

**Social media engagement,
the fear of missing out, and psychosocial correlates:
A mixed methods study**

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A thesis submitted to

Auckland University of Technology

In partial fulfilment of the requirements for the degree of

Master of Arts in Social Sciences

2018

School of Social Sciences and Public Policy

Abstract

The use of Social Network Sites (SNSs) has grown to become a ubiquitous aspect of daily life in most developed countries throughout the world. This rise of social media has resulted in increased public concern regarding the way in which individuals engage with SNSs, and the consequences of frequent SNS use. Because of this concern, there is a practical interest within the field of social psychology to better understand why and how individuals engage with online platforms such as Facebook, Instagram, and YouTube. The Fear of Missing Out (FoMO) is an example of a social psychological phenomenon which has recently received attention as a significant factor associated with experiences of SNS engagement. The following mixed methods study therefore sought to contribute to developing understandings of SNS use and FoMO. This was achieved by assessing the extent of the relationship between SNS use, FoMO, and four other psychosocial variables. Quantitative and qualitative data were collected from a sample of 218 participants, and these data were analysed using mediation analyses and a thematic analysis respectively. The findings of these analyses revealed social capital in particular to be a crucial aspect of frequent SNS engagement, and the correlation between these two variables was found to be mediated by experiences of FoMO.

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Attestation of authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Signed Ben Classen

B J Classen

Acknowledgements

Thank you to my supervisors, Jay Wood and Patsi Davies, for showing me two sides of the same coin.

Thank you to my family, for always believing in me.

Ethical approval

This study was granted ethics approval by the AUT ethics committee (17/130) on 12 May 2017 under the original title 'The fear of missing out and its relations to social media use'.

Chapter 1 – Introduction

As humans, we find ourselves in an apparently unique situation. Isolated on a relatively small planet flying through the depths of space, facing the challenge of understanding the very nature of reality, and in turn, our own existence. This is a formidable task and is not a problem to be solved by one person alone. Instead, it requires gradual steps by many individuals, learning and building on each other's experiences and expertise. It is for this reason that the fields of sociology and social psychology are so important. These areas of research aim to provide us with insight into ourselves as a species. By learning about how humans behave and interact with one another, we improve our capacity to achieve to our collective potential.

One of the most significant events in human history was the dawning of the *digital age*. With the development and spread of telecommunications and the internet, humans were suddenly able to efficiently connect and share ideas on a scale which had never been seen before. Within recent years, using the internet to connect and engage with others has become a part of daily life for millions of people throughout the world (Wellman & Haythornwaite, 2008). Formal academic research into the social impact of the internet has flourished throughout recent decades (Hargatti, 2004), as has the evolution of internet-based technology. One of the most prevalent examples of this growth can be seen in the widespread use of social media throughout the world (Ellison & Boyd, 2013). Social Network Sites (SNS) provide a platform for individuals to connect, share, and interact with one another, and have become a mainstay of social communication in the current era.

The widespread use of SNSs has had a profound impact on developed societies throughout the world. By speeding up the rate at which information travels within and across social networks, SNSs are effecting significant changes to communication norms

(Waterloo, Baumgartner, Peter, & Valkenburg, 2017), rates of cultural development (Milner, 2016), human neurophysiology (He, Turel, & Bechara, 2017), and patterns of social behaviour (David & Roberts, 2017). A key factor contributing to these changes to daily life is the rate at which individuals are using SNSs. In recent years, frequency and intensity of engagement with SNSs has in become a significant cause for concern with regards to the health and wellbeing of users (Pontes, Taylor, & Stavropoulos, 2018). This has occurred to the extent that problematic use of SNSs is increasingly being considered a prevalent public health concern throughout the world (Dong et al., 2018). There is therefore considerable practical interest in understanding how and why people are engaging with SNS technologies. One area within this field which has received a good deal of attention is the way in which psychosocial factors interrelate with incidences of problematic patterns of SNS use. By researching aspects of the psychological and social lives of SNS users, we improve our understanding of the motivations and consequences of use. With this information, we develop a better understanding of the nature of SNS use and become better equipped to develop strategies and policies which might mitigate the social impact of SNSs.

One example of how SNS use has come to impact psychological and social experiences can be seen in the rise of a new type of social anxiety commonly referred to as the fear of missing out (FoMO). This term has become something of a pop culture buzzword in recent years (Barker, 2016; BBC, 2017), and refers to the anxiety or discomfort associated with missing out on a potentially rewarding social experience (Przybylski, Murayama, DeHaan, & Gladwell, 2013). This social psychological phenomenon has risen to prevalence alongside the spread of digital technology and is frequently linked to the use of SNS platforms (Buglass, Binder, Belts, & Underwood, 2017). Research into the nature of the relationship between FoMO and SNS enables us to learn more about how and why people use SNSs to interact and communicate in the

modern era (Przybylski et al., 2013). Through exploration of this phenomenon, we not only improve our capacity to develop innovative solutions to growing issues, such as problematic SNS use, but we also advance our collective understanding of human nature.

This thesis details a mixed methods research project which was conducted throughout 2017. This research was guided by two primary research questions:

1. Is there a relationship between specific psychosocial factors and rates of engagement with SNS?
2. Is there evidence of FoMO mediating the relationship between these psychosocial variables and rates of engagement with SNS?

To answer these questions, data was collected from a sample of SNS users in Aotearoa New Zealand. The data provided insight into rates of engagement with SNS use, experiences of FoMO, and four different psychosocial factors which were deemed potentially relevant to experiences of SNS use. Beginning with a literature review, this thesis will critically discuss the academic context in which this study took place. This will be followed by a detailed report on the methods used and the findings of the study. The thesis will then conclude with a discussion of the implications of the findings as they relate to established literature and potential directions for future research.

Chapter 2 - Literature Review

2.1 Chapter overview

The following chapter consists of a discussion and critical analysis of a range of literature relating to the present study. This includes a review of the literature as it relates to each of the study's independent and dependent variables. This review sought to provide a comprehensive understanding of the research topic, while also exploring the academic and social context in which the present study was undertaken. The chapter concludes with a discussion of the gaps identified within the literature, which informed the direction of the present study.

2.2 A conceptual literature review framework

The following literature review will be structured according to the six key variables assessed in the study. As the main focus of the study, the concept of SNS will first be discussed. Following this, the concept of FoMO will be introduced and reviewed. Finally, four psychosocial factors will be reviewed with particular regard for how each of these factors may relate to SNS engagement and FoMO. This will involve a consideration of the extent to which FoMO may act as a psychological mechanism linking psychosocial factors and SNS use (see *Figure 1*). The chapter will then conclude with a discussion of some key gaps identified within existing literature on this topic.

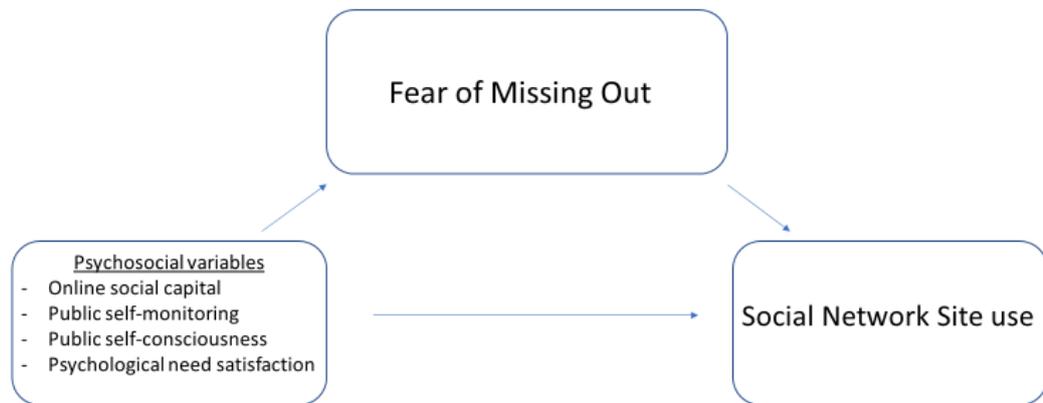


Figure 1. Conceptual Framework for literature review. FoMO will be explored as a psychological mechanism linking psychosocial variables with SNS use.

2.3 Social Network Sites (SNS)

SNSs such as *Facebook*, *Twitter*, *Instagram*, and *Snapchat*, are online platforms used by people to connect and engage with others. Since the creation of an early incarnation of what is now Facebook (*sixdegrees.com*) in 1997 (Boyd & Ellison, 2007), SNSs have developed into what can be considered a worldwide cultural phenomenon. The multi-faceted nature of these SNSs has seen them become increasingly important platforms in terms of social and cultural information communication throughout the world (Milner, 2016). This change has significantly altered the contemporary media landscape and has resulted in SNSs becoming an integral part of daily life in developed countries. The rapid spread of SNSs across the globe has been linked to dramatic shifts in geopolitical landscapes (Khondker, 2011; Comunello & Anzera, 2012), as well as creating considerable turbulence in the international business (Bolotaeva & Cata, 2010; Wang & Zhang, 2012) and public health sectors (Valkenburg, Peter, & Schouten, 2006;

O'Keeffe & Clarke-Pearson, 2011). These events demand we improve our understanding of this rapidly evolving aspect of life in the digital age.

2.3.1 SNS definition

Boyd and Ellison (2007) provide the following working definition of SNSs which has become one of the most widely used definitions throughout the literature on the subject:

We define social network sites as web-based services that allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system. (p.211)

This definition is useful as it provides a clear understanding of the fundamentally social nature of SNSs, while still allowing room for the considerable variation in the interfaces and nature of different SNSs. Boyd and Ellison's three basic principles of SNSs have been used to identify potential social media platforms throughout the present study.

The term SNS is used throughout the literature to refer to a large array of online platforms. While most of these platforms originated as internet browser-based webpages, many have evolved to become accessible via smartphone applications (apps; e.g. Facebook, Youtube, & Twitter). These apps provide direct access to the social network platform without the need for an internet browser, increasing the mobile accessibility of the SNS (Bik & Goldstein, 2013). Furthermore, there is a range of social network services solely based around smartphone apps. Services like Snapchat, a photo and video sharing platform, are widely used by young people (Utz, Muscanell, & Khalid, 2015), and the use of a smartphone capable of downloading apps is necessary in order to use the service. To avoid any potential ambiguity, the term SNS will be used throughout this study to refer to all social networking platforms, regardless of whether they are accessed via a computer or a smartphone app.

2.3.2 The nature of SNS use

Since the initial conception of SNSs these platforms have experienced phenomenal development and international spread. The most ubiquitous and commonly used SNS worldwide is Facebook which hosts more than 2 billion active monthly users (Facebook Incorporated, 2017). These rates of use are followed by YouTube at 1.47 billion users, Instagram at 800 million, and Twitter at 330 million monthly users (Statista, 2018). These platforms are used to upload and share a wide range of content including text posts, photos, videos, and audio recordings. This content is then able to be viewed and responded to by other users of the service. Many of the most prominent SNS platforms such as Facebook and YouTube, began in the early 2000s as online websites, only accessible via internet browsers on desktop computers. However, as digital technology has become more mobile, so too have SNSs. With smartphone apps, many consumers in the developed world have almost unlimited access to SNS platforms. This improved accessibility to social networks has resulted in concern relating to potentially problematic changes in social behaviour. Habitual checking of SNS apps, to the detriment of real world social interactions, is increasingly becoming a cause for concern within public health literature (Oulasvirta, Rattenbury, Ma, & Raita, 2012; Chotpitayasunondh & Douglas, 2016; David & Roberts, 2017). The significance of digital technology's effect on daily social life is further reflected in the recent development of clinical frameworks for identifying and treating problematic internet use (Anderson, Steen, & Stavropoulos, 2017) as well as internet addiction disorders (Kuss, Griffiths, Karila, & Billieux, 2014). It is clear that problematic SNS use (i.e. excessive SNS use which begins to have a negative impact on daily life), is an important problem to address.

Young (2015) suggests that the common thread which connects many of these issues is our desire for social interaction. Never before in history have humans been so well connected, and, as inherently social creatures, we find ourselves attracted to the unparalleled level of social gratification afforded by social media. However, this heightened level of social connectivity is juxtaposed with numerous studies which have found correlations between rates of SNS use and loneliness (Pittman, 2015; Pittman, & Reich, 2016; Dumas, Maxwell-Smith, Davis, & Giulietti, 2017). In an American study by Kim, LaRose, and Peng (2009) involving 635 undergraduate students, poor psychosocial wellbeing was identified as a key factor both contributing to, and resulting from, problematic use of internet services. This cause and effect relationship between psychosocial factors and excessive internet use is a common thread throughout the literature and is referred to by Kim et al. (2009) as a 'malicious cycle', in which people with low psychosocial wellbeing turn to online social interaction as a coping strategy. These people are more vulnerable to developing problematic patterns of internet use (Wang, Gaskin, Rost, & Gentile, 2017), which in turn has a negative effect on their psychosocial wellbeing (Satici & Uysal, 2015). This malicious cycle is also evident in literature relating specifically to SNS use in which poorer psychological and emotional wellbeing has been identified as both a predictor of excessive SNS use (Wilson, Fornasier, & White, 2010), as well as a symptom of excessive use (Kuss & Griffiths, 2011). Alongside loneliness, SNS use has been shown to be positively correlated with a wide range of other mental and emotional health issues including depression (O'Keeffe & Clarke-Pearson, 2011), narcissism (Ong et al., 2011), and anxiety disorders (Andreassen et al., 2016).

While we are still learning about how and why people engage with SNSs, existing literature appears to consistently indicate a strong correlation between SNS use and aspects of users' psychological and social wellbeing. By building on this

knowledge, the present study has the potential to contribute to developing understandings of SNS use and its consequences. An important aspect of developing this understanding is considering additional factors which may help explain correlations between deficits in psychological and social wellbeing and SNS engagement. One example of such a factor is FoMO.

2.4 Fear of Missing Out (FoMO)

A key hypothesis guiding this study is the prediction that deficits in an individual's psychosocial wellbeing are related to increased SNS engagement. Furthermore, this relationship is predicted to be at least somewhat explained by experiences of FoMO. FoMO is therefore hypothesised to be a psychological mechanism which is related to both psychosocial deficits, and increased SNS engagement. The following section introduces the concept of FoMO, and reviews contemporary discourse on this social psychological phenomenon.

2.4.1 FoMO definition

The term FoMO is succinctly defined by Przybylski et al. (2013) as "...a pervasive apprehension that others might be having rewarding experiences from which one is absent" (p.1841). FoMO is characterised by feelings of social isolation and exclusion and can generally be considered a state of psychological discomfort (Przybylski et al., 2013). The term first began to appear in public discourse earlier this decade (Fake, 2011). However, it has been suggested that FoMO as a social phenomenon has been around for as long as there have been means for keeping up to date with what people are doing elsewhere, such as letters, newspapers, and email (Wortham, 2011). Arguably, this awareness of what one might be missing out on has never been more apparent than in the digital age. With the phenomenal saturation of

SNS use throughout the developed world, users are constantly bombarded with social information, as well as opportunities to engage with their social networks. This has led to SNS induced FoMO becoming an area of increasing interest in the field of social psychology.

2.4.2 FoMO and SNS use

In a foundational piece of work on the topic, Przybylski et al. (2013) conducted three studies into FoMO and its relationship with SNS. In the first study, a tool for effectively measuring FoMO in SNS users was developed. This measure has since been used in numerous studies on experiences of FoMO (Oberst, Wegmann, Stodt, Brand, & Chamarro, 2017; Hetz, Dawson, & Cullen, 2015; Alt, 2015; Chotpitayasunondh & Douglas, 2016). In the following two studies, FoMO was positively and robustly correlated with deficits in psychological wellbeing, rates of social media engagement, and use of SNS in socially inappropriate contexts. These findings have been expanded upon in more recent studies and correlations between experiences of FoMO and SNS use have been consistently established (Chotpitayasunondh & Douglas, 2016; Blackwell, Leaman, Tramposch, Osborne, & Liss, 2017; Wolniewicz, Tiamiyu, Weeks, & Elhai, 2017). The link between FoMO and SNS use is especially evident with regards to SNS use via smartphones. Consciousness of the ever-present SNS accessibility provided by smartphones has been directly associated with experiences of FoMO (Cheever, Rosen, Carrier, & Chavez, 2014; Chotpitayasunondh & Douglas, 2016), particularly amongst younger generations who have grown up as '*digital natives*' (Beyens, Frison, & Eggermont, 2016; Reinecke et al., 2017).

As SNS platforms continue to grow in cultural significance, the potential for an individual to feel like she/he is missing out on important social information becomes an increasing concern. This idea was made apparent in the findings of a qualitative study

into the consequences of using SNS (Fox & Moreland, 2015) in which one male participant specifically stated that even though he disliked using social media, it was FoMO which motivated him to continue doing so.

FoMO has consistently been identified as playing a mediating role between poor psychosocial wellbeing and the way in which people use SNS (Przybylski et al., 2013; Wolniewicz et al., 2017). A recent study of more than 1400 Latin-American students (Oberst et al., 2017) identified correlations between deficits in psychological wellbeing (such as experiences of anxiety and depression) and negative consequences of SNS use. These relationships were found to be significantly mediated by FoMO. The authors of the study discuss the hypothesis that people with poorer perceived psychosocial wellbeing may be at greater risk of experiencing FoMO, which motivates them to increase their social engagement via SNS platforms. This increased SNS use also grants individuals more awareness of their movements within their social network, paradoxically increasing their experiences of FoMO. This potentially malicious cycle of SNS and general internet use has become a recurring theme within related literature (Kim et al., 2009; Yoo & Jeong, 2017), and the findings of Oberst et al. (2017) point to the potential role of FoMO in perpetuating this cycle. There is mounting evidence of positive relationships between experiences of FoMO and a range of psychological deficits such as anxiety (Elhai, Levine, Dvorak, & Hall, 2016), depression (Oberst et al., 2017), and low life satisfaction (Przybylski et al., 2013). However, our understanding of individual differences of the experience of FoMO is still developing. By exploring potential associations between FoMO and a wider range of psychosocial factors, the present research aims to provide further clarity on our understanding of the phenomenon, its causes, and its role in motivating SNS use.

2.5 Psychosocial factors

In reviewing a range of literature on SNSs, it is clear there is a wealth of research linking the use of social media with aspects of users' psychological and social wellbeing. Given this, the present study attempts to explore the role a few specific psychosocial factors may play in predicting rates of SNS use. These psychosocial factors were selected for assessment as each of them was deemed to have potential to be correlated with both SNS and FoMO. Furthermore, the existing literature linking most of these psychosocial factors with SNS and FoMO was found to be either emergent, or non-existent. The following section lists the four psychosocial variables assessed in the present study and discusses their potential relationship with rates of SNS usage.

