

The Paradox of Facebook:
Interdisciplinary Perspectives of Social Support Online and Face-to-Face

by
Allison Daley

A THESIS

submitted to
Oregon State University
Honors College

in partial fulfillment of
the requirements for the
degree of

Honors Baccalaureate of Arts in Digital Communication Arts
Honors Scholar

Honors Baccalaureate of Science in Psychology
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AN ABSTRACT OF THE THESIS OF

Allison Daley for the degree of Honors Baccalaureate of Arts in Digital Communication Arts and Honors Baccalaureate of Science in Psychology presented on May 26, 2017. Title: The Paradox of Facebook: Interdisciplinary Perspectives of Social Support Online and Face-to-Face.

Abstract approved: _____

Daniel Faltsek

Abstract approved: _____

Frank Bernieri

The extensive adoption of social media has provoked widespread debate about how online communication impacts social relationships. An apparent paradox of Facebook is that people simultaneously express feeling more *and* less connected than ever before. Through perspectives from psychology and communication studies, this thesis addresses a question of public concern: is Facebook making us *less* social? Psychologists assert that crucial aspects of communication are not mediated online, so face-to-face contact remains uniquely suited to establish genuine, supportive relationships. Communication scholars posit that Facebook facilitates lightweight, frequent contact among users, which helps people build an awareness of support resources within their social network. Common ideas from each discipline are compared about how perceived social support is developed face-to-face and on Facebook. Discrepancies between Psychology and Communication researchers are discussed, including what constitutes “social” behavior and “authentic communication.” The alleged paradox of Facebook is analyzed to reveal deterministic orientations that are prevalent but incomplete ways to understand society's relationship with technology.

Key Words: social media, Facebook, social support, interpersonal relationships
Corresponding e-mail address: daleya@oregonstate.edu

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Honors Baccalaureate of Arts in Digital Communication Arts and Honors Baccalaureate of Science in Psychology project of Allison Daley presented on May 26, 2017.

APPROVED:

Daniel Faltesek, Mentor, representing Digital Communication Arts

Frank Bernieri, Mentor, representing Psychology

Joshua Reeves, Committee Member, representing Digital Communication Arts

Winston McCullough, Committee Member, representing Psychology

Toni Doolen, Dean, Oregon State University Honors College

I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

Allison Daley, Author

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The widespread adoption of social media over the past decade has provoked great excitement and concern about how people socialize (Baym, 2010; Boyd, 2014; Osch & Coursaris, 2014). Social media are often considered revolutionary, enabling an unprecedented, widespread level of connectivity (Jenkins, 2006; Thompson, 2013; Van Dijck, 2013). Others believe social media is inadvertently promoting isolation, encouraging people to spend more time online than with “real” people (Fredrickson, 2013; Turkle, 2011). As the Internet has become increasingly embedded in daily life, understanding the differences between online and offline interactions has become particularly important.

Interpersonal relationships are a predominant concern for the social sciences because they are fundamental for human well-being (Helliwell & Putnam, 2004). Empirical research has repeatedly demonstrated that the breadth and depth of one’s social connections are the best predictors of subjective well-being. People themselves report that good relationships with family, friends, and partners are significantly more important for their happiness than wealth, fame, or other life outcomes (Helliwell & Putnam, 2004). Given their importance, researchers have long been interested in how different forms of communication impact social relationships (Baym, 2010).

Since the 1970s, computer-mediated communication (CMC) research has published many contradictory findings about the social benefits and repercussions of Internet usage (Bargh & McKenna, 2004; Nie, 2001; O’Sullivan, 2000). Different theoretical models have disagreed on how much social information is conveyed online. Early models advocated a “cues filtered out” perspective, suggesting that mediated

communication was impersonal because nonverbal and social cues were not transmitted. Face-to-face (FtF) conversations were conceptualized as the “gold standard” to which all other forms of communication could be compared (Culnan & Markus, 1987; Daft & Lengel, 1984; Short, Williams, & Christie, 1976). Later models demonstrated that a significant amount of social information is transmitted online (Bargh & McKenna, 2004; O’Sullivan, 2000; Walther, 1992). Researchers found CMC could be equally or even more satisfying than FtF conversations (Jenkins, 2006; Utz, 2015; Walther & Burgoon, 1992; Walther, 1996). The “hyperpersonal” model explained that a reduction of nonverbal and contextual cues could actually enhance the positivity of social interactions, because communicators can strategically present themselves and idealize the other (Walther, 1996). Although thousands of CMC research articles have been published, much uncertainty remains about the impact of social media on interpersonal relationships.

As student of Digital Communications and Psychology, I noted how each discipline offered a distinct perspective on mediated communication. Both fields concern similar topics of human relations, but their approaches and resulting conclusions are often quite different (Hornsey, Gallois, & Duck, 2008; Pfau, 2008). Psychologists commonly address the problematic consequences of new media (Fredrickson, 2013; Okdie, Guadagno, Bernieri, Geers, & Mclarney-Vesotski, 2011; Short et al., 1976; Turkle, 2011), while communication scholars typically embrace the salutary benefits (Baym, 2010; Boyd, 2014; Jenkins, 2006; Van Dijck, 2013). Psychology professors expressed concerns that social media and other technologies can act as barriers distancing people from “real life.” They questioned the authenticity of online communication, and the

consequences of spending less time FtF. Communication professors offered a more positive outlook, discussing how new media overcome the limits of time and space. They viewed online activity as part of “real life,” believing that attempts to define what is “real” can go back forever. My goal behind this thesis was to integrate psychology and communication research, and apply this insight to the ongoing debate about social media.

The Paradox of Facebook

Facebook presents an alleged paradox: a situation with contradictory qualities (“Paradox”). The paradox of Facebook is that people simultaneously express feeling more *and* less connected than ever before. Social network sites (SNS) like Facebook create a broad-scale connectivity, with the mission of giving, “people the power to share and make the world more open and connected” (“Facebook 10-K”, 2015). Facebook enables people to instantaneously communicate with their entire network, ranging from a few people to a worldwide audience. Many believe this makes people *more* socially connected now than any other point in human history (Diamandis, 2012; Jenkins, 2006; Thompson, 2013). Yet in other ways, people feel significantly *less* connected (Turkle, 2011). Public spaces that foster conversations among strangers (e.g. airports, bus stops, classrooms) are now often filled with individuals absorbed in their devices. Offices are quieter as employees send instant messages instead of walking down the hall to talk. Couples and families are seen scrolling on their smartphones instead of speaking during meals. Some people claim to hate Facebook, yet they still login every day. Thus, social media seems to both enhance and impede social behavior in daily life.

