

The use of smartphones within a student household

*Effects on interactions and
relationships between housemates*

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Abstract

Smartphones allow people to stay in contact with each other. At the same time smartphones provide distractions. Smartphone use can affect the fulfillment of interactions and relationships in different ways. Students are particularly vulnerable to smartphone addiction. Therefore, this study aims to understand how people who live in a student household experience the impact of smartphone use on the interactions and relationships within their house. I conducted sixteen semi-structured interviews with individuals from eight different student households. The interviews targeted students' experiences of smartphone usage during recurring activities and social interactions in student households. Within the broad range of opinions five themes emerged from the analyses: the balance between attention and distraction, mutual respect and disrespect, culture within the household, boundary conditions of smartphone acceptance, and coping techniques of dealing with the presence of smartphones. The results indicate that smartphones do affect student households in constructive as well as destructive ways. Overall, the participants reported a nuanced view on smartphone use. The theoretical and practical consequences are discussed in terms of expectancy (prescriptive and of the environment), psychological safety and boundary conditions within the house. The findings open up a new area of opportunities for further research on this subject, which has yet to be explored.

Keywords: technological paradox, phubbing, habits, student household, smartphone, smartphone addiction

Introduction

In 2013 almost 60% of the Dutch population used their smartphones to gain access to the Internet (Darcin et al., 2016). It is safe to assume that this percentage has only grown in the past few years. According to Borgmann (1984) and Druckrey (1994) technology in the Western civilization has become necessary, inconspicuous and invisible (Mick & Fournier, 1998). People rapidly implement (new) technology, like smartphones, in different aspects of their life. Nowadays, people even state that they almost cannot imagine a world without their smartphone (Anshari et al., 2016; Brown, 2013).

Although we barely notice technology anymore, its widespread use inevitably leads to technology paradoxes. For example: smartphones give people freedom, while at the same time making people depend on them. A more official definition of a paradox is that something is “both X and not-X at the same time” (Mick & Fournier, 1998, p. 125).

As such, smartphone use within a household can lead to several benefits, like access to social media almost everywhere and good habits. The easy access enables members of a household to be more informed about each other’s whereabouts, as they can easily contact one another when necessary or when they want to (Sarwar & Soomro, 2013). Smartphones can also provide subjects for conversations, for instance by talking about something you read on Facebook or the news. Moreover, smartphones may reduce the feeling of loneliness or prevent owners from getting bored (Karadağ et al., 2016).

However, bad habits regarding smartphone use may lead to less favorable effects (see Figure 1). People can get distracted easily by disruptive elements for instance which prompt device usage, like notification pop ups from chat messages or incoming calls, when they are having a conversation (Oduor et al., 2016). These disruptive elements can lead to the occurrence of phenomena like ‘phubbing’ (Abeeel, Anthéunis & Schouten, 2016) and the ‘iPhone effect’ (Misra, Cheng, Genevieve & Yuan, 2016).

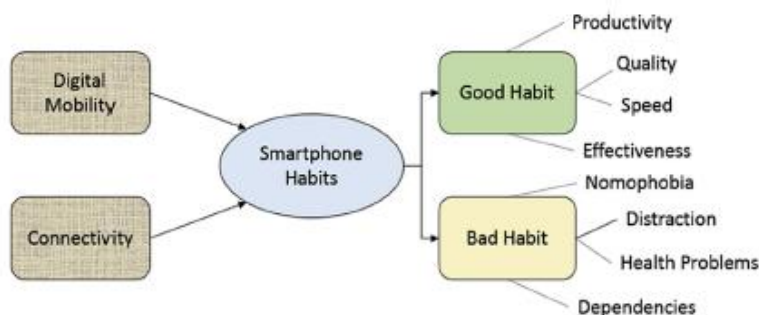


Figure 1. Smartphone habits (Anshari et al., 2016)

‘Phubbing’ (derived from ‘phone’ and ‘snubbing’) refers to “snubbing someone in a social setting by looking at your phone instead of paying attention” (Abeele et al., 2016, p. 562). This might lead to interactions of lower quality, as people are engaged in two conversations simultaneously: one on their phone and one face to face (Abeele et al., 2016), which in turn can lead to weaker relationships (Nazir & Pişkin, 2016).

The ‘iPhone effect’ can be seen as a form of ‘phubbing’ and refers to the situation where one person takes out his iPhone and the others follow, getting their phones as well. Subsequently, all conversation and eye contact is ended (Misra et al., 2016), which eventually leads to conversations being less fulfilling. This effect appears to be stronger when people are familiar with each other, for instance with family members (Misra et al., 2016), although Abeele, Antheunis and Schouten (2016) did not replicate this effect.

Although to date findings are inconclusive as to whether smartphones have a positive or negative influence (Redden & Way, 2017; Rotondi, Stanca & Tomasuolo, 2017), it is evident that smartphone use has an effect on (the surroundings of) the user to some extent (see also Oduor et al., 2016).

In current society students are often expected to use the Internet, for instance while studying (Kandell, 1998). It is thus not surprising that students use their smartphones heavily (Karadağ et al., 2016). Students are therefore a group who experience the (positive and negative) effects of a smartphone to a large extent.

The goal of this research is therefore to gain a better understanding of how students experience smartphone use and/or presence within a student household, focusing on the interactions and relationships between the housemates. Hence, the research question is as follows:

How do people who live in a student household perceive the impact of smartphone use on the interactions and relationships within their house?

Smartphone use

Although smartphone usage has noticeable negative effects, the positive effects seem to prevail as usage has grown over the years (e.g. Anshari et al., 2016; Darcin et al., 2016; Sarwar & Soomro, 2013). This growth is reinforced by the continuous development of a smartphone and the growing skills of people to handle the device. Eventually, this leads to changed cultural norms at the societal level (Sarwar & Soomro, 2013).

A body of literature suggests that it has not only been integrated within society, but also within the lives of individuals, in the form of habits (e.g. Anshari et al., 2016; Hiniker et

al., 2015; Oulasvirta, Rattenbury, Ma & Raita, 2012). Such habits can be seen as “automatic routines that people are not fully aware of while performing and impossible to avoid” (Anshari et al., 2016, p. 720) and can be positive or negative. Positive examples of smartphone habits are the productivity, speed and effectiveness it enables (Anshari et al., 2016). However, it is also argued that smartphone habits can lead to increasing smartphone use, which eventually leads to a vicious circle, making people depend on their smartphone (Oulasvirta et al., 2012). Furthermore, it was found that these habits can also cause nomophobia (Anshari et al., 2016), a phenomenon similar to *Fear of Missing Out* (FoMO) (Przybylski, Murayama, DeHaan & Gladwell, 2013), since both concern fears of not having your smartphone (or other devices) nearby. This in turn relates to the distraction of attention which a smartphone can elicit (Figure 1), since nomophobia and FoMO make it difficult to ignore your smartphone.

Another way to illustrate the positive and negative effects of smartphone use in general (and in households) is via two paradoxes. The paradoxes show a contrast of togetherness and separation, and of involvement and disengagement (Mick & Fournier, 1998).

The first paradox can be found in the ability of a smartphone to facilitate bringing people together, while at the same time causing separation. This is called the assimilation/isolation paradox (Mick & Fournier, 1998) and is confirmed by several researchers (Rotondi et al., 2017). For example an application such as Skype can facilitate the feeling of togetherness by letting people speak ‘face-to-face’ even though they are miles apart. However, several studies have also shown examples of forms of separation in family context (e.g. Hiniker et al., 2015; Sook-Jung Lee & Young-Gil Chae, 2007), where parent and child are mentally separated and/or isolated from their environment as a result from smartphone use.

The second paradox is somewhat similar to the first, but focuses more specific on facilitating involvement instead of contact. This paradox is illustrated by the use of social network sites (SNS’s), which constantly facilitate involvement, since they enable people to be more involved with each other’s lives (e.g. Facebook, Instagram, Snapchat). However, several researchers show that the use of communication technology, like a smartphone, could also lead people to be disengaged from each other (Abeele et al., 2016; Misra et al., 2016). It is therefore probable that smartphones also lead to disruptions (or passivity) in conversations between members of a household. This contradiction of involvement versus disconnection or disruption is the core of the engaging/disengaging paradox (Mick & Fournier, 1998).

Smartphone use in student households

Smartphone habits, and in some cases addiction, occur among all smartphone owners. However, teens and younger adults, like students, seem to be the most vulnerable (Anshari et al., 2016; Kandell, 1998). Sarwar and Soomro (2013) found that “37% of adults and 60% of teens admit they are highly addicted to their smartphone” (p. 218). Anshari et al. (2016) even found that 98% of their participants always or often used their smartphone at home.

Effects of smartphone addiction are similar to those of Internet addiction (e.g. Darcin et al., 2016; Kim, 2013; Kwon et al., 2013) and may for instance lead to social isolation or family conflicts (Young, Pistner, O’mara & Buchanan, 1999).

Among students smartphone use is normal and widely accepted. Moreover, they appear to be a vulnerable group with regard to addiction (Kandell, 1998). In addition to the vulnerability of students, there is a difference between the generations of adults and students or teens, which is shown in several studies. First, more teens admit to smartphone addiction (Sarwar & Soomro, 2013). Second, the young generation is more attached to their smartphone compared to the old generation (Anshari et al., 2016). Lastly, the point of view concerning online activity from adults differs from that of youth’s (Redden & Way, 2017). Therefore, this research focuses on student households.

Because of their smartphone addiction students may be using their smartphone also during social activities like dinner or while watching a movie with housemates. Findings for instance showed that 34% of teens have used their smartphone during mealtimes (as compared to 23% of adults) (Sarwar & Soomro, 2013). Not surprisingly smartphone use brings about frustrations and tensions between family members (Oduor et al., 2016). However, in a student household housemates are likely from the same generation potentially leading to greater understanding of each other’s smartphone use. Therefore, it is unsure to what extent these effects also exist in a student household. However, the contradictions of conventional use of a smartphone versus smartphone addiction and of positive versus negative effects of smartphone use do exist. Consequently, I am almost certain that students experience at least some sort of effect of smartphone use within their household.

Smartphone use, interactions and relationships

Several phenomena probably play a role in smartphone use and how, in this case, students experience it. The earlier mentioned FoMO could be an example of why students want to stay connected as it illustrates how users might be anxious to miss something interesting in other people’s lives (Przybylski et al., 2013). This might eventually lead to the

‘iPhone effect’, where other housemates get out their phone as well, which in turn ends all (face-to-face) conversation, thus making these conversations less fulfilling (Misra et al., 2016). Rontondi et al. (2016) also state that (continuous) co-presence of the smartphone, even when in silent mode, eventually limits the actual face-to-face contact. Additionally, Oduor et al. (2016) found that interactions on people’s phones are often considered more important or urgent than face-to-face conversations.

Another phenomenon with similarities to the ‘iPhone effect’ is ‘phubbing’. As mentioned in the introduction, ‘phubbing’ occurs when a person looks at his or her phone instead of paying attention to the conversation partner (Abeelee et al., 2016). The lack of eye contact that follows is often negatively interpreted by the non-phubbing person and creates a distance between the person on the smartphone and the conversation partner. Eventually, this could harm the closeness of the relationship (Nazir & Pişkin, 2016) and reduce the satisfaction of the relationship (Roberts & David, 2016).

In conclusion, studies found that co-present smartphone use leads to reduced quality of face-to-face social interactions and less satisfactory, qualitative or weaker (romantic) relationships (Abeelee et al., 2016; Roberts & David, 2016; Rotondi et al., 2017). However, there are also studies that did not find a negative effect on social attractiveness of conversation partners when they use their smartphones (Abeelee et al., 2016) or studies that found smartphones were used to enhance bonding relationships (Park & Lee, 2012) instead of weakening relationships. This confirms the inconclusiveness of some results found in this research area. The above research (implicitly) assumes that smartphone use influences social interactions. However, the possibility of reverse causality where bad relationships may cause excessive smartphone use (Abeelee et al., 2016) has to be kept in mind.

Current research

The aim of this research is to gain a better understanding of how students experience smartphone use and/or presence within a student household, focusing on the interactions and relationships between the housemates. Additionally, this research will endeavor to compare the effects of smartphone use in student households with the effects found in previous studies performed in family households.

Although a family is a representative type of household in general, it differs from a student household. The dynamics of a family often consist of two sides, parents and children, while in a student household housemates are not related and it is more acceptable for students to lead their own lives. Moreover, members of a student household are likely from the same

generation. This generation is used to the widespread use of technology, while in a family parents and children grew up with different backgrounds concerning technology. Since none or little research has yet been done into the dynamics of a student household with regard to smartphone use and presence this study opens up a new research area to explore.