2.5.1 Social Capital - Definition

Social capital refers to the extent to which an individual is perceived to benefit from established social networks and relationships. This psychosocial factor was selected for assessment as it directly relates to an individual's perceived social connectivity, which is a fundamental aspect of SNS use. The concept of social capital was first introduced by Bourdieu (1986), who recognised the mutual benefits associated with maintaining and participating in social networks. The theory was expanded on by Coleman (1988), who recognised the role of social capital in the development of human capital, and identified some key features of social capital, such as the development of group norms within social networks (Portes, 1988). However, it was Putnam (1995) who updated the theory of social capital and brought the concept into modern Western discourse (Field, 2008). In his book *Bowling Alone: America's Declining Social Capital*, Putnam (2000) proposed two separate types of social capital; bonding capital and bridging capital. Bonding capital refers to the close relationships an individual has with others. These relationships reinforce an individual's established social identities

whilst also facilitating emotional support and feelings of mutual trust. Bridging capital refers to an individual's extended networks of casual relationships and acquaintances. While not necessarily as evident as bonding capital, the bridging form of social capital provides an individual with latent social potential and resources which can be accessed and drawn from as needed. Rates of social capital have been associated with a range of sociological factors including civil engagement amongst populations (Putnam, 1995), and life satisfaction (Bjørnskov, 2003). This has accordingly made social capital an important indicator of psychosocial wellbeing at both a societal as well as an individual level (Poortinga, 2006).

2.5.2 Social capital and SNS use

The rise of the internet in recent decades has created a change in the ways in which people are able to communicate, and therefore form social relationships and networks with one another. This shift in social communication has also influenced our understanding of social capital, and aspects of the internet. For example, SNSs have become particularly useful tools for sociologists attempting to understand the impact of the internet on our social lives (Quan-Haase & Wellman, 2004). While various studies have investigated the way in which the internet as a whole affects social capital (Wellman, Haase, Witte, & Hampton, 2001; Hampton & Wellman, 2003; Bauernschuster, Falck, & Woessmann, 2014), the impact of the digital age on contemporary understandings of social capital is particularly relevant to the use of SNSs. As fundamentally social platforms, SNSs can be considered to facilitate the development and maintenance of social capital. This has resulted in rates of social capital being consistently identified as a key moderating factor in understanding the effects of SNS use on the wellbeing of the user (Yoo & Jeong, 2017). One of the earliest studies to identify this link was conducted by Ellison, Steinfield, and Lampe (2007),

who found a strong correlation between rates of social network use, and the formation and maintenance of social capital. Steinfield, Dimicco, Ellison, and Lampe (2009), also found that certain types of SNS use facilitated the development of different types of social capital.

Some of the most significant findings on the relationship between social capital and SNS use are presented in the work of Yoo and Jeong (2017), who found that participants with both high and low rates of social capital used SNS just as frequently over a one-year period. However, participants with lower perceived social capital were more likely to experience negative consequences of increased SNS use with regard to their psychosocial wellbeing (i.e. depression, loneliness, life satisfaction). Meanwhile, participants who had more social capital were more likely to experience a positive impact on the same psychosocial factors over a one-year period. Yoo and Jeong (2017) propose two theoretical models to explain these differences. SNS users with low social capital are thought to experience what is referred to as a 'vicious cycle', in which they use SNS as a means of compensating for their poorer social capital. This increase in usage results in increased feelings of depression and isolation, which further augments their use of SNS as a coping mechanism, thus repeating the cycle. The inverse of this model is true for SNS users with high social capital who experience what Yoo and Jeong (2017) call a 'virtuous circle'. High social capital users use SNS as a means of further developing and benefitting from their social networks. This provides social gratification which motivates users to continue engaging with SNS at such high levels. These findings are consistent with, and expand on, the aforementioned 'malicious cycle' used by Kim et al. (2009) as a model for explaining problematic internet use. Within recent literature, social capital has been consistently associated with SNS use. By conducting more quantitative research in this area, emerging theories such as those proposed by Yoo and Jeong (2017), have the opportunity to be validated, critiqued and

developed, further crystallising contemporary understandings of the role of social capital in SNS engagement.

There may be reason to suspect a positive association between social capital and experiences of FoMO, similar to the relationship between social capital and SNS engagement. It seems reasonable to presume that the increased social connectivity experienced by individuals with greater social capital may open up more opportunities for feelings of FoMO. More expansive social networks may result in the individual having a greater awareness of social activities they are missing out on. Conversely, an increase in social capital could also result in a decreased likelihood of experiencing FoMO. With a more established social network an SNS user may be less prone to experiences of FoMO, as they could conceivably be less likely to feel insecure about missing out on social events. While previous studies have established positive correlations between FoMO and social factors such as a need for popularity (Beyens et al., 2016), there does not appear to be any empirical evidence of a relationship between FoMO and social capital as a stand-alone social construct. This might be regarded as a significant gap in the literature, particularly with regards to the extent to which social capital may predict experiences of FoMO, and how such a correlation may be related to SNS engagement.

2.5.3 Public Self-Consciousness - Definition

While social capital as a psychosocial variable is centred around an individual's perception of others in social networks, public self-consciousness may be seen as a more introspective variable in that it relates to an individual's perceptions of themselves in a social context. Public self-consciousness refers to the extent to which an individual is aware of themselves as an object of social attention in a social context. The concept of public self-consciousness was initially developed by Fenigstein, Scheier and Buss

(1975), who argued that general self-consciousness consisted of three interrelated factors; public self-consciousness, that is an individual's awareness of themselves as a social stimulus, private self-consciousness, an introverted awareness of oneself, and social anxiety, which is a form of anxiety closely interrelated with public and private self-consciousness. Of these three aspects of general self-consciousness, only public self-consciousness was assessed in this study. This is because it was deemed to be the aspect of self-consciousness which was most likely to have an impact on the way in which an individual engages with online social networks. As SNSs are platforms which are bustling with social information, an individual's public self-consciousness was hypothesised to be related to rates of engagement with SNSs.

2.5.4 Public self-consciousness and SNS use

The broad concept of self-consciousness has been widely established within the literature as being causally associated with a variety of patterns of behaviour (Lundh & Öst, 2001; Baumeister, 1984), as well as psychological wellbeing (Wiederman, 2000; Lowery et al., 2005). Issues regarding the psychological implications of public self-consciousness have become particularly salient with the rise of SNS platforms, many of which are structured around portraying one's identity in a public setting (Seidman, 2013). Public self-consciousness has been found to be directly associated with the way people engage with SNS platforms (Lee, Moore, Park, & Park, 2012), especially with regards to the way individuals construct and present themselves online (Seidman, 2013). Shim, Lee, and Park (2008) conducted a study of 231 South Korean university students to explore the relationship between private and public self-consciousness and the way in which students engage with SNSs. They found that higher rates of public self-consciousness were positively associated with frequency of content sharing via SNSs.

The findings from this and similar studies (Lee et al., 2012; Chua & Chang, 2016) indicate that the extent to which users are conscious of themselves in relation to their social environment influences behaviours whilst using SNSs. However, while such studies demonstrate clear relationships between public self-consciousness and frequency of behaviours when online, empirical evidence of an association between this psychosocial variable and overall rates of engagement with SNSs are harder to find. However, such a relationship is plausible, as by engaging with SNSs individuals are made acutely aware of their social networks, and by extension their positioning within these environments. People with high rates of public self-consciousness may be attracted to using SNSs more frequently due to the utility of SNSs as a means of curating public identities.

Conducting further research into potential links between public self-consciousness and rates of SNS use will provide an opportunity to build on existing evidence of correlations between these two factors. There is also an apparent lack of scholarly insight into the potential for links between public self-consciousness and FoMO. A positive correlation between these two factors is plausible, as an individual with higher public self-consciousness may be more aware of missing out on important social opportunities, while also having a greater awareness of the potential social implications of missing out on such occasions. By considering psychosocial mechanisms, such as FoMO, which may mediate a relationship between public self-consciousness and SNS use, there is potential for contemporary discourse on motivations for SNS use to be developed further.

2.5.5 Public Self-Monitoring - Definition

Another example of a psychosocial factor which is potentially related to SNS use is public self-monitoring. While social capital and public self-consciousness refer to

an individual's perceived positioning within their social environment, public self-monitoring refers to the degree to which the individual monitors and regulates their behaviour in social settings. Public self-monitoring was first conceptualised by Snyder (1974), who theorised that people can be categorised as either high or low self-monitors. High self-monitors engage in frequent self-observation and adapt their behaviours to suit their social environment. Inversely, low self-monitors spend less time managing their public identity and are more likely to exhibit behaviours which they feel are consistent with their true selves (Brown, 1998). Public self-monitoring has similarities with public self-consciousness, and individuals who score highly in one characteristic are also likely to score highly in the other (Tommarelli & Shaffer, 1985). However, public self-monitoring differs from self-consciousness in that it refers to an individual's motivation to engage in a particular behaviour. While public self-consciousness gauges the perceived salience of an individual's social positioning, self-monitoring refers to an individual's propensity to adapt their behaviour to suit their social environment (Brown, 1998).

2.5.6 Public self-monitoring and SNS use

Examining experiences of public self-monitoring in SNS users has the potential to provide a new perspective into motivations for problematic patterns of use. A core aspect of SNS platforms is an online public profile/identity, the presentation of which may be closely monitored and managed (Livingstone, 2008). This ability to customise and personalise online identities provides high self-monitoring individuals with the opportunity to effectively manage their social behaviours and appearances. Public self-monitoring was therefore included in the present study as it was hypothesised that individuals who displayed higher rates of self-monitoring tendencies may be more

inclined towards frequent engagement with SNS as a means of monitoring and managing their online identities.

As SNS has grown in use, so too has the significance of our online identities. This has resulted in socially appropriate construction and management of our online selves becoming increasingly important in daily life (Schwartz & Halegoua, 2015). By constructing a public image of oneself in an online social setting, an individual is engaging with perceived social norms and expectations in much the same way as they would in a real world social setting (Uski & Lampinen, 2016). This can be seen in the way in which users manage and monitor their online behaviours and personas in accordance with the perceived norms of given SNS platforms (Marwick & Boyd, 2011).

The data collected from users by SNS platforms themselves has proven to be an abundant resource for identifying self-monitoring behaviours. By analysing Facebook data from over 3.9 million users over just 17 days, Das and Kramer (2013) found that more than 70% of users engage in self-monitoring behaviours, by way of returning to edit and delete previously shared content. This is a good example of how public self-monitoring tendencies might influence SNS user behaviour. However, while these results imply high rates of engagement with self-monitoring behaviours whilst online, it should also be noted that public self-monitoring may not be the only factor contributing to self-censorship of posts whilst online. Despite this, the data collected by Das and Kramer supports the view that self-monitoring is a key component of self-presentation via SNSs (Hogan, 2010). However, whether an individual's propensity to engage in self-monitoring behaviours has any effect on their rates of SNS use remains to be seen.

There does not currently appear to be any empirical evidence within the literature of a direct association between public self-monitoring and rates of engagement with SNS use. However, it seems plausible that individuals who are higher self-monitors have a greater likelihood of frequently engaging with SNSs, as such platforms

provide a unique opportunity to manage and curate public identities. Furthermore, it seems plausible that individuals who are more prone to public self-monitoring may be more susceptible to experiencing FoMO in relation to their SNS use because of the opportunities for observing and reacting to social information afforded by SNS. High public self-monitors may be more prone to fearing they will miss out on opportunities to manage their online identities and maintain awareness of happenings within their social networks. If evidence of a positive relationship between public self-monitoring and both SNS use and FoMO is found, then it would be prudent to consider the extent to which FoMO might act as a social psychological mechanism which facilitates use of SNS.

As a factor relating to private motivations to engage in particular behaviours, public self-monitoring can be considered a largely introspective psychosocial variable. In this regard it is somewhat similar to the final of the four psychosocial variables assessed in this study, psychological need satisfaction.

2.5.7 Psychological need satisfaction – Definition

Psychological Need Satisfaction (PNS) is a concept situated within the self-determination theory of motivation and behavioural regulation (Deci & Ryan, 1985). This psychosocial factor was chosen for assessment as it was hypothesised to be related to an individual's motivations for using SNS. Self-determination as a theoretical framework was conceptualised by Deci and Ryan (1985) as a means of explaining individual differences in human behaviour and personality development. The theory looks specifically to social-contextual factors as playing a key role in an individual's motivation to engage in self-regulatory behaviour (Gagné & Deci, 2005). One such example of a social-contextual factor is the extent to which an individual feels that fundamental psychological needs are being satisfied on a regular basis (Deci & Ryan, 1985). These needs include autonomy (an individual's capacity to exert agency and

control over themselves and their social surroundings), competence (an individual's desire for effective and meaningful engagement with the world around them) and relatedness (the extent to which an individual feels emotionally connected within their social relationships).

Although these fundamental psychological needs can be considered as stand-alone aspects of an individual's wellbeing, in the context of self-determination theory, and this study, they are referred to as factors which contribute to PNS as a whole. Ryan and Deci (2000) consider these basic needs to be key indicators of both an individual's psychological wellbeing, and their capacity to engage in self-regulatory behaviour. Since its conception, PNS has been used throughout the field of social psychology to better understand educational outcomes (Cox & Williams, 2008), social wellbeing (Sheldon & Bettencourt, 2002), as well as a range of other social and psychological phenomena (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008; Perreault, Gaudreau, Lapointe, & Lacroix, 2007; Kasser, 2009).

2.5.8 Psychological need satisfaction and SNS use

Given the increasing concern surrounding problematic patterns of internet use (Anderson et al., 2017), PNS has been used by some researchers as a means of explaining why people might have problems regulating their internet use (Shen, Liu, & Wang, 2013; Przybylski, Weinstein, Ryan, & Rigby, 2009). This perspective has also proven useful in research which looks more specifically at patterns of SNS use (Przybylski et al., 2013).

In a study of German SNS users, a strong inverse relationship was found between rates of SNS use and each of Deci and Ryan's three fundamental psychological needs (Masur, Reinecke, Ziegele, & Quiring, 2014). Furthermore, each of the relationships between the three psychological factors and SNS use were found to be

mediated by different motivations for SNS use. This is consistent with the findings of another study by Przybylski et al. (2013) which found that low levels of PNS robustly predicted rates of SNS usage, and that this relationship was significantly mediated by the FoMO. Other studies have also established correlations between low rates of PNS and increased digital media use (Reinecke, Vorderer, & Knop, 2014; Sheldon, Abad, & Hinsch, 2011). This has led to a view across the literature that usage of online media services, such as SNS platforms, may be a coping strategy for individuals seeking to fulfil innate psychological needs (Lee, Ho, & Lwin, 2017; Ellison & Vitak, 2015).

As well as identifying inverse correlations between PNS and SNS use, Przybylski et al. (2013) also found a similar relationship between need satisfaction and FoMO. In that study, FoMO was shown to mediate the relationship between PNS and SNS use, implying that individuals with lower rates of daily need satisfaction are more likely to experience FoMO and therefore more likely to have high rates of SNS engagement. Similar to Przybylski et al.'s (2013) study, the present study aims to identify the extent to which FoMO mediates relationships between SNS engagement and PNS, among other variables. In this sense the present study can be considered a partial replication, in that one of its aims is to verify the findings of Przybylski and colleagues (2013). By exploring the links between PNS, SNS use and FoMO amongst a cohort of New Zealanders, the present study aims to further establish or critique the perceived relationship between these variables, and thereby contribute to contemporary discourse in this area.

The relationship which has been identified between PNS and SNS use is potentially a rather complicated one due to the nature of PNS as a stand-alone psychosocial construct. While all of the psychosocial variables being assessed in this study are centred around an individual's agency within a social context, PNS is arguably the most complex of these factors. This is because the three aspects of PNS

(autonomy, competence and relatedness) are capable of being met in a variety of ways. One example of this is evident when considering the way in which an individual might fulfil their innate psychological need for a feeling of competence. In keeping with Deci and Ryan's (1985) definition of one's need for competence as a desire for effective and meaningful engagement with the world around them, an individual might be seen to fulfil this need for competence through not only social engagement, but also successful engagement with a range of other daily tasks. Because of this complexity in the internal components of PNS, it is important to consider the relationship between this variable and SNS engagement as one which may be more nuanced than some of the other variables in this study. Furthermore, while the other three psychosocial variables are hypothesised to be positively correlated with SNS engagement, the relationship between PNS and SNS engagement is predicted to be an inverse one. As rates of PNS decrease, rates of SNS engagement are predicted to increase.

By measuring the extent to which any potential links between PNS and SNS are mediated by FoMO, the findings of this component of the present study look to build upon pre-existing discourse within the field by either supporting or contradicting the findings of studies such as Przybylski et al. (2013).

2.6 Key gaps within the literature

Research into consequences and motivations of SNS engagement is a relatively new area within academic literature and there is still much ground to be covered within this field. The developing nature of knowledge in this area was a key factor in the development of this study, as it provided an opportunity to gain new insight into an increasingly significant aspect of the social world. Conducting the literature review enabled me to familiarise myself with contemporary theories and concepts relating to SNS engagement, and throughout this process a range of key gaps within the literature

were identified. By highlighting some of the most significant gaps within contemporary literature, and how these shortcomings might be addressed, the following section outlines a clear direction for the present study.

2.6.1 Contradictory understandings of SNS.

Increasing amounts of research are being done on SNS usage and the impact it has on users. However, one of the biggest problems is the seemingly contradictory and convoluted nature of many of these studies' findings. While some report positive relationships between SNS use and aspects of psychosocial wellbeing (Frison & Eggermont, 2015; Frison & Eggermont, 2016; Reinecke & Trepte, 2014; Valenzuela, Park, & Kee, 2009), other studies report negative correlations between these two constructs (Shaw, Timpano, Tran, & Joormann, 2015; Kim et al., 2009; Dhir, Yossatorn, Kaur, & Chen, 2018). This contradiction within the literature may be seen as a result of the considerably dynamic nature of SNS platforms. SNSs and the ways in which people engage with them are constantly evolving. This makes establishing an empirical understanding of how we use them, as well as how they affect us, a considerable challenge. Along with research into how often people engage with SNSs, studies of different patterns of behaviour whilst using SNSs are becoming more and more prominent within the literature (Chen, Fan, Liu, Zhou, & Xie, 2016; Frison & Eggermont, 2016; Verduyn, Ybarra, Résibois, Jonides, & Kross, 2017). These studies reinforce the importance of considering the way in which people use SNS whilst online, rather than solely the frequency of use. However, the consensus within the literature on the exact nature of the relationship between aspects of psychosocial wellbeing and SNSs still appears to be somewhat inconclusive (Wang et al., 2017). The contradictory nature of findings within this field may simply be a symptom of the relatively recent development of SNS platforms. Only recently have we started to see populations

engaging with SNSs on such a massive scale, and as such, research into SNS use is still in its adolescence. It is therefore important to the field of modern social psychology that we continue to conduct rigorous research into a wide range of psychological and social factors which may influence, or be influenced by, SNS use, even as it evolves around us.

2.6.2 SNS in a New Zealand context.

The adolescence of SNS research is especially apparent when considering research on SNS usage within the context of Aotearoa, New Zealand. As a developed country, New Zealand has high rates of engagement with digital technology, with as many as 76% of New Zealanders considering the internet to be 'important' or 'very important' in their daily lives (Crothers, Smith, Urale, & Bell, 2016). Despite this, there has been limited research conducted on SNS use in New Zealand. One study by Billot and Crothers (2010) provided some insight into the nature of SNS use in New Zealand. This study looked into reasons for not engaging with SNSs, perceived trustworthiness of information on SNS sites, and feelings of connectedness amongst users and non-users. It identified correlations between levels of SNS engagement and the size of self-reported friend networks. However, with a sample of 131 participants, only 67 of whom were SNS users, the findings cannot be considered representative of the general New Zealand population. Furthermore, this research was published nearly eight years ago, a considerable amount of time in terms of digital technology development.