The influence of social media on our health and well-being is an important question of public concern. There are millions of Google Scholar results for the “social impact of Facebook,” and countless news articles geared for the general population. A Google search for, “is Facebook making us...” suggests results such as the following:

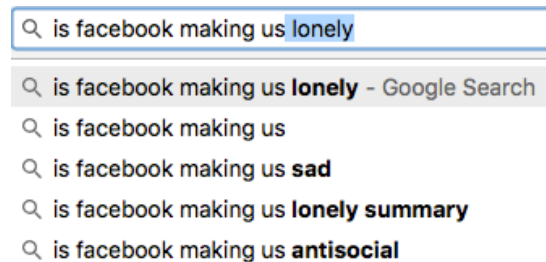


Figure 1: Google’s Autocomplete Suggestions are based on popular searches. This example search was conducted on private browser window, as to not reflect my personal search history.

Facebook is thoroughly integrated into everyday practices for millions of people, but a review of the literature reveals that important questions remain unanswered (Ellison & Boyd, 2013; Madianou, 2016; Przybylski & Weinstein, 2017). Social media represent a subset of communication technologies with unique characteristics that warrant analysis for research and application to daily life (Osch & Coursaris, 2014).

Facebook: the Predominant Social Network Site

Although SNS first emerged around 1997, they became a significant cultural phenomenon around 2004 (Ellison & Boyd, 2013; Osch & Coursaris, 2014). This thesis utilized Ellison and Boyd’s (2013) definition of a social network site (SNS) as a networked communication platform in which participants: 1) have uniquely identifiable profiles that consist of user-generated content and system-provided data; 2) publicly articulated connections that can be viewed and traversed by others; and 3) can consume, produce, and interact with streams of user-generated content from their connections on

the site (Ellison & Boyd, 2013). I examined the affordances of Facebook to understand how social media activity influences people's perceptions of social support. *Affordances* are special properties and characteristics of an environment that enable a range of actions. One example of an affordance on Facebook is the automatically generated birthday reminders. When a user sees this notification, they may choose to ignore it or act upon it. They could write a birthday message on their friend's *timeline*, send a direct message, or react with a *like* or *comment* on someone else's birthday post. Affordances do not determine how users interact on a site, but they shape the situation and the realm of possibilities (Boyd, 2014).

Facebook is the chosen SNS for this thesis because of its popularity and usage for relationship maintenance (Ellison & Boyd, 2013). Facebook was created in 2004, and has grown exponentially since then. As of March 2017, Facebook reported having 1.28 billion daily active users on average ("Facebook 10-K", 2015). According the Pew Research Center, Facebook continues to be the most popular SNS in the United States by a large margin (Greenwood, Perrin, & Duggan, 2016). 79% of online Americans use Facebook, which is more double the number of users on Instagram (32%), Pinterest (31%), LinkedIn (29%), or Twitter (24%). Of the active Facebook users, 76% of Americans report visiting the site on a daily basis (Greenwood et al., 2016). People of all ages use Facebook to connect with their entire social network, including strong ties (i.e., family members, spouses) and weak ties (i.e., casual acquaintances). Due to its heavy usage and technological capabilities that bridge online and offline connections, Facebook is a rich site for studying the affordances of SNS (Ellison, Steinfield, & Lampe, 2007).

This thesis compared the affordances of Facebook to FtF conversations. Each mode has special properties that contribute to one's sense of having social support available. This paper focused on the positive outcomes of perceived social support obtained through face-to-face (FtF) and Facebook interactions.

Perceived Social Support: Online and Offline

Social support is an umbrella term involving the connection between one's social relationships and well-being (Cohen, Underwood, & Gottlieb, 2000; Uchino, 2004). Researchers have identified three main types of social support: emotional support (e.g. empathy, intimacy), informational support (e.g. advice, guidance), and tangible support (e.g. physical assistance, material aid) (Helgeson, 1993; Uchino, 2004). Together, these forms of social support are conceptualized as the functions of social relationships. Studies repeatedly demonstrate that social relationships influence well-being and life satisfaction, both directly and through the mediating impact on physical health (e.g. Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008; Helliwell & Putnam, 2004).

In addition to the three main types, social support is categorized along two dimensions: perceived support and received support (Helgeson, 1993; Uchino, 2004). Perceived social support is the belief that one has resources available to them (Helgeson, 1993). This involves a sense that one has connections within their social network that could be called upon for help if needed. Received social support is the support actually provided by others, such as advice, reassurance, monetary aid, physical assistance, etc. Although counterintuitive, perceived social support is demonstrated to have a greater impact on health and well-being than the actual receipt of support (Helgeson, 1993; High

& Steuber, 2014; Uchino, 2004). Indeed, studies show that feelings of isolation can cause more bodily damage than actual isolation, suggesting that our subjective reactions can influence health outcomes more than objective circumstances (Fredrickson, 2013). Furthermore, behaviors intended to be supportive may not meet the needs and expectations of the person seeking help (High & Steuber, 2014; Uchino, 2004). Researchers thus assume that socially supportive behaviors are ultimately effective because of how they are interpreted (Cohen et al., 2000; Uchino, 2004).

Psychology and communication research was examined to gain insight into why people seem to feel more *and* less connected using Facebook. Informed by a broad, exploratory literature review, this thesis compared major themes concerning social media usage for interpersonal relationships. The analysis required an oversimplification of each field, so the standpoints shared should not be taken as definitive of each field. Nevertheless, common ideas proposed from each discipline served as meaningful explanations for the paradox of Facebook:

Perspective from Psychology: People feel less connected on Facebook because crucial aspects of communication are not transmitted online. Genuine connections are established FtF through nonverbal and behavioral cues, notably eye contact and synchrony. Communication on Facebook is insufficient compared to FtF conversations as a means to fulfill social support needs.

Perspective from Communication Studies: People feel more connected with Facebook because it facilitates lightweight, frequent contact among users, which builds an awareness of one's personal connections and resources for social support. Facebook

usage does not diminish the importance of FtF time, since the platform is predominantly used to supplement and extend preexisting offline relationships.

Psychology Perspective: Face-to-Face Interactions Enable “Positivity Resonance”



Figure 2-3: FtF interactions are essential, from mother-child bonding to all subsequent relationships.

