

YOUNG CHILDREN (0-8) AND DIGITAL TECHNOLOGY

*What has changed over the course of a year? A
Qualitative longterm Study - National Report
SWITZERLAND based on the 2017 follow-up Survey*

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Disclaimer:

In this report family members will be referred to with codes, starting with the family name (e.g. CH01), followed by m (mother), f (father) or b (boy = male sibling), fg (focus girl) or fb (focus boy), followed by age at the time of the interview.).

In order to understand what changed within the last year, relevant information of the 2016 family reports and findings have been partly included in this report. Changes from 2016 that are relevant to the research questions and the hypothesis of change (such as changes within family structure, living situation, media use and regulation etc.) are highlighted in yellow in the family portraits, to allow a quick navigation through the text.

In the Swiss sample we only have one family who still lives together as traditional core family (CH01), both father and mother were present during the interview. In case of the other four families, the parents are separated. Three of them were already separated last year (CH05, CH06, CH07), one of them separated within the last year (CH02). In CH05 the single mother does not have any contact with the father, she has full custody of the son. The other three parents share custody, their ways of interaction with each other differ. Whereas the interaction of the parents in CH06 is described very harmonic by the mother, the parents of CH02 and CH07 seem to face problem in their interaction with each other. The interviews were supposed to portray the children's digital life, therefore information of the children's digital life at their father's are included. It cannot be ruled out that statements of the mothers are biased by potential personal problems they were facing with the ex-partner.

The focus child of CH01 had turned 9 years old four weeks before the second interview. Since the results of the study represent changes over more than a year in the life of children under 9 years of age, we keep referring to the age range of 7 – 8 year olds.

For every family a detailed portrait was compiled. Details about the family constellation, interaction, daily organisation as well as digital and non-digital practices can be found in the family portraits.

Executive summary

Key findings

- Young Children's use of digital technologies changes due to several different aspects:
 - Literacy skills and personal development.** Improved reading and writing skills broaden the children's possibilities and enhance autonomy from their parents.
 - Available digital diversity.** Children's usage and learning is dependent on the specific range of digital devices that is available in their family and social environment at the moment.
 - Social aspects and changes within the family.** The separation of parents can bring in new digital devices for the child ("guilty presents") or new ways of mediation through a new partner.
 - Influence of peer group.** Whereas in kindergarten the parents were still main reference for preferences, within the last school year the peer group's influence has gained importance for the children's focus of interest and improvement of skills (e.g. they teach each other).
 - Literacy skills enhance autonomy.** In the first/second years of school, the children's literacy skills improved immensely, which gives them now the opportunity to use apps and devices on their own without help from their parents for known activities.
- **Tablet PC not challenging enough anymore due to enhanced literacy skills.** Once reading and writing on their own, children take a qualitative leap in their development and their favourite activities diversify more towards individual interest (e.g. more advanced video games etc.). Their new skills give them the possibility to explore activities and devices in a new way depending on support from parents. The tablet PC (favourite device of almost all children last year) has lost some of its popularity since it doesn't seem to be challenging enough anymore. However it is still a popular all-rounder for 7-8 year olds due to its multipurpose use and quick accessibility (no start-up-time).
- **For parents, mediation of use gets more demanding with children's enhanced skills.** The parenting task of keeping the balance between monitoring children's lives and giving them successively more room to develop into autonomous personalities especially gains complexity when a leap forward in development has taken place. Gained literacy skills, as an important step towards autonomy, require the parent's special attention for leading their child to a more independent yet healthy and suitable media use.
- **Children use digital media out of boredom/lack of social alternatives.** Digital media are a quick and easy way out of boredom and therefore a popular way to find something to do. When presented with alternatives, most

of the children would choose active, social activities (like playing outside with other kids) over digital media.

- **High education of parents does not guarantee a healthy mediation of child.** Overuse is not a socioeconomic problem per se, but depends on the parent's engagement in digital mediation. In our sample the negligence of a healthy mediation was not a problem of missing information but the inability of (single) parents to allocate time to it.
- **Young children with single parents more often show media overconsumption.** Three of four single mothers struggled with dedicating time to the mediation of their children's digital activities due to the double load of family and career, dealing with a separation or inner familiar turbulences. Their children showed a very strong urge for media consumption (CH07) resp. overconsumption (CH02, CH05). One child (CH02) even showed addictive tendencies. The presence of two parents engaging in a healthy digital education of the children seemed to be a protective factor in terms of a healthy media consumption (CH01).
- **Authoritative mediation and constructive discussions about digital media foster a healthy mediation.** Spending a satisfactory amount of time with parents, room for constructive communication between parents and children, less quantity but more quality screen time. All these seem to be positive factors for staying curious, keeping up the thirst for knowledge and creativity. Also confidently presented, consistent and comprehensible values and limits regarding digital media use that give children both safety and a certain autonomy to navigate within seem to foster acceptance and a balanced media use (CH01, CH06).
- **Audio-visual media serves as a "digital pacifier" for emotional needs.** Digital media seem to have the ability to serve as a substitute to satisfy emotional needs by giving a "good feeling" (children in unstable family constellations, dealing with a separation, being bullied by a sibling, missing a (physically or emotionally) absent parent). This effect has especially been noticed for passive and active activities containing video (movies, console games) probably because they absorb more senses than audio activities. This applies to three children in our sample. One child reports excessive use of advanced console games (single child, parents just separated) another child carries around his tablet PC all day, providing him with a "visual background noise" even when he engages in other activities (single child, single mother who works all day). Another child is completely focused on watching TV and uses every opportunity to do so, even secretly (her brother's aggressive behaviour has become worse, single mother and siblings get threatened).
- **Passive video media as peacemaker between siblings.** When watching a movie or video even aggressive or restless kids can sit calmly and enjoy a relaxing or funny time with their siblings for a while (CH07). Also for parents,

digital media sometimes is the only way to get all children quiet at the same time, which gives the parent a window of relaxation and room for organizing household tasks.

- **Heavy use seems to narrow the focus of interest.** High quantity of use does not necessarily mean high quality use in terms of diverse skills. The children in the sample who spend most of their free time with digital media have their focus set on rather few specific activities, which they became very skilled at (such as platform/jump'n'run games or adventure games). The diversity of digital activities was poorer than in children with moderate media use.

Surprising findings and single tendencies

- The oldest child in the sample (just turned 9) perceives the **smartphone as „the“ grown-up device**. The prospect of getting her own phone three years from now (her mother's old phone that she now can use for listening to music/audiobooks will then get a SIM card) already excites her a lot. Perceptions: Belonging to adults, freedom, autonomy.
- **Very restrictive and seemingly arbitrary regulation** of media consumption, like general punishment for all siblings when one misbehaved can compromise trust as well as foster media craving and secret media consumption (CH07).
- **Accepting different media rules.** Children are capable of distinguishing and accepting different media rules in different places/persons (e.g. father's/mother's/grandparents').
- **The more caregivers** outside of the core family, the more occasions (and diverse devices) for digital media use. The children's reports show that with almost every caregiver children at some point get in touch with some digital media (mother, father, grandparents, godmother, babysitter, etc.). These findings suggest that parents rather underestimate the time their children spend with digital media outside of their home. (Exception: very restrictive mediation as in case of CH07). In case of CH06fg8 the separation of the parents is harmonic, father and mother share the times with her daughter almost evenly. Nevertheless the mother states that two households make mediation harder, since she never knows how much time the girl spends with digital devices when at her father's place. The mother has an agreement with her daughter that if she wants to extend her screen time at home sometimes, she has to shorten the screen time at her father's place autonomously. The mother doubts that her daughter actually implements the agreement yet but is interested to wait and see how her daughter deals with the situation.

- **No elevated interactive devices present in family life.** Elevated digital devices like smart speakers, 3D devices or connected toys, that have gained some attention on the market within the last year, were not present in the Swiss sample.
- **Answering questions about changes** within a year doesn't seem to be easy for parents and impossible for young children.

Challenges and recommendations

Recommendations to parents and carers

- **Media education is challenging for both parents and children and requires engagement and time.** As the interviews show, for children, who are still in the developmental phase of self-regulation and impulse-control, the appeal of digital media is hard to resist, whereas parents are challenged by the complexity of finding the right balance between online and offline activities as well as finding suitable digital content and time allowances. Therefore digital media bears quite some potential for frustrations for both children and parents. Taking the time to establish a sustainably reasonable media education which allows children to develop into responsible autonomous media users takes time and engagement, but will be worth the effort in the long run.
- **Mediating Digital technology: Sharing values.** Media education is also about sharing values in general and overlaps with other educational topics. By using synergies, time can be effectively invested.
- **Different for each child.** How children deal with digital media is very individual, based on their personality and developmental stage. Mediation therefore should be in line with the individuality of your child. Recommendations solely based on age can only be a rough reference point and can not reflect the individual emotional boundaries, sensitivity, regulation competences etc. of all children that age.
- **Learning to deal with frustrations.** Any educational rules and constraints most likely cause frustrations in your child (this phenomenon is even more salient close to adolescence). In mediation of digital technology, frustrations should not be avoided. Parents need to be aware that developing strategies to overcome frustration is an important part of education in the process of learning autonomy and growing. Accepting the frustrations as a natural part of the education process and supporting your children in learning how to control and deal with them may be exhausting but is highly important in order to train children's self-regulation-skills.

- **Learning to control time and prioritize activities** by using screen time control options on digital devices (as on smartphones). These options allow children to regulate their screen time autonomously within a given time frame, fostering their self-regulation-skills as well as their skills to prioritize digital activities in regards to other everyday activities and tasks.
- **Learning to choose suitable content.** Online sources (like YouTube, Google etc.) provide content for all age groups in an uncontrollable way for young children. The sound does not always make clear when contents get too strong for your child. Also violence is not the only content which might influence your child's personality, but also outdated role models, gender issues, political incorrectness, etc. Explore the content together with your child, try things out and have fun together online so your child can learn with your guidance how to identify suitable content autonomously.
- **Protective factors vs. media overuse/addiction.** Multiple factors influence the development of a child's capability to regulate media consumption. A combination of several unfavourable conditions as a child (lots of screen time, high user parents, little engagement in traditional activities with peers or not being part of a stable social group, spending lots of leisure time alone/with digital media, having more of an impulsive behaviour etc.) enhance the chances for addictive tendencies as a child which sets a bad prognosis for longterm addiction problems later in life.
- **Importance of parental guidance.** Impulse control skills develop up until late adolescent age, therefore children and adolescents need guidance for media regulation. The autonomy of your child might be developing faster than her or his capabilities to prioritize tasks and to resist the appeal of digital media. As the results of the study show, some parents overestimate their children's capabilities to self-regulate their media consumption, which in these cases led to heavy overconsumption and/or even addictive tendencies.
- **Importance of a trustful relationship.** Maintaining an open communication and a trustful relationship with your child is key to find out how much screen time and what contents are suitable for your child. A trustful bond is crucial so your child can tell you when something goes wrong when being online. A trustful relationship also implies common ground rules, which apply to all family members (ex: no smartphone use during family meals), but they may also consider the different age, needs, capacities of different siblings.
- **Importance of keeping digital activities out of the rewards and punishment schemes.** In order to not jeopardize the trustful relationship with your child, it is advisable to not use general media bans as a punishment.
- **Importance of setting a good example as a parent.** Children learn by watching their parents. Implementing a lean digital life as a parent might be

hard but probably the most effective and time efficient way to educate your child about healthy behaviour such as a healthy media regulation.

- **Importance of consistency.** As seen in this study, separated parents might try to compensate the change for their child with “guilty” presents in form of digital devices and/or allow more screen time. This might – as seen in the study – resolve in emotional compensatory media overuse. Instead of fulfilling every digital desire of the child, interact and communicate with your child to help her/him through this possibly very emotional, confusing phase.
- **Importance of a respectful dialogue between seperated parents.** Separated parents do not need to have the same media rules, children can distinguish between different rules in different places. But they do not cope well with parents discrediting each other, it creates confusion and loyalty conflicts.
- **Importance of father/male mediaton.** Engaging in shooter games often is compensation for a missing male role model. If it is not possible to engage the father, try to involve another male family member/god father in the education and digital mediation.
- **Importance of communication with your child.** In order to mediate the online activities of children (especially once they have their own phone and Internet access) and in order to protect them from online risks, parents need to know what kind of activities they engage in. The «online life» needs to become part of the daily communication. Keep the communication positively connoted in a friendly, interested atmosphere.
- **Importance of balance between on- and offline activities.** Children love fast devices with lots of options, which sometimes make it hard to stop and engage in non-digital activities. An easy strategy to diminish the appeal of digital devices is to keep the selection of games rather small. Or one effective strategy for young children implemented by parents in this study: If the device only gets used by children anyways, do not always get the latest update, so the device does not run as smooth/fast anymore and the children lose interest. Be aware that at the same time this strategy might limit the digital possibilities of children, offering less opportunity of finding ways of expression that may suit them. Possibilities for children to express themselves, to foster creativity and help them learn and grow should be offered in digital and traditional ways.

Recommendations to industries

- **To Telecommunication Providers:** When children start to use digital technology autonomously, parents face the challenge to have their children learning to **control the time** they spend on screen but also choosing the content, which they consume. To help both parents and children to monitor and control the time they spend on screen and on various digital activities,

newly introduced screen time control options on smartphones are one step to supporting a healthy digital consumption for adults and children. Features for screen time control need to stay in the focus of telecommunication industries and be examined for their effectiveness. If needed, further options need to be explored.

