

University of Tennessee, Knoxville

TRACE: Tennessee Research and Creative **Exchange**

Chancellor's Honors Program Projects

Supervised Undergraduate Student Research and Creative Work

5-2018

Social Media Addiction and its Implications for Communication

Courtney Nicole Wainner cwainner@vols.utk.edu

Follow this and additional works at: https://trace.tennessee.edu/utk_chanhonoproj



Part of the Social Media Commons

Recommended Citation

Wainner, Courtney Nicole, "Social Media Addiction and its Implications for Communication" (2018). Chancellor's Honors Program Projects.

https://trace.tennessee.edu/utk_chanhonoproj/2168

This Dissertation/Thesis is brought to you for free and open access by the Supervised Undergraduate Student Research and Creative Work at TRACE: Tennessee Research and Creative Exchange. It has been accepted for inclusion in Chancellor's Honors Program Projects by an authorized administrator of TRACE: Tennessee Research and Creative Exchange. For more information, please contact trace@utk.edu.

Social Media Addiction and its Implications for Communication

Courtney Wainner

Communication Studies

Chancellor's Honors Program

The University of Tennessee

Table of Contents

Introduction	3
Key Terms	4
Theories Implicated	5
Social identity model of deindividuation effects	5
Impact hypothesis theories	6
Interpersonal impact hypothesis	6
Differential impact hypothesis	7
Uses and gratifications theory	7
Media dependency theory	9
Motivational Frameworks	11
Internal factors	12
External factors	14
Potential Psychological Impact	16
Addiction	17
Depression	18
Long-term anxiety	20
Attention deficit	21
Interpersonal Impact	22
Nonverbal context	23
Isolation factor	24
Impact on socialization	24
Organizational Impact	25
Corporate culture	26
Disruptions	26
Health Communication Impact	28
Future Implications and Limitations	29
Future implications	29
Limitations	31
Conclusion	32

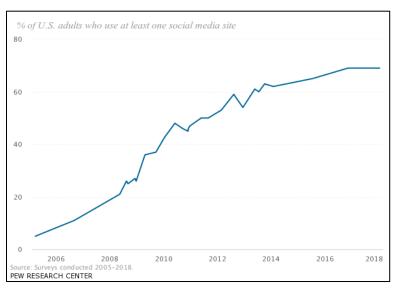
Introduction

This thesis will explore the social media dependency and the outcomes and potential implications these behaviors may have on communication. The current literature views social media as an important component to socialization and the news system, yet notes its potentially detrimental impacts on adults and developing minds alike. This thesis will explore the drawbacks and potential for social media addiction, while drawing conclusions about the framework of social media utilization.

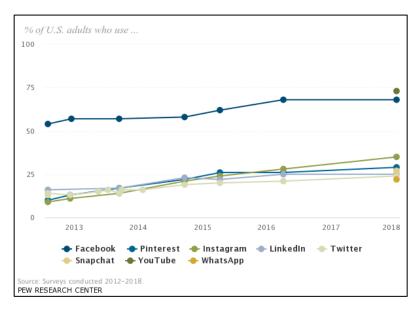
This thesis will be structured as a literature review, focusing on the potential impact of social media on communication studies and its implications for addiction. In this thesis, I will look at recent articles on social media and social media addiction. Topics addressed will include the communication theories implicated in social media addiction research, the internal and external factors relating to the motivation to use social media and the drive to engage in excessive social media usage, the potential psychological impact of social media addiction, the role of social media within organizations, the role of social media in health communication, the impact social media may have on interpersonal relationships, and future implications.

I will address the topic of media addiction throughout this paper. Although it is not

currently a clinically-recognized disorder, the prevalence of media dependency is evident in everyday life. Technology becomes more present as a necessary part of daily life more each year, leading younger generations to increasingly depend on



the convenience and accessibility of technology. With portable forms of technology, such as laptops, tablets, and phones, social media follows. Studies done by the Pew Research Center show that almost 70% of American adults use at least one social media site. Also, the majority of



adults use at least one social media platform a day, with Facebook remaining the most popular networking platform (2018). Based on the large-scale reach of social media, addiction criteria looks to be the next step for a lot of clinical professionals. Despite the fact that

it is not officially recognized currently, other technologically-based behavioral addictions have been defined by psychology professionals, which implies that social media addiction is not far from being recognized in a clinical setting.

Key Terms

For the purpose of this paper, the term "social media" will be defined as any website or mobile application that allows users to interact with other users, regardless of location. Examples of this are Twitter, Instagram, Facebook, Snapchat, Reddit, Pinterest, LinkedIn, YouTube and any other sharing platform that allows interaction through text or photos. The terms "social media addiction" or "excessive usage" will be defined as any usage of social media that causes problems with daily functioning, completion of tasks, relationships, and/or psychological deficits.

Theories Implicated

There are many theories of communication that have been created regarding computer mediated communication that can be applied to social media usage, as well as general communication theories. Social media offers a unique interaction platform for users, which allows communication theories to be explored in a different setting. Social media does not allow for face-to-face interactions, yet studies in computer-mediated communication show it yields highly-connected interpersonal relationships (Walther, 1996). There are several theories that are applicable to social media and the addiction factor, including the Social Identity Model of Deindividuation Effects, the Interpersonal Impact Hypothesis, the Differential Impact Hypothesis, Uses and Gratifications Theory and Media Dependency Theory.

Social identity model of deindividuation effects. One of the models to help explain social media behavior and why people are drawn to these online networking platforms is the social identity model of deindividuation effects (SIDE model). Created utilizing both social psychology and communication studies frameworks, this model explains how the behavior of groups changes when cloaked by anonymity (Reicher, Spears & Postmes, 1995). It is also often associated with computer-mediated communication, making it easily applicable to platforms like social media. Although most social media platforms allow the creation of a customized profile, no regulations exist about if these profiles are truthful or even based on real people. While most users seem to prefer to add their name, picture and personal information to their profiles in order to interact with people they know in real life, it is not required that they do so. Also, due to privacy practices, it may be hard for social media moderators to even regulate these types of profiles. Other forms of social media, such as message boards, often do not require the creation

of an account at all. This gives an air of anonymity to not only the internet in general, but social media as well.

A study of social media usage on college campuses—specifically with the anonymous YikYak platform—found that anonymous postings reported a notable amount of offensive or inflammatory posts (Black, Mezzina & Thompson, 2016). This is an issue tied to deindividuation effects and may be a mechanism of social media that could contribute to addiction. If a user was interested in posting statements that were offensive or bullying people but felt they could not express these urges in real life, they could potentially find an outlet by posting on social media anonymously. By finding that anonymous postings are the only way they can truly express themselves, these users may develop a dependency on social media to meet their needs. The deindividuation effects, paired with the anonymity of social media, create a platform for the creation of social media addictions related to bullying or obscene and offensive comments.

