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# Young children initiating and negotiating their digital literacy practices in their homes

*Heidi Sairanen, Kristiina Kumpulainen, Alexandra Nordström and Anu Kajamaa*

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### Introduction

Digital devices permeate many children's everyday lives in the Global North from birth, the Nordic countries being no exception (Chaudron, 2015; Letnes & Sando, 2016; Statens medieråd, 2017; Storup et al., 2020). The digital age is shaping children's early experiences of literacy, as well as interactions and relationships with others and the social and material world in general (Flewitt et al., 2015; Livingstone & Blum-Ross, 2020). Digital technologies and media are important mediating devices for children's thinking, learning, and identity development (Danby et al., 2018; Erstad et al., 2020; Marsh et al., 2017). For instance, research has shown how digital engagement can enhance children's authorship (Aliagas & Margallo, 2017) and transformative agency (Kajamaa & Kumpulainen, 2019) as well as narrative thinking (Skantz-Åberg, & Lantz-Andersson, 2020). Existing research also suggests that digital technologies and media can enlarge and support children's 'offline' life interests including playful, agentic, and creative engagement (Arnott, 2016; Given et al., 2016; Marsh et al., 2016).

In addition to the opportunities of the digital age for children's literacies, relations and learning, threats, and risks have been identified in the international research literature that permeate the everyday lives of children from a very early age (Livingstone et al., 2017; Danby, et al., 2018; Erstad et al., 2020). These include 'content' risks, such as exposure to harmful or age-inappropriate material; 'contact' risks, including exposure to unsolicited contact from adults; 'conduct' risks, such as cyberbullying; and 'contract' risks that are to do with data harvesting, commercial pressure, and exhortations to gamble (Livingstone et al., 2017). It is with respect to these risks and threats that many parents in Finland (and elsewhere) must negotiate as they navigate the balance between opportunities and risks that the digital world has to offer their children (Kumpulainen et al., 2020).

Lately, increased research attention has been directed to understanding how and why young children use digital technologies and media in their homes, and what roles parents and other relevant adults and peers play in children's digital literacy practices (Marsh et al., 2017; Kumpulainen & Gillen, 2020; Dardanou et al., 2020). Although there has been an increase in the availability of digital devices at home, it does not automatically mean that children are using digital technologies

and media in meaningful, productive, or empowering ways. It has been shown that depending on the material and social contexts of homes, young children have varying degrees of opportunity to engage and learn with digital technologies and media in their everyday lives (Livingstone et al., 2017). Consequently, there is a need for more research on how the sociocultural contexts of the children's homes, and relationships between children and their parents, siblings, and other family members, support and/or hinder children's digital literacy practices, learning opportunities, and healthy development in general.

In this chapter, our aim is to contribute to current research knowledge on young children's digital literacy practices in the home. To do so, we have drawn on a video-ethnographic case study of two children (both aged two years old) and their digital literacy practices in their homes in Finland. Drawing on a socioculturally framed understanding of digital literacy as embedded in tool-mediated social practices, we investigated how these children negotiated their digital literacy practices with their parents, and the agency of parents and children in these practices. In doing so, our research sheds light on the organisational dynamics of children's and their parent's agency in their digital literacy practices.

### **Children's digital literacy practices in the home: insights from Finland**

In Finland, early childhood education policies and curriculum frameworks have a long tradition of emphasising children's initiatives and agency (Sairanen, 2020). Listening and responding to children's interests, initiatives and experiences are underscored in Finnish national core curriculum (EDUFI, 2018). Finnish society and its policies also value parents' agency and decision-making in managing and regulating their children's use of digital technologies and media. Although no strict recommendations for children's screen-time exist, several public guidelines and models are available to guide parenting practices in relation to children's use of digital technologies and media. These guidelines ask parents to control and observe their children's digital engagement, and at the same time to pay attention to their own screen time in the home. The recommendations also encourage parents to participate in their children's digital lives and in general to spend time with their children (MLL, 2017).

In Finland, there is a need for more contextually nuanced research about young children's digital literacy practices at home that acknowledges children's and parents' perspectives. The present study contributes to this lack of research knowledge with an interest in the sociocultural organisation of children's digital literacy practices in their homes in Finland.

### **Researching the negotiation of children's digital literacy practices at home**

In our study, we viewed children's digital literacy practices as social practices with digital technologies and media involving tool-mediated reading, writing, and

multimodal communication (Marsh et al., 2016; Street, 1984). Digital literacy practices can include children's engagement with various texts, images, audio, video, and playing games while playing, reading, writing, analysing, and carrying out other activities relevant to their everyday lives (Marsh et al., 2017). Our understanding also holds that digital literacy practices can cross online/offline and material/immaterial boundaries resulting in hybrid social practices that challenge categorical notions of children's digital and non-digital literacy practices (Kumpulainen & Gillen, 2020).

