

Acknowledgments

The work-life unbalance I investigate in this paper is something I have personally experienced through this process. I have read the research articles in bed, and I have spent many hours on social media instead of working with my thesis. So, to finally turn this thesis in is both a major relief, and somehow sad. So many times, during this process I thought I would not manage to finish it, however here I am. The thesis is done, and so are the first five years I have dedicated to psychology.

First of all, I want to thank my supervisor Ingunn Hagen for helping me through this process. She has been kind enough to let me be a part of her research program, and been a tremendous help during the past year. I also want to thank my father, Jens-Arne Aanby, who has read through my thesis, probably almost as many times as I have. He has been my number one supporter throughout my five-year education, and I think he is as relieved as I am that this thesis is finished.

Finally, I want to thank my friends at IB, you have been a great support during the two years at NTNU. Together we have made it through this with blood, sweat and tears, and an (probably) excessive amount of cinnamon rolls. All of you made this lonely process a bit less lonely.

Trondheim, May 2017

Gerd-Ragnhild Aanby

Abstract

Boundary theory states that we separate the different domains in our lives, our work life and our spare time. This is often used to describe how we separate the domains, and with what effect the interference of the domains may have on our lives. This study is aiming to discover how this perspective may be relevant in the lives of student, and consequently how life interferes with work in the student group. This study used a thematic analysis of six focus group interviews with students from a Norwegian university. The findings show us that the students do experience interference from their life domain to their work domain. The major contributor to this is the use of social media in their work day. The students also feel that technology are both a resource and a risk in their daily life. I also found that the social relationships of the young adults are being influenced by using technology. This study contributes to the work-life literature by illuminating the aspect of the students in this literature. Further, researchers should consider doing more research on this topic to gain more insight into this group.

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Introduction

Technology is a part of our lives whether we want to or not. There has been a major increase in the types of technology that are being developed and used today. In Norway, we have access to many different technological platforms. According to Statistics Norway (Statistisk Sentralbyrå) 85% of the Norwegian households have one or more smartphones, and 98% have their own mobile phone (Statistisk Sentralbyrå., 2016). When it comes to computer, 94% have access to a computer at home and 96% of the population have access to the internet. Nearly all the people in Norway can get online, and have their own devices to do so. Technology can be a source of joy, like communicating with friends and the ability to be connected to everyone and everything by the touch of a finger. On the other hand, we are in a state of constant connectivity, and never unplugged. With this massive ability for the Norwegian people to access, and use this type of technology, and both the positive and negative sides of the usage, it is important to study how this affects our lives. Further in this thesis, if not otherwise specified, when I use the word technology it will be referred to information communication technology (ICT), e.g. smartphones, computers and so on.

Students as a group have a high percentage of technology use. According to a recent study by Henderson, Selwyn, Finger, and Aston (2015) nearly all the students in their study reported using their own pc for personal use, and 95% for school related use. Smartphones 82,8% used their smartphone for school related things. The results of their study show “digital technology to be an essential element of university study today. Use of one’s own computer (and increasingly one’s smartphone) is now a common means for all, but a handful of students, to conduct their university studies” (Henderson et al., 2015, p. 316). The use of technology in a maladaptive way may inhibit students learning (Kirschner & Karpinski, 2010). For example, Lee, Lin, and Robertson (2012) found that media multitasking can inhibit our ability to retain information.

Work and life are often referred to as domains, which can influence each other in a positive or a negative way (Clark, 2000). We can cross over into the other domain by choice, and adjust their goals, and focus. Balance between domain are when these two domains are functioning together, and there is little to no role conflict between them. Interference of domains are when there is a negative impact from one domain into the other (Greenhaus & Beutell, 1985). E.g. some behavior that belongs in one domain, that are not compatible with the other. As mentioned earlier, there is a huge amount of technology available, studies have found that technology tends to blur the lines between the different domains (Köffer, Junglas, Chipéri, & Niehaves, 2014), and it can increase the amount of interference between domains

(Yun, Kettinger, & Lee, 2012). The learning environment students live in, are highly technology based, and they are skilled in using this technology for their needs (Conole, de Laat, Dillon & Darby, 2008). However, with this highly technological based workday, and the risk of interference related to the use of technology, therefore one can imagine that they should experience an unbalance between domains. This study therefore take a closer look at the context and students experience of their own workday.

The research question

I will explore the aspects of life to work interference, by technology, on student's work life, and try to find aspects that may be contributing to this interference. By looking at what they talk about, in setting like how they use their computer and smartphone we may discover some of the aspects that are contributing to the life-to-work interference for students with the research question:

“How do the use of technology contribute to the life-to-work interference for students?”

According to Haeger and Lingham (2014) there is a great divide between generations and their strategies to maintain work and life domains with the use of technology. They suggest that this topic needs further investigation to be able to find out more of the different aspects of the different generations. Students do experience work-life interference, but have often been left out of the WL literature (Irfan & Azmi, 2014). There is therefore, a need to study this concept regarding students and their lives. This study will therefore shed some light on the younger generation, and more specifically students and their work-life problems.

There has been more focus on how work interferes with life or family, than life interference with work (Lapierre, Hackett, & Taggar, 2006; Pattusamy & Jacob, 2016). However, there are findings supporting that people allow the permeability of the boundaries from life into work more easily, than the other way around (Nam, 2014). This effect was seen in relation to the use of ICT. Therefore, in this thesis I will explore how the life-to-work interference (LWI) may influence students' life in terms of the use of technology. By using thematic analysis on focus groups with students in a Norwegian university regarding their use of technology in their daily lives.

Overview of the thesis

In this paper, I will open with an overview of the literature of important elements on the research on work-life literature (WLL), and how the technology is interfering with different elements like WL and school. In the theoretical chapter I will see how the WL perspective can illuminate how students divide “work time” from “leisure time”. The method chapter will first describe a general introduction to the terms used and the choices made. Then I will describe how I used the thematic analysis to investigate the research question, with a step-by-step guide of the analysis. In the end, there will be ethical considerations relevant to the study. The last chapter will cover the results of the analysis and the discussion of the findings. There will be a specific discussion on the themes found in the analysis after each of the elaboration of the themes. Then there will be a general discussion where I will discuss the main findings up against the research question. In this part of the thesis it will also include the limitations of the study, and suggestions for future research. The last part of this thesis will be conclusion; this chapter will sum up all the most important points.

Theoretical framework

Throughout this chapter we will go through the different aspects that are relevant for the theory. I will start with a review of important aspects of the work-life literature, that will be the basis for the discussion. Then I want to try to define what work and life may entail, based on different definitions and earlier research. Furthermore, I want to take a closer look at how the technology may influence different aspects of our life and work. The next part will focus on different types of technological interference. Finally, I want to look at how social media and addiction/dependency on technology influences procrastination.

Work-life theories

The literature on work-life has been around for a long time, and there have been two major perspectives in this field, either spillover theory or boundary theory. Spillover theory states that we have different roles in different domains in our lives, and we may experience conflict between the domains if one spill over into another one (Greenhaus & Beutell, 1985). There are three ways this may happen; time management, strain or behavior.

Boundary theory is the other way we may describe the way we separate the different domains in our life. The domains are separated by boundaries, and conflict occur when these boundaries gets crossed by one domain (Clark, 2000). Either we may choose to cross the boundaries or the boundaries are being broken by input from the other domains. For example, a person can be the boss at work, and when they are inside the office walls they are “Boss”, but as soon they are home in their house they are no longer “Boss” but rather “Husband” or “Father”. The problem may occur when we chose to break the boundary over to the other domain, for example when “Boss” must take a work call during family dinner.

Further, in this text I will use Clarks (2000) definition of work-family balance, which describes the issue as a boundary problem rather than a role switching problem. One of the reasons that I chose to use boundary theory is because it gives a framework for the unbalance between the domains, both for organizations and individuals. It also describes how and why conflicts may occur. As Greenhaus and Beutell (1985) explains in their theory work-family interference is when there is role pressure from one domain are mutually incompatible with the other, such as the participation in one role is made difficult by the other. Clarks (2000) theory explains in detail how this process may occur, and what

Another reason for choosing Clarks (2000) theory is that the individual chooses to define the boundaries of the domains, and chooses when to cross them. This gives the individual more responsibility.

There is a huge amount of literature that describes the relationship between paid work and life. Some of the literature also explains how WL issues may influence students in their life regarding the boundaries between different domains. Many of these are related to an additional domain, part time work, but few have studied the separation of home and school life. I want to examine how these existing theories may be relevant also for this part of the population. Is it possible for the literature to be used in a slightly different setting, e.g. the student life? Illustrating students' lives through into the work life literature may be beneficial. Irfan and Azmi (2014) for example, point to the need to look at work-life balance in relation to students. Both family and work (part time) factors are influencing students' balance of domains (Lowe & Gayle, 2007). This was true for both negative and positive influence from the different domains. This shows us, that there are things in students' life outside school, that influence their school life. Factors that are predictors of academic stress for students are anxiety, time management and leisure satisfaction (Misra & McKean, 2000). Both time management and leisure satisfaction can be seen in relation to the work-life balance among students. In a study where Olson (2014) investigated the relationship between students conflict of their work (part time), family and school conflict, she found that demands from school had a negative effect on the family domain. It is evident that students can benefit from the literature of work-life influence. In that regard I want to look at the different ways we define work and life/family, to get the best understanding. It seems that it may be beneficial to use WL literature to illuminate the way students divide their spare time and their work (school) time.

Boundary theory. Domains are “worlds that people have associated with different rules, thought patterns and behavior” (Clark, 2000, p. 753). The domains are more than the presence of a person at work or at home, and have different aspects of individual behavior connected to it. Some behavior is accepted at one domain, but not at the other. The separation of these domains is called boundaries, and is the point of where one domain starts and where it ends.

The crossing of the domains is what causes the interference between work and family, and then either by the work crossing over to the life or the life crossing over to work (Clark, 2000). There are different precursors for the direction that interference or conflict between the domains (Byron, 2005). This tells us that there are different solutions and different approaches

to dealing with the interference based on the direction. In order for the interference between the different domains to be characterized as a conflict it needs to have a negative outcome for the individual. (Greenhaus & Beutell, 1985). An example of this may be lower performance at work, or not being able to take care of all the tasks at home

The boundaries are characterized by the permeability, the flexibility and the blending of them (Clark, 2000). The permeability of a boundary is characterized through how the elements of one domain can cross over into the other (Hall & Richter, 1988). For example, this may be the emotions that one experienced by a fight with your spouse affecting the productivity at work the next day. The flexibility of the boundaries is the point of where a person choses to cross over into the other domain, or not to cross over. An example of this may be when a person has a deadline for a term paper, and choose to work during their spare time, and maybe even chooses not to spend time with friends, or family, to finish the work. Sometimes it is not clear if an event belongs in one specific domain, this is called blending (Clark, 2000). One example of this are a family business, where the person is at work but also spends time with family.

The strength of the boundaries is determined of how much the permeability, flexibility and the blending, influence the boundaries (Clark, 2000). Different people may experience different levels of interference, or be more exposed to one or the other types of conflict. For example, it is found that women experience more conflict and facilitation, in either direction, of the domains (Innstrand, Langballe, Falkum, Espnes, & Aasland, 2009). The experiences in interference are highly individual, and does not necessarily be the same for everyone.

Life to work interference. As mentioned before behavior, rules and thought patterns may cross over, by choice or not, to a different domain and create interference (Clark, 2000). When things from your personal life influence your professional life, we call it life-to-work interference (LWI), and are a separate thing from when work interferes with life (Mesmer-Magnus & Viswesvaran, 2005). These two different types of interference, will result in different effects for the individual and organizations. Early studies have shown that when the non-work domain interferes with work, it is shown to increase stress (Kelloway, Gottlieb, & Barham, 1999). Frone, Russell, and Cooper (1992) developed a model for the work-life interface, in this model they found that family interfering with work relates to work distress. More recent studies show the same result. When family interferes with work, it leads to less experienced job satisfaction and an increase in the experience of job distress (Bagger, Li, & Gutek, 2008). For example, by experiencing being supported by the family gives less LWI, and in turn makes us more satisfied with the family domain.

It is noted in one study that the younger generation (those who are not married) are more inclined to let life interfere more with working hours (Nam, 2014). This study defined life's interference with the work domain as instant messaging, personal e-mails and the use of social networking sites (SNS). By having technology available at work, it will be more difficult to focus on the work that needs to be done. This study show that there may be a negative interference from life into work, and this is being reinforced by the use of technology.

Balance at school. The literature on work-life balance among students have often been including a part time job. And often separate work, school and life into three parts of life. The unbalance between school and work can also be negative for the individual (Cinamon, 2016). For example, it is found that number of working hours, and financial support can inhibit the negative effects from work on school. It is not just the work and school domain that are influencing each other (Olson, 2014). The family domain may experience conflict related to school for the students as well as having a part time job.

There are different things that may be relevant in terms of interference between domains and preventing this interference in relation to students. For example, Lowe and Gayle (2007) found that success in achieving the balance of work, life and study was determined by their own personal coping strategies and their social support. It is important to include students in the work life literature. If there are negative effects from the interference from domains in student life, we should identify them to be able to avoid them. Kuhnle, Hofer, and Kilian (2010) studied the balance of adolescence life, and found that balance between domains may be beneficial for them. They suggest that “students with high self-control ability seem to be better able to prioritize their goals and to reduce conflicts between different goals” (Kuhnle et al., 2010, p. 254). The authors suggest that to have goals in different domains, and the ability to prioritize these goals can lead to less conflict and in turn may make the students more motivated for school.

Fusion of the domains. A lot of research has focused on the separation of the two domains work and family. However, a new concept has been introduced, and focuses on the fusion of the domains rather than the separation. Work-life fusion introduces the notion that instead of having to separate “lives” at work and at home but rather that both domains together are making a whole (Haeger & Lingham, 2014). During their study, they found a trend leaning towards this fusion, rather than a strict separation between domains, this is especially true for the younger generation. Differences in the use of technology, in different age groups are found, where they manage technology use in different ways (Haeger &

Lingham, 2014). For example, the younger generations are using social media as a tool, while at work, to manage both work and life aspects. Information and communications technology (ICT) can influence the way work and life influence each other (Sayah, 2013). ICT are mediating the influence from the different domains rather than as a cause on its own.