Psychology research helps explain one side of the paradox: why people could feel *less* connected despite their social activity on Facebook (Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011). Psychologists’ definition of “social” is rooted in their ontological assumptions, using a scientific view of the body as the base of all human interactions (Ambady & Skowronski, 2008; Hornsey et al., 2008; Pfau, 2008). People have communicated in-person since the presumed dawn of time, so “face-to-face is assumed to be the most obvious or purest example of what constitutes interpersonal communication” (O’Sullivan, 2000, p. 417). FtF interactions are intuitively considered the “default” channel of preference, based on the evolutionary belief that humans are “equipped” to have face-to-face interactions from birth (Ambady & Skowronski, 2008; Bernieri & Rosenthal, 1991; Fredrickson, 2013). Within the span of human history, digital communication is only a recent development: the first email was sent in 1971, Facebook

was created in 2004, and the first iPhone was released in 2007 (“The Brief History”). Some psychologists reason that our bodies were not designed for long-distance communication via the phone, email, and social media (Fredrickson, 2013; O’Donnel, 2013; Turkle, 2011).

During FtF interactions, one has access to all communication channels: eye contact, voice, touch, nonverbal gestures, etc. Entire areas of psychology are dedicated to studying these physical components of communication (Ambady et al., 2000). Given this, it makes sense that numerous psychologists are concerned social media does not enable the interplay of nonverbal and contextual cues (Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011). During conversations, “our personality pervades every aspect of our behavior and movement” (Ambady et al., 2000, p. 16-17). FtF interactions naturally engage our entire being: physical, cognitive, and emotional (Okdie et al., 2011).

Psychologists explain that a conversation between two people is often like a dance. At a subconscious level, individuals “sync up” and move to the same invisible beat (Bernieri & Rosenthal, 1991; Fredrickson, 2013). We seamlessly adapt to the other person early on in a conversation, and make adjustments to coordinate our voices and behaviors to create a comfortable interaction. The majority of this interpersonal coordination occurs without deliberate effort or even awareness. Studies show that “social and emotional relationships are closely linked to a physical aspect of human interaction of which we are usually unaware” (Bernieri & Rosenthal, 1991, p. 429). Given that most interpersonal coordination is physical and subconscious, how could these behaviors be technologically mediated? How could Facebook algorithms capture these

aspects of communication when we're rarely aware of them occurring ourselves? Such questions became evident in this psychology literature review (Bouchillon & Gotlieb, 2016; Fredrickson, 2013; Nie, 2001; Turkle, 2011). While online technologies now play important roles in our lives, many believe that no form of mediation can establish authentic connections to same extent as FtF conversations.

Facebook offers many capabilities for relationship maintenance, but online interactions inherently lack the physical aspects of communication. Both laypeople and scholars agree that FtF conversations have unique qualities. Nancy Baym describes this specialness: "The full range of cues, the irreplaceability, and the need to be there in shared place and time with the other all contribute to the sense that face-to-face communication is authentic, putting the "communion" in communication" (Baym, 2010, p. 12). Psychologists contend that FtF conversations are definitive instances of "social" human behavior, more than any form of communication online. Barbara Fredrickson, a positive psychologist, states, "Neither abstract nor mediated, true connection is physical and unfolds in real time. It requires a sensory and temporal copresence of bodies" (Fredrickson, 2013, p. 20). Fredrickson coined the term "positivity resonance" to describe such moments of genuine connection between two or more people (Fredrickson, 2013).

"Positivity Resonance" Occurs Face-to-Face

According to Fredrickson, positivity resonance has three main components: 1) it's a shared, (usually) brief, face-to-face interaction (not imagined or mediated) with another person; 2) it consists of biochemical and behavioral synchrony, through which people act in parallel and reflect each other; and 3) one has the motivation to take subsequent

behavioral steps to support that person (Fredrickson, 2013). She states there is a, “critical and undeniably physical ingredient of resonance” (Fredrickson, 2013, p. 25). Fredrickson and other psychologists worry that communicating via Facebook does not provide people with the nourishing aspects of FtF conversations (Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011). Positivity resonance depends upon two key aspects of communication that are not mediated online: eye contact and synchrony.

Eye contact may be the most potent trigger for connection we have. Research suggests humans are biologically “programmed” for this form of nonverbal communication through thousands of years of evolution (Ambady & Skowronski 2008; Fredrickson, 2013). From an early age, infants prefer to look at faces that engage in mutual eye contact, and they also show enhanced neural processing of direct eye-gaze (Farroni, Csibra, Simion, & Johnson, 2002). Interactions with eye contact afford greater emotional arousal, demonstrated by physiological signs such as heart rate and galvanic skin responses (Fredrickson, 2013; Short et al., 1976). Eye contact also conveys more information than speech and other nonverbal cues (Argyle & Dean, 1965). The psychologist Marianne Simmel eloquently described the social function of eye contact:

Of the special sense organs, the eye has a uniquely sociological function.

The union and interaction of individuals is based upon mutual glances...This mutual glance between persons, in distinction from the simple sight or observation of the other, signifies a wholly new and unique union between them....By the glance of which reveals the other, one discloses himself....The eye cannot take unless at the same time it

gives....what occurs in this direct mutual glance represents the most perfect reciprocity in the entire field of human relationships. (Simmel, 1921, p. 358)

By meeting eye gaze, people can become attuned to each other's emotional states and establish an embodied form of perceived social support (Fredrickson, 2013). Fredrickson's research on positivity resonance shows that eye contact provokes a parallel simulation process between individuals, causing them to feel the same way. Brief experiences of mutual care demonstrate how, "under the influence of positive emotions, your sense of self actually expands to include others to greater degrees" (Fredrickson, 2013, p. 46). This helps explain the "specialness" of FtF conversations, and why they enable people to build deep connections. In addition to eye contact, these shared moments also illustrate synchrony.

Synchrony is a form of interpersonal coordination in which social interaction behaviors are patterned in form and timing (Bernieri & Rosenthal, 1991). Studies show our body movements tightly correspond to the rhythms of our speech (Bernieri & Rosenthal, 1991; Ireland & Pennebaker, 2010). When two people share the same rhythm in a conversation, their movements (e.g. head nods, posture changes) often become synchronized unconsciously. During these mirrored moments, individuals act as a unit "grooving" to the same rhythm (Bernieri & Rosenthal, 1991; Fredrickson, 2013). Such moments of coordination facilitate a sense that each person is being heard and understood, which provides an affirming indication of social support.

Synchrony is believed to be one of the earliest forms of communication, demonstrated at birth. Day-old infants synchronize their movements to human speech, especially to their mothers (Bernieri & Rosenthal, 1991). This instinctive, bodily coordination is how mothers initially bond with their children (Bernieri, Reznick, Rosenthal, & Reis, 1988). Before learning to speak, babies convey their basic emotional states through physical reactions, such as crying or laughing. Mothers build strong attachments by closely attending to their child's needs, and responding with appropriate, supportive behaviors. Synchrony is essential for mother-child bonding, and it continues to play an important role in all subsequent relationships (Bernieri et al., 1988).