- As the results of the study show, another big challenge for parents is **controlling the content** their children access online. Existing features (like YouTube kids) are still not exempt of risks. Tools to help managing content, easy to use for parents and children are in demand and further options should be explored.

Recommendations to policy-makers

- **PEGI age recommendations for screenless Internet connective toys.** A new kind of toys is appearing on the market: toys without screens that are nonetheless connected to the Internet (such as online responsive dolls, robots or balls) to allow greater possibility of interactions with the user, the child. As shown in this study, young children are not aware of online related risks. Since toys of that kind can interact directly with the Internet and deliver content coming from it, filtered or not, mitigated or not, PEGI age recommendation labels should be extended to Internet connected toys without screen.

Helpful links and further information:

- **Information for parents and carers about children and media use,** including recommendations for screen time, apps etc. (in German): <https://www.jugendundmedien.ch/de/digitale-medien/smartphones-tablets.html>
- **Reasonable age recommendations for games** are available on www.bupp.at (in German). Age recommendations on www.usk.de are mostly too low.
- **Age recommendations for films and videos** are available on www.fsk.de and www.svv-video.ch (in German).

1. Introduction

The Swiss study is part of a large qualitative study carried out by the EU Joint Research Centre. The project consists of a cross-national analysis in three phases: the pilot study in 2014 (Chaudron et al., 2015), which Switzerland was not part of yet. Switzerland joined the project in the second run by participating in the enlargement study (2015-2016) and the advanced study 2016-2017 (Chaudron, S., Di Gioia, R. & Gemo, M., 2018). The entire data set contains data from interviews with 234 family interviews in 21 countries.

The present study continues the research “*Young Children (0-8) and Digital Technology: A Qualitative Exploratory Study*” published in January 2017 (Könitzer, B., Jeker, F. & Waller, G., 2017). A project that was conducted in the framework of the JRC’s Project ECIT, Empowering Citizens’ Rights in emerging ICT (Project n. 572). ECIT deals with “Identification of new threats to children by ICT besides social networks. Development of recommendations to empower children’s rights by preventing and mitigating these emerging issues through education, school and community co-vigilance, as well as reconciliation of digital and personal interactions”.

Research focusing on the benefits and challenges associated with children’s use of the Internet has, so far, mainly targeted 9-16 years old (see, for example, the EU Kids Online research carried out since 2006). Yet, research shows that children are going online at an increasingly younger age. However, “young children’s lack of technical, critical and social skills may pose [a greater] risk” (Livingstone et al., 2011, p.3). In spite of the substantial increase in usage by very young children, research seems to be lagging behind. Therefore, research targeting 0-8 years old and which explores the benefits and risks of their online engagement is imperative.

In collaboration with a selected group of academic partners in different European countries, the present study aims at exploring the changes on engagement of young children and their families with new technologies over the course of one year. In particular, we will look at changes in their (online) technological engagement as well as the potential benefits and risks associated to their (online) interactions with new technologies. Its results will serve as a basis for policy recommendations¹ and what should be looked at when launching larger EU studies on the benefits and challenges associated to young children’s use of new (online) technologies.

All of the participant families of this follow-up study have been involved in the prior fieldwork undertaken in 2016.

The four main research questions of the first study were altered to focus on changes:

- RQ1: How did the engagement of children under the age of 8 with online technologies evolve over the course of a year?
- RQ2: How did the perceptions of the online technologies by the different family members evolve over the course of a year?
- RQ3: How did parents' mediation of young children's use of online technologies evolve over the course of a year?
- RQ4: Has the role that the online technologies play in the children's and parents' lives changed over a year?

	INDIVIDUAL CONTEXT	FAMILY CONTEXT
USE	RQ 1 : Individual Use: children/parents	RQ 3: Family Use/Dynamics/ Practices
PERCEPTIONS/ ATTITUDES	RQ 2: Awareness of risks/opportunities <ul style="list-style-type: none"> • of the children • of the parents 	RQ 4: Parental Mediation <ul style="list-style-type: none"> • Passive/active • Restrictive/permissive • Implicit/explicit • Reverse mediation

The semi-conducted interviews, beyond the sets of questions, were supported by the following tools to gather information:

Interview parts/tools	Ice-breaking	Parents	Children
My digital family	X	X	X
The card game + smiley			X
Pictures taken by children			X
Drawings by children			X
Apps and Digital services logo and icons			X
Pre-Interview Questionnaire		X	

2. Method

The Swiss team joined the study in April 2016 and the first study was carried out in 2016 following the guidelines stated in the contract of the European Commission as well as the ethical guidelines of the Zurich University of Applied Sciences (ZHAW). In the second run 2017 the new material (ice-breaker) and updated interview guidelines were translated in to German. Following the guidelines, the word cards, the ICT possession sheet and the dig comp grid were not used in the second run.

The following materials and procedures were used/implemented:

- Informed consent from kids (verbally) and parents (by signature)
- “ice-breaker” activity “my digital family” and stickers for every family member to highlight their favourite devices
- Use of audio recorders to record both the children’s and the parents’ interview
- Use of card game: in the second run only executed by children, not parents
- Use of child- friendly materials to put kids at ease during interview (all materials in little suitcase, crayons, little puppets to talk with, etc.)
- Anonymization of names in transcriptions and analyses
- 150 francs voucher for a Swiss retail company as incentive for every family
- Confidentiality of all researchers involved

The Swiss team consisted of two researchers and two research assistants. The interviews of the parents were conducted by the same researcher as last year. Two of the children’s interviews were also conducted by the same researcher as last year with the assistance of a second researcher. After being worked in, the second researcher continued with the other three interviews when the predecessor went on maternity leave. The transcription process was supported by two other researchers, the data analysis was conducted by one researcher of the interview team with the assistance of another researcher.

2.1 The sampling procedure

All the participating families of the first run were contacted by email and invited to the second study. The email contained information of general goals of the second study, detailing the tools for data collection (audio recording of the visits to the families) and how and for what purpose data would be used (analysis of the data and publication of the results). The families were assured confidentiality and informed about the anonymization of data. Involvement in the study did imply a compensation in form of a 100 francs shopping voucher for a big Swiss retail company. Seven of the former eight families were interested in taking part in the second run.

They were selected on the basis of family constellation, gender and availability during the interview time between September and November of 2017.

Families with rather unconventional or instable constellations were preferred for the second run, two traditional families with two and three children therefore were not interviewed.

Pre-Interview questionnaires. In order to prepare the individual interviews for each family an online questionnaire was sent to all the families who participated in the first study (Annex 1). The online questionnaire (Annex 2) was designed to collect information about the changes in digital-based practices in the lives of the children and their families, which helped highlighting aspects of emphasis in the individual families. It focused on the following aspects, which were in accordance to the interview questions:

- a) Devices: new, drops, expectations.
- b) Activities/Interests/Opportunities: new, drops
- c) Skills (skills that children have acquired, lost)
- d) Mediation/Rules
- e) Perceptions (the way they see digital technology, the same as before, different?)

2.2 The sample

The 2017 Swiss sample contained 5 families living in the German part of Switzerland. The following family constellations were part of the study: One traditional family (CH01: the only interview with both parents present), 3 separated parents with shared custody (CH02 (just recently separated), CH06, CH07) and 1 single mother with no contact to the father (CH05).

Contrary to the sampling protocol the sample does not represent parents with lower education, all parents held minimum a bachelor degree. Regarding income the sample represents more of a diversity of the country's average (per adult approx. CHF 7000.-), high incomes are underrepresented.

Family code	Member Code	Income / month	Ethnicity	Sex	Age	Year school/ max level of education	Profession parents
CH01	CH01m41	CHF 7001-9000 (medium-high)	Swiss	f	41	Tertiary	Information industry
	CH01f43		Swiss	m	44	Tertiary	Entrepreneur in food service industry
	CH01b4		Swiss	m	4	Just started Kindergarten	

	CH01fg9		Swiss	f	9	2 nd Primary (just started 3 rd)	
CH02	CH02m34	< CHF 3500 (low)	German	f	36	Tertiary	Education
	CH02fb8		German	m	8	2 nd Primary (just started 3 rd)	
	CH02f47	Father not interviewed in 2017	German	m	47	Tertiary	Health Industry
CH05	CH05m43	CHF 7001-9000 (medium-high)	Swiss/ German	f	43	Tertiary	Health industry (self-employed)
	CH05fb7		Swiss/ German	m	7	1 st Primary (just started 2 nd)	
CH06	CH06m34	< CHF 3500 (low)	Swiss	f	34	Tertiary (BSc)	Student (MSc degree) and working in education
	CH06fg8		Swiss	f	8	1 st Primary (just started 2 nd)	
CH07	CH07m37	CHF 5001-6000 (medium-low)	Indian	f	37	Tertiary (BSc)	Health industry (currently out of job)
	CH07fg7		Swiss (Indian)	f	7	1 st Primary (just started 2 nd)	
	CH07b10		Swiss (Indian)	m	10	3 rd Primary (just started 1 st Sec.)	
	CH07b12		Swiss (Indian)	m	12	6 th Primary (just started 7 th)	

2.3 Implementation of the protocol of observations

All interviews were conducted by the same two researchers and followed the same procedure: Short introduction, signing of consent form (which had been sent to the families to read in advance), ice-breaking activity with the entire family, followed by separated interviews of children and parents in different rooms. Picture taking by children during the interview. Reunion of the family for closing and final questions and for handing out the incentive.

To keep the administrative work lean and in order to keep the interviews as short as possible for the children, all the information and consent form were sent to the parents before the interviews and only signed at the interview. Children got informed by their parents and asked if they wanted to participate, they did not sign an extra consent form themselves.

The ice-breaker activity was shortened in the second run, since the ice breaking activity last year was too time consuming. It consisted of a table of several devices in

which all family members were asked to place a sticker on their personal favourite device. During the ice-breaking activity parents and/or older siblings mostly helped the children who were timid in the beginning. The activity helped loosen up the children for the actual interview part.

After the ice-breaker, one interviewer and the child(ren) went to the children's room while the parents stayed with the other interviewer where the ice-breaker had taken place. Since all parents had been informed about the interviews being carried out in separated rooms, this transition went smoothly in all cases. The children happily took the interviewer to their rooms and showed where they sleep and play. Siblings were tried to be involved in the children's interview process but were free to roam between rooms. So for short periods of time, siblings were in the same room when the parents were interviewed which did not interrupt the process in any way.

The duration of a family visit was between 1:30 and 2:30 hours, the transcribed sequences of the interviews (kids/parents) also included the ice breaking activity and had an average duration of about 1:40 h.

2.4 Recording

In order to check the mandatory questions for digital use and the device possession/use form there was not enough time to take notes during the interviews. The interviews were audio recorded. We decided beforehand to refrain from video recording in order to keep the interview situation as natural as possible. This sometimes caused irritation when transcribing the interviews, when not every card had been spoken out loud and we had to reconstruct what has been said by analysing the pictures that had been taken of the completed card game.

2.5 Implementation of the protocol of analysis

The interviews were transcribed and qualitatively analysed in regards to the research questions. The ice-breaking activity did not bear much information regarding the research questions but contained information about the family situation and changes that had taken place regarding living, job situation etc. The information was helpful to get a picture of the family one year later and was mainly used in the family portraits.

3. Family Portrait Gallery

All families live in urban areas in the northern part of Switzerland.

Family 1



Family 2



Family 5



Family 6



Family 7



For the second run of the Swiss Study, a selection of five of the original eight families was interviewed. For an overview over all families of the first run, see the Swiss 2017 report listed in the references.

CH01 2017

Family members

- Father, 44 years old, CH01f44, high digital user
- Mother, 41 years old, CH01m41, high digital user
- Boy, 4 years old, CH01b4, Kindergarten, low-medium digital user
- **Focus girl**, 9 years old, CH01fg9, just started 3rd grade, **low-medium digital user**.

Reading and writing skills: **can read and write longer texts**



Living situation

(Unchanged from 2016) The family lives in a modern house with garden, both kids have their own room. The family seems socially well integrated and close with the families in the neighbourhood, their children are in close contact.

Mother and father share the responsibilities for the children pretty evenly, they are also both engaged in the digital mediation. The responsibilities for the children are very well organized, mother and father have their designated days

where they are responsible. The grandfather is another key carer, the children stay at his place once a week and they get to eat lunch once a week with the neighbor's family. Both parents are very engaged with their jobs, the father has recently opened his own business which still demands some flexibility in organizing daycare. But they seem to manage their time well, also with the help of their social network.

NEW: Boy now goes to kindergarten (in the mornings) which the mother reports as a big change for the family. The girl walks him to kindergarten and then goes to school.

CH01f44: “You have to set an example for your children. Otherwise it doesn't work. If I always fiddle around on my phone [...] or watch TV all day, I can hardly demand from my children to not want all of this, too.”

Devices (news, drops, expectations)

- 2 Smartphones (parents), 3 Laptops, PC, TV, Tablet PC, DVD Player
- **NEW:** *Toni box* - a device that plays Audiobooks stored on little figurines that just need to be placed on the device. Other than that no additions to the household since 2016
- **NEW:** The mother's old smartphone (no SIM card) can now be used for audio activities when travelling/in the car (parents did not want to listen to children's audiobooks anymore so they bought combined headphones for the kids)
- **DROP:** iPod broke and is no longer in use
- The children still do not own digital devices apart from Audio devices (CD player, *Toni Box*)
- **Expectation:** The focus girl is already very excited that she will get her own smartphone when she is 12 years old.