The definitions of work and life/family

First, when reading different WL literature, it is difficult to grasp what many authors and researchers define as work. Most studies have just explained that they will investigate the work-life or work-family, and no further explanation of the words is made. This may be natural, as it is common known what work and family are. But to be sure whether the literature apply to a certain group, there should be a definition to relate to. Some mention they define work as, either full time employment or paid work (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005).

Work is defined by the Oxford dictionary as “Activity involving mental or physical effort done in order to achieve a result” (“Work,” 2017), but are often used as a term for employment. Second, there are numerous different types of jobs, and they have different demands and resources, there are no “one size fits all” when it comes to work. Students could have some overlapping tasks with knowledge workers, for example academics.

In the work-life literature we often see a reference to the term family as the domain outside work. Family are often described as the close social relationships which include parents, siblings, spouse and/or children. The definition in the WL literature seems a bit narrow, this is a problem that Eikhof, Warhurst, and Haunschild (2007) states in their study. They refer to the need for a better refinement of the definitions of the work-life literature. The narrow definition determine that other aspects of a person’s life are not factors that may influence their work, or in turn that their work cannot influence other activities or other people than the core family, in their life. Others have also pointed out that WL issues may accompany many different live stages, and is not solely a field for adults with small children (Darcy, McCarthy, Hill, & Grady, 2012). In a study done on young to mid-age workers who live alone, not married and without children, the researchers found that these also experience work-life conflicts (Wilkinson, Tomlinson, & Gardiner, 2017). The study also revealed that this group experienced their WLC was not as important as other groups. First, they experience that their employer thought their free time were less critical, that they did not require flexibility in work time, and that their free time were only leisure based, compared to those with family responsibilities. Secondly the participants also experienced that there were some

of the non-work activities that they experienced as were more acceptable to pull time and energy away from work. For example, the participants experienced that it was less acceptable to having to leave work earlier to engage in different after work activities, than having to take care of someone else or parenting. This group is often unincluded in the WL literature, but is also experiencing conflict between the two domains. We can compare this group to students, many students are often unmarried and without children, and have other things in their spare time that take up time, and may be important for the students. There will of course be some rules from the workplace that needs to be taken into consideration through this perspective as well. For example, the Work-Environment law (arbeidsmiljøloven) in Norway have guidelines that determine what will be acceptable and not. But to illustrate we see that this group, young unmarried workers, do experience interference, and by comparing them to students we can find it necessary to study the students as well.

Another important aspect in this debate is that for young adults' friendships often become more influential and more important than family relationships (Carbery & Buhrmester, 1998). In this way, it is not necessarily the family, e.g. parents or siblings, that are the main influencer. When we know that friends are often more influential for the student in his/her life, it should be relevant to include this aspect into the "family" or non-work domain.

It seems that it is limiting to just include family, e.g. the interference from a spouse or parenting, in the life domain. The term life will be used as a more wholesome way of looking at the domain outside work, and will include the important social relationships, family, friends, hobbies and other spare time activities. In just including more aspects, we do not lose the research of the family domain, we simply add other things to the definition. Clark (2000) define the domains as "worlds that people have associated with different rules, thought patterns and behavior" (Clark, 2000, p. 753). This do not make any restrictions to whether it is family, friends or other things in the non-work time in a person's life, and will also be the basis for this thesis definition on what the life domain entails. The same thing will be the basis for what constitutes the work domain, the things that containing the rules, thought patterns and behavior for their time at school.

Technology and its influence on work life balance.

ICT's are giving us a new platform for the users to engage in both work and personal activities (Chamakiotis, Whiting, Symon, & Roby, 2014) One of the major fields within WL literature is the influence from work on life in relation to technology. There are several studies

that have found relationships between WLI and the use of technology. For example, Derks and Bakker (2014) found that the amount of smartphone use is related to the experienced amount of WLI. Other findings show that the flexibility and the permeability of the boundaries are being influenced by the use of technology (Nam, 2014). The impression people have on these factors, flexibility and permeability, are being shaped using technology. The technology and the way we use it, will influence the limit of interference from either domain. The more time spent on ICT after work hours the more people experience WLI (Wright et al., 2014).

In a recent study, it was seen that the technology is neither a recourse or a demand for the individual in work settings (Piszczyk, 2016). The technology is described as more of a tool, that can be used to separate the different borders between work life and the personal life. The way we choose to use the technology determine how it will influence the individual. It seems that to exercise a strict divide between them can make the individual experience consequences. One should rather strive for an optimal level of control, and by doing so making the use of technology a resource, rather than a demand. A study done on young academics with children found that the use of technology in their work (computer and e-mail) is both a “blessing and a curse” (Currie & Eveline, 2011). The flexibility the technology was a good thing, but they struggled to manage to separate the domains.

Technology has changed the way we are working; we work in different ways, and the technology has different influences on or work than before.

ICT influencing school

As mentioned in the introduction, students often use different types of technology in their studies (Henderson et al., 2015). We also know that, technology is making the experience of the boundaries between domains to be more blurry (Currie & Eveline, 2011). It is noted in one study that the younger generation (those who are not married) are more inclined to let life interfere more with working hours (Nam, 2014).

Technology has become an essential part of higher education, both smartphones and laptops are now widely used by students during their work day (Henderson et al., 2015), and almost every student use their own computer and smartphone in relation to school activities. Bringing your personal device may accompany some issues. For example, there is a greater access to different distractions, like social media, that may be interfering with the work that needs to be done. According to Junco (2012) sixty-nine percent of the students in their study reported that they used text messages during class. Another study found that two thirds of the

students in their study used electronic media while in class, while they were studying or when they did their homework (Jacobsen & Forste, 2010). This resulted in a lower GPA for the students. Using smartphones at school can make the students focus more on their phone, rather on their schoolwork (Anshari, Almunawar, Shahrill, Wicaksono, & Huda, 2017), which can in return result in degraded performance. The amount of time spent on technology a day (Wentworth & Middleton, 2014) and non-academic ICT use (Salomon & Ben-David Kolikant, 2016) has a negative correlation with academic performance.

Multitasking. The term multitasking is referred to using different devices and/or switching between different tasks at the same time. Just by owning and using a computer, you are more likely to multitask (Cotten, Shank, & Anderson, 2014). However, the engagement in the use of these different technological platforms modify the effect. If a person is engaged in their work, they will be less likely to multitask with other activities or devices. Adler and Benbunan-Fich (2012) found that multitasking can be productive up to a point, before it decreases the productivity. Multitasking does not seem to be all negative, but should be used in a moderate way.

The way we engage with the technology may influence the use of multitasking. Wilmer and Chein (2016) found that a heavier investment in mobile technology could influence tendencies to delay gratifications, and our ability to exert impulse control. The authors proposed two different answers to the question; why people are constantly engaging with technology. Their explanation is “(1) individuals are unable to withhold the impulse to check, whether driven by endogenous thoughts or exogenous cues, and (2) individuals engage with their phones in an attempt to seek out a rewarding stimulus” (Wilmer & Chein, 2016, p. 1613). This may be one of the reasons people chose to engage in more than one device at ones.

Multitasking may also be related to the negative effects of technologies on students' performance. One study found that students who were instant messaging (IM) while reading spent more time during their study session (even when subtracting the time it took to use IM), but that they did not perform any worse than those who read without using IM (Bowman, Levine, Waite, & Gendron, 2010). Even though multitasking not necessarily interferes with student performance, it will influence the time needed to study to retain the same information. Other studies have shown a different result for example Junco (2012) found that social technologies, like social media and text messaging, were related to a lower grade point average for students. However, Juncos study was done during a class, and therefore measured the students with a time limitation, and that may be the reasons the students who multitasked

performed worse than in Bowman's et al. (2010) study. There is therefore not necessarily a negative impact for results at school to multitask, but it may seem that multitasking in general will make students spend more time working to gain the same result as someone not multitasking.

Even though the performance may not deteriorate from multitasking, but rather took longer time to gain the same results, it may have other effects. The use of different media when studying resulted in both a decreased negative affect and lower self-control, during homework sessions (Calderwood, Green, Joy-Gaba, & Moloney, 2016). However, the students often had a large rate of error when predicting how much negative impact the distractions make. There seems to be a self-regulating failure linked to this element.

Procrastination

According to Steel (2007) "procrastinate is to voluntarily delay an intended course of action despite expecting to be worse off for the delay." (Steel, 2007, p. 66). It has been linked to a failure to self-regulate behavior (Senécal, Koestner, & Vallerand, 1995). Findings show that self-regulation accounts for approximately twenty-five percent of the procrastination behavior. Procrastination is more than just laziness, and a failure to structure time it seems and there are several other elements that are affecting procrastination among students. For example, personality have been linked to different types of procrastination (Kim, Fernandez, & Terrier, 2017). The personality trait that have been linked to procrastination are conscientiousness, included in this trait we find elements of self-discipline and impulsiveness (Steel & Klingsieck, 2016). None of the other personality traits had an impact on procrastination, and therefore we should consider reasons for procrastination that are linked to self-regulating and lack of impulse control. The term procrastination seems to be a complex phenomenon, and are likely to have several underlying reasons.

By actively making choices we lose the ability to self-regulate (Vohs et al., 2008). The authors found evidence that we have an energy resource that is being depleted every time we make a choice, and consequently we become less able to self-regulate. On the other side of the scale we see that self-regulation can negatively affect cyber loafing (Gökçearsan, Mumcu, Haşlamam, & Çevik, 2016). With the ability to be strict on your own behavior and do what you are supposed to, there will be less use of internet in a negative way.

The use of the Internet has been linked to procrastination (Reinecke et al., 2016). The authors found that goal conflict between the media and other tasks may be important for this as well. So, it is not just the lack of time management that influences the impact of

procrastination. More specifically, social media are often used to procrastinate. According to a study there are three predictors of procrastination among students Facebook use; trait self-control, habitual Facebook checking, and enjoyment of Facebook use (Meier, Reinecke, & Meltzer, 2016). This in turn resulted in a higher level of academic stress and less wellbeing of the users.

Addiction to technology

The use of technology is not solely done in a positive manner, and sometimes it results in a negative outcome. One study found that students are often not able to reduce the time spent on internet, even when they actively try to (Bicen & Arnavut, 2015), and the use of social media is experienced as a habit and are the new normal (Flanigan & Babchuk, 2015). Technology has become a source of addiction, and there is a clear diagnosis for it (Young, 1998). She found that 58 % of students had a negative impact from internet to school interference, it influenced their grades and/or their study habits. There is a small part of the student population that are affected by serious internet addiction (Poli & Agrimi, 2012). However, the tendencies that accompany the increased levels of addiction, or addictionlike behavior may be negative for the student group.

By having access to, and the use of something does not make us addicted to it (Shaffer, 1996). According to Sussman and Sussman (2011) addiction have five criteria. The first criteria is the behavior and to be engaged in the action enough to get the wanted effects. The second criteria is that you need to have the immersion in the behavior. Number three is that you feel saturated only for a period. The forth is a loss of control. And last one is when it goes so far that you get negative consequences from the behavior. There are clear points that need to be met for someone to have an addiction.

Addiction to technology may have some negative impacts on young adults. For example, Nalwa and Anand (2003) found that addiction to technology may result in delaying work, loss of sleep, and a feeling of boredom if they did not have access to internet. They also spent more time on the internet than those who were not addicted. Another finding from this study also show that the addicted participants scored signifyingly higher on loneliness than the other group. This shows that there are complex negative side effects from being too dependent on technology.

There are different variables that can predict addiction among students, like gender, whether the person is married, and how far along in the study the student have come (Aljomaa, Al.Qudah, Albursan, Bakhiet, & Abduljabbar, 2016). The more you use your

smartphone, duration and number of times a day, result in a higher tendency to experience smartphone addiction (Gökçearsan et al., 2016). Smartphones are “always” within reach, limit communication with social relationships that are physically near, this may also affect the learning environment for the student. Both female and male students have the same tendencies to be addicted to their smartphone (Hawi & Samaha, 2016). Younger people have a higher likelihood of becoming addicted to technology, than older ones (Ferraro, Caci, D'Amico, & Blasi, 2007). The writers said the reasons for this might be that younger people, are more interested in ICT and that the use of these types of technology in the time of their life where their identity are being developed. In the later stages of identity development typical late adolescence and young adulthood, it is peers who are the influencing factor for most (Meeus & Dekovic, 1995).

The addiction of cellphones has a component that are linked to social aspects (Roberts, Petnji Yaya, & Manolis, 2014). In this study, they found that women spent more time on their cellphones than men, and scored higher on addiction. Women used their time on the cellphone to foster friendship and to expand their social network, whereas men had more purposeful use (means to an end) (Roberts et al., 2014). The use of the cellphone could also predict addiction. For example, concrete social media sites predicted more addiction than others. Social media is making us more inclined to be addicted to the internet (Leung, 2014). When the participants of the study found that gratifying social media use at one point, this made the participants more inclined to be addicted to the internet later. So, there seems to be a component of social influence in the measure of addiction to technology. In another study, which used students, the authors found that the top three activities that their informants spend most of their time on their cellphone was; number one texting, number two e-mail and number three social media (Roberts et al., 2014). All these three activities are linked to talking to other, and show us that the mobile phone are a device which often is used to socialize.

The term FoMO, or Fear of Missing Out, is a relative new term that describes, literally, the fear of missing out on something that others may experience. By always striving to stay connected to others, often via social media, the fear reduces (Przybylski, Murayama, DeHaan, & Gladwell, 2013). The phenomenon is related to the culture of always being connected to others, and to different types of technology. The relationship between FoMO and addiction is not surprising. The more FoMO people experience, the higher they score on the degree of addiction to technology.