A more significant contribution to understandings of SNS use within a New Zealand can be seen in the recent publication by Riordan, Cody, Flett, Conner, Hunter, and Scarf (2018), which reported on a number of studies conducted in the development of a single item measure of FoMO. Along with these few studies of patterns of SNS use and its correlates, other research has explored New Zealand SNS use as it relates to

topics such as its role in stimulating political participation (Effing, Van Hillegersberg, & Huibers, 2011), and communicating information in civil emergencies (Mersham, 2010). As a technologically developed country, it is important that we continue to broaden our understanding of SNS use within a New Zealand context. This will enable the development of strategies and policies for managing problematic patterns of use which are tailored to suit the cultural diversity and context of New Zealand populations.

2.6.3 Still developing understandings of FoMO.

Along with SNS research, contemporary understandings of the phenomenon of FoMO are also relatively underdeveloped. The current body of literature on FoMO, particularly as it relates to SNS use, is advancing rapidly. However, it appears there are still some important issues within the literature which are yet to be addressed. I believe that one of the most significant gaps in the literature is the lack of consideration of FoMO as not just an individual and interpersonal experience, but also as a defining feature of modern culture. In social environments where having an SNS profile is the norm, it is reasonable to consider that fear of missing out on what might be happening online is driving people to use SNS excessively. This is supported by the range of studies which have identified FoMO as a motivator of SNS use (Beyens et al., 2016; Buglass et al., 2017; Hefner, Knop, & Vorderer, 2018). Meanwhile, specific experiences whilst already using SNS have also been found to contribute to feelings of FoMO (Fuster, Chamarro, & Oberst, 2017; Oberst et al., 2017). Surprisingly, there does not appear to be any clear distinction within the literature between these two instances of FoMO. In the present study, particularly with the qualitative component, I expect to shed some light on these potentially different types of FoMO, and in doing so contribute to further developing contemporary understanding of this fledgling topic.

2.6.4 Still developing understandings of psychosocial correlates.

I believe there is also a lot more yet to be said for FoMO with regard to the relationships between established social psychological phenomena and SNS use. Various psychosocial factors have been established as playing a key role in the way in which people engage with SNS. However, our understanding of how these factors interrelate is still developing. An example of this can be seen in some of the studies which looked into the relationship between social capital and SNS use (Ellison et al., 2007; Yoo & Jeong, 2017; Valenzuela et al., 2009). Although these studies have provided some detailed quantitative insight into the way people use SNS, they have provided only a limited empirical examination of specific social psychological mechanisms which may tie together social capital and rates of SNS use. While rates of social capital have been shown to be correlated with rates of SNS engagement (Ellison et al., 2007), our understanding of the specific mechanisms which underpin this relationship appears subject to speculation. A potential example of such a mechanism is FoMO, which is arguably directly related to an individual's degree of social capital, and has also been found to be correlated with rates of SNS use (Pryzbylski et al., 2013). Conducting further research into social psychological mechanisms which may mediate the relationship between various social psychological factors and SNS use is an important aspect of our growing understanding of the nature of SNS use.

2.6.5 Lack of qualitative insight.

Another important gap in the literature on SNS use is the limited amount of qualitative research into the nature of use. While some research has utilised a qualitative approach to explore SNS use (Rauch, Decker, & Woodside, 2015; Cho & Park, 2013), qualitative approaches are relatively scarce compared to the amount of quantitative research on the topic. It is particularly important to apply a range of methodological approaches when

researching SNS. This is due to the complex and dynamic nature of SNS platforms.

With such a large range of platforms, each with its own features and idiosyncrasies, it is difficult for quantitative data alone to accurately depict user's evolving experiences of SNS. This point is reflected in a key piece of literature on the topic by Boyd and Ellison (2007), who highlighted the importance of both quantitative and qualitative research in our fast-growing understanding of SNS use. By incorporating more methodological diversity into future research on this topic, we will ideally be able to develop a richer understanding of the complex relationship between psychosocial factors and SNS use.

By utilising a mixed methods approach, this study aims to provide a thorough examination of not only the rates of SNS use, but also what it means to be an SNS user. This includes exploring the ways in which SNS is being used, why it is being used so often, and how people's engagement with SNS platforms might be impacting their daily lives. Reasons for engaging with social media appear to be as varied as the platforms themselves. By collecting qualitative data on reasons for and experiences of SNS use, the ideas and theories born out of the largely quantitative pre-existing body of research within this field might be complemented, critiqued and further developed.

Chapter 3 – Methods

3.1 Study design and overview

To conduct this study, I collected data from a volunteer sample of New Zealand SNS users. As the study involved collecting personal information from participants, ethics approval was sought from the Auckland University of Technology Ethic Committee (AUTEK). Only once ethics approval had been received from this committee did the data collection process begin. Assurance of anonymity was provided to all potential participants both throughout the recruitment process, and prior to participation. After consenting to participate, individuals completed an online questionnaire which was designed to assess four separate independent variables, experiences of FoMO, and rates of SNS use. Participants also answered five qualitative questions relating to their individual experiences of SNS use. Basic demographic data such as year of birth, gender and ethnicity were also collected. Once the sample size had been achieved, I conducted a series of regression analyses. On completion of this quantitative analysis, the qualitative data were then used to conduct a thematic analysis in order to identify and dissect patterns and trends in participants' reported experiences of SNS use.

3.2 Mixed Methods

Both quantitative and qualitative data were collected from participants. This was done in an attempt to provide a detailed and multi-faceted perspective on the nature of SNS use within New Zealand. Much of the recent literature on FoMO and its relationship to SNS use has approached the issue from a largely quantitative perspective (Przybylski et al., 2013; Alt, 2015; Oberst et al., 2017). These quantitative approaches have provided considerable insight into the role of FoMO in motivations for SNS use and have formed the theoretical groundwork for further research into the issue. By also collecting

qualitative data, this research sought to supplement a strictly positivist perspective with a constructivist approach and provide some more nuanced insight into an emerging area of social psychology. This constructivist approach is based on the belief that information and knowledge is developed by, and subject to, human experiences (Creswell & Plano Clark, 2011). This stands in contrast to a more positivist stance in which knowledge and understanding is perceived to be discoverable in a form which values objectivity above subjective human experience (Johnson & Onwuegbuzie, 2004). The combination of these two epistemological perspectives is consistent with a more pragmatic worldview (Feilzer, 2010) and was utilised in this study to provide a multifaceted insight into the motivations for SNS use, and ideally increase the utility of the study's findings.

3.3 Online survey tool

An online survey tool was used to conduct the study as it was expected to be the most effective way of retrieving a large amount of data. As this study was specifically targeted towards SNS users, it was anticipated that all participants would be sufficiently technologically proficient to be comfortable using an online survey tool.

SurveyMonkey.com was chosen over other online survey tools as its cost effectiveness, combined with an easy to use interface and relative familiarity for both researchers and participants, meant it was a practical platform for a research project of this scale (Symonds, 2011) and type.

3.4 Pilot Study

Prior to the primary data collection component of the study, a pilot study was conducted. Conducting an initial pilot before the primary study can be seen as an important aspect of independent social research (Van Teijlingen & Hundley, 2002). The

pilot study provided an opportunity to improve the internal consistency and overall feasibility of the questionnaire. By having participants report back on their experiences of completing the questionnaire, the pilot study was a chance to identify and remove any potential ambiguity or lack of clarity within the questions. Given that the questionnaire was expected to take some time to complete, the pilot study was also used as an opportunity to gauge potential participant fatigue.

3.4.1 Pilot study - Participants

The pilot study was conducted with a small sample size of six participants. These participants were volunteers from an undergraduate paper/course at AUT. Recruitment of the pilot study participants was completed via their lecturer, who shared with her students a brief explanation of my study, what would be required to help with piloting the study, and a web link to an initial version of the online questionnaire on [surveymonkey.com](https://www.surveymonkey.com). Given my limited access to funding for this study, there was no material incentive provided to students who volunteered for the pilot study, a fact that was perhaps reflected by the considerably small response rate.

3.4.2 Pilot study - Materials and procedure

Pilot study participants were asked to work their way through the questionnaire and provide feedback on their experience. Once they had completed the initial questionnaire, pilot participants were asked a series of questions relating to their experience of completing the questionnaire itself. These included items such as “Were there any questions in this survey which you could not answer? Please provide any examples” and, “Were there any questions in this questionnaire which did not make sense to you? Please provide any examples”. Participants were also asked to time themselves completing the questionnaire and provide feedback on the time taken to

completion. With this feedback, a minor mistake in the wording of a quantitative question was identified. This information allowed the correction of what may otherwise have been unnoticed mistake. All participants reported taking between 10-20 minutes to complete the questionnaire. This feedback on participants' average time taken to complete the questionnaire was particularly useful, as it meant during recruitment for the primary study I could give potential participants a reliable idea of how much of their time they would be volunteering.

3.5 Primary Study – Participants

Once the pilot study had been completed, a final version of the questionnaire (see Appendix A) was made publicly accessible on [surveymonkey.com](https://www.surveymonkey.com), and the recruiting process began. A target of at least 200 participants was set, as a sample of this size was expected to provide enough statistical power to ensure the significance of the quantitative results (Mass & Hox, 2005), yet small enough for all of the data to be collected, analysed, and reported on by a Masters student over a 12-month period. This initial target was reached within an approximately 2-month period, and the final sample consisted of 218 SNS users recruited from across three AUT university campuses. Participant ages ranged from 17-48 with a mean of 32. Most participants were New Zealand residents (89.1%) and were currently enrolled as students at university (96.8%). Demographic information about the ethnicity and gender of participants can be found in Table 1 below.

Table 1

Descriptive statistics for demographic variables

<u>Gender</u>	<u>N</u>	<u>Percentage</u>
Female	161	73.5
Male	53	24.2
Unspecified	2	0.9
Did not respond	3	1.4
<u>Ethnicity</u>	<u>N</u>	<u>Percentage</u>
Māori	12	5.5
Asian	52	23.7
Pacific Islander	16	7.3
Middle Eastern	8	3.7
African	3	1.4
European	125	57.1
Did not respond	3	1.4

To assist in recruiting participants, a random prize draw was utilised. This involved awarding a \$50 Westfield shopping voucher to one in thirteen participants who completed the questionnaire. These shopping vouchers were purchased using \$800 of the total \$1000 research funding allocated to AUT Masters students conducting their own research. A random number generator was used to select 16 participants to receive gift vouchers. Participants were recruited via the distribution of fliers and posters around each of the AUT campuses. Various lecturers throughout the university were also contacted about the opportunity for me come to the start of their classes to give a brief presentation and distribute fliers. Each presentation took no more than 5 minutes and provided some background to the motivations for the study, as well as highlighting

the incentive for students to participate. Each flier contained a brief overview of what was required of participants, assurance of the anonymity of their data, and information about how to participate. This information included a URL link to the survey site, as well as a Quick Response (QR) code which was able to be scanned using a smartphone application, directing participants to the landing page of the questionnaire. The QR code in particular was used as a recruitment tool due to the nature of the research. Potential participants were expected to be at least somewhat familiar with QR code/barcode scanning smartphone apps which are widely available on mobile app stores and are increasingly used in contemporary consumer communication and marketing strategies (Dou & Li, 2008; Cata, Patel & Sakaguchi, 2013). This recruitment strategy proved to be an extremely effective method for this study, with 98% of respondents using a QR code to access the online questionnaire.

3.6 Primary study - Materials and procedure

The quantitative component of the online questionnaire involved six different survey tools, each of which has been previously established and independently validated within the literature. The first tools were the social media engagement questionnaire (SMEQ), and the FoMO scale (FoMOs), both of which were designed, validated and originally used by Przybylski et al. (2013). Each of the four remaining tools was used to assess an individual psychosocial variable. The various survey tools and other items were presented to participants in the following order.

3.6.1 General Questions. Participants were asked to confirm that they were users of SNS and indicate which SNS platforms they currently have a profile on. These demographic data were collected in order to provide a greater depth of understanding regarding the particular SNS platforms being frequented by users.

3.6.2 Social Media Engagement Questionnaire (SMEQ). Given the relatively recent development of SNS platforms, attempts at understanding the nature of their use are ongoing. This is no easy task given the number of different SNSs in use throughout the world and the variety of their uses. Despite this, a range of tools have been developed and validated for assessing SNS use. These include tools which solely assess the frequency of SNS use (Oberst et al., 2017), as well as others which provide more insight into the specific activities participants engage in whilst using SNS (Ross et al., 2009; Jenkins-Guarnieri, Wright, & Johnson, 2013).

Przybylski et al. (2013) provide a notable example of a tool for assessing social media usage. By asking participants questions relating to how frequently they use SNS at particular times of the day (i.e. after waking, while eating lunch), the social media engagement questionnaire (SMEQ) provides insight into not only how frequently SNS is being used, but also the role which SNS plays in the daily lives of users. This is a particularly useful feature as it is not only the frequency of SNS use, but also how and when it is being used which has implications for the wellbeing of users (Lemola, Perkinson-Gloor, Brand, Dewald-Kaufmann, & Grob, 2015). Because of this, the SMEQ was used in this study to collect data on perceived rates of SNS use. Participants were asked to consider their social media use over the past week whilst responding to five statements such as “I used social media while eating my breakfast” and “I used social media within 15 minutes of going to sleep” using an 8-point scale. This scale ranged from 1 (*not one day last week*) to 8 (*every day last week*). Scores for each participant were summed to create a single social media engagement score. Possible scores ranged from 5 to 40, with a higher score indicating more frequent SNS engagement (Original study $\alpha = .82$, present study $\alpha = .80$).

3.6.3 Fear of Missing Out scale (FoMOs). Przybylski et al.’s (2013) FoMO scale (FoMOs), was developed as a means of accurately assessing experiences of

FoMO. The scale was developed with a large sample of adult participants, and involved conducting a range of validity analyses on a pool of 32 potential items. The result was a 10-item scale which has become a widely used measure across the field (Oberst, Wegmann et al., 2017; Hetz et al., 2015; Alt, 2015; Chotpitayasunondh & Douglas, 2016). The scale has since been translated into multiple different languages and been independently validated in cross-cultural contexts (Gokler, Aydin, Ünal, & Metintas, 2016; Al-Menayes, 2016; Perrone, 2016). FoMOs was used in the present study to assess the extent to which participants experienced FoMO. It consisted of 10 items including “I fear others have more rewarding experiences than me”, and “I get worried when I find out my friends are having fun without me”. Participants responded to these 10 items on a 5-point scale ranging from 1 (*not at all true of me*) to 5 (*extremely true of me*). Scores for each scale were averaged to create a single score indicative of the participant’s propensity to experience FoMO. Possible scores ranged from 1 to 5, with higher scores indicating that participants were more likely to experience FoMO (Original study $\alpha = .87$, present study $\alpha = .80$).

3.6.4 Internet Social Capital Scale (ISCS). Since the establishment of social capital as an indicator of individual and societal wellbeing, a range of survey tools have been developed which assess levels of social capital in a range of real world contexts. (Onyx & Bullen, 2000; Chen, Stanton, Gong, Fang, & Li, 2008). However, it was Williams (2006) who developed a social capital tool which specifically relates to internet social capital. The Internet Social Capital Scales (ISCS) assess levels of bridging and bonding social capital both on and off the internet as a means of comparing the differences between online and offline social contexts. This tool was rigorously validated by Williams and is arguably the most reliable measure of internet social capital to date. Since its conception, it has been used to assess social capital in a wide range of studies which examine the relationship between online social capital and

SNS use (Yoo & Jeong, 2017; Ellison, Vitak, Gray, & Lampe, 2014; Ellison et al., 2011; Steinfield, Ellison, DiMicco, & Lampe, 2008). This scale was therefore selected to measure internet social capital in the present study. The 20-item scale consisted of two 10 item subscales which assessed a participant's perceived bridging and bonding social capital respectively. Sample items included "Interacting with people online makes me want to try new things", and "Interacting with people online gives me new people to talk to". Participants responded to both subscales using a 5-point scale ranging from 1 (*Not at all true of me*) to 5 (*Extremely true of me*). Scores were then averaged to create an overall bridging and bonding score for each participant. Possible scores ranged from 1 to 5 with higher scores indicating a higher degree of social capital (Original study $\alpha = .90$, present study $\alpha = .90$).

3.6.5 Public self-monitoring scale (SMS-R). Public self-monitoring was initially conceptualised as a psychosocial phenomenon by Snyder (1974), who also developed a survey tool for assessing this variable. The 25 item self-monitoring scale (SMS) was designed to identify whether an individual can be categorised as either a high or low self-monitor (Snyder, 1974). This measure has since been used to show associations between self-monitoring behaviours and a wide range of other personal factors including openness to intimacy in romantic relationships (Snyder & Simpson, 1984), susceptibility to advertising strategies (Snyder & DeBono, 1985), and efficacy of behaviour intervention plans (Mouzakitis, Coddling, & Tryon, 2015). However, Snyder's measure has not been without its critique. Critics have questioned the scale's validity, arguing that while self-monitoring as a psychosocial phenomenon may well exist, the extent to which Snyder's self-monitoring scale accurately assesses the trait is questionable (Briggs, Cheek, & Buss, 1980), with some critics even going so far as to propose an improved version of the measure (Lennox & Wolfe, 1984).

In response to this criticism, Snyder and Gangestad (1986) conducted a rigorous reanalysis of the self-monitoring scale and published a revised version of the scale (SMS-R). This revised self-monitoring scale is a shortened version of the original measure and continues to inform contemporary research into self-monitoring behaviours (Wilmot, DeYoung, Stillwell, & Kosinski, 2016). Given this, the SMS-R was used in the present study to assess the extent to which participants are aware of and regulate their behaviour and self-presentation in a social context. Participants responded to the 18-item scale using *true* or *false* answers. Sample items included “I find it hard to imitate the behaviour of other people”, and “I guess I put on a show to impress or entertain others”. Each question was initially coded by the researchers as either *true* or *false*, and higher self-monitoring participants were expected to answer in the coded direction more often. Possible scores therefore ranged from 0 to 18, and indicated the extent to which participants engaged in public self-monitoring behaviours (Original study $\alpha > .70$, present study $\alpha = .64$).

3.6.6 Public Self-Consciousness Scale (PSCS). Fenigstein et al. (1975) developed a tool for assessing individual differences in self-consciousness. This measure consists of three sub-scales for assessing each of the three identified dimensions of self-consciousness. The public self-consciousness component of this tool is a seven-item scale which has since been effectively implemented in a range of studies examining public self-consciousness (Miller & Cox, 1982; Green, Kaufman, Flanagan, & Fitzgerald, 2017). A study by Carver and Glass (1976) sought to assess the discriminant validity of both public and private self-consciousness scales in relation to a range of other psychosocial factors. This involved 105 participants completing both self-consciousness subscales alongside a range of other previously validated measures of intelligence, emotionality, and sociability. No statistically significant correlations were found between the Public Self-Consciousness Scale (PSCS) and the other

variables in the study. This led the authors to conclude that the PSCS had a good level of discriminant validity.