Impact hypothesis theories. In his 2012 article about theoretical concepts relating to media exposure, So identifies two hypothesis models that help explain behavior related to engagement with media forms. These two hypotheses are the interpersonal impact hypothesis and the differential impact hypothesis.

Interpersonal impact hypothesis. According to So, this theory "offers a more explicit account of media's influence on risk perception than does cultivation theory. Rather than suggesting a general main effect of media exposure on risk perceptions (as cultivation theory does), the impersonal impact hypothesis posits that the effect of the mass media is determined by the type of perceived risk" (2012). He goes on to note that this hypothesis has implications mainly for social standing and less personal implications, which is an important function of social media. By identifying that social media is more social engagement and that less of a

personal impact is at stake, there is a better understanding of why people are engaging in social media. Since users can shape their profiles to fit the appearance they want to depict socially but not risk morals or other things they hold as important, there is a "to harm, no foul" overtone to social media engagement. This drives users to create these profiles and begin engaging in the first place.

Differential impact hypothesis. While there is support for the individual impact hypothesis, So also introduces this hypothesis as another explanation of media usage. Similarly to the individual impact hypothesis, this hypothesis also acknowledges the two components of personal risk and social risk. However, this hypothesis recognizes that the perceivable risk may be impacted by the media itself (So, 2012). For example, users on Snapchat feel that they are protected and can send or post things that may not be considered acceptable in public because their posts will be deleted from a server. In this way, they can engage socially without putting personal reputations at stake. However, this was a method created specifically for this social media platform by the designers of the application. Just because the premise of the application is that all posts will "disappear," there are still records of them somewhere. People feel that their personal risk was lowered because they believe their posts will vanish, so they engage more and publish things they most likely would not on any other social media platform.

Uses and gratifications theory. Uses and Gratifications Theory was created in the 1940s, when researchers began to look into why certain people chose to get their information from certain forms or genres of media over others. The theory states that people are motivated to seek out forms of media to satisfy their psychological and social needs (West & Turner, 2007). Although originally conceptualized before the present technological advances and the existence of social media, this theory can easily encapsulate motivations for social media usage and help to

explain the threat of addiction. With the inclusion of social media in this theoretical framework, users have access a variety of platforms to use to suit their needs. If the user is more imagedriven, they would best communicate through a platform like Pinterest or Instagram, but if a user is text-driven, Reddit or Facebook may be better options to fulfil his or her needs. In his book, McQuail explains, "... those who use mass media for their own purposes do hope for some effect (such as persuasion or selling) beyond attention and publicity, gaining the latter remains the immediate goal and is often treated as a measure of success or failure" (2010). From a theoretical standpoint, this implies that users are consistently looking for their social media presence to have an effect, whether it be selling something or simply gaining attention.

Uses and gratifications theory assumes that there is an active media-consuming audience, the media platforms are competitive and people are self-aware of their usage and interests. (West & Turner, 2007). Since social media users have to seek-out the platform and create a profile, they can be considered actively media-consuming. Social media platforms compete when it comes to attracting users. For example, Instagram has been working to create features similar to what a user may find on Snapchat, therefore trying to drive traffic from Snapchat to their own platform.

In current research on social media, uses and gratifications theory has not been fully adopted as an important conceptualization. However, it is very applicable when given the nature of social media and the potential motivations for usage. Since there is a wide variety of platforms that are created with different aesthetics in mind, the uses and gratifications theory allows researchers to view social media addiction in a light that aids them in understanding why users engage in social media interactions and why they choose the platforms they utilize. While some of this can be predicted by looking at factors like age and gender, some of the variation here is

based on personality and the social environment that the user prefers. A study done about Facebook habits and addiction found that while men may be more prone to becoming addicted to solitary behaviors, women tend to be more at risk for behavioral addictions involving social interaction (Andreassen, Torsheim, Brunborg & Pallesen, 2012). Gender may play a role in addiction behaviors, especially with image-driven platforms like Instagram or a platform that integrates images such as Facebook. Following uses and gratifications theory and using this research, females potentially feel more of a need to gain attention through their social media engagements and postings.

The application of uses and gratifications theory essentially bolsters the argument for the existence of social media addiction and the reasons behind it. Users can customize their social media profiles, posts and interactions to create an experience that is the most beneficial and rewarding to them personally. Having the option of choosing is one of the components that plays into the addiction factor. If users are achieving their needs through their personal social media usage, they will be more likely to visit the same platform again to attain these gratifications. The consistent utilization of these factors can create a conditioned situation in which the user feels compelled to visit their social media site and could potentially feel that they will not meet their needs if they do not utilize this platform. From this framework, gratification can be predicted if there is an understanding of the user's purpose on social media and analyzing the trends in their posts, where they are posting, etc. In order to meet needs, gratification must be obtained by the user. The idea of needs not being met is one of the factors that may drive social media addiction.

Media dependency theory. Media dependency theory was created by Sandra Ball-Rokeach and Melvin Defleur. The theory was originally conceptualized around ideas about sociology and large social systems (Ball-Rokeach & Delfleur, 1976). Now, the theory can be

expanded to encompass social media. Media dependency theory requires both a social system and a media system, and the essential idea behind its application to social media is that the social and media systems are combined. This creates a unique take on the theory, as neither the media system or the social system can live alone within social media. Media dependency theory outlines three relationships that lay the framework for media dependency; these include society vs. media, media vs. audience and society vs. audience. Users must engage in each of these model relationships to meet their needs.

Similarly, the theory also lays out three different media needs. First is surveillance, or needing to understand one's social environment. Second, social utility describes the need to act in a way that is both efficient and significant within that social world. Lastly, the need for an escape, or to get away from the social environment when one feels overwhelmed. Social media allows users to fulfill all of these needs in some way. Social media allows people to observe the behaviors and published personalities of others without them even knowing, thus gauging the social environment. It also gives users a sense of importance when their interactions are highly "liked" or "shared" on platforms, which could make users feel that they are posting meaningful things. Social media also offers users an escape from face-to-face interactions and gives them a place where they can simply observe without contributing to any conversation, thus allowing them to fulfill the component of escape.

The authors of this theory also mention the effects that media can have on consumers, noting the strength of the cognitive impacts of media. Within cognitive effects, they acknowledge the impact of media in agenda-setting, attitude formation and uncertainty avoidance and resolution (Ball-Rokeach, 1985). Social media displays these effects most definitely, demonstrating the power of agenda-setting through trending stories and tweets, etc.