The social aspects and technology

The technology has taken over many aspects of our life, and, not surprisingly, social relationships are no exception. Social media are one of the things that have been developed purely to let us keep in touch with other people. According to the Oxford Dictionary “Social media” are different websites or applications that allow us to network and share content (Social media, 2017). Social media are platforms for people to share their thoughts, ideas, work, and engage in socializing with others. There are a lot of different apps designed for keeping up with the social relationships in our life. We have even started to searching for love and romantic relationship online, apps like Tinder is an example of this. Social media has become the main channels for communication, and is one of the most important ways people interact with the world (Flanigan & Babchuk, 2015). Young adults use Social Networking Sites (SNS) daily to keep in touch with friends (Niland, Lyons, Goodwin, & Hutton, 2015). Social media has an important role in maintaining and developing friendship in the younger generation. One study found that adolescence who have a supportive network of peers offline and online have a better self-concept, than those who just have a supportive network online (Khan, Gagné, Yang, & Shapka, 2016). There is a need to have friends and support not only online, but as classmates and friends outside the internet. There are findings that show that social support online is positive for the person (Oh, Ozkaya, & LaRose, 2014). Whitty (2008) found that socializing online can be a way of learning social skills for young people, which they can use in the offline world. Young people have the habit of using social technologies when they are with their friends (Bicen & Arnavut, 2015; Jacobsen & Forste, 2010). Social media has become an important part of the culture in this group, and many is using SNS the moment they wake up in the morning (Bicen & Arnavut, 2015). The authors also found that there is also a tendency to spend more time on social media than with friends. The effect social media brings, may be negative for the individual. For example, when spending time with friends, this interaction may be interrupted by social media use. The maladaptive use of social technologies can create communication problems for the individual (Bicen & Arnavut, 2015).

It is often people who experience loneliness who prefer social interactions online rather than face-to-face (Morahan-Martin & Schumacher, 2003). The authors also found that people who are lonely, have a greater chance of having the internet interfere with their day to day functioning. Preference for socializing online is also linked to problematic internet use in the future (Caplan, 2003). If a person rather “spends time” with friends online, they are at greater risk of using technology in a maladaptive way.

Social media influences on our work. Social media are personal platforms where individuals can communicate with their friends and acquaintances. These platforms are frequently used among students (Al-Sharqi, Hashim, & Kutbi, 2015). The three main uses of social media are entertainment, information searching and learning. There is a high percentage of students that use social media in their learning and education. One example of this may be the use of YouTube, watching informational videos about a subject.

Social media is often associated with just social networking for personal purposes, but can it give us an advantage at work as well? One study found that social media may have a positive influence on work (Leftheriotis & Giannakos, 2014). By studying employees in the insurance sector Leftheriotis and Giannakos (2014) found that the workers became more productive when using social media at work. A person could use the social media either for personal use, e.g. socializing, or to enhance their job, e.g. keep in touch with customers. The more they used their social media at work, the more likely they also were to use it to enhance their work.

However, one study found that when students use social media while doing work, they stop engaging in school related tasks and focuses solely on the social media (Flanigan & Babchuk, 2015). This is a counter finding to the literature that describes social media as a learning tool. The quality of studying will decrease during the times they studied and used social media at the same time. And that the students felt like social media use became a habit. Social media has become integrated in the student's daily life, and a part of their way of communicating with peers and the social environment (Flanigan & Babchuk, 2015). For the student, it is experienced as a distraction, and will lead to decreased performance. Even when the students were aware of these effects of the use of social media at school, they found it difficult not to engage in it. By using social media, like Facebook, to delay tasks it gives the students a feeling of more stress (Meier et al., 2016). Even though the students can see that their social media use are unproductive and they perform less well they still do engage in it during working hours.

Social norms. As humans, we are a part of a social group, and this group will influence the things we do. Normative social learning can happen in one of two ways, either learning to behave in a way others approve of, or learn to avoid those behaviors that they experience are not approved (Cialdini & Trost, 1998). This type of social learning is based on a need humans have, to be accepted by others. Subjective norms are a different name for this kind of social beliefs (Fishbein & Ajzen, 1975). This types of beliefs are an influencer on the behavior people have in different situations, and these types of norms influence on technology

use are no different. We also see that peer-group norms do have a strong influence on behavior for young people (Gunther, Bolt, Borzekowski, Liebhart, & Dillard, 2006).

In students' life, it is seen that social media has an important role (Bicen & Arnavut, 2015). Non-verbal social norms that we see in our day to day life are often being transferred to online worlds (Yee, Bailenson, Urbanek, Chang, & Merget, 2007). The social norms have a transferable value to the online world. It has also been found a link between social media use and social influence (Workman, 2014). They suggest that it is not only the technology itself that effects the use, but that the social influence may be an indicator whether a person chooses to use different social media.

Social norms have an influence on the work to life interference (Derks, van Duin, Tims, & Bakker, 2015). The experienced social norm in companies on whether it is expected of the employee to work outside working hours are a determiner of whether an employer will work in their spare time. Social norms seem to have some sort of influence on work-life dimensions, for example by giving guidelines to when and where it is acceptable to use different types of technology.

Method

In this chapter I will describe and illustrate the path through my analysis of the data. For my research, I chose a qualitative approach and used a thematic analysis to examine the research question. My research is focused on the influence that technology may have on interference from life to work, and I used six focus group interviews with students from a Norwegian University to investigate this. I chose to use a thematic analysis to find the underlying themes of the data, and then focused on the aspects that were related to these topics. The interviews I used for this study were from a project which already had been started. This project is a follow up study about young adult's mastery of new media done by Rice and Hagen (2010).

In this chapter I will describe the background for my study and the choices made along the way. Then I will go through the analysis and how I ended up where I did. There will be a detailed description of the steps of the analysis. In the end of the chapter, I want to talk about some ethical considerations.

Media mastery – the background for my study

My project is a part of a larger research project called "Media Mastery". This project was designed to investigate what young adults experienced with technology in their day-to-day lives, and the mastery of these technologies. There had already been conducted a series of focus group interviews, with participants from one Norwegian University (NTNU) and one American University (UCSB). This project was a follow up project from a similar one, conducted in 2006 (Rice & Hagen, 2010), where they studied the mastery of technology by the young adults then. But with the everchanging and expanding technology, there was a need to revisit the project.

Selection and recruitment

I chose to use the focus groups with participants from the Norwegian university. The participants were 22 students divided into six groups, there were thirteen females and nine males. The interviewees were from a range of different courses and levels of education, from bachelor students to Ph.D. students. Thirteen of the participants were ethnic Norwegians, and nine had different ethnic backgrounds.

The participants were recruited by the researchers and student assistants. The goal was to recruit a variety of different people for the study, and thereby gaining more diversity in the discussion emerging in the focus groups. The diversity of the participants is an advantage for

the study and are positive for the research to gain a wide range of opinions and a productive discussion. There was therefore a focus on recruiting students with different ethnicities.

There were two criteria for being able to join the study. The first one was the participants needed to either own a portable or stationary computer, or have access to a computer at the University. The second was that the participants owned a mobile phone. These requirements were set because of the nature of the research topic being the mastery of media, and how they use the technology in their daily life.

Interview guide

The interview guide is the information that is needed to conduct the interviews. It contains the topics and question that are supposed to be covered in the interview. The interview guide had the questions that could be asked in the interviews (Appendix 1). There were one set of questions, and was asked two times. Either with a focus on the use of a computer or a tablet, or on the use of their mobile phone. There were six questions, and one follow up question. The follow up question were attached to the first question, and was to be asked if it was not already answered. The participants got a copy of the questions, so they could keep up with the discussion and the question asked during the interview. In the interview guide, there were also information on the role of the moderator and the note taker.

One thing to note is that the questions were compiled in 2005/2006 for the first Media Mastery project and was experienced as somewhat artificial, noted by the moderator and student assistant. The reason for this was that the question had a clear-cut line between the use of the computer and the mobile phone, which we do not have today.

Choice of methodology

For this study, I chose to use a thematic analysis to investigate the data. According to Braun and Clarke (2006) “thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail” (p. 79). You are trying to find the overall themes in the data, by looking for the commonalities in the structure of the text.

There are both benefits and limitations to the different methods. One of the major benefits of the thematic analysis is its flexibility (Braun & Clarke, 2006). And when you are using focus groups this is a good method to use, this is because of the detailed material you get after the interview is done. In this way, you get to manage a large amount of information, and makes it more manageable considering the amount of information you analyze. This is the

main reason I chose to use thematic analysis; the focus groups have a huge amount of information. By using thematic analysis, you have the flexibility to go along with the information in the data, and are not bound by strict rules.

The nature of a focus group interviews allows the discussion among the participants to be more free than a standard in-debt-interview. The second reason I chose a thematic analysis was because the focus groups did not directly discuss all the elements I wanted to investigate. For example, the questions did not specifically focus on life-work conflict, to illustrate, one of the questions was “For what school-related tasks do you use the ... (mobile phone or computer)?”. Therefore, I needed a more flexible research design. The overall theme I was interested in were not measured directly, but rather inferred to from a fragmentation of what was being said by the participants.

A third reason I chose thematic analysis was because, even though the interviews discussed the use of media in the participant’s life, I was not necessarily interested in every aspect of their media use. I could manage the large amount of information I got from the interviews, and the same time focus on the important aspects without compromising on the quality or be restricted in my research.

Focus group interview

Focus group interviews are when a researcher interviews a group at the time (Gibbs, 1997). The participants participate in a common interview; around the topics the moderator introduce. The purpose of the focus group is not necessarily the individual answers of the participants, but rather the discussion emerging within the group. The researcher has an active role in guiding the discussion to topics that are interesting. The active part of the researcher could be a negative thing, because it may be more difficult for the discussion to take a natural course. When you use focus group interviews, you may be more interested in the discussion around a topic, rather than the individual participants’ opinion.

One of the disadvantages of focus groups is the emerging of group effect (Powell & Single, 1996). This is when the single participants are influenced by the other participants or the moderator, for example that the group are more likely to reach consensus. Another disadvantage with focus groups is that it is more superficial than an in-debt interview.

Another disadvantage is that the moderator has less control over what the participants are talking about (Powell & Single, 1996). The discussion may also be more superficial than an in-debt interview, and are often not suitable for personal or health related topics. In this study, none of these disadvantages seemed to be a major problem.

One of the advantages of using focus groups are the possibility to find out what the full range of meanings the participants have concerning a topic (Powell & Single, 1996). Another advantage of the focus group is that the discussion about the topic generates a discussion amongst the participants which can help the participants elaborate and expand their contributions about the topic. In other words, the discussion itself helps the participants remember and elaborate more.

The interviews. In my study, I chose to use the Norwegian focus groups, the amount of information was sufficient in the six interviews I chose. The length of the thesis did also put a limitation on how much information I could elaborate on. By including the American interviews, it would have made it necessary to take the cultural discussion into the findings, thereby by choosing to use only one country's participants narrows the study down.

The focus groups consisted of three to five participants. Some of them had both genders, some were a mix of men and women. Lastly, several of the groups had people from different ethnicities, and some were mainly ethnic Norwegians. Most of the participants were students from different psychology, and media science courses. The diversity between the participants was large, because of the different ethnical backgrounds of the participants.

The conduction and transcription of the interviews. The interviews were conducted with one moderator and one assistant who took notes. The moderator asked the questions, and the participants answered. The moderator had an involved role in the interviews and asked follow up question, confirmed what the participants said and generally was engaged with the participants.

The interviews were taped on an audio recorder, and transcribed later. The notetaker took notes during, and used these when transcribing the interviews. When I got the interviews, they were already transcribed, during this process they was also anonymized. It was the learning assistant and one other person who transcribed the data, they also translated the five that were in Norwegian to English. This process was done so the American researcher should gain access to the interviews in the Media Mastery project. I had access to the Norwegian versions of the text, and could go and check if there was something in the translated interviews that did not make sense, or something being translated that seemed wrong.

As mentioned earlier, as I got the interviews already transcribed and anonymized I do not know who the different participants are, therefore further in the text when I refer to one of the participants I will use the male term he.

The study's analysis approach

The analysis was inductive, where you code what the participants are saying line for line (Braun & Clarke, 2006). The themes that was found during the coding process was made up of what the participants said, and not by the theoretical background. However, at the stage of defining the themes I switched to a more deductive approach. When I defined, and grouped the themes, I was more driven by the theory. I then focused on how the themes might be related to each other, and what was a relevant theme to bring into the further analysis. The study was therefore an inductive approach with a deductive character.

I chose to use a semantic approach to the work with themes. The semantic approach is when one codes the data on the surface, and not looking beyond what the participants are saying in the search for meaning (Braun & Clarke, 2006). I chose to code what the participants said, without searching for some hidden meaning behind it. I felt that during a focus group interview you do not necessarily get to go deep enough in one participant's opinions and feelings, that it would have been correct to interpret hidden meanings behind everything they said.

Thematic analysis

I decided to use the six steps from Braun and Clarke (2006) article: getting to know the data, initial coding, searching for themes, looking over the themes, theme differentiation and labeling and producing the rapport. This process is not a step by step process, but rather a more dynamic process where you go back and forth between the steps in the analysis. For example, when you have defined a theme it may be necessary to go back and reconsider the earlier steps, to get the most accurate analysis. In the analysis, I often went back and forth and changed codes, themes and overall the perspective in the analysis. This flexibility ensures that the work that is being done is accurate, and not leading to biases. I chose to use NVivo as a tool to better help me organize and manage the thematic analysis and all the different codes. NVivo is a software developed to aid in qualitative research (Bazeley & Jackson, 2013). I used NVivo to do some initial coding, but the remaining analysis used was done by hand. I mainly used NVivo to organize the different codes and documents.

Choices made and why. In thematic analysis, there are different choices that needs to be made before or during the analysis (Braun & Clarke, 2006). First, one important aspect is to determine what constitutes a theme and not. At this point, there is a need to make a choice on the prevalence and content of the potential theme. The second choice that needs to be made

is whether one should have a rich description of the complete data set, or a more detailed view of one aspect of the data.

