"YOUNG CHILDREN (2-13) AND DIGITAL TECHNOLOGIES:
A CASE STUDY OF LITHUANIA.

Vilmantė Liubinienė
Faculty of Social Sciences, Arts and Humanities
Kaunas University of Technology
A. Mickevičiaus g. 37-108, LT-44244, Kaunas
vilmante.liubiniene@ktu.lt

Ramunė Kasperavičienė
Faculty of Social Sciences, Arts and Humanities
Kaunas University of Technology
A. Mickevičiaus g. 37-115, LT-44244, Kaunas
ramune.kasperaviciene@ktu.lt

ABSTRACT

The chapter aims at analysing the role of online technologies and digital devices in young children's (2-13) lives. The case study of Lithuania contributes with the new insights about the local context and is a continuation of the Lithuanian part of the European Commission Joint Research Center project "Young Children (0–8) and Digital Technologies". This study builds on the national report presenting findings from the qualitative study on young children and their engagement with digital technologies conducted in Lithuania with ten families with children aged from 2 to 13 years and their parents. The research revealed that most children use online technologies everyday day, but their engagement with online technologies is substantially influen ed by their parents' attitudes towards online technologies. Children perceive online technologies as entertainment, relaxation, something they can play with. Parents' views towards the use of online technologies by their children are more diverse. They mediate their children's use of online technologies in different ways.

Keywords: Young children; online technologies; family; digital literacy; Lithuania.

Introduction

This study is conducted in the framework of the JRC's Project ECIT, empowering Citizens' Rights in emerging ICT (Project no. 572), conducted in 2015-2018. ECIT aims at identifying new threats caused by information and communication technologies (ICT) to children and developing recommendations for prevention of the emerging issues through education and community attention.

The pan-European project "Young children (0-8) and digital technologies" included partners from Belgium, Bulgaria, Cyprus, Republic of Croatia, Czech Republic, Denmark, Finland, Germany, Italy, Latvia, Lithuania, Malta, the Netherlands, Norway, Portugal, Romania, Russia, Spain, Slovenia, Switzerland and the United Kingdom. The observation and analysis protocol were co-designed by the different project partners and was coordinated by the Joint Research Center. Each partner, however, had freedom to adapt the interview protocol and to explore strategies and techniques better suited for the younger children in their sample.

In collaboration with a selected group of academic partners in different European countries, this qualitative study aims at exploring young children and their families' experiences with new technologies. This pilot research generated data to address the overall question: In what ways are children and/or their families empowered by the use of (new) digital technologies? In particular, the following research questions are addressed in this study:

1. How do children (2-13) engage with online technologies?
2. How are online technologies perceived by different family members?
3. How do parents mediate their younger children's use of online technologies (at home and/or elsewhere)? Are their strategies more constructive or restrictive?

The findings of the Lithuanian study contribute to the pan-European project "Young children (0-8) and digital technologies", the final report of which has been already published (Chaudron, 2018). This paper presents an expanded overview of the Lithuanian case with the focus on children aged 2-13 years. Numerous recent studies (Dervin, 2018; Garvis & Lemon, 2016; Marsh et al. 2017; O'Connor & Fotakopoulou, 2016; Stephen & Edwards 2018) show that children go online at an increasingly younger age, with tablets and smartphones highly contributing to the overall online socialisation process. The researchers agree that there is a need to ascertain that children from a very young age are professionally guided how to use smart digital technologies. Many studies that focus on young children and digital technologies analyse online risks (Chaudron et al., 2015; Dias et al., 2016; Livingstone, Mascheroni, & Staksrud, 2018; O'Connor & Fotakopoulou, 2016; Smahelova et al., 2017). Positive experiences which relate to learning new information, enhancing social competencies and identity expressions are deeper researched in the study by Smahelova et al., 2017. No such studies have been conducted in Lithuania so far; therefore, the present case study is relevant both for the general European context and for the reinforcement of local educational policies.

Methodology

The study aimed at providing insights about how young children appropriate and perceive digital technologies, their contexts of use, the factors influencing their digital experiences, in particular family dynamics, as well as the strategies employed by parents to mediate their children's usage of technologies. In total, ten family interviews were conducted, mostly in Kaunas (the second largest city in Lithuania) and Kaunas region, by a group of researchers from Kaunas University of Technology, who talked separately with children and their parents in their homes or other places. The interviews were carried out in May 2017. In most families, both the mother and the father were interviewed.