To date most studies about the influence of smartphone use or smartphone addiction within the environment of a family did not take the presence of other members of that household into account. Mostly because they were concerned that involving multiple family members could worsen social tensions (e.g. Oduor et al., 2016). In addition, previous studies within a household mostly focused on the effects of smartphone use while parenting (e.g. Hiniker et al., 2015) or on the effect of technology on the rules, boundaries and roles within a family (Hertlein, 2012; Humphreys, 2005). As such, Hertlein (2012) found that parents had to redefine rules and boundaries concerning the smartphone use of their children such as in which situations they were allowed to answer their phone (Humphreys, 2005) and how they could protect their children without violating their privacy. Moreover, they struggled with implementing the new media and technology into their lives, while still maintaining and nurturing their family relationships (Hertlein, 2012). The latter is something that parents of younger children also struggle with, since a notable difference was found “in adults’ ability to be interrupted when they were and were not using phones” (Hiniker et al., 2015, p. 731). However, even though adults did not seem to be aware of this effect of smartphone use on their responses to their children, they did intentionally try to minimize their smartphone use while taking care of their children (Hiniker et al., 2015).

Additionally, the current study adds to the body of literature by exploring and understanding possible benefits (and disadvantages) that students experience from smartphone use within student households. Previous studies for example found that smartphone use could be beneficial if it was useful for the family or as a way to enjoy some alone time (Oduor et al., 2016).

Methods

Design

This explorative study followed a qualitative research approach with interpretative phenomenological analysis (IPA) (Smith, 2011) as a methodological tool. The aim was to establish how students experienced smartphone use within student households. Sixteen in-depth, semi-structured one-on-one interviews were conducted with students.

The IPA as defined by Smith (2011) was used as a guideline for the analysis in order to extract meaning from the interviews. Smith (2011) defined IPA as “concerned with the detailed examination of personal lived experience, the meaning of experience to participants and how participants make sense of that experience” (p. 9). No predefined categories were used to promote objectivity of the interviewer and to give the participants a chance to explore their own thoughts and ideas about smartphone use.

Participants

Participants were recruited via convenience sampling, such as snowballing and word of mouth. The target group for this study was students of the University of Twente or Saxion Enschede that live in a student household with at least three housemates. All participants spoke Dutch. In total 16 students (12 female, 4 male) were interviewed from 8 different households: two students volunteered per household.

Data collection and procedure

The one-on-one interviews were chosen to allow for in-depth discussion of the topics. It was also plausible that the participants would be more honest about their feelings. Participants might feel safer talking about the relationship network within their household in one-on-one interviews for example as compared to being interviewed in the presence of their housemates. Two individuals from the same household were interviewed. This way the comparison of this data (from the two individuals) would possibly reveal the relationship network and the effect of smartphones on this network even more clearly.

Prior to the interviews I drafted an interview schedule. The topics or themes of this schedule focused on three aspects. At first, the relationships within the house and eventually the effect of smartphones on these relationships. Secondly, the co-presence/co-present use of smartphones (for example during joint activities). The last aspect was about the influence of smartphones on interaction with housemates. Smith, Flowers and Larkin (2009) recommended to start the interview with questions that would make the participant feel comfortable talking. Therefore, the interview started with questions that were primarily focused on their home environment. This immediately gave a good impression about the culture and relationships within the house.

The interview schedule eventually consisted of seven different kinds of questions: descriptive (could you describe the three best relationships in the house/network?), narrative (could you tell me how you found this household/how you got your room?), evaluative (how do you feel when housemates use their smartphone in your presence?), circular (what do you

think your housemates think when you use your smartphone in their presence?), comparative (how would the network you drew change when smartphones would not be around?), prompts (can you tell me a bit more about that?) and probes (what do you mean by ‘...’?). The prompts and probes are not explicitly mentioned in the interview schedule, but were repetitively used during the interviews. An overview of the interview schedule can be found in Appendix A.

The interviews lasted from 30 minutes to 75 minutes and were held at practical places where participants felt most comfortable. Most interviews were held at the home of the participants or at the University of Twente. All places were safe (for interviewer and participant) and there were no significant interruptions during the interviews.

In order to ensure the privacy of the participant, the collected data has been made anonymous. Names, personal details and specific characterizations were altered or left out. Also, the participants were not told which other students or houses joined the study.

Analysis

The interviews were audio-recorded and transcribed verbatim before being analyzed. Before the data was further analyzed, the transcripts were read thoroughly. Next, I underlined sentences that seemed important to me, writing in the margin what seemed important in that sentence. After going through three or four interviews this way I stopped and looked back at what I wrote in the margins. From here I started identifying the open codes in the notes I made, using the abstraction and subsumption as described by Smith, Flowers and Larking (2009). Halfway through the data I consulted with an external researcher about the codes that were found so far. This was important in order to establish inter-judge reliability.

The analysis process proceeded by using the open codes that were found in the first set of interviews to code the second set of data. Whenever an important sentence emerged that was not covered by the existing codes, I repeated the process by writing what it was that made it important and went back to the data to find an open code. Examples of open codes are “dinner”, “showing interest” and “duration”. At the end I went through all the interviews again, with all the established codes to make sure all the (most) important quotes were coded correctly.

As I moved back and forth between the data and codes higher order codes seemed to emerge among the open codes that were found. These higher order codes appeared in the data as somewhat more general themes that could be divided in a small number of open codes. Examples of these higher order codes with a corresponding open code are “(missing)

conversational needs”-“attention”, “benefits”-“relaxation” and “negative effects”-“distraction”. Consequently, by using axial coding I tried to reduce the open codes by looking at the relationships and similarities the already found codes had to see what themes emerged in the highest order of the codes. To start axial coding I wrote all codes on paper and started to move them around. I drew arrows between codes I thought were similar or drew a line through the code if it did not really fit or capture the essence, when compared to the other codes. I also made sure to define all codes correctly, so that it was easily visible what each code really meant and whether there was overlap between some codes. After having moved almost all codes around several times to see which or what worked best as an umbrella term, I listed the remaining codes and themes in a table. When I finished this table I consulted with an external researcher again.

At first, three main themes were identified, under which most codes could be placed (Table 2, 3 and 4). Some codes, with quotes that had significant value for this study, could not be placed within these first three themes that were established, as they were neither positive nor negative. However, these quotes were relevant for this study. After a while two additional main themes were found under which these quotes were placed. Since these two themes were neither positive nor negative, two separate tables were made (Table 5 and 6). This way the importance of the quotes was visible without attributing a positive or negative value to the other three main themes. Table 1 shows an overview of all the main and subthemes.

Table 1
Schematic overview of the themes and subthemes

Attention-distraction	Respect-disrespect	Culture within the household	Boundary conditions of smartphone acceptance during activities	Coping with the presence of a smartphone
Focus	Understanding	Attitude	Pre-arranged activity	Ignoring use or not being bothered by it
Active participation	Real life contact	Attitude agreement	Sorts of activities	Jokes
Curiosity	Showing interest	Affording contact	- Conversation	Taking distraction away
Frequency and duration	Involvement	Relaxation	- Special house-evenings	Rules
		Shared use	- Dinner	Expectation
		Upbringing/ nurture	- Watching TV or a movie	Bringing use into perspective
		Habits	Amount of people	
		Visibility	- Activity with 2 people (1 on 1)	
		Socially acceptance	- Activity with 3 or more people	
		Household relationships		
		Ambiance		

Findings

The findings are presented as themes and subthemes, supported by quotations¹ from the participants in the tables and text. All participants' names are aliases to ensure their privacy.

Five themes play a role in how smartphone use was perceived during the in-house interactions and relationships: the balance between attention and distraction; mutual respect and disrespect; culture within the household; boundary conditions of smartphone acceptance during activities; and coping techniques for dealing with the presence of a smartphone. The first three themes could be divided in several subthemes on which a smartphone had a positive or negative effect. These themes and subthemes are shown in Table 2, 3 and 4. The themes 'attention-distraction' and 'respect-disrespect' seem to define the quality of conversations within the household. 'Culture within the household' focuses on the way of life and relationships within the household. The themes 'boundary conditions of smartphone acceptance' and 'coping with the presence of a smartphone' each have separate tables (Table 5 and 6), since they are neither positive nor negative. However, these themes both seem of importance when examining the influence of a smartphone on the interactions and relationships within a student household.

Attention-distraction

The first main theme that emerged concerned the attention that the participants or their collocutors had during a conversation and the distraction a smartphone caused (Table 2). Key subthemes were focus, active participation, curiosity, and frequency and duration.

Focus. Participants often mentioned the frustration they experienced when the focus of their collocutor was not with them during the conversation. The smartphone was seen as the cause of the loss of focus, mostly in combination with Whatsapp ("If you are having a conversation, that you do focus your attention on that conversation and that you are not busy with other stuff, like Whatsapp"; C2). Some mentioned the loss of eye contact as a signal that their collocutors focus had shifted ("You also often notice that when you are having a conversation with someone, you look each other in the eyes and that is not possible when someone watches his phone all the time"; C1).

Active participation. Focus appeared to not be the only factor needed to keep the quality of the conversation at a higher level. Participants also pointed out that active

¹ The quotations in the text are translated. The original quotations can be found in Appendix B.

participation with an activity or a conversation was a requirement. Whenever a smartphone was used during such an activity, the experience of most participants was that the collocutor was not truly present (“You are there physically, but you’re not, uhh, really in conversation with someone [when someone is using his smartphone]”; D1). I assume that active participation is needed because it shows whether someone is engaged with the people that take part in the activity or conversation.

Curiosity. While ‘curiosity’ could in some cases elicit attention towards conversations, in this case it came forward as a factor of distraction that smartphones cause during conversations and activities according to some participants. The curiosity is mostly triggered by the physical characteristics of the smartphone, like buzzing or flickering lights (“If you are having a conversation and I my phone lies on the table and you see a small light flickering then, then, then you actually automatically look at your phone like, oh, is it important or not?”; B1). However, there was also someone that stated that curiosity did not distract him or her (“I sometimes think, I don’t really do that when I’m talking with somebody [picking up my smartphone when it blinks]. Then I think, oh, it blinks, okay, I’ll take a look later”; F2).

Frequency and duration. Whether the loss of attention is accepted or experienced as disturbing often depends on the frequency and duration with which the collocutor looks at his smartphone. If one only looks at the smartphone once or twice over a long period or only momentarily, it is not experienced as disturbing (“If it is momentarily I am not super bothered by it if it happens shortly”; A2). However, when someone watches his smartphone consistently or for a longer time period it elicits frustration (“I don’t find it disturbing if it’s only for a minute, but if you’re just consistently absent because you’re using your phone, I find it annoying.”; D1).

Respect-disrespect

The second main theme described by participants concerned the respect that they received from the person(s) and that they showed to the person(s) involved with the conversation or activity (Table 3). Unlike the ‘attention-distraction’ theme, ‘respect-disrespect’ is mostly concerned with feelings that participants experienced and does not include subthemes that participants could actively and/or easily change if they wanted to.

Understanding. During the interviews participants illustrated several situations in which smartphone use was acceptable. In these cases frequency and duration did not play a role, rather the reasons for the smartphone use and whether or not the person in question was transparent about these reasons:

Table 2
Attention-distraction

Subtheme	Positive Positive effect of smartphones (on relationships and/or conversations)	Negative Negative effect of smartphones (on relationships and/or conversations)
Focus Focus on your conversational partner.		<p>“If you are looking at your phone and there is a lot happening on there or people are talking, also to you. And you are, I don’t know, sending texts, then, then, at least with me, everything goes past me and I do answer, but then it’s always semi incomplete.” – A1</p> <p>“If you’re on your phone, that your attention is with your phone and not with the person you are talking for, uhh, with” – B1</p>
Active participation Active participation or engagement in the conversation.		<p>“If there are other conversations, uhh, other people talking, and then, and you are using your smartphone, then you don’t pay attention to what they are saying and you’re actually busy with your own thing on your smartphone. And if you don’t have that, you can’t participate in a conversation.” – A2</p>
Curiosity Smartphone elicits curiosity		<p>“Because he is thus looking at his smartphone, instead of, uh, joining the conversation which is, uh, taking place, uhh, at the table.” – C2</p> <p>“Especially with your smartphone it is like, oh, who is it? Then you also think like, oh, who’d app me? Uhh, would it be important? Uhm, or wouldn’t it be? Uhh, where would it be about? And then you have that already in your head and then is that conversation, what you were having, yeah, then you’re just not focused on that conversation anymore.” – B1</p> <p>“If everything beeps and blinks and... you do get triggered by that a little, if you see a light blinking in the corner of your eye. Then you’re just curious, like what is it? Who is it? What would it be about? I think some sort of curiosity is triggered within you.” – D1</p>
Frequency and duration How often and how long a smartphone is used over a period of time	<p>“Momentary taking a look, yeah, I think that, mmm, should be possible, because if you, if you’re just having a conversation you also sometimes watch, or you – if there are multiple conversations at the same time in the living room, you also sometimes listen to another conversation” – A2</p>	<p>“Uhm, but if someone really then at that moment, then, that you’re somewhat asking a question and then for a long period looks at his phone, then you think like, yeah, why are we, am I, why am I telling this?” – A2</p> <p>“It [smartphone use] would, uhh, the, hinder the social contacts if it happens often or structural, uhh, or if it’s close to dinner time, stuff like that.” – D1</p>

Look, if they are being called by their parents, or it's really about schoolwork, they have to answer right away, I'm fine with it. But if they are going on Facebook, Instagram, or Snapchat, then I think, yeah, just wait for a minute, you can do that also 10 minutes later. (B2)

This opinion was shared by most participants: when the use concerned (important) family business or schoolwork it was okay. However, when it was about social media, the smartphone use was disapproved and the participants felt disrespected by their collocutor.