A theme is supposed to capture important aspects of the data (Braun & Clarke, 2006). A theme should be present in all the focus groups, and should be covering at least 10 % of the data in the different interviews. This is not a high percentage, and but I still made the cut off point at 10 % because of the changed perspective mentioned earlier. This is the limitation for the main themes, even though not all the subthemes do not meet this requirement they are still defined as a theme. By having only one aspect of the data, and not the entire data set, there is no need to cover that much of the dataset. To determine if the theme is good enough, it needs to have a certain “keyness” (Braun & Clarke, 2006). That is, that is captures something important that is relevant for the research question. This is connected to the reason why I chose to have the cover percentage as “low” as I did. Even though a theme or subtheme was not talked a lot about in one of the interviews does not mean that it is not important. Because of the open questions asked during the interviews, the discussion could go “anywhere”. When a key concept came up during a discussion it is important to bring it into the analysis.

When it comes to the second choice we need to make in a thematic analysis, e.g. whether the analysis will focus on everything or just a part of the data. At first I wanted to focus on an overall view of the entire data, so that was the starting point when I started working with the data. During the third stage of analysis, there were some of the information that did not seemed as relevant to the topic I wanted to investigate as other elements. And with this realization, I chose to narrow down the investigation to a more specific goal towards the research question.

Thematic analysis step by step

This process is a step by step process, not necessarily one directional, i.e. going forward, but rather a process that are fluid in the terms of going back and forth among the steps. I want to describe in detail how I did the analysis and how I got to the results I did. The next part describes the analysis done step by step. I will try to be as thorough as possible in the descriptions to illustrate the choices and decisions made along the way.

Step one getting to know the data. This step is getting to know your entire dataset (Braun & Clarke, 2006). And it involves reading and re-reading the transcribed data. Many also take this step during the transcription of the data, but since I got the focus group interviews already transcribed I needed to read the data a few times. Five of the interviews were conducted in Norwegian, and one in English. When I got the interviews, the Norwegian

ones had already been translated into English by another person. The interviews were in a range from 14 pages to 22 pages long, with a mean of 17 pages. Because I did not have prior knowledge about the interviews or the study they were designed to this process took a longer time than I thought I would. I spent three days reading and taking my initial notes. I found some aspects that I wrote down to bring with me for the later stages of the analysis. However, most of the aspects that I focused on was things that emerged during the coding process.

During the process of reading the interviews, I also anonymized the data, removed names and identifiable aspects of what the participants said. The transcripts had already been anonymized by who said what. There were some references of names from one participant to another, and I had to change the name of the person been refereed to.

Step two initial coding. This step is when you have read the interviews and are ready to start coding the transcripts into the meaningful codes (Braun & Clarke, 2006). As mentioned before, I chose to have a semantic coding process. The codes were therefore made of the meaning of what the participant said, and not the experienced underlying meaning the researcher gives to the discussion. When coding the material one should develop as many potential codes as possible, because it is not certain at this point what would be interesting later.

After I had read through the interviews during step one, the process of coding the interviews started. I systematically went through all the focus group interviews one by one, and coded the text. Some of the coding that seemed relevant I coded a small piece of the text, and other parts I coded larger amounts at the time, based on the content. I chose an inductive form of coding the data, this was to find the essence in what was being said and not from existing theories (Braun & Clarke, 2006). Some examples from my coding is “Expectation of availability”, “Technology use to relax” and “Experience diffuse lines between school and life”. I went through the texts first one time, but went back to the earlier texts if I found a new and interesting code which I might had overlooked. Examples of a snippet of the text and how it was coded in table 1.

Table 1.

Snippets of text	Coded at
Indeed, but when I use my PC to do assignments etc. I use to detach every social media function on my computer. Then I only have school related stuff visible. My phone, it can also receive notifications and make distracting sounds. Here I use the silence function and leaves it.	Strategies to avoid distractions Phone is element of distraction Strategies to avoid distractions

Table 1. One text snippet, and how it was coded from focus group interview number 4.

When I had gone through all the interviews once, I ended up with eighty-four different codes. After going over the interviews one more time, with all the codes already made, I still had eighty-four codes. However, when I looked over all the codes, some of them seemed too similar to each other. I therefore chose to merge them together. I also had a code that was called “un-coded”, where I put all the elements that did not fit anywhere else. I also had a code that was called “technical”, where I put all the text linked to purely technical aspects, which was considered not relevant for this study. An example might be mentioning the brand of computer they had. This could have been interesting to study as well, but in order to not get a too wide theme, I chose to put it aside. I did go over the “un-coded” and the “technical” codes in the end of this to make sure I had not missed something important that would fit into the codes I ended up taking to the next step. When all the re-editing of the codes was done, I ended up taking 70 codes to the next step in the analysis.

At this stage in the analysis I started to see some of the aspects that could be important for the next step. I created memos, in NVivo, that I linked to the code that the aspect emerged from, to have more control over the information and where it came from. For example, I noticed that much of the comments that were focused around the aspect of procrastination often were linked to the use of social media. I wrote down my thoughts, linked it to the code procrastination, and carried on with the coding. When the coding was done, these memos was re-examined and elaborated before starting the next face; searching for themes.

Step three searching for themes. By using the different codes and grouping them together to form themes that may contain important aspects of data (Braun & Clarke, 2006). This part of the analysis takes the focus away from the data, and the narrow view of the codes, and focusing more on a broader search for meaning within the data.

At first I identified eleven different themes that seemed to capture different aspects of these codes. I went through one by one to find the essence in the different codes, and wrote down a sentence or two about what the theme was about. By further inspections I found that some of the themes had some overlapping content, and needed to further refine my themes.

After some work, there were six themes that seemed to be capturing the essence of the topic of interest. At this point I no longer used NVivo, other than to check and recheck. for more than to have the codes and the themes to reference and check. But copied the themes into a Word document, where I started to write down the essence of the codes and themes. This was done to have better control over the themes, and give me a better overview on the themes to see if there were some overlapping etc. This time around, when I went over the bits of text that made up the codes it seemed more coherent. Of course, these themes needed some refinement and perhaps a change of names. This took place in the next step, where the focus is further work with the themes.

At this part of the thematic analysis gives room for discarding codes that are not relevant for the overall themes that one is producing (Braun & Clarke, 2006). In the interviews, there were a lot of talk about the technical aspects of media use, for example naming of different brands. They were not necessarily unimportant, so I did not discard them at this point. However, after I returned to this code and made sure I was not losing important aspects, I ended up not using much of the codes from this part further in the process.

Step four reviewing the themes. In this part of the analysis, refinement and reconsideration of the themes is in focus (Braun & Clarke, 2006). The themes that has been defined earlier need to be reviewed, some of the themes may be excluded, some may be imbedded into others and some may be separated into different themes.

This phase includes two different levels of reviewing (Braun & Clarke, 2006). The first one is focused on reviewing at coding level, where you look over all the text gathered in a theme and see if they are coherent. At the next level, you look at the validity of the themes in relation to the entire data set. There are also two goals in this part of the analysis. The first goal is to find out if the themes are a good representation of the dataset. The second is to find anything that may be missing in the coding, something that may have been overlooked for example.

In NVivo I collected the codes that made up a theme and then had all the text belonging to a theme together. I read through all the text from the specific theme, and removed the aspect that did not fit into it. I also moved some of the codes that seemed like a

better fit into other themes. In this way, I could refine the themes to get a more coherent theme.

To ensure that the theme was valid, in relation to the data set, I made a map of the different themes and their relation to each other. This process did ensure that the themes was both internally homogenic and external heterogenic. From this step, I had two main themes, with three subthemes linked to each of the main themes.

Step five theme differentiation and labeling. This step allows you to define and to describe the themes that have been developed in the previous stages (Braun & Clarke, 2006). Furthermore, the goal is to identify the essence of the themes, and what the themes captures of the data. It is also important to make sure there are no overlapping between the themes, and to avoid this, a thorough review of the themes are necessary. This is what I did, I went over the different themes multiple times. I also changed the name of a few times to be as accurate as possible.

The main theme “Use in daily life”, had the subthemes “Technology as a resource and a risk”, “Awareness of use”, and “Social relationships”. The main theme “Life-to-work interference”, had the subthemes, “Procrastination”, “Changing social norms”, and “Addiction to technology”. All the themes, except “Awareness of use”, were mentioned in the six focus groups. I chose to keep “Awareness of use” as a theme, even though it was not mentioned in one of the focus groups, because it seems to capture something important.

Through the process I concluded with that the themes are coherent, and I believe that they capture the essence of the topic of interest. All the themes are also more or less present in all the focus group interviews. Further explanation of the different themes will be in the result part of the thesis.

Producing the rapport. This stage is writing the report, or in this case the master thesis. This stage is when you take your findings and integrate it with what others have done, you look at your own research in a critical way and evaluate your own work. You also compare it with other findings to see the larger picture and, hopefully, contribute to the field.

The analysis of the research was written down in the result section, in this phase I found extracts from the different focus group interviews. I tried to find the extracts that in the best way captured the essence of the different themes. I also chose to write part of the discussion in the results section, to avoid repeating much of the results. The rest of the thesis (e.g. parts of the introduction, the theoretical framework and the main discussion) was mainly produced after the results chapter had been written.

One other thing that is important to mention, is that through the work with the result section I found some errors in words. Five out of six interviews, as I mentioned earlier, had been translated from Norwegian. And in this process, it seemed that there had been made some errors in the translation. Even though there were some alteration of the words in the text, this was not done in any way that might change the meaning of what the participants said. When I changed the errors, I checked the Norwegian interviews and the translated ones to make sure that the meaning of what the participants said was the same. For example, in one of the interviews it said “*I might feel like I’m less important, or the second choose*”, this was altered to “*I might feel like I’m less important, or the second choice*”. I also went back to the Norwegian interviews and checked the translation of the words addiction and dependency, as the Norwegian word for these two words are the same (e.g. avhengighet). This was to ensure that the translation was correct in terms of the context it was used in. None of the changes that was made, was done in a way that would alter the meaning of what the participants said.

Ethical research considerations

This study did not focus on anything health related or personal, so the ethical considerations do not surpass the normal ethical norms for research in general. In this study, we therefore followed the general ethical norms in qualitative research, like informed consent and confidentiality. The research team of the Media Mastery project, applied to NSD (Norwegian Center for Research Data), and got approval for the project.

Informed consent is an important aspect of psychological research (Ritchie, Lewis, Nicholls, & Ormston, 2013). The participants received information before the focus groups were conducted about the nature of the study, and what was the meaning of the study. They also had to sign a form (Appendix 2), before starting the interview, where they got information on the background and purpose of the study, what it meant to be a part of the study, what happens with the information from the interviews and the right to withdraw one’s attendance.

One of the important aspects of research is the right to confidentiality. The focus groups had already been anonymized by the time I got them, so the interviews were anonymized before I started the analysis. When receiving the transcripts, I went through them and removed anything else that may make the participants identified. For example, if the participants referenced to each other by name, I changed the name of the person being referred to.

Results and discussion

In this chapter I want to describe the results of the analysis. The aim of this study was to gain some insight into how students technology use may be connected to the interference from life to work. This was done by examining six focus group interviews with students from a Norwegian university. The students discussed their use of their smartphone and computer in their daily life, and how they experienced the use of these technologies I tried to find what could be linked to LW interference.

In the first part of this chapter, there will be an overview of the different themes identified, and the prevalence of the different themes in the focus groups. Then there I will go through the different themes one by one. The different analysis of the themes will be presented, then a short discussion of the theme in relation to the research question. It seems that during the analysis, some of the themes have a relation to one or another, this pattern will be presented after the themes to illustrate this I have designed a concept map.

The different themes

During the analysis, I identified two main themes which have three sub-themes each. Table 2 shows an overview of the different themes and subthemes. The first theme is “use of technology” with the subthemes “technology as a resource and risk”, “awareness of use” and “social relationships”. The second theme is “life-to-work interference”, with the subthemes “procrastination”, “changing social norms” and “addiction to technology”.

Table 2.

Overview of main themes and subthemes

<u>Main themes</u>	<u>Subthemes</u>
<u>Use of technology</u>	Technology as a resource and a risk
	Awareness of use
	Social relationships
<u>Life-to-work interference</u>	Procrastination
	Changing social norms
	Addiction to technology

All the themes and subthemes were present in all the focus groups, except from awareness of use that is not present in focus group one. Table 3 shows the prevalence of the themes in the different focus groups. All interviews showed difference in the prevalence of the themes and subthemes. For example, the theme “changing social norms” is only present in focus group 1 by 0,23%, but is making up 10,05 % of focus group 5. This is due to the different discussions that the focus groups had. Naturally we will experience a difference in topics, but it is still acceptable since the main theme that this subtheme belongs to is found in all the interviews. The participants were diverse, in terms of age, ethnicity, and sex, and this may be a contributing reason for the difference in term of the discussion emerging in the focus groups interviews.

Table 3.

The percentage of coverage of the themes

Theme	Focus groups					
	1	2	3	4	5	6
<u>Use of technology</u>	25,12	45,75	33,89	25,86	26,99	24,25
Technology as a resource and a risk	19,50	18,09	18,32	12,21	8,55	10,31
Social relationships	3,68	13,85	9,90	9,14	15,47	7,12
Awareness of use	-	10,69	2,91	3,06	1,48	5,40
<u>Life-Work Interference</u>	12,81	20,41	26,80	19,01	27,48	22,98
Addiction to technology	7,80	8,56	10,31	5,89	9,38	4,06
Changing social norms	0,23	0,81	3,07	3,09	10,05	9,04
Procrastination	2,41	5,14	7,97	4,15	3,37	1,80

Note: The parts marked in bold are the overall coverage of the main theme.

The focus groups had room for interpretation of the questions, and the discussion would vary between the groups, which is one of the strengths of using focus groups. The themes found in this analysis seems to cover a large part of the discussion. There is also some part of the interviews that is not relevant for the analysis, for example pure technical, this part I chose to not bring into the analysis.

Table 3 is also used as an organizing principle for the rest of the result chapter. As the themes and subthemes are organized by the accumulated percentage coverage of the different focus groups. It seemed natural to organize the rest of the chapter in the same way.

Main theme 1: Use of technology

Theme number one is “use of technology”, this theme captures how the students talked about the use of the technology in terms of how it influences their life. The use of technology is a huge factor in the participants lives, and has an impact of many different aspects. The way the participants describe the influences from technology, it seems that the technology may be a source of conflict as well as a source of joy.