An increasing amount of people seem to be relying on social media as a news source, giving social media platforms and the people they follow the power to set the agenda. Attitude formation is a large part of celebrity interaction on social media; people form opinions on products and services, etc. when they are more widely displayed on social media or posted about by a celebrity figure. Applying media dependency theory suggests that the more dependent a person is on social media, the greater number of opinions they will form about products and services that appear on their feed more often. Uncertainty avoidance is often a byproduct of social media. When large institutional, political or social changes, people often turn to social media to voice their support, frustration or confusion. The ability to be able to ask questions and have them answered by people within the user's social support system is what makes this relevant to social media specifically.

Due to the nature of media dependency theory, several researchers have looked at combining media dependency theory and uses and gratifications theory. The perspective on this is that the media dependency theory offers another perspective to uses and gratifications, allowing a three-fold relationship between media, users, and the social environment; in turn, all three of these factors play in to motivations for media usage (So, 2012). Following this model, when a user's needs for social and environmental interactions are met, the usage is perpetuated, allowing addiction behaviors to grow.

Motivational Frameworks

In addition to the theoretical perspective is also the motivational perspective. Many of the theoretical viewpoints offer explanations for addictive behaviors when it comes to social media usage, which the motivational frameworks expand upon further. With social media addiction, there are identifiable factors that are both internal and external. Internal factors include innate

behaviors or tendencies, as well as self-driven mechanisms for social media engagement. Many of these internal factors are related to psychological concepts. External factors take more of a broad viewpoint, looking at environmental and social factors that can have a behavioral impact. In his paper on the motivations behind social media usage, Hallikainen explains, "The use of various social media platforms has become every day routine for many people. The number of active Facebook users has more than doubled in a couple of years being around one billion users in 2012. Web 2.0 and social media applications allow individual users and organizational users to interact dynamically and share as well as produce content using these platforms" (2014). Due to the commonplace nature of social media nowadays, it is almost unavoidable. Given the inescapabilty of it, it is not a far stretch that there are now more user profiles than ever. The Pew Research Center recently released their latest social media statistics, which claim that three quarters of American Facebook users access the site at least one time a day (Smith & Anderson, 2018). With the majority of users engaging on these platforms daily, there are evident motivations driving these regular interactions from both the internal and external perspective.

Internal factors. Internal factors can be tied in with some of the theoretical perspectives discussed previously. One of the theoretical ideas that implicates motivational factors is the Social Identity Model of Deindividuation Effects. As described before, this theory is driven by the idea of anonymity on the internet, which is related to personality and expression of oneself. The internal drive to express one's true personality via the internet versus in real life is certainly a means in which internal motivations are at work. A study done in 2017 claims that internal forces surrounding social media use are more related to personality and their personal preferences (Liu, Wang, Jiang, Sun & Shang). As personality is unique to the self, this fits under the internal framework classification; following the ideas of addiction, a dependency can be

created if a user feels they are meeting their personal needs—in this case, as dictated by their personality and personal preferences—repeatedly, causing them to utilize the platform more often. This inclination of using social media platforms to meet the needs one's personality dictates as important is a way that dependency is developed. Similarly to this, Seidman's study on personality traits and social media usage found that, "Neurotic individuals often have social difficulties; thus Facebook may be a way for them to meet belongingness needs not sufficiently met off- line" (2013). Thus, further evidence that personality traits can dictate one's social media engagements, depending on the quality of relationships he or she is interested in having and their level of difficulty interacting in a face-to-face environment.

Still, other internal factors possess a more classically psychological basis. Bolton, et al. conducted research where they looked at Generation Y's social media usage. This study explores the usage of social media as a coping skill, implying that people who tend to use social media as a coping skill report lower levels of anxiety short-term but more anxiety in the long-term. "Social media use may serve as an effective coping mechanism in the short run (thereby leading to even more intense use), but exacerbate pre-existing problems of psychosocially unhealthy individuals who may not realize the long-run costs" (Bolton, et al., 2013). Since social media can be identified through this study as a way to alleviate stress and anxiety in the short term, it is assumable that users engage in this kind of usage regularly. However, the juxtaposition with this type of social media consumption is that it seems to create more anxiety in the future, which can drive even more engagement. If users feel that their social media engagement alleviates stress, they are more likely to become dependent on social media as a coping skill, not realizing that it creates more anxiety in the long-run. This is a unique way of looking at internal motivations, as the usage itself seems to serve as a way of coping but also the creation of the problem at hand.

14

Yet another internal factor is the use of social media to cure boredom. It is an all too common experience to see people waiting in lines staring at their smart phone screens. Many people utilize social media as a way to pass the time when waiting or just a remedy for their boredom. When a person is bored, they look to divert their attention elsewhere to something that will capture their interest. For many, social media is a way to do this. Since most social media platforms are based off of entertainment, with their integration of images and videos, enjoyment is key to understanding why people engage on these sites. In a study done on social media driving factors "... the results suggest that enjoyment is the most important factor affecting the behavior of SNS [social networking system] users" (Lu & Lin, 2011). As entertainment is something that Americans especially seem to value, based off of the general love for Hollywood and popular culture, it is unsurprising that enjoyment ranks as the number one factor for social media behavior. It also makes sense in a basic way, since a person would not engage in a conversation or consume information in general that they were not enjoying. The catch to social media is how readily available it makes this entertainment. Since it is available at just a few touches of the finger, societies have learned to easily rely on social media to meet their internal needs for entertainment.

External factors. Several of the theoretical methods detailed the implications of the social environment on media consumption and dependency. External motivations paired with these theories help expand upon the reasons behind social media addiction and how it can come about. Namely, uses and gratifications theory and media dependency theory help to explain external motivations based on their inclusion of the environmental and/or social system. While uses and gratifications alone implicates internal factors, the authors also believed that media plays a very important role in shaping behavior, and they even suggested another theory to

explain this relationship. "Rubin and Windahl... proposed a 'uses and dependency model' which postulated that individuals' needs to consume media are shaped by societal systems and that gratifications sought and socially determined media dependency produce media effects together" (So, 2012). This theory assumes that society has the main impact on people's media consumption. Societal pressures that could drive media engagement could include pressure to fit in with peers, the societal pressures of the "perfect life" and the industry push toward social media. Maslow's Hierarchy of needs lists belonging as one of the most important needs humans must meet to be content in their lives (Maslow, 1943). While the drive to belong could technically be categorized as internal, it is rewarded by the extrinsic relationships (or, potentially, by the lack of public ridicule), which categorizes it as an external framework. That being said, one of the main external motivations is the drive to create shared bonds and cultivate relationships through social media. Facebook is the easiest example of this type of engagement because of its nature of connectedness. Not only does Facebook offer text updates but it also includes videos and images, which show up on a main "feed", making it an ideal platform for keeping up with family and friends. Many people register for accounts just to keep up with information that their loved ones are posting. Zolkepli and Kamarulzaman discuss this in their paper on social media needs, stating, "The social circle and peer influence lead users to sign up with social media and have their own personal account; hence, they can be in contact and friends with others" (2015). Based on their research, social bonds seem to be the driving force behind not only account registration but social media engagement with friends and family. Social media allows people to develop bonds they may not meet in a face-to-face setting, especially due to geographic distance; similarly, it also allows people to strengthen relationships that have already been cultivated.

