attitude.

We have to consider the limits of our research and be careful in our statements. Our research was an exploratory one, where we observed and collaborated with 18 children and their parents. Our conclusions are valid for the children and their parents from the sample, yet our results light up important aspects of the studied topic. In conclusion we affirm the growing importance of the digital practices in everyday routines of young children. It is also visible that parents, even the most supportive of them, have difficulties to guide their children to more complex and beneficial digital experiences. Further research is needed to relieve the possibilities that preschool education should assume in developing young children's digital skills and promote a more reflective way of using digital devices by youngsters. It would also be important to raise the awareness of parents about the great influence they have on shaping their children's digital practices.

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EU Kids Online: <http://www.eukidsonline.net>

Net Children Go Mobile: <http://netchildrengomobile.eu>

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