In general, the informants do not describe themselves as to dependent on the technology, but are aware of the negative effects of not having it available. One of the things the interviewees are focusing on is that they would manage without technology, but the daily lives would be critically affected.

Focus group interview (FGI): 2

3: Well I think I could survive back home without a computer, just like even make take Facebook... because I want to see some people's picture. Because it is not, I do not think it is that is that... There are still many things that you do not use the computer... But still, if you use the computer, it will become more efficient.

Mhm.

3: but you have a choice not to use it, and live in the normal world.

1: Yes, my computer has been broken for two weeks, I realized it has a positive and a negative always. But the positive thing is that you can, as you say, you can pay attention more on the outside activities.

The participants talk about the use of the computer not as a necessity but rather as a thing that is helpful and that they want to use it. They also see that there are negative sides to the use of it. For example, as participant number three says that the offline world is the “normal world”. It seems that there is a divide between what is considered real and constructed for the participants. The real world is being described as the offline world, and the constructed world is the online “world”. This indicates that the participants do experience the use of technology as something unrelated to their lives, even though it is highly linked. This divide may also indicate that there may be different rules of use, that apply to this “world” and not the real physical world.

The way the participants talk about their use of the different technology and in different places and times it is being used, is important. This theme incorporates this aspect of the data. For example, how they use the technology during school hours or how they use it to relax. It seems that almost every aspect of life has a different app or a device to make it easier. One of the participants talked about a app that were related to their religion, others talked about apps designed to meet potential romantic partners. The theme shows that technology

may be both a resource, but also negative for the individual. It could be intrusive in the participants' life, and their social relationships. The participants seem to experience an ambiguous relationship between the usefulness and the negative sides of technology usage.

The first subthemes that accompanies this theme "technology as a resource and a risk, this theme is relevant because it shows how the participants experience their use of technology. The second subtheme is "awareness of use", this subtheme gives perspective to the other side of the use, the more controlled and mindful use. The last subtheme is "social relationship", this theme is showing us the role of technology in the participants' social relationships, it focuses on both the negative and the positive sides of use.

Subtheme 1: Technology as a resource and a risk

First, the use of technology is important for the part of the life that is in relationship with education and school. Students have for a long time needed computers to do their work, almost everything that they do is done on, or by, a computer. From reading the curriculum, to handing in term paper, and of course writing the term paper. The system surrounding higher education are based on the use of a computer, and students in some courses can often not manage without technology. There seems to be risks related to the use of technology as well, the participants describe aspects of use to be negative for them, and sometimes even dangerous.

One of the participants tells us this in the interview. He describes how important the computer is for him in his school work, and expresses that he is dependent on this type of technology in his life.

FGI: 5

4: To me it was actually a very large transition from high school to university, when began to write exams by hand.

Ah yes, cause you were so used to the PC?

4: We only used PC, we used the PC for exam, used it for midterms, used the PC for everything in high school. (...) So in that way I noticed how much easier it is with PC and how much faster and more effectively you get things done. So if it should have been taken from me now, things would be much more difficult. But it is due to the fact that you're practically forced to use your PC for everything like find things on the web and everything like that.

It seems that the technology is experienced as a resource for the participant. It is both a resource to do the work, and a necessity for him during his work. As he describes that the school is "forcing" him to use it, and it is not possible to do the work without it, it seems like

it is not just a positive experience for him. The aspect of being a resource may be linked to the necessary use of it without any choice. With the use of technology to do their work the participants experience negative effects of this as well as positive ones. This indicates that the use of the technology may be a bitter sweet experience.

FGI: 1

3: I remember this autumn I had a term paper I had to submit, and then ... suddenly, right in the middle of writing, my charger suddenly stops working. And that was little stressful considering that I was supposed to deliver the term paper like two days later. I did indeed, depended on PC like that, right there and then. For it was a home exam, so I was a little stressed out.

The use of the computer at school, can in some cases be linked to a risk. Because of what participant in the last excerpt explains, he experiences stress related to the malfunction of the technology. Because they are forced to use the computer in their daily schoolwork, they seem to experience the use to be both negative and positive. Stress has become a more important aspect that can be related to the use of technology in the life of students and young adults. To be reliant on technology to do your work, and when this stops functioning it can be related to experienced stress. This may be related to the dependency they experience with the use of technology for different the domains in our lives.

The life outside school has also become a place the participants have come to rely on technology, and this show us that the technology as both a resource and risk, can be related to the use outside school as well. Different types of technology have been taken into use to make practical parts of life easier. And the participants are experiencing this to be the new normal and helpful in their lives.

FGI: 1

2: Yes, it is as you say, night bus ticket, for example, it is brilliant. When you're out in town and you have to go instead of withdrawing cash to buy a night bus ticket, then you can simply use your mobile.

Mhm.

3: The transfer of money too, is very very essential. Laughing. Very. Suddenly in the store and you do not have enough money, then you can transmit at once. It's really okay.

Yes, helps you escape all possible embarrassing situations.

3: Exactly.

2: You are in control of everything.

3: If you wait a bit, then.

You talked about GPS that you think it was so amazing.

1: Yes, my sense of direction is not always the best.

Yeah. You can suddenly be walking around in a foreign city.

3: Mmh.

2: Something I also noticed is that there is a lot of medical functions that one can get on your phone, it's like ... You can book appointments, you can order prescriptions, everything

As we see here, the participants do experience that much of their use of technology is as a resource in their day-to-day lives. Being able to do things that was not possible before to make their lives easier. The practical aspect of it seems to be related to it as a resource, but we can also see this in the things related to leisure activities.

FGI: 2

4: Just to have a chat, I do not like too much Facebooking, but sometimes I use YouTube. Sometimes for legitimate things... sometimes just random things.

2: Yes, I also use the computer a lot of times for entertainment. As you said, I watch... I do not have TV-channels on my TV, so I watch television through, eh, the internet.

Yes, so you connect it to your computer?

2: Mhm. So, for TV-shows and movies, I just connect it with the TV-screen. So sometimes I also write kind of a diary on a word document. It just sits on my computer and I write, and then... Yes. And sometimes I also use it for... I am in a choir, so they put out the, sound for us to practice. We have to sit and listen and practice, so sometimes I have to use my computer for that kinds of activities. And music of course, Spotify.

The technology has become a part of everything they do, it is seen as a resource for things like socializing, and relaxing. This part has become important to the participants, and seems to be natural in their lives. The main thing that would be a problem without technology, is the availability that the technology gives.

FGI: 1

Yes. How would your lives be without?

2: I think it would had been manageable, but it would had lacked the availability, that you kind of have your own PC all the time that you can use. But the functions of the PC, it is like ... It seems that they can be distributed to other things. That you have social media on your phone, you have the school, you can go to the library and find books and stuff like that. Notes you can write by hand, somehow, and TV ... You might find some of the series on TV, sort of, so I think it would be manageable

The technology seems to be both a resource and a risk for the students, they do experience that the technology may be interfering with their work lives. It seems to be linked to the fact that technology makes “everything” more available. This availability may also be a mix of resources and risks. As the participant describes, he thinks the hardest part of not

having the computer would be to not have the availability he is used to. There is also experiences that links the use of technology as a risk.

FGI: 4

You mention that you no longer have privacy. Do you think that's a negative thing? That nothing is private?

2: Yes, it's nice with privacy, but your available all the time, people can reach you. you can choose not to answer, but as he said, there is this expectation about you answering.

1: Yes, it's like this pressure, it's a demand or. But you can hide pretty well if you want to, I think.

3: I don't think so.

1: you don't?

3: No, it's impossible now a day, if you don't log off everything.

The aspect of the availability to be a risk or be experienced as a demand is also present in the focus groups. The participants are say they experience the negative aspects of technology related availability as a demand from others, and seems to be related to negative use of the technology. They do not believe that it is possible to not be online, this may be related to negative effects of the use. The negative way of using it may be consider a risk for the individual person, when we think about how it might affect the person using it. The negative sides of use in social settings for example. Another example may be a more concrete one, where the participants talked about dangerous situations, where they almost got hit by a car etc.

Resources and risks of technology use and LWI. In relation to the overall research question, this is important aspect because it shows us that the technology may not be the reason for interference of domains on its own. As Piszczek (2016) found in his study, technology may be a resource or a demand depending on the use. He also suggests that as technology may rather be a tool to separate domains, and it is up to the person himself how to use it. The way our society is built up today is influencing the use of technologies we are often forced to use technology it in different setting, and it may either helpful to or demanding of us. Wang, Xiang, and Fesenmaier (2014) found that their participants experienced their smartphone as a resource, and that it was used in various aspects during their day. This subtheme seems to be related to the way we experience the technology, and not just the use. The consequences of the use, that are influencing the negative or positive outcomes of the way technology is used. This is an important theme because it shows that the technology itself is negative for the WL, and that we should consider the type of use to be the root of the problem.

Subtheme 2: Awareness of use.

This subtheme captures something that may be seen as a counter trend to the technology saturated lives many people have. Even though this subtheme is not covered in all the focus group interviews, it is interesting, because it gives a different side of the “story” when it comes to how we see the use of technology. As the participants described their use of technology as a major part of their lives, some of the participants talked about how they actively tried to reduce their use. This is important to consider because the use of different types of technology is highly individual. They often described that people become too obsessed with different types of technology, and are “using it just to use it”. They also mention that this may not be healthy, and that the use should have a purpose. This is experienced as a negative thing, and some of the participants actively try to avoid this “unnecessary” use of technology.

FGI: 2

Ok. So, is it easy to waste time on the computer?

Everyone except 4: Yes.

1: Yes, it is.

3: And if you browse, then you browse one thing and then you see another and then browse that then the time is almost two hours.

4: Yes.

2: Usually. Laughing. I try to have a conscious relationship with the computer and not just sit on Facebook, for instance, just scrolling down, and not really having a clear agenda with the use, or a clear intention. So, I feel like I only use the computer if I feel like I have to. It is not like if I have some time to spare then ok I will just sit down with the computer and see if I can find anything to look at there. I use it if I feel like I have to use it for a practical purpose, or for entertainment or for relaxation or whatever. I feel like I have to have a clear motivation.

A clear goal maybe?

2: Yes.

As we see here, most of the participants’ experience that some of the technology use is not productive. Wasting time on the computer, is seen as the activities that are linked to mindless use of different types of media. Like what participant number three is describing; “sitting and browsing the internet, losing track of time and spending unnecessary amount of time on this activity”. Furthermore, they are talking about the need to have a goal to spend time on the computer or mobile phone and gives room for a more conscious way to use technology.

Some of the participants experienced a need, or a desire, to use technology less than before. It seems like there has been an awakening about the negative effects of technology. As

the informants describe, they actively go in for not using technology as a default action in different situations, and are linking it to the feelings of addiction of technology.

FGI: 2

1: I also use it when I have to wait for the bus. If you have a five minute and you do not have anything to do, you do not want to just stand in front of the bus stop doing nothing. I hold the focus on watching something, or...

2: Yes, I am a little bit different there. I try to do the opposite, I try to learn to be able to stand there and be bored for five minutes and not having to have to do something, and just be more... You know the whole mindfulness movement. I am kind of a little bit into that in a way. So, I try to not be addicted to constantly having something to entertain myself, or always have to be stimulated in a way, but just stand there and just... Yes... Be present in the environment and look around and just be.

4: Yes. It is always with me, but it is not like I always am busy with that. Just to... If someone calls me or texts me, that is why I keep it with me. Not...

2: I prefer to actively... Let us say I am standing there and waiting for the bus, and I feel that now I want to check Facebook, just so that I have something to do, then I just try to ignore it, and say to myself; no there is no need to check Facebook. I have been there one hour ago and nothing important will be there, probably, no, so I try resist the urge to log on all the time. Anytime I have to wait or whatever.

Some of the participants seems to be aware that the use of technology, especially their phone in different settings. They mentioned the need to “have” something to do, while for example waiting for the bus; it is not necessarily necessary. As the phone is so accessible to the participants, it seems that the phone often become the go-to activity, and this is something some of the participants do not want. The informants addressed the issue that people in general use too much time on different types of media, may have a negative impact on different aspects of their life. This “lack” of awareness, or to use technology in different settings, like social gatherings, may be a negative thing to the individual.

FGI: 4

1: I think it's a negative thing that people are less present, and that they could be on a party but just sit on their phones. It becomes... People are more like closed, compared to the people around. It's very negative. Mhm. People get more... Eh... No, people are easy to contact, but in another (edit nother) way, harder to get to know, maybe, I don't know.

3: I feel like people are less observant, only focused on their phone.

1: It's not that, I have been in a situation where I have walked down the street with my phone. It has surely been several situations where I could have been run over by a car, just walked over the street looking at my phone. I walked down on the sidewalk with my phone in the middle of Trondheim centrum, and I see people as shadows, and so I just direct....

The social life, is one of those factors that may suffer from the fact that people often are spending a lot of time on their devices. Not paying attention to other people or the environment seems unhealthy to the participants and in some cases, even dangerous. As participant number 1 in this excerpt said; he experiences that people being less present is negative.

Awareness of use and LWI. This subtheme is the counter trend that seem to emerge with some of the participants. The participants describe that they often chooses to not engage with technology in different situations. This was often related to social settings, or as a strategy to avoid being too available or too dependent on the technology. In relation to LWI this may be the theme that have a positive impact on interference. If the students are not engaged in technology at school, they might experience less strain from the social relationships, e.g. the life domain. As we see during the other subthemes, the engagement of technology by young adults may have negative consequences for school performance (Bicen & Arnavut, 2015). It may be relevant to think that the students who are more aware of their own use, actually use it less. At least, use it less in situations they know they should not. Based on the way the participants talked about their awareness of the use, students who are more aware of their use might experience less LWI, this is on the basis that they might be less disturbed by social situations during working hours. This should of course be further studied, to draw this conclusion. This would be relevant to study further, and it could give us insight in how the use is affecting LWI.

Subtheme 3: Social relationships.

The participants describe most of their use to be related to the use of social media, or other ways technology are either interfering or facilitating with their social relationships. Social media seems to have taken over as arenas for much of the socializing, the participants say that they experience the social relationships are being influenced by the use of technology. One of the participants described a situation where he experienced being less prioritized when spending time with one of his friends. Also, by this he tells us that he experienced that this effected his friendship with this person.