Activities / Interests / Opportunities (news, drops)

Unchanged from 2016:

- **Low – medium user.** Quite low screen time, on average approx. 45 mins per week for fun activities – use for school is not counted. Sometimes they ask more (e.g. rainy weather, when doing home work), sometimes they don't even think of using digital devices (e.g. when playing outside/in the snow).
- Children still use mainly the same devices as last year (audio devices (often/daily), tablet PC for similar activities: mostly games and YouTube films (some times per week or less), digital camera, PC
- Screen time is split in short episodes, mostly short film sequences on YouTube (tablet PC).
- She loves stories in general (reading, listening, watching)
- Entire movies (as family activity or one parent with the kids) are rare but happen occasionally. TV/DVDs in general not overly appealing to the kids
- At grandfather's (one day every week): a lot more screen time, faster iPad, less content control (there they also watch Barbie films, Playmobil films, etc. that she knows her mother finds stupid – in the card game the girl also rated these as "I don't like").

- The focus girl reports that she doesn't use digital media for fun as much as last year anymore, because school takes up a lot of time. She prefers to play outside / with friends.
- The girl is critical towards content herself, she also knows what her parents find useless content, still sometimes watches it just to tease her mother with it.
- The girl now uses the PC more (with assistance of her mother / in school) to create text and picture content in Microsoft Word (e.g. she created her own birthday invitations). But she doesn't enjoy the PC as much as the iPad, iPhone, TV.
- **Apps/interests:** still Antolin, an online book quiz (but now mostly by herself and not with mother anymore), Pet World. NEW: Minecraft. Interested at first, but dropped it quickly. She plays more learning games than fun games, she seems very eager and likes to train on the iPad (writing, math, literature quiz), also she likes to train what she is not good at (e.g. to improve her shooting skills she likes to play Angry birds). She is also pretty engaged with music lessons for her instrument which she enjoys "ok".
- Inspired to use new apps through peer group.
- Went to movie theatre alone with a friend (no parents) to watch a movie.
- Not (yet): Facebook, social media, Google,...

Favourite activities

Unchanged from 2016: Top three favourite activities do not contain digital but only **traditional play**, such as playing with others and being outside (they are extremely social and well connected with the children in the neighbourhood), reading books, sports activities (biking, swimming,...), Lego, etc.

Digital favourites are touch screen devices:

- **iPad** is still favourite device, even though it has become even slower than last year. It offers the widest range of possibilities and is preferred over the TV, cause its easier and more flexible where to be used. **Used apps** (unchanged from 2016): YouTube (short video clips and music videos), Horse world, memory, paint, math game, photos.
- **NEW: Smartphone.** She now is allowed to use her mother's old phone (no SIM card) for listening to music and audiobooks and some games only in the car/on holidays.

Skills (acquired / lost)

- Improved reading and writing skills, improved on her musical instrument (plays in a group).

- She has become faster in handling devices in general.
- Her mom showed her how to use Microsoft Word to create birthday invitations etc. (combining pictures and text), she shows fascination for the possibilities in computer programs and uses it on her own for writing.
- She knows the codes to all devices, there are no filters in place.

Mediation of digital activities (and education in general)

Parents act as Role Models:

- The parents try to keep their own media use for fun low and try to not spend too much attention on their phones. (The children understand the difference between media use for fun and for work.)
- Rule for all family members: no digital media upstairs in the bedrooms and not at the dinner table.

Rules for the children:

- Kids have to ask if they want to use digital media (except audio activities).
- Digital media is only allowed in the afternoon/evening/on weekends (except audio activities and except when the kids are sick, then more screen time is allowed).
- Same rules and time allowance for the siblings. B4 and fg9 have to do their screen time together, so they have to agree on what to watch/do, girl is responsible and picks contents that also suit the little brother (mother reports that despite the age difference she is scared easier by things than her brother).
- Use of tablet PC/smartphone only within hearing of the parents, parents do not always sit with them when using devices anymore.
- Using media for school work or learning purposes is allowed and not counted (Antolin, Kid's Wikipedia, etc).

Mediation strategies:

- **Quite low screen time (for fun)**, on average approx. 45 mins per week.
- When the children fight with each other due to digital media (e.g. when they cannot agree on what to watch) the parents stop the screen time. So the children handle screen time mostly peacefully.
- **Not the latest update/version.** The parents do not update games and apps regularly, because the older and slower they are, the less interested the kids are. (As reported by the parents, the girl can not do updates by herself.)

- **Financial responsibility.** When the girl wants to put some new app on a device she has to pay a part of the costs with her own money (e.g. parents and fg9 shared the costs to get *Minecraft*).
- Parents they try not to undermine their partner's decisions in front of the children, even when they disagree.
- The father is more keen on researching apps and movies for the kids and also installs / deletes / updates the phones. They use mostly paid kids apps and also spend money on kids movies (approx. 1 or 2 francs for apps, movies up to 20 francs).

Perceptions

Unchanged from 2016: The **parents** consider digital devices important (in job and personal communication) but not for the family life.

Focus girl: She loves digital devices, but they are not overly important to her, given the choice she would prefer playing with her friends / outside. She plays games to improve her academical skills and also for fun and she enjoys watching short movies.

She is already very excited that she will get a SIM card for the smartphone for her to use mainly for emergency calls when she is 12 years old (three years from now). She knows she will have to pay the cost for limited data herself.

The idea of owning her own smartphone means belonging to the big kids / adults since it is a “grown-up device”, autonomy, freedom. She said she would not want to play games on it but would use it to arrange to meet with her friends and to stay in touch with the ones that live further away (text messages / phone calls).

Interesting Extras:

- Peer group became more important as an influence for fg9.
- 4-year-old brother is less easily scared than 9-year old focus girl, e.g. by movies → not a question of age.
- The focus girl knows that the Internet involves risks and that it can be dangerous to put information (like the own address) online. But she would not talk about those risks with her parents but just stay away from it.

-> Hypothesis of “Why”

- Parents are well organized within their social network, which helps them with the responsibilities and allocation of time for a healthy (media) education of their children.
- Stable, reliable environment for the children
- Respectful relationship between parents and children. Parents trust that the focus girl mostly knows what is good for her within the given “crash barriers”. They offer patience and room for discussion and also good arguments, explain a lot and are very interested in healthy media handling themselves but also present confident decisions.
- Parents act as example. No smartphones at the dinner table or during meals; the rule “no mobile devices upstairs” is respected by parents and children.
- Parents do not undermine the partner’s decision in front of children even if they disagree.
- In general, digital devices do not play a main role in the children’s lives.
- Not a lot of screen time per week, not everyday.
- Lots of exposure to other kids and traditional activities. The children’s top three activities are traditional like playing outside with other kids and being active. Sometimes they forget about digital devices for days.
- The focus girl seems ambitious, also uses digital media to learn and improve her academical skills.

Quotes:

CH01m41: “The rule is: digital devices can only be used downstairs [in the common areas], not upstairs alone in the bedrooms. And we [parents] stick to that rule, too. The exception is if someone is sick, then you get to watch where you like.”

CH01m41: “She finds the old tablet still too slow. And my father has a newer, faster one. They are always happy to use it when they go to his place.”

CH01m41: “We’re lucky to have kids who really enjoy being outside.”

CH02 2017

Family members

- Mother, 34 years old, CH02m34, high digital user
- **Focus Boy**, 8 years old, CH02fb8, just started 3rd grade, **high digital user**.
Reading and writing skills: **can read and write texts**.



Living situation

Parents separated again, their relationship had been on/off in the past). Father (47) was not part of the interview this year.

The boy still lives at father's place so school and friends stayed the same. Father and son now own two cats.

The mother now works 100% and moved back to Germany (due to financial situation), half an hour from father. She temporarily shares an apartment with two other people, so mother and son share one room together when he comes to stay. Mother and son now see each other much less than before (mostly every second weekend and a few hours during the week, sometimes more). A situation they were used to from before she moved to Switzerland. It works out for now, but is not ideal. The mother (and boy?) has a hard time adjusting. Communication between mother and father functions but they reduced it to son-related issues only, agreements are generally kept. The mother feels bad for her son, that he has to deal with his parents separation again and tries to please the boy's wishes in the situation.

CH02m34: "I don't like that digital devices are the first choice. Like when he gets up in the morning and I want to sleep a bit longer, he instantly grabs the tablet or console or Smartphone [...]. I want him to look for other alternatives to spend time. But I need to work on that!"

Devices - what and how

Boy owns digital devices that he keeps in his room:

- **NEW: PlayStation 3**

- **NEW: Portable game console** (Nintendo 3 DS) (borrowed from a friend)
- **NEW: Digital watch** with several functions but no Internet access
- Most of the devices are at his father's place, he takes the portable ones with him when staying at his mother's place
- Like last year he also owns a Wii and a Wii U

Devices in the household that he can use:

- Tablet PC (mother), DVD Player (father), Smartphone (mother, father)
- **NEW:** Mother now owns a **tablet PC** that they both use. The boy helped setting up the screens (one for the mother, one for himself) with their favourite apps.

Activities / Interests / Opportunities

- **High user.** Screen time has increased since last year (he was already a high user then), also gaming skills have increased.
- He watches/plays with his digital devices when he gets a chance, up to 2 hours per day and shorter episodes when travelling (e.g. 20 minutes gaming on the mother's phone when on the train). More screen time on the weekend days, watching movies/gaming for 2-3 hours per day. Uses the tablet PC to watch videos in the morning when mother is still asleep.
- He is very engaged in jump'n'run games (Zelda, Mario,...) which he plays on the game consoles. He games and plays on the most elevated level in the sample and spends longer periods with one game.
- He uses the father's laptop to watch series (via free streaming portals). The mother's tablet PC he uses for shorter sequences to watch a video clip or to play with free game apps. The tablet PC is less interesting for him than the video game devices, but due to easy and quick access a fun way to kill time. For longer activities (e.g. like a full time movie) they would start up the laptop instead, because it has a bigger screen.
- As a traditional activity he plays with action figurines, often his play is inspired by moves/tunes/stories from a video game. He mostly prefers staying at home gaming (preferably jump'n'run games on the Wii U with his friend) over other activities (outdoor, with parents or friends).
- He games or watches films on a daily basis, on weekends for several hours straight. When mother tells him to stop, he usually argues and wants to continue for a bit, even when he is already worn out and tired. He does however feel when it has been too long and that he needs a rest, would not stop by himself though.

- Mother reported that he was very excited before the interview to get a chance to show off his gaming skills to an audience.

Favourite activities

His **top four activities are digital**, the six activities that he “likes ok” contain **only one offline** activity. Overall his activity range has dropped significantly: in 2016 he liked 10 activities “a lot” of which only three were digital and 12 activities he liked “ok” of which three were digital. In general he states that he finds non digital toys a little boring, except for sometimes. Activities dropped: drawing comics, listening to music on iPod, in general less traditional activities, playing outside etc.

- **MORE: PlayStation** because it has a big screen and the most interesting games (mostly platform/jump’n’run).
- **PlayStation portable** is his new favourite device, would like to have his own when he has to give back the one he has borrowed. His father said he won’t buy it, so he now puts money aside to buy it himself.
- **Wii U** less used alone but still a favourite to play games with his friend on it
- Also would love to have his own **smartphone** and **AppleWatch** (CH02fb8: “But the latest model only!”)
- **LESS: iPod** which was favourite device last year is not used much anymore (CH02fb8: “boring”)
- **LESS: Wii** due to new devices
- **DROP:** Drawing comics (an activity he engaged in last year) has been dropped for a while now, but he intends to do it again (“I’m planning this comic project with two friends...”)
- Mother initiates all outdoor activities together, if it’s up to him he wants to play computer games (He rated the activity “Playing outside” between “I like ok” and “I don’t like”)
- Mother would like to use media (WhatsApp / skype) more often to talk to her son when he is at his father’s place, but since it makes the boy miss her even more, they don’t do it often.

Skills (acquired / lost)

- Gaming skills have evolved, he now plays more challenging games, mostly platform/jump’n’run games.

- Improved reading and writing skills, so mother says he is now more engaged in searching processes (movies e.g.) when mother is looking something up.
- Mother reports better stamina and attention span for cognitive and physical activities.
- Can download and install apps by himself (last year he did that with his parents) also knows how to download apps again from the store that already had been downloaded and deleted before. In general mother doesn't want him to do this by himself, but he still does.
- He writes SMS sometimes from his parents' phones to get in touch with the absent parent. He knows how to write texts, according to his mother he doesn't know how to call from a phone.
- He knows what a "password" is, has an idea what a "computer virus" is, has no real concept of what a "SIM card" or the "Internet" is.
- He knows how to close pop-up ads on free streaming portals.

Mediation of digital activities (and education in general)

- In general the boy has to ask when he wants to use digital media (not so much because they would say no, but they want to know what activity he is engaging in). The boy knows this rule applies for watching movies but not necessarily for gaming and he understands it is not always binding (I: "So you have to ask?" CH02fb8 "Well, yes, kinda, sometimes..."). Sometimes he plays early in the morning, which the mother does not approve.
- Mother and father agree on basics but implement individual rules.
- None of the devices are password protected.
- The mother is very self-critical and sometimes feels bad for not being more consistent and responsible regarding media use. She wants to work on offering him more offline activities as alternative to digital media.
- Media use is allowed anytime (when schedule allows it) until parents tell him to stop and do something else.
- Ending digital activities is hard for the boy and he usually doesn't stop on his own. When asked to stop he would argue and beg to play another level. The mother (and as the boy reports also the father) usually grants one or more extensions.
- Digital media plays significant role in the care concept, mother "needs" his screen time to organize house hold tasks.

