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# Social Network Sites and Well-Being: The Role of Social Connection

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**Abstract**
In the early days of the Internet, both conventional wisdom and scholarship deemed online communication a threat to well-being. Later research has complicated this picture, offering mixed evidence about how technology-mediated communication affects users. With the dawn of social network sites, this issue is more important than ever. A close examination of the extensive body of research on social network sites suggests that conflicting results can be reconciled by a single theoretical approach: the interpersonal-connection-behaviors framework. Specifically, we suggest that social network sites benefit their users when they are used to make meaningful social connections and harm their users through pitfalls such as isolation and social comparison when they are not. The benefits and drawbacks of using social network sites shown in existing research can largely be explained by this approach, which also posits the need for studying specific online behaviors in future research.

**Keywords**
social network sites, well-being, social comparison, Facebook, social media

The history of communication technology is a history of concern about progress. From the telegraph to the telephone, new advances in communication technology have been met with trepidation—often seen not as a way to bring people closer together but as a threat to more meaningful methods of interaction (Katz, Rice, & Aspden, 2001).

The Internet is the latest example of this trend. Initial studies on Internet use suggested negative consequences for users' offline social networks and social integration. For example, the HomeNet Study placed computers in the homes of new Internet users and found that increased Internet use was linked to declines in the size of users' social circles and increases in depression and loneliness (Kraut et al., 1998). This finding was soon echoed by other work suggesting that Internet use displaced more beneficial face-to-face socializing, thereby damaging users' relationships and well-being (e.g., Nie, 2001).

However, this perception that Internet use had primarily negative consequences for its users was quickly complicated by further research. In fact, when Kraut and colleagues (2002) revisited their original HomeNet sample, they found that the negative association they had observed had disappeared. Some research suggested that divergent findings regarding the outcomes of Internet use might be due to changes in the nature of Internet use itself (e.g., Bessière, Kiesler, Kraut, & Boneva, 2008; Valkenburg & Peter, 2009).

Indeed, it is common for communication technology to change, sometimes rapidly. Individuals engage in very different social activities online today than they did 20 years ago. Consider the list of activities enumerated in the HomeNet study: "email, distribution lists, multiuser dungeons (MUDs), chats, and other such applications" (Kraut et al., 1998, p. 1017). Activities such as chats (in the form of chat rooms, at least) and MUDs have largely disappeared from users' awareness, supplanted by newer platforms, such as social network sites. Social network sites are defined as

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> networked communication platforms in which participants 1) have uniquely identifiable profiles that consist of user-supplied content, content provided by other users, and/or system-level data; 2) can publicly articulate connections that can be viewed and traversed by others; and 3) can consume, produce, and/or interact with streams of user-generated content provided by their connections on the site. (Ellison & boyd, 2013, p. 158)

Social network sites (e.g., Facebook, Instagram, and Twitter) have exploded in popularity in recent years; Facebook, the most heavily used social network site, has 1.71 billion users (Statista, 2016). Although social network sites have improved on the social forms of Internet use available in the HomeNet era, questions remain about the potential consequences of their use. Many studies have been conducted on Facebook and other social network sites, but to date, no single theoretical perspective has organized the literature on the association of social network sites with well-being. One review of existing research on Facebook described it as "diverse and fragmented" (Wilson, Gosling, & Graham, 2012, p. 203).

This fragmentation is understandable in light of the fact that this literature arose across disciplinary boundaries, guided by concepts that emerged from different theoretical backgrounds. Difficulties in using experimental designs to assess causality in this domain also present challenges for testing any overarching theory linking use of social network sites and well-being. These issues, however, do not mean that past research cannot be conceptually integrated. Social network sites appeal to their users because humans are social creatures who require connection with others to thrive (Baumeister & Leary, 1995; Leary & Baumeister, 2000), and these sites help people meet this basic need. However, the same social risks that abound in everyday life also abound on social network sites.

The radical simplicity of our proposal is to view past and future research endeavors through the lens of this understanding: Whether behavior on social network sites is good or bad for well-being depends on whether the behavior advances or thwarts innate human desires for acceptance and belonging. In other words, our interpersonal-connection-behaviors framework suggests that when social network use is focused on promoting connection, it is linked with positive outcomes; when it is not focused on promoting connection, its consequences are more complex.

Drawing this distinction between types of social processes accounts for many seemingly contradictory findings on the outcomes of the use of social network sites. It also calls for more nuance in future work: Researchers must carefully examine the specific behaviors of users in context when studying social network sites.

## Associations Between Use of Social Network Sites and Lower Well-Being

A sizable body of research has identified associations between the use of social network sites and lower well-being. Our framework suggests that negative consequences are likely to result from the use of social network sites when individuals engage in social networking behaviors that do not fulfill needs for acceptance and belonging. These behaviors are not new to these sites; instead, they can be understood as traditional pitfalls of social interaction within a novel context.

The first of these pitfalls is isolation. While it might seem strange to be isolated on a social network site, research supports a link between Facebook use and loneliness (e.g., Song et al., 2014). This link is likely bidirectional: Lonely people are more drawn to mediated communication (Morahan-Martin & Schumacher, 2003), but social network sites may also open the door to loneliness if they are used for "social snacking," or temporary but illusory fulfillment of social needs (Gardner, Pickett, & Knowles, 2005). For example, social network sites allow for many activities that feel social but are not interactive, such as lurking on strangers' profiles (Carpenter, Green, & LaFlam, 2011) or passively viewing Instagram feeds. These activities may make users feel as if their immediate social needs have been met. However, such activities fail to contribute to interpersonal connection, ultimately resulting in a deficit in important relational resources, such as social support (Green et al., 2005).