FGI: 3

1: I have some negative experience with people who use it too much, or when I am with a friend. Its specially this one friend who's constantly on the phone with her boyfriend, and they had an ongoing conversation when we were at the cabin during the summer. When we were going for a hike she could barely put her phone away. I

tried to give her small hits like “I’ll just leave my phone here”. I got the feeling that she would rather be with him than on this trip. “So you would rather talk to him through a screen than me who’s actually right here”. And that have happened several times.

Does that affect your relationship with her?

1: I might feel like I’m less important, or the second choice (edit choose), and I feel like we have less good conversations because it gets (edit gest) very like disjointed. She might put it [the phone] away, but in the same second we are about to take some pictures she also checks her phone, send some snaps and might even call him.

2: Yes, but in a way, it leads us to be less social.

There seems to be a negative experience regarding the use of technology in social settings. Participant number two in this excerpt says that being social online may make us less social over all. The participants have a focus on the mediated contacts decreases the quality of face-to-face relationships. The way the infants describe their way of communicating show that there is a difference in whom they contact with different media.

FGI: 1

What social or personal purposes do you use the mobile for? You have said a little already.

3: It's all the social media platform, and then it's calling people and sending messages, stuff like that.

2: Mhm. I've noticed that I actually send more messages than calling, for example. Lately.

3: I notice that you usually only call family.

2: I mostly call family and stuff. Mom and Dad, I call them more.

3: A bit more old-fashioned. Laughing.

So, friends are those who you mostly send text messages?

3: Absolutely. And call if it is something absolutely, absolutely important. But it is rare.

The participants describe their communication habits to be more through social media, than other more traditional methods like calling. It also seems there is a difference in whom they contact on different platforms, and why they choose the different platforms. As we see here the traditional method of calling someone, will either be parents, the older generation, or if it is of importance. This may indicate that there has been a change in socializing methods among this group. As one of the participants describes the act of calling someone to be “old-fashioned”, it seems that the participants experience that there has been a shift in the way they communicate.

FGI: 2

3: *Yes. I have got Google hangout, you can. That is very cool, I like that. I just, it is like when you talk, the person talking just comes like TV. And you can have a group chat like this with your friends, like maybe you knew each other in high school, and you are in a different place. So, talking it is a really good feeling, really that is good. Not all the time, but sometimes, it makes life more interesting. And maybe it feels like you do not need to make such kind of friends, maybe that is good or bad, I do not know. But you know... When you feel more lonely, maybe you make new friends, or you go to a gathering. I do not know, maybe there... That might take that part of you, because you are already spending time with your already established relationships. And you are always in contact, so now you are very private and not very active and you...*

1: *Just keeping in touch with old friends.*

4: *But I would say that it cannot replace the face-to-face contact. I would say. Yes. Because there is no touching. I cannot touch my friends or family.*

1: *Yes, but there is no choice.*

4: *There is no choice, that is why I have to use it, but if I have a choice I would like to visit my friends if they live nearby. Instead of having chat with like mobile phone or Facebook or Viber.*

It seems for the participants that social media and technology are a good way to stay in touch with friends and family, but it will never replace face-to-face interactions. Even if the interviewees are regularly in contact with friends and family who live elsewhere, it is not the same as to have them there in person. The way the participants describe to keep in touch with friends and family it seems that this is an important aspect of why they chose to use different media in different settings.

Social relationships are important to the participants, but there seems to be one group of relationships that suffer from the use of technology. When meeting new people, it seems that it is harder to get to know this new person

FGI: 2

4: *Yes, face-to-face. Even. I met many people like I tried to go to their home.*

3: *And you can talk to them, so that is why but if your phone was there, you could maybe, I do not know, call anybody else or contact. Maybe your relationship with those people, or the information you exposed for those people around you, might be a little...*

4: *Less intense.*

3: *[Unclear 00:02:00]. So, you might already meet people who know more about you, because you know you need to share, and then you know anything, just with those people, and the contact. Even though your goal is another, on your way you... this part of you has also developed.*

4: *Yes. In that case, it was different. Face-to-face contact was important, but that is another case, but for normal life, like it is important. As you say, either this one or the computer.*

Other ways social relationships may be affected with the use of technology, are the way we use it while in the presence of others. While sitting in the same room as someone and not be present to have a conversation with someone, is experienced as negative. To be present but not present, e.g. we are with someone physically but not mentally, is described by the participants as interfering with their relationships with people in these situations.

FGI: 3

3: I might be on the computer checking stuff when I'm watching TV with the people I live with, and then perhaps I'm not participating in the conversation they are having about the show that's on. I might be reading blogs or news, and sometimes it's hard to put down the screen (...)

Is that something you reflect on or?

3: Yes, a little, it has happened that I've thought about it, and put it aside.

That you start to get a little conscious of your usage and?

3: Mhm and suddenly someone is commenting like "oh no, he walked out" and I'm like "mhm, ok". Right, so then it's not... We could like have shared a moment together on the TV, but I'm sitting in the computer checking a cheesy blog that doesn't give me much.

1: Yes, that's true.

2: I think I've never seen a movie without...

Are you on the phone simultaneously?

3: "Yes, when I look at series I always play. And I'm not actually thinking about it. But it's a bit annoying for people I'm watching a movie with, and I always think that I'm paying attention, but I've really missed half of the movie."

It may seem that other things are more interesting to the person on the mobile phone than the person sitting next to him/her. The participants tell that they are inclined to multitask when they are with other people, and this affects the relationships with those people. It also seems that the participants experienced that the split attention decreased the viewing experience as well as the social experience.

Social relationships and LWI. The study show that social media are a huge part of the way this group communicates. This is consistent with findings from a study done by Sponcil and Gitimu (2013), they found that nearly all their participants use one or more type of social media. By focusing on the social relationships online, we may damage the relationships with the people we are face-to-face with, and in turn become less social when it comes to friends we are with and more social with friends we are away from. The close relationships and those who are far away may be nurtured by having social media and other communication technology available and in use. We see that the participants use social media often to communicate with their peers. This is consistent with other findings, that social media has become the main channel for communication (Flanigan & Babchuk, 2015).

One of the effects of this is, by having “old” friends available to talk to on a regular basis, may interfere with developing new friendships and nurturing the new relationships in a person’s life. The technology makes keeping in touch easier, but not necessarily makes the relationships stronger, it may just delay the degradation of the relationships.

Main theme 2: Life-to-work interference

The theme life-to-work interference, is about whether the participants experience this unbalance between the domains in their lives. There seems to be an awareness of the fact that there is interference between them, and that it is hard to separate them at times. During the analysis, we can see that it is the social interaction with others, either during social media or by communication through the use of technology. In this way, we can describe the interference as originated from the life domain.

FGI: 6

But you said that you’ve chosen not to bring your PC with you to school.

2: (Unclear) Yes if I have days where I don’t have lectures then I choose to bring a notebook instead, but I do use it for notes during lectures.

Oh, okay, so it’s more when you have to read that you choose not to bring it with you?

2: Yes, so I can be more focused (edit focus).

Yes, mhm. So, the PC takes a bit of your focus?

2: It does...it does.

3: It is very easy to log on Facebook or check other things whiles you are sitting there, when you should be working on something else.

Mhm. Yes.

1: Sometimes I feel they blur a bit into each other the private and work, cause I can like talk to my colleagues on Facebook too

It is the social life, and the availability technology gives them, that seems difficult for the participants. The participants tell us that they do not manage to stay away from social interaction during working hours. There is described difficulties to manage these social interactions during working hours.

FGI: 6

I don’t think I have managed a whole day at the study hall with my mac without doing any personal and private activities on it.... Like talking to friends, planning things with friends over the messenger app or something.

In this regard the three subthemes are related to the socializing of the students in different aspects. There are three subthemes that are related to this problem, “changing social norms”, “addiction to technology” and “procrastination” which I will describe next.

Subtheme 4: Addiction to technology

First, it is important to note that most of these interviews were in Norwegian, and as mentioned before the Norwegian word for addiction is the same as for dependency (e.g. *avhengighet*), there are no separation on basis of the word only. However, to determine what the difference are we need to look at the context of the interviewees say. This gives room for interpretation, but there is often a clear line in whether they are referring to addiction or dependency. As mentioned earlier, I went back into the Norwegian interviews and checked the translation of these words, to ensure that the I agreed with the use of the word, in that specific context.

The participants used both addiction and dependent while talking about the use of technology. It seems like they experience that the word addiction refers to the negative side of the use, while the word dependency mean that we need it in our day-to-day life e.g. bus ticket, school related and so on. However, it seemed that there were some overlapping in the use of the word as well.

FGI: 1

3: Yea, as I said earlier, if my phone broke today, I would by a new one right away, simply. Because I'm so dependent on it. For example, for work they send important messages through SMS and not by mail, because they know that it's easier to reach people that way. So.

2: You see it right away on your phone.

3: Yes, exactly. For it is not so common to check your email as frequently as you do your mobile, for example, and SMS. So, for work it is important for me to have a mobile, at least.

Mhm.

2: I think there is much we do not think about it, like what she said, the clock was something she just like "oh shit." As I sit here I think I could probably have managed a day without my mobile. But I do not think I fully realize how much I actually need it, perhaps, before I'm actually sitting there like "If I had my phone now, if I had my phone now,".

1: There are some days you forget the charger at school, and then, when the battery dies you're like, ... "What should I do now?"

As participant number 1 describes here, he is dependent on the phone in his life, but is also describing qualities that may be linked to addiction as well. There are elements of both,

addiction and dependency, in the way they talk about the use of technology. As they describe, a life without their phone seems unthinkable for the participants.

FGI: 2

4: (...) ... It does not seem that it [movies] has a lot of positive aspects compared to reading a book, I believe. Because movies, these are kinds of, these will try to make you think how they think. So, it kills brains, I would say. Drain, yes... *Though I have said that, I do not like it. It is kind of like I am addicted but I do not like it. Every day I try to not watch movies, sometimes I can, sometimes I cannot.*

Ok so you feel that this aspect is addictive for you?

4: *Yes, this one and computer games, though I do not play, but I saw one... He is four years older than me and he is married, but sometimes he just play and play but he does not give so much time for, for example gossiping with his family. So, this is kind of selfish, yes.*

1: *I think everyone wants to be active in the world, but it is impossible to get away from the mobile, like the electronic device, because it is very addictive, and it is necessary for our daily life.*

The participants do experience that there is some element of addiction to the technology they use. It is experienced as a negative thing to be addicted, and it shows us that the participants are aware of the negative aspects. At the same time, they are aware of the need of technology in their day-to-day life.

Addiction to technology and LWI. The participants talk about their dependence of their technology, but it seems that it often creeps into the term addiction. By talking about needing the phone, but also in a way that seems to be more than a need of having a phone.

This aspect seems to be relevant for the interference of life to work related settings. The more a person is “addicted” or experience an addiction to technology, the more difficult it is to put away the interfering element, whether it is the phone or a site on the computer. Students with a higher risk of addiction (in this case the smartphone) were less likely to perform well at school (Hawi & Samaha, 2016). The effect of addiction may interfere with the learning at school for example (Gökçearslan et al., 2016). This shows us that addiction to technology, is negative for students. However, it not interfering just with school, the addiction to different types of technology have a negative impact for social relationships as well (Bicen & Arnavut, 2015). So not only directly interfering with students work domain, but may be interfering with the life domain as well.

Subtheme 5: Changing social norms

First, it is the social norms that can be a contributing factor for the possible interference between domains. The participants talked about that they experienced changing social norms, often in relation to their friends and classmates. The new social norms that the participants described, was related to it being expected of them to be available all the time. This is related to their experience that it is others that expect this of them, when something or someone is reaching out and “demanding” attention, they feel that they must respond at once.

FGI: 5

How do you feel about it, that you constantly have to be available all the time or is it expected, that one should be available all the time?

3: If it's not friends, it's work, or it's events. So, there is always something that is trying to get a hold of you.

1: But I think it is very negative this development. And I think it was more proper before, that one must not respond directly. People have a life outside of the internet. But now it's like you have to respond immediately, otherwise you get scolded somehow.

By having the social norm of availability, it makes the life/family aspect creep into the work aspect. It is experienced by the participants, that it is no longer accepted not to be available. And this puts a strain on the individual to be available, even if they know they should not. There is also an expectancy from the individual that others will give them negative response if they do not respond quick enough. This seems to give the participants more of an inclination to respond quickly.

A second norm that might influence the use of technology in a negative way is that it is considered ok to use technology in class or at the study hall. This experienced norm is related to the different use of technology in different settings.

FGI: 4

1: I think it's nice to ask people like that. It's a bit like you use your phone to communicate that you'll be five minutes late for lecture, to talk about that with your friends. When you get to the lecture. People are in the lecture sending pictures from the lecture. And people are also often sitting right next to each other. And both are on Snapchat sending pictures back and forth. For example, if I'm sitting here taking a picture of myself, maybe I'm doing a funny face or something. And then I'm sending it to "Stian" who's right next to me, so we can laugh about it while its quiet, while you're not supposed to talk. So its... I think it's a lot of people who get interrupted by their phones during class. And computers too.

The students do experience that it is ok to use social technologies during a lecturer, but they are aware of the negative effects it may result in. It seems a culture has developed for this to be ok, at least from the students point of view.

Social norms and LWI. The social norms are the assumption of what is correct behavior, based on the perception of others (Cialdini & Trost, 1998). The reason I chose to define this to be a new social norm, is because it is something that the students do because of the social feedback they receive. One of the respondents said that he would get a “scolding” from his friends if he did not follow the behavior. As we know, this may be a result of norms, our behavior changes of beliefs of what is accepted or not by others (Fishbein & Ajzen, 1975). When the participant gets the negative feedback from his peers, he changes his behavior and becomes more available. This in turn may, turn into the new norm, when it is experienced that the “constant online behavior” is the new normal, our beliefs on the social norms may change.