For the children's part, the data were collected mostly from observations and from the interview generated by the support of the card game and activity book provided by the project coordinators. The semi-conducted interviews of the parents sometimes diverted beyond the sets of questions, thus allowing getting the additional insights and supplementary materials related to the aim of research.

For the sampling procedure, we followed the instructions and documents provided by the European Commission's Joint Research Centre (JRC), coordinating the project. The families were chosen using the purposive sampling techniques, through the contacts of the researchers. We aimed at getting a diverse mix within the sample, with diversity in terms of children's ages and gender and family constitution. In our sample, we had children from 2 to 13 years, although the core of the sample was the families with children aged 7 or 8 years. In total, we questioned 19 children, as the number of children in the families was from 1 to 3. Three families of 10 were extended, including grandparents; one family was a lone-mother family. The income of the chosen families was from medium to high. The researchers thought that it would be difficult to discuss the digital competence in children if the family was not affording to acquire the digital devices, which are relatively expensive in the Lithuanian socio-economic context. The families were chosen after the research team from Kaunas University of Technology received the permission to conduct the research issued by Kaunas Regional Biomedical Research Ethics Committee. All families were identified by the end of April 2017. Interviews took place in May 2017. The research data comes as a part of EC JRC's Project "Young Children (0-8) and digital technologies" (Chaudron et al., 2018)

The sample of children is represented by 'low users' (use a digital device at least once a week), 'medium users' (use a digital device at least two or three times a week) and 'high users' (use a digital device at least once a day). In the families where there were two or more children, they were interviewed together. In one family, there were relatively small children (2 and 3 years old), which allowed us to get an understanding whether children start using digital technologies at an early age. In some interviews, both parents were participating, and in others only one parent per family was interviewed.

The aim of our research was to generate data to address the overall question, in what ways, if any, children and/or their families are

empowered by the use of new (online) technologies. During the interviews, we relied on the protocol of observation and used all the provided tools. The beginning of the interview with children was page 10 of the INSAFE activity book 'Play and learn: Being online'. The children were asked to fill in the time table activity using provided stickers. It served as an ice-breaking activity in the family interviews. Then the interview was followed by a card game, which displayed digital and non-digital children activities + Smileys. Later on, we passed on apps and digital services logos and icons. This activity helped to identify digital competencies in children.

While interviewing the parents we tried to keep to the research questions, as outlined in the protocol of observation for parents. In some cases, the interviews diverted from the framework of pre-set questions, but the goal of the research was always kept in mind and extra questions allowed the researchers to get more information related to family habits and daily practices with smart devices.

All the interviews were recorded using voice recorders. During the interviews, the researchers also took notes and photos in relation to the setting and available technological devices. The notes were added to the interview material for analysis. After completion of the interviews, transcripts were produced in order to facilitate the process of analysis. The data were coded and the analysis of results was performed. When analysing the data, the researchers searched for patterns or interesting/unconventional answers in relation to the research questions. Permission to conduct the research was granted by Kaunas Regional Biomedical Research Ethics Committee (No. BE-2-30).

Findings

In relation to the research question how children engage with new (online technologies), the findings revealed different practices and a different level of engagement as well as digital competence of children who participated in the research. Generally, it may be reported that the children were keen on new technologies, but they were not crazy about them. If the family had the free access to a variety of digital devices, it was reported that children got bored over time and preferred doing something else.

On the other hand, the families that kept the children away from digital devices and tried to limit the time spent on them, had the children "saving the money for the tablet" (boy, 8 years), or imagining that "the smart TV belongs only to him" (boy, 5 years).

Another interesting observation was that the younger children (2-3 years of age) got to know technologies at a younger age as compared with children who were 7-8 years of age. Even several years make a difference, as technologies develop so fast. Those who are 8 now got to know the smart devices for the first time when they were 5 or 6. Nowadays, the kids are attracted to these devices from the age younger than 2 years. The most common devices for them are tablets and smartphones of their parents.

Some children (especially those aged 10 to 13 years old) had a profile on Facebook created for them by parents, but they did not use it because their peers did not have profiles either. The only platform they were familiar with and used together with their parents was Skype, usually used for communication with their relatives abroad.