There were also participants that indicated that it did not matter to them what the others were doing on their smartphone, since they felt that that was their own business and they had nothing to do with that ("Uhh, of course I don't have to know what everybody is doing on their phone, that is your own business."; D1).

How much understanding participants could show also had to do with the reciprocity of the situation. If it concerned a situation in which the participant would also use or want to use a smartphone him- or herself, or the participant him- or herself did not really feel the need to interact, then they often understood and accepted the use:

Because then I do it too. And because, uhh, then I do not have the need for instance to talk with that person, and then I also think, oh well, then I will just let you do your own thing. (C2)

And, uhh, especially if you also don't really feel the need to talk and the person next to you doesn't either, then I think it's good, fine if someone uses his smartphone. (D1)

The same holds for the opposite: if the participant did not use their smartphone, they would like their collocutor to do the same ("I would appreciate it if the other person would do that too [putting their phone on its back], so I get the idea that that person just listens to me and really talks with me"; B2).

Real life contact. Although participants also mentioned positive effects of smartphone use within the household (see 'affording contact', 'relaxation' and 'shared use'), whenever real life contact came up numerous participants expressed their concerns and aspects of real life contact they missed:

Because the phone and, and the technique already take over a lot, you know, from, from, from the people. And then if the small things like having dinner with each other, if that is also taken over by the phone or the technology, then, uhh, you do not have any face-to-face contact with each other anymore. (C2)

Because I think that you, via your smartphone you do not always come across the way that you want to. Uhm, and if you are talking in real life, then you have more emotions. (B1)

Showing interest. Another aspect that came to light was that it is important that participants have the feeling that they are taken seriously and that they feel like their interlocutor is truly interested in them and respects them. When the person with whom they are talking is using their smartphone some indicate that this makes them feel less important than the smartphone (“I then have the feeling that that smartphone is more important at that moment than I am. And that’s not a nice feeling”; B2). However, the effect that the use of a smartphone during a conversation has on the feelings of the participant does depend on the conversation topic:

If we are having a profound conversation, then I do find it really annoying, but if we are just doing some small talk, chatting, yeah, then, then, yeah, it does not bother me that much. (B1)

At the moment that you, uhh, have a conversation about something on the phone or whatever, you know, where, whereby that phone is involved, then I do not find it disturbing, because, because then it is about that too. (C2)

Involvement. Since a relationship means the involvement of two people with each other in some way and mutual respect, it is somewhat logical that ‘involvement’ arose as a subtheme. Based on the interviews ‘involvement’ was defined as “giving someone or getting the feeling that you are involved with them”. Opinions on what influence a smartphone has on the involvement that housemates feel with each other differ. Some participants stated that they feel more involved with their housemates, because of the smartphone (“And that way it also feels like we’re really friends. I don’t feel like they’re just housemates [because of the extra

contact via smartphone]”; D2), while there were also participants who argued that without smartphones in their household the housemates would be closer with each other:

I think, if there were no smartphone, that the house would be closer, that the lines I just drew, that those would all be straight lines [good relationships]. That, that you get to know each other better, because you really talk, for real, with each other, because you do not have anybody else to talk with, you do not have a phone, so you do not have anybody else to talk, to talk to, or another person to talk with. And so you get to know each other better. And, uhm [pause] That when you be-, get to know each other better, that a closer bond may also arise. And that it is more fun in house and more cozy. (B1)

There was also someone who partially agreed with the quote above: the smartphone did indeed influence the involvement of housemates with each other in a negative way. However, this effect would only be momentarily and not have a long-lasting effect:

If, at that moment, someone is busy with his phone, then you're less involved with the others at that moment, but I don't want to say that that necessarily also has an influence in the long-term. (F2)

Lastly, one participant doubted if the smartphone had any influence on the involvement at all. She stated:

If I then ask someone something, then that person just looks up [from the smartphone] and then that person responds to me, so, you know, if I then ask for that involvement, then it will come. (C1)

Culture within the household

The third main theme that includes a positive and negative effect of the smartphone on interactions and relationships involves the culture that has been established within the student household and can be found in Table 4. Since smartphones have been present for quite some time now it is only logical that households have adapted to it. The theme ‘culture within the household’ comprises how the student households that I interviewed shaped this adjustment and how housemates deal with this smartphone presence.

Table 3
Respect-disrespect

Subtheme	Positive Positive effect of smartphones (on relationships and/or conversations)	Negative Negative effect of smartphones (on relationships and/or conversations)
Understanding Cases in which distraction/less attention is understandable (e.g. reason of use, transparency); emphasize with one using their phone Real life contact The willingness to engage in or the need to have real life contact.	<p>“If you want to send a message to someone, then I think, yeah, if that just has to happen, then you should do that, absolutely” – D2</p> <p>“I get that, yeah, that you just want to tell something to someone. That you actually also already told to the house. And yeah, I have that too, so then it should also be acceptable for someone else.” – B1</p> <p>“I think that, uhh, the relationships are actually more based on personal contact en on presence, because if you are home a lot, you experience more things with each other, and not necessarily the use of, uhh, a smartphone. So I don’t think that it would really influence the relationships.” – A2</p> <p>“I enjoy talking to someone in real life, instead of, uhh, via the app” – B1</p>	<p>“If you are then just, during just, scrolling through Facebook, while you are talking with, yeah, then I think, I find that really just not social.” – D2</p> <p>“And then I can imagine that people find it annoying if I’m using, like, my phone the whole evening.” – D1</p>
Showing interest Showing interest in the story that is told and in the person. Giving people the feeling that you take them seriously and that you’re truly interested.	<p>“If there is an important conversation, just really a serious conversation, I always put away my smartphone.” – B1</p>	<p>“It just goes slowly. If you’re already a little bit uninterested and then you look at your phone for a minute. And if you wouldn’t have that possibility you would say something sooner, or I don’t know what, then – now everybody is on their phone, so that could then be a negative influence” – A2</p> <p>“For example you’re at the table with four or five, then you have four people sitting around you, with whom you can talk and then you’ll go for instance talking on Whatsapp with someone else. Then I think, yeah, you also still have real-life contact, like, with the people next to you. Why, why wouldn’t that be possible?” – C2</p> <p>“If you are really having a decent conversation and the whole time someone is watching somewhat, uhh, or lost at his phone, then I think that looks a little uninterested or something.” – A1</p> <p>“If you would get out your phone now and you would type something, then I would get the feeling like, I’m not interesting enough for you, so why would I then even continue to talk with you?” – D2</p>
Involvement Giving someone or getting the feeling that you’re involved with them	<p>“You saw something the other time which you liked. And then, uhh, yeah, you say, oh, fun, I’ll show you, and then, well, that way you can experience, uhm, yeah, more things of what others enjoy and stuff” – A2</p>	<p>“Or… yeah, you’re just not really involved with each other anymore, or something, because you are busy with that thing [smartphone] all the time” – B2</p> <p>“I just notice that you create a distance with it, that if you just, if you are really having a conversation and you are chatting on your phone, that you create a distance with that.” – D1</p>

Attitude. Just like most people in society, almost all the students that were interviewed had an attitude towards smartphone use, in general or in the household. The attitudes of all housemates together have an influence of the culture within the household. Some attitudes had a clear positive or negative direction, for example that smartphone use was a waste of time (“Yeah, it’s also actually quite useless that you have to take pictures of everything during the day [when doing social media] and, uhh, I don’t know how many people will be seeing them”; F1). Others went in another direction and emphasized that when you are at home you should be able to do what you enjoy (including using your smartphone) without being judged:

Because it is your home. It’s important that you can also just relax and that if, at that particular moment, you don’t feel the need to talk with people, that should be okay, I think. (E1)

At last, there were also participants who stayed neutral and did not really have an attitude, for example about smartphone use in a conversation:

I: What do think about the smartphone presence in a conversation in general?
[...]

A2: Yeah, so, uhm, that indeed depends on the situation. Uhm, because to [pause] Uhh, in general, I think I have a fairly neutral opinion. (A2)

Attitude agreement. When housemates have similar attitudes about smartphone use, this could have a positive influence on the culture within the household. Most participants seemed to think that their housemates do have similar attitudes about smartphone use as they did themselves. They often based this idea on whether their housemates used their smartphones a lot as well (“I think they’re okay with it. Also because they [housemates] do it too”; A1). There was also someone who indicated that he just went with it, but that if it was up to him, smartphones would be used less within the household:

It’s also something like, if nobody would do it, then I want, like, hey, then I don’t want to be the person who is doing it, because I don’t want to, like, yeah, that sounds, that sounds really bad maybe, but I don’t necessarily want to stimulate that behavior. So then I also wouldn’t really do it. (G1)

This participant was not the only one who was not completely sure if the housemates had the same opinions, which is shown in Table 4.

Affording contact. The ability to enhance and simplify contact between housemates is, in a negative and positive way, an important aspect of smartphones within the household. Through the different social media, and especially via WhatsApp, it is easier for the housemates to stay in touch with each other, even though people are not at home:

If we're not together, that there is also sometimes chatting via the house-WhatsApp-group or something. Well, that of course also contributes to the bond with your housemates. That you stay in contact with each other for a bit, and well... (A1)

And according to some participants smartphone use not only promotes contact via social media, but also in real life encounters:

If you then, uhh, sit down on the couch after dinner. Well, now you can just get out your phone, but if I would just stare ahead of me and drink coffee, then maybe I would sooner go away and do something else, while now you sit together and also just, each other's company is also nice sometimes. (C1)

However, not all participants saw the smartphone as a solely positive thing and thought that it would be better for the communication within the household if the smartphone was not present:

But if there is, yeah, if there is no phone, yeah, I think I would rather, because I don't think it's interesting, something inter-, go look for something interesting by, like, engaging with someone in a conversation. (A1)

Relaxation. As mentioned with the code 'attitude' it was important for some participants that they were free to do what they liked, such as relaxing. One of the quotes within 'attitude' referred with 'relaxing' to 'relaxing by using the smartphone'. There are others who agree with her and also seem to use their smartphone as a form of relaxation:

Because you often on your own thing, like, on your phone are your own things. Just what you think is chill to do or something else. And, uhm, I find it nice if I'm just laying on the couch an afternoon and being able to play games, or chatting with other people. (H1)

I think it's sometimes quite nice to just stare in space without thinking about anything and just pass by everything that has happened in the world [on my smartphone], to say so. (D1)

Shared use. The interviews revealed that smartphone use was almost always enjoyed when doing it together with housemates. Although almost everyone agreed on this, there were different reasons why. Some mentioned that it could have added value during a conversation in a practical way:

Sometimes it can have added value. For instance if you are having a conversation and, uhh, you both do not know something and you really want to know, then you can just look it up on your phone and then you can, you know, continue the conversation. So it also helps the conversation sometimes. (C1)

While others put the focus more on the fun aspect or how it could help to feel closer to their housemates:

You also can share a, something, something that you experienced, like when you saw a movie or maybe it's a movie you made by yourself, then you can share it that way with someone else with whom you're having a conversation. [...] You can just show the exp-, the, the experience better to the other person. (E1)

You have things like Snapchat and then you're sitting together, you know, that may happen, that you look at these weird filters together, uhh, yeah, all crazy faces. Well, that is super fun. (G1)

Upbringing/nurture. Participants mentioned their upbringing or nurture as another important factor, which contributed to how they felt a household should be like regarding smartphone use. One of the participants for example said: “It will also have to do with your upbringing. If your parents were also on their smartphone regularly, then you’ll do that too more often” (D2). The other side was also regularly mentioned: that if your parents do not use their smartphones (for example during dinner), then you will probably not do that in your student house either.