Taking a sociocultural approach (Vygotsky, 1978), we regard children's digital literacy practices as relational and as culturally and socially framed (Kumpulainen & Lipponen, 2010). Furthermore, we hold that children's and their parents' funds of knowledge (Kajamaa et al., 2018), agency (Kumpulainen, Sairanen, & Nordström, 2019a; Sairanen, 2020) and historically developed norms and rules of their communities, including the home, organise and give meaning to their digital literacy practices including their agency in these practices (Kumpulainen et al., 2020). To us, children's digital literacy practices are closely related to the notions of agency and power relations, that is, who can make choices, add content, adopt active and interactive roles and identities with digital technologies and media (Kucirkova & Flewitt, 2018).

Our study regards initiations as important components of agency that manifest in multimodal ways in ongoing interactions between children, adults, and tools (Sairanen et al., 2020). Agency is constantly evolving and developing as we make initiations and respond to and negotiate them. However, agency may not manifest itself if an initiative is rejected or ignored. Following Linell (2009), we define an initiative as a related or unrelated attempt to influence the ongoing activity or interaction. Initiatives may be either verbal expressions or they can be expressed through non-verbal means such as by babbling, gestures, and sound. An initiative is typically culturally connected to the situation and to the response it receives. It can determine the direction and the flow of the activity or it can be an effort to introduce a new topic or perspective to the ongoing activity.

## **Study**

### ***Participants***

Our study was conducted with two Finnish-speaking families in suburban areas in southern Finland in 2017. Two children, Laura (2 years, 11 months) and Maria (2 years, 9 months), and their families took part in this study.

Laura lives with her mother and father in a semi-detached house. Their home is situated next to a forest in which they often spend time. Laura's parents both have university-level education. Laura spends her days at home with her mother who is on parental leave and takes part in early childhood education activities at a kindergarten nearby a few times per week. At home, Laura has her own room. Laura keeps her toys, books, and other things in her room where she spends time alone and with her parents and friends. During the day she also spends time in the

family's living room, particularly on the couch. Sometimes she spreads her toys and things out in the house's corridor and plays on the floor or reads books there. At home, Laura uses her parents' tablet with her parents and by herself. During the week Laura uses digital devices occasionally but not every day. When she uses the tablet by herself, she asks her mother's or father's permission to use it or her mother suggests when to use the device. Also, Laura's parents prevent Laura from using the device by encouraging her to commit time to another activity. Sometimes the whole family sits together on the couch and watches TV or a laptop, especially if they are ill and at home on sick leave. There are days when Laura does not use digital devices at all. Laura spends time outdoors every day, in their yard or in the woods next to their home with her parents, and/or friends and their parents in the neighbourhood.

Maria lives in a terraced house with her parents and her little sister. Their neighbourhood is a park-like area. They have their own yard and a shared yard with their next door neighbours. Maria's parents both have university-level education. Her mother is on parental leave and her father works full time. Maria's mother has a full-time job to which she will return after Maria's little sister is a bit older. Maria spends her days at home with her mother and sister and, in addition, they spend time most days in the parks and nearby woods with other children and parents, and at home. Sometimes they visit their friends' homes. Maria's daily habit is to play in the park with her friends and family and she also has permission to play alone in their yard and the nearest housing cooperative's backyard. Maria uses her mother's smartphone, her parent's tablets, and watches their family's television. She prefers to use a tablet or a smartphone instead of a TV, although her parents occasionally put the TV on. Maria uses the devices by herself and with her parent(s). From time to time, she is asked if she would like to use the devices and, occasionally, she asks for the device. Although Maria's parents are positive about Maria's use of digital devices and see this as being significant in this digital era, they do restrict the use as well. Her parents have quite a good knowledge of the applications and the content that they consider to be suitable for Maria, and they encourage Maria to use the devices following her interests and then they negotiate the appropriateness of the content with Maria. The parents also recognise digital media to be a good source for learning English and a useful way for Maria to communicate with her friends and family.

### ***Data collection and analysis***

Our video-ethnographic case study followed the Day In the Life (DITL) methodology (Gillen et al., 2007). Following DITL, the empirical data collection included three visits to the children's homes. During the first visit, two authors of this chapter made acquaintance with the child and the family and explained the aim and purpose of the study. The whole family had the opportunity to get familiar with the methods of the data collection, that is, videoing, observing, and interviewing. During the second visit, two researchers spent a whole day with the case study family, following their daily lives in and outside the home.