In relation to the parents' perceptions regarding their children's engagement with new technologies, we found out that the interviewed families were relatively strict and had established rules, regarding the time spent on smart devices. Usually they started with the rule that the children were allowed to spend half an hour a day playing games or watching cartoons/ films on YouTube and, when the children grew bigger, the time could be extended to 1 hour a day. Some children obeyed to rules, others protested against them, or simply broke the rules. Grandparents were inclined not to be so strict and allowed the children much more. On the other hand, grandparents, when they got tired from the noise the children made, allowed the grandchildren to play with new technologies, thus finding a wa to relax and have a silent break for themselves.

Contemporary parents belong to the new generation which is overwhelmed by technologies and overloaded with information. In the sample of the parents, a tendency was observed that they opposed to excessive use of technologies while trying to bring themselves and their children back to nature. This trend becomes more and more trendy among the young, educated families. Hence comes the popularity of outdoor kinder-

gartens, primary schools which do not allow to bring smart devices into classrooms, and restrictions posed on the usage of such devices at home. Thus, they try to protect their children and oppose to the influen es of technologies. As an alternative, they find and suggest their children a great variety of outdoor activities, including sports, travelling, etc. Also, they involve their children into joint activities such as board games, reading of books, playing with the usual toys like Lego, cars, dolls, etc. Many children attend dancing, singing, drawing or are occupied all the day long with a variety of alternative activities.

In relation to the research question how new technologies are perceived by the different family members, it was reported that the children perceived online technologies as entertainment, relaxation, something you can play with.

Internet has become an inseparable part of their lives. Children do not imagine their daily routines and entertainment without new technologies. On the other hand, we also found out that even if children could be considered as high digital users but if they were not acquainted with the gadget, they expected it to perform only the traditional functions, e.g. to know the exact time.

Some children (especially those aged 10 to 13 years) were aware of online threats and security problems. They reported being afraid to give away personal information to strangers and said they learned about this in the instructions of online games. For the games which are paid they had to ask for parents' permission or ask them to buy the game they wanted. The majority of the children were aware of health risks if they played too long, but this fact, in most cases, could not force the child themselves to stop using the tablet without parents' control. Some children were also aware about the risks related to private data. They knew that they should never disclose the personal details while playing computer games or communicating to someone on the net. Parents seemed to be sure that their young children were safe as long as they observed what their children were involved in and as long as they kept control on the time spent online. Technologies also help to learn the languages, especially when watching movies.

In terms of parents' perceptions, the technologies were considered a good learning tool. Parents generally perceived technologies as positive and educational. The positive results were seen especially in the case of young children. The mother of two small boys (boy, 2 years, and boy, 3 years) noticed that the children learned new words, the names of colors and many other things from watching educational videos on the tablet.

Parents see a lot of advantages in the use of technologies. They thought that their children would not have problems in the future working on the computer and that without special training the children, even very young ones, were smarter than older generation. Technologies were also seen as an integral part of an educational process and development. Parents

reported understanding that their children grow up in a different environment and forbidding using technologies may even result in mocking or insulting as other children at school would become more digitally competent. Parents see the use of technologies by children as normal progress and they do not want their children to lag behind.

In relation to the research question on how parents mediate their children's use of (online) technologies, the parents reported to be relatively strict in following how the children observe the rules. The number or ownership of gadgets in the family did not affect the time children were allowed to spend playing or watching. Parents controlled the time quite strictly mostly due to health reasons (possibly worse eyesight, psychological fatigue, etc.). Thus, it may be assumed that parents are restrictive and actively control what the children are involved in while being online. In some cases, parents reported that their children tried to negotiate when asked to stop watching YouTube because of curse words used in videos recorded by amateur teenagers. The children still wanted to watch, but offered to turn off the sound and still watch.

Families are relatively strict about the time their children spend on smart devices. Only two families allowed their kids to spend up to 3 hours with the tablet or computer, one family had restrictions up to 2 hours and the rest 7 families limited the time spent on smart devices up to 1 hour or less, up to 30 min for kids who were 3 years of age. None of the interviewed families allowed their children to play games or watch videos/films/ca toons without any restrictions. Some parents reported that if they did not set the rules, their children could spend all the day long sitting and watching smart TV. Other families commented that children got bored themselves after some time spent online and got to do something else. The findings also indica ed that most of the children were attracted by outdoor games and activities, many of them liked playing Lego or simply did not have enough time to use online technologies a lot, as they were occupied by a variety of extra-curriculum activities, mostly going in for sports, or going dancing, singing, drawing, etc.