There was also one participant who mentioned that he noticed a difference in generation already, within their household:

But with, especially with the youngest people, I do see, uhm, some sort of age difference. Uhh, there are certain thing that, you know, when I was a child, it was very normal. They don’t know that anymore. And, but I’m didn’t grow up with a smartphone. Or with a phone at all. (G1)

Habits. Within student households it seems as if smartphone use has become a habit (“Everybody is used to being on his phone”; C1). Some students even think of it as such a normality that they would or could not go back to the ‘old days’ (“Once you’re used to seeing all your messages right away and all you e-mails, you’re also less likely to, uhh, return to the old, slow age, you know”; H2). They also mostly just see it as an alternative for other technology, like TV:

It is occasionally in between, but it’s the same as when someone happens to watch TV a little instead of being a part of the conversation or something. Or, I don’t know, maybe it’s also often on. Uhm, you can just as well find a moment to quickly send a message back or to read something. (A2)

Unfortunately, this also has a negative side effect. Because most students have a habit of getting out their smartphone whenever they are bored (“I often get out my phone when I’m bored”; C1), they become reliable on their smartphone and cannot think of other activities to do if for example their housemates are not available to talk (“Well, and then someone uses the laptop or phone, and then I think, well, then I can do that too, because I don’t know what else I should do”; B2).

Visibility. Since all residents of the households of the students I interviewed had smartphones, it is only logical that these smartphones are visible within the house, laying around or being hold by the owner. For some, this presence is no problem (“It [smartphone] is on the table, this in itself is no problem”; D2), however, others think this visibility does have a (negative) influence on the culture within the household:

Very often the phone is for example, uhm, put on the table or, uhm, just visible somewhere. Then you know that the concentration actually is less in the conversation, because someone tends to go faster to the phone. (B1)

Still, there are also houses where the participants claim that smartphones are not really visible or that housemates do not use them a lot (“Actually, actually the smartphone is almost never used. Just once in a while”; D2, “I think we don’t use our phone that often within the house”; H1).

Socially acceptance. Though no explicit positive quotes were found concerning social acceptance, many participants confirm that smartphone use is overall accepted in society (“Nowadays everybody has a smartphone”; C2, “Somewhat the same as everybody wearing shoes. That normal. It [smartphone] just belongs with the, with a person”; D2). However, there were participants who doubted if this social acceptance was a good thing or not, since it is also reflected within the house:

Uhm, well, I think that a smartphone is also so inco-, incorporated in your life now, that it’s very normal to – I don’t know whether that is a good thing – but that it’s just pretty normalt hat if you’re being together for two hours, that everybody gets out their phone at some point. (D1)

Household relationships. Some of the participants indicated that they thought the relationships within the household are positively influenced by smartphone use. This was often linked to the positive reasons of ‘shared use’ and ‘affording contact’. Others thought it would be better for the in-house relationships if the smartphone was not around:

I think that B3 and B4 and B5, that their contact would get better, because you are sort of forced to talk more with each other [when a smartphone is not around] and I think that they kind of need that. (B2)

There were also a few who did not think that the smartphone had influence on the in-house relationships at all:

The first bond that, uhm, that I think has the most, and anyway for myself, that, uhh, is built by personal contact. And sometimes a, uhh, conversation via smartphone about stuff can add something extra, but if you don't have the, that first contact on a personal level, that will not really help a lot. (A2)

Ambiance. There are numerous things that could influence the ambiance in a student household. Though some participants were convinced that a smartphone is not one of these things ("I don't think that the presence of a phone, uhh, if you are near the, your housemates, that that really, yeah, would affect the ambiance or something"; C1), others believe it is:

That you, uhh, have more emotion and that it's therefore also more cozy or, or that there's a better ambiance, uhh, if you talk with each other compared to when you are looking at your phone. (C2)

Just like eye contact was mentioned with 'focus', emotion also seems to play a role in communication and the ambiance that results from this.

Boundary conditions of smartphone acceptance during activities

Overall, smartphone use within the household seemed to be accepted. However, there appear to be some boundary conditions that influence the norm of smartphone use and acceptance. These conditions all concern (the context of) an activity and can be divided in three groups: pre-arranged activity, sorts of activities, amount of people (Table 5).

Pre-arranged activity. Whether an activity was pre-arranged or not was the first boundary condition that came forward. In general, smartphone use during an activity or in the presence of housemates is accepted, provided that the activity was spontaneous or the presence of housemates was coincidental:

But yeah, it also sometimes happens when you're sitting on the couch, watching TV and you have your phone in your pocket. And then someone sits beside you, then he is also using his phone, but then you were already

Table 4
Culture within the household

Subtheme	Positive Positive effect of smartphones (on relationships and/or conversations)	Negative Negative effect of smartphones (on relationships and/or conversations)
Attitude The attitude someone has towards smartphone (use)	“I try to do it [using my smartphone] as I’d like others to do it” – C1 “It is logical that if you’re at home, you should also be able to chill and you are allowed to use your phone. So I think it’s difficult to really do something, something about it, you know” – H2	“That is also rude actually. Then, then you’re talking with someone and then – yeah, I do it too sometimes, but, yeah... That is maybe not totally okay either [laughs] You are then having a conversation with someone and in the meantime you are going to type a message.” – C2 “Actually it’s ridiculous that you experience such pressure from that thing, like, to contact everybody and keep everything running.” – D1 “I don’t hope that they, like, find it annoying. That, that, like, they think negative about this. That they find it annoying that I, like, for instance sometimes are using my smartphone. Uhh, just telling something to someone or texting someone, uhh, and that they find that super annoying.” – B1 “Because she uses her phone somewhat more. So that’s why I think she has a little bit different norms and values about it. That she thus doesn’t see it as something that, well, that can hinder the interaction here.” – E1
Attitude agreement Whether housemates have similar attitudes about smartphones	“Yeah, according to me that’s the case. I think that we all see it like that.” – D2	“If then things are, uhm, uhm, discussed about how people think about something or, uhh, how they feel about it [...] most of the time you’ll catch onto it and you unconsciously learn to know people better and if you are really using your smartphone, then, anyway, for me personally it would then, uhh, I don’t really hear what they are saying anymore.” – A2 “We can, you know, if we’re sitting at the table together you can easily communicate with everybody. You don’t need a phone for that.” – G1
Affording contact Enhancing and simplifying contact between housemates	“Sometimes it is the case that, because you have a smartphone, you start a conversation about something” – A2 “It can also be handy, if you just, for instance if you want to discuss something with a group, but also with a group that is somewhere else” – G1	
Relaxation Using the smartphone for relaxation	“I also like that sometimes, that I eat and then look at messages for a while and respond shortly.” – E2 “That everybody still, yeah still has some sort of moment for themselves, uh, and have time for themselves for a moment with their smartphones.” – G1	
Shared use Using the smartphone together with housemates	“Just the craziness you share with each other via the smartphone, that is actually also positive.” – A1	“I find it [taggen] fun when I’m for instance alone, if I for example lay in my bed by myself and I see a fun movie. Then I always like it. But if we’re sitting next to each other, I don’t necessarily need to be tagged in everything, because then, or well, just put your phone away for a while. And then, uhh, we can just watch a movie or TV or something.” – B2 “I don’t think it’s polite towards the rest to use your phone at that moment. But, that maybe also how I was raised.” – B2
Upbringing/nurture The way someone is raised with regard to smartphone use	“Maybe it is something people slowly got used to, because we also grew up with our smartphones with us” – C2 “I think that maybe you also take something with you from your parents’ house. That it is also normal there to really talk with each other and there are just no phones. So I think that that was, like, the rule at home and that you take it with you when you’re moving out.” – D1	
Habits	“I actually couldn’t be without Whatsapp anymore, or something,	“You are doing, uhh, sitting, yeah, doing something with each other or, or

The use of smartphones within a student household

(un)conscious use of smartphone	because then I think how do you discuss a lot of things? Or how do you make appointments?” – A1	actually not doing anything or drinking coffee or whatever. And then yet you all grab your smartphone and I’m guilty of that too, I know that, but actually that situation is not that different then, uhh, then at dinner. But, yeah, why we don’t do anything [<i>pause</i>] about it, I don’t really know.” – C2 “Even though you, hm, don’t really like it if other people are using their phone, you will use your phone as well. I think that everybody has that in this house.” – G2 “Everybody is always using their smartphone. I find it super annoying, but I do it too” – B1
Visibility The visibility of a smartphone in daily life and within a student household	“I do think we use our smartphones a lot in this house.” – B2 “I think that in a lot of situations where you could take a look, you’ll see that a smartphone is often used. And, therefore, that you think that it’s such a thing that is incorporated in your culture, that it’s not weird anymore if it [smartphone] suddenly lies on the table. Because you, if you look around you see them everywhere.” – D1	
Socially acceptance The way society thinks about smartphone use		“Well, that, that it seems like the whole world somewhat revolves around that smartphone and everything that happens on that smartphone and on Facebook, and Instagram, and Snapchat. And I think that people are, at least we, that we are quite busy with that.” – B2 “Our connection is not that strong, so I also don’t think that they think, oh, stupid that B2 is using her phone, because I really have to talk to her, or I really want to chat with her or something.” – B2 “I just think that in general you would know less about each other [if there were no smartphones], so that the relationships would all be less” – C1
Household relationships The way relationships and mutual bonds are shaped within the household.	“For my household I think it might be better, but... that it is better when there is a smartphone. Just because you sometimes joke with each other. Write a joke in the WhatsApp-group. And that, that you also somewhat communicate with each other with the people at home.” – D2	
Ambiance The way ambiance is influenced by smartphone use	“We also sometimes, uhh, watch all ugly selfies together with the house that someone once sent and then it is really enhancing for the ambiance, such a smartphone.” – A1 “Uhh, it can be positive that because of, uhm, uhh, by, uhm, playing some Music or, uhh, I don’t know what, that you because of that, uh, get everybody in a certain mood. That it makes it a little more cozy.” – A2	“It is of course more fun if there are not smartphones present. That you are really with each other, just like you used to be, when smartphones didn’t exist yet.” – B1 “If the ambiance isn’t that good to start with, without a smartphone it could still change for the better, however, with a smartphone people are going to look at their phones and that is actually an acceleration of the impairment of the ambiance, you know.” – H2

doing that and then you did not go there to actively socialize with someone, to say something. And then I notice that I find that a big difference. [...] I don't mind it that much to do it, like, if you're just sitting in the living room. (D1)

When it concerns a pre-arranged activity smartphone use is not appreciated:

Because with a joint activity you are really doing something together and if someone is then messaging someone else the entire time or something, thatn you do feel like, hey, participate and have fun together, you know, with the activity, instead of being on your smartphone alone. (C1)

It should be noted that not everybody acknowledged this boundary condition, since some stated that it should not really make a difference ("I don't think it matters whether we arranged something or not."; B2).

Sorts of activities. The second boundary condition concerns the sort of activity during which the smartphone is used. Four specific activities were brought to light: conversations, special house-evenings, dinner, and watching TV or a movie.

During conversations, special house-evenings and dinners smartphone use is generally not appreciated. Participants reinforced this by clearly stating they are bothered by smartphone use during these activities. It is important to note that special house-evenings and dinners are often pre-arranged activities, which is in line with the first boundary condition. Conversations appear to be a special kind of activity, since these are often coincidental or spontaneous and not pre-arranged, but smartphone use is nevertheless not appreciated:

If we're having a conversation or something, or we're just a little, I don't know, we're having a nice night, drinking a beer, and playing games, or whatever. And if for instance in that case people are using their phone, then I find it disturbing, because then, yeah, the interaction is disturbed. (A1)

Some students explained that smartphone acceptance also depends on the topic of the conversation. If someone is talking about something that is not very serious, checking your smartphone occasionally might be accepted. However, if the person is talking about something personal, smartphone use is bothersome ("Depends on what the conversation is

about. Is a conversation about personal stuff that we, like, say to each other, then I find it disturbing”; B1).

Special house-evenings are seen as a joint activity and therefore housemates just assume the need to look at ones smartphone is smaller (“I think, if we’re really just looking for fun and socializing with each other during a nice house-evening or something, that people are using their phone less, than when we’re just having a standard evening”; A1). When someone does look at his or her smartphone, this behavior is often addressed. In conclusion, as was found with the pre-arranged activities, smartphone use during a special house-evening is not appreciated.

The third activity that was mentioned was dinner. Participants describe dinner as a moment where you can easily socialize with your housemates and tell them about your day. Using a smartphone detracts of this opportunity (“Uhm, yeah, I think it would be much less social if everybody would be on their phones during dinner”; F1) and is therefore disapproved of (“You’re also just addressed. If you’re using your phone, while sitting at the table, you’re being addressed.”; G1).

With the abovementioned activities smartphone use is thus not appreciated. However, just like in any other situation, there are exceptions in which smartphone use is allowed, like family emergencies or relationship difficulties.