Researchers videoed, observed, and wrote field notes of the child and her interaction with the people and the environment around her. Before the third visit, the researchers edited a 30-minute compiled video of the child's day by concentrating on those moments in which digital devices were being used by the child. During the third visit, one of the researchers showed the video of the child's day and discussed it with the parents. The discussion with the child's parents was videoed. Later, the whole video data corpus collected in the study were transcribed.

The study followed the ethical guidelines set forth by the Finnish National Board of Research Integrity. The parents were carefully introduced to the study and its goals before being asked for their written consent. During the data collection, the researchers were sensitive to the children's and their parents' wishes. All transcribed video data have been anonymised.

Our primary data corpus consisted of observational field notes and video data covering each child's full day. Parental interview data worked as a secondary data source to support our analysis and interpretation. Our analysis of the video and observational data followed the Interaction Analysis method instigated by Jordan and Henderson (1995), acknowledging the multimodality of evolving interaction. Our analytic focus was on the initiations and their negotiation between children and their parents during the children's digital literacy practices at home.

## Findings

Next, we discuss our key findings with empirical examples that make visible the relational dynamics of the children's digital literacy practices realised through a reciprocal interplay of child and parent initiations.

### **Example 1: 'Do you need help?'**

In this first example, Laura's mother initiates Laura's use of the tablet while she is preparing a meal in the kitchen with Laura's father. Laura begins to play a game of her choosing on a sofa in their living room. Laura plays quietly with a soft game sound in the background. The game appears to be quite difficult for Laura to play but determinedly she continues trying. Laura starts to wonder aloud how to drag a bird forward in the game, away from the water, and continues playing.

LAURA: How can you get it ...?

Mother and father discuss in the kitchen.

LAURA: [unclear, talking about the game]

MOTHER: What you don't have there? What is that darling? Do you need help?

LAURA: Yes. [unclear]

MOTHER: What did you say? Do you need [help]? [comes next to Laura]

LAURA: Yes. This should get into the boat.

MOTHER: It should get into the boat?

LAURA: Again. It falls.



Figure 6.1 Laura is trying to drag the bird in the computer game.

MOTHER: But you are doing it very well. You should play it with one finger, then it is easier. There you go.

LAURA: But it doesn't ... [unclear]. Hard.

MOTHER: Is it hard?

LAURA: Yes.

Together they continue playing and practising how to use one finger on the screen to move the bird and finally they finish the game together (Figure 6.1).

This example shows how Laura's mother takes the initiative by reacting to Laura's interaction. Laura is playing with a tablet by herself and, while playing, she faces a problem, and the game cannot continue. Her mother noticed that she needed help, replied to her, stopped her chores in the kitchen, and moved next to Laura to the living room. The mother's reply shows her active negotiation and involvement in Laura's problem verbally and non-verbally. In addition, the negotiation between Laura and her mother leads to a shared playing session.

### **Example 2: '... and then to the music program'**

The second example shows how Maria and her mother together negotiate Maria's digital literacy practices both in terms of the device and content. Maria tells her mother that she wants to watch a children's program from her mother's smartphone.

MARIA: I want to, mother, watch the children's program.

MOTHER: You want to watch it? Mother opens it [the smartphone], there you go.

Maria's mother gives the phone to Maria and she climbs onto the sofa to choose the content. When the sound of the cartoon begins, Maria's mother advises her that she is allowed to watch only one cartoon and then she should change to a music program. Maria agrees and continues to watch the cartoon she has chosen. In the middle of the cartoon, Maria quits the program and begins to navigate and search for other content. First, she opens another cartoon but, in a few seconds, ends the cartoon and continues navigating. Finally, she finds a music programme and begins to watch it (Figure 6.2).

Our second example illuminates how Maria takes the first initiative by asking to watch a children's program (with a large amount of various content) from her mother's smartphone. The mother agrees with Maria's initiation but at the same time the mother regulates Maria's digital literacy practice by asking her to watch only one cartoon and then she should choose a music program. The example shows a reciprocal interplay of a child-initiated and adult-initiated digital literacy practices that were strongly mediated by the parents' rules and reveals how Maria's



*Figure 6.2* Maria is changing the cartoon to the music program.

digital literacy practice in watching a cartoon was shaped by parental rules for her media use that she was willing and able to follow.

**Example 3: ‘Five minutes and then we will quit the game’**

In our third example, Laura’s mother initiates Laura’s use of the digital device. Laura has just woken up from her nap and she is sitting on a sofa in the living room. Her mother asks if Laura would like to use the tablet. Laura responds positively with her mother’s initiation and smiles when she is receiving the tablet from her mother.

MOTHER: Laura, five minutes and then we will quit the game.

Laura takes the tablet and starts to choose the content.

MOTHER: What are you going to play?