Synchrony facilitates perceived social support because it creates a sense of togetherness between people (Bernieri & Rosenthal, 1991). To sync with another person is to share an experience, and FtF interactions are particularly conducive for this (Bernieri & Rosenthal, 1991). Eye contact and synchrony are two crucial aspects of FtF communication, but their mere existence does not imply a genuine connection between two people (Fredrickson, 2013; Heider, 1958). People can make eye contact and even hold hands without having sincere concern for the other person. Nevertheless, Fredrickson asserts physical copresence (involving eye-contact and synchrony) is a necessary precursor to positivity resonance (Fredrickson, 2013; O'Donnel, 2013). Thus, FtF interactions are uniquely suited to establish a deep sense of caring and understanding between people, building social support in ways that are not possible online.

Psychologists suggest that unique characteristics of FtF interactions evolved over millennia, serving our needs as social creatures (Ambady & Skowronski 2008). While

Facebook offers numerous ways to communicate with networks of people, some doubt that it's an adequate means to social support. Fredrickson says,

The positive experiences we have in conjunction with others are like nutrients: we need daily doses of them in order to stay healthy. But contemporary culture encourages us to reach out through technology. Though e-mail and texting and social media are great in many ways, they potentially have costs. (Winter, 2014)

From this perspective, physical aspects of communication are essential to build strong relationships between people. During FtF interactions, eye contact and synchrony afford a sense of togetherness and mutual understanding. This viewpoint suggests that a brief, FtF conversation can be more nourishing than hundreds of text messages online.

Fredrickson assures that moments of genuine connection, which she calls “positivity resonance,” can invoke positive upward spirals that make a lasting impact on one's health and well-being (Fredrickson, 2013; O'Donnel, 2013).



Figure 4: At times, people seem to give online social activity precedence over FtF conversations.

Despite the many benefits of Facebook, psychologists are concerned people may be short-changing themselves by spending time socializing online: “we have long turned to technology to make us more efficient in work. Now we want it to make us more

efficient in our private lives. When technology engineers intimacy, relationships can be reduced to mere connections” (Turkle, 2011, p. 16). Sherry Turkle, a clinical psychologist and MIT researcher, has noticed nostalgia for FtF conversations in her interviews with both younger and older generations (Turkle, 2011). It seems as if our digital devices have become, “‘phantom limbs’ used as a way of signaling busyness and unapproachability to strangers” (Pickersgill, 2017). Social media can’t be solely blamed for this phenomena of people feeling “too busy to talk,” but it plays a significant role in the increasingly prevalent “‘always on’ culture of ubiquitous connectivity” (Madianou, 2016, p. 183)¹. Researchers acknowledge that Facebook offers convenient forms of connection, but they argue that being social online does not create deep, supportive relationships that are fundamental for human well-being (Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011).

¹ This trend is widely evident, and I have personally experienced it on a daily basis. Before the professor starts lecturing in a university classroom, the majority of students are on their smartphones. In the workplace, coworkers often send instant messages rather getting up to talk, even if the other person is sitting feet away.

Communication Perspective: Facebook Interactions Enable “Ambient Awareness”



Figure 5 - 6: Facebook provides additional means for users to obtain social support online.

While psychologists tend to emphasize the importance of physical copresence, many communication scholars focus on technological affordances of social media that extend beyond what is possible FtF. Facebook, in particular, offers a range of features that enable users to instantaneously communicate with their social network on a single platform (“Facebook 10-K”, 2015). This perspective helps explain the other side of the paradox: why people could feel *more* connected than ever before (Boyd, 2014; Madianou, 2016; Scott, 2014; Utz, 2015). Without diminishing the importance of FtF interactions, communication researchers argue that Facebook offers meaningful, supplementary ways for perceived social support to be derived online (Baym, 2010; Ellison & Boyd, 2013; Boyd, 2014; Madianou, 2016; Rozell et al, 2014).

As an illustration of how Facebook can play an important role in people’s social lives, consider this hypothetical example. A grandmother named Edith has felt isolated and lonely since her husband passed on. The rest of her family lives far away, so her children and grandchildren only visit around the holidays. Edith has become physically weak, which prevents her from leaving the house much. Although she was reluctant to try Facebook when her granddaughter suggested it, the SNS has become a meaningful part of

Edith's daily life. She checks her Facebook *News Feed* daily to see updates of her family's activities, such as vacation pictures and videos of the kids playing outside. Scrolling through her Facebook *timeline* serves as a "trip down memory lane," which is even more beneficial now that her memory is declining. This fictional, yet realistic example demonstrates how Facebook can significantly improve a user's sense of social connectedness.

Despite studying similar topics, communication scholars have a substantially different approach than psychologists (Hornsey et al., 2008; Pfau, 2008; Zarefsky, 2008). Their definition of "social" behavior assumes there is no baseline or "natural world" existing separate from technology (Hornsey et al., 2008; Slack & Wise, 2015). People are viewed as constantly changing within social contexts, in which technologies are an embedded part (Baym, 2010; Duck, Rutt, Hoy, & Strejc, 1991; Hornsey et al., 2008). Communication scholars also begin with different ontological assumptions compared to psychologists. Instead of the body, human speech and interaction is considered the foundation of communication (Hornsey et al., 2008; Pfau, 2008; Zarefsky, 2008). This includes what can be observed through conversation, mediated or not.

An example from *Speaking into the Air: A History of the Idea of Communication* (1999) by John Durham Peters illustrates this perspective. Peters describes a situation that demonstrates how the mere physical presence of bodies does not assure "communication" will occur: "You can read poetry to a person in a coma, never knowing if the words are 'getting through,' but the same doubt is just as relevant in other settings, as any teacher or parent knows" (Peters, 1999, p. 264). This example points out that many variables need

to be in sync for communication to happen, and the immediacy of FtF contact is no guarantee of an effective exchange between individuals. Communication scholars offer a viewpoint typically not found in psychology: that FtF communication is not inherently better (Duck et al, 1991; Peters, 1999). They suggest dialogue always contains gaps, whether the conversation is mediated or not:

That face-to-face talk is as laced with gaps as distant communication is a proposition I take to be both true and historical...the delay of dialogue was long a potential in letters, prayers, and devotions to the dead...Electronic media have taught us the chasms in all conversation. Conversations, after all, consist of single turns that may or may not link successfully with following turns...dialogue may simply be two people taking turns broadcasting at each other. We tend to resist acknowledging the gaps at the heart of everyday interchange... (Peters, 1999, p. 264-265)

This perspective reasons that our idea of conversations as two speakers taking turns to move progressively toward a fuller understanding of each other is flawed (Peters, 1999). According to Peters, physical presence is the closest guarantee to a “bridge,” but all discourse (including FtF) is an attempt to “bridge the gap” that inherently exists between individuals.