The last activity mentioned was watching TV or a movie. Smartphone acceptance in this case depended on the individual’s view of that activity. Some consider it to be a joint activity and thus find it annoying when people watch their smartphone, while watching a movie:

If you’re doing something together, you have to do it together, I think. And if someone then, uhm, well, also that attention again, like, if you’re constantly focusing all your attention on your phone, then you’re not focusing on the movie that you are watching together. (F2)

Others do not really care, because they argue that watching TV is not really a joint activity and the attention is already not focused on each other:

Yeah, it [smartphone use] doesn’t really bother me, but that’s more because we are then, yeah, the rest is watching TV, so then I don’t really care. (A1)

Amount of people. The last boundary condition appeared to be the amount of people present during an activity. A separation was made between activities with only two people present, so for example one-on-one conversations, and activities with three or more people present:

You are with the two of you and you two are talkin gabout stuff and you, one person is going on his smartphone out of nowhere. Yeah, that, or well, anyway, I didn't do that and also the person with whom I was didn't do that. So I think that's also a difference. If you are with two or more people. (E2)

In general participants agreed that it was not appropriate to check your smartphone when it concerns a situation with two persons in total. It was argued that in this case checking your smartphone had a noticeable effect on the ambiance:

I do notice that, the smaller the group is, and when you're eating one on one and that other person gets his phone, then it still something like, yeah, then you are left alone, you know. And then you of course notice that the ambiance is different. (D1)

However, in the specific situation where you already spent a lot of time with the other person and you have covered most of the conversational topics at hand, using your smartphone for a moment should be okay:

Imagine you are on the couch with another person, then, at some point, after two evenings or something, then there is at some point less to talk about. And you will faster take a quick look at your smartphone, and stuff like that. (A2)

When it concerned an activity with three or more people opinions were more divided. On the one hand a group has the advantage that there will always be somebody else to talk to if one person wants to use their smartphone. Some students therefore argue that smartphone use is okay, since the conversation could still continue (with someone else):

If we are for examples eating with three and, uhh, yeah E3 and I are for instance talking about something. And E6 is for example using her phone. Yeah, that also not really matters, because then are, E3 and I are just having, are just chatting for a while and E6 is using her phone, well, that's fine. (E2)

On the other hand one could argue that when someone uses the smartphone he or she withdraws from the group ("Suppose you, yeah, suppose you are sitting with a group and once person would do that [using his smartphone] of that group, then, then, then that person withdraws from the group. In my eyes"; G1). This mental absence that the smartphone use creates is not accepted by part of the students, because this too influences the ambiance.

Coping with the presence of a smartphone

The last main theme shows the way participants cope with the presence of a smartphone within their environment (or household). Seven coping strategies came to light: ignoring use or not being bothered by it, discuss use, jokes, taking distraction away, rules, expectation, and bringing use into perspective (Table 6).

Ignoring use or not being bothered by it. The seven coping strategies could be divided in two groups. In this case one group consists of coping strategies that help people to deal with smartphone use, while they do not really accept the use at that moment. The other group is 'ignoring use or not being bothered by it' in itself. This coping strategy illustrates the participants who are never really bothered by the presence of smartphones. They do not view a smartphone as something negative or distracting, neither when others occasionally check them, nor with their own use. They often have no difficulty ignoring their smartphone, when they do not feel like using it ("If I'm just having a real nice conversation with my housemates, then I do ignore my phone"; A1).

Discuss use. Discussing the smartphone use is the most direct way to address undesired smartphone use or presence within the house. Some houses discuss smartphone use in an official house meeting ("We also of course discussed this, uhh, during the housemeeting about smartphone use"; H2), but there are also students that would rather discuss it at the moment that it occurs:

Something is also being said, if you, if you then enter the room, like, but, and that can, and that can really, yeah, be a random person that, that then enters and says, like, oh, oh, is everybody on their phone again? (G1)

Table 5

Boundary conditions of smartphone acceptance during activities

Subtheme		Quotations
Pre-arranged activity		<p>“I think that if we’re just sitting with everyone in the living room and we had not arranged anything, that they wouldn’t really mind. But if we did arrange something, I think that nobody would really like it.” – B2</p> <p>“If there is really an activity going on, people do not use their smartphone that fast.” – G2</p>
Sorts of activities	Conversation	<p>“If we are on the couch, yeah, fine if you, if we are not, like, having a conversation. Then, then it is okay if you are on your smartphone for a while. But, uhm, I think it’s of course antisocial, and that is for everybody, not only in our house, it’s antisocial if you, uhh, while you’re talking to someone, look at your smartphone.” – B1</p> <p>“If we are having a conversation and someone takes out their smartphone in the middle of the conversation, then [...], then I find that annoying at least” – C1</p>
	Special house-evening	<p>“Just like with dinner, you assume that if you really agreed to have a house-evening, that people then have their attention with the others. So then [...] I would adress it eventually, I think. If someone would continually use his smartphone, while we are having a house-evening.” – E1</p>
	Dinner	<p>“It does happen once in a while that someone gets out his smartphone during dinner, bu then I always say something about it, or someone else does. B1 is also really strict about it, she then says, hey, don’t use your phone during dinner.” – B2</p> <p>“If we are eating, then you are really eating, so then you are actively busy with other people. So you are and eating and talking with each other. Then it does bother me when someone gets out his smartphone.” – D1</p>
	Watching TV or a movie	<p>“If we are watching TV, fine, but if we are watching a movie together, really, then I find it annoying” – B1</p> <p>“It can really bother me if we are watching a movie with just, with everybody, and people don’t pay attention, because they are, like, messaging or doing something else and then afterwards ask, uhh, like, oh, why did this happen, or why is that, or, huh, how, who is that? Then I think, yo, if you were paying attention, you’d know.” – B1</p>
Amount of people	Activity with 2 people (1 on 1)	<p>“I try to use my smartphone as little as possible when we are with two.” – B2</p> <p>“Uhh, yeah, one on one then I don’t really use it [smartphone], I think” – E2</p>
	Activity with 3 or more people	<p>“Just also because you, yeah, it’s not like you are having a conversation with multiple people and thus leave the other two to have a conversation together and thus for example check your phone in between.” – F1</p>

However, not everybody feels comfortable with confronting each other or being confronted:

It is okay, like, that you let me know [that you dislike the smartphone use], but then I think, yeah, still, I do feel really addressed and then I will feel pretty guilty or something. (B1)

Jokes. Since some people experience it as a personal attack when someone addresses their smartphone use directly (as can be seen in the quote above), some students use jokes as a way to correct housemates or make them aware of their smartphone use. Addressing the use in a joke-form enables them to keep it light, and not insult somebody (“I think that in our house, there is a vibe where you can, uhh, make a joke about it [smartphone use], like, yo, hey, be social.”; D1).

Taking distraction away. The design characteristics of a smartphone, like blinking lights or buzzing, can be distracting. Therefore, some participants choose a practical way to cope with smartphone presence by putting the smartphone out of sight. This way the lights or buzzes cannot tempt them to check their smartphone:

Then I will stop it behind me for a while. Then I cannot see whether someone sends me a message of the light [of my smartphone] turns on. (B1)

Most of the time I just really keep it [smartphone] in my pocket, like, because I notice that, that I do notice by the way. Now you say so. If I got, imagine if I have it [smartphone] lay next to me, then I also think that you do get it faster, then when you don’t see it, you know (G1)

Rules. There were two groups of houses: one group with explicit or implicit rules about smartphone use, and another group with no rules about smartphone use at all (“Not really that we have agreements or something [about smartphone use], or, uhh, I don’t know what”; A2). The latter in particular shows the normality of smartphone use within student households, since housemates are generally free to use their smartphone (“We don’t have any rules for it, so you get out your smartphone whenever you want to”; G2).

The houses that did have rules also confirmed that smartphone use within the household has become a norm. All the rules that were mentioned were about situations in

which smartphone use was not allowed or appreciated. No rules were mentioned about when smartphone use was allowed.

Furthermore, it is remarkable that most of these rules are about smartphone use during dinner:

There was a thing in the house last year, uhm, a rule that, uh, during dinner smartphones were just not allowed at the table. After is fine, or if you want to show something, for instance when you are telling a story, that is fine, but messaging during dinner is a real No Go. With us, now. (B1)

We do have the agreement that, during dinner, uhh, you cannot use your smartphone. If you do, you have to pack the dishwasher. (C2)

Not all rules are as explicit as the ones mentioned in the two quotes above. Some are more implicit, like a norm within the house:

Uhh, just because during dinner you have to have fun together and not, uhh, be busy with other people on your phone. It's just, yeah, something that we, which is actually just some sort of norm in the house. [...] Ja, the norms and values that you just, yeah, sort of agreed upon with each other. (F1)

Expectation. In contrast to all the coping strategies mentioned before, which only focus on the individual, expectation is about a combination of the individual and the social environment of that individual. On the one hand there is the expectation that housemates have towards each other, which could mean that smartphone use and presence is in some situations not appreciated. On the other hand the social environment also creates an expectation about smartphone use. In this case the expectation is for someone to answer the messages or posts on his or her smartphone as soon as possible. As a result some participants experience pressure of others to use their smartphone. Participants admit that they often pander to social pressure:

I try to ignore the pressure that I experience from it a little bit, but I often catch myself that I get my phone to still quickly respond to something or

just, just send something for a minute or – I also catch myself doing that often enough. (D1)

A reason for students to pander to this pressure seems to be a form of FoMO: they are afraid to miss out on something (“I think that she is also really afraid to miss things of other people, so she also uses it [smartphone] more than I and B1 do for example, I think.”; B2). Another reason can be that they seem to have made it a norm for themselves to respond to a message quickly. Some even argue that not answering a message is just as rude as ignoring someone in real life:

You can also see whether someone read it or not and everybody also expects of each other that you regularly read and watch your smartphone. So it is almost like it is equally rude to not respond to that [messages on your smartphone] as it is when you don’t respond to people personally. (A2)

I am also some sort of obligated to use my smartphone, because people also just expect me to respond to stuff. (H2)

Bringing use into perspective. As a way of dealing with the expectation that is created by the social environment, a few participants indicated that they tried to bring smartphone use into perspective. This way their urge to check their smartphone as soon as they see they received a message is reduced. They did this in particular by convincing themselves that it is okay to not respond to a message immediately:

But I also sometimes think of myself that, well, then I read it [messages], ah, I will answer later and then – that is like, everyone will understand that. (A2)

Table 6
Coping with the presence of a smartphone

Subtheme	Quotations
Ignoring use or not being bothered by it	"I can easily leave my smartphone when I'm talking to someone and then, uhh, nothing is going on. So, uhh, then, then, yeah. Sometimes I even forget my smartphone." – C2
Discuss use	"It is not like we would hate on smartphone use or something, but there probably would be a comment like, uhh, can't you let go of that smartphone for once?" – C1 "I don't think I have the right to for example say that they shouldn't do that [use their smartphone that often]. Then I think like, yeah, who am I to say that? I sometimes do it too." – B2
Jokes	"Uhh, sometimes you get a comment towards you, but they often remain fairly limited." – G2 "Sometimes someone makes a joke about it [smartphone use during dinner] 'yeah, dishwasher' [laughs]" – C2 "Then was there some contact with one of the boyfriends or girlfriends by coincidence and then we were sending some strange pictures back and forth, and then we having fun with it with all of us." – D1
Taking distraction away	"That is something I sometimes do by the way, putting away the phone for a couple of hours, but, uhh, yeah, I think that that is important sometimes." – B2 "I often have my phone, uhm, uhh, on the silent mode. Uhm, so then you are also not distrubed." – G1
Rules	"During dinner we do really have the rule that you do not take out your smartphone" – C1
Rules within the household about smartphone use	"During dinner it is sort of the idea that there are no smartphones present" – G1 "During dinner you can not use your phone. That is a rule that we have. And also rather not during a house-evening and everybody then, uhm, actually doesn't really do it." – H1
Expectation	"If your housemates are continually using their smartphone, that when you joint hem, you too get out your smartphone soon, faster in order to fit in a little." – D2
Expectation of others about smartphone use; feeling pressure of others to use the phone	"And then you think, yeah, I do really have to say something back for a minute, because otherwise it takes a lot of time, that you, that you're not responding. And then you do feel on the one hand a social pressure from your house to be social and join them, but on the other hand you also have the people on your phone exerting pressure on, unconsciously putting pressure on you, like, oh, you still have to respond to me as well." – D1
Bringing use into perspective	"Appen is also possible later" – B1 "Then I'll respond to those messages later. They can wait for a while. If it is really urgent, they'll call." – B2

Discussion

The aim of this study was to gain a better understanding of how students experience smartphone use and/or presence within a student household. During this process, the focus was on the interactions and relationships between housemates. Student households were chosen as a target group because this seemed to be a group that is especially vulnerable to smartphone addiction (Anshari et al., 2016; Kandell, 1998). At the same time, students are from a generation that is used to the presence and use of smartphones and other technology in daily life.

To some extent smartphone use was experienced as negative, but at the same time it is perceived to add value and enrich experiences. Hence, the interviews showed that smartphone use indeed creates a paradox within student houses.