Still, even more push toward social media comes from industry; businesses both small and large have put a lot of effort into maintaining their social media profiles. Some profiles, such as Wendy's Restaurants and MoonPie engage in frequent joking or even scathing exchanges with their followers, garnering a large audience on their social media accounts. Other companies are turning toward social media as a strategy for customer service interaction. The push to connect with businesses on social media has become common. Businesses list their social media handles on their websites and promotional content and encourage people to message their accounts with any customer service issues they may need quickly resolved. New jobs have been born out of this movement, with titles such as Social Media Manager and Online Reputation Specialist, within the industries of marketing, advertising and public relations. Brand relations with consumers have grown exponentially online within the last ten years, with the power to create value moving from the firm to the consumer (Berthon, Pitt, Plangger & Shapiro, 2012). Consumers have interacted with brands so much online and through social media channels that their interactions can now greatly impact a company's value. This adds another facet to social media addiction, as users may feel compelled to post things or contact companies to gain attention online, especially with negative experiences with companies. The idea of 'going viral', or achieving internet fame, can be related to this concept.

Potential Psychological Impact

In the present era, social media is very prevalent throughout society, making it hard to avoid. It is identifiable in advertisements, popular culture, and more. The inability to escape from social media is what makes it a psychological issue. There are many components of excessive social media usage that can contribute to psychological issues, whether in the short-term or later on in life. Addiction is the most threatening of these issues, as it can create disruptions within a

user's daily life and cause multi-faceted problems for them that span environments. Other common issues that could potentially be brought about by social media use are depression and feelings of loneliness, long-term anxiety and the formation of attention deficit disorders. Beyond this, these problems could lead to even more issues with childhood and young adult development and education systems if not solved.

Addiction. Although social media addiction is not categorized in the Diagnostic and Statistical Manual yet, other behavioral addictions are gaining traction within the psychology world. In order to understand how social media addiction can come about, it is important to look at addiction as a whole and recognize the components that make up addictions. While social media dependency has yet to be formally defined, researchers have proposed behavioral addictions such as internet addiction and smartphone addiction. In the latest Diagnostic and Statistical Manual (DSM-5), video game addiction was defined for the first time, making it only the second officially recognized behavioral addiction behind gambling addiction (Rumpf, Tao, Rehbein & Petry, 2015). Social media itself is not the problem at hand; the problem is the ability for a dependency to develop. There are several criteria associated with addictions, as well as proposed criteria for both smartphone and internet addictions that may be able to be adapted to fit the social networking format. The proposed diagnostic criteria for smartphone addiction includes traditional components of addiction, such as withdraw, repeated failures at resisting the device, persistent desire to use the device, usage that results in a physical or psychological problem, usage in hazardous conditions like crossing the road or driving, use that results in impairment of relationships or academic and/or professional achievement, and usage that results in significant distress (Lin et al., 2016). These components could easily be applied to a social networking dependency as well. Instead of device usage, the criteria would evolve to reflect

social media networking sites and applications, whether accessed on a smartphone, tablet or computer. Another look at this form of addiction identifies that the symptoms include "neglecting personal/work life, preoccupation, mood alteration, withdraw, inability to cut down and relapse" (Tang & Koh, 2016). These two different proposed criteria for social media addiction are very similar, helping piece together a larger picture of social media addiction and what it may look like. It is also significant that just excessive usage alone does not qualify a person as addicted, but the addiction must instead disrupt daily life.

Another consequence of addiction is the occurrence of comorbidities with other psychological disorders. Due to the nature of social media and the fact that it is accessed from technology that allows a person to be sedentary or isolated if desired, there is no question that other disorders may occur alongside a social media addiction. Tang and Koh's study on college students in Singapore identifies several disorders that tend to emerge along with social media addiction; some of these disorders include food addiction, shopping addiction and affective disorder (2016). Like other addictions, behavioral addictions seem to behave in a way that crosses boundaries, allowing the development of other behavioral dependencies. Other issues that may occur are depression, long-term anxiety and attention problems, which will be further explored in the following sections.

Depression. Social media has a complex relationship with depression. Since social media is used more frequently by adolescents and young adults, as well as the fact that depression occurs at a higher rate within this demographic and they are more likely to develop dependency behaviors, it is important to look to this age group specifically when comparing depression and social media usage (APA, 2011). The lack of longitudinal studies done on this topic makes it very hard to evaluate the relationship between social media—namely Facebook—

19

and depression, yet psychologists recognize it as a potential problem. "Researchers have proposed a new phenomenon called "Facebook depression," defined as depression that develops when preteens and teens spend a great deal of time on social media sites, such as Facebook, and then be- gin to exhibit classic symptoms of depression" (O'Keefe & Clarke-Pearson, 2011). When posting and consuming frequently on social media, "[users] are confronted with more instances when they are prone to comparing themselves with others" and the authors "found that the specific use of surveillance on Facebook leads to feelings of envy" (Tandoc, Ferrucci & Duffy, 2014). Envy could be associated with depressive tendencies and loneliness, as these authors are quick to point out in the closing paragraphs of their paper. Similarly to the relationship anxiety has with social media, the use of social media could potentially lessen depressive symptoms in the short term, although the development of envious feelings accompanying Facebook usage specifically is a symptom of internet-associated depression.

Self-esteem is also a threat to healthy psychological development, especially in adolescents who frequently engage on social media. Hawi and Samaha identify that "people with low self-esteem tend to use more social media sites to enhance their self-image and self-esteem" (2017). The research suggests that people who experience low self-esteem may use social media engagements to compensate for the lack of confidence. However, there is no guarantee that their needs will be met within this online mechanism, which could lead to further self-esteem issues and depressive symptoms, as low levels of confidence tend to leave people more vulnerable to depressive emotions. Also significant is the idea of fulfilling needs through the internet and not in an interpersonal setting. By looking for popularity online, users could potentially become more isolated, due to the lack of true face-to-face conversations, which could also lead to depressive tendencies. While it is hard to prove these correlations with the minimal amount of

research that has been conducted on social media and depression, studies have found "large-scale empiric work in this area suggests associations between time spent on social media (TSSM) and increased symptoms of depression and anxiety and decline in subjective well-being" (Primack et al., 2016). When a user interacts on two or more forms of social media, as many do, this risk continues to go up. Similar to the occurrence of depression online is also levels of anxiety, which tend to go hand-in-hand with depressive symptoms.