- Mother only supports cost free apps (for the boy and herself) and does not want to spend money on apps for fun purposes. They also don't buy games for the game consoles but mostly get them from the library.
- Mother finds it hard to be role model, she enjoys playing with her mobile phone or the tablet PC a lot.
- Mother has differentiated ideas about the education of her child, but especially with YouTube she finds it hard to find a suitable, time efficient solution for her son between the safety of completely restricted content (e.g. through age filter functions) and the endless media content of the Internet. She is aware that there is plenty of content marked "suitable for children" which she would not want her son to see. At the same time she finds it important that her son understands that there is infinite content out there and that he learns how to identify suitable content and how to protect himself from not suitable content instead of restraining his access to certain content completely.

Perceptions

Unchanged from 2016:

Mother: Spends quite a lot of her leisure time with digital devices herself, using them mainly for fun purposes (free gaming apps only). Often spends more time online than planned.

Focus boy: Digital devices play a main role in the boy's life. He thinks that there are games or apps that can help acquiring knowledge, but "Not the ones that I play". He uses digital media to entertain himself.

Interesting Extras:

- Media overuse with addictive tendencies.
- Since they only use free streaming portals to watch movies, with a lot of pop up advertisements, the boy happens to see porn landing pages. He doesn't like it and doesn't want to look at it, and parents try to prevent him from seeing it until they got the movie running, but it still happens eventually.

-> Hypothesis of "Why"

- Mother has a very liberal standpoint in terms of education in general, trusts her son that he can mostly decide for himself what and how much he needs (also with consumption of sweets, media, etc). Since he shows heavy media

overuse, it seems that his mother overestimates his abilities to decide what's "good for him" at his age.

- The mother is still adjusting to the new constellation and life situation, criticises herself in terms of not being a better role model for her son.
- She wishes she would be more consistent in restraining duration of screen time or stop him earlier since he mostly wouldn't stop gaming on his own.
- Since the separation both parents seem to try to please the boy as a compensation (father buys presents, devices and cats, mother allows more screen time and games "cause he is so happy doing it").
- He does not have a lot of friends and spends most of his leisure time with his parents. Apart from a few loose friends he has one best friend (on and off apparently), they mostly game platform games together.
- Both parents are not very consequent when asking him to stop the digital activities but mostly grant extensions.

QUOTES:

CH02m34: "He games longer and more often now. I don't know what caused it. [...] Because he has become more adept at it over the year, maybe due to better comprehension or motivity... An the games [...] are more sophisticated and challenging and he gets more kick or fun out of it, so he engages in them more."

CH02m34: "Sometimes he watches a movie or series for two hours straight. But I have to admit, that's up to me. Sometimes I really need some time for myself and just take it, mostly to game myself or to just browse the web kinda senselessly."

CH02fb8: "Most of the apps I downloaded myself [from the store], when mom was still asleep. She didn't even notice."

Interviewer: "So when you spend time with your friend, what do you mostly do together?"

CH02fb8: "We game, game, game, game, game, game, game, game!"

Interviewer: "So how much do you like traditional toys that are not digital?"

CH02fb8: "Mhh... like... a little boring."

CH05 2017

Family members

- Mother, 43 years old, CH05m43, medium digital user
- **Focus Boy**, 7 years old, CH05fb7, just started 1st grade, **high digital user**. Reading and writing skills: **can read and write single words**.



Living situation

Unchanged from 2016: Mother and son live in a modern apartment. No contact to the father, close contact to grandfather. Family friend sometimes plays traditional games and sports with him.

Mother NEW: has a new partner (for a year now) who also engages with the boy. Mother opened her own doctor's office and is therefore even more engaged (officially 90%) in her work than last year (80%) and sometimes also works in the evening at home. The free day they had together in 2016 is now only half a day which contains all the boy's extracurricular activities, where the mother takes him to and picks him up. The weekends are the only times when they spend leisure time together.

CH05m43: “[A healthy mediation] would cost a lot of nerves and discipline. I don't think I could work up the necessary energy after a long day at work to stay consistent.”

Devices (news, drops, expectations)

- No additions
- Smartphone, TV, laptop, game console (Wii), tablet PC
- Boy owns a tablet PC that he has unlimited access to.

Activities / Interests / Opportunities (news, drops)

- **High user** (unchanged from 2016). Using digital media is main fun activity when at home and when he has spare time (mornings / evenings / weekends). His tablet PC is a constant companion when at home, has a hard time putting it down. Often several hours of screen time on weekend days.
- Boy still uses the same devices as last year (tablet PC, game console, TV).

- Apps/Games (unchanged from 2016): Lego police station, games with “good and bad guys”, jump’n’run
- NEW: his favourite activity has shifted from tablet PC to **game console** (Wii) because: “... it takes longer and sometimes they [the characters in the game] talk with me” and “...sometimes I play it together with my friends”.
- **Tablet PC** still is an omnipresent companion when alone, mostly used for watching videos and/or as a background noise for almost all other activities.
- NEW: Smartphone (mother’s) gets used sometimes for game apps (jump’n’run).
- Likes the competitive edge and searches for opportunities to win, in digital as well as traditional activities (like foot or bike races with his friends etc).

Top three favourite activities contain two traditional and one digital activity. He loves to be active, play catch, football, biking, running are his favourites, also playing outside with friends, but can’t do it as much as he’d like to.

Digital favourites:

- **Fix game console** (is favourite in 2017) he plays it with his friends, games for two or three people (focus boy: "because there are really good games for it")
- **Tablet PC** (was favourite in 2016) seems to be his digital teddy bear through the day.

Traditional activities:

He has started playing football and playing the violin (which the mother picked, he is not overly excited about it). He loves the social aspects of traditional activities and tries to make friends.

Skills (acquired / lost)

- Reading and writing skills still poor (just started 1st primary). Uses YouTube app autonomously but still needs his mother to type search words when searching for something specific.
- No recognizable progress in handling the devices or gaming skills since last year. When asked for changes in his skills, mother was consternated when realizing that her son hadn’t made any progress.

Mediation of digital activities (and education in general)

- Boy doesn't have to ask when he wants to use the tablet PC, but for the smartphone. With some devices he needs his mother's help (typing things in YouTube, turning on TV).
- In general no rules or time restrictions, she tells him when to stop. Mother doesn't want him to use the tablet PC at the dinner table but is not very consistent in implementing this rule.
- Mother intervenes when the tablet PC is slowing down necessary processes such as getting ready for school, etc. He gets several warnings before she takes it away. No sanctions. When she takes it away he doesn't get angry but begs to get it back, which she quickly does.
- Mother's new partner is more consistent, no card play with the tablet PC running in the background. He also enforces that the tablet PC is put away when they sit down for dinner.
- The mother mentions she would appreciate more information concerning media education, that is **easy to grasp** (with clear recommendations about how much screen time is appropriate at what age, app recommendations, etc.) for example distributed through paediatricians. She finds there is a lot of info here and there but no reliable main source for information about digital education.

Perceptions

Mother:

- Uses digital media (phone, laptop) out of pure necessity for her job. She has no time or desire to use digital media for fun.
- She believes in terms of education her son would not need to use digital media at all at this age, because they get enough exposure in school.

Focus boy:

- **Devices take up a lot of time in the boy's live**, but probably more out of a habit. His tablet PC seems to "comfort" him. He would like to spend more time outside playing or doing sporting activities also with his mother, but **time is the limiting factor**. (He spends all afternoon in child care, his mother does not have free time other than on weekends.)
- Fascination for the game console due to its "social factor": possibility to spend time with friends.

Interesting Extras:

- **Media overuse.** The tablet PC is the first thing he grabs in the morning and the last to put down. (I: “If you cannot play for a while, do you miss it?” – Focus boy: “Yes, a bit.” – I: “How do you manage that feeling?” – Focus boy: “I do not think about it, do other cool stuff, so I don’t think about it anymore.”)
- Would choose outdoor activity over media use, mother’s lack of time is the limiting factor. When being active / playing outside he doesn’t miss digital activities.
- **He is very keen on social contact with other kids, being together seems more important than the activity they are doing together.** (I: “Why would you like to do that [Karate] too?” - Focus boy: “Because then I could be with him [classmate] and maybe we could go to Karate together”. I: “Why do you like the music class better than swimming class?” - “Because I find new friends there and sometimes I am really good in playing the violin.”).
- **Content wise not a lot of digital diversity,** mostly jump’n’run or strategic games about finding / killing the bad guys (police station). He likes to be in the role of the police.
- Likes to start over with computer games cause he “already knows what to do” and mentions a few times that losing is not much fun (“Why don’t you like to dance?” – “I don’t like it so much and I make mistakes sometimes”). At the same time he likes competitive challenges (like bike or foot races against his friends or in games: when there is a sequence in a game that he cannot pass, like jumping up on something), he tries over and over again “until I manage or my mom says stop” (focus boy).
- The mother is pretty informed about possible health issues linked to heavy media use (CH05m43: “digital dementia”) and the lack of long term studies about consequences of digital media use for cognitive functioning, creativity or physical health. Raising her son on her own, she struggles with dedicating enough time to both her son and her work. She works 90% to stabilize her own firm, as a necessary investment in the family’s future. For the moment she therefore accepts that her son spends more time with digital media than she would like. Her ideal situation would be that she can reduce her work to 50% once her private praxis is running and they have more time together and she has more time for herself. She doesn’t know for how much longer she can put up with her high work load.

-> Hypothesis of “Why”

- No regulation concerning media use, he has access to every device (apart from her laptop and phone) at any time.
- She sends inconsistent messages, gives several warnings before she takes the device away and mostly gives in quickly when he begs to get it back.
- Mother fills his spare time with offline activities (music & sports classes, etc).
- He uses media due to lack of interactive/social alternatives. He'd rather play with his mother or with other kids.
- Mother mentions she simply does not have time to engage more in media education or inform herself about suitable apps for children. She finds it ok, when he has simply fun with it and uses it for relaxation purposes.
- Mother knows she gives him too much screen time, she is also worried about health issues (eye / posture problems) evolving from the heavy use. She is self-critical about it and knows it is her responsibility “**but it is so hard to change it**” (CH05m43). She knows she could change it, if she dedicated more time and energy and nerves into it. But she works fulltime and actually needs the time he spends in front of screens to manage their lives and housework. In her case **digital devices seem to be a necessary evil to keep the daily family life functioning.**

QUOTES:

CH05m43 quoting her son: “Mom, can you play with me, I don't want to be alone all the time.”

CH05m43: “Digital media is important to kill time.”

I: “What do you think keeps you from implementing a leaner digital media consumption?”

CH05m43: “Convenience. For sure there would be lots of conflicts in the beginning until he adapted to new, stricter rules, etc. It would be very hard to turn this around, it would cost a lot of nerves and discipline. I don't think I could work up the necessary energy after a long day at work to stay consistent.”

CH06 2017

Family members

- Mother, 34 years old, CH06m34, medium digital user
- **Focus Girl**, 8 years old, CH06fg8, just started 2nd grade, **medium digital user**.
Reading and writing skills: **can read and write shorter texts**.



Living situation

New: Mother and daughter moved into a new house not far away from her previous apartment. They share the house with three other women and one girl the same age as the focus girl. The girls share one room together. They both feel very comfortable with the new living situation. Due to the move the girl had to change school which is still a matter of change.

Unchanged from 2016: The father still lives close by, the girl spends several days per week at his place. The parents have a friendly relationship and mainly see eye to eye regarding digital education and discuss relevant issues.

CH06m34: “There are games that are so useless and have no value: a cat that you can dress up and put make-up on? This is so dumb. What kind of message does that send?”

Devices (news, drops, expectations)

- Smartphone (mother), digital camera, CD-Player, tablet PC (housemate’s)
- At father’s place: Smart-TV, laptop, iPod
- NEW: Smartphone without SIM card (that her mother got for extending her contract but couldn’t get used to the new phone)
- NEW: Kidizoom (Kid’s camera that takes digital pictures and has some games on it). She got it from an older girl who she also gets second hand clothes from.
- The focus girl would like to have a tablet PC and secretly asked her grandfather to get one for Christmas.

Activities / Interests / Opportunities (news, drops)

- **Low-medium user** (use has slightly increased from 2016, used to be low user).
- **NEW:** recently discovered the kids' audio plays on Spotify which she listens to on mother's smartphone (connected to the speakers in the common area) – Spotify has almost replaced the CD player (which is used less now).
- Gaming on smartphone (most on babysitter's, "her" phone without SIM card, mother's, father's, both grandparents) – several make-up and hair dressing apps.
- Sending WhatsApp texts and pictures from mother's phone to her friend (her mother's phone).
- **NEW:** Smartphone (without SIM card) can be used for some game or paint apps (also does that with the babysitter).
- Listening to music / audio plays on CD player (autonomously, in her room).
- Listening to music on Spotify (on mother's phone in common area, on father's iPod).
- **DROP/Much less:** Games on tablet PC with former housemate (games: "Samorost" and "Monument Valley"). She regrets not being able to play with him as much anymore because they do not live in the same house anymore. (But they still play together when they meet occasionally.)
- Her housemate now has a tablet PC too that the focus girl can sometimes use for listening to music and audiobooks but there are no games on it.
- TV (mostly at her father's place and at her grandparents'). With her father she also has dinner in front of the TV, which she loves and sometimes they have breakfast in bed together.
- Watching Videos on laptop (mostly father's, rarely on mother's)
- Her grandmother's Gameboy she finds ok, but not overly exciting. She tested a PlayStation at a friend's house and finds it boring.