Communication scholars reject the naturalistic fallacy that assumes what is “good” in terms of what is natural (Baym, 2010; Brinkmann, 2009; Peters, 1999; Walther, 1992). It goes something like this: FtF conversations are “better” than Facebook interactions because FtF communication is natural. Although intuitive, this assumption is

not necessarily true. The naturalistic fallacy helps explain the negative perspective from researchers who implicitly regard new media as inherently inferior to FtF communication (Fredrickson, 2013; Short et al, 1976; Turkle, 2011).

Rather than focusing on how Facebook interactions lack nonverbal and behavioral cues, communication researchers emphasize the affordances that help people maintain relationships over time and space (Baym, 2010; Boyd, 2014; Ellison & Boyd, 2013; Slack & Wise, 2015). Baym says, “The fundamental purpose of communication technologies from their ancient inception has been to allow people to exchange messages without being physically co-present” (Baym, 2010, p. 2). In some fashion, every communication technology provides an extension of human thought and conversation through time and/or space. The printing press enabled the written word to be easily preserved and distributed. The telephone transmits voices across the world (Baym, 2010; Slack & Wise, 2015). Facebook enables instantaneous sharing of personal content (e.g. messages, images, videos) to a potentially unlimited group of people. Considering the history of media, Facebook is not radically different from other communication technologies (Baym, 2010; Boyd, 2014; Gitelman & Pingree, 2003).

While seemingly obvious, it is important to remember the primary affordances of mediated communication are characteristically different than FtF conversations. SNS offer capabilities that are not possible in physical, one-to-one interactions. Information online is persistent, replicable, scalable, searchable and shareable (Boyd, 2014). A FtF conversation is the exact opposite: temporary, fleeting, unscalable, and irreplicable (Baym, 2010). These different capabilities have their own tradeoffs. A FtF conversation

may feel more meaningful, but it cannot be recorded and shared with others in the same way it was experienced. A Facebook post may seem trivial in comparison, but it can be identically shared countless times. Before discussing how Facebook builds perceived social support, it's worth noting why people use the SNS in the first place.

By and large, the primary motive for social media adoption is relationship maintenance (Boyd, 2014; Ellison & Boyd, 2013; Utz, 2015; Zolkepli & Kamarulzaman, 2015). People typically use Facebook in ways that reflect and extend their existing offline social connections (Ellison et al., 2007; Nadkarni & Hofmann, 2012; Scott, 2014). It's a mundane but important fact that, "the Internet's primary use as a relational medium for most people is to communicate with people they also know FtF" (Baym, 2010, p. 132). Danah Boyd, a widely cited communications scholar on social media, has spent over ten years researching how young adults use SNS (Boyd, 2014). Boyd found clear underlying social motivations: "most teens are not compelled by gadgetry...they are compelled by friendship. The gadgets are interesting to them primarily as a means to a social end" (Boyd, 2014, p. 18). The spaces and devices used for communication may change over time, but the organizing social principles remain the same:

Human goals and motivations are not likely to be much different regardless of whether interactions are mediated or not and, if mediated, whether the medium is through new or old technologies. From a functional perspective, it appears new technologies may be providing nothing new - just new ways of doing things that people have been doing through the history of social interaction. (O'Sullivan 2000, p. 427-428)

These scholars indicate that while it may look and feel different, Facebook activity is driven by social motivations just like other methods of communication (Baym, 2010; Boyd, 2014; O'Sullivan 2000).

Facebook appeals to relationship maintenance needs through a variety of technical features (Nadkarni & Hofmann, 2012). Notable features include the *friends* list, *timeline*, *status*, *like*, *messages*, *chat*, *photos and videos*, *events*, and *groups*. The *friends* list is a crucial component of Facebook because it allows users to publically display their connections. In turn, users and their friends can traverse each other's networks (Ellison & Boyd, 2013). The *timeline* serves as a bulletin board displaying an individual's Facebook activity in reverse chronological order. Users can update their own *status*, post messages directly to another's *timeline*, and upload content such as *photos* and *videos*. Users can add *comments* and react to content with the *like* function or the recently expanded "reactions" for 'love', 'haha', 'wow', 'sad', and 'angry' (Constine, 2016). Facebook users communicate with friends through private or public *messages* and the *chat* feature. Users can create and join interest *groups*, and use the *events* to plan meetings and send invitations (Nadkarni & Hofmann, 2012).

These features on Facebook lower the boundaries of communication, making it easier for users to initiate and maintain contact with others (Leonardi & Meyer, 2015; Nadkarni & Hofmann, 2012). The platform enables users to carry out a range of communication needs in a single place (Ellison & Boyd, 2013). People share all sorts of personal content, from significant events like weddings and graduations, to casual

activities like an evening meal. Facebook's *News Feed* actively curates an ongoing stream of content, which enables users to view status updates about their friends without directly asking for such information. Facebook browsing is a non-directed activity that can help build and sustain relationships through a phenomenon called "ambient awareness" (Lampe, Ellison, & Steinfield, 2006; Leonardi & Meyer, 2015; Levordashka & Utz, 2016).

"Ambient Awareness" on Facebook

Ambient awareness is an "awareness of social others, arising from the frequent reception of fragmented personal information, such as status updates and various digital footprints, while browsing social media" (Levordashka & Utz, 2016). It develops peripherally as an artifact of social media activity, rather than deliberately attending to direct communications. This capability enables one to, "keep in touch with people with a level of regularity and intimacy that you wouldn't usually have access to, because time and space conspire to make it impossible" (Reichert, 2007; Thompson, 2008). Ambient awareness theory draws from psychology research on impression formation. It is well established that humans form spontaneous, accurate judgments of others even after brief exposures (Ambady et al., 2000; Ambady & Skowronski 2008; Bernieri & Rosenthal, 1991). Given that people form rapid impressions often subconsciously, it is likely that person-judgments occur spontaneously while browsing social media (Levordashka & Utz, 2016).