Long-term anxiety. There is a clear theme existent in recent papers and studies about social media, the Internet, and their influence. Social media and its relationship to anxiety is one of the most interesting phenomena that occurs. Like discussed with motivational frameworks, social media is commonly used as a coping skill to deal with stress, yet it ends up creating more anxiety in the future. Psychological disruption has been observed with the employment of social media as a negative coping skill (Sriwalai & Charoensukmongkol, 2015). When stressed and looking for an outlet, an increasing amount of adolescents are turning to social media browsing and posting. While this is certainly a form of distraction, it is taking away the idea of stress by creating a pseudo-refuge. However, it is not hard to imagine that simple consumption of social media can act as a diversion without providing any outlet for the negative emotions, as well as creating an information overload. When social media is used as a stress-reducing coping mechanism, it is show in studies to prime people for long-term anxiety. As a user becomes increasingly dependent on social media as a stress management tool, their usage may take up a large amount of time. In the more severe cases, this could potentially create more anxiety as they neglect other tasks or responsibilities to interact on social media.

Some of the studies done on social media addiction demonstrate that rates of anxiety and depression in adolescents are higher than ever, and that social media could be contributing to this

phenomenon. "Large-scale empirical work... suggests associations between time spent on social media and increased symptoms of depression and anxiety and decline in subjective well-being" (Primack et al., 2016). This study on the associations between social media and stress is one of the most compelling articles for the social media addiction argument. In this article, the researchers assert that the utilization of various social media accounts at the same time can not only lead to information overload, but it can also create identity diffusion, which can pose a major issue in personality formation, especially in young adults that have not fully developed their personality. On many social media sites, there are posts joking about the different "personalities" a user may display depending on the platform they are utilizing at the time. Users are constantly updating their profiles, and maintaining those profiles to fit the atmosphere of the given platform could serve as another establishment of stress. In addition to this, another study focuses on the negative impact of social media usage across multiple platforms, contributing the term media multitasking and explaining that "the frequency of [social media usage] exposes users to multi-tasking, either when switching between different social media platforms, or between social media and other daily activities, thus leading to depressive symptoms. Media multitasking has been associated with negative health outcomes" (Shensa et al., 2017). As assessed previously, these negative health outcomes lie primarily in the manifestation of anxiety and depressive symptoms. This split-personality experience may also promote attention deficits in young adults.

Attention deficit. While it is hard to draw conclusions on attention deficits and hyperactivity, or ADHD disorders, due to the nature of these disorders, correlations have been noted between attention span and social media usage. Attention disorders are "neurobehavioral disorder[s] of childhood and can profoundly affect the academic achievement, well-being, and

social interactions of children" (American, 2011). Since social media allows users to interact quickly and across multiple platforms almost simultaneously, it is entirely possible that it contributes to the occurrence of these disorders, especially in younger populations. Today's young adults have grown up in a world full of technology and social media, from basic internet chatrooms to the complexity of Snapchat. A study by Weinreich, Obendorf, Herder & Mayer found that average user web browsing time has decreased and that attention time spent on websites is less than the amount of time the person actually spends on the website (2008). Users are spending less time engaging purposefully and an increasing amount of time mindlessly interacting on the internet. In the present era, many things are presented in quick fashion across technological platforms. Advertisements are 15 to 30 seconds long, tweets are limited to a short amount of characters, Vines are only six seconds, etc. These short forms of messaging and entertainment set the stage for information overload. A study on information overload and social contagion recognizes that "excessive background traffic can have a strong negative impact on information dissemination" (Gomez-Rodriguez, Gummadi & Schölkopf, 2014). Due to the constant background information being viewed on social media sites, whether other posts, comments, shares, etc., this study finds that users have a harder time processing the material they are intentionally engaging with when inundated with a large amount of background information. While it cannot be claimed that social media causes attention deficit disorders, social media interactions and addictions contribute to issues within attention span rates and information comprehension.

Interpersonal Impact

One of the most notable impacts that social media use has is the impact on interpersonal relationships. While social media was developed as a way to improve interpersonal relationships,

by increasing the accessibility of communicating with others, it also takes some factors away from interpersonal communication. While there are definite benefits to using social media as a way to further interpersonal relationships, using social media to foster relationships also has some drawbacks. Some of these issues lie with the loss of nonverbal context, the isolation factor that can be created by a reliance on social media and the impact that social media may have on socialization.

Nonverbal context. Due to the nature of social media, nonverbal contact is often lost in translation. Of course, there are exceptions to this, such as video- and image-based platforms, but the traditional text-focused websites and applications reflect this loss of nonverbal context. Social media platforms that focus on "likes" or "follows" reflect nonverbal actions that impact one's engagements on social media. While social media platforms and mobile operating systems have attempted to combat the issue of the loss of nonverbal context by adding components like emoji interactions, a lack of true face-to-face contact takes away aspects of nonverbal communication like small facial expressions, gestures, proxemics and tone, among others. A study done on nonverbal norms in the virtual world looks at video games and the aspect that traditional nonverbal behaviors play in this universe. It discusses the ability of video games specifically as a way to capture some nonverbal behaviors, yet it acknowledges the idea that nonverbal context may be lost due to the medium (Yee, et al., 2007). The challenge of determining nonverbal context online is in looking at the significance of current nonverbal behaviors that exist virtually and deciding the significance of a like or share. Since nonverbal context is limited to these types of interactions and emojis, true meaning may be lost on internet users.

Isolation factor. While social media can work in some ways to facilitate face-to-face interactions, text-based platforms and communities can be more isolating to users. A recent study acknowledges that younger generations "seem to prefer isolation and they seem to be in their own imaginary world rather than [with] real life friends and... family" (Subramanian, 2017). According to this article, finding the movement toward isolation in younger generations tends to be tied in with the use of mobile devices and internet use, which also may implicate social media. Another study looked at two decades worth of data on social isolation and the trends in conversation partners reported by Americans. As Americans reported lower numbers of social interactions, the authors of this study look at social changes like higher internet use to help explain the pattern toward more isolation (McPherson, Smith-Lovin & Brashears, 2006). While social media may not be the only cause of higher rates of isolation, it can most certainly be entertained as a potential contributor to this phenomenon.