A slightly simplified version of Fenigstein et al.'s (1975) PSCS was used in the present study to measure experiences of public self-consciousness. This was done in attempt to reduce the cognitive burden on participants completing an already extensive questionnaire. The original version of this scale saw participants answering seven items using a 7-point Likert scale. For the purposes of this study, the tool was simplified and had participants answer the same seven items using *true* or *false* answers. *True* answers were given a score of 1 and *false* answers were given a score of 0. Sample items included statements such as "I'm concerned about my style of doing things", and "I'm self-conscious about the way I look". The scores for each participant were summed to give an overall public self-consciousness score. Possible scores therefore ranged from 1 to 7, with higher scores indicating higher public self-consciousness. The modified version of this scale maintained a good degree of internal reliability in comparison with the original version (Original study $\alpha > .70$, present study $\alpha = .70$).

3.6.7 Psychological Need Satisfaction Scale (PNSS). Measures for assessing PNS have been developed across a range of disciplines (Wilson, Rogers, Rodgers, & Wild, 2006; Filak & Sheldon, 2003). However, Ryan (1995) and Vallerand (1997) have emphasised the importance of developing tools for measuring aspects of self-determination theory which are applicable to relevant areas of research. This perspective was important to consider when deciding on the most effective tool for assessing PNS as it relates to SNS use. In a study on individual attachment and well-being, La Guardia, Ryan, Couchman, and Deci (2000) developed and validated a brief nine-item scale for assessing PNS. By utilising questions which directly relate to participants' general feelings of autonomy (e.g. "I feel free to be who I am"), competence, (e.g. "I feel like a competent person"), and relatedness (e.g. "I feel loved and cared about"), this tool is

one which is applicable to a range of research areas. An example of the transferability of this measure is shown by Przybylski et al. (2013), who effectively used the psychological need satisfaction scale (PNSS) to demonstrate the correlation between PNS and rates of SNS use.

A modified version of the PNS scale (La Guardia et al., 2000) was therefore used to assess the extent to which participants had a range of their basic psychological needs met on a daily basis. The scale consisted of nine items such as “In my everyday life, I feel free to be who I am”, and “I often feel like a competent person”. In the original application of this tool, participants responded to these nine items using a 7-point scale. For the purposes of this study, potential participant responses for each of the same nine items were simplified down to either *true* or *false* answers as a means of potentially reducing the cognitive burden on participants completing an extensive questionnaire. *True* answers were given a score of 1, and *false* answers were given a score of 0. As with the original version of the tool, items 4, 6 and 9 were reverse scored. The overall scores were then averaged to give each participant a PNS score ranging from 0 to 1, with a higher score indicating a greater level of PNS. This modified version of the PNSS maintained a degree of internal reliability which was consistent with the original version of the tool (Original study $\alpha = .83$, present study $\alpha = .80$).

3.6.8 Qualitative questions. The qualitative component of the questionnaire consisted of five items towards the end of the Questionnaire, the data from which was used to supplement the quantitative analysis. This mixed methods design is consistent with Creswell and Plano-Clark’s (2007) embedded design model, which involves qualitative data being used to support and complement the findings of the study’s quantitative component. Participants were asked *Yes* or *No* questions regarding their personal experiences as SNS users. These five questions included:

Q.1 Have you ever felt like you were missing out on an important social experience thanks to social media?

Q.2 Have you ever felt like your social media use was having a negative impact on your real-world relationships with other people?

Q.3 Have you ever felt like your social media use was having a positive impact on your real-world relationships?

Q.4 Do you ever find yourself using social media when you know you should be focussing on something more important?

Q.5 Have you ever taken any steps to reduce the amount of time you spend on social media?

Participants who responded 'Yes' to these questions were then asked to provide a brief example of their experience. A thematic analysis was conducted on these qualitative answers which involved identifying key themes and trends within the data. This thematic analysis used an inductive approach and involved two key stages of data analysis which were consistent with Braun and Clark's (2006) recommendations for conducting effective thematic analyses. The first stage of the analysis involved coding all qualitative data according to specific aspects of participants' responses. These specific categories were then grouped into broader themes which were deemed to be significant trends across all of the data. The resulting themes and the implications of these findings were then analysed in relation to both the quantitative data, and contemporary understandings of SNS engagement. In doing so, the qualitative data were

used to support and expand on the quantitative results by providing insight into the real time experiences and consequences of SNS use. Given the considerable amount of literature identifying links between social capital and SNS use (Williams, 2006; Ellison et al., 2007; Kuss & Griffiths, 2011; Yoo & Jeong, 2017), as well as the inherently social nature of SNS platforms, the qualitative component of the study was particularly focused around this psychosocial factor and its relationship with SNS use and FoMO.

3.6.9 Demographic questions. Finally, participants were asked to provide some basic demographic information including their year of birth, gender, and ethnicity. These questions were included to provide more data on the demographic make-up of the sample. Once completing these final questions, participants were also presented with the opportunity to enter the random prize pool by providing an email address.

Chapter 4 – Results

4.1 Chapter introduction

Upon completion of data collection, quantitative and qualitative data were analysed using both regression analyses, and a thematic analysis respectively. The following chapter details these analyses and presents their findings.

4.2 - Quantitative results – Preliminary analysis

With 218 participants and more than 80 qualitative questions, the amount of data collected in this study was consistent with previous research in this field (Przybylski et al., 2013). All quantitative data was organised and analysed using SPSS statistics software. This software was also used to create an initial broad overview of the quantitative findings (Table 2). This Table provides an overview of some of the significant quantitative findings of the study. SNS engagement was found to be significantly correlated with FoMO and social capital, and FoMO was found to be significantly correlated with all key variables in the study. Bridging social capital also proved to be a significant factor and was significantly correlated with all other primary variables aside from PNS.

Of the 218 total participants, 214 participants provided complete responses to the questionnaire's demographic questions. Initial analyses were conducted to identify any systemic trends in responses within the demographic make-up of the participants. The demographic variables and the analyses used to assess them are outlined below.

4.2.1 Gender. A *t* test was conducted to check for any differences between female and male results for each of the psychosocial variables. This test showed that there were significant differences amongst female and male scores for both public self-monitoring ($t(212) = 2.80, p < .01$) and online bonding capital ($t(212) = 2.50, p = .01$).

However, after conducting subsequent regression analyses, gender was not found to be a moderating factor in any mediation models.

4.2.2 Ethnicity. A one-way ANOVA was used along with a series of Tukey post-hoc tests to assess whether there was any variance in the mean responses to each of the primary variables across ethnic groups. Variance was found between ethnic group means in responses to the SMEQ ($F(5, 210) = 2.85, p = .02$), with a significant variance found between European/Caucasian participants and Asian participants ($p = .02$). A significant difference between group means was also identified in responses to the FoMOs ($F(5, 210) = 2.43, p = .04$), with the most significant intergroup difference found between Māori and Middle Eastern participants ($p = .126$).

4.2.3 Age. Age was measured as a continuous variable. These demographic data were therefore regressed onto each of the primary variables. A negative correlation was identified between age and public self-monitoring ($\beta = -.14, p = .03$) despite more than 70% of participants being aged 22 or younger. This finding is consistent with a general perception of social maturity developing alongside age, with older individuals arguably being less likely to feel the need to monitor and adapt their social behaviour.

Table 2

Correlation Matrix of Assessed Variables

		<u>SMEQ</u>	<u>FoMOs</u>	<u>SMS-R</u>	<u>PNSS</u>	<u>PSCS</u>	<u>SC Bonding</u>	<u>SC Bridging</u>	<u>Age</u>
<u>SMEQ</u>	Pearson Correlation		.335**	0.089	-0.044	0.11	.187**	.219**	0.121
<u>FoMOs</u>	Pearson Correlation			.205**	-.180**	.315**	.171*	.374**	0.052
<u>SMS-R</u>	Pearson Correlation				-0.018	.195**	.168*	.238**	.144*
<u>PNSS</u>	Pearson Correlation					-.306**	0.039	-0.044	0.02
<u>PSCS</u>	Pearson Correlation						0.017	.148*	0.11
<u>SC Bonding</u>	Pearson Correlation							.512**	0.039
<u>SC Bridging</u>	Pearson Correlation								0.042
<u>Age</u>	Pearson Correlation								

Note. **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).

4.3 Quantitative results - Mediation analysis

The data collected from the various psychosocial measures was used to conduct a multi-stage regression analysis. This involved applying a mediation model which was first developed by Baron and Kenny (1986). Mediation analysis is a type of regression analysis used throughout social psychology (MacKinnon, Fairchild, & Fritz, 2007). This mediation model was used to determine the extent to which the relationships between each of the independent variables and the dependent variable were mediated by the proposed mediating variable (FoMO; See figure 2). This involved identifying whether any previously significant relationship between an independent variable and the dependent variable was diminished when FoMO was included in the regression analysis as a mediator. Conducting the mediation analysis was a three-step process. The results of each of these steps are detailed below.

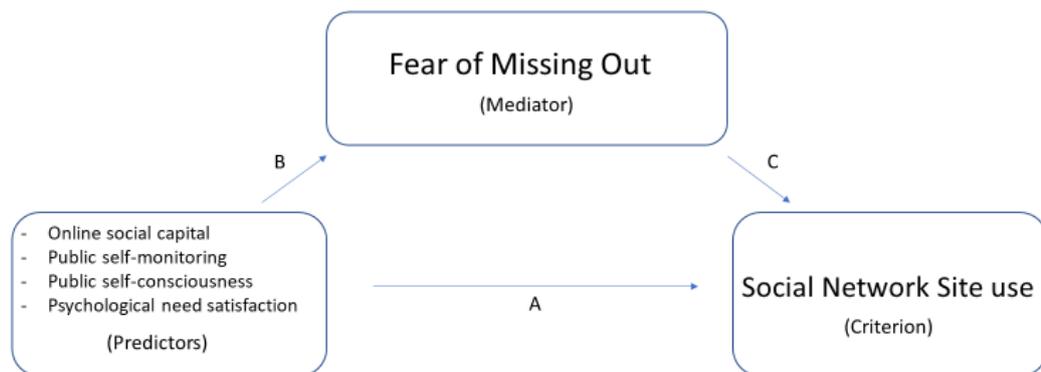


Figure 2. The mediation model. This mediation model involves using regression analyses to identify any potential links between each of the predictor variables and the criterion, before identifying the extent to which each of these relationships are mediated by FoMO.

4.3.1 Step 1 - Psychosocial factors and SNS engagement. To test whether there was a correlation between selected psychosocial variables and rates of SNS engagement, I regressed each of the relevant scales individually onto SMEQ scores (see *Figure 3*). Neither public self-monitoring ($\beta = .09, p = .19$), PNS ($\beta = -.04, p = .52$), or public self-consciousness ($\beta = .11, p = .10$) were found to significantly predict rates of social media engagement. However, statistically significant relationships were found between social media engagement and both bridging ($\beta = .22, p = .001$) and bonding ($\beta = .19, p = .01$) social capital.

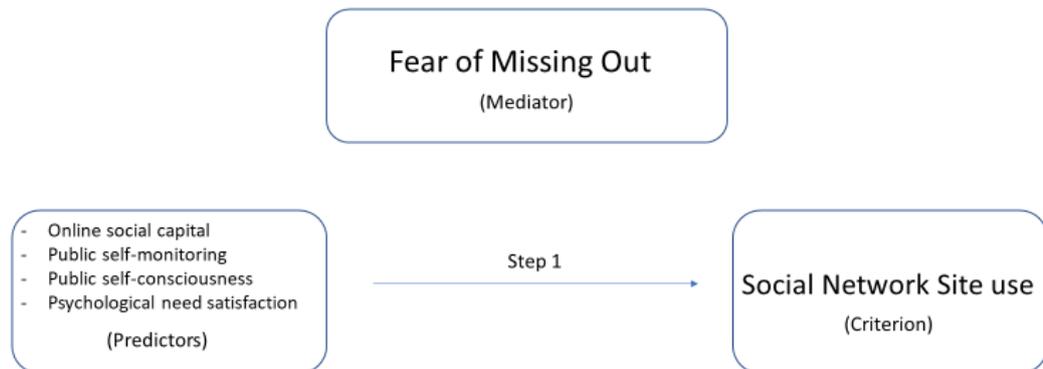


Figure 3. Mediation analysis – Step 1.

4.3.2 Step 2 – Psychosocial factors and FoMO. The next step of the analysis sought to identify any correlations between psychosocial variables and rates of FoMO. This involved regressing the results of each psychosocial subscale onto FoMOs scores (see *Figure 4*). Public self-monitoring ($\beta = .21, p = .002$), PNS ($\beta = -.18, p = .01$), and public self-consciousness ($\beta = .36, p < .001$) were all found to predict experiences of

FoMO. However, as none of these variables were found to be significantly related to SNS engagement in step 1, these findings are not relevant to the present research questions. Both bridging ($\beta = .38, p < .001$) and bonding ($\beta = .18, p = .01$) social capital were found to significantly predict experiences of FoMO as well as rates of SNS engagement.



Figure 4. Mediation analysis – Step 2

4.3.3 Step 3 – FoMO as a mediator. The final step of the mediation analysis involved conducting a multiple regression. The three assessed variables not found to be correlated with SNS engagement were not included in this step. The scores for both types of social capital were again regressed onto SNS engagement scores, alongside FoMOs scores (see *Figure 5-6*). The resulting p values were then compared with those found in Step 1 to assess whether there were any discrepancies between the initially identified correlation and those found when FoMO was included as a mediating variable. Because the initial relationships between each type of social capital and SNS engagement were no longer significant once the mediating variable had been accounted for, this indicated that FoMO did play a role in mediating the relationship between

social capital and SNS engagement. FoMO was found to partially mediate the relationship between bonding social capital and SNS engagement (*Figure 5*). The relationship between bridging social capital and SNS engagement was found to be fully mediated by FoMO (*Figure 6*). Subsequent Sobel's tests showed that inclusion of FoMO as a mediator resulted in a significant reduction of the direct effect of and bonding ($z = 2.25, p = .02$) and bridging ($z = 3.50, p < .001$) capital on SNS engagement.

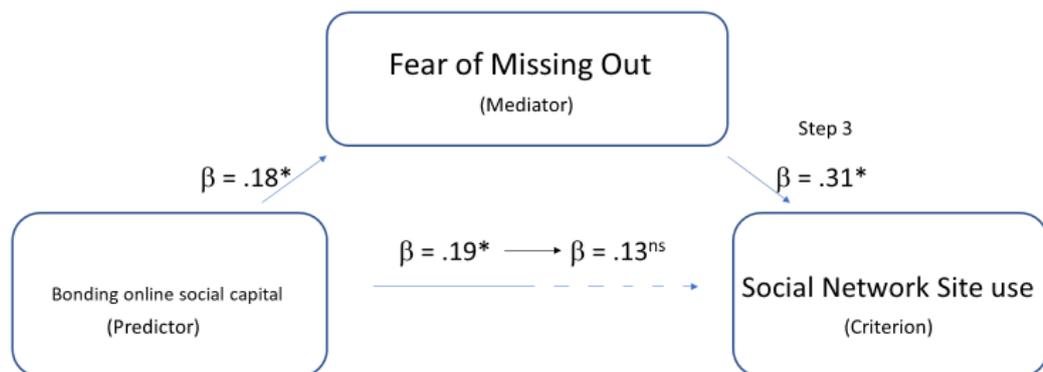


Figure 5. Mediation analysis - Step 3. Partial mediation of bonding online capital (= significant, ^{ns} = not significant).*

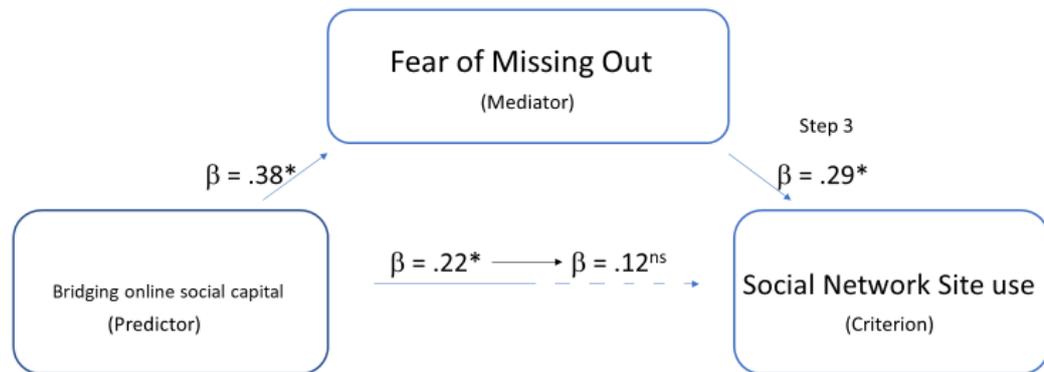


Figure 6. Mediation analysis – Step 3. Full mediation of bridging online capital (* = significant, ^{ns} = not significant).

4.4 - Qualitative results – Initial coding

The qualitative component of this study was used to gain more insight into the experiences of SNS users. All participants provided at least some qualitative data. Rates of affirmative responses to each qualitative question along with some examples of typical responses can be found in Table 3. Some questions provided less qualitative data than others, and a small minority of responses were deemed either unintelligible or provided little to no usable data. However, with a sample size of more than 200, enough qualitative data was collected across all questions for clear trends to be established. An inductive approach was used to analyse the data, which enabled the development of themes which were informed by participants' own responses (Braun & Clark, 2006), as opposed to themes which might have been informed by pre-existing theories of experiences of SNS use.

The first stage of this thematic analysis involved carefully reading through every participant response and coding the data according to a wide range of general categories. Examples of some of the general categories identified in this coding process included:

- I worry I use social media too often
- Photos posted online are important to me
- I use social media instead of real-world social engagement
- I use social media on my smartphone
- I can't stop using social media
- I don't like using social media
- I don't like the sorts of things which are shared on social media
- Using social media is beneficial in my everyday life

This initial coding stage of the thematic analysis involved an exhaustive evaluation of all qualitative responses and gave me an opportunity to establish a good deal of familiarity with my data. At the end of this initial coding stage, 91% of the qualitative responses had been associated with one or more of the 47 general categories, with many participant responses being coded according to a range of categories.

4.4.1 Identifying themes

Once all of the data had finished being initially coded, these categories were arranged into four broader themes. The four themes identified were: (a) Excessive use, (b) Nature of use, (c) Social capital, and (d) FoMO. The research focus of this study was kept in mind while establishing these key themes, however this stage of the thematic analysis was not restricted by my research questions, as can be seen in the identification of the themes of Excessive use and Nature of use. While these two themes do not refer to any

specific psychosocial correlates of SNS engagement, they were deemed to be significant factors within the data relating to the psychosocial impacts of using social media.

4.4.2 Key theme – Excessive use

The theme of excessive use refers to high frequency engagement with SNS platforms, and the impact of these behaviours on psychosocial factors. Across all qualitative data participants consistently referred to a general overuse of SNSs. This broad theme incorporated a large variety of the specific categories identified in the initial stages of the thematic analysis, and included general concern regarding frequency of use: “*I spend too much time on it [social media]*”, ongoing engagement with SNS to the detriment of real world social connections: “*more glued to social media than spending time with family and friends*”, and using social media in inappropriate situations: “[I use social media] *when I drive and when I’m supposed to be studying or at dinner*”.