In FtF encounters, people naturally develop an awareness of others through nonverbal and contextual cues. People sharing a physical space (e.g. roommates, partners,

co-workers) naturally develop a sense of each other's daily activities and moods. Since our personality is manifested in our behaviors and movements, physical copresence enhances communication by increasing familiarity and providing contextual information (Ambady et al., 2000; Levordashka & Utz, 2016). A metaphor of the activity in a family home illustrates the "ambient" nature of this construct. By living together, family members hear the familiar sounds of each other going about their daily activities, such as someone cooking and cleaning, or children playing in their rooms. Even without direct interaction, they are profoundly aware of each other's presence (Madianou, 2016, p.197). Despite the lack of physical presence online, researchers have discovered "ambient awareness" occurs on social media (Leonardi & Meyer, 2015; Levordashka & Utz, 2016).

Facebook facilitates ambient awareness by making it easy for users to maintain frequent, lightweight contact with people in their social network (Ellison & Boyd, 2013; Lampe et al., 2006; Reichelt, 2007; Zolkepli & Kamarulzaman, 2015). Building this awareness is an additive process:

Each little update — each individual bit of social information — is, on its own, pretty insignificant, even mundane. But taken together over time, the snippets coalesce into a surprisingly sophisticated portrait of your friends' inner lives, like dots forming into a pointillist painting. (Thompson, 2013, p. 211)

Small bits of social information online can accumulate to fairly accurate representations of people's personalities and daily activities (Gosling, Gaddis, & Vazire, 2007; Leonardi

& Meyer, 2015; Levordashka & Utz, 2016). Ambient awareness is positively correlated with frequency of social media use, supporting the notion that regular exposure to fragmented information can be a meaningful addition to people's social lives (Levordashka & Utz, 2016; Thompson, 2008).



Figure 7: Facebook logo as a composite of many individual photos, representing the additive effect of small bits of social information.

Facebook messaging, particularly with mobile devices, provides a convenient method of regular contact (Madianou, 2016). Facebook's private messaging feature is used substantially more than public status updates (Utz, 2015). An ethnographic study of mobile phone usage in Japan found that back-and-forth, instant messages created an "ambient copresence" for geographically separated couples (Ito & Okabe, 2006). Partners working in different cities would message each other day and night, sending tiny updates like "on the couch watching TV" or "time for a bath now." These couples chose texting because it was more affordable and comfortable than hour-long conversations. They also found that these rapid, "ping-pong" messages felt even more intimate than long phone calls (Ito & Okabe, 2006). Although these text messages are devoid of nonverbal cues and other aspects of FtF conversations, people report having positive, entertaining, and even intimate disclosures on SNS (Utz, 2015).

Topics shared on Facebook are perhaps more trivial, but deep meaning may not be essential to build perceived social support online (Thompson, 2013). Rather, it is more about maintaining frequent contact with friends and family in ways that were previously not possible (Reichelt, 2007). Facebook serves as a low-maintenance way to keep up with both strong and weak ties (Ellison & Boyd, 2013). For example, after high school students move to different colleges, it becomes more difficult to regularly communicate with old friends. In the absence of FtF interaction or even direct contact, friends can stay current with each other's daily lives through Facebook's *News Feed*. Facebook also encourages direct communication among users with automatically generated reminders of friends' birthdays, anniversaries (how long people have been "Facebook friends"), and memories of posted content. In addition to the sheer frequency of contact, Facebook promotes awareness by visualizing users' social networks.

Ambient awareness on Facebook is made possible by the continuous sharing of visual content. The *News Feed* feature is key, providing users with a visual stream of updates about their social network (Ellison & Boyd, 2013; Madianou, 2016; Utz, 2015). Friends and family members post about their daily activities, food, clothing, travels, events, etc. Such information allows for a sense of regular presence of others, even without direct encounters (Madianou, 2016). This phenomenon was demonstrated with a migrant mother who was separated from her daughter for years (Madianou, 2016). When interviewed about using social media for relationship maintenance, the mother recalled a conversation in which she showed her daughter a new dress over Skype. The daughter responded without any surprise, because she had already seen this dress in a picture her

mother posted on Facebook the day prior. Even though this mother-daughter pair was physically separated in different countries, they were very aware of each other's daily activities by regularly checking Facebook (Madianou, 2016). This real-life scenario illustrates how Facebook enables people to "feel connected" across time and space (Ellison & Boyd, 2013).

Communication scholars conceptualize relationships as, "unfinished business that need to be perpetuated through regular mundane relational communication" (Duck et al., 1991, p. 231-232). These researchers suggest the act of communicating itself plays a part in the continuation of relationships, perhaps as much as the contents of discussion (Hornsey et al., 2008). Decades prior to social media, studies demonstrated that most conversations between friends are mundane and non-intimate (Duck et al., 1991). Clive Thompson, a technology critic for the *New York Times*, also suggests that most everyday communication is banal, not just on Facebook. He rejects the notion that social media encourages people to have shallow conversations: "I doubt the ambient broadcasting universe is making people more trivial. What it's doing is revealing how trivial we've been all along, because it's making conversation suddenly visible" (Thompson, 2013, p. 222). This perspective helps explain why ambient awareness has social support benefits. Even small bits of fragmented information add value to relationships and contribute to one's sense of having a supportive social network (Reichelt, 2007).

Ambient awareness is particularly beneficial for distance relationships. A long-term ethnographic study on Filipino migrants living in the UK found social media was especially valuable when FtF interactions are not possible (Madianou, 2016). These

transnational families depended heavily, if not entirely, on communication technologies to maintain a sense of intimacy and connection. Facebook enabled migrant families to have a “sense of being there” with their loved ones despite years of physical separation (Madianou, 2016). Family members reported using Facebook on their smartphones several times an hour: “checking and updating news on SNS became seamlessly woven into other daily practices” (Madianou, 2016, p.190). Migrant mothers would go days without speaking to their children, but they obtained a great deal of information through their Facebook *News Feed* (Madianou, 2016).

Although ambient awareness occurs from indirect communication, it can have powerful emotional consequences (Leonardi & Meyer, 2015; Madianou, 2016). One migrant Madianou interviewed described how the Skype status symbol provided a sense of the daily rhythms of her loved ones (Madianou, 2016). In the absence of FtF interaction, online statuses reveal information about people’s movements and daily lives. This woman left Skype on while sleeping so she could hear her boyfriend logging online. The characteristic Skype sound and green online status symbol confirmed that her boyfriend returned home or woke up at his regular time (Madianou, 2016). While Skype is a video chat platform rather than a SNS, the *chat* function on Facebook serves a similar function. Facebook users see a green dot next to the profile pictures of friends who are currently online. Especially for long-distance relationships, maintaining an awareness of others’ daily activities can be emotionally comforting (Madianou, 2016). An important caveat is that more awareness isn’t always beneficial. “The ambient awareness of domestic rhythms can only be reassuring when family members enjoy good relationships.