Impact on socialization. Of all of the interpersonal impacts that social media may play a role in, socialization is by far the most important of these aspects. One of the things to think about with this is that children may be raised differently in a world with social media. Children who interact with people on social media are not only socialized by their parents, teachers, etc. but also by relationships formed on the internet. Considering the context, this could prove to be beneficial or detrimental. Some of the detrimental impacts on socialization could be exposure to content that deals with sensitive subjects, as well as the occurrence of cyberbullying. "Cyberbullying is quite common, can occur to any young person online, and can cause profound psychosocial outcomes including depression, anxiety, severe isolation, and, tragically, suicide" (O'Keefe & Clarke-Pearson, 2011). Due to the fact that, by definition, cyberbullying occurs exclusively online, and especially through social media platforms, it is an issue that parents may

parents should allow their children to develop an online presence. Hot-button issues like how early parents should allow their children to interact on the internet or create social media accounts beg several questions; should parents limit access to social media sites, and should they limit the amount of time they spend on social media or the access they have to certain content? Different outcomes of these questions can lead to completely different socializations processes for children. Currently, parents are role-models for their children and are seen as gatekeepers to social media access. However, as more parents engage in frequent social media interactions, the more children learn to use social media and how to interact on these platforms. In addition to traditional social media engagements, children may also be exposed to a large amount of information and be impacted by social media information contagion, which can perpetuate false information and misinform children while they are still in important development phases, which could aid in the formation of questionable behaviors and a misunderstanding of reality, especially when the child is inundated constantly with celebrity, corporate and influencer postings on social media.

Organizational Impact

As discussed in the sections prior, excessive social media use has a direct influence on psychological health and interpersonal relationships. Comparatively, social media addiction may also have an impact within the workplace, possibly interfering with the corporate culture or creating a distraction during the workday. Casual social media use would most likely not create a real issue within the organization except in cases where privacy is violated and personal information not fit for the workplace is discovered. While social media is beneficial at a corporate level due to the branding capabilities it possesses, the everyday interactions of employees on social media is where issues appear within the organizational structure. Social

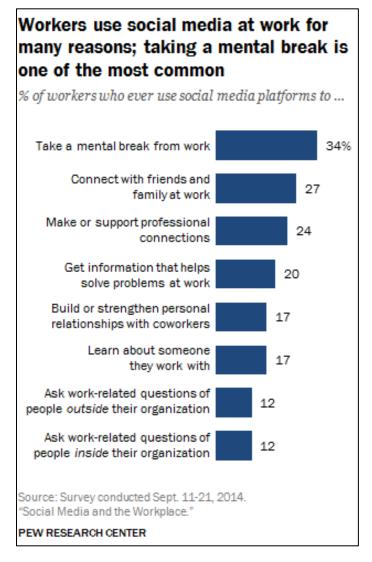
media interactions, or lack thereof, could potentially be significant with the organizational socialization of new employees.

Corporate culture. Social media can either enhance or threaten the corporate culture of a workplace; in workplaces that value collaboration and friendship, large amounts of social media usage may be beneficial to employees by promoting a social climate. However, if a company's culture is more rigid and based on independent values, becoming too friendly with one's coworkers on social media may be an issue. With corporate socialization, social networking engagement with coworkers may predict the success an employee has within the organization in the future (Morrison, 2002). Following this idea and the uses and gratifications model, employees may become preoccupied with gaining workplace popularity through social media engagements, feeding addiction behaviors. Social media use also poses a human resources issue for corporations, as employees may post things that do not reflect the values of that company. However, it is hard to regulate this due to privacy concerns with personal accounts on these platforms. This can also pose a problem when evaluating candidates for new positions, as evaluating candidates via social media may bend privacy rights and "carries far-reaching consequences in terms of social selection and unjustified and often invisible discrimination" (Gritzalis, Kandias, Stavrou & Mitrou, 2014). These unwarranted looks into a potential employee's self-disclosed online personality, however, are hard to compare ethical standards to, as the user posted these self-disclosures themselves.

Disruptions. As established before, social media is often used as a distraction. With

many desk jobs requiring workers to sit at a desk behind a computer all day, social media is an enticing distraction from the tedious workday pattern. Research done by the Pew Research

Center shows that workers most frequently use social media during work hours to "take a mental break from work" and "connect with friends and family at work", while lower rates of workers use social media for professional development (Olmstead, Lampe & Ellison, 2016). The use of social media while at work can also create an aspect of information overload. "In the networked environment, individuals face a major challenge in managing the following modes of communication simultaneously" (Cao et al., 2012). The juggling of managing multiple forms of communication can also create disruptions in the workplace, as users struggle



to manage their face-to-face interactions and online engagements at the same time. There is very little research on social media and its relationship to productivity, but companies across the world are allowing their employees social media affordances during work hours. For example, the "California software company Serena, [has] implemented "Facebook Fridays" which allows employees a free hour every Friday to update their Facebook profiles and keep in touch online with colleagues" (Bennett, Owers, Pitt & Tucker, 2010). While this social media use during the

workday may promote the development of relationships and interpersonal connections between employees, it is also taking time out of the day to actually work, which some employers may find to be disruptive.

Health Communication Impact

Combining health communication and social media interaction can have consequences that are unethical and have consequences for a person's physical health. Ethical problems could include physicians posting about some of the patient cases they deal with online, which could violate patient confidentiality. In fact, "there have been a number of high-profile cases where physicians have been fired over indiscreet postings on social media sites, particularly where there is the risk of patient confidentiality being breached" (Prasad, 2013). Physicians posting personal details on social media is not only unethical but also could put the patient themselves at risk. There are also ethical constraints on using social media for healthcare research. With social media, the lines are blurred between public and private; researchers may use information that has been posted online and publish it anonymously, yet the content could potentially unintentionally lead back to the mentioned patient.

Another issue is with the patient actually seeing a doctor. With modern technology, some healthcare systems have invented chat features that allow patients to converse with their doctor or nurses. Using this feature, patients may be diagnosed and/or prescribed medication without even meeting the doctor face-to-face. One of the byproducts of this is that it may create problems with efficiency, as doctors could possibly spend more time on social media platforms than they desire, cutting in to the time they actually spend with patients (Antheunis, Tates & Nieboer, 2013). Since social media profiles often have to be customized and messages must be written

directed toward the correct audience, maintaining and posting on these platforms can be distracting and time-consuming.

Consumers are continuously turning more to social media for health information and decisions. "A growing majority of [modern patients] are using social networks and other online sources to seek health information" (George, Rovniak & Kraschnewski, 2013). The ability to access medical professionals or get healthcare solutions or recommendations through social media sets the stage for dependency behaviors; by utilizing social media in this way, it primes people to think they do not even have to leave their favorite entertainment source or application to get medical answers. Relying on this is problematic, as social media may not be the most reliable source for medical information, especially if it is not coming from an actual physician.

Future Implications and Limitations

Due to the relative current aspect of social media and the addiction factor, as well as the more recent psychological developments of behavioral addictions, there are some major implications for future research within both communication, educational and psychological measures, as well as identifiable limitations to both the current research and future studies.