Smartphones create a shortcoming within the house. This is caused by a lack of certain needs, like attention and respect, that students indicated to expect and desire when they are in contact with their housemates. Students notice that contact takes place more and more via smartphone instead of face-to-face. This decrease in real life contact and additional perceived decrease in attention and active participation (among others) lead to situations and encounters between housemates that are experienced as disturbing. It must be noted that this disturbance seems to be connected to several boundary conditions, concerning the frequency, duration and understanding of smartphone use.

At the same time, it became clear that a smartphone has become of significant added value and is indispensable, both for the individuals and the household in general. For the household in general the smartphone is seen as a social tool that enhances contact between housemates. Especially when housemates are separated from each other or when the smartphone promotes laughter and conversation when used together. Individuals occasionally seem to use their smartphone as the opposite of a social tool by using it to separate themselves and create some alone-time.

Whether the smartphone is seen as added value (e.g. promoting laughter) or something that causes a shortcoming (e.g. lack of attention) depends on several factors: the individual, the (social) environment, the moment, and the reason for the smartphone use and presence.

This study indicated that the degree to which an individual will evaluate the use and presence of the smartphone as positive or negative relies among others on what he or she

wants and does at that particular moment. In other words, prescriptive expectancy² seems to be a predictor for how smartphone presence is experienced. Whenever participants were involved in joint activities they often expected attention and active participation from all housemates that were present. Hence, smartphone use was in most cases disapproved of. When participants did not expect attention, for instance if the conversation was not serious or they thought of watching a movie as just ‘hanging out’, they also did not mind smartphone presence. Exceptions in which smartphone use is accepted, even though the prescriptive expectancy is high, are when the usage is minimal (e.g. once in a while and short) or when the reason of use is important. Use for entertainment, like checking Facebook, is often not accepted, which is similar to the results obtained by Kelly, Miller-Ott and Duran (2017). However, this study found an exception to this rule. One participant indicated not to be bothered by her collocutor playing games, since the focus of attention during the game was still on her. The reason why other participants did not accept the use for entertainment is because they did experience a loss of attention. So, even though the interpretation of a situation may differ, the underlying importance of attention stays the same.

The expectancy of the (non-domestic) environment to answer ones messages immediately and the expectancy of the direct, domestic environment to be involved and pay attention at the same time can be harmful for the in-house culture and interfere with the development of a close bond with housemates (Kelly, Miller-Ott & Duran, 2017; Roberts & David, 2017). The social pressure some participants affirmed to experience could thus (un)consciously affect the interactions and relationships within a student house. Some participants seem to be aware of this pressure and think of it as a negative influence. Therefore, they suggest that the relationships between housemates would be closer if the smartphone would not be around for some time. Hence, the housemates would be relieved of the expectancy of the (non-domestic) environment. A reduced smartphone presence is likely to lead to more face-to-face interactions, which in turn could improve relationship satisfaction (Roberts & David, 2017). However, this is a point of discussion among participants. One group indeed stated that the real relationships with housemates were developed via real life contact and joint activities. Another group argued that the fact that they could instant message their housemates added that something extra, which made the housemates feel like friends instead of just people they lived with. Additionally, one could argue that reduced smartphone

² Prescriptive expectancy: expectancies that refer to what is desired or preferred (White, 2015).

presence does not necessarily lead to closer relationships, as bad relationships could also be the cause of the smartphone presence in the first place (Kelly et al., 2017).

Because of the contradiction between the shortcomings a smartphone can create (e.g. loss of attention) and the added value it can deliver (e.g. enhancing contact), participants appear to doubt their attitude and opinion about the presence of smartphones in their student household. Additionally, there is a limited awareness of the effects of smartphone use and presence on a student household, as there are conscious (e.g. having fun together) and unconscious effects (e.g. leaving your smartphone in sight). At the beginning of the interview some participants were sure that smartphones did not have any influence at all on the interactions and relationships within the household. The same participants were equally unsure and confused at the end.

The opinions of participants differed. Some leaned more towards the shortcoming that smartphones caused and wished that smartphones would not be as visible within the household as they were at that moment. Others leaned towards the added value of the smartphone and believed that, with the exception of some specific situations, smartphones should be allowed to be used as someone wishes. A third group floated in between these two groups, depending on which topic was treated.

Although the participants differed in opinion about the influence of smartphone presence within the house, none had an attitude that resembled an extreme, like a smartphone prohibition or always allowing smartphones without any exceptions. The reason for this nuance could be a combination of three factors. The first factor is the fact that most participants probably did not really think about smartphone use and/or presence before the interviews. If you have never really thought about a topic before it is difficult to immediately form a truly strong opinion. Secondly, it might be possible that some participants noticed they were forming a judgment about smartphone use, while thinking about it. Since this could have been confrontational with their own smartphone use, this possibly weakened their opinion so they would not feel guilty about their own smartphone behavior. The last factor could be the accepted normality of smartphone presence. This is reflected in the interviews, via one word that is used a lot: just. The (un)conscious use of the word 'just' could indicate that the (growing) presence of a smartphone is thought of as 'the norm'. Presence of a smartphone is 'just' the case. So instead of prohibiting or allowing all smartphone use, they implement smartphones in their lives and meet in the middle by thinking of ways in which the smartphone is present, but the disturbance levels are low.

This compromise is done via semi-automatically established rules and norms. Some of these rules are explicit and are agreed upon with all the housemates. Others result from someone's personal attitude or upbringing. In this case it is possible that not all housemates are up to date or agree with these rules or norms, which in some cases can lead to annoyance.

A rule or norm that stood out throughout the interviews concerned the dinner-situation. In some houses it concerned an explicit rule, while others had an implicit norm with which everybody agreed. However, the core was the same in almost every house and is also recognized by other studies (Kelly et al., 2017): smartphone use during dinner is not appreciated, since dinner is seen as an important moment of the day. When I asked further about the 'smartphone prohibition' during dinner a lot of participants made a connection to their upbringing. They learned not to use their smartphone during dinner at their parents' house and continued this habit in their student house. The dinner-smartphone prohibition is connected to the growing smartphone use: the time people spend together in real life (without smartphones) becomes special. Contact via smartphone is easy, but it is not the same as talking to someone face to face, since the emotions that are clearly visible in real life contact are absent in contact via smartphone. Lastly, the no-smartphone rule is not only a part of the in-house culture, it also helps to maintain the culture (Roberts & David, 2017).

The fact that rules, norms and coping mechanisms are established in student houses is probably partially influenced by the psychological safety (Kahn, 1990) that the students want for themselves and their housemates. Students need to feel safe and comfortable within their house and be themselves without being afraid that they will be judged or excluded by their housemates (Roberts & David, 2017). This also means that they should be able to take out their smartphone once in a while if they feel like it or if they need to, because it is their home. If there was a total prohibition of smartphone use or presence at all time this would take away the ability of students to really be themselves. Participants underlined the importance of being able to be yourself when they are at home. Additionally, if students feel safe within their home there is a larger chance that they will get or stay engaged (Roberts & David, 2017) with the household and their housemates. This could in turn lead to a stronger bond between housemates, for instance by joining each other in the living room instead of being individuals in their room.

Lastly, some students admitted that whenever they saw their housemates use their smartphone, they did not exactly know what to do. Consequently, they ended up doing the same and scrolling through their smartphone. In this case the housemate's behavior is seen as a trigger or a spatial cue for the student to do the same (Bayer, Campbell & Ling, 2016). So

how often a smartphone is used within a household influences the smartphone use of all the housemates. When there is one housemate that uses his or her smartphone a lot, chances are that this influences the smartphone use of the housemates, and eventually the interactions and relationships within the household.

Contributions to ongoing discussions

Previous studies have focused on the effects of smartphones on families, e.g. on parenting, boundaries, privacy or family relationships (e.g. Hertlein, 2012; Hiniker et al., 2015; Humpreys, 2005; Oduor et al., 2016). Some of these studies show similarities or differences with the findings of this research, which this section will elaborate upon.

Parents with younger children seem to struggle to combine their technology use with the care of their children, since they (unconsciously) respond less to their children's interruptions when they are on their smartphone (Hiniker et al., 2015). One could say that the parents are somewhat mentally absent when using their smartphone. Even though the study of Hiniker et al. (2015) involved parents and the current study involved students, there seems to be some overlap on this particular topic. Scilicet most participants thought that looking at a smartphone caused people to drop out of a conversation or activity in some way.

A point of discussion is the degree and sort of influence a smartphone has on the involvement of students with each other. A smartphone can on the one hand promote involvement, even enhancing relationships among housemates. On the other hand a smartphone has the ability to drive people apart and make them less involved with each other. The latter can be a result of jealousy that is elicited by phubbing or using ones' smartphone in front the other (Krasnova, Abramova, Notter & Baumann, 2016). Both sides are argued by several participants of this research. However, one participant negates any influence by stating that when someone asks for her attention if she is on her smartphone, she does respond (see 'involvement'). This is consistent with another study that found that participants "believe [...] that their children's requests draw them back to the present moment on demand" (Hiniker et al., 2015, p. 731). Additionally, another participant of the current study mentioned that if there are negative effects of smartphones on involvement, these effects are only temporary and do not have a long-lasting effect (see 'involvement'). Although, this is contradicted by a study that found that negative feelings continue to build up over time (Oduor et al., 2016).

It is notable that when a smartphone was used together with housemates or for shared purposes, like enhancing a conversation or to entertain each other, smartphone use was seen

as mainly something positive. An explanation for this can be that participants find it important to involve each other in activities such as their smartphone use. This way they might develop closer relationships instead of (un)consciously isolating themselves from their housemates. The importance of involving others was also found in a family household, where smartphones were used to find a location for a family picnic or involve children by taking pictures for example (Hiniker et al., 2015; Oduor et al., 2016). Moreover, it seems that the positive aspect of shared smartphone use is important, like solving a problem or capturing something funny (Kelly et al., 2017).

Students mentioned some positive aspects of individual smartphone use as well, like providing a way to escape reality and create some alone time. This is also recognized in previous research (Oduor et al., 2016). However, there were also students that indicated they were feeling stressed by the social pressure they experienced to continually answer their messages. Since this study focused on the interactions and relationships the exact extent of the stress and other unpleasant feelings students experienced because of smartphone use or presence is not clear. However, the existence of such unpleasant feelings caused by a smartphone is not unknown (Lee, Chang, Lin, & Cheng, 2014).

Apparently students are not the only ones that apply coping techniques in order to handle the urge to use a smartphone at any time and the smartphone presence within the house. Previous research found three family members who stated that they purposely put their smartphones away. This way using their smartphones or seeing notifications became more difficult (Oduor et al., 2016). A similar solution to one of the mechanisms found in the current study.

Lastly, the coping strategies I found among the students do not fully resemble the coping strategies in other studies (Krasnova et al., 2016; Oduor et al., 2016). However, since people have different personalities and are raised in different ways it is only logical that the way students or people in general deal with smartphone use and presence differs.

Practical implications

The findings in this study extend our understanding of participants' experiences concerning smartphone use in a student household. It is therefore a valuable contribution to the existing literature.

This study raises the question as to what topics should or should not be discussed within a student household to avoid conflicts that concern smartphone use and how

smartphone use affects interactions and relationships. Although the findings were somewhat ambiguous, some topics were considered more important than others.

An important topic to discuss within a student household is the expectations. Every individual that lives in the household probably has different expectations considering their time living there and as to how smartphones are used in the household. There are several factors that can influence these expectations.

First, it can depend on the type of house you live in. There is a big difference between whether you are moving into a house with people you have never met before or with a group of friends. In the latter situation, it is safe to assume that you already know your housemates well. Therefore, it is likely that you know what they want or expect during your time living together and they know your expectations as well. When you are moving into a house with new people this is more difficult. In that case it is important to figure out what the expectations of your housemates are: do they like to hang out together? Are they involved with each other? How much do they value their privacy? In addition it is important that you communicate your own expectations and needs, since your housemates also do not know you.

Secondly, the amount of time that you (and your housemates) are going to spend in a household can also be of influence. Someone that only lives in a household temporarily might find it less valuable to develop close relationships with others, since he or she will be gone after a few months anyway. This can result in someone being more private, separating themselves from the others during activities. Someone who is there for a longer period of time, however, might really value having a close relationship with the other housemates and getting along with everyone. If these different expectations are unclear, this might lead to an altercation.

Lastly, personal preferences differ. One person might expect or need an intimate relationship with housemates, while others might see the household as purely pragmatic. In case of the latter the person could be focused on a smoothly functioning household, instead of on the relationships between housemates. This could also be demonstrated by their motives for smartphone use. The pragmatic person might only use the smartphone to ask others if they join dinner for example, or to keep track of the household's expenditures. In contrary, the other person could be using the smartphone to stay in touch with housemates. Additionally, both people could think of smartphone use as bothersome at certain times, but because of different reasons. The pragmatic person could be bothered that it hinders the daily affairs like cleaning the dishes. At the same time, the other person might be annoyed by the feeling that someone's smartphone is more important than he or she is.