Digital vs. non-digital. Of 17 activities she rated "I like a lot" 5 are digital.

Digital favourites:

- **NEW: Tablet PC** is favourite device. As plus points she mentioned the big screen and that she can watch movies in good video and sound quality on it. And she points out the possibility to plug ear phones in, although she has never done that yet.

- **Smartphone is second favourite** (in 2016 the smartphone was her favourite)
- **TV** (only at father's place)
- **NEW:** Game app on smartphone "My Angela" (a cat that needs to be fed, dressed up and put make-up on.). She likes that she has to take care of the cat, **CH06fg8: "It is fun"**. She also uses a paint app.
- Loves watching videos (on father's laptop more often, less on mother's)
- She likes taking photos with her digital camera. Also likes taking and modifying pictures with the Kidizoom.
- She likes listening to audiobooks (known ones on CDs or unknown ones on Spotify). Themes: "Die 3!!!" (A detective combo of 3 girls) etc.

Traditional activities:

- Playing dress up / circus / making little show at home, dancing, painting
- Playing with other children, she often invites her friends to her house.
- Likes musical activities, takes Piano lessons, started singing in a choir
- Playmobil, dolls
- Badminton, swimming
- Playing board/card games
- Looking at comics/books (and listening to an audio book at the same time)

Skills (acquired / lost)

- Reading and writing skills have increased.
- The focus girl has a code on (her) old smartphone that she can unlock herself.
- She uses the CD-player on her own.
- Cannot turn on laptop / tablet PC. Mother helps with setting up Spotify, then she can decide which audio book she wants to listen by herself.
- The new TV at her father's house she doesn't know how to turn on (she knew how to handle the old one) but she can navigate through channels once it is on.
- She knows how to send photos, voice and text messages on WhatsApp (unchanged from last year).
- Kidizoom she handles on her own (she already knew how to handle the digital camera).
- She knows what a password is for.

Mediation of digital activities (and education in general)

- Girl has to ask when she wants to use digital media (except for the digital camera). Also the phone without SIM card is with the mother and she has to ask and get it from her when she wants to use it. CH06fg8: “I actually find it ok that I have to ask before I can use digital devices.”
- Mother involves the daughter in most decisions and is happy to profoundly discuss issues in general (not only about digital activities but general life topics and other duties like playing the piano, house hold tasks, etc.) so the daughter understands her reasoning and vice versa. Once discussed she does not want to have discussions about digital activities on a daily basis and is quite consistent in her ruling.
- Mother makes it clear to her daughter that she does not want any conflicts due to digital activities, which the daughter accepts. She also knows that if she complains that her mother becomes even more strict. The daughter manages to regulate her media use quite well. They rarely have critical situations due to digital devices.
- Mother has a rather critical standpoint towards digital media. She tries to act as a good role model when they are together and also tries to keep her daughter’s screen time rather low.
- The mother values offline activities more and sees digital media as a competition to outdoor, cultural and traditional activities, which she likes to engage in with her daughter.
- Also the mother tries to avoid discussions about digital activities and tries to leave digital interaction and education mostly up to other care persons (especially concerning apps/activities that she finds annoying but her daughter likes to do).
- In order to avoid discussions about digital devices, especially the ones that make annoying sounds, the Mother just hides them (like a kids-camera she got as a present from her grandmother). The focus girl does not know where they are. In general she doesn’t avoid discussions with her daughter but with digital devices she finds silly, she rather saves herself the trouble.
- If conflicts evolve due to digital devices the mother takes the devices away and CH06fg8 cannot use them anymore. The girl doesn’t like that the mother just lets devices disappear.
- Mother discusses possible risks of the Internet with her. The daughter knows that the mother does not want her to go on YouTube by herself and accepts that. Digital but offline activities the mother lets her do on her own (like game apps on the phone).
- Mother does not watch films with her, unless Ch06fg8 likes to show her something that she has encountered (with her father) and that she finds

fascinating and wants to share with her mother. The mother says she finds it positive that her daughter wants to show her what she learned/encountered even knowing that the mother is not super interested in it. It shows that CH06fg8 trusts her and doesn't feel like she needs to hide all her digital activities this from her.

- Mother appreciates her daughter's passion for taking photos. Some of them the mother finds artistically interesting, selects the best ones and puts together an album that she plans to give her daughter as a present. Also they enjoy watching the movies together, that the girl takes on the phone or camera.
- Mother, father and babysitter (once a week) have different rules in place.
- Babysitter shows her new things sometimes, which mother finds ok. She trusts the babysitter that she wouldn't show CH06fg8 anything that isn't suitable for her age.
- CHANGE: Due to the move the focus girl doesn't spend any time with the old housemate anymore who was quite engaged in the digital education of the girl. She could use his tablet PC and his laptop with him and they played some games together (beautifully designed and cognitive challenging games like "Samorost"). The mother regrets his missing influence on her daughter, since it gave her the freedom to outsource digital education, which she is not interested in. Also the games he selected matched her quality standards (graphically, no gender stereotypes). Whereas now she gets influenced by e.g. her babysitter, a teenage girl who shows CH06fg8 apps of low content quality, which the mother finds useless and dumb (like putting make-up on a comic cat).

Rules Mother:

- No digital games when other children are present.
- Before she gets to play a game, mother and daughter agree on a designated time frame. If the girl wants to play longer, she is supposed to watch less TV at father's place. If this rule actually gets implemented by the father is unclear.

According to the focus girl, she is allowed to play longer with games that the mother likes than with games the mother dislikes.

Rules Father:

- No gaming on father's smartphone
- He tries to avoid conflicts with his daughter by rarely saying "no" when CH06fg8 asks to watch TV.

Perceptions

Mother:

- Uses digital media (phone, laptop) out of pure necessity for her job. She has no time or desire to use digital media for fun.
- Mother values non digital activities much higher than digital. She emphasises the social aspect of non-digital activities, the fact that playing with other kids also means negotiating, arguing, finding a consensus, developing own ideas etc. She also points out that more senses are involved in intersocial activities, which she finds important.
- She is very self-reflective and also admits that her own upbringing plays a big role in what she finds suitable and valuable and admits that she does not know enough about digital media to make a fair statement about the possible benefits.
- Mother sees a big difference between the contained medium like a CD and the endless medium of Spotify. She says so far her daughter doesn't have a concept of how endless Spotify or the Internet is though, believes that this might become a topic of discussion in the future.
- Mother finds most game apps quite stupid and too gender stereotypical.

Focus girl:

- Digital activities are for fun and she enjoys them, but they don't seem overly important to her. She likes using the computer in school for calculating and Antolin, the book quiz.
- She would mostly pick playing non-digital over digital activities (e.g. she states she would rather play badminton outside than game "My Angela" on the smartphone).

Interesting Extras:

- Mother would like to have more information about recommended quality apps for children (content wise more sophisticated/intelligent with a certain aesthetic, ethical, educational value).

-> Hypothesis of "Why"

- Mother actively fosters a culture of critical discussion with her daughter in all relevant life questions (also gender topics, feministic topics, digital activities). The daughter seems to know that she can talk with her mother about anything.

- Mother doesn't intervene immediately but gives her daughter time to regulate herself. For example the mother said, that when Ch06fg8 plays more games on the phone, she would like it if she watches less TV at the father's house in return. The daughter agreed. The mother is not sure if she actually keeps this agreement right now but gives it a bit of time and is interested so see how her daughter will handle the situation.
- The mother loves sharing non-digital interests with her daughter, like outdoor activities, flea markets, meeting friends etc. She does not initiate digital activities with her.
- The daughter knows that if she doesn't stick to what they've discussed the mother will simply not allow the activity anymore. So they rarely have conflicts due to digital activities.
- CH06fg8 likes digital activities, but does not crave them. She eventually stops playing with it on her own and switches to other (non-digital) activities. Games are fun for her, but she does not take them too seriously.
- The focus girl seems pretty understanding about the necessity of regulation the use of digital activities because "it is not good to play with a smartphone all the time [...]", especially for kids "because it can hurt your eyes". She agrees with the mother's rule that she is not allowed to play with digital devices when other kids are around because "that would be weird or mean for the other kids".

QUOTES:

CH06m34: "There are games that are so useless and have no value: a cat that you can dress up and put make-up on? This is so dumb. [...] But I don't think it's going to harm her if she plays it once a week, so... But I really don't want to engage in the activity."

CH06m34: "Kids audio books on Spotify is like a whole new universe (laughs)!"

CH06fg8: "When I lose a game? Then I keep doing it until I do it right. But it does not make me angry. It's just a game not a competition. [...] The main point is to have fun."

CH07 2017



Family members

- Mother, 37 years old, CH07m37, low digital user
- Boy, 12 years old, CH07b12, just started 7th grade, high digital user
- Boy, 10 years old, CH07b10, just started 4th grade, medium digital user
- **Focus Girl, 7 years old, CH07fg7, just started 2nd grade, low-medium digital user.**
Reading and writing skills: have improved, **she can read shorter texts and write words.**

Living situation

Unchanged from 2016: Mother lives with focus girl (7), her older brother (12) and middle brother (10) and in the same apartment. The mother is still looking for a job and would love to work again, but has a hard time finding something suitable with her foreign bachelor degree.

Every second weekend the three kids spend with their father. Regarding media regulation the parents see eye to eye and have similar, rather strict rules. According to the focus girl the father got rid of his TV so the kids would not watch so much.

Last year there was quite some disturbance in the family due to aggressive behaviour of the older boy, who has diagnosed ADHD. At the time of last year's interview they had just started a trial for the older boy to live with his father for several days a week. They cancelled the arrangement after three weeks, because he didn't feel comfortable there and missed the warmth of his mother (she reports the father is rather strict).

NEW: They had a family therapy during the last year, which helped mainly the mother. Boy (13) used to be without medication for the last year but now has a new medication plan, since his aggressive and destructive behaviour has increased and he causes a lot of trouble in school and at home. In school he gets mobbed and is more of an outsider, which is why he got to change school within the last year. At home he acts aggressively towards his family and often destroys things (e.g. toys and devices of his siblings, recently he punched a hole in the bed room door). There were

CH07m37: "Children are loud or cry when they play, but not when they watch TV, then they are calm for hours. But I don't let them much, not even if I have a migraine."

also incidents when he intimidated family members with knives (he dressed up like a terrorist he had seen in a movie / game and scared his siblings and mother) or hit them. The two younger children are quite scared of their brother. The girl hides from him when he acts out, the mother protects her. The middle brother now tends to counter and fight back. The mother as well as the kids suffer with the situation, the mother is very stressed out and glad to have a social worker who supports her. Also the older boy sees a counselor every week. The mother wants her children to be happy and hopes that one day they can all live together as a happy family without stress and constant turbulences.

Devices (news, drops, expectations)

- TV, tablet PC, Smartphone (mother's), Gameboy (belongs to CH07b12 but it's supposed to be available for the other children to use it, too).
- NEW: **Kidizoom Cameras**. Both the focus girl and her 10-year old brother got their own kid's camera with a few games, that is at their disposal. CH07fg7 got it as a present and enjoyed it a lot but it's not working properly anymore cause her older brother dropped it.
- NEW: Allowed to use the mother's and father's **smartphone** occasionally to play game apps (not many games installed).
- DROP: **Kid's tablet PC** (Hello Kitty) with some games on it. The focus girl finds it boring now.
- DROP/MUCH LESS: **Laptop** got damaged / broken by older brother (the focus girl does not miss it since she advanced her computer handling skills at school and therefore finds the games on the old computer too babyish)
- DROP: **game console** got damaged and cannot be used anymore. Middle brother misses it a lot. Older brother plays on the game console at his friend's house.
- DROP: older brother used to have a **PC**, but never used it so the mother packed it away.
- NEW: older brother owns a **digital camera** that he gets when mother allows it. (He had the same one before but broke it and got the same one again).
- NEW (to household): DVD Player.
- The focus girl own a digital diary "Kidisecret", a device to write diary texts, take and store photos and selfies. Unclear if she had that last year already.
- **Expectations**: Older brother badly wants his own smartphone since his classmates all have one and he wants to fit in. The mother told the children that they will get their own phones when they do well in school and already puts money aside. The children will have to pay for the monthly costs themselves. CH07m37: "When they get into the P-Zug [best class] they will get

their own phone.” The oldest son is worried about this condition since he has a lot of trouble in school and does not have the best grades. The middle brother does well in school and already happily expects his smartphone which he will get in one year. The focus girl would like to have a smartphone as well “For gaming. And sometimes to write something [...]. Like «Hello, how are you?»” (CH07fg7)

- Mother plans to buy a new Computer or Laptop for all family members to use for learning purposes or writing applications etc.