Limitations of the study

One of the factors the results are like this could be the similar level of education, income and a way of life in most of the interviewed families. If the sample included families with low digital skills or those living in rural areas, or having low income, the results would be quite different as probably the majority of such families could not afford to have so many devices with online technologies available at home. Besides, a larger sample could provide more reliable and valid results, but the research followed the unified methodology designed by project initiators at the JRC (see Chaudron, 2018).

Conclusions

The findings of the study contribute to the general European report (see Chaudron, 2018). In the case of Lithuania, a number of trends were observed. Most children use online technologies everyday day. They engage with YouTube mostly, watching videos, movies, cartoons, music, etc. However, children's engagement with digital technologies is highly influen ed by their parents' attitudes towards technologies, but also by their daily use. Kids watch and learn from parents, but also from their peers, friends, and YouTube tutorials. Watching videos/films/ca toons from YouTube and playing Minecraft are the most popular online activities among the children. Children do not tend to use any social media platforms, such as Facebook, e-mail or instant messaging applications.

Children perceive online technologies and the use of smart devices as entertainment, relaxation, something you can play with. Parents' views towards the use of online technologies by their children are more diverse: some of them are positive and consider online technologies as normal progress, meanwhile others are concerned about possible health and security issues. What concerns online risks as they are perceived by children, some are aware of the risks using online technologies, especially, those related to health, but many children are not yet aware of the risks and threats the Internet can cause.

Several factors affect young children's uses and skills of digital technologies. These may include family constitution, family and parental styles, daily routine, and even the kindergarten or school they attend offering them a number of extracurricular activities. The research revealed that the older children in the family take the lead in using the technologies and smart devices, whereas the youngsters very often act as observers and do not show much initiative to do something on their own. Parents also mediate their children's use of online technologies in trying to limit the time spent on online technologies.

The findings of this case study open up possibilities for further research with larger more diverse samples leading to more reliable research outcomes.

Acknowledgement

References

Chaudron, S. (2015) Young children (0–8) and digital technology: *A qualitative exploratory study across seven countries.* JRC93239, Publications Offi e of the European Union (EUR 27052 EN). Retrieved from http://publications.jrc.ec.europa.eu/repository/handle/JRC93239.

Chaudron, S., Di Gioia, R., & Gemo, M., (2018) *Young Children (0-8) and Digital Technology - A qualitative study across Europe. JRC science for policy report.* Retrieved from https://ec.europa.eu/jrc/en/publication/eur-scientifi -and-technical-research-reports/young-children-0-8-and-digital-technology-qualitative-study-across-europe.

Dervin, D. (2018). *The digital child. The evolution of inwardness in the histories of childhood.* New York & London: Routledge Taylor&Francis group.

Dias, P., Brito, R., Ribbens, W., Daniela, L., Rubene, Z., Dreier, M., Gemo, M., Gioia, R. D., & Chaudron, S. (2016).The role of parents in the engagement of young children with digital technologies: Exploring tensions between rights of access and protection, from 'Gatekeepers' to 'Scaffolders', *Global Studies of Childhood*, 6(4), 414–427.

Garvis, S., & Lemon, N. (Eds.) (2016). *Understanding digital technologies and young children.* An international perspective. New York and London: Routledge Taylor&Francis group.

Marsh, J., Hannon, P., Lewis, M., & Ritchie, L. (2017) Young children's initiation into family literacy practices in the digital age, *Journal of Early Childhood Research*, 15(1) 47–60. DOI: 10.1177/1476718X15582095.

Livingstone, S.; Mascheroni, G., & Staksrud, E. (2018). European research on children's internet use: Assessing the past and anticipating the future. *New Media and Society,* 20(3) 1103–1122. DOI: 10.1177/1461444816685930.

O'Connor, J., & Fotakopoulou, O. (2016). A threat to childhood innocence or the future of learning? Parents' perspectives on the use of touch-screen technology by 0–3 year-olds in the UK. *Contemporary Issues in Early Childhood,* 17(2), 235–247, doi: 10.1177/1463949116647290.

Smahelova, M., Juhová, D., Cermak, I., & Smahel, D. (2017). Mediation of young children's digital technology use: The parents' perspective. *Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 11(3),* article 4. DOI: 10.5817/CP2017-3-4.

Stephen, C., & Edwards, S. (2018). *Young children playing and learning in a digital age. A cultural and critical perspective.* London and New York: Routledge Taylor&Francis group.