This changing norm may be a precursor for LWI, the reason for this is the social norms are guideline as to what can be done, or not. And if it is perceived to be ok to spend time on social media during class, more people will do this. The norm will be interfering with the time that should be spent studying. As the norms are guiding us towards the perceived way to behave.

Subtheme 6: Procrastination

It seems that it is the communication with friends and family, that often is the source of procrastination for the participants. By having the tools to communicate at the tip of a finger they experience a greater inclination to “waste time” doing so. This seems to be a problem that the students recognized, and experienced for themselves. When the informants talked about the procrastination, related to their use of technology they often described situations where they used social media. There may also be more causes for procrastination, that are not related to technology use, but this is not covered in this study.

FGI: 4

Is it mainly like that, or does the computer become more about personal and social things. Like social media, as we already discussed.

I: I've noticed; it can be difficult to keep these things separated. I sit down to work on my computer, and suddenly, I get a Facebook notification, automatically, which disturbs me from doing what I was doing. This is thing that often happens to me; I bring my computer to do some work, then I get disturbed by social media which keeps me busy for a while.

Yes, it can be tempting.

2: Yes, it steals my focus in a way. A lot of temptations which can be hard to refuse.

3: Indeed, but when I use my PC to do assignments etc. I use to detach every social media functions on my computer. Then I only have school related stuff visible. My phone, it can also receive notifications and make distracting sounds. Here I use the silence function and leaves it.

The way the participants talk about their own procrastination, it seems that social media is a large part of that. The way the informants talk about social media in this setting, it is experienced as a temptation. The participants talk about needing a plan, to keep them from accessing the social media sites. The accessibility of different ways to procrastinate seems to influence the amount people chooses to procrastinate. It is not just the availability of the different media; it is also seemingly linked to an experienced inability to ignore the urge to use it.

FGI: 5

3: Yes, it is more the access to everything on one surface, it can be that you have skype and someone suddenly calls, or that you open up a web browser, but you end up on the tab with entertainment which prevents you from your actual working stuff. So, it's easy to digress ... It's easy to just pour in with digressions.

By having access to different sites, people are also more inclined to spend time doing something unproductive. It seems that the temptation to use technology in a maladaptive way when they should be doing something else, is strong. Procrastination by technology happens because one can; we have it available.

Procrastination and LWI. Procrastinating by itself may not be the reason for LW interference, but how we procrastinate may be one of the influencers. The participants talked about how they often used social media and other types of ICT while they should have been working. The inability to keep oneself away from the social sites may be related to the self-regulating aspects. As mentioned earlier we see that a failure to self-regulating, are linked to increased levels of procrastination (Senécal et al., 1995). This can indicate that the social aspects interfere with their schoolwork and should be considered one of the aspects that can increase the amount of interference from life. Meier et al. (2016) found that using Facebook as a way of procrastinating resulted in more academic stress for the students. This also indicates that social media may have a large part in the interference from life to work for students.

Interconnections between themes and subthemes

To illustrate the relationship between the different themes, I have designed a concept map to help visualize how the different themes are interacting with each other. The themes do not necessarily affect life-work interference alone, but I suspect that there is a connection between them and this interconnection may interfere with work. The connections between elements in the concept map, is inferred from the thoughts and connection seen in this study, and should be further explored.

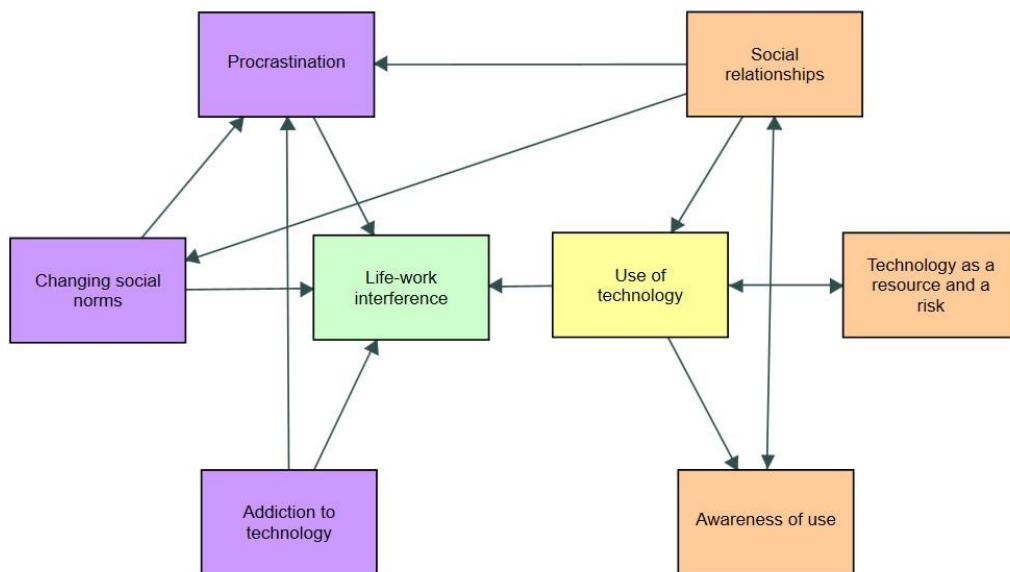


Figure 1. Concept map for the different themes, and subthemes. It illustrates the interconnections between the different themes from the analysis.

In this study, I propose this interconnection between the different themes, as shown in figure 1. Life to work interference seems to be influenced by a multiple of the other themes. Procrastination, changing social norms, daily use and addiction. The amount of procrastination using technology, and especially social media, are influencing the life to work balance. Social media use, can be characterized in the life domain, because it is linked to socializing with friends and family. There is a connection with the use of social media when working, with negative outcomes for the individual (Meier et al., 2016). And when the students use social media to procrastinate not only can this result in lower academic performance, they also experience stress. Therefore, I believe, that procrastination with social media can be relevant as an influencer towards life-work interference. This will be more elaborated on in the next chapter, general discussion.

Socializing can be linked to addiction, not by the addiction behavior itself but by using different ICT. Leung (2014) for example, found that social media can make us more inclined to addiction to technology. There will not necessarily be a cause and effect of the use of these types of media, but the more one uses the social media the more inclined a person can be to develop an addiction. If a person is addicted to the use of technology, and are using social media in a maladaptive way, the chances are that it may influence the levels of interference as well.

The daily use will be linked to the changing norms, the reason for this is that the norms are highly related to the social behavior, the behavior that we perceive to be accepted we will do (Cialdini & Trost, 1998). This social learning, can in turn make us more inclined to use the technology in for example, a lecture, because we perceive it to be acceptable.

Awareness of use, will also influence the daily use theme, as the participants described; they try not to use the different technologies all the time, and often in specific situations. This may also influence, and be influenced by the social relationship subtheme. As the participants described that the technology may be interfering with the relationships in different ways. For example, this may apply if a person is “snapping” or “tweeting” during a social interaction with friends, this may result in a negative relation between them. As one of the participants described in focus group 3 (see excerpt from subtheme social relationships), he felt less important to his friend when she focused on texting her boyfriend instead of spending time with him

All in all, the links between the different themes and subthemes, shows that there is a complex relationship between them, and should be further explored. However, it gives us an understanding on how these elements are influencing each other.

General discussion

As Irfan and Azmi (2014) present in their study, students are not included in the work-life literature, and there is a need to explore how this may affect student life. Life to work interference, is also an issue that have been less focused on in the WL literature. This study take a closer look at these two aspects, and tries to gain insight into how the use of technology contribute to the life-to-work interference for students. The main finding from this study, is that by using technology, students do experience life-work interference. The technology is a main contributor, with the access to social interactions with others that are influencing the different domains in their lives.

First, I will discuss the main findings of this study, and how it may be related to work-life interference. After the main discussion, there will be some conclusory remarks, about the way further in the field of work-life, and the work-life for students. There will also be some comments on the implications of the study, and a discussion around the method. In the end, I will present limitations of this study and suggest some aspects for future research.

Students and their perceived life-to-work interference

Findings from this study, show that the participants told that they do experienced interference between work and life. They apparently experience a difficulty with managing the boundaries between their school work and their lives outside school. Kai-Wen (2009) found that students often experience stress from both the family domain and school domain. This may indicate, that there is a reason to further explore the issues of if students' life could benefit from the work-life literature or not. The participants have explicitly expressed that they do feel that there are flexible boundaries between the domains in their life. They do experience that they have a lack of productivity in relation to the interference. These findings also show us, that it may be relevant to use the literature on WL to illuminate the students in their school work. The reason this is important is to ensure that the students are making the most of their education. The technological saturated world we live in, (Norway), with a smartphone and a computer with us always is making it more difficult to separate different domains (Köffer et al., 2014). This is also true for students, as we see from the result they too have a negative experience with this interference. As we could not measure directly the students' actual interference, it is difficult to say if they do have it at all. But what we can say, from the results, is that they do experience that it is more difficult to separate work and school. The way the participants described the flexibility of their workday, it seems that the participants do have a harder time separating the boundaries than before.

The interfering social relationships

One of the things that is a huge contributor to the participants' experience of a more flexible domains, is the use of technology in their lives. That technology is interfering with productivity for students is consistent with findings from Fox, Rosen, and Crawford (2008), who found that the use of technology resulted in less productive study sessions for students. This is another element that show us that students as a group, could benefit from work-life literature, by studying more in-depth the factor that are influencing the students, and giving them tools to prevent the unbalance between their work and their spare time could be beneficial.

Social relationships are one of the things I found in this study, that is effecting student's life to work balance. But it is not just when the participants are supposed to be working, that social technologies may be a negative thing. Jacobsen and Forste (2010) found that people are likely to use social technologies, for example by using SNS or texting, when they are with friends. They also found that it gives people more arenas to be social on. The use of different social technologies give us the ability to stay in touch with, and meet new people. It seems that technology is an important factor in the way we are socializing today. The results from my analysis show, that the participants experience that spending time socializing online, while being with others physically may be negative. Technology is an important part of young adults' social life (Flanigan & Babchuk, 2015), but results from my study indicates that it is experienced as interference with their social life. For example, that we become less social overall, and it may damage the face-to-face interactions. One of the major benefits the participants talk about, is the ability to stay in touch with friends and family who live far away. However, technology use is perceived by the participants as negative if it takes up too much time when interacting with someone else face-to-face.

Another finding in this study, is that it seems that effects of social interference are the main problem for the participants' balance of domains. Social media and other forms of communication between the students and social relationships, are being interpreted as one aspect from life that interferes with their work. Social media has become a large part of social interactions for the participants. As seen earlier the social technologies are a major part of the life of young adults. Social media is the main channel for communication (Flanigan & Babchuk, 2015), and is widely used by young adults (Niland et al., 2015). This seems consistent with how my participants talk about their social interactions. The participants experience technology as a method to keep in touch with old friends, and an arena for gaining

new friends. This is often referred to in settings where they say they should be focused on school work or in a lecture. By using the technology in this way, they are experiencing less of a divide between what is work and what is considered their spare time. It is difficult to say if it is the flexibility in the work day for students, or other elements that is the main factor for this higher experienced interference of domains. But it seems that their days are a blend of the two domains, and this influences their productivity. There are different aspects here; that are interesting. First, it may be that students' life are so flexible that they lack the ability to structure themselves to do the work, and therefore chooses to procrastinate. Purely a self-regulating failure, that accompany the student in their day. Second, it may be that the availability of the technology is making it so much easier to pick up the phone and scroll through Facebook, rather than sitting down and finishing the paper.

Procrastination the “typical” student problem

Procrastination is a common problem among university students, and is shown to be negative in terms for academic performance (Kim & Seo, 2015). One reason students often use technology to procrastinate from schoolwork, is the social norms regarding the use of technology in different situations. The participants said that they often used their mobile phone at in lectures, at the study hall and other places they are working. Social norms have been demonstrated to be an influence for the use of technology (Bolton et al., 2013). According to this study the social norms change due to the use of technology. In an early study by Venkatesh and Morris (2000) they found that it was women who was more influenced by the social norms when it came to the use of technology. This may indicate that social norms are not an actual influence, but a belief that it influences the use. Although this study focused on the use of technology as a tool, and not for fun. A more recent study by Marino et al. (2016) found that group norms influence the use of the social networking site Facebook. This is consistent with the findings from this study, that found students do experience a change in the social norms regarding the use of technology. This is making it easier for the student to engage in behaviors that are negative for their studies, and may result in a lower academic performance.

The use of social media and ICT seems to have an influence on the students work day. The participants talked about the availability of the technology making it difficult for them to manage to do their work. The results also show that the participants experience negative reactions from their peers if they are not responding right away, or chooses to stay away from social media in different setting. These two aspects, being always available, and getting

negative reactions, from their peers, if they do not respond fast enough, are making them even more inclined to spend time on technology than to work. This availability that comes along with the technology, may have something to do with the social norms. Not all the respondents experienced that they were available all the time, and some of them even said that they make an active choice to stay away from technology. It may seem that the main norm for young adults is to be available, but this is related to one's peers and the social network. Social norms are a strong influencer (Reno, Cialdini, & Kallgren, 1993), and for young adults, what friends and peers think are important (Carbery & Buhrmester, 1998). This may be one of the factor explaining why students choose to socialize with technology during class, or spend more time on SNS than on their homework. More recent studies have also shown that social norms have an influence due to the use of social media (Marino et al., 2016). The authors found that social norms are linked to problematic Facebook use. This show us that there are effects on the balance of students' life, from the use of technology, and this combined with socializing seems to be the main issue with interference from life to work.

Technology has already been established as one contributor to interference between life and work (Nam, 2014). Findings from this study, indicate, that students who procrastinate with technology, will have a larger interference between domains. As my results show the participants mentioned that it is communication with others that are the main reason they chose to delay their school work, e.g. choses to procrastinate. Using social media to procrastinate can creates stress for the students and a lower GPA (Meier et al., 2016). This shows, that procrastination with social media will contribute to life interfering with school, this is helping underpin the social relationships in students' life are influencing life-to-work inference. Procrastination with technology can be seen as conflict between different goals (Reinecke & Hofmann, 2016). It is then the self-regulating process that determine which of these goals will win. From a student's perspective; they do want to do their school work, for example finish a term paper, and they are also want to maintain their social relationships.