In conclusion it is important to align expectations within a household. This way the chances that such an expectation is violated decreases. Consequently, it becomes easier for housemates to develop close relationships, if wanted.

Next to expectation, norms and rules are also a meaningful issue and of great importance for individuals. When students are moving in together or get a new housemate, they should feel comfortable and safe in their own house. To achieve this psychological safety it could be helpful to discuss the rules or norms within the house. This way all housemates are up to date as to what is expected and what is not accepted in the house. They can then respect the household culture accordingly while still being themselves. Norms and rules also make sure that a student household is functional (e.g. via a cleaning schedule). Furthermore, rules can maintain intimacy or involvement by making sure housemates are both physically and mentally present during valued moments such as dinner, special house-evenings, joint activities or watching a movie together. The last benefit of rules and norms is that it can open something up for discussion without judgment. If someone uses his or her smartphone for example, while the agreement at that moment was not to, smartphone use can be discussed.

When implementing rules, it should also be clear if and how there are consequences linked to breaking the rules. For example whether breaking a rule is just not appreciated and something is being said about it, or whether there will be some sort of consequence (e.g. cleaning the dishes).

Limitations and future research

There are a number of limitations that should be taken into account. First, as with most interviews it is possible that some participants gave a socially desirable answer. Future research could minimize this by using IPA more extensively. This could uncover more depth to the experiences of students and eventually show what they really think about the subject.

Furthermore, from a methodological view, this study was unilateral, which may have also formed a limitation. In order to enhance the richness of data future research could use a combination of methods and combine interviews with video-observation and/or a diary study.

Lastly, although participants were asked to draw a network of their household, this network was not used in the results of this study. It could be interesting for future research to focus more on the households as a whole. This way it could be examined whether the relationships that people have with each other influence their tolerance or acceptance towards smartphones. In doing so, it has to be taken into account that people might define relationships in a different manner.

Conclusion

Participants did not uniformly value smartphone use as either positive or negative. However, smartphone use does affect all households in some way, even though some students claim that it has no influence at all in their household. Lots of houses have some kind of rule, norm or boundary condition, considering smartphone use.

Although there were students that had a somewhat negative opinion, for example that it was better when smartphones did not exist, smartphones have proved to contain significant advantages as well. A balance was found between the discovered positive and negative effects. This balance is illustrated by the often nuanced opinions of the participants that show a variety of households: ones that are not completely against smartphone use and ones that are not completely supportive of smartphone use either.

Since not all residents of a household think the same way about smartphone use and presence it is important that conversations are held about this topic. This way the households can try to reduce the negative impact of smartphone use and presence on relationships and interactions. At the same time they should be able to maintain the benefits of smartphone use.

Overall expectancy (prescriptive and of the environment), psychological safety and boundary conditions seem to play an important role in how smartphone use or presence is experienced.

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Appendix

Appendix A – Interview schedule

This interview is voluntary. If you don't want to participate anymore, you can stop at any moment.

I'm interested in you and your experiences, so no wrong or right answers.

1. With how many people do you live in your household?
2. Could you tell me how you found this household/how you got your room?
3. How do you experience living in the household that you live in?
4. Could you draw a network of the relationships within your household involving everybody? (think of romantic relationships, friendships, strong/weak bond, etc.)
 - Can you explain why you drew the network as you did?
 - Describe the three best relationships in the house/network (doesn't have to involve yourself)
5. How do you and your housemates cope with the co-presence of a smartphone (e.g. is it accepted, forbidden, has there been a fight about, is it a subject of conversation)
 - Do you experience a difference in interactions or sphere between co-presence during a joined activity and casual being together?
6. Do you use your smartphone when housemates are present?
 - What do you think your housemates think when you use your smartphone in their presence?
7. How do you cope with the presence of your smartphone, when you are having a conversation?
 - Is the co-presence of your smartphone distracting/disruptive/enhancing?
 - How does it influence your feeling of involvement with your conversational partner?
8. How do you feel when housemates use their smartphone in your presence?
 - What do you or your housemates use their smartphone for?
 - Does it make a difference when you (don't) know what they are doing on their phone?
9. Think back to the network of relationships you had to draw, earlier in this interview. How would this network change when smartphones would not be around?

RQ:

How do people who live in a student household perceive the impact of smartphone use on the relationships and interactions within their house?

How did you like the interview? Do you have any questions? Do you have my contact information in case you have any questions afterwards?

Are you interested in receiving the report after it's finished?

Appendix B – original quotation tables (in Dutch)

Table 7

First three main themes with corresponding subthemes and Dutch quotations

Theme	Subtheme	Positive Positive effect of smartphones (on relationships and/or conversations)	Negative Negative effect of smartphones (on relationships and/or conversations)
Attention – distraction	Focus Focus on your conversational partner.		<p>“Als je op je telefoon zit te kijken en daar gebeurt van alles of er zitten mensen te praten, of ook tegen jou. En je bent, weet ik veel, appjes aan het sturen, dan, dan gaat bij mij tenminste altijd alles wel langs me heen en dan antwoord ik wel, maar dan is het altijd een beetje half.” – A1</p> <p>“Als je op je mobiel zit, dat je aandacht op je mobiel is en niet bij degene waar je mee aan het praten is, uhh, bent” – B1</p>
	Active participation Active participation or engagement in the conversation.		<p>“Als er dan andere gesprekken, uhh, andere mensen aan, aan het praten zijn en dan, en jij bent op je smartphone, dan let je niet op wat zij zeggen en ben je eigenlijk met je eigen ding bezig op je telefoon. En als je dat dus niet hebt, dan kun je niet deelnemen aan een gesprek” – A2</p> <p>“Doordat hij dus naar zijn telefoon aan het staren is, in plaats van, uh, zich mengt in het gesprek wat zich, uh, aan tafel, uhh, plaatsvindt” – C2</p>
	Curiosity Smartphone elicits curiosity		<p>“Vooral met je mobiel is het van, oh, wie is het? Dan heb je ook al een gedachte van, oh, wie zal me appen? Uhh, zou het belangrijk zijn? Uhm, of zou het niet belangrijk zijn? Uhh, waar zou het over kunnen gaan? En dan heb je dat al in je hoofd en dan is dat gesprek, waar je mee bezig bent gewoon, ja, dan ben je gewoon niet meer geconcentreerd op het gesprek.” – B1</p> <p>“Als alles piept en oplicht en... dat je daar toch een beetje door getriggerd wordt, als je de hele tijd zo'n lampje in je</p>

Respect – disrespect	Frequency and duration How often and how long a smartphone is used over a period of time	“Even vluchtig kijken, ja, ik vind dat het, mmm, wel moet kunnen, want als je, als je gewoon in gesprek bent dan kijk je ook af en toe wel eventjes, of dan – als er meerdere gesprekken naast elkaar in de woonkamer plaatsvinden, dan luister je ook af en toe wel eens een keer eventjes mee met een ander gesprek” – A2	ooghoek ziet knipperen. Dan ben je gewoon nieuwsgierig van, wat is het? Wie is het? Waar zal het over gaan? Ik denk toch een soort nieuwsgierigheid dan in je wordt getriggerd.” – D1 “Uhm, maar als iemand echt dan op een gegeven moment, dan, dat je half wat bezig bent een vraag te stellen en dan wat langer gaat kijken, dan denk je van, ja, waarvoor zijn we, ben ik, waarvoor vertel ik wat” – A2 “Het [smartphone gebruik] zou, uhh, de, de sociale contacten wel belemmeren als het gewoon vaak gebeurt en structureel, uhh, bij het avondeten in de buurt is, en dat soort dingen.” – D1
	Understanding Cases in which distraction/less attention is understandable (e.g. reason of use, transparency); emphasize with one using their phone	“Als je even een appje naar iemand wil sturen, dat vind ik, ja, als dat gewoon nu moet gebeuren, dan moet je dat even doen, absoluut” – D2 “Ik snap wel dat, ja, dat je gewoon even iets wil vertellen aan iemand. Dat je eigenlijk ook al wel verteld hebt aan het huis. En, ja, dat heb ik zelf ook, dus dan moet het ook acceptabel zijn voor iemand anders” – B1	“Als je dan gewoon, tijdens gewoon, op Facebook aan het zitten bent, terwijl je aan het praten met, ja, dan vind ik, dat vind ik echt gewoon asociaal.” – D2 “En dan [als iemand de hele tijd op de telefoon zit] kan ik het me ook voorstellen dat mensen het vervelend vinden als ik gewoon de hele avond, zeg maar, op mijn telefoon zit.” – D1
	Real life contact The willingness to engage in or the need to have real life contact.	“Ik denk dat, uhh, de relaties eigenlijk meer gebaseerd zijn op persoonlijk contact en op aanwezigheid, want als je er dus vaak bent maak je ook meer dingen met elkaar mee, en niet per se op het gebruik van, uhh, een smartphone. Dus ik denk niet dat het echt invloed zal hebben op relatie” – A2 “Ik vind het fijn om in het echt gewoon tegen iemand praten in plaats van, uhh, in de app” – B1	“Het gaat gewoon langzaam. Al, een beetje ongeïnteresseerd en dan even op je telefoon kijken. En als je dat dan niet zou hebben zou je eerder wat zeggen, of weet ik veel wat, dan – nu zit iedereen op zijn telefoon, dus dat zou dan negatief beïnvloedt zijn” – A2 “Bijvoorbeeld je zit met z’n vieren aan tafel of met z’n vijven, dan heb je dus vier mensen om je heen zitten, waarmee je kan praten en dan ga je vervolgens over bijvoorbeeld WhatsApp met iemand anders praten. Dan denk ik, ja, je hebt ook nog real-life contact, zeg maar, met mensen die naast je zitten. Waarom, waarom zou dat niet kunnen?” – C2
	Showing interest Showing interest in the	“Als er een belangrijk gesprek is, gewoon echt een serieus gesprek is, dan doe ik altijd mijn mobiel	“Als je echt een fatsoenlijk gesprek hebt en iemand zit de hele tijd een beetje, uhh, of verdwaald naar de telefoon te

Culture within the household	story that is told and in the person. Giving people the feeling that you take them seriously and that you're truly interested.	weg." – B1	kijken, vind ik dat wel een beetje ongeïnteresseerd ofzo." – A1
	Involvement Giving someone or getting the feeling that you're involved with them	"Je hebt laatst een keer wat gezien en dat vind je leuk. En dan, uhh, ja, zeg je, oh, lachen, laat ik wel even zien en dan, nou ja, zo kun je ook dingen, uhm, ja, wat meer meemaken van wat de anderen leuk vinden enzo" – A2	"Als jij nu even je mobiel zou pakken en je zou wat op typen, dan zou ik dat uit het gevoel van, ik ben niet interessant genoeg voor jou, dus waarom zou ik dan überhaupt met je blijven praten?" – D2 "Of... ja, je bent niet echt meer heel erg met elkaar betrokken ofzo, omdat je de hele tijd gewoon met, op dat ding [smartphone] bezig bent" – B2 "Ik merk gewoon dat je daar een afstand door creëert, dat als je wel gewoon, als je echt in gesprek bent en je zit te appen, dat je daar een afstand mee creëert." – D1 "Dat is ook weer onbeschoft eigenlijk. Dan, dan ben je met iemand aan het praten en dan – ja, dat doe ik soms ook wel, maar, ja... Dat is misschien ook niet helemaal goed. [lacht] Je bent dan met iemand aan het praten en dan ondertussen ga je zo een berichtje tussendoor typen." – C2
	Attitude The attitude someone has towards smartphone (use)	"Ik probeer het [smartphone gebruik] zelf zo te doen, zoals ik het ook bij anderen fijn zou vinden" – C1 "Het is logisch dat je als je thuis bent ook gewoon moet chillen en je telefoon echt wel mag gebruiken. Dus dat is denk ik lastig om daar echt iets, iets mee te doen, zeg maar" – H2	"Eigenlijk is het belachelijk dat je uit zo'n ding zo'n druk ervaart om, zeg maar, iedereen te contacten en alles draaiende te houden." – D1 "Ik hoop niet dat ze, zeg maar, het irritant vinden. Dat, dat zeg maar negatiever denken over dit. Dat ze het irritant vinden dat ik, zeg maar, bijvoorbeeld soms op mijn mobiel zit. Uhh, even iets vertellen aan iemand of even iemand appen, uhh, en dat ze dat super irritant vinden." – B1
	Attitude agreement Whether housemates have similar attitudes about smartphones	"Ja, volgens mij geldt dat wel. Volgens mij hebben we daar allemaal zo'n beeld over." – D2	"Omdat zij wat meer op haar telefoon zit. Daardoor denk ik dat ze eigenlijk daar dus iets andere normen en waarden over heeft. Dat zij dus dat niet ziet als iets wat, nou ja, die interactie hier dan belemmerd." – E1 "Als er dan dingen, uhm, uhm, besproken worden over hoe mensen ergens over denken of, uhh, wat ze ergens van vinden. [...] meestal vang je het dan wel op en dan leer je mensen toch onbewust beter kennen en als je echt op je
	Affording contact Enhancing and simplifying contact between housemates	"Soms is het juist dat, doordat je smartphone hebt, dat je een gesprek ergens over begint" – A2 "Het kan ook wel eens handig zijn, als je gewoon, bijvoorbeeld met een groepje iets wilt bespreken,	