Participants appeared to have a good level of awareness of why they use SNSs so frequently: “*It is easy to get sucked in and be looking [at social media] for a lot longer than you intend*”, and others indicated an understanding of the potentially harmful consequences of their use “*Excessive social media use made it difficult to interact with a partner*”. A number of participants indicated a willingness to reduce their engagement with SNSs: “*I have deactivated my accounts before in an attempt to live life through my eyes instead of my phone...*”, however limited success of social media reduction strategies was also a recurring pattern throughout the data: “*...however this didn’t last long as I was back on it very quickly*”. I believe that grouping these related and recurring factors together under the theme of excessive use helps crystallise a key aspect of SNS use as it relates to specific psychosocial factors.

4.4.3 Key theme – Nature of use

A second significant theme established within the qualitative data was the nature of use. This theme refers to aspects of SNS platform design and online social norms which impact aspects of users' psychosocial wellbeing. A number of participants referred to design elements of SNS platforms as affecting the way in which they engage with the services: "*Disengagement [from real-world events] due to distraction from notifications on phone*". Additionally, normative behaviour in online environments was consistently cited as a factor impacting user experiences of SNS platforms. In particular, participants expressed concern about the types of content which is typically shared and disseminated online: "*People often only post the great things that happen in their lives and it isn't an accurate depiction of what they are actually experiencing*". There was also a recurring

Question	Yes' responses (Brief example provided)	Examples of responses
Have you ever felt like you were missing out on an important social experience thanks to social media?	50.50%	"When I missed a concert, and I was watching all of my friends snapchats of the concert" – Participant #114 "Wasn't invited to my friend's party and saw pics" – Participant #167 "Friends posting pictures of each other looking happy" – Participant #32
Have you ever felt like your social media use was having a negative impact on your real world relationships with other people?	36.80%	"Not engaging fully in a conversation because I was on my phone." – Participant #89 "Spending time at home on social media talking to friends instead of my family" – Participant #138 "Sometimes I feel I am more engaged with my phone than people. That makes me sad but it is automatic to walk in the door, connect to wifi and check-in." – Participant #154
Have you ever felt like your social media use was having a positive impact on your real world relationships with other people?	73.10%	"Keeping in touch with friends and family that don't live near by. Otherwise we would drift off as friends" – Participant #75 "Allowing me to connect with overseas relatives" – Participant #81 "I can send funny things to my friends which we later refer to in real life, giving us something common to laugh about and socialise with" – Participant #190
Do you ever find yourself using social media when you know you should be focusing on something more important?	93.90%	"You are addicted and it has become a habit to update your feed" – Participant #159 "Wondering what others are doing, a way of procrastination" – Participant #62 "Procrastination - often a way of distracting yourself so you don't have to concentrate on things you can't be bothered doing. Easy escape." – Participant #146
Have you ever taken any steps to reduce the amount of time you spend on social media?	60.60%	"Trying not to use social media an hour before bed and an hour after waking up." – Participant #133 "One example was to shut down my smartphone during exam periods" – Participant #49 "Deactivate certain social media accounts" – Participant #124

concern regarding the depiction of false or artificial social realities online: “*Everyone only posts about the fun things they are doing...*”, which was identified in some cases as having implications for aspects of user’s psychosocial wellbeing: “*...so I felt as if my life was boring*”. Grouping these recurring trends together into one theme highlights the ethical and societal implications of the nature of SNS engagement which were consistently identified throughout the qualitative data.

4.4.4 Qualitative results – Social capital

The third significant theme identified was social capital. While the themes of excessive use and nature of use refer to aspects of SNS engagement which may have a general impact on psychosocial factors, this theme of social capital refers to a single psychosocial factor which was identified as being an intrinsic aspect of SNS engagement. SNS use was consistently identified as having a positive impact on user’s perceived social capital. Participants cited social media as improving communication pathways with friends: “*I have gotten to know a few people online that became my friends in real life.*”, and family: “*My family lives all over the world...It allows me to keep in contact with them and still feel close to them*”. SNS engagement was found to improve connectivity with both bridging: “*...able to connect with people you haven’t been in contact with for years assuming they are on [social media]*”, and bonding social capital networks: “*Video calls make it easier to see the loved ones*”. A significant majority of the social capital benefits of SNS use were identified throughout the responses to qualitative question three, in which participants were specifically asked about the positive impacts of their social media use.

However, throughout the rest of the qualitative data, SNS engagement was also consistently reported to have a negative impact on social capital. Many participants

were aware of the frequency of their SNS use having a negative impact on their real-world social relationships: *“Family are always nagging me to get off my phone around dinner time...”*, as well as their capacity to effectively engage in real-world social interaction: *“I used to share stories etc. with my family at home before but since social media, I felt more comfortable communicating with my friends through [social media] and in result, have become distant from my family”*. Within this theme a degree of tension between the online and offline maintenance of social capital was also identified: *“I don’t want to break a conversation on messenger when real life people start talking to me”*. Given the diversity of the qualitative data which related to social capital, this theme was identified as a significant and complex aspect of experiences of SNS use.

4.4.5 Qualitative results – FoMO

As with social capital, this key theme refers to a specific psychosocial factor relating to SNS engagement. A range of experiences of FoMO were consistently identified throughout the qualitative data as being directly associated with SNS use. This theme was most prevalent within the responses to qualitative questions one and four, in which participants provided examples of experiences of missing out, and examples of motivations for using SNS in inappropriate situations. FoMO was widely identified as a consequence of engaging with social media: *“When someone has a party that you aren’t invited to and the photos go up on Facebook for everyone to see“*, and experiences of FoMO were closely associated with the sharing of photos: *“...I feel sad when I see photos on social media posted by my friends when they attend events...”*, and videos via social media: *“Viewing the live stream, photos and videos from an event I was unable to attend”*. While identified throughout the data as a consequence of use, FoMO was also consistently reported as a motivator for using SNS: *“[I use social media because] ...I feel like I could be missing something that is happening somewhere else in*

the world". This broad theme therefore includes the diverse and complicated nature of FoMO as a social psychological phenomenon related to SNS engagement.

4.5 Chapter conclusion

Overall, there was a good deal of consistency between the quantitative and qualitative findings of this study. A range of correlations were found between many of the assessed variables. Three of the four assessed psychosocial variables were not found to be correlated with SNS use. However, a significant correlation was identified between social capital and SNS use, and this relationship was found to be mediated by FoMO. The qualitative findings expanded on these results by providing a more nuanced insight into the relationships between social capital, FoMO and SNS use. Interpretation of the qualitative data was guided, but not limited, by the initial research questions. Two additional aspects of SNS use were identified as key themes, the exploration of which has the potential to further develop contemporary understandings of patterns of SNS engagement.

Chapter 5 - Discussion

5.1 Chapter Introduction

The following chapter will discuss the practical and theoretical implications of the results presented in the previous chapter. This will include a discussion of the significance and limitations of the findings with regards to pre-existing literature on the topic. The chapter will first focus on the implications of the quantitative, followed by the qualitative data, while also considering how these findings complement one another. Throughout this chapter the present research process will be reflected on and evaluated, and recommendations for future research on this topic will be discussed. This will include the proposal of a new perspective on FoMO. The chapter will conclude with an overview of the limitations of the present study.

5.2 Summary of key findings

In the quantitative component of the study, online social capital was found to be the only assessed psychosocial variable which related to rates of SNS engagement. FoMO was identified as a mediating factor between online capital and SNS engagement. While the relationship between bonding social capital and SNS engagement was found only to be partially mediated by FoMO, the link between bridging capital and SNS engagement was shown to be fully mediated by FoMO.

A thematic analysis identified social capital and FoMO as key themes relating to patterns of SNS engagement. Both of these factors were identified as recurring trends across the qualitative data, and the qualitative findings were therefore consistent with the findings of the study's quantitative component. Two additional themes - 'excessive use' and 'nature of use' – were also identified within the qualitative data and provide further insight into experiences of SNS engagement.

5.3 Psychosocial factors and SNS use

Intensity of SNS engagement did not predict the outcomes of three of the four assessed psychosocial variables. While I am not aware of any previous studies which have empirically explored the link between SNS engagement and public self-monitoring or public self-consciousness, the lack of a statistically significant inverse correlation between SNS engagement and PNS in these findings was initially surprising. Previous studies with larger sample sizes have established a robust correlation between these two variables (Przybylski et al., 2013; Masur et al., 2014), as well as between PNS and online activities in general (Przybylski et al., 2009). The contradiction between the findings of the present study and previous research in the field is not as significant as it may at first seem.

This is due to inconsistencies in the implementation of some of the assessment tools used in this study. The applications of both the PSCS and the PNS scale were simplified in this study. Rather than answering using scales, participants instead responded to the questions in these tools with simply *True* or *False*. In theory this resulted in less of a cognitive burden on participants completing the already extensive and time-consuming questionnaire. The internal reliability of the simplified versions of these scales was found to be consistent with the original incarnations of the tools. This indicated that the scales were still internally reliable as measures of their respective psychosocial constructs, only they were not measuring these constructs with the same depth as the original scales.

Despite this, comparative differences between the findings of the present study and previous studies, with regards to the relationship between SNS engagement and PNS, cannot be considered impactful as the results were attained under inconsistent conditions. While no significant correlation was found between SNS engagement and

public self-consciousness, self-monitoring, or need satisfaction, this does not necessarily mean that there is no relationship whatsoever between these variables. In each of these cases some correlation was found, however these findings were not deemed to be statistically significant. This means that more pronounced relationships between SNS engagement and each of these variables might be found in future studies involving a larger or more diverse sample size.

5.3.1 Social capital and SNS engagement. Despite the failure to identify a link between the first three psychosocial factors and SNS engagement, a significant correlation was found between online social capital and SNS engagement. This was true for both bridging and bonding social capital and implies that as rates of social capital fluctuate, so do rates of SNS engagement. These findings at first appear to stand in contradiction with one of the most recent studies of social capital and SNS use. Yoo and Jeong (2017) conducted a longitudinal, two-wave, study which found that both high and low social capital users used SNS just as frequently as one another. As a result of their findings, they argued that there was not a correlation between user's social capital and the amount of time spent using SNS. There are however several key differences between their study and my study.

The most significant difference is that Yoo and Jeong (2017) appear to have categorised all participants into either a high or low social capital group, before assessing how SNS use time relates to this variable. This dichotomous assessment of social capital means that their findings arguably do not reflect the full range of variability within the social capital variable, and therefore only provide limited insight into the relationship between social capital and SNS use. In the present study's analysis, the full range of social capital scores for all users were regressed onto SNS engagement scores. This meant that the correlation found between these two variables was assessed

with more depth than in Yoo and Jeong's study, and therefore the insight gained from the study with regards to these two variables can be considered more dynamic.

Another key difference between the findings of the present study and Yoo and Jeong (2017), can be seen in the methods used to assess SNS use. The present study utilised Przybylski et al.'s (2013) social media engagement questionnaire as a means of assessing levels of SNS engagement. This questionnaire consisted of multiple questions which sought to assess the degree to which participants engaged with SNS at different times of the day over the last week. Meanwhile, Yoo and Jeong's (2017) study measured SNS use time according to participant responses to one open-ended question regarding how much time they spent on SNS per day. The differences in the rigour with which SNS engagement was assessed in these two studies is an important factor to consider in the comparison of their respective findings.

The differences between these two studies highlights what may be seen as a key contributing factor to the aforementioned contradictory and convoluted nature of findings within the field. This factor is the lack of standardisation of measures of the different aspects of SNS use. In terms of our collective understanding of SNS use, the waters are potentially being unnecessarily muddied by researchers across the world applying a wide range of tools for assessing SNS usage and rates of engagement. Part of the reason for this is likely the highly complex nature of SNS engagement. There are a host of aspects of SNS usage which may have implications for user's psychological and social wellbeing. These include, but are not limited to, frequency of engagement with SNS, duration of SNS use, the social context of use, and patterns of behaviour whilst online using SNS. The diversity of these aspects of use results in findings which provide a very broad and arguably vague appreciation of the impact of SNS on its users. As research into this area of daily life continues to grow, ideally clear and widely applicable frameworks for measuring aspects of SNS use will be developed. In doing

so, I believe this field will gain a lot more clarity in terms of the implications of its finding for practice and policy.

5.4 Psychosocial factors and FoMO

In the second step of the mediation analysis, significant relationships were identified between all four psychosocial factors and FoMO. Participants who scored highly in public self-monitoring, self-consciousness, and online social capital, and poorly in PNS, were found to be more prone to experiences of FoMO. These findings are significant, as aside from PNS, I am not aware of any empirical association which has been established between each of these psychosocial factors and FoMO. As proposed in the literature review, individuals who have higher rates of public self-consciousness and self-monitoring may be more likely to experience FoMO, because their awareness of missed social opportunities and the consequences of these events is heightened in relation to their less socially conscious counterparts. A similar causal relationship is possible in relation to the positive correlation between online social capital and FoMO, increased social connectivity and awareness increases one's susceptibility to experiencing FoMO. These findings are consistent with, and build upon, pre-existing notions of FoMO as a form of anxiety which is contingent on social connectivity, or a perceived lack thereof (Hefner et al., 2018). This steadily growing understanding of the close relationship between FoMO and social connectivity will likely become a cornerstone of any future strategies aimed at combatting experiences of FoMO. By developing awareness of the factors which influence susceptibility to FoMO, we have a better chance of finding effective ways of managing the experience. Such awareness is particularly important given the correlations between susceptibility to FoMO and potentially problematic behaviours such as compulsive SNS engagement (Przybylski et al., 2013; Dhir et al., 2018).

The strength of the correlation between deficits in PNS and FoMO found in this study was similar to the findings of Pryzbylski et al. (2013), who also regressed PNSS scores onto FoMOs scores and found an inverse correlation between the two phenomena. Aside from the differences in the sample size and demographics, the main difference between these two analyses was the aforementioned simplification of the PNSS in the present study. The fact that despite this distinction, a strong inverse correlation was found between PNS and FoMO in both studies, might be seen to further reinforce the links between deficits in psychosocial wellbeing and experiences of FoMO. Individuals who feel less competent, connected, and in control of their lives on a daily basis are more likely to experience FoMO. Again, this has implications for potential strategies for combatting FoMO. By finding ways to improve user's need satisfaction, experiences of FoMO, and the potentially problematic behaviours FoMO is increasingly being associated with, have the potential to be reduced.

5.4.1 Social capital and FoMO. The finding that all four assessed psychosocial factors are correlated with experiences of FoMO is significant. However, with regards to the aims of this study, it is the correlation between online social capital and FoMO which is most important to consider, as online capital was the only one of my independent variables shown to be correlated with increased SNS engagement in step one of the mediation analysis. Bridging and bonding social capital had different rates of correlation with FoMO. The strength of the correlation between bridging online social capital and FoMO was found to be almost double the strength of the correlation between bonding capital and FoMO. This indicates that users with larger networks of loose affiliations and casual acquaintances may be more prone to experiencing FoMO.

One reason for this may be the differences in perceived social gratification derived from bridging and bonding online social capital. While a lot of bonding capital

equates to a lot of emotionally close relationships, more bridging social capital means a greater amount of potentially tenuous or superficial social connections (Putnam, 2000). These superficial connections are important to an individual to the extent that they can be capitalised on for social gain. An SNS user with high rates of bridging social capital online may be more likely to see posts, videos or photos whilst using SNS which make them aware of a missed opportunity to strengthen or capitalise on their bridging relationships, thus stimulating feelings of FoMO.

5.5 FoMO as a mediator between social capital and SNS use

In the final step of the mediation analysis, FoMO was found to mediate the relationship between online social capital and SNS engagement. This means that after taking FoMO scores into account, the initial positive correlation found between these types of social capital and SNS engagement was reduced. The relationship between these three factors does not appear to have been identified in any previous literature and therefore these findings can be considered significant. The correlation between bonding online capital and SNS engagement was partially mediated by FoMO, while the correlation between bridging capital and SNS engagement was found to be fully mediated by FoMO. This implies that users with higher bridging social capital are motivated to use SNS to the extent that they experience FoMO. Meanwhile, the correlation between bonding social capital and SNS engagement is only partially due to a user's susceptibility to experiencing FoMO, indicating that while FoMO is a key factor in this relationship, there are likely other factors at play. Users with lower levels of online social capital are less likely to experience FoMO, and as a result, less likely to have high rates of SNS engagement.

5.5.1 Bridging capital, FoMO, and SNS use. These findings have congruence with both an academic (Hampton, Sessions, & Her, 2011), and an anecdotal understanding of how people use SNSs. SNS platforms such as Facebook enable users to collect and collate very large lists/networks of ‘friends’, often numbering in the hundreds and even thousands (Dunbar, 2016). This is possibly due to the ease with which people are able to add them to their online networks. This results in a high prevalence of extensive online social networks which often far exceed the amount of close social relationships one individual can realistically maintain (Dunbar, 1992). In terms of an individual’s need for emotionally intimate social relationships, having online social networks which number in the hundreds might be considered socially excessive, with a significant portion of those social networks likely consisting of relatively weak social ties. This is supported in recent research which found that despite the increased communication and connection afforded by SNSs, there is still a limit on the amount of functional social relationships one individual can maintain (Dunbar, 2016). This implies that a significant portion of the perceived social capital accumulated within SNS platforms can be considered as bridging social capital.

Greater networks with less inherent social stability may result in increased susceptibility to anxiety regarding missed opportunities for social gratification. This is particularly relevant with regards to SNS engagement, in which social information is most often shared in a very public forum. Large networks of loose associations in these social arenas potentially mean that there is more social significance placed on publicly visible displays of closeness and connectivity, and therefore even more significance placed on missed opportunities and experiences. This hypothesis is supported by the data collected from the qualitative component of this study, throughout which participants showed a clear appreciation of the importance they place on online displays of social connectivity. As shown in the findings of step 1, an individual’s perceived

networks of acquaintances and casual associations online is correlated with the extent to which they engage with SNSs. The increased engagement associated with higher rates of online social capital may result in greater exposure to social information regarding opportunities to build on, and benefit from, bridging networks. Users with high bridging capital are therefore arguably more likely to feel they may have missed out.

5.5.2 Bonding capital, FoMO, and SNS use. This link between bridging capital, FoMO, and SNS engagement is somewhat contrasted with the relationship between bonding capital, FoMO and SNS engagement. While FoMO does still play a key role in mediating the link between bonding capital and rates of SNS use, this role is not so crucial. One reason for the differences here between bridging and bonding might be the sense of social security derived from the different types of online capital. While high bridging capital potentially results in more anxiety regarding missed opportunities to build on networks, the nature of bonding social capital lends itself to relationships which are more clearly emotionally and socially defined (Putnam, 2000). Because of this, individuals may be more likely to have a clear sense of socially derived self-esteem and connectedness in relation to their emotionally close networks. While using SNSs, individuals are still likely to be prone to feeling they are missing out on important social events and experiences amongst their close social networks. However, in comparison to important experiences shared amongst socially distant networks, they are also more likely to be confident in their sense of affiliation and belonging amongst their close friends, and therefore less anxious about missing out on key experiences.

