A Day in the Digital Lives of 0-3s: Full Report: DigiLitEY ISCH COST Action 1410 Working Group 1: Digital Literacy in Homes and Communities.

# Details

## Year

2018

## Issued

2018

## Language

English

## Authors

Gillen J.;Matsumoto M.;Aliagas C.;Bar-lev Y.;Clark A.;Flewitt R.;Jorge A.;Kumpulainen K.;Morgada M.;Pacheco R.;Poveda D.;Sandberg H.;Sairanen H.;Scott F.;Sjöberg U.;Sundin E.;Tigane I.;Tomé V.

## Type

Report and working paper

## Publisher

DigiLitEY; COST European Cooperation in Science and Technology

## Topics

* Internet usage, practices and engagement
* Literacy and skills
* Digital and socio-cultural environment

## Sample

13 families with a total of 13 children from Finland (1), Israel (1), Portugal (3), Spain (2), Sweden (2) and UK (4).

## Implications For Parents About

## Implications For Educators About

## Implications For Stakeholders About

# Abstract

The ‘A Day in the Digital Lives of Children aged 0–3’ project investigated the ways in which digital technologies inform the lives of very young children and their families. Our literature reviews (Kumpulainen Gillen, in production; 2017) have shown that this is an underexplored area, although of growing significance.
This report summarises the work carried out by researchers as part of the research of DigiLitEY Working Group 1 ‘Digital Literacy in Homes and Communities’. We implemented a highly participatory and intensive research methodology with 13 families, with the focus on one child in each family. The focal children, eight girls and five boys, were aged between nine months and 34 months at the time of the visits. Families were recruited from Finland (1), Israel (1), Portugal (3), Spain (2), Sweden (2) and UK (4). The research methodology was mainly a qualitative case study approach: ‘Day in the Life’ (DITL) (Gillen et al., 2007; Gillen Cameron, 2010) - using a combination of interviews, observational field notes and video recordings to collect data - with the focus being on one day in the life of the child and their family. Additionally, we collected comparable quantitative data in the form of inventories, such as, inventories of technologies available in the home. We now turn to summarising our findings under our four research questions:
1. How does technology inform the daily lives of children aged from birth to three?
All of the children had some form of digital technology in their lives. The households listed between five and thirteen types of digital devices that they owned. Most devices which were used by the children were owned by a parent or belonged to the household, and where children were described as ‘owning’ their own technological items, these were predominantly electronic toys. Some households had items to which the children had no access, including laptop computers which parents used mainly for work. Children were also discussed as accessing digital media elsewhere, and witnessing a considerable amount of use including in daycare/kindergarten settings. Technology plays a range of
!3
 roles in the children’s lives and is often integrated into the rhythm of the day with relatively fixed times for various activities. Technology is frequently used to influence the children’s mood (i.e. make children happy) or behaviour. The children also had traditional toys and games, and they are indeed important parts of their lives even in cases of children who spent relatively more time with technologies. In some cases, technologies are integrated seamlessly as part of non-technological activities, enhancing their experiences and interaction with the world. Even where children were not using technology themselves, they were frequently interested in observing their parents and siblings in using technologies.
2. What digital literacy skills and competences do children in this age group develop as they engage with technologies?
Children are learning how to use technology for education and entertainment. They are learning how to access the content they are interested in. More specifically, many parents commented on the children’s abilities to identify the apps they like to use, open them and find the content they prefer, either unassisted or with some assistance. Some can also drag items over screen, swipe the screen or make alterations such as changing the volume. A few could take a photo, or even make a video with some assistance.
The degree to which technology is used in an educational way varies between the families – in some cases children are using technology to learn about things, e.g. apps and/or educational videos which teach literacy, including a foreign language, or numeracy skills. In these instances, they are simultaneously learning how to use the technological devices and using technology to learn other skills.
Children also learn about digital media and people’s relationships with technology through observing others (i.e. parents or older siblings) using devices. Some learn from older sibling(s), through observation and asking for their help before approaching parents. Children will also try to apply skills they have learned from using one device to another.
!4

 3. How do parents or carers mediate young children’s use of technologies?
Mediation of children’s usage of the devices varied greatly, from interaction that was entirely controlled by adults (e.g. parents showing them a YouTube video on a laptop) to completely unsupervised access (e.g. child using smartphone on their own in their room or using a remote-control device). In most cases there is some supervision, and use of ‘blocking’ technology if children have access to the internet, so they cannot access unsuitable content.
For the children with the lowest levels of technology use, parents limit the number of devices accessible to them in the home. Many parents also ‘negotiate’ the levels of usage – for example agreeing in advance the number of episodes of a cartoon the child can watch or the length of time they can spend playing a game. In order to mediate their child’s use of technology some parents also limit their own use in terms of time and type of activity in front of the child. With children who have higher levels of use, there is sometimes a sense that technology is being used to ‘babysit’ with less parental supervision or mediation, although some parents use ‘remote’ monitoring, such as using control settings and receiving emails informing them which content the children have accessed on YouTube.
Several families demonstrated and reported issues with parents not agreeing on levels of mediation or approaches in mediation, and some children were demonstrably mediating their own use independently of adult support, although the families had made the devices accessible to children.
4. What are parents’ or carers’ perceptions of and attitudes towards the current and potential future use of technologies by their young children?
The parents all acknowledge that children need to learn how to use technologies although not necessarily at their current young age. They hope for and expect them to become skilled users while they also have concerns for their future use, especially when children start to use social media. Some parents think that children should be exposed to and acquire different skills at this young age. On the other hand, some parents feel strongly
!5