Activities / Interests / Opportunities (news, drops)

- **Medium user.** The focus girl uses digital media almost every day in the afternoon/evening. Screen time per day (similar to last year): approx. half an hour, longer on weekends. Her brother CH07b10 gets to watch approx. 1 or 2 hours per day. The oldest son gets to use digital media more or less, depending on his behaviour.
- Similar activities: Watching TV, watching videos, using the tablet PC and smartphone. Interests: less “Barbie”, more “Tom & Jerry”. Since she is not often allowed to use tablet PC and smartphone, she plays quite a lot with her (NEW) Kidizoom (e.g. a ball game).
- When she is at her godmother’s they mostly watch a movie together (“Rapunzel”).
- NEW: She plays some game apps on the smartphone.
- DROP: Games on Laptop. The focus girl’s handling has improved due to PC activities at school, so she finds the old games on the laptop “too easy” now. CH07fg7: “These games are boring, they are for babies.”
- Her friend owns a smartphone that she gets to use sometimes when visiting her (“Barbie” app).
- NEW: Very rarely she gets to play with her brother’s Gameboy (“Donkey Kong”), which she was not allowed last year.
- DROP/MUCH LESS: “Movie Night”. They used to have a family movie night all together every second Friday, which the children love very much. When the kids have not been “good” during the week the mother cancels movie night, so they didn’t have a movie night for a long time now. The children are sad about it and also the mother regrets it “[...] but it is the rule.” (CH07m37).

Digital vs. non-digital. Of 15 activities she rated “I like a lot” 6 are digital. Her absolute favourite activity is going swimming in summer and she also prefers that over watching TV. She also really likes playing outside but when asked if she would

rather play outside or watch TV she would prefer watching TV. CH07fg7: “My mom says playing outside is better [...]. I find that dumb.”

Digital favourites:

- CH07fg7: TV still is her favourite digital activity (unchanged from 2016). CH07fg7: “I like the TV because I can just sit and watch [...] without touching anything”
- CH07b10: prefers playing with the game console over watching TV.
- CH07b12: The older brother loves gaming as well, he plays shooter games, also some with age rating 16+/18+.
- All Children sometimes use the PC in the library, the boys use it for video gaming.

Traditional activities:

According to the card game she also likes playing outside, with dolls, painting, listening to audiobooks. She also started playing the piano, which she enjoys.

Skills (acquired / lost)

- Reading (and writing) skills improved, she reads more now
- Can start some apps alone that she needed help with last year
- Improved computer handling (uses it in school)
- Can use YouTube app on her own once mother started it
- Does not know SMS, WhatsApp, or Emails, does not write on devices. Also does not use Google or a kids Wikipedia yet (CH07m37: “She is still too young for that.”).
- She has a digital password in her digital diary (to open it she has to say “Hello”) and understands that this makes sort of sense, so her brothers can’t read her diary, where she writes secrets in. At the same time she does not understand why her mother would put a password in her phone to prevent the children from using it, she finds that just “mean”.

Mediation of digital activities (and education in general)

- No fix time allowances for media use, it works on an ask-mom-basis. Screen time is used as a reward for “being good”, which means that the older brother

often gets banned from digital activities and has to stay in his room when the others get to watch/play. Sometimes when one kid doesn't behave well, all the kids get punished and are not allowed to use digital devices.

- Media use is strictly regulated by mother, she tells them when to stop. She also keeps the remote control for the TV in her room and locks it when she goes away. If the kids beg for more they get banned from using devices completely for a while. The mother reports that discussions because of digital activities have decreased within the last year, because the kids have learned and better obey her decisions.
- The older son is still very regulated by her, cause he takes advantage of not being monitored and plays games that he is not allowed to play or watches music videos that she does not approve (like hip hop videos with scantily clad women in bikinis etc.).
- As a control method the mother uses the search history in YouTube and Google to monitor her children's Internet activities, especially the ones of her older son. She told the children about this. CH07m37: "That's how I prevent him from doing silly [unsuitable] things on the Internet." It is unclear if any of the children know how to delete the search history.
- Mother does not like to be the "bad cop" by taking devices away from them but she says it doesn't work any other way cause they don't know when to stop and especially the older brother couldn't handle it. At the same time she is afraid of her older son's reaction if she bans digital media completely, so she lets him play sometimes.
- NEW: Tablet PC and Smartphone are now password protected, the children don't know the password.
- NEW: Mother has loosened up with the focus girl and the middle brother, since she trusts them using digital devices in a responsible manner.
- The mother fosters digital learning activities. E.g. she installed an app to help studying French and the math app "Blitzrechnen" for CH07b10 on her phone. He also uses "Antolin".

Perceptions

Mother:

- The mother finds digital activities like watching TV suitable for children, even when they are little. CH07m37: "When CH07b12 was three years old we did not have a TV. I always wished that he could watch a bit of TV for relaxation. [...] I think there are good, suitable TV shows for children that foster the development of language."

- She mentions that digital activities can create family harmony. When they watch a movie altogether or a documentary, they can all peacefully enjoy time together.
- At the same time she sees digital media as source of tragic outcomes due to its possessive character. So she considers shooter games responsible for increasing her son's aggressive behaviour towards herself and her children. Also she points out the far-reaching consequences of Internet phenomena like "blue whale" (an Internet challenge that ultimately lead numerous teenagers worldwide to commit suicide).
- The mother is worried about the influence of digital media regarding the development of opinion and values. Especially her oldest son is fascinated by some YouTubers and tries to copy their (expensive) style, opinions or interests.
- For the mother digital media time is when the kids are asleep, when she has time for herself. She uses it mainly for communication and relaxation. For her the smartphone means "staying in contact with the world". This way she can hold contact with her friends and family, which is especially important for her as an immigrant. She also enjoys watching a movie or TV series.

Focus girl:

- She does not understand why/how watching TV or using digital devices could bear any harm for children and finds her mother's restrictions "mean". She can not imagine possible problems/endangerments or advantages (e.g. for learning) related to new media devices.
- The TV seems to be her Comfort zone. Snuggled up in a corner of the couch she seems to feel in peace from her aggressive brother.

Interesting Extras:

- Perception of own child as low, medium or high user is subjective. The mother rates the screen time allowance for her children rather low. In comparison with other families they have quite a lot of screen time.
- When playing computer games, the older son manages to concentrate for hours, which doesn't work well for other activities. Nevertheless the mother feels like the shooter games make his aggressive behaviour even worse, so she intervenes a lot.
- The brother's aggressiveness has been the major source of disturbance for the family. Digital devices play a big role, on one hand as a momentary peace maker (keeps him busy and focused, gives the other family members a

break), on the other hand the digital activities make him even more aggressive.

- The focus girl is very taciturn during the interview, her answers are noticeably short and quiet, mostly she just nods or shakes her head as an answer. During the ice-breaker the mother and her middle brother do most of the talking. During the interview, when asked for assumed reasons, why something is the way it is or why she likes something she mostly replies “I don’t know”. It is hard to tell which activities she is really enthusiastic about.
- She craves TV use (similar to last year).
- NEW: Sometimes when the mother is out of the house for a bit, she and her brother (CH07b10) secretly watch TV, even though they know it is forbidden.

-> Hypothesis of “Why”

- Digital media seems to be the best working source of peace for the troubled family. Consuming media together creates moments of peace and fun for all family members together that do not happen any other way (it calms down CH07b12, the other two siblings and the mother can relax and they can all have happy moments together as a family watching a movie or a video) -> digital media functions as “digital pacifier”
- A very restrictive mediation seems to be the only doable option for the mother. She is overwhelmed with the situation with her aggressive son and has not much resources for differentiated digital mediation. Mother does not like to be the “bad cop” (CH07m37: “I became this way”) but heavy restriction and strict rules seem to be the only way for her to manage the situation.
- The mother is also very restrictive about content that contains intimacy or certain body parts (like music videos with women dressed in bikinis, or a couple in love that kisses, like seen in an ad for Parship, a serious dating platform). She reported that her kids look away when something like this pops up, “because they know that I don’t want them to see grown-up stuff like this.” (CH07m37). The children obey her but do not necessarily understand why they are not allowed to see content like this. CH07b12: “I am a young adult, I am 12 years old!”
- The mother still sees them as children, even though two are already in their teenage years and are curious about certain topics relevant at that age. It seems like the mother’s restrictiveness hinders the children to slowly develop a balanced and healthy handling of content, which they will be exposed to on their own sooner or later. CH07m37: “This is grown-up content and you are children.”

- Mother uses digital media as reward/punishment. Sometimes she bans one or two of the siblings from TV use for example according to who behaved well and who didn't (mostly the older brother, who has a lot of problems according to his ADHD, gets banned from a movie and has to stay in his room while the others are watching). Sometimes she restricts media use as a general punishment for all the siblings.
- Also the allowance of a personal smartphone is bound to good grades and reaching a certain goal.
- The stressful situation with CH07b12 seems to limit the room for peaceful or creative activities for the focus girl and her 10 year old brother. Also the older brother happens to break/damage their devices (like laptop, Kidizoom, etc.). The girl seems to react introversive by becoming silent and seeking peace in front of the TV. CH07b10, who reacts more extraverted and tries to fight back CH07b12, prefers more active digital activities like playing computer games, he is also quite successful in athletic sports and takes sports classes every week. Possibly because this behaviour allows him to act out some of his aggressions as reaction to CH07b12.
- Not being part of a stable social group and having more of an impulsive behaviour, CH07b12 seems likely to be more vulnerable for being influenced by the digital media in terms of the formation of opinion and values.

QUOTES:

CH07m37: "If he gets into the best class by the end of the year, I will give him a mobile phone, otherwise not. If he does not study for school, why should I give him a phone?"

CH07m37: "The kids are craving digital devices, that is why I don't give it to them very often. I know they don't get to use digital devices much and that they are not happy about it, but..."

CH07m37: Digital devices can also improve the family harmony. For example when we all sit together and watch a movie I feel lighter and happier and the kids do too. Also when I show them a funny video that I got on WhatsApp we all laugh and are positive together.

CH07m37: "Children are loud when they play or cry, but not when they watch TV, then they are calm for hours. But I don't let them much, not even if I have a migraine."

Interviewer: “What do you think about the idea, that you children will only get a smartphone when you have good enough grades?”

CH07fg7: “Sad”.

Interviewer: “Why sad?”

CH07fg7: “I think my oldest brother should get one too. Otherwise he is going to get mad. He threatened that he will destroy my other brother’s phone.”

4. Findings

4.1 How did the engagement of young children with new (online) technologies evolve over the course of one year?

The findings of the follow-up study show that the use of digital technologies of the children in the Swiss study has changed due to several different aspects:

- **Availability of digital devices** at home and with other care givers.
- **Development of literacy skills**
- **Personal interests and needs**
- **Changes in mediation/allowances of the parents**

Children's usage and learning is dependent on the specific range of digital devices that is available in their family and social environment at the moment. The separation of parents can bring in new digital devices for the child ("guilty presents") or new ways of mediation through a new partner.

Screen time. For most of the children in the Swiss sample the screen time has slightly increased overall, partly due to the computer activities in school which gradually increase with each school year. But also on the individual level the children's screen time has increased for various reasons.

Availability of Devices. Unchanged from last year the children live in media rich households. Most common is still the smartphone (in 5 of 5 families every grown-up owns at least one smartphone, plus old smartphones). Followed by tablet PC (5 of 5), laptop or PC (3 of 5) and TV (3 of 5). Every household has one or more devices to play Music and/or audiobooks, like CD-players. Within the last year some devices have been abandoned or put away, mostly because they broke (CH07: laptop, game console) or got superseded by new digital devices (CH06fg8's separated father: Smart TV). Some devices were actively put away by parents to stop the children from using it (CH07fg7's separated father got rid of his TV) or because they were found useless for the kids or annoying for the parents, like an interactive microphone (CH06fg8) or an *iPod* (CH01fg9). Some devices were simply not interesting enough anymore due to the development of the child and got abandoned like a kid's tablet PC (CH07fg7) or an *iPod* (CH02fb8).

Also some families had new additions to the household (family CH07: DVD player; family CH02: tablet PC) or for the children (Family CH01: *Toni Box*; family CH06fg8: *Kidizoom*; family CH07fg7: *Kidizoom*, *Kidisecret*; CH02fb8: digital watch, *PlayStation*). New devices for children mostly came as presents for birthdays or Christmas.

The acquisition of new devices for the parents within the last year has been rather modest. Some smartphones got substituted. CH01m44 replaced her old smartphone with a *Fairphone*, when it didn't work properly anymore. CH06m34 got a new phone from her service provider as part of her phone plan, but ended up not using it, because she liked her old phone better.

Overall the findings show that children are excited about brand new devices, mainly because they are faster, more interesting and/or have a bigger screen (CH06fg8 for example seems quite excited about her father's new smart TV). A fact that the parents of CH01fg9 play on as part of their mediation: they simply do not update their tablet PC to keep it slow, which makes it less interesting for their children.

“New” used devices. Also used devices which are not brand new but new to the children spark excitement. 2 of 5 focus children now get to use their mother's old/unused smartphones (without SIM card). CH01fg9 can use it to listen to music and audiobooks, CH06fg8 can use it for some game apps. Both claim ownership over the phone, even though the parents still control the use and they do not have the devices in their rooms. Also CH06fg8 is excited about her second hand kid's camera (*Kidizoom*) that she inherited from an older child.

Changes within the family structure or living situation seem to be main factor for changes in the range of available digital devices. In case of CH02fb8 (who already owned a lot of devices on his own last year) the breakup of the parents seems to have brought some new devices into the kid's room (PlayStation, digital watch) and he already has other devices in mind that he would like to get in the future (like the portable PlayStation he had currently borrowed from a friend). Also his mother got herself a tablet PC that he can use now.