5.6 Implications of quantitative findings

The findings of this mediation analysis have important implications for potential future strategies and policies aimed at reducing the harmful effects of problematic SNS use.

As highlighted earlier, compulsive and generally problematic SNS use has been highlighted within the literature as a rapidly growing concern in recent years (Hsaio, 2017; Holmgren, & Coyne, 2017; Hussain, Griffiths, & Sheffield, 2017), particularly within public health spheres (Dong et al., 2018; He et al., 2017). By taking into account the apparent role of FoMO in motivating SNS use, particularly in high social capital users, future strategies may be more effectively able to regulate and reduce problematic SNS behaviours. In a digitally developed society, FoMO plays an integral role in the way people engage and behave whilst online. By developing public consciousness and discourse around the nature of FoMO, the general public's capacity to mitigate the impact of FoMO on their daily lives might be increased.

These findings help to fill the gap identified in the literature regarding a lack of understanding of the specific psychological mechanisms which link psychosocial factors with rates of SNS engagement. However, it is important to note that these results do not fill such gaps completely, and there is still much to be accomplished in terms of our quantitative understanding of the nature of SNS use. The four psychosocial factors assessed in this study represent a small sample of a wide array of interrelating factors which may influence SNS engagement. The same can be said for FoMO, which is only one example of a psychological mechanism which contributes to SNS engagement. The human brain is staggeringly complex and attempting to explain what makes people behave in certain ways seems an infinitely complicated task. These findings are by no means a complete explanation of why people use SNS the way they do. Instead they provide only some insight into the nature of SNS use. Ideally, the quantitative findings presented here will be built on and developed further in future research, and therefore contribute in some small way to our collective understanding of human nature, a small drop into an ever-expanding ocean.

As a mixed methods study, this research has the benefit of examining both quantitative and qualitative aspects of SNS use in terms of how they relate to one another. In doing so it contributes to the development of a more vivid insight into how people engage with SNS. The following sections build on the quantitative findings discussed above by exploring some of the key themes identified throughout the qualitative data.

5.7 Excessive use of social media

Excessive use in this context refers to SNS use which is highly frequent and has a noticeably negative impact on a user's psychological and social wellbeing. On average, rates of SNS engagement were found to be reasonably high in the quantitative data, with an average SMEQ of 27.4 out of a possible overall score of 40. The qualitative component of the study expanded on these findings and provided considerable insight into the psychosocial motivations for high rates of use. The theme of excessive use discussed here includes a number of identified aspects of SNS use such as compulsive and impulsive use, addictive behaviours, and the impact of SNS engagement on a user's lifestyle and wellbeing. An analysis and discussion of this theme is pertinent to this study's research questions to the extent that it provides a more sophisticated insight into rates of SNS engagement than quantitative data alone.

5.7.1 Excessive use: Impulsivity. Of particular concern with regards to rates of engagement is the prevalence of self-reported impulsive and compulsive use of SNS amongst the qualitative responses. Recurrent failure to control a behaviour, and continuation of a behaviour despite significant negative consequences have been identified as two primary criteria in the diagnosis of addiction (Goodman, 1990). There is no shortage of evidence pointing to SNS addiction being considered a legitimate

mental health risk (Kuss, Kanjo, Crook-Rumsey, Kibowski, Wang, & Sumich, 2018; Truel, Brevers, Bechara, 2018; Turel, & Gil-Or, 2018), and this psychopathological understanding of problematic SNS use is further evidenced by the qualitative findings of the present study. Impulsive use in this case refers to reflexive SNS use as a reaction to certain social and psychological triggers. An impulsive behaviour is generally considered to be one which an individual engages in without first carrying out any conscious forethought or judgement (Moeller, Barratt, Dougherty, Schmitz, & Swann, 2001). Using SNS to the point of impulsivity was identified in a range of participant responses. Arriving back home after attending work or school is one example of a situation which participants reported triggering impulsive SNS use:

“Coming home to my partner after school & straight away jumping on my phone to look through my Facebook newsfeed, leads him to do the same. At this point neither of us are interacting with each other and we sometimes have arguments over this. We feel like we don’t spend enough time with each other because we jump straight onto our social media profiles” – Participant #67

“Sometimes I feel I am more engaged with my phone than people. That makes me sad but it is automatic to walk in the door, connect to wi-fi and check-in.” – Participant #154

Other examples of psychological and social triggers included individuals becoming distracted or bored with a task at hand, and impulsively using SNS as a means of temporarily avoiding uncomfortable experiences:

“While studying for exams or doing assignment, I felt frustrated and finally used social media to avoid the feeling of frustration.” – Participant #94

“I really don’t want to do the thing I should be focusing on so I find a distraction, the easiest one is social media.” – Participant #157

“Boredom, it’s kind of a natural reaction now to just pull the phone out when you feel bored or in an uncomfortable situation.” – Participant #28

These examples reflect a degree of awareness amongst users that they sometimes engage with SNS in a very reactionary way. Whether it is as a means of relaxing or unwinding upon arriving home, a way of keeping oneself entertained, or a means of avoiding psychologically confronting experiences, impulsive use of SNS is shown throughout the data as a form of escapism for users. The term escape was even referred to by one user when describing what motivates them to use SNS when they know their focus should be elsewhere:

“Procrastination – often a way of distracting yourself so you don’t have to concentrate on things you can’t be bothered doing. Easy escape.” – Participant #146

Impulsive SNS use as a means of avoiding uncomfortable psychological and social experiences is by no means a new phenomenon within the literature. The concept of ‘phubbing’ or going on one’s phone as a way of ignoring/avoiding potentially uncomfortable social experiences, is a phenomenon which has recently received considerable attention within the field of social psychology (Chotpitayasunondh & Douglas, 2016; Roberts & David, 2016; Ugur & Koc, 2015). This use of SNS as a form of distraction/procrastination/escapism is likely to be at least partly due to the relatively low amount of physical and psychological effort required to browse social networks. Several users referred to browsing SNS as a mindless activity which can be used to take their mind off the world around them:

“It’s mindless and it’s entertaining.” – Participant #177

“I use it as a mindless distraction when bored.” – Participant #196

The low threshold of psychological and physical effort required to use SNS is particularly pertinent when considering those users who choose to engage with SNS via a smartphone. These individuals are able to browse extensive amounts of social information and updates by simply swiping and tapping their screens. This low effort threshold for SNS engagement, coupled with the increased SNS accessibility afforded by smartphones, makes it unsurprising that impulsivity was such a prominent aspect of reported patterns of excessive use. Impulsive use is also a key feature within well-researched models of gambling and substance addiction (Hyman & Malenka, 2001; Everitt & Robbins, 2005; Blanco, Moreyra, Nunes, Saiz-Ruiz, & Ibanez, 2001), meaning that the trends within these qualitative data might be seen as a foreboding reaffirmation of existing models SNS addiction (Pontes et al., 2018; Griffiths & Kuss, 2017) in a New Zealand context. Impulsivity has been referred to as a personality factor informing previous explorations of SNS use (Andreassen et al., 2016; Park et al., 2015), however there do not appear to be any studies which specifically look at the correlation between an individual's degree of impulsivity and intensity/frequency of SNS use. The data within the present study point to impulsivity as a primary area of concern for future researchers looking to gain insight into the nature of SNS use.

5.7.2 Excessive use: Compulsivity. Similar to impulsivity, another aspect of excessive SNS use identified within the qualitative data was compulsivity. The difference between these two phenomena is that while impulsivity refers to an individual's propensity to engage in a behaviour without adequate forethought, compulsive behaviours are those which an individual continues to engage in despite awareness of the behaviours consequences (Berlin & Hollander, 2014). Examples of compulsive SNS use were most prominently identified in responses to qualitative question five, in which participants were asked to provide examples of steps taken to

reduce their social media engagement. Several participants reported taking somewhat drastic, and in some cases very novel, steps to curb their SNS engagement:

“Temporarily deactivated my accounts, deleted the apps on my phone.” – Participant #51

“Turning my phone off, leaving it at home and getting an app that grows trees when I leave my phone, and they die when I don’t reach a certain amount of time before using my phone.” – Participant #186

“When I was in school I would get my mum to change my Facebook password around exam time so I couldn’t get distracted and go on it.” – Participant #68

The fact that so many participants reported taking major steps to reduce their SNS use is alone an important indicator of the potentially compulsive nature of SNS engagement. If there was no difficulty in stopping or reducing frequency/intensity of SNS use, then it seems unlikely that so many participants would report taking such drastic actions to change their behaviour. This is further reinforced by a number of participants who provided insight into the actual effectiveness of their SNS reduction strategies:

“I tried to not use my phone first thing in the morning and last thing at night. However, I never really stuck with it because of how habitual it has become in my daily life.” – Participant #142

“I have deactivated my accounts before in an attempt to live life through my eyes instead of my phone, however this didn’t last long as I was back on it very quickly.” – Participant #28

Such examples reflect just how compulsive patterns of SNS behaviour can become for some people. This observation is important because as with impulsivity, there is no clear evidence within existing literature of an empirical correlation between SNS use and compulsivity as a stand-alone psychological construct. There is potential for future research into this area to attempt to establish statistical correlations between these two

variables, and in so doing further develop contemporary appreciation of the nature of SNS use. A potentially promising direction for such research is to examine with more rigour the efficacy of SNS reduction strategies. By finding out which reduction strategies work best and why, greater insight into the compulsive nature of excessive SNS use might be developed.

5.7.3 Excessive use: Addiction. Upon conducting the thematic analysis, I was surprised by the number of participants who specifically reported addiction or ‘being addicted’ when providing explanations for their SNS use. Traditionally there is a certain degree of social stigma associated with being labelled an addict when referring to alcohol and drug related problems (Dean & Rud, 1984; Buchman & Reiner, 2009). It was because of this perceived stigma that whilst designing the questionnaire I decided to specifically avoid asking participants questions relating to whether or not they felt they were addicted to SNS. However, participants appeared to have no qualms with identifying themselves as social media addicts when asked to explain why they use SNS the way they do:

“You are addicted, and it has become a habit to update your feed.” - Participant #159

“Probably addiction...” – Participant #82

This may be due to a perceived lack of social significance associated with the term ‘SNS addict’. While there are instances of SNS addiction having significant negative consequences for user’s wellbeing (Moqbel & Kock, 2018), it is fair to assume that SNS addiction, and its capacity to negatively impact a user’s wellbeing, does not hold the same gravity within public consciousness as more traditional forms of substance

addiction. After all, “Everyone else is doing it” (Participant #74).

However, the apparent lack of restraint in referring to oneself with a typically heavily stigmatised term might be an indicator of user’s appreciation for the potential harm of their excessive SNS use. Numerous participants reported an awareness that their SNS use was at times an unhealthy habit:

“After a break up with a partner, I spent weeks refreshing to see when they were last online, or if they had posted anything on snapchat or Instagram. It was very negative and incredibly unhealthy.” – Participant #45

“Excessive social media use made it difficult to interact with a partner. Easy to forget about actual people around you and block them partly. Makes for an unhealthy relationship if there is not enough communication.” – Participant #169

“I had an appointment with previous work colleagues for eating out, but I cancelled it because I felt extremely tired after using SNS for approximately 2 hours.” – Participant #115

Aside from the reported social and psychological health implications, recent research into the neurophysiology of excessive SNS users has produced some potentially worrying results. He et al.(2017) used Magnetic Resonance Imaging (MRI) to investigate the neural morphology of SNS addicts. They found pronounced similarities between the structural alterations of the brains of SNS addicts and those of gambling and substance addicts. They concluded that excessive SNS use may have a similar effect on the brain’s reward-processing systems as other traditional addictive behaviours. Considering this in the context of the qualitative data collected here, there is reason to suspect that excessive and addictive SNS use has the potential to become an increasingly problematic public health concern.

The responses collected indicate that many SNS users have a very good awareness of the real-world impact of their use. Despite this, reported rates of SNS

engagement within the quantitative data were relatively high, and SNS use remains a pertinent feature of modern society. Several participants appeared to be well aware of the negative impact of their use, yet continued to go on using SNS in much the same way:

“I am on my phone a lot scrolling social media, particularly when I am spending time with my partner. My partner has mentioned multiple times that I should put my phone down and be present in the situation and give my full attention. I say I will change, but I continue with my phone use when I am in my partner's presence. It has caused a lot of arguments.” – Participant #97

“More glued to social media than spending time with family and friends.” – Participant #129

This inevitably leads to the question of why exactly people continue to use SNS, despite awareness of its consequences. A good deal of insight into this query can be found in considering the nature of SNS platforms themselves.

5.8 Nature of social media use

This theme refers to the affordances, features, and structure of SNS platforms, and how these factors impact user experiences. The nature of use of SNS platforms was identified as a theme within the qualitative data which has implications for users' experiences. This theme relates to the research questions to the extent that it provides a dynamic insight into rates of SNS engagement. SNS platforms consist of a wide range of features which are designed to improve communication of social information and encourage further use of the sites. These features also contribute to established social and cultural norms regarding behaviour in online environments. Throughout the qualitative responses, participants have highlighted some of the ways in which these features and norms impact their engagement with SNS. A good example of the nature of

SNS platforms being directly related to rates of use is the prevalence of push notifications.

5.8.1 Nature of use: Platform design. Push notifications are a feature often used by SNS smartphone apps (Podnar, Hauswirth, & Jazayeri, 2002). These notifications alert a user to a development or event of potential interest within their online social networks. In much the same way that an individual would get a mobile alert when they receive a text message or a missed call on their phones, push notifications are designed to grab a user's attention and inform them of online updates (Estrada, 2009). This aspect of SNS platforms is related to the aforementioned impulsivity of social media use, as attention grabbing alerts serve as a stimulus for users to check their SNS profiles frequently. These notifications were highlighted by participants as a way in which social media use was having a negative effect on their real-world relationships:

“Disengagement due to distraction from notifications on phone.” – Participant #138

“When I get bored in class I usually check my Facebook for any notifications.”
– Participant #174

While notifications might be seen as simply a brief alert which can be responded to quickly and effortlessly. Some participants also reported checking notifications as a slippery slope to more intensive SNS engagement:

“...just getting distracted by notifications and sucked into mindless scrolling.” - Participant #163

“Notifications pop up and could be important then get distracted and start scrolling.” – Participant #126

These examples illustrate how effective push notifications are at pulling user's attention away from other activities and onto online distractions. Such features can be seen to directly influence frequency and intensity of SNS engagement, and therefore have significant implications for public health concerns such as problematic and addictive SNS use.

Some interest into the link between push notifications and problematic patterns of use has developed alongside the spread of SNS use (Lee et al., 2014). One notable study observed how push notifications impacted neural activity and cognitive load on participants completing basic tasks (Kim, Kim, & Kang, 2016). Push notifications were found to draw participant's attention and in turn decrease their efficiency at completing the task at hand. This speaks to the pervasive nature of push notifications as a stimulus for impulsive SNS use. However, yet to be thoroughly explored within existing literature is the minor trend shown in the present study's qualitative data, of initially brief distractions caused by push notifications leading to more intensive and prolonged SNS engagement. I suspect there are a few factors which might contribute to users making the jump from a brief check of social media, to prolonged browsing. These include the highly mobile and ever-present nature of smartphones, the fact that many SNS apps come with push notifications as a default setting which needs to be manually turned off, as well as the bite sized and therefore easily consumable nature of much of the content shared on SNS platforms. Further exploration of these features of SNS use may prove valuable in future research aimed at increasing understanding of problematic patterns of SNS engagement.

Attention grabbing features such as push notifications are seen by a non-profit organisation called the Centre for Humane Technology as a significant problem facing the modern world. This organisation is behind a worldwide initiative known as the

'Time Well Spent' movement, which aims to raise awareness of the consequences of a digital economy which is built on distracting user's attention (Centre for Humane Technology [CHT], n.d.). This movement is informed by the experiences of ex-industry experts who have an intimate understanding of the nature of the online attention economy (CHT, n.d.). A major contributor to the so called 'attention crisis' (Kaminska, 2017) which the Time Well Spent movement is attempting to tackle, are SNS platforms which are designed to keep people online, and therefore bringing in ad revenue. The qualitative data collected in this study reflect the capacity of SNSs to alter user patterns of behaviour, and users themselves are shown to be at least somewhat aware of the potentially negative impact their use is having on their lifestyle.

Given this, the prevalence of business models which are centred around continually drawing people's attention away from other activities has arguably significant philosophical and ethical implications. By putting revenue interests ahead of the wellbeing of their customers, SNS companies are at risk of being implicated in potentially significant public health issues at a global scale. This is a perspective which is supported by proponents of the Time Well Spent movement, and awareness about the ways in which SNS use affects our behaviour appears to be slowly growing within the public conscious. This is evidenced in a recent public announcement by Facebook founder and CEO Mark Zuckerberg, who stated that a primary area of focus for his company in 2018 is ensuring that time spent on Facebook is time well spent, and he hopes to work on reorienting the platforms design to promote more meaningful social interactions (Zuckerburg, 2018). The fact that a movement towards more ethical and longitudinally viable SNSs has been endorsed by the world's largest platform is promising; however, whether this development will have any significant impact on the way people use SNSs remains to be seen.

5.8.2 Nature of use: Normative online culture. While specific SNS features such as push notifications provide a tangible example of the nature of SNS platforms impacting rates of engagement, the qualitative data indicates some more abstract aspects of use which may have a negative impact on SNS experiences. A number of participants in my study referred to online cultural norms as factors impacting their engagement with SNS. The most prevalent example of such cultural norms identified was the nature of the content which is typically shared and uploaded via SNS. A number of participants referred to the social norms and online culture of SNS platforms when providing examples of the negative impact social media was having on their lifestyles:

“Focused too much on making my social media appear like I had a great life...”
- Participant #201

“People often only post the great things that happen in their lives and it isn’t an accurate depiction of what they are actually experiencing.” – Participant #83

“...some posts are made to catch the attention of certain people i ‘look up to’ on social media.” – Participant #170

Because SNS sites are used as a means of portraying ones identity within social environments, users tend to be more likely to share and upload information about themselves and their lifestyles which is seen as socially desirable (Toma & Hancock, 2013). This nature of the content shared online results in a wealth of social information which is not necessarily an accurate depiction of user’s real-world experiences. This has implications for user’s who use SNSs as a means of social comparison and self-evaluation.

Trends within the qualitative data reflect user’s awareness of the distortion of social reality caused by social media, and how this impacts their experiences of engagement:

“Everyone only posts about the fun things they are doing so I felt as if my life was boring. I felt as if I was becoming less close with my friends because they had other friends or things to do.” – Participant #39

“On social media, some of people have appeared to be happy, rich and have full of fun in life, and sometimes I feel isolated from the group of people. I often avoid meeting with those who appear to have different life compared to my life.” – Participant #146

SNS's are regarded as fundamentally egocentric environments, meaning that typical interaction with these services is heavily focused around the self (Ellison, 2007). This is evidenced by multiple studies in which SNS use has been linked with an increase in narcissistic personality traits (Moon, Lee, Lee, Choi, & Sung, 2016; Gnambs & Appel, 2018). Because of this, the typical nature of use of SNS sites can be considered to have a direct impact on aspects of a user's psychosocial wellbeing. Examples of such psychosocial correlates include public self-consciousness and public self-monitoring. While no statistically significant correlation was found between either of these two factors and rates of SNS engagement in the present study, the qualitative examples shown above reflect how the types of content users are exposed to impact perceptions of themselves in a social context. Experiences of self-monitoring and self-consciousness rely on the assessment and interpretation of social data. However, the egocentric and self-affirming nature of online environments can result in the social data presented on them being distorted or inaccurate. These findings could be seen as an indication that despite the social nature of SNSs, these platforms are in many ways inappropriate contexts for deriving a sense of social gratification or self-worth. Nevertheless, SNS platforms continue to play a vital role in the way people interact with each other. This fact was reflected both in the quantitative findings of the present study, and supported by the identification of social capital as a theme running throughout the qualitative data.

