The digital grip of parents: an innovative study on the role of family context in youth’ digital media use.

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### Research idea
In the current study we will investigate digital media use among youth aged 8-18 in the context of the family. As parents are the most important socialization agents in children’s lives, and digital media use at early ages most often takes place at home, scientific knowledge should be obtained about how the family plays a role in youth’ digital media use. A multi-perspective (all family members) and multi-method (self-reports combined with objective measures) will be applied to obtain valid, innovative knowledge that will inform us about the development or refinement of interventions preventing the problematic use of digital media among youth. When doing so, the individual will be investigated within the family context.

### Problem and Relevance
Society has come to depend on the many advantages that digital devices bring, such as rapid access to information and instant communication. Mobile devices can be impactful and positive tools for, for example, communication with friends and family can increase through mobile phone and app use. However, preliminary evidence shows that there are also negative consequences associated with the use of digital media, potentially leading to serious cognitive, psychosocial, and physical health problems. This makes it imperative to investigate protective factors for the prevention of excessive digital media, where parents are indispensable. With the abundance of portable devices such as smartphones, laptops, and tablets, adolescents in the Netherlands report on average 7 hours and 20 minutes every day using digital media (‘MediaTijd’, 2015). The weekly internet use among 8-11 year old children has increased from ~8 hours in 2007 to ~13 hours in 2016, while 12-15 year olds use internet for over 20 hours a week. The use of digital media, such as gaming and social media use are related to the physical, mental, and social wellbeing of the user (Chassias et al., 2016; Scholes-Balog & Hemphill, 2012; Van den Eijnden, Koning, et al., 2018). Finally, the use of mobile devices, such as the smartphone, is correlated with physical issues, behavioural and cognitive problems, and mental disorders (David & Roberts, 2017; Kushlev, et al., 2016; Rebold, et al., 2016; Van der Schuur, et al., 2015; Wilmer, et al., 2017; Wolniewicz, et al., 2018). Moreover, excessive use of digital media by children is one of the most puzzling tasks for parents and educators in schools (Terras & Ramsay, 2016). While several studies have investigated how parents should guide their children to safely use the Internet (see for example the review study of Colliers et al., 2016), information on effective parenting is limited due to the fact that nearly all studies are cross-sectional, are single-informant, related to only one aspect of online behaviour (e.g. social media use) and based on self-report only.

Digital media use among youth seems to be a conceptually different kind of behaviour than many other youth behaviors, e.g. alcohol use (Koning et al., 2018), since youth may engage in screen behaviour 24/7 and therefore largely takes place in the family context. Moreover, different from other risk behaviors, the (excessive) use of screens by children can have advantages for parents, such as having more private time to relax or finish work, and parents may therefore knowingly or unconsciously encourage children’s digital media use (Geurts, de Bok, Koning, in prep; Hawi & Rupert, 2015). Currently, evidence-based knowledge about the role of parents in youth’ digital media use is lacking while there is a great need for this considering the increase in the number of agencies organizing parents’ meetings and materials on digital media use. Therefore, a better understanding of what is going on in the family setting is imperative to equip parents with the necessary tools to guide their children towards a healthy (non-excessive) use of digital media.

### Aim and research questions
The aim of this project is to gain in-depth insight into the role of family context in the (prevention of) excessive digital media use among youth aged 8-18. The research questions that will be addressed are:

- Which parenting behaviors do effectively contribute to the prevention of excessive digital media among youth?
- How do dynamic family processes (speech activity, face-to-face interaction, and physical proximity) effectively contribute to the prevention of excessive digital media use among youth?
- How is the effect of parenting and dynamic family processes on youth’ excessive digital media use different for subgroups of youth and families (moderation)?
- What are important mechanisms (e.g. self-control, social comparison processes) underlying the effect of parenting and dynamic family processes on excessive digital media use among youth (mediation)?

Together, this knowledge will guide development or refinement of intervention programs to prevent excessive digital media use among youth across all age groups.

### Approach and Methodology
We will use a family-based and multi-method approach, based on qualitative and quantitative research methodologies including online surveys, interviews, screen-time tracking software, literature data, and wearable social sensors. Currently, we are running a longitudinal study on digital media use among youth in high school; Digital Youth (DiYo). DiYo is an ongoing longitudinal study with annual measurements among around 2000 secondary school students that have participated since 2016. In the current study, a fully-family design will be applied including two parents and at least two children between 8 to 18 years. These 200 families will be...
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Institutional environment

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References


retrieved from the DiYo study first, possibly complemented with families through our network connections with MediaWisjheid, Kinder-KennisCentrum Utrecht and Stichting Opvoeden. Concepts of interest will be assessed by applying various methods, such as self-report questionnaires among children aged 8-18 as well as their parents, and the use of automatic sensing data collection tools (Olguin & Pentland, 2008), i.e. wearable social sensors in combination with a screen time tracking app (BeHapp app; Eskes et al., 2016).

Data will be collected in three ways:

1) Year 1: Among 50 families, semi-structured interviews will be conducted with one parent and one child separately. Concepts of interest are for example experiences and situations of parents and children in relation to (internet-specific) parenting, digital media (use) of the parent and child. By conducting semi-structured interviews, we get to explore in-depth experiences of parents and youth, and the meanings they attribute to these experiences. The interviews will be done based on a topic list and will be transcribed verbatim, which contributes to replication and reliability (Boeije, 2012). The results of these interviews will be used to give meaning to the role of parents as well as to provide input for the quantitative self-report measure described next.

2) Year 1 and 2: All family members will fill out online self-report questionnaires on all variables of interest three times with a 6-month interval. Variables that will be assessed are amongst others, internet-specific rules (Koning et al., 2018), parents’ self-interest in youth’ online behavior (Geurts, De Boek, Koning et al., in prep), communication, parent-child relationship, digital media use (frequency, intensity and problematic use; Van den Eijnden et al., 2018), parents’ attitudes towards digital media, perceived social media pressure, self-control, social comparison, family support.

3) Year 2: All families are asked to install a screen time tracking app and use a wearable social sensor for a period of four and two weeks respectively. This provides data on objective screen time use as well as physical proximity to other family members. The wearable social sensor can capture individual and family patterns of behavior by automatically measuring the amount of face-to-face interaction, conversational dynamics, and physical proximity to other people (Olguin & Pentland, 2008).

The PhD student (with support of master students) will visit all families to support filling out the questionnaires, encourage participation and helping out installing the screen time tracking app and wearable social sensor among the 100 participating families. In year 3 and 4, the PhD student will work on the analysis and writing of scientific papers.