It seems that one of the reasons the technology we use in our life domain is influencing the study time, is because of its availability. Results show that the participants always seem to be online. The participants said that their devices are always in use, and they always keep them close. Students have the technology at the tip of our fingers all day, and this is influencing how they live their life. The typical knowledge worker is in constant interaction with technology (Wajcman & Rose, 2011). The technology is present all the time, and it is always calling for attention. In Norway, people have technology available all the time, most people have internet access and smartphones and a computer. This makes us available, and

constantly connected. One study has found that the constant connectivity is both a good thing, and a negative thing (Diaz, Chiaburu, Zimmerman, & Boswell, 2012). By having the ability to use technology to stay “on top” of their work, the workers did experience more satisfaction with their work, but it also influenced their work-life balance. This is a double-edged sword, on one hand we may benefit from the availability, the interviewees talked about how the technology is a resource in their life. In their work students are dependent on using technology, computers especially. However, on the other hand with the use of technology, temptations also come. The more distractions we have available, the easier it is to be distracted. The participants talked about them being unable to not interact with technology, whether it was a notification that they got during class, or needing something to do while waiting for the bus. It may come with other negative effects that we still are not aware of, and it may foster a society that are unable to do anything without technology.

Addiction to technology

First, we need to define what we mean by saying addiction. Addiction or dependency are two concepts that are similar, but are not necessarily the same thing. These two concepts, have some of the same baselines, mainly that the technology is such a huge part of people’s lives that they do not “manage without it”. The term dependency has earlier been the norm for the use of drugs and other things that made the body physically “dependent” on it in the DSM-IV (O’Brien, Volkow, & Li, 2006). Addiction is the inability to stay away from the drug etc. and when the body experiences withdrawal by the lack of the substance.

Addiction is a strong word, and is referring to a behavior that gives negative consequences. The reason I chose to use addiction and not dependency is because the participants often talked about when technology have a negative impact on school or social relationships. Result from the study, show that students experience a sort of addiction, either themselves or in others around them. They talk about not being able to put their phone away, or experience negative emotions when they do not have it available. Another topic that they talked about, was how they felt they were unable to ignore notifications from their phone. Not being able to put the phone away is interfering with the LWI, when they get a notification they chose to procrastinate and engage with the media. The results show that when they do engage with life relevant technology, for example social media, they are often spending more time on it than just to check the current notification. So, picking up the phone to do “just one thing”, often results in longer time spent procrastinating than planned.

The more times a day a person uses their devices, the more the likelihood of being addicted (Gökçearsan et al., 2016). The more one is exposed to the stimuli, the more it is likely to be addicting. And when the participants talked about not being able to put down their technology this may be an issue that is emerging. In my study, we cannot tell if people are addicted or not, but there are some signs that point to that direction in the way the participants talk about their use of technology.

Conclusory remarks

A new direction for students. Results show that there is an increasing part of the students who are aware of the negative effects of the technology in our lives. The result show that some of the participants are actively trying to limit their use of the technology. There are two directions this takes us; some are so aware that they are actively trying to spend less time on technology, like social media, and some have developed strategies of trying to limit their use during study sessions. This seems to be to not let technology and the constant connectivity to be a huge part of the lives of the participants. As we see from the results and the coverage of the focus group, some are more interested than others. It is difficult to change the use of technology, as it is present in most aspects of life, but we could change how it is being used. By being aware of how the use influences our lives, and adjusting it thereby.

Fusion rather than separation. Maybe it is time to start looking at work and life as not only two separated entities, but two pieces of a person's life that make a whole. Separation was the norm in the industrially revolution, where there were two different things. You went to work, worked at the factory and went home to your family. But the changing society we live in are crating different aspects we need to consider. The way we live our lives now is changing, maybe it is time to change the way we look at it. For example, younger people use social media more in different settings like personal, educational and professional purposes than older people (Manca & Ranieri, 2016). So, it might be a shift in the way we look at the different aspects of our lives. Some have already introduced the term fusion of domains (Haeger & Lingham, 2014). This is something that is happening more and more because of the technology infused world we live in. The boundaries between the domains are experienced as less prominent (Köffer et al., 2014). As we see from the result the technology is experienced as both a resource and a demand, this may be related to the different use we have today. As the world and our lives become more driven by technology, maybe it is time to start looking at it as more of a whole.

Method discussion

The study is of the explorative nature, and aims to see how the use of technology is relevant for the students experienced LWI. It was used focus group interviews with students to explore their experiences on their use of different types of technology in their daily life. The interviews were then analyzed using an inductive thematic analysis.

Focus groups are, as mentioned earlier, a good choice when it comes to topics that we want to get the full range of different meanings and thoughts on. This gives insight into a more thoughtful discussion among the participants, rather than one single persons meaning. The moderator had an active role in the interviews, this gives room for a broader understanding from the moderators' side, by allowing clarifications of statements, but also draw the discussion to topics of interest (Powell & Single, 1996). This was important due to the diversity of the participants, to gain the full range of the meanings and thoughts on the topics of interest. The moderator was skilled in asking follow up questions, and clarifications during the interviews. The use of focus groups in general also gives less depth into a theme, but rather a more overall view of different people opinions (Powell & Single, 1996). As this study aimed to have a more overall view, this seems to be relevant with the use of focus groups.

The thematic analysis was chosen due to its flexibility, and is an advantage of this study. There is much theory on WL, but not much done on students as a group. So, not to be biased in the search for themes I chose not use a theory driven method. This seems to be a good choice in terms of the themes chosen. However, I found that it was difficult to narrow down the themes. Because of the wide ended questions from the focus group interviews, there was a huge variety of what the participants focused on, and maybe this would have been less difficult with a stricter analysis approach.

Implications

The implications of this study, are that we can start to do something about the interference of students' life that are helping them perform better at school. One thing that are important to note is that the culture of what is acceptable is changing, it is experienced acceptable to use their phone during lectures, to "snap" or "tweet" each other. We cannot ban the technology we have spent so many years developing, but we should start setting norms and rules for when it is acceptable behavior or not.

The implications will be related to the way we look at the use of technology at universities. We should consider schooling students in the effect of this type of maladaptive use of technologies. If they are aware of the negative impact, it will at least make them aware of the problem. Getting to know the problems, and know the solutions that may be relevant to hinder these negative effects could be the way to go.

These implications may also be relevant for people of the same age, and life situation. Young adults in paid jobs, may have some of the same elements of LWI as students, and could therefore benefit from the findings. To draw this conclusion there is a need for further studies on this group.

Limitations and future research

One of the limitations of this study is that I used interviews that had already been conducted. If I had done interviews for this study on my own I could have asked more directly questions linked to LWI. This would have given a more direct response to the topic of interest. Another limitation of this study is the focus group questions; they were strictly dividing the use of computers and smartphones. Much of the answers the interviewees gave was related to both and not just one of the devices. This made the questions less efficient than they could have been. When the participants were asked one question on for example the use of the computer, and the same about their phones, many mentioned that they already had answered that earlier. The reason for this is that the use of devices has become less divided than before.

Future research should consider focusing on the fusion of domains, and how we can optimize this aspect, rather than the strict separation of the domains. We see that in this technological saturated society, there may be more beneficial to see how we can make the workday better in relation to the whole of life, not just one aspect of it. As we saw earlier, the boundaries are being influenced by the amount of technology, and as the world become more and more dependent on technology it may be more beneficial to study the fusion rather the separation.

To further this research, there is a need to study this aspect in terms of demographics. For example, to investigate whether the same age group with different backgrounds, sex and type of education will be an influencing factor. To see whether it is the fact of being students or other types of factors that are the influencing factor. For example, comparing students with workers of the same age, and family responsibilities.

Another aspect that may be relevant to study, is the difference between how students and workers are being treated in terms of who contacts them, and why. For example, whether it is experienced as ok to “disturb” students more than workers. Is there a separation in terms of perceived norms on when it is ok to, let’s say send a message to someone who are either working or studying?

Conclusion

Technology is a contributor to the experience of life-work interference in students' life. How the technology is used is a major contributor, when students chose to use it in a maladaptive way, for example to procrastinate on social media. During this study, I found that technology is not a cause of LWI, but rather an element in the process of being interfered. Social relationships, through social media, are interfering with students work.

The findings show that it is the use of social media to procrastinate, the amount of addiction experienced and how we use the technology in our daily life that are the issues students experience as negative for their LWI. The daily use is important because it show how students use their technology in different settings to be related to their choices to engage in technology in different situations. For example, the social norms are influential to when and where they chose to engage. The availability is also an important factor, because it gives insight into the choices that students make. There is an experienced availability norm, and this may influence the students to engage, out of fear of receiving negative feedback by their peers.

For the participants, the technology use is often seen as a positive thing; it enables the users to work faster and more efficient. But it also entails risks, the risk of being to engaged in technology, that technology failure may interfere with their work. It is also an aspect of interference in both their home life and their work life.

These elements are aiding the interference from life to work, and should be further explored. We see that students to experience an unbalance of domains, and technology is a contributing factor for this interference. This study does give us some impact from the students point of view, when it comes to the role technology is in their lives. It is also a contribution to the WL literature, in terms that it shed light on a group that have a limited amount of research. It also is a contribution to the discussion on how the direction of WL research may look in the future. The study is a contribution to the work-life literature by examining how students' life-work interference may occur. The results show that students do experience life-to-work interference. The way this manifest itself, are through the use of social media at school and during study sessions. They often engage in social interactions with friends and family in class, and during working hours. The reasons are often related to the increased use of social media, the availability that comes with having technology close always, the inability to keep themselves from engaging with technology, and the social norms surrounding the use of technology at school.

The LWI can be problematic for students, in the sense that it will affect their education. Balance is the goal when we talk about interference between domains. There are benefits from having a balanced life, both for students (Kuhnle et al., 2010), and for workers (Bagger et al., 2008). To ensure that students do experience balance, we must first identify the risk factors, and the elements that are interfering with domains. Therefore, this study is important, it focuses on the impacts from life domain on students work.

This study also draw the debate in the direction of fusion of domains rather than the strict separation of them. By focusing on a person's life as a whole, and not as separate entities may be beneficial, at least with the technology saturated life many live. At least when technology is such an important part of most of the aspects of people's lives. As the participants talked about their use, it was clear that they have incorporated technology a

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Appendix

1. Focus group questions and interview guide (English)
2. Information note and informed consent form (Norwegian)

Appendix 1. Focus group questions and interview guide (English)

FOCUS GROUP QUESTIONS:

Moderator:

Ask each focus group these questions about first their use of their desktop, laptop, or tablet computer, and then their use of their mobile phone.

Note taker:

For each question in set A and set B, write down main points with relevant details; no need to transcribe everything; we'll have transcribed audio files later.

Note any tensions, disagreements, or diverse perspectives.

A. These questions ask about your use of your **desktop, laptop, or tablet computer**

1 On a normal day, for what purposes do you use the ...?

2 Follow up questions (if the group participants do not talk about this): For what school-related tasks do you use the ... ?

3 What personal or social purposes do you use the ... for?

4 Do you feel that you achieve what you would like to with your ... ?

5 Please describe negative experiences you may have had with your

6 Please describe situations where you really enjoy using the

7 What would your life look like if you did not have a ...?

B. These questions ask about your use of your **mobile phone...**

1 On a normal day, for what purposes do you use the ...?

2 Follow up questions (if the group participants do not talk about this): For what school-related tasks do you use the ... ?

3 What personal or social purposes do you use the ... for?

4 Do you feel that you achieve what you would like to with your ... ?

5 Please describe negative experiences you may have had with your

6 Please describe situations where you really enjoy using the

7 What would your life look like if you did not have a ...?

Appendix 2. Informed consent form (Norwegian)

Forespørsel om deltakelse i forskningsprosjektet

«Young adults' use and mastery of digital communication media: The role of «new» media technology in the lives of students»

Bakgrunn og formål

Formålet med dette forskningsprosjektet er å forstå hvordan unge voksne (18-30 år) bruker, administrerer og integrerer stasjonære datamaskiner, bærbare datamaskiner og mobiltelefoner i sitt daglige liv. Forskningsprosjektet er en master stipend prosjekt ved Psykologisk institutt, NTNU som skal gjennomføres i samarbeid med professor Ron E. Rice ved Communication Department, University of California, Santa Barbara (UCSB).

I prosjektet er vi interessert i hvordan studenter bruker mobiltelefoner og PC-er i sin daglige samhandling med mennesker og i sitt faglige og sosiale liv. Vi anser unge voksne- spesielt studenter- å være spesielt interessant, siden de er i en "overgangsperiode". De har ofte nettopp flyttet bort fra sitt familiehjem, og er i ferd med å etablere sine egne liv og medievaneer.

Hva innebærer deltakelse i studien?

Studien vil omfatte seks fokusgrupper med 5-7 deltakere i hver. Deltakelsen i fokusgruppe-intervju vil vare i ca. én time. Hver fokusgruppe vil bli stilt det samme sett med spørsmål om sin bruk av mobiltelefoner og datamaskiner. Fokusgruppediskusjonen vil bli tatt opp på bånd, og senere bli transkribert og kodet.

Hva skjer med informasjonen om deg?

Alle personopplysninger vil bli behandlet konfidensielt. Kun prosjektleder og masterkandidat vil kunne ha tilgang til de personopplysningene som oppgis. Personopplysninger vil bli lagret på passordbeskyttet PC på et kontor adskilt fra opptak for å kunne ivareta konfidensialitet.

Prosjektet skal etter planen avsluttes i november 2016. Datamaterialet vil bli anonymisert ved prosjektslutt.

Frivillig deltakelse

Det er frivillig å delta i studien, og du kan når som helst trekke ditt samtykke uten å oppgi noen grunn. Dersom du trekker deg, vil alle opplysninger om deg bli slettet. Dersom du ønsker å delta eller har spørsmål til studien, ta kontakt med: Ingunn Hagen, 41663015, Ingunn.Hagen@svt.ntnu.no eller Esi Hewton, 9515233, esibh@stud.ntnu.no.

Samtykke til deltakelse i studien

Jeg har mottatt informasjon om studien, og er villig til å delta

(Signert av prosjektdeltaker, dato)