5.9 The role of social capital

The quantitative findings of the present study illustrate well the crucial role social capital plays in understanding rates of SNS engagement. As mentioned in the methods chapter, the qualitative component of the study sought to supplement these findings by providing further insight into the relationship between SNS use and social capital in particular. As such, social capital was identified as a prominent and recurring theme within the qualitative data. By exploring participant's responses as they relate to this theme, these findings can be seen to provide a more vivid understanding of the relationship between these two key variables.

5.9.1 Social capital: The positive impact of SNS use. In the data collected from qualitative question three, in which participants were asked whether they believed their social media use had a positive effect on their real-world relationships, nearly three quarters of participants responded 'Yes', with almost all of these participants giving examples of SNS use providing them with significant communication benefits:

"My family lives all over the world, as do many of my closest friends. It allows me to keep in contact with them and still feel close with them." – Participant #103

"I have gotten to know a few people online that became my friends in real life. For example, I have made friends with people on twitter and we have seen each other multiple times since initially becoming friends on the social media platform." – Participant #12

"I use Instagram for pre-recorded video that goes live each morning (work related) to encourage and inspire people. A great way to connect with people every day that you wouldn't have an opportunity to speak one on one with every day." – Participant #124

These findings point to increased social communication and accessibility, a fundamental aspect of all SNS platforms, as a primary motive for excessive use. This perspective is consistent with long held understandings of humans as innately social creatures (Fiske, 1991). From an evolutionary perspective, humans have arguably been conditioned to seek out social interaction and gratification (Baumeister & Finkel, 2010), and when the opportunity to drastically streamline this process is presented, it is hardly surprising that we find the temptation so difficult to resist. However, our ongoing desire to connect with others should not be considered as a fundamentally negative aspect of SNS use.

When discussing the impact of SNS use on populations, I believe it is important to not lose sight of the great benefits the platforms provide us with. The development of SNS sites, and the rise of the digital era in general, has created unprecedented potential for humans to communicate and share with one another at a global level. This has seen SNSs become powerful tools for social change and connectivity. SNS platforms have played important roles in some of the most significant social justice movements in recent memory, including the 'Black lives matter' movement (Ince, Rojas, & Davis, 2017), and the most recent wave of the modern feminist movement (Lokot, 2018). Such examples highlight the significant power social media has to bring groups of people together (Al'Uqdah, Jenkins, & Ajaa, 2017). Not only are SNSs impacting social development for the better at a macrosocial level, but the data collected from the third qualitative question in this study reflect the positive effect SNS has on bringing people together at a more interpersonal level also. The examples provided above highlight participants using SNS to engage with loved ones, form new relationships, and inspire others, and show well the potential for SNS use which is not problematic, and may be arguably considered healthy.

5.9.2 Social capital: The negative impact of SNS use. Despite the clear, and I believe somewhat understated positive impacts of social media, there are clearly some significant social problems associated with high rates of SNS engagement throughout society. As mentioned in my literature review, the apparent decrease in social isolation afforded by SNS is somewhat curiously juxtaposed with a number of studies showing use of SNS to be correlated with decreased aspects of psychosocial wellbeing (Correa, Hinsley, & De Zuniga, 2010). The paradox here is that individuals use SNS as a means of improving social connectivity and gratification, yet SNS use appears to be associated with increased experiences of depression (Jelenchick, Eickhoff, Moreno, 2013), reduced life satisfaction (Valenzuela et al., 2009) and social anxiety (Wang, Jackson, Gaskin & Wang, 2014). The number of examples provided by participants relating to the positive impacts of SNS, was contrasted by users who reported negative impacts of SNS on real world relationships:

“Everyone only posts about the fun things they are doing so I felt as if my life was boring. I felt as if I was becoming less close with my friends because they had other friends or things to do.” – Participant #39

“Family are always nagging at me to get off my phone around dinner time and when we are all together watching tv/out with the fam.” – Participant #143

“Social media being used instead of interacting with others.” – Participant #155

One possible explanation for the correlation between online connectivity and poor psychosocial wellbeing is the differences between the way people connect and communicate in online social environments as opposed to offline social environments. By spending more time focused on engaging and interacting in online social environments, SNS users are potentially neglecting their real world social skills, thus resulting in feelings of being distant or disconnected from the people around them. This

view is backed by studies which have identified clear differences between online and offline social networks (Indian and Grieve, 2014; Wright & Li, 2011; Mesch and Talmud, 2007).

Digital media use does not appear to be an adequate substitute for meaningful face-to-face interactions in terms of maintaining relational quality (Baym, Zhang, Ledbetter, & Lin, 2007). The differences in quality and connectedness between offline and online relationships, may help explain the paradoxical modern increase in connectivity and loneliness (Turkle, 2017). Amongst participant responses, there appeared to be at least some awareness of the differences between digital and real-world connectivity, and the problems associated with replacing offline social interactions with online ones:

“Too much time socialising on the internet is not always good. You may learn to adequately social online within a community or chat group but then cannot apply those same socialising skills outside in the real world as it is a different experience and requires more effort.” – Participant #42

“...I used to share stories etc. with my family (parents and sibling) at home before but since social media, I felt more comfortable communicating with my (personal/childhood) friends through it (eg. Messenger/skype) and in result, have become distant from my family.” – Participant #68

Furthermore, some participants appeared to have an awareness of the apparent tension between online and offline social interaction:

“Ignoring people around me. Reduces actual human interaction.” – Participant #170

“I don’t want to break a conversation on messenger when real life people start talking to me.” – Participant #24

Examples such as these reinforce the findings of the quantitative data by demonstrating users’ understandings of how SNS impacts social capital, and further support the

correlation found between the two variables. However, it is important to highlight that this study only used the online social capital component of Williams' (2006) social capital scale. This is partially due to the responses from the pilot study participants, who reported taking approximately 20 minutes to complete the full questionnaire. Adding the offline social capital scale would have potentially provided more insight into the interplay between online and offline social capital with regards to SNS use, however it would also have meant including another subscale to the already extensive questionnaire. Future studies looking to build on these findings, might consider assessing the relationship between all facets of social capital and SNS.

5.9.3 Social capital: A complex topic. The prevalence of examples of both positive and negative impacts of SNS on social capital within this data reflect the apparent juxtaposition within the literature regarding the benefits and harms of use. This might be seen as an indicator of the highly complex way SNS use is impacting people's daily lives. Rather than attempting to categorise SNS use as either harmful or beneficial to social capital, it seems appropriate to consider the impact of the technology as being more nuanced. SNS has been consistently shown to be correlated with deficits in psychosocial wellbeing, however there are clearly some real benefits to using SNS in terms of social connectivity and networking. Importantly, research into this field is still developing, and perspectives on the impact of SNS use on social capital may become more clearly defined in the future. However, at this point it seems that all we can say for sure is that SNSs are fundamentally changing the way that individuals engage with and benefit from their social networks. This is particularly apparent when considering the recent emergence of FoMO as a hot-button social psychological phenomenon.

5.10 Experiences of FoMO

As a central focus of this study, FoMO was identified throughout both qualitative and quantitative data as being significantly correlated with both SNS engagement, and a range of psychosocial factors. Participants provided examples of a range of situations in which they experienced FoMO in relation to their SNS use. This included instances of FoMO being both a motivator to use SNS, as well as a consequence of SNS engagement. By discussing how this key theme was reported throughout the qualitative data, the following discussion aims to build on pre-existing notions of FoMO and compliment the quantitative findings with an exploration of individual experiences of FoMO. One of the most significant aspects of this study's qualitative exploration of FoMO was found in the responses to the first of the five qualitative questions.

5.10.1 FoMO: Accidental question ambiguity. The first of the qualitative questions was particularly important with relation to FoMO. In answering yes to this question, participants were indicating that they had experienced FoMO due to social media use. There was a near perfect 50/50 split in Yes and No responses to this question. However, during the initial coding phase of the thematic analysis I realised I had made a key oversight in the development of this first qualitative question. This two-part question read as follows:

Have you ever felt like you were missing out on an important social experience thanks to social media?

If so, please provide a brief example of a time when you felt like you missed out thanks to social media:

By not being specific about the role of social media in contributing to feelings of missing out, this question was interpreted by participants in one of two ways. These two response categories consisted of; Interpretation A – “Yes, I have missed out on a real world social experience because I was too busy using social media”, or Interpretation B – “Yes, I found out about a real world social experience I was missing out on whilst using social media” (e.g. through seeing photos, status updates, live streaming, etc.).

Unfortunately, the small pilot study conducted prior to the primary study did not identify the ambiguity in this question as an issue. However, as each of my qualitative questions consisted of two parts (a yes or no response, followed by a brief example), I was able to discern how each of the ‘Yes’ participants had interpreted the question according to the nature of their brief example. As participants who responded No (and therefore skipped this question) might have interpreted the question in one of two ways, the frequency of Yes/No responses to this question cannot be considered indicative of how many participants had experienced social media induced feelings of missing out. Regardless, this oversight does not negate the content of the qualitative data collected here. The sample size in this study was large enough that the responses collected from qualitative question one still provided a good level of insight into experiences of missing out thanks to social media.

5.10.2 FoMO: Types of responses to qualitative question one. The following responses provide some examples of participants who interpreted the first qualitative question according to Interpretation A – “Yes, I have missed out on a real world social experience because I was too busy using social media”:

“At a concert I was far too absorbed in filming that I missed out on the moment” – Participant #186

“When I hang with my friends, we kinda just sit on our phones instead of communicating. We could be having fun and making memories but instead we ignore each other by being on our phones and we often don’t hear what someone says, which can be frustrating.” – Participant #164

“Concentrating too hard on getting a good photo but not actually enjoying the moment.” – Participant #149

Such responses reflect the extent of participants’ motivations to use social media. The individuals who responded in this way indicated an awareness that in certain situations their drive to use SNSs had caused them to miss out on real-world events. These examples also indicated a level of psychological discomfort or dissatisfaction with their compulsive SNS engagement.

While a reasonable number of participants interpreted the first qualitative question according to Interpretation A, a far greater portion interpreted the question according to Interpretation B – “Yes, I found out about a real world social experience I was missing out on whilst using social media”:

“When friends go to the movies or dinner and your weren’t invited or couldn’t make it and they document the whole night like it was the best night of their lives.” – Participant #72

“Didn’t go to Rnv last year and saw all my friends post about it and saw snapchat Instagram posts made me feel like I had really missed out.” – Participant #167

“When I am unable to attend events that most of my friends are going to due to other commitments such as work, most of the time it is posted in social media which makes me feels worse about not being able to go as I can see how much fun they are having.” – Participant #128

These examples highlight experiences of FoMO as a direct consequence of social media use. By engaging with SNSs, participants are generally exposed to a large amount of social information. This greater exposure arguably increases the likelihood of finding

out about events and occasions from which one is absent. In the above examples, the participants display a good level of awareness of SNS increasing their susceptibility to experiencing FoMO. Responses such as “[My friends engage in activities without me] and document it like it was the best night of their lives”, reflect the interrelated nature of FoMO and the previously identified theme of Nature of use. Participants appeared to be conscious of normative behaviour in online social environments (i.e. sharing photos and videos of what one is doing via SNS) being directly related to experiences of FoMO. Furthermore a few participants referred to actively contributing to online FoMO inducing culture:

“Focused too much on making my social media appear like I had a great life...”
– Participant #201

The fact that experiences of FoMO appear to be closely interrelated with the normative nature of social media use is a key point of interest in the findings of this study. I believe that exploring the complex relationship between FoMO and SNS use is vital if we are to further develop our understanding of the impact of social media on modern society.

5.10.3 FoMO: A consequence and a motivator. As shown in the previous section, the answers to the first qualitative question provided a wealth of evidence of FoMO as a consequence of SNS use. However, throughout the rest of the qualitative data, FoMO was also indicated as a key motivator of SNS use. This was particularly prevalent throughout responses to qualitative question four, in which participants were asked to provide some examples of why they use SNS in inappropriate situations. A number of participants explicitly referred to FoMO when explaining motivations for problematic patterns of SNS use:

“Fear of missing out or missing something important.” - Participant #179

“Boredom, feeling of missing out on something, not used to doing nothing.” – Participant #136

“Feeling like I could be missing something that is happening somewhere else in the world.” - Participant #62

“Because I’m bored and feel like I’m missing out.” – Participant #142

“Fear of missing out.” – Participant #211

While frequency of a trend within qualitative data should not necessarily be equated with prevalence of the phenomenon in the real world, it may be considered significant that the impact of FoMO was explicitly recognised by a number of participants. The prevalence of participants specifically referring to experiences of FoMO may reflect the term’s emergence as a popular culture buzzword in recent years (Barker, 2016; BBC, 2017).

The identification of FoMO as a motivator of SNS use, particularly in relation to what participants identify as problematic patterns of use, is another key finding of this thematic analysis. This is because by identifying FoMO as a motivator of problematic SNS engagement, the potential for developing effective strategies of minimising socially detrimental patterns of use is increased. This understanding paves the way for future research which explores methods of mitigating the effects of FoMO and potentially improving the online media consumption habits of SNS users.

5.10.4 FoMO: Consistency in findings. Whether it is as a motivator or consequence of use, FoMO appears to be closely related to experiences of using SNS.

This relationship was also identified within the quantitative data, in which a statistically significant correlation was identified between FoMO and SNS engagement. While this quantitative correlation does not provide information on whether FoMO can be considered a motivator or consequence of use, it does show that the two factors are closely interrelated. The identification of a correlation between FoMO and SNS use within this study can be seen to further reinforce contemporary understandings of SNS engagement. These findings are consistent with a range of other studies within this field (Przybylski et al., 2013; Hetz et al., 2015; Alt, 2015; Chotpitayasunondh & Douglas, 2016; Yoo & Jeong, 2017), and can be considered particularly significant with regards to the cultural context of New Zealand in which the study was conducted.

A similar study to the present one was recently reported by New Zealand based researchers Riordan et al. (2018). This study designed and validated a single item measure of FoMO, enabling FoMO to be assessed in a more diverse range of research contexts. In doing this, Riordan, et al. collected data using the FoMOs, along with a slightly modified version of the SMEQ. With a similar sample size to the present study, they found a similar correlation between FoMO and SNS engagement as was found in this study. The consistency between the findings of these two studies show that New Zealanders, like SNS users in other developed countries, are prone to experiences of FoMO, and that this susceptibility plays a key role in patterns of social media use. Such findings might have important implications for future public health policies and strategies aimed at combatting the social impact of problematic patterns of SNS use within New Zealand.

5.11 A two-type theory of FoMO

The aforementioned ambiguity of the first qualitative question, along with the diversity of reported experiences of FoMO throughout the qualitative data, led to this study

challenging my understandings of FoMO. These findings suggested that the concept of FoMO may not be as uniform as I initially envisioned and have led me to propose that in relation to social media use, there are actually two different types of FoMO. While these two experiences of FoMO are often interrelated and conflated with each other, I propose they may actually be considered two different categories of the same social psychological phenomenon. The first type is active FoMO. This occurs when an individual finds out about an actual event which they have not, are not, or will not be present for. By using social media, users are constantly finding out about these events via pictures, videos, status updates, live streams, event notifications, etc. In this case SNS use instigates experiences of active FoMO which have the potential to be very visceral and confronting. The second type can be considered latent FoMO. This occurs when an individual experiences an ongoing fear of missing out on online developments in their social networks. The exponential growth of SNS platforms has led to them becoming increasingly important and fast paced hubs of social and cultural information. Individuals are driven to use SNS compulsively due to an ongoing desire to be up to date and involved with current events at both a local and global level. Furthermore, being an SNS user has very quickly become a part of modern cultural identities in technologically developed countries. It is this ever-present social and cultural pressure to be online which propagates a latent form of FoMO. This latent fear of missing out is possibly the less understood and more abstract of the two types of FoMO, due to it not being caused by any specific stimulus other than a reflexive desire to stay in touch. While active FoMO is often triggered by a very specific event or piece of social information, latent FoMO is different because there is not necessarily any specificity regarding exactly what one may be missing out on.

This two-type theory of FoMO is consistent with pre-existing models of internet and SNS use, which have been referred to throughout this thesis and in relevant

literature as ‘vicious’ or ‘malicious’ cycles of use (Yoo & Jeong, 2017; Kim et al., 2009). The more salient an individual’s awareness of the social affordances of the internet/SNS, the more prone they are to experiencing a latent and pervasive form of FoMO. While this culturally induced latent FoMO might act as a motivator for individuals to use SNS, once online they are susceptible to experiencing more active forms of FoMO. This inherently uncomfortable experience may in theory motivate an individual to attempt limiting their SNS use, thus once again increasing their susceptibility to a more latent form of FoMO.

The last of my qualitative questions asked participants whether they had ever taken steps to reduce the amount of time they spend on social media. The qualitative data collected from this question informs the proposed two-type theory of FoMO by providing insight into a latent drive to continue using SNS. A number of participants recounted taking steps to curb their use by uninstalling apps on their phones and deactivating social media accounts. However, many of these strategies appear to have been implemented to no avail

“I tried to delete my social media apps like snapchat and Facebook, I lasted like 5 days before installing them again because I felt divided from friends and the world.” – Participant #83

“Uninstalling Instagram, trying to give myself a time to turn off devices at night (the latter has failed thus far).” - Participant #161

“When I had my phone in rice for 24 hours, that was a huge wake up call to how much I relied on my phone. I then tried to reduce the amount of time on social media by solely focusing on other things e.g uni work, fitness. I didn’t get to far though, checking social media is the norm.” – Participant #183

While a latent form of FoMO is not the only reason for continued use despite attempts to limit the behaviour, there is potential for it to be a contributing factor. Data collected from the second of the qualitative questions also hinted at an abstract and ongoing form

of FoMO as a driver of compulsive SNS use. Participants were asked to provide brief examples of times when they felt their social media use had a negative effect on their real-world relationships:

“In the midst of spending time with friends or family, I often feel like i am using my phone more than I should be because I am trying to keep in touch with what’s online as opposed to what is happening in the real world.” – Participant #90

The theme of an ongoing ever-present form of FoMO (rather than FoMO as a reflexive response to new social information), was further reflected in responses to qualitative question four, where participants were asked what makes them use social media when they know they should be focusing on something more important:

“The constant need for wanting to see what others are doing while I am focused on doing my work.” – Participant #152

“Constantly checking if anything new happened.” - Participant #31

These data are consistent with the concept of a latent form of FoMO which has effectively become built into modern culture in technologically developed countries. The qualitative data collected in the present study is suggestive of the existence of a persistent social pressure to use SNS. While one potential example of this overarching cultural motivation for use is latent FoMO, further research will be required to verify such hypotheses. Of particular interest for future research will be finding out more about people’s experiences of extricating themselves from the ever-pervasive SNS web and exploring further the efficacy of such strategies. The more evidence of compulsive use of SNS and failed attempts to reduce frequency of engagement, the more weight is leant to a form of FoMO which is a persistent aspect of living in a digitally developed world.