Future implications. Social media platforms are constantly evolving, enabled by the quick update functions that mobile devices and tablets provide. Looking to the future, it is presumable that social media will continue to adapt to fit the needs of consumers. The future of social media looks to become even more prevalent. Wearable devices will also continue to evolve, which also lends itself to making social media even more accessible and widespread. Current popular social media platforms have demonstrated high trends in users, implicating that these platforms will continue to be staples of the online world. Other social media applications or websites may also come in to play, however. It is assumable that in the next 5-10 years, there

will be several more platforms that become popular, exemplifying either accessibility or social functions.

In the coming future, theories need to be developed that combine concepts from social psychology and communication theory that indicate factors of social media addiction. Developing a specific theory revolving around internet use and social media addiction could be very helpful in continuing research on this behavioral phenomenon. This may look like applying concepts from uses and gratifications and qualifying them with psychological aspects in order to form a legitimate Social Media Addiction theory. Psychological implications for the future look at defining an actual Social Media Addiction in the next edition of the Diagnostic and Statistical Manual. This would put more of an emphasis on Social Media Addiction and call more attention to its causes and how to treat it. Creating diagnostic guidelines for this type of disorder would not only allow psychologists to discover treatments for this disorder, but it would also be beneficial because it would aid in the ability to diagnose. Since social media namely impacts behavior, the suggestions for effective treatment may lie in similarly-categorized disorders. Internet Gaming Disorder is a similar disorder within the space of behavioral psychology that has proposed criteria in the DSM-5, so it may be helpful to look at social media use under a similar lens. Other defined conditions can also be helpful to give a framework for the treatment of a Social Media Addiction, such as eating disorders. Like the treatment of eating disorders, social media addiction would need to be dealt with at a behavioral level, to some extent, since it is close to impossible to remove the addiction from the environment entirely.

It is also important to look at the future of social media practices and how it will continue to be integrated into daily life. One perspective is the organizational perspective, which begs the question of if social media will impact the organizational structure as its use continues to grow.

31

Companies could potentially look to embrace social media in their organizations or completely exclude it from their workplaces. This may be impacted by future studies and looking at if social media is more beneficial for communication and the development of interpersonal relationships at work than it is distracting. Similarly, social media may play a distinct role in education as well. Schools are currently trying to exclude social media, limiting access to platforms by blocking access via Wi-Fi. Unfortunately, most students using smartphones still have LTE coverage, making them able to still access these sites. Social media could be more distracting in an educational setting than a workplace setting, making in an issue. Similarly, social media could potentially be integrated into the school system as a way to enhance learning. Further, social media can create changes in socialization, especially in school-aged children. If children are spending more time on social media than they are interacting in schools or with their peers, socialization could evolve and depend more on social media engagements than on family and community engagements in the future. All of these implications require further study, however, and longer-spanning research.

Limitations. Research is the most incomplete aspect when looking at social media use and the prevalence of addiction. Due to the lack of longitudinal studies and the relatively new age of social media, it is hard to track long-term implications for excessive use of social media. These components can be predicted through the short-term effects reported and research done on the impact of social media on psychological wellbeing, interpersonal relationships, organizational communication and health communication, among other areas of research. There is also a lack of comparative studies, evidenced in the assertion that the first studies on social media addiction did not occur until after 2010 (van den Eijnden et al., 2016). Due to the newness

of social media itself, longitudinal studies have not even been able to be completed yet and limit the availability of perceived long term impacts.

Some of the further limitations of social media research has to deal with access and privacy. Due to social media's easily accessible nature, it is hard to track a person's use without monitoring all of their online interactions. This brings up the ethical constraints of privacy, as watching a person's every move on their digital devices could compromise important personal information. These studies would most likely have to occur over a span of several months in order to get an accurate measure, increasing the threat to confidentiality. As this method of data collection would be particularly invasive, even consenting participants in the study may suffer from psychological deficits, like anxiety and paranoia regarding their online activity, privacy and who is accessing this data. Furthermore, it is becoming increasingly difficult to limit access to social media in this digitally-dominated world. The ease of access

Conclusion

While social media certainly has benefits, there are notably outstanding potential impacts based on the available studies so far. Without longitudinal studies and expansion to the definition and criteria of social media addiction, it is hard to measure its prevalence and the conceivable outcomes it could have for young adults today and future generations. The theoretical implications look to the creation of a social media-specific theory that highlights the dark side of communication. An analysis of the internal and external motivations for social media use, paired with potential psychological deficits, creates the framework for addictive behaviors relating to social media engagement. Excessive social media use also looks at changing the way interpersonal communication engagements primarily occur, as well as changing organizational communication structures. Health communication can also be negatively impacted by large

amounts of social media use. Going forward, more studies need to be conducted about the addictive capabilities of social media and ways to potentially combat the issues that spring forth from this relationship.

Bibliography

- American Academy of Pediatrics. (2011). ADHD: Clinical Practice Guideline for the Diagnosis, Evaluation, and Treatment of Attention-Deficit/Hyperactivity Disorder in Children and Adolescents. *Pediatrics*, 128(5), 1007-1022.
- American Psychological Association, Public Affairs. (2011, August 6). *Social Networking's Good and Bad Impacts on Kids*[Press release]. Retrieved from

 http://www.apa.org/news/press/releases/2011/08/social-kids.aspx
- Andreassen, C. S., Torsheim, T., Brunborg, G. S., & Pallesen, S. (2012). Facebook Addiction Scale. *Psychological Reports*, *110*(2), 501-517.
- Antheunis, M. L., Tates, K., & Nieboer, T. E. (2013). Patients' and health professionals' use of social media in health care: Motives, barriers and expectations. *Patient Education and Counseling*, 92(3), 426-431.
- Ball-Rokeach, S. J., & Defleur, M. I. (1976). A Dependency Model of Mass-Media Effects. *Communication Research*, 3(1), 3-21.
- Ball-Rokeach, S. J. (1985). The Origins Of Individual Media-System

 Dependency. *Communication Research*, 12(4), 485-510.
- Bennett, J., Owers, M., Pitt, M., & Tucker, M. (2010). Workplace impact of social networking. *Property Management*, 28(3), 138-148.
- Berthon, P. R., Pitt, L. F., Plangger, K., & Shapiro, D. (2012). Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy. *Business Horizons*, 55(3), 261-271.