This third example provides an insight into parent-initiated activity with a digital device whilst Laura’s mother suggests that Laura can have the tablet after her nap. The mother explained that the reason for her initiation was that she wanted to give credit to Laura as she had behaved well earlier and fallen asleep quickly for her daily nap. The mother also explained that this was a good situation to encourage Laura to play with the tablet. Here, the mother controlled the use and timing of the device whereas Laura could make decisions about the content, that is, what she wanted to play with the tablet. The parental initiation and mediation of the child’s digital literacy practice is shown across time, device, and content. Interestingly, in this example, the child’s playing a digital game is framed by the mother’s interest to thank the child for her obedient behaviour. At the same time, the initiation served the child’s interest to play a game and the parent’s interest to encourage the child’s engagement in digital literacies.

**Example 4: ‘Maria, Max is trying to call you’**

In our fourth example, Maria’s mother initiates Maria’s use of a smartphone as an opportunity to connect outside home. Maria, her mother, and her little sister are returning from their daily visit to the playground and woods nearby home. Maria wants to stay in their yard alone for a while before going inside. Her mother and little sister go in. After a while Maria’s mother comes out and tells her that Max, Maria’s friend, is trying to call her.

MOTHER: Max, Max is trying to call you, Maria.

MARIA: Aha.

MOTHER: Do you want to talk with him?

MARIA: Yes.

Maria quits playing outdoors and goes inside. Maria takes her shoes off with her mother’s help and her mother gives the phone to her. She makes the call and Max



Figure 6.3 Maria is having a video call with Max.

answers. The conversation between the children begins by asking multiple times what they have been doing during the morning. The children also watch each other from the screen. Max's mother joins in the conversation and comments on Maria's response. Max asks why Maria did not call her earlier and Maria responds that she does not know. Maria's mother tells them they were in the park and Maria repeats this to Max. After a while Maria and Max decide to end the call (Figure 6.3).

Our fourth example shows how Maria's mother initiates Maria's use of her smartphone. The example illustrates how Maria's mother acted as a broker to facilitate Maria's communication with her friend Max ensuring that Maria is able to communicate and connect with Max. Usually, Maria meets her same-aged friend Max at the playground but today the routine was different and instead they met through a video call. The intention of the activity initiated by Maria's mother was to enable Maria to be virtually connected with her friend.

## Discussion and conclusions

Homes form an important and intriguing research context to generate research knowledge about the ways in which the digital age and its literacies are shaping children's lives, communication, and learning (Kervin et al., 2018; Kumpulainen & Gillen, 2020). Our findings make visible the relational dynamics of the children's digital literacy practices in their homes realised through a reciprocal interplay of child- and parent-initiations. Interestingly, not only did the children initiate their

digital literacy practices but the parents actively initiated their children's digital literacy practices as well. Our study shows how both children and their parents initiated the duration, content, and the purpose of their use of digital technologies and media, and how these initiations at times led to joint engagement in digital literacy practices between children and their parents.

At the same time, the findings demonstrate how the children's agentic actions and initiations of their digital literacy practices were firmly grounded on parental mediation, reflecting the parents' values and conceptions of what it means to be a parent and a child in the digital age. The parental mediation of their children's digital literacy practices was built around active negotiation, guidance, control, and involvement in the child's lives, and they echoed policy recommendations and guidelines inherent in Finnish society. These values and conceptions of parenting and children were hybridised in the daily rhythms and lives of the families serving both the parents' and children's needs and motivations.

The children's digital literacy practices evidenced multimodal literacies. The children engaged in playing games, watching cartoons and videos, listening to music and sounds, texting with emojis and communicating with friends and family members, taking photos and videos, searching for information, and learning to use the digital devices. Our findings resonate with a recent large-scale survey study of parents in Finland, indicating how digital devices are only one part of children's everyday lives (Kumpulainen, Vartiainen et al., 2019b). The children's lives in the home were filled with many other activities and literacies including indoor and outdoor play with traditional toys and tools, crafts, sports, and printed literacies. The parents in this study considered digital literacies to be an important part of their children's lives, and rather than avoiding the digital media, they embraced it. However, in the interviews the parents expressed their struggles and concerns about finding the 'right' balance between their children's digital lives and other lives. The parents found it valuable to have the opportunity to discuss these issues with the researchers during the study.

How the digital age is impacting children and childhoods including their literacies and learning in the long run requires more systematic and longitudinal research. We also need more research on children's digital literacy practices among diverse families and children, acknowledging how differences between social, cultural, and material resources in families interact with children's digital literacy practices and learning opportunities. This research knowledge is valuable for ensuring all children's equitable, safe, and productive engagement with digital technologies and media. We hope our research with its culturally nuanced methodology will inspire more research in children's digital literacy practices at home.

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