that children’s use of technology at a young age should be very limited – they prefer them to learn through traditional toys and games, and to interact with people. However, many of the parents recognise that digital technologies and the content they deliver create joint reference for children to socialise and play together, hence and strengthen the peer culture. If children are not able to access this peer culture, they may be excluded which again can threaten their peer relationships.
Many parents felt that their teaching of digital skills would help to limit any potential ‘damage’ caused by children accessing technology in an uncontrolled way outside the home. Where they expressed concerns these were mainly around the internet – access to unsuitable material – and social media, especially the potential for contact with undesirable people and issues such as online bullying. There were also some concerns around excessive technology use interfering with the child’s development, with too much screen time affecting concentration levels and keeping them away from traditional, ‘creative’ play and education. There is also a sense of social ‘embarrassment’ for some parents in admitting technology as if this reflects negatively on their parenting skills. However, most parents seem aware of the potential benefits of technology, and keen to identify those aspects of it which will be ‘good for’ the children, such as educational videos or apps which develop motor skills. For many, achieving a desirable balance in what they consider to be an appropriate use of digital technologies by their children is not a simple matter.

# Outcome

1. How does technology inform the daily lives of children aged from birth to three?

All of the children had some form of digital technology in their lives. The households listed between five and thirteen types of digital devices that they owned. Most devices which were used by the children were owned by a parent or belonged to the household, and where children were described as ‘owning’ their own technological items, these were predominantly electronic toys. Some households had items to which the children had no access, including laptop computers which parents used mainly for work. Children were also discussed as accessing digital media elsewhere, and witnessing a considerable amount of use including in daycare/kindergarten settings. Technology plays a range of roles in the children’s lives and is often integrated into the rhythm of the day with relatively
fixed times for various activities. Technology is frequently used to influence the children’s mood (i.e. make children happy) or behaviour. The children also had traditional toys and games, and they are indeed important parts of their lives even in cases of children who spent relatively more time with technologies. In some cases, technologies are integrated seamlessly as part of non-technological activities, enhancing their experiences and interaction with the world. Even where children were not using technology themselves, they were frequently interested in observing their parents and siblings in using technologies.

2. What digital literacy skills and competences do children in this age group develop as they engage with technologies?

Children are learning how to use technology for education and entertainment. They are learning how to access the content they are interested in. More specifically, many parents children’s abilities to identify the apps they like to use, open them and find the content they prefer, either unassisted or with some assistance. Some can also drag items over screen, swipe the screen or make alterations such as changing the volume. A few could take a photo, or even make a video with some assistance.

The degree to which technology is used in an educational way varies between the families – in some cases children are using technology to learn about things, e.g. apps and/or educational videos which teach literacy, including a foreign language, or numeracy skills. In these instances, they are simultaneously learning how to use the technological devices and using technology to learn other skills.

Children also learn about digital media and people’s relationships with technology through observing others (i.e. parents or older siblings) using devices. Some learn from older sibling(s), through observation and asking for their help before approaching parents. Children will also try to apply skills they have learned from using one device to another.

3. How do parents or carers mediate young children’s use of technologies?

Mediation of children’s usage of the devices varied greatly, from interaction that was entirely controlled by adults (e.g. parents showing them a YouTube video on a laptop) to completely unsupervised access (e.g. child using smartphone on their own in their room or using a remote-control device). In most cases there is some supervision, and use of ‘blocking’ technology if children have access to the internet, so they cannot access unsuitable content.

For the children with the lowest levels of technology use, parents limit the number ofdevices accessible to them in the home. Many parents also ‘negotiate’ the levels of usage
– for example agreeing in advance the number of episodes of a cartoon the child can watch or the length of time they can spend playing a game. In order to mediate their child’s use of technology some parents also limit their own use in terms of time and type of activity in front of the child. With children who have higher levels of use, there is sometimes a sense that technology is being used to ‘babysit’ with less parental supervision or mediation, although some parents use ‘remote’ monitoring, such as using control settings and receiving emails informing them which content the children have accessed on YouTube.

Several families demonstrated and reported issues with parents not agreeing on levels of mediation or approaches in mediation, and some children were demonstrably mediating their own use independently of adult support, although the families had made the devices accessible to children.

4. What are parents’ or carers’ perceptions of and attitudes towards the current and potential future use of technologies by their young children?

The parents all acknowledge that children need to learn how to use technologies although not necessarily at their current young age. They hope for and expect them to become skilled users while they also have concerns for their future use, especially when children start to use social media. Some parents think that children should be exposed to and acquire different skills at this young age. On the other hand, some parents feel strongly that children’s use of technology at a young age should be very limited – they prefer them to learn through traditional toys and games, and to interact with people. However, many of the parents recognise that digital technologies and the content they deliver create joint reference for children to socialise and play together, hence and strengthen the peer culture.If children are not able to access this peer culture, they may be excluded which again can threaten their peer relationships.

Many parents felt that their teaching of digital skills would help to limit any potential ‘damage’ caused by children accessing technology in an uncontrolled way outside the home. Where they expressed concerns these were mainly around the internet – access to unsuitable material – and social media, especially the potential for contact with undesirable people and issues such as online bullying. There were also some concerns around excessive technology use interfering with the child’s development, with too much screen time affecting concentration levels and keeping them away from traditional, ‘creative’ play and education. There is also a sense of social ‘embarrassment’ for some parents in admitting technology as if this reflects negatively on their parenting skills. However, most aware of the potential benefits of technology, and keen to identify those aspects of it which will be ‘good for’ the children, such as educational videos or apps which develop motor skills. For many, achieving a desirable balance in what they consider to be an appropriate use of digital technologies by their children is not a simple matter.