When there are tensions, frequent or constant communication [online] can reveal problems that make situations fraught and difficult” (Madianou, 2016, p. 197).

Depending on the situation, ambient awareness can add challenges or support to existing relationships (Madianou, 2016).

Facebook users can build perceived social support despite physical separation through ambient awareness. Even if Facebook users don’t actually receive support such as advice from a friend (informational), or an offer to help clean their yard (tangible), having an awareness and visual representation of their social network is beneficial. At the very least, Facebook reminds users of the potential pool of people they *could* reach out to for support (Bouchillon & Gotlieb, 2016; Ellison & Boyd, 2013; Nadkarni & Hofmann, 2012). Users can browse their *friends* list, *News Feed*, or Facebook *Memories* to remember people they have counted on in the past, who could help them again if needed. SNS can strengthen interpersonal relationships in ways that are not feasible FtF (Bouchillon & Gotlieb, 2016; Leonardi & Meyer, 2015; Madianou, 2016)².

The affordances of Facebook are particularly well suited to foster perceived social support among networks of people, more so than other platforms. Another popular social media is Snapchat, an ephemeral platform that displays image and video content for a

² A personal example of online social support occurred before I studied abroad in Chile. I posted a picture on Facebook of myself in the Portland airport, excited to embark on a five-month journey overseas. I received an outpouring of encouragement from my social network, with over a hundred “likes”, dozens of *comments*, and personal *messages*. Friends, family members, and casual acquaintances wished me luck and safe travels. The amount of emotional support I received online was unexpected but encouraging. Without Facebook, it would have been tedious and difficult to notify all of my friends and family about this big life event.

limited period of time (Bayer et al., In press). College students have reported Snapchat interactions as more enjoyable than using Facebook, but these Snapchat interactions were associated with lower social support. Users say they attend to Snapchat content more closely than archived content on Facebook, which may explain why Snapchat affords higher emotional arousal than other social media. Students said they would not use Snapchat to communicate emotions that were serious, intensely negative, or which required social support (Bayer et al., In press). This counter example illustrates how each social media platform enables different types of interactions, which offer varying levels of social support. In addition to being the most popular social media, Facebook appears to be especially conducive for people to acquire social support online.

There are various circumstances in which individuals' social support needs are not satisfied FtF, and SNS can help overcome these deficiencies (Rains & Tsetsi, 2017). Evidence suggests there are systematic differences in people's support availability based on factors such as demographics (e.g. age, race) and network size. In general, people who report greater perceptions of social support are: White Americans, women, older adults, married, have greater education and larger social networks (Bertera, 2005; Shaw et al., 2004). A recent study found that people with fewer existing support resources may experience the greatest support-related benefits of SNS usage. Traditional inequalities in support availability related to age and race were less evident or completely absent among SNS users (Rains & Tsetsi, 2017). This reinforces how Facebook provides additional means to support that can supplement people's existing social resources.

Integration of the Two Perspectives

Psychology and communication studies offer distinct explanations for why Facebook could make people simultaneously feel more *and* less connected. Psychologists are concerned that online social activity does not provide supportive benefits equivalent to FtF interactions (Fredrickson, 2013; Turkle, 2011). Given our limited hours in the day, they question the consequences of people spending time online that could be spent interacting directly with others. Communication researchers, on the other hand, are generally enthusiastic about how Facebook provides ways for users to maintain regular contact with individuals in their social networks (Boyd, 2014; Ellison & Boyd, 2013; Madianou, 2016; Utz, 2015). People's perceived social support is built through communication FtF and on Facebook, but my analysis revealed a discrepancy in what each field considers "authentic communication."

Based on human evolution, psychologists view FtF conversations as the most genuine, "real" form of communication we have, no matter how advanced technology becomes (Fredrickson, 2013; Short et al., 1976; Turkle, 2011). Psychologists argue that connecting in "sips" online does not add up to one big "gulp" of real conversation (Fredrickson, 2013; Turkle, 2011). Although communicating on Facebook is efficient and convenient, people may short-change themselves by depending on technology for social interactions (Turtle, 2011). While they acknowledge FtF conversations can be difficult and even uncomfortable at times, these researchers maintain that FtF interactions lead to more positive outcomes for our health and well-being (Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011). This perspective deems Facebook valuable for gathering discrete

bits of information and sharing emotions, but not for the complex task of coming to genuinely understand another person (Fredrickson, 2013; Turkle, 2011).

For psychologists, “authentic communication” includes the notion of physical “oneness” (Bernieri & Rosenthal, 1991; Fredrickson, 2013; Okdie et al., 2011; Turkle, 2011). Fredrickson describes how in FtF conversations, “feelings of oneness surface when two or more people ‘sync up’ and literally come to act as one, moving to the same hidden beat” (Fredrickson, 2013, p. 20). This coordination can result in more positive interactions and feelings of togetherness, which contribute to one’s sense of having supportive social relationships (Okdie et al., 2011). Because “oneness” requires copresence, these beneficial outcomes are not obtained on Facebook.

In contrast, other scholars question whether moments of “oneness” are truly possible at all (Peters, 1999). Peters says, “There are no sure signs in communication, only hints and guesses. Our interaction will never be a meeting of *cogitos* but at its best may be a dance in which we sometimes touch” (Peters, 1999, p. 268). He also mentions moments of synchrony, suggesting that communication should be measured by the successful coordination of behaviors between people. However, this perspective does not believe that moments of unity indicate “oneness”: “we can trade words but cannot share our existence. At best, ‘communication’ is the name for those practices that compensate for the fact that we can never be each other” (Peters, 1999, p. 268). This viewpoint believes “oneness” is an ideal that’s rare, if not impossible to achieve. Mediating technologies are not considered the factors preventing “oneness,” so Facebook interactions can be considered authentic like FtF conversations.

Concerns about the degradation of “authentic communication” are not new ideas that have arisen in response to the development of Facebook. In fact, they have emerged with every technological innovation from the printing press, to the telegraph, to smartphones (Baym, 2010; Slack & Wise, 2015; Thompson, 2013). Throughout history, people have typically responded to new technology in one of two extremes:

People have always responded to new media with confusion...On one hand, people are concerned our communication has become increasingly shallow. ...For others, new media offer the promise of more opportunity for connection with more people...Both perspectives reflect a sense that digital media are changing the nature of our social relationships. (Baym, 2010, p. 1)

People tend to implicitly assume the outcomes of new media (good or bad) are caused by the technologies themselves. This common form of causal thinking is called technological determinism (Winner, 1977; Slack & Wise, 2015).