In CH06fg8's case a change of the social context (they moved into another home with new housemates) also brought a change for the devices available to her, since she used to play some computer games with her former housemate (on his tablet PC and PC), an interaction that she really misses. Her new housemate also owns a tablet PC without games on it, but she can use sometimes to listen to audiobooks or music by herself.

TV not overly popular in Swiss sample. For the majority of the Swiss sample (all parents had higher education) the TV did not play a big role for the core families. 2 families did not (want to) have a TV at home (CH02, CH06). Family CH01 and CH05 own a TV but it gets rarely used and is not object of desire for the children.

In family CH07 the TV plays a major role in the family's and the focus child's digital life. It is regularly used by the single mother and the three children (when they are allowed), and it's also the favourite device and object of desire for the focus child.

CH06fg8 gets to watch TV only together with her father at his place, she also gets to watch video clips on her own and is quite fascinated by the possibilities of a smart

TV (like to save videos on it etc.). She does not claim watching TV as her favourite activity but it impresses her enough to tell her mother about new things she has seen/learned.

For most of the children watching videos on YouTube is more popular than watching TV. One reason might be that all children know how to handle the YouTube app or Website but most still have problems with turning on the TV themselves. Also the tablet PC and Smartphone are popular devices for watching videos because they are so flexible in their handling and can be used anywhere. Another reason might be the independence from a linear TV program, that makes videos on YouTube more convenient for both children and parents.

Activities & Interests. The children have broadened their activity range according to additions of devices (like a smart TV instead of a regular TV) and services (like Spotify) to the household. Also some of them have expanded to more advanced activities on already existing devices that became more interesting due to the children's improved literacy and handling skills. On an individual level activities also have shifted due to personal interests.

Just like with traditional toys, children mainly want to have fun with digital devices. In three cases the favourite digital activities also seem to fill a void of emotional comfort (CH07fg7, CH02fb8), respectively social interaction (CH05fb7).

Tablet PC as fun all-rounder. As a universal source for fun the tablet PC still ranks under the top two for all children except CH02fb8, especially watching series/videos on YouTube, which two children named as their favourite activity (CH01fg9 and CH06fg8).

Console games. Two children shifted their favourite activities to console games. CH02fb8 was already a high user last year and his screen time has increased even more. He has most of the devices at his disposal respectively his parents allow the most screen time of the sample. He typically uses digital devices several times throughout the day and plays console games (PlayStation, Wii) for (several) hours straight on the weekends. His favourites are the portable and fixed game console. He likes them because they have the most interesting games and a big screen. His range of digital and especially traditional activities has narrowed significantly in favor of focusing more on console games and his skills have improved to a more challenging level (Zelda, Mario etc.). His online/offline life is very unbalanced: All 4 activities that he "likes a lot" (it were 10 in 2016) are digital and of the six activities he "likes ok" only one is non-digital. Also when meeting his friend they game for hours. Outdoor activities he finds "ok" and traditional toys he finds "a little boring".

The other high user in the sample, CH05fb7, changed his preference to the Wii (last year: tablet PC). He loves to play adventure games like "Lego Police Station" on it. As advantage of the device he points out that it makes it possible to play games together with a friend. The way he describes the solo interaction with the video

game (it “talks” to him), the device seems to fulfil his longing for social interaction. He is also still very attached to his tablet PC, which is his constant companion when at home, mostly playing a “background noise” for most other activities. For him the attachment to digital media seems to be more out of a lack of social alternatives because the mother’s lack of time. Other than CH02fb8, if given the opportunity, CH05fb7 would choose playing outside or doing sports with friends or his mother over playing with digital media.

CH05m43 quoting her son: “Mom, can you play with me? I don’t want to be alone all the time.”

TV. Watching TV still is CH07fg7’s (medium user) favourite activity and she would watch a lot more if the mother allowed it. It seems to be her emotional safe place. The stressful situation due to the family conflicts with the oldest (aggressive) brother seem to take a toll on her, she appeared very intimidated. Sitting in front of the TV, cuddled up in a blanket seems to be the only activity during which she feels comfortable and safe. Kidizoom used to be another favourite device of hers, which doesn’t work well anymore because her brother damaged it (like several other toys). Her mother has slightly loosened the media restrictions for her and her middle brother, so her screen time overall might have slightly increased since last year. Her online/offline preferences depend on the weather. In summer she would love to go to the swimming pool, but when its cold out she would prefer TV over any other activities.

Tablet PC. Low-medium user (used to be a low user) CH06fg8 states the tablet PC as favourite device, even though she can’t use it much anymore, only sometimes to listen to audio books/music. She really misses playing the games “Samorost” and “Monument Valley” with her former housemate, an activity she gets to do much less since they moved. Her last year’s favourite, the smartphone, now ranks on second place. Her smartphone use has slightly increased within the last year, which might be due to the fact that she “inherited” her mother’s unused phone which she gets to use at home. Her favourite app is “My Angela”, in which one she has to take care of a comic cat, feed and groom her, put make-up on her etc. CH06fg8: “I like that I have to take care of her. It’s just fun.” She is broadly interested in many non-digital and social activities and would mostly pick them over digital activities.

Low user CH01fg9, still likes the tablet PC best due to its universal possibilities and easy handling. As second favourite she claims the smartphone. She is very excited she will get a SIM card for her mother’s old phone in three years. Her interest in learning apps (which do not “count” as screen time) has slightly increased, whereas the time she spends on fun content rather remained stable. She has a broad range of non-digital interests and would pick outdoor and social activities over digital media anytime.

Every care taker brings in opportunities for digital activities. With every care taker come potential digital devices (at least a smartphone) and additional

screen time that is practically impossible to be controlled by parents. For example CH06fg8's use in general has increased over the year. She spends time at multiple places/with different care takers (father, mother, babysitter, both grandparents, current housemates, ex-housemates), who all bring in digital devices, and – according to CH06fg8 – she all uses. Her mother tries to regulate the screen time for example by informing the babysitter since last year especially her smartphone use has increased and her handling of game apps has improved.

New devices and services offer opportunities to improve digital skills. The addition of new devices or services to the household also mean a broadening of the child's digital range, because sooner or later it will get in touch with it even if only by seeing the parent using it. CH06fg8 and her mother have recently discovered Spotify as a source for kid's audio books. The girl now can use her mother's phone or her roommates tablet PC to browse Spotify on her own for audio books or music she wants to listen to.

The youngest child in the sample, CH05fb7, just started 1st grade therefore his reading and writing skills had not advanced much since last year. He was the most constant of the sample, there were no drops or additions of devices and only slight changes in activities. His mother reported no advances in handling skills. His activities were still mainly watching series on the YouTube app, some jump'n'run games on his tablet PC and adventure games on the Wii (e.g. Lego Police Station). The use of the Wii has increased, possibly due to the social factor, since he seems to feel a bit lonely and would like to play more with other kids or his mother, who is very engaged with her job. CH05fb7: “Because the games take longer and sometimes they [the character] talk to me [...] and sometimes I play it together with my friends”.

Correlation of emotional cravings and audiovisual content. High use / craving of certain digital activities (involving both visual and auditive senses) has been identified as a response to emotional imbalance in three cases, like the need for social interaction (CH05fb7, high user) or fear (CH06fg8, medium user but craving more). In CH02fb8's case, mother and son were still adapting to the new family situation after the separation. The son's excessive gaming might have been an attempted escape from difficult emotions due to the situation. His screen time had increased since last year and the follow-up interview suggested signs of addiction. According to their statements he also used to bring his devices when visiting his mother on the weekends and spent hours of their time together playing by himself on the console. The mother said she did not appreciate it but gave allowance in order to please his wishes in the situation. She also seems very preoccupied with adapting emotionally to the situation herself.

Activities that combine video and audio absorb more senses and therefore seem to be more likely to offer an escape from reality, which might explain the children's preference for video-based stimulation.

Improved reading and writing skills broaden the children's possibilities and enhance autonomy from their parents in handling the devices. Also the school system incorporates digital devices such as PCs in the curriculum, so more children of the sample (all except CH05fb7) got introduced to computer work at school and for home work (e.g. "Antolin", "Blitzrechnen"), which made them improve their handling skills. The 2nd and 3rd graders of the sample (CH01fg9, CH02fb8, CH06fg8, CH07fg7) got better at navigating through games or YouTube that they needed help with last year. CH01fg9 and CH02fb8 were already in 3rd grade and their literacy skills were the most advanced in the sample. Especially CH01fg7/9 (screen time is similar to last year) seems to have benefited from her enhanced literacy skills. The range of activities has diversified on a qualitative level. Fostered by her mother she started using a word processing program (Microsoft Word) to create and combine text and pictures (she created her own birthday invitation). She is eager to learn and challenge herself and also plays learning apps that she only "likes ok" in order to improve her math or writing skills. Also CH02fb8's reading skills had improved, which possibly allowed him to become faster in reacting to instructions in the games etc. 1st grader CH05fb7 is still less autonomous and sometimes asks his mother for assistance in understanding instructions.

Reverse mediation. The increase of children's skills also has led to some cases of reverse mediation. CH02fb8 taught his father how to game on the console (but considers him to be still pretty bad at it). In CH06fg8's case it is more a sharing activity. She likes to share information with her mother about what she has learned in the TV shows or documentaries, she has watched at her father's place, or to show her how game apps work that she got introduced to by her babysitter. The daughter knows that her mother is not really interested in the apps, but she keeps coming back to share things with her anyways.

Family dynamics. The ways of digital mediation seem to have stayed relatively consistent in the families. There are no fix rules concerning screen-time in place, it still works on an ask-the-parent-basis. During the school week there is not much time for screen time, apart from a time window in the evening. Most screen time happens during the weekend and holidays (high users CH02fb8 and CH05fb7 who use digital media even in the mornings are the exception).

In two cases the dynamics have changed according to the decrease of stability within the families. CH02 and CH07 have experienced changes due to the separation of parents (CH02) and the increase of problems through the aggression of a family member (CH07). In case of CH02 the implicit allowances for screen time seem to have expanded. The mother subjectively does not feel like she allows more screen time, but it seems that she intervenes less when the boy just use devices without asking, like watching movies on the tablet PC in the morning when the mother is still in bed (in the shared room). In case of CH07 the mother has become even more restrictive. "Movie night", a family activity they used to have Friday nights, has not happened in quite a while. The mother had repeatedly cancelled it because there

had been too much trouble with the children (mostly the oldest son) during the week.

Within the other families no major changes have been identified.

Parents. Most of the parents in the Swiss sample still use digital devices on a daily basis, since they form the basis of daily communication, work related tasks and practical services. The smartphone and the laptop/PC are the most commonly used devices.

Due to their exposure to digital devices at work many parents try to actively diminish their own screen time in their leisure time. Some parents also purposely try to set a good example for the children by keeping their own screen time low and a conscious smartphone handling like not having it present at all times (CH01m44, CH06m34, CH07m37.) CH05m43 and CH06m34 both are not very interested in digital activities in their spare time. CH01f44 and CH07m37 mentioned watching TV as a form of relaxation, CH02m34 likes to play with free game apps on her tablet PC and smartphone. Some parents have Facebook or social media accounts but most are inactive (CH07m37 still uses it to stay in touch with family in her country of origin).

4.2 How did the perceptions of the new (online) technologies by the different family members evolve in the course of a year?

Children want to have fun with the devices. What has not changed for the children is the perception of digital devices mainly as a source of fun. Some of them also perceive them as tools to learn, such as certain distinct learning apps. Also they are aware that digital services, such as Google, bear knowledge.

Idea of ownership for smartphones has emerged. For a few children the smell of owning a smartphone is “in the air”, since they already can use an old/unused smartphone of their parents (CH01, CH07) or know they will get one in the future (CH07).

Imagination of being a grown-up. CH01fg9, who knows she will get her own phone with SIM card in three years, considers a smartphone **the** grown-up device. She is looking forward to being able to autonomously communicate with her friends.

More distinguished ways of expression. Due to their literacy development the children’s perceptions were expressed more distinguished than last year. Whereas last year devices were described as “I don’t know, I just really like it”, in this year’s interviews the children could express better why they particularly like about a certain device/activity.

Future challenges of online devices. Parents’ perceptions of the devices in their kids’ lives seem to have changed in the way that the challenges they will have to

handle in the future have emerged. Children continue to gain more and more autonomy in handling the devices and have increasing demands for their “own” devices that potentially access the Internet. Two of the five children already “own” a smartphone without Internet access, several parents already discussed with their children when they will get a web-enabled smartphone. The parents anticipate this will be a major change and have rough ideas about how they will be handling the mediation but also know that it will be a challenge.

Content concerns. Some parents voiced misgivings about certain digital and online content in regards to the development of opinion and values of their children (CH06, CH07).

For example CH06m34 finds that some games that her daughter plays not only are dumb and completely lack educational value but she also criticises the gender stereotypes that get played on in games and apps in general:

“This trivial game where you put make-up on a cat. What kind of message does that send? Who is the target group for that and what is the sense of the game? [...] I engage a lot in gender and feministic topics and my hair stands on end pretty quickly. I find it important to address that with her.”

Online content and parents’ concerns. Most of the children in the sample still do not initiate online activities autonomously like for example starting up the web browser by themselves. Some of them do however browse online content on their own once they set it up with their parents. For the majority of the children the online content they use is still self-contained within a certain service, like *Kidzsearch* (Wikipedia for kids) or *YouTube*. Also most of them enter the contents through an app, not through the web browser. Using *Google* was not reported as an activity that children do autonomously yet. Therefore the perception of most parents concerning risks related to age-unsuitable online content has remained similar to last year.