5.11 Study limitations

The design and subsequent findings of the present study were not without flaws. Some key oversights were made in the development of the study. Furthermore, as with all studies, the findings have limitations in terms of their theoretical and practical applications. Fortunately, this subject area is one which appears to be flourishing rapidly, and the shortcomings of the present research project have the potential to be improved upon in future exploration of the nature of SNS engagement. The following section outlines some of the notable limitations of the present study, which are presented in regards to how they may be addressed in future research.

5.12.1 Lack of clarity on the FoMO – SNS relationship. A key limitation of both my own study and other similar studies within the field (Przybylski et al., 2013; Yoo and Jeong, 2017; Ross et al., 2009; Alt, 2015), is the limited insight provided into the extent to which deficits in psychosocial factors are motivations and consequences of high rates of SNS engagement. While variables such as FoMO and SNS engagement have been consistently shown to be interrelated, there is a lack of clarity on whether individuals use SNS because they fear missing out, or whether individuals are more likely to fear missing out because of their SNS use. Both such scenarios appear to be plausible explanations of the correlation between FoMO and SNS use, and as shown in my proposal of a new perspective on FoMO, there is reason to suspect an interplay between psychosocial motivations and consequences of use. An individual immersed in a widely technologically proficient society, may feel if they are not online and keeping up to date with current events and social developments they will be missing out, thus motivating SNS engagement. Equally likely, individuals who spend a lot of time online are more likely to find out about experiences and events which they did not, cannot, or

will not attend. In this case FoMO can be seen as a consequence of SNS engagement. Both of these scenarios were touched upon in the findings of my qualitative analysis, however by focusing specifically on the difference between these two aspects of SNS use, a clearer understanding of the issue might have been found.

Identifying the extent to which FoMO and other psychosocial factors might be either caused by, or the cause of, high rates of SNS engagement, would likely require the development of some more experimental methods than can be found in the present study. This may involve manipulating variables such as perceived social capital, public self-consciousness, and SNS engagement, and measuring the impact it had on the relationships between other variables such as FoMO. As all of these variables are typically very personal and intimate experiences and behaviours, such a study would likely require some creative and innovative methods aside from a straight-forward participant response questionnaire. However, it appears such research is vitally important to developing an accurate understanding of the nature of SNS engagement and its correlates.

5.12.2 Social desirability bias of self-report data. Another important limitation of the quantitative component of this study is the somewhat confronting nature of the measures used to assess each of the variables. A good example of this can be seen in the nature of the items within the FoMOs. Participants were asked to indicate the extent to which they could relate to statements such as ‘When I have a good time it is important for me to share the details online’. This is potentially problematic as I suspect that there is a degree of social stigma associated with admitting to such a statement. Despite the popularity of SNS engagement, and the egocentric nature of its use, there is still a degree of social stigma associated with egocentric and potentially narcissistic behaviours (Steyrer, 2013). This means that asking an individual how much importance

they place on making sure other people see what a good time they are having, might be considered somewhat psychologically confronting, even in the context of an anonymous questionnaire. This has implications for the accuracy of the data collected, as it means that scores such as those collected from the FoMOs might not be a completely accurate depiction of participants' susceptibility to FoMO. The same argument might be made for items across most of the measures used.

The problems associated with accurately assessing personal and potentially confronting aspects of an individual's life via self-report questionnaire are by no means limited to this study. Indeed, this problem might be considered as a general critique of a wide range of measures of psychosocial phenomena (Van de Mortel, 2008; Podsakoff & Organ, 1986). However, it is fair to assume that measures such as the FoMOs do provide a reasonable level of insight into personal experiences and behaviours. Navigating the complex web of external influencing factors, such as social desirability bias, when conducting social psychological research is no easy task, and all of the scales used in this study were developed alongside rigorous, and in some cases exhaustive (Snyder & Gangestad, 1986), validity assessments. As such, measures such as those used in the present study, while not perfect measures of their relevant constructs, may be some of the most practical resources available for assessing prevalence of psychosocial phenomena. This is a point which is important to take into account when interpreting the quantitative findings of this study.

5.12.3 Oversight in the application of the participant questionnaire.

Interpreting the results of the present study revealed two key aspects of the final questionnaire which were overlooked and subsequently impacted the findings of the study. The first of these oversights was the application of the PNS scale and the PSCS. These two psychosocial measures were used in a way which was inconsistent with

applications of the same tools in previous studies in that they relied on participants responding using 'True' or 'False' responses, rather than a multiple point scale. This oversight impacted the theoretical significance of my quantitative results and meant that the data I collected from the measures could not be reliably compared with the findings of prior studies. Fortunately, this oversight did not completely compromise the integrity of the data collected, and I do not believe that the inconsistent application of these measures had a significantly detrimental effect on the study's findings.

The other key limitation of this study's design was the unintentional ambiguity of the first qualitative question. As mentioned earlier in this chapter, the wording of this question lacked clarity and caused participants to interpret the question in different ways. This oversight was therefore reflected within some of my qualitative data.

Fortunately, this error contributed to improving my understandings of FoMO, and helped me further develop my appreciation of the realities of SNS engagement. While a limitation to the extent it impacted the frequency of participant's Yes/No responses, this oversight was also a valuable lesson in the importance of clarity when designed qualitative questions. As this was my first piece of independent research of this scale, I am grateful that I have the opportunity to learn from mistakes such as these, and in doing so improve the outcomes of any future research projects.

5.12.4 Sample demographics. While a reasonably large sample size was used, participants were almost all university students, a demographic which traditionally has higher levels of engagement with digital technology (Duggan & Brenner, 2013). This sample therefore cannot be considered representative of the entire population of Aotearoa New Zealand. By conducting similar research into FoMO and SNS engagement using a nationally representative sample, future studies might be better able to explore these factors as they relate to the entire population of New Zealand. I expect

that understandings of the nature of SNS engagement across nationally representative demographics are going to become increasingly sought after in coming years. As the social implications of problematic patterns of SNS use become more pronounced, potential interest in developing strategies and initiatives for dealing with such issues at a national level is increased.

Chapter 6 – Conclusion

The proliferation of SNS technology has had a profound impact on the way humans interact and communicate with one another. By streamlining social engagement, SNSs entice users to spend large amounts of time browsing and communicating within these online social arenas. This has led to an increasing academic interest in understanding psychological and social correlates of frequent, and often problematic, SNS use. This study contributed to emerging understandings of SNS engagement, by providing insight into psychosocial correlates and reported experiences of SNS use. In doing so, it has identified and attempted to fill some crucial gaps within the literature and built on the foundations laid by previous research within the field.

The two primary research questions guiding this study were:

1. Is there a relationship between specific psychosocial factors and rates of engagement with SNS?
2. Is there evidence of FoMO mediating the relationship between these psychosocial variables and rates of engagement with SNS?

These questions were succinctly answered by both the quantitative and qualitative components of the study. Through the quantitative analysis, significant correlations were identified between online social capital and rates of engagement with SNS. This finding was supported and developed by the qualitative analysis, throughout which social capital was consistently identified as a significant aspect of participants' reported experiences of SNS use. These findings reinforce existing notions of SNS engagement as an inherently social activity and have potential implications for strategies aimed at improving the social outcomes of widespread SNS use.

The quantitative analysis also identified FoMO as a mediating factor between social capital and SNS use, indicating that the correlation between social capital and SNS use is at least partially explained by FoMO. This finding was supported by the qualitative data, throughout which FoMO was consistently referred to as a factor influencing experiences of SNS use. These results reinforce existing understandings of FoMO as a phenomenon which is closely related to SNS engagement, and suggest that differences in the way in which individuals engage with their online social networks are likely related to experiences of FoMO. This research therefore has implications for strategies aimed at mitigating the negative social consequences of SNS use. By improving awareness of the relationships between psychosocial factors, FoMO, and SNS use which were demonstrated in this study, policy makers might be better equipped to combat rising concern regarding problematic SNS use and its consequences.

All assessed psychosocial variables were found to be significantly correlated with FoMO. Some of these correlations have previously been identified within relevant literature in the field, and therefore these findings can be seen to be consistent with, and supportive of, existing theories of FoMO. No previous correlations have been identified between FoMO and public self-monitoring, or public self-consciousness within this area of research. These results are therefore significant in that they broaden contemporary understandings of FoMO and its psychosocial correlates.

A number of limitations were identified within this study. These included inconsistent application of quantitative measures in relation to previous research, ambiguity in the wording of a qualitative question, and the implications associated with using personally confronting self-response questionnaires to gather reliable data. These limitations were not deemed to significantly compromise the findings of the study, and the results and implications may still be considered practically and theoretically

significant. The recognition of these limitations improved my understanding of the research process, and I expect this learning to inform my future endeavours within this field.

SNS platforms look set to remain a significant component of daily life for millions of people into the foreseeable future. As such, by continuing to build on our existing understandings of the consequences and implications of SNS use, future research into this field has considerable relevance for contemporary social policy. As a frequent SNS user myself, I suspect that a significant amount of potential for improving outcomes of SNS use lies within social media services themselves. By improving our understanding of SNS platforms, we increase our capacity to use them for social growth and improvement. SNSs are often discussed with a degree of cynicism, not least due to the awareness of the negative consequences of overuse amongst users, which were clearly demonstrated in this study. As platforms which are fundamentally built around the sharing of ideas, I believe there is considerable potential for SNSs to be capitalised on as a means of stimulating progressive ideological development. I suspect that our global online culture is still very much in its adolescence, and as we continue to use services such as SNSs, we are slowly becoming more proficient at engaging with these online services in productive and appropriate ways. The internet and the connectivity it provides is set to play an instrumental role in humans collectively recognising and achieving to their full potential. It is our obligation to harness this communicative potential and work out the most productive ways of engaging with it. With great connectivity comes great responsibility.

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Glossary

Apps – Short for applications. Refers to a small piece of interactive software. Typically found on smartphones.

Digital age – The contemporary era in which digital technology has become an important aspect of life in the developed world.

Digital natives – The generation of young people who have grown up in the digital age and as a result have high digital technology literacy.

Facebook – Globally the most widely used social media platform. Used for sharing a wide range of media and content.

Instagram – Social media platform based around sharing photos and videos.

Internet browser – A piece of software used to access and browse the internet.

Smartphone – A mobile cellular phone which can connect with the internet and performs many of the functions of a desktop computer.

Snapchat – A smartphone based social media platform used for temporarily sharing photos and videos.

Twitter – A social media platform used for sharing brief text based content.

 Thank you for indicating your interest in participating in this study on social media use.

The following questionnaire has been designed to find out more about how you use social media and the role it plays in your everyday life. This will be done by asking you questions regarding your level of engagement with social media, as well as questions regarding some key personality characteristics which may be related to your social media use. Completing this questionnaire is expected to take approximately 20 minutes. Please do not rush, and attempt to answer all questions honestly and to the best of your ability.

Your participation in this study is entirely voluntary, you are not obligated to complete the questionnaire. However, please note that once you have completed and submitted the questionnaire, your data may be used and you may be unable to withdraw your contribution to the study.

All of the information you provide in this questionnaire will remain anonymous to the researchers. By completing and submitting this questionnaire, you are indicating that you consent to take part in the study and have your data used in the final research output.

Social media use – Please check all boxes which apply to you

Are you a current user of social media?

- Yes
 No

If you are a user of any social media sites, please indicate which social media sites you currently have a profile on:

- Facebook
 Instagram
 Twitter
 YouTube
 Tumblr
 Snapchat
 LinkedIn
 Other

Social Media Engagement Scale – Please reflect on how you used social media (e.g., Facebook, Twitter, and Snapchat) in the past week and report the number of times you used it under the circumstances listed below

1. I used social media within 15 minutes of waking up:

- Not one day last week
- One day last week
- Two days last week
- Three days last week
- Four days last week
- Five days last week
- Six days last week
- Every day last week

2. I used social media while eating breakfast:

- Not one day last week
- One day last week
- Two days last week
- Three days last week
- Four days last week
- Five days last week
- Six days last week
- Every day last week

3. I used social media whilst eating lunch:

- Not one day last week
- One day last week
- Two days last week
- Three days last week
- Four days last week
- Five days last week
- Six days last week
- Every day last week

4. I used social media whilst eating dinner:

- Not one day last week
- One day last week
- Two days last week
- Three days last week
- Four days last week
- Five days last week
- Six days last week
- Every day last week

5. I used social media within 15 minutes of going to sleep:

- Not one day last week
- One day last week
- Two days last week
- Three days last week
- Four days last week
- Five days last week
- Six days last week
- Every day last week

Fear of Missing Out Scale - Please indicate to what extent you identify with each of the following statements

1. I fear others have more rewarding experiences than me.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

2. I fear my friends have more rewarding experiences than me.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

3. I get worried when I find out my friends are having fun without me.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

4. I get anxious when I don't know what my friends are up to.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

5. It is important that I understand my friends “in jokes”.
- Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me
6. Sometimes, I wonder if I spend too much time keeping up with what is going on.
- Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me
7. It bothers me when I miss an opportunity to meet up with friends.
- Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me
8. When I have a good time it is important for me to share the details online (e.g. updating status).
- Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me
9. When I miss out on a planned get-together it bothers me.
- Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me
10. When I go on vacation, I continue to keep tabs on what my friends are doing.
- Not at all true of me
 - Slightly true of me

- Moderately true of me
- Very true of me
- Extremely true of me

Internet Social Capital Scale – Please indicate to what extent you identify with each of the following statements

Bonding subscale

1. There are several people online I trust to help me solve my problems.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

2. There is someone online I can turn to for advice about making very important decisions.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

3. There is no one online that I feel comfortable talking to about intimate personal problems.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

4. When I feel lonely, there are several people online I can talk to.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

5. If I needed an emergency loan of \$500, I know someone online I can turn to.
 - Not at all true of me
 - Slightly true of me

- Moderately true of me
- Very true of me
- Extremely true of me

6. The people I interact with online would put their reputation on the line for me.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

7. The people I interact with online would be good job references for me.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

8. The people I interact with online would share their last dollar with me.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

9. I do not know people well enough online to get them to do anything important.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

10. The people I interact with online would help me fight an injustice

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

Bridging subscale

1. Interacting with people online makes me interested in things that happen outside of my town.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

2. Interacting with people online makes me want to try new things.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

3. Interacting with people online makes me interested in what people unlike me are thinking.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

4. Talking with people online makes me curious about other places in the world.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

5. Interacting with people online makes me feel like a part of a larger community.
 - Not at all true of me
 - Slightly true of me
 - Moderately true of me
 - Very true of me
 - Extremely true of me

6. Interacting with people online makes me feel connected to the bigger picture.
 - Not at all true of me

- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

7. Interacting with people online reminds me that everyone in the world is connected.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

8. I am willing to spend time to support general online community activities.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

9. Interacting with people online gives me new people to talk to.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

10. Online, I come into contact with new people all the time.

- Not at all true of me
- Slightly true of me
- Moderately true of me
- Very true of me
- Extremely true of me

Public Self-Monitoring Scale – Please indicate whether the following statements are True or False in relation to your own everyday life.

1. I find it hard to imitate the behaviour of other people.

True/False

2. At parties and social gatherings, I do not attempt to do or say things that others will like.

True/False

3. I can only argue for ideas which I already believe.

True/False

4. I can make impromptu speeches even on topics about which I have almost no information.

True/False

5. I guess I put on a show to impress or entertain others.

True/False

6. I would probably make a good actor.

True/False

7. In a group of people I am rarely the centre of attention.

True/False

8. In different situations and with different people, I often act like very different persons.

True/False

9. I am not particularly good at making other people like me.

True/False

10. I'm not always the person I appear to be.

True/False

11. I would not change my opinions (or the way I do things) in order to please someone or win their favour.

True/False

12. I have considered being an entertainer.

True/False

13. I have never been good at games like charades or improvisational acting.

True/False

14. I have trouble changing my behaviour to suit different people and different situations.

True/False

15. At a party I let others keep the jokes and stories going.

True/False

16. I feel a bit awkward in public and do not show up quite as well as I should.

True/False

17. I can look anyone in the eye and tell a lie with a straight face (if for a right end).

True/False

18. I may deceive people by being friendly when I really dislike them.

True/False

Public self-consciousness scale – Please indicate whether the below statements are True or False in relation to your own everyday life.

1. I'm concerned about my style of doing things.

True/False

2. I'm concerned about the way I present myself.

True/False

3. I'm self-conscious about the way I look.

True/False

4. I usually worry about making a good impression.

True/False

5. One of the last things I do before I leave my house is look in the mirror.

True/False

6. I'm concerned about what other people think of me.

True/False

7. I'm usually aware of my appearance.

True/False

Psychological Need Satisfaction Scale – Please indicate whether the following statements are True or False in relation to your everyday life.

1. In my everyday life, I feel free to be who I am.

True/False

2. I often feel like a competent person.

True/False

3. I feel loved and cared about by others.

True/False

4. I often feel inadequate or incompetent

True/False

5. In my everyday life, I have a say in what happened and can voice my opinion.
True/False
6. I often feel a lot of distance in my relationships with others.
True/False
7. In my everyday life, I feel very capable and effective.
True/False
8. I feel a lot of closeness and intimacy with others.
True/False
9. I often feel controlled and pressured to be certain ways by others.
True/False

Qualitative component

Qualitative question 1 – Have you ever felt like you were missing out on an important social experience thanks to social media?

Please provide a brief example of a time when you felt you missed out on an important social experience due to social media:

Qualitative question 2 – Have you ever felt like your social media use was having a negative impact on your real-world relationships with other people?

Please provide a brief example of a time when you felt your social media use had a negative effect on your real-world relationships:

Qualitative question 3 – Have you ever felt like your social media use was having a positive impact on your real-world relationships?

Please provide a brief example of a time when you felt your social media use had a positive effect on your real-world relationships:

Qualitative question 4 – Do you ever find yourself using social media when you know you should be focussing on something more important? (e.g. in class, when spending time with loved ones, while driving etc.)

What do you think makes you use social media when you know you should be focusing on something else?

Qualitative question 5 - Have you ever taken any steps to reduce the amount of time you spend on social media?

Please provide an example of some steps you have taken to reduce the amount of time you spend on social media:

Demographic questions

What is your gender?

- Female
- Male
- Unspecified
- Prefer not to say

In what year were you born?

[drop down menu]

What is your ethnicity?

- Maori
- Asian
- Pacific Islander
- Middle Eastern
- Latin American
- African
- European/Caucasian

Are you a New Zealand resident?

- Yes
- No

Are you currently enrolled as a student at AUT or any other University?

- Yes
- No

Thank you for completing the questionnaire! We appreciate you giving your time. If you would like to be entered into the random prize draw for a \$50 Westfield gift voucher, please enter your email address below and you will be contacted if you are a winner.

If you are also interested in being contacted with the final results of this research, please indicate below and you will be emailed a summary of the research outputs in the future.

- Yes, I would like to hear about the results of this research**
- No, I am not interested in the final results**