- Black, E. W., Mezzina, K., & Thompson, L. A. (2016). Anonymous social media –

 Understanding the content and context of Yik Yak. *Computers in Human Behavior*, 57, 17-22.
- Bolton, R. N., Parasuraman, A., Hoefnagels, A., Migchels, N., Kabadayi, S., Gruber, T., . . . Solnet, D. (2013). Understanding Generation Y and their use of social media: A review and research agenda. *Journal of Service Management*, 24(3), 245-267.
- Cao, X., Vogel, D. R., Guo, X., Liu, H., & Gu, J. (2012). Understanding the Influence of Social Media in the Workplace: An Integration of Media Synchronicity and Social Capital Theories. 2012 45th Hawaii International Conference on System Sciences.
- Eijnden, R. J., Lemmens, J. S., & Valkenburg, P. M. (2016). The Social Media Disorder Scale. *Computers in Human Behavior*, 61, 478-487.
- George, D. R., Rovniak, L. S., & Kraschnewski, J. L. (2013). Dangers and Opportunities for Social Media in Medicine. *Clinical Obstetrics and Gynecology*, *56*(3), 453-462.
- Gomez-Rodriguez, M., Gummadi, K. P., & Schölkopf, B. (2014). Quantifying Information

 Overload in Social Media and Its Impact on Social Contagions. *Proceedings of the Eighth International AAAI Conference on Weblogs and Social Media*, 170-179.
- Gritzalis, D., Kandias, M., Stavrou, V., & Mitrou, L. (2014). History of Information: The case of Privacy and Security in Social Media. 1-25.
- Hallikainen, P. (2014). Why People Use Social Media Platforms: Exploring the Motivations and Consequences of Use. From Information to Smart Society Lecture Notes in Information Systems and Organisation, 9-17.

- Hawi, N. S., & Samaha, M. (2016). The Relations Among Social Media Addiction, Self-Esteem, and Life Satisfaction in University Students. *Social Science Computer Review*, *35*(5), 576-586.
- Lin, Y., Chiang, C., Lin, P., Chang, L., Ko, C., Lee, Y., & Lin, S. (2016). Proposed Diagnostic Criteria for Smartphone Addiction. *Plos One*, *11*(11).
- Liu, Y., Wang, J., Jiang, Y., Sun, J., & Shang, J. (2018). Identifying impact of intrinsic factors on topic preferences in online social media: A nonparametric hierarchical Bayesian approach. *Information Sciences*, 423, 219-234.
- Lu, H., & Lin, K. (2011). Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Computers in Human Behavior*, 27(3), 1152-1161.
- Maslow, A. H. (1943). A Theory of Human Motivation. *Psychological Review*, 50(4), 370-396.
- Mcpherson, M., Smith-Lovin, L., & Brashears, M. E. (2008). Social Isolation in America: Changes in Core Discussion Networks over Two Decades. *American Sociological Review*, 73(6), 1022-1022.
- McQuail, Denis (2010). *Mass communication theory: an introduction*. London: Sage Publications, 420–430.
- Morrison, E. W. (2002). Newcomers Relationships: The Role Of Social Network Ties During Socialization. *Academy of Management Journal*, 45(6), 1149-1160.
- O'Keeffe, G. S., Clarke-Pearson, K., & COUNCIL ON COMMUNICATIONS AND MEDIA.

 (2011). Clinical Report—The Impact of Social Media on Children, Adolescents, and
 Families. *Pediatrics*, 127(4).

- Olmstead, K., Lampe, C., & Ellison, N. B. (2016). *Social Media and the Workplace* (Rep.). Pew Research Center.
- Pew Research Center. (2018). Social Media Fact Sheet (Rep.). Pew Research Center.
- Prasad, B. (2013). Social media, health care, and social networking. *Gastrointestinal Endoscopy*, 77(3), 492-495.
- Primack, B. A., Shensa, A., Escobar-Viera, C. G., Barrett, E. L., Sidani, J. E., Colditz, J. B., & James, A. E. (2017). Use of multiple social media platforms and symptoms of depression and anxiety: A nationally-representative study among U.S. young adults. *Computers in Human Behavior*, 69, 1-9.
- Reicher, S. D., Spears, R., & Postmes, T. (1995). Social Identity Model of Deindividuation Effects. *European Review of Social Psychology*, 6(1), 161-198.
- Rumpf, H., Tao, R., Rehbein, F., & Petry, N. M. (2015). Internet Addiction: A Future Addictive Disorder? In *Behavioral addictions: DSM-5 and beyond*(pp. 71-99). Oxford University Press.
- Seidman, G. (2013). Self-presentation and belonging on Facebook: How personality influences social media use and motivations. *Personality and Individual Differences*, 54(3), 402-407.
- Shensa, A., Escobar-Viera, C. G., Sidani, J. E., Bowman, N. D., Marshal, M. P., & Primack, B. A. (2017). Problematic social media use and depressive symptoms among U.S. young adults: A nationally-representative study. *Social Science & Medicine*, 182, 150-157.
- Smith, A., & Anderson, M. (2018). Social Media Use in 2018 (Rep.). Pew Research Center.
- So, J. (2012). Uses, Gratifications, and Beyond: Toward a Model of Motivated Media Exposure and Its Effects on Risk Perception. *Communication Theory*, 22(2), 116-137.

- Sriwilai, K., & Charoensukmongkol, P. (2015). Face it, dont Facebook it: Impacts of Social Media Addiction on Mindfulness, Coping Strategies and the Consequence on Emotional Exhaustion. *Stress and Health*, 32(4), 427-434.
- Subramanian, K. R. (2017). Influence of Social Media in Interpersonal

 Communication. *International Journal of Scientific Progress and Research*, 109(38), 2nd ser., 70-75.
- Tandoc, E. C., Ferrucci, P., & Duffy, M. (2015). Facebook use, envy, and depression among college students: Is facebooking depressing? *Computers in Human Behavior*, 43, 139-146.
- Tang, C. S., & Koh, Y. Y. (2017). Online social networking addiction among college students in Singapore: Comorbidity with behavioral addiction and affective disorder. *Asian Journal* of Psychiatry, 25, 175-178.
- Walther, J. B. (1996). Computer-mediated communication. *Communication Research*, 23(1), 3-43.
- Weinreich, H., Obendorf, H., Herder, E., & Mayer, M. (2008). Not quite the average: An Empirical Study of Web Use. *ACM Transactions on the Web*, 2(1), 1-31.
- West, R., Turner, L. (2007). *Introducing Communication Theory*. McGraw Hill, 392–409.
- Yee, N., Bailenson, J. N., Urbanek, M., Chang, F., & Merget, D. (2007). The Unbearable

 Likeness of Being Digital: The Persistence of Nonverbal Social Norms in Online Virtual

 Environments. *CyberPsychology & Behavior*, 10(1), 115-121.
- Zolkepli, I. A., & Kamarulzaman, Y. (2015). Social media adoption: The role of media needs and innovation characteristics. *Computers in Human Behavior*, 43, 189-209.