	<p>maar dan ook met een groepje die ergens anders is” – G1</p>	<p>smartphone hebt, dan, in ieder geval, voor mij persoonlijk zou het dan, uhh, heb ik dan echt wel dat ik eigenlijk niet zoveel meer mee krijg van wat ze zeggen.” – A2</p> <p>“Wij kunnen zo, hè, als wij aan tafel zitten kun je met iedereen zo prima communiceren. Daar heb je geen telefoon voor nodig.” – G1</p>
<p>Relaxation Using the smartphone for relaxation</p>	<p>“Ik vind dat zelf soms ook even fijn, dat ik even eet en dan even weer appjes kijken en even reageren.” – E2</p> <p>“Dat dan toch iedereen, ja, toch even een soort van momentje voor zichzelf heeft, uh, en eventjes op zich nog eventjes zelf bezig is op zijn smartphone.” – G1</p>	
<p>Shared use Using the smartphone together with housemates</p>	<p>“Gewoon die gekkigheid die je met elkaar deelt via smartphone, dat is dan eigenlijk ook wel weer positief.” – A1</p>	<p>“Ik vind het [taggen] leuk als ik bijvoorbeeld alleen ben, als ik bijvoorbeeld in bed lig in mijn eentje en ik zie een leuk filmpje. Dan vind ik het altijd leuk. Maar als we met z’n allen bij elkaar zitten, dan hoeft ik niet perse overal in getagd te worden, want dan, of ja, leg gewoon even je mobiel weg. En dan, uhh, gaan we gewoon een film kijken op TV ofzo.” – B2</p>
<p>Upbringing/nurture The way someone is raised with regard to smartphone use</p>	<p>“Misschien is dat ook wel een beetje vanzelf erin gegroeid, omdat we ook wel opgegroeid zijn met telefoons op zak” – C2</p> <p>“Ik denk misschien ook wel een deel wat je van huis mee krijgt. Dat het daar ook gewoon normaal is dat je echt met elkaar praat en dat er gewoon geen telefoons zijn. Dus ik denk dat dat thuis een beetje een regel was en dat je dat dan meeneemt als je op kamers gaat.” – D1</p>	<p>“ik vind het niet echt netjes tegenover de rest om dan op je mobiel te gaan. Ja, zo ben ik ook een beetje opgevoed misschien.” – B2</p>
<p>Habits (un)conscious use of smartphone</p>	<p>“Ik zou eigenlijk ook gewoon niet meer zonder WhatsApp kunnen ofzo, omdat ik dan denk hoe overleg je dan heel veel dingen? Of hoe maak je afspraken?” – A1</p>	<p>“Je zit toch met elkaar, uhh, zit je, ja, iets doen of, of eigenlijk niks te doen of koffie te drinken of wat dan ook. En dan toch pak je allemaal je telefoon erbij en ik ben er zelf ook schuldig aan, dat weet ik ook, maar eigenlijk is de situatie niet heel anders dan, uhh, dan aan de eettafel. Maar, ja, waarom we daar dan niks [<i>pause</i>] op uit doen dat weet ik ook niet zo goed” – C2</p>

Visibility The visibility of a smartphone in daily life and within a student household	<p>“Ik denk wel dat we hier in huis heel veel op de smartphone zitten.” – B2</p> <p>“Ik denk dat je in heel veel situaties waar je nu zou gaan kijken, zie je gewoon heel vaak een smartphone. En dat je daarom denkt van het is zo’n iets wat in je cultuur geslepen is, dat het niet meer vreemd is als het er ineens op tafel ligt. Omdat je dat, als je om je heen kijkt zie je ze overal.” – D1</p>	<p>“Ondanks dat je het zelf wel, hm, minder leuk vindt als andere mensen op hun telefoon zitten, ga je zelf ook op je telefoon zitten. Ik denk dat iedereen dat eigenlijk heeft in dit huis.” – G2</p> <p>“Iedereen zit altijd op de mobiel. Ik vind het echt super irritant, maar ik doe het zelf ook” – B1</p>
Socially acceptance The way society thinks about smartphone use		<p>“Nou, dat, dat het lijkt alsof de hele wereld een beetje om die smartphone draait en wat er allemaal in die smartphone gebeurt en op Facebook, en Instagram, en Snapchat. En ik denk dat mensen daar, in ieder geval wij, dat wij daar best wel druk mee zijn.” – B2</p>
Household relationships The way relationships and mutual bonds are shaped within the household.	<p>“Voor in mijn huishouden denk ik dat het misschien wel beter is, maar... dat het beter is, dat de smartphone er is. Gewoon doordat je met elkaar af en toe wel een geintje eruit gooit. Een geintje in de groepsWhatsApp gooit. En dat je, dat je zelf ook nog een beetje met elkaar communiceert met mensen thuis.” – D2</p>	<p>“Onze band is niet zo heel hecht, dus ik denk ook niet dat ze denken, oh, wat stom dat B2 op haar mobiel zit, want ik moet iets aan haar kwijt, of ik wil heel graag even met haar kletsen ofzo.” – B2</p>
Ambiance The way ambiance is influenced by smartphone use	<p>“We hebben ook wel eens, uhh, dat we met het huis zitten te kijken naar alle lelijke selfies die iedereen ooit een keer heeft gestuurd en dan is het juist heel bevorderlijk voor de sfeer, zo’n smartphone.” – A1</p> <p>“Uhh, kan positief zijn dat je juist, uhm, uhh, door of, uhm, wat muziek erbij te pakken of, uhh, weet ik veel wat, dat je juist, uh, iedereen beetje in een bepaalde stemming krijgt ofzo. Dat het toch wat gezelliger wordt” – A2</p>	<p>“En ik denk dat je gewoon over het algemeen minder van elkaar af weet [als er geen smartphone zou zijn in huis], dus dat de relaties allemaal wat minder zouden zijn” – C1</p> <p>“Het is tuurlijk gezelliger als er geen mobieltjes aanwezig zijn. Dat je echt met elkaar bent, net als vroeger, toen de mobieltjes nog niet bestonden” – B1</p> <p>“Als de sfeer in het begin niet zo goed is, zou het zonder smartphone nog wel om kunnen slaan, maar met smartphone gaan mensen dan op mijn telefoon en dat is eigenlijk een versnelling van de verslechtering van de sfeer, zeg maar.” – H2</p>

Table 8

Boundary conditions of smartphone acceptance during activities - with Dutch quotations

Subtheme		Quotations
Pre-arranged activity in general		“Ik denk dat als we echt gewoon met zijn allen in de woonkamer zitten en we hebben niks afgesproken, dat ze het op zich geen probleem vinden. Maar als we iets hebben afgesproken, ik denk dat niemand dat echt heel leuk vindt.” – B2
Sorts of activities	Conversation	“Als er echt een activiteit gaande is, dan gaan mensen niet zo snel op hun smartphone zitten.” – G2 “Als we op de bank zitten, ja, prima als je, als we niet, zeg maar, in gesprek zijn. Dan, dan is het oké als je even op je mobiel zit. Maar, uhm, ik vind, we vinden het wel natuurlijk asociaal, en dat is natuurlijk voor iedereen, ook buitenshuis, asociaal als je, uhh, terwijl iemand aan het praten is, op je mobiel gaan zitten.” – B1 “Als we een gesprek hebben en iemand pakt midden in dat gesprek de telefoon erbij, dan [...], dan vind ik dat in ieder geval wel vervelend” – C1
	Special house-evening	“Net als met het eten ga je er wel vanuit dat als je echt met elkaar hebt afgesproken om een huisavondje te doen, dat mensen dan met hun aandacht daarbij zijn. Dus dan [...] zou ik er wel op een gegeven moment wat van zeggen, denk ik. Als iemand dan de hele tijd op zijn smartphone zit, terwijl we huisavond hebben.” – E1
	Dinner	“Het gebeurt wel heel af en toe dat iemand tijdens het eten erop zit, maar dan zeg ik er ook wel wat van, of iemand anders. B1 die is daar ook wel streng in, die zegt dan van, hey, niet op je mobiel tijdens het eten.” – B2 “Als we aan het eten zijn, dan ben je echt aan het eten, dus dan ben je actief bezig met andere mensen. Dus je bent en aan het eten en gewoon met elkaar aan het praten. Dan vind ik het wel storend, als iemand zijn telefoon erbij pakt.” – D1
	Watching TV or a movie	“Zijn we TV aan het kijken, prima, maar zijn we film aan het kijken met elkaar, echt, dan vind ik het vervelend” – B1 “Ik kan mij echt irriteren als we een film zitten te kijken met gewoon, met zijn allen en dat mensen niet opletten, omdat ze, zeg maar, aan het appen zijn of iets anders aan het doen zijn en daarna vragen, uhh, van, oh, hoezo is dit gebeurt, of hoezo is dat, of, huh, hoe, wie is dat? Dan denk ik, jo, als je had opgelet, dan wist je het wel.” – B1
Amount of people	Activity with 2 people (1 on 1)	“Ik probeer wel zo min mogelijk met mijn mobiel bezig te zijn als we met zijn tweeën zijn.” – B2 “Uhh, ja, één op één dan gebruik ik hem niet echt, denk ik” – E2
	Activity with 3 or more people	“Gewoon ook omdat je, ja, het is niet dat je met meer mensen in gesprek bent en dus even andere twee ofzo in gesprek kan laten en dus zelf even bijvoorbeeld je telefoon ofzo zou kunnen checken.” – F1

Table 9
Coping with the presence of a smartphone - with Dutch quotations

Subtheme	Quotations
Ignoring use or not being bothered by it	“Ik kan prima als ik met iemand aan het praten ben, gewoon mijn telefoon laten liggen en dan, uhh, is er niks aan de hand. Dus, uhh, dan, dan, ja. Soms vergeet ik hem zelfs wel.” – C2
Discuss use	“Het is niet dat we er op zouden haten ofzo, maar waarschijnlijk zou er wel een opmerking komen van, uhh, kun je die telefoon niet eens los laten?” – C1 “Ik vind niet dat ik het recht heb om te zeggen dat ze dat bijvoorbeeld niet zouden moeten doen. Dan denk ik van, ja, wie ben ik om dat te zeggen? Ik doe het zelf ook wel eens.” – B2
Jokes	“Uhh, je krijgt soms wel eens opmerkingen naar je hoofd geslingerd, maar die blijven vrij beperkt.” – G2 “Soms wordt er [smartphone gebruik tijdens eten] ook wel een grapje over gemaakt ‘ja, vaatwasser’ [<i>lacht</i>]” – C2 “Dan was er toevallig wat contact met één van de vriendjes of vriendinnetjes en dan waren we wat gekke foto’s aan het terugsturen, en dan maken we er met zijn allen een lolletje van.” – D1
Taking distraction away	“Dat doe ik wel trouwens af en toe, even de telefoon een paar uur wegleggen, maar, uhh, ja, ik denk dat dat wel eens belangrijk is.” – B2
Rules	“Ik heb mijn telefoon, uhm, uhh, vaak ook op stil staan. Uhm, dus dan wordt je ook niet gestoord.” – G1
Rules within the household about smartphone use	“Tijdens het eten hebben we wel echt de regel dat je de telefoon er gewoon niet bij pakt” – C1 “Bij het eten is het een beetje het idee dat er geen smartphone is” – G1 “Tijdens het eten mag je niet op je telefoon zitten. Dat is wel een regel die we hebben. En op huisavond liever ook niet en dat doet iedereen, uhm, dan ook niet echt eigenlijk.” – H1
Expectation	“Als je huisgenoten constant op hun mobiel zitten dat je daarbij komt, dat jij ook gauw, sneller je mobiel pakt om er ook maar een beetje bij te horen.” – D2
Expectation of others about smartphone use; feeling pressure of others to use the phone	“En dan denk je, ja, ik moet toch echt wel even wat terug zeggen, want anders wordt het ook weer zo laat, dat je, dat je niet reageert. En dan voel je toch aan de ene kant een sociale verplichting van je huis om gezellig mee te doen, maar aan de andere kant heb je ook nog op je telefoon mensen die dus druk uitoefenen op, onbewust druk op je leggen van, oh, je moet mij ook nog reageren.” – D1
Bringing use into perspective	“Appen kan later ook echt wel” – B1 “Dan beantwoord ik die appjes wel wat later. Die kunnen wel even wachten. Als het echt heel dringend is, dan bellen ze wel.” – B2