Technological Determinism in Discourse about Facebook

Technological determinism is a reductionist theory founded upon beliefs that: 1) the technical base of society fundamentally affects all patterns of social existence; and 2) technological changes are the single most important source of societal change (Winner, 1977). Although new media are one of the most significant drivers of societal change, “technologies do not, in and of themselves, determine effects” (Slack & Wise, 2015, p. 53). Technological determinism is often found in popular and academic discourse on social media (Baym, 2010; Boyd, 2014).

People claim teens are “addicted” to Facebook and unable to hold a “real” conversation (Boyd, 2014; Turkle, 2011). Others say people miss out on “small talk” by using downtime to check *News Feeds* instead of engaging with their immediate environment (Fredrickson, 2013; Turkle, 2011). These types of statements suggest Facebook, a major part of the ubiquitously connected culture, is actually making us *less* social. “Making” is the key word, implying the SNS has agency over its users. Technological determinism is a favorable way to explain society’s relationship with technology because it blames the devices for undesirable outcomes, not people (Baym, 2010; Slack & Wise, 2015). This biased response is so common it often feels intuitive. It stems from our tendency to compartmentalize technology and culture as two distinct arenas, overlooking their interconnectedness:

Culture has always been technological and technologies have always been cultural. Technologies are integral to culture and not separate from it.

There was no, is no, ‘technological age.’ Human culture has always existed *in relation to* what we understand to be technologies: from voice, stone, and fire, to clock, computer, and nanotechnology. (Slack & Wise, 2015, p. 9)

The question, “is Facebook making us *less* social?” exemplifies technological determinism. This thesis was framed around a simplistic, provocative question to expose a critical assumption of causality that often goes unquestioned in daily life. Simple terms of cause and effect are insufficient to explain how Facebook contributes to users’ social lives (Baym, 2010; Slack & Wise, 2015). People can feel more *and* less connected on

Facebook for a multitude of reasons, only some of which were addressed in this thesis. Perspectives within psychology and communication research offer two constructive explanations, but many important questions require further investigation.

Future Research

Given its importance for health and well-being, future research should empirically test how Facebook and other SNS influence users' perceived and received social support. Studies could measure the relationship between one's psychological health and their online communication behaviors (e.g. number of sent/received messages, number of contacts). Researchers could directly ask people how much emotional and psychological support they receive, and see if this relates to their social media and FtF contacts. Such studies would give further insight into how SNS can supplement and extend people's existing support resources.

Another research topic could examine people's autonomic responses on social media. It would be interesting to determine if some variation of interpersonal coordination happens online. I predict that linguistic style matching (LSM) could occur on Facebook messages and other chat functions. LSM is a semantic form of mimicry and coordination that can reflect interpersonal similarities, and other factors such as empathy and social sensitivity (Ireland & Pennebaker, 2010). Psychologists consider LSM an indication of how engaged people are during conversations, so future research could apply LSM measures to online communications to study rapport and other variables.

Social media research could also be informed by A/B testing, which is an industry standard technique to find out what texts and interfaces are most effective (Christian,

2012). A/B tests employ two variations of a product for a small percentage of users. The more successful version is determined by metrics such as the number of clicks, views, and shares (Freeland, 2016). Researchers could use similar tactics to understand how particular features on Facebook encourage user interaction.

Lastly, there is a need for more cross-cultural research. Social media are used worldwide, but the lack of international studies makes it difficult to draw cultural comparisons. Facebook has reported that approximately 85% of their daily active users are outside the United States and Canada ("Facebook Newsroom", 2017). However, the majority of social media research is concentrated in the United States (Osch & Coursaris, 2014). Major institutions based in the U.S. such as Microsoft and IBM have a strong effect on the social media domain, which influences the scope and type of studies being conducted. Future research should expand the sample populations to examine how SNS are used in different countries.

Conclusion

This literature review of two separate fields generated no definitive answer to the question, "Is Facebook making us *less* social?" The analysis has shown that different modes of communication build different aspects of perceived social support. FtF interactions establish genuine, deep connections between people. Through eye contact and synchrony, individuals may experience momentary feelings of togetherness, which Fredrickson calls "positivity resonance" (Fredrickson, 2013). Facebook interactions enable an "ambient awareness" through frequent contact and sharing of visual content among users (Leonardi & Meyer, 2015; Levordashka & Utz, 2016; Madianou, 2016).

Facebook's features are conducive for relationship maintenance, serving to reinforce and expand users' existing support resources. Facebook does not replace the need or desire for FtF interactions, but it offers additional means to social support when it's not readily obtained otherwise (High & Steuber, 2014; Rains & Tsetsi, 2017).

Facebook is thoroughly embedded into people's daily lives, so their SNS activity cannot be extracted from other social practices (Ellison & Boyd, 2013). Facebook enables and encourages many different practices, some of which may be considered more social than others. Individuals could spend hours online at the expense of direct, FtF contact. Others could use Facebook to initiate *more* FtF contact. A person could revolve through these different uses on a given day. Facebook has become an everyday communication staple for millions of people, to the point that "opting out" is not a realistic or desirable option for most (Ellison & Boyd, 2013; Madianou, 2016; Przybylski & Weinstein, 2017; Rains & Tsetsi, 2017).

Many consequences of Facebook and other SNS remain to be explored, both beneficial and problematic. When discussing these topics, we should avoid deterministic orientations that instinctively blame new technology for undesirable social outcomes (Baym, 2010; Boyd, 2014). Danah Boyd urges people to consider the bigger picture:

It is easy to make technology the target of our hopes and anxieties. Newness makes it the perfect punching bag. But one of the hardest - and yet most important things we as a society must think about in the face of technological change is what has really changed, and what has not. (Boyd, 2014, p. 212)

Understanding how technologies influence society is an ongoing concern for scholars and laypeople alike (Baym, 2010; Slack & Wise, 2015). For social scientists, devising a translational model that can account for change across the population is a methodological challenge. Perspectives from psychology and communication studies were used for this thesis, but other disciplines like sociology could also contribute to this research.

So is Facebook making us *less* social? It depends on what you mean by “social.” If you define social as a deep, shared sense of togetherness among people, then FtF conversations remain especially suited to develop supportive relationships. However, if by social, you mean regular contact with a network of people, then it is clear that Facebook provides means to maintain relationships across time and space. Although the platforms and devices change at a rapid pace, the social motivations driving technology use remain the same throughout human history (Baym, 2010; Boyd, 2014; O’Sullivan, 2000). Supportive relationships are sustained through communication practices, which continue to evolve with the technologies themselves. As social creatures, we talk and share stories in any which way we can – from sitting around a campfire, to reading books, to viewing posts on Facebook.

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