The parents’ perceptions of what precarious content for children is, vary vastly. CH07m37 for example does not want her children (8-12 years) to see intimacy in form of a grown-up couple exchanging a kiss (as seen in a TV ad for *Parship*, a serious dating site). Whereas CH02m34 reported that her son occasionally gets to see pop-up ads with porn content when browsing a free movie streaming portal.

CH07m37, also raised concerns about the seductive power of Internet content which she finds hard to control by parents. She was very alerted by the *blue whale phenomenon* (an Internet challenge popular in 2017 that led to the suicide of several teenagers all over the world and also one in her home town in the country of origin.) She is also very critical towards YouTube content that addresses superficial styling content, that her oldest son is very fascinated about and tries to copy them in order to “feel part of it” (CH07m37). Also she believes that brutal game content has a negative effect on children’s behaviour:

CH07m37: “Sometimes I also delete apps when I find it the content not good for his age, like these games with guns and blood, they can influence your behaviour.”

Endlessness of online content. CH06m34 has started using Spotify as a source for music and introduced her daughter to it. Through a friend they discovered the kids’ media section which made the mother realize that there is basically an endless amount of audio books for children available which her daughter now uses instead of getting audio books from the library. She stated that *Spotify* on her phone has partly replaced the CD-player.

CH06m34: “Kids audio books on Spotify is like a whole new universe (laughs)!”

TV as harmonizing factor for family life. In troubled family CH07 video based activities seem to function as the only source of harmony and peace for the entire family:

CH07m37: “Digital devices can also improve the family harmony. For example when we all sit together and watch a movie I feel lighter and happier and the kids do too. Also when I show them a funny video that I got on WhatsApp we all laugh and are positive together.”

CH07m37: “Children are loud when they play or cry, but not when they watch TV, then they are calm for hours. But I don’t let them much, not even if I have a migraine.”

Part of the child care concept. CH05m43 more or less relies on digital devices as a baby sitter in order to manage the household tasks. She knows her son gets too much screen time but cannot think of a different solution at the moment (also see chapter 4.4).

4.3 How did parents’ mediation of young children’s use of (online) technologies evolve over the course of a year?

Mediation strategies stayed mainly consistent since last year, depending on the personal attitudes and resources parents can or want to allocate to (digital) education, strategies are more permissive, restrictive or authoritarian. Last year’s findings already pointed out that separated/single parents were more likely to struggle in finding a balanced media education for their children (CH05, CH07). As already reported earlier (3.1. family dynamics), in two cases the restrictive (CH07) respectively permissive (CH02) pattern has partly enhanced for different reasons.

Permissive. Mother of CH05, who has no support from the father of the child at all also still implements a rather permissive approach and does not see an alternative at the moment, since she is fully occupied with her job.

Interviewer: “What do you think keeps you from implementing a leaner digital media consumption?”

CH05m43: “Convenience. For sure there would be lots of conflicts in the beginning until he adapted to new, stricter rules etc. It would be very hard to turn this around, it would cost a lot of nerves and discipline. I don’t think I could work up the necessary energy after a long day at work to stay consistent.”

She reports her new partner to be a positive, counterbalancing factor in her son’s digital mediation. He also engages with her son and is more consistent in implementing rules like “no tablet PC at the dinner table”. Also he refuses to play card or board games with CH05fb7 as long as the tablet PC is running on the side.

Permissive/autonomous. Also CH02m34 is generous with screen time for her 8 year old son. She believes in a self-determined approach and trusts that her son “knows what is good for him” and when he needs to stop.

“He always has access to everything [meaning digital devices] and maybe that’s why there is no need for him to develop an extremism about it [...]”

At the same time she reports of incidents where he was absolutely exhausted from playing the console but only stopped when she told him to. Overall he shows media overuse with addictive tendencies.

When it comes to mediating content CH02m34 does not believe in pre-selecting kid’s content (e.g. through age filter functions on YouTube) because this would suggest an uninformed quasi-safety. She would rather have her son learn to distinguish between suitable and unsuitable content himself. Since they only use free streaming portals for watching movies the boy eventually happens to see pop-up porn ads. She reports that she and the father try to prevent him from seeing the screen until they set up the movie but do not avoid the streaming portals completely.

She still seems quite preoccupied with the emotional situation herself, is very self-critical and tries to find a good solution for her and her son. Nevertheless it seems like she underestimates his digital overuse as well as overestimates his ability to regulate his screen time autonomously.

Restrictive. As pointed out before the troubles within family CH07 have aggravated. The mother seems overwhelmed alone with three children, two of them in their teenage years. She gets support from a social worker and a therapist but she and the children are quite exhausted. She even decided to put her oldest son back on Ritalin after a year of no medication (ADHD), because she does not see an alternative. With the digital mediation of her oldest son she has become even more restrictive, with the two younger children she has loosened up a little. She also trusts them to watch TV by themselves sometimes and believes they keep the time allowance autonomously. Her tablet PC and smartphone are now password protected. The daughter often does not understand her mother’s decisions and finds

her restriction simply “mean” (CH07fg7). She shows strong cravings for watching TV.

Digital devices as a reward for good grades. CH07m37 promised her children their own smartphone, as reward for very good grades in school. A strategy which seem to aggravate the trouble for/with her oldest son, since he knows he probably won’t be able to have as good grades as his siblings.

CH07m37: “If he does not study for school, why should I give him a phone?”

Interestingly her daughter does not think this strategy is a good idea:

Interviewer: “What do you think about the idea, that you children will only get a smartphone when you have good enough grades?”

CH07fg7: “Sad”.

Interviewer: “Why sad?”

CH07fg7: “I think my oldest brother should get one too. Otherwise he is going to get mad. He threatened that he will destroy my other brother’s phone.”

Keeping devices slow. Children prefer newer, faster devices. A fact that the parents of CH01fg9 play on as part of their mediation: they simply do not update their tablet PC to keep it slow, which makes it less interesting for their children.

Room for constructive discussion. CH06: authoritative in terms that she talks about a lot of topics with her daughter (regarding all kinds of developmental issues) and also fosters critical discussions about the digital activities the daughter wants to do. The mother also does not simply forbid activities her daughter wants to play, even if she does not understand why her daughter finds it funny: “It [the game] is so dumb [...] but I don’t think it’s going to harm her if she plays it once a week, so... But I really don’t want to engage in the activity.” Since the mother is not very interested in digital media herself, she admits that she implicitly likes to hand over the responsibility for her daughter’s media education to other care givers, such as her former roommate. The interviews show that the daughter probably gets more screen time than the mother realizes, since CH06fg8 gets to use digital devices with all the other care takers, too.

Offering non-digital alternatives. CH06m34’s broad interest in social and outdoor activities also functions as a regulation strategy. She engages in various non-digital activities with her daughter, they go outdoors, to cultural events, meet friends etc.

A healthy media education takes time and resources. Low user CH01fg9 and low-medium user CH06fg8 both seem emotionally stable and seem to have a good balance between traditional activities alone, with peers, their parents and digital activities. Their parents (in CH06fg8’s case her single mother) seem to be resourceful and take the time for a differentiated, well-balanced mediation of digital activities. A resource, that the other single parents in the sample do not seem to

have. CH07fg7' single mother seems to be overwhelmed with the troubles and fear caused by her oldest child. CH02fb8's mother still seems to be preoccupied with the reorganization of her private and work life after the recent separation from her partner and her part-time separation from her son due to the new living situation. CH05fb7's single mother, who has no support from her son's father, is even more occupied with her job this year, since she is trying to build up her own firm. She therefore has little time and energy resources to invest in spending time with her son or his media education.

Overall the results suggest once more that digital mediation, just like education in general, take resources and engagement from the parents. Conflicts concerning media use are reported less in families with permissive strategies than in other families, who engage in keeping the mediation balanced.

Perceptions of parents and children do not necessarily match. The parents' perception of how much time their children spend with digital devices (e.g. at the other parent's house, with other care takers) and what their favourite activities and devices are do not necessarily match the children's statements. Parents seem to rather underestimate their children's screen time and access to content. Alarming about this fact is that three of the children in our sample have elevated cravings for the use of digital technology, which the parents either do not notice or not presume as worrying enough to intervene.

4.4 Has the role that these new (online) technologies play in the children's and parents' lives changed over the course of a year?

Temptations. Overall the Swiss parents in our sample expressed rather cautious opinions about the importance of digital devices in their children's lives. They are aware of the temptations for digital activities with all the devices present in the household. So most of them try – with individual commitment of resources – to proactively foster traditional activities, like sports and music lessons.

Family Life. The roles digital media plays for the family life are similar to last year. In some families the children's engagement in digital activities is a necessity to give the parents time to deal with their own tasks (CH02, CH05). For CH07 digital activities (watching TV) plays an important role for the family harmony and at the same time are a major object of discussion. In other families digital activities do not play a significant role for the family life (CH01, CH06). In some of the families who try to keep the digital activities low/balanced, discussions due to digital media seem to have increased (CH06, CH07).

For CH05m43 digital devices still are a “**necessary evil**” to keep the family life functioning, they play a substantial role for the child care concept. CH05m43:

“Digital media is important to kill time.” Apart from that the mother still believes that digital devices are redundant for the development of children at this age.

As opposed to CH07m37 who believes that there are suitable digital devices and activities to support learning (like apps, PC etc.) and that qualitative TV shows, even for very young children, can foster the language development. She stated regret about the fact that she cannot allow her children to use digital devices more often (as a consequence of their own misbehaviour). She appreciates audiovisual activities like watching movies and videos as a fun way to relax and to spend happy times together as a family.

CH06m34 is also rather critical towards digital technology and finds it important to foster traditional and social activities. She also perceives digital technology as standing in the way of family activities and is worried digital activities could take time away from her time with her daughter. Nevertheless she distinguishes between useless and creative activities. She especially does not want to share her time with her daughter with “dumb” games (like “*My Angela*” that she perceives without any educational value). She actively tries to foster digital activities that she finds more beneficial, like her daughter’s foible for photography and filming, which the mother finds artistic and creative.

Children. As stated before, for the children in our sample digital devices still are part of their daily lives and mainly a source of fun. For some, digital activities have gained even more importance within the last year, as part of their emotional comfort.

Digital technology for learning. Also with the introduction of digital devices in school activities, the role of digital media seems to have broadened in children’s lives. Digital media is part of the school curriculum and digital media has increased within the first school years, even some homework tasks are digital-based. One digital activity encouraged through Swiss primary schools is “*Antolin*”, an online book quiz. It was mentioned by almost all the parents (except for CH05m43, whose son just started 1st class). Another commonly used app is “*Blitzrechnen*”, an app to help with improving in maths. Some parents had it installed on their smartphones.

CH01m41 also supports her daughter in working with the PC. She showed her how to create her own content by combining her own pictures and text to create a birthday invitation in *Microsoft Word*. Also CH07m37 installed digital learning apps on her phone for her son to use. In addition she has a vision of a digital learning device like a PC or Laptop that all her children can commonly use for homework, studying etc.

CH02m34 sees digital activities as fun, she does not find it necessary for games to contain educational content, neither for herself or her son. Her son believes that some games can help acquiring knowledge “but not the games that I play” (CH02fb8).

5. Outlook

5.1 Why might the results have turned out that way?

Separated and struggling parents as well as permissive mediation are over represented in the sample, which does not depict Swiss parents in general. The sample is also missing parents with both low income and low education.

5.2 How could the study be improved?

In economically glutted countries like Switzerland the sampling criteria would need to put more emphasis on the education of the parents than the income. Some of the recruited families are far below the economic average but highly educated (e.g. because they are currently in further education or reorienting their career).

Families, especially with lower socio-economic background, seem to have inhibitions regarding inviting researchers into their homes. The protocol should be opened to the possibility to conduct interviews with families in external facilities such as the university.

The card game is a helpful tool to give parents and children a wider range of activities and devices than they could have thought of on top of their head. Yet the card game could be improved, since there are activities and devices missing or redundant, which makes it complicated to come to a valid conclusion concerning favourite activities and to quantitatively evaluate the balance of offline and online activities. Another problem became clear when evaluating the children's card games in regard to rating the device yet meaning the activity linked to it. For example the picture of a TV can mean actual TV program for one child, and watching DVDs for another, since both contents are delivered by the same screen. This made it complicated to come to conclusions about children's favourite devices. Also picture quality could definitely be improved by choosing clearer images and prevent misunderstanding.

In order to get a comprehensive picture of the family, questions about the family's child care concept and the daily routine should be implemented in the questionnaire.

5.3 What are the methodological recommendations for future research?

The Swiss sample of the follow-up study consisted of families of different income levels but entirely with higher education (minimum Bachelor degree). Therefore the socioeconomic range of Swiss families is not represented in the sample.

Regarding the family constellations, separated families were over represented in the sample. This was mainly due to the availability and cooperation of the families who were willing to take part in the study again.

5.4 What is the future direction for research on this topic?

In order to gain a deeper understanding of the media situation within the families with children under eight it is desirable to develop a theory how certain aspects of media use are related to aspects of parenting style/gender of the child/order of the siblings/socio-economic status/level of education/media contents etc. The postulated theory and hypothesis should be tested on a large quantitative sample (N=300).

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