Social comparison is a second potential pitfall of using social network sites. Repeated self-comparison has been linked to negative outcomes (White, Langer, Yariv, & Welch, 2006)—particularly when the comparison is to a superior other (Tesser, Millar, & Moore, 1988). Social network sites provide constant opportunities for social comparison. When users compare their lived experiences with others' curated self-presentations (e.g., perfect Pinterest projects; see boyd & Ellison, 2007, for a review of self-presentation on social network sites), they may feel their lives are lacking and, thus, suffer from envy and depression. Individuals who use social network sites more passively, such as by viewing profiles without interacting with other users, may be at the greatest risk for social comparison. Not only do they fail to reap the benefits of the connection-promoting use of these sites, they may also lack the information about their connections' real lives to recognize that the selves put forth on social network sites are constructed.

Several studies suggest that negative links between the use of social network sites and well-being may be mediated by social comparison. For example, people who spend more time on Facebook and people who have more strangers as Facebook friends are more likely to feel that others have better lives than they do (Chou & Edge, 2012). In daily diary research, more time spent on Facebook was associated with more social comparison, which was in turn associated with higher levels of depression; reversed models that attempted to treat depression as the mediator between Facebook use and social comparison did not fit the data (Steers, Wickham, & Acitelli, 2014). People who are more likely overall to compare themselves with others are both more likely to use Facebook and more likely to suffer from lower self-esteem after Facebook use (Vogel, Rose, Okdie, Eckles, & Franz, 2015). Experimental work also confirms that comparing oneself with superior others' profiles on social network sites can result in greater dissatisfaction with one's achievements (Haferkamp & Krämer, 2011). In sum, when individuals use social network sites in a way that does not promote interpersonal connection, they open themselves up to the pitfalls of isolation and social comparison: significant dangers to well-being.

## Associations Between Use of Social Network Sites and Higher Well-Being

Connection-promoting use of social network sites, on the other hand, may benefit users by helping them meet needs for acceptance and belonging. A wealth of research has found that high-quality intimate relationships are critical to well-being, affecting happiness, health, and even longevity (e.g., Kiecolt-Glaser & Newton, 2001). This is likely due to the cumulative benefits of everyday interactions that allow relational partners to demonstrate responsiveness, or acceptance and care for each other's needs (Reis, 2012). For example, when individuals self-disclose to their relational partners, the responsiveness of their partner's reaction predicts the growth of intimacy in their relationship (Laurenceau, Barrett, & Pietromonaco, 1998).

Self-disclosure is particularly relevant because technology-mediated self-disclosure is at least as frequent and as meaningful as face-to-face self-disclosure, (Nguyen, Bin, & Campbell, 2012) and may have greater implications for increasing intimacy (Jiang, Bazarova, & Hancock, 2011). Looking specifically at social network sites, researchers have found that a correlation between positive attitudes toward online social connection/self-disclosure and relational closeness is mediated by increased use of Facebook (Ledbetter et al., 2011). These findings suggest that the disclosures that users offer through social network sites may have the same relational benefits that face-to-face disclosures provide. If social network sites can be used to strengthen relationships by increasing intimacy, and strong relationships are linked to well-being, then social network sites should boost well-being to the extent that they are used in the service of connection.

Our interpersonal-connection-behaviors framework unites the findings of multiple other studies that have found positive associations between the usage of social network sites and well-being. For example, multiple studies—both experimental and correlational—show that increases in Facebook use lead to increases in felt connection, perceived social support, and social capital; these relationship-quality indicators, in turn, are related to increased well-being (Ahn & Shin, 2013; Deters & Mehl, 2013; Ellison, Steinfield, & Lampe, 2007; Liu & Yu, 2013). Another finding provides support for self-disclosure as a potential mechanism by demonstrating that self-disclosing on social network sites also increases well-being by increasing perceived social support (Lee, Noh, & Koo, 2013).

These findings are mostly correlational; therefore, we cannot claim decisively that using social network sites increases well-being by generating relational closeness. However, the interpersonal-connection-behaviors framework plausibly explains positive associations between use of social network sites and well-being. Moreover, this framework helps organize a disparate literature that has focused on different potential outcomes and predictor variables; many existing findings can be grouped under the umbrellas of well-being and relationship quality.

## Behavior on Social Network Sites and Well-Being

If connection-promoting use of social network sites is beneficial but non–connection-promoting use is detrimental, studying specific behaviors would allow researchers to distinguish the difference. In fact, a small subset of studies on Facebook use have found both beneficial and detrimental outcomes, depending on behavioral factors that align with our distinction between connection-promoting and non–connection-promoting use. These studies provide crucial evidence that the outcomes of using social network sites depend on choosing behaviors that avoid its dangers and maximize its benefits.

For example, one study found that for first-year college students, number of Facebook friends is negatively correlated with college adjustment, while for college seniors, number of Facebook friends is positively correlated with college adjustment (Kalpidou, Costin, & Morris, 2011).

The authors suggested that seniors are using Facebook to connect with local friends, while first-year students are using Facebook to focus on social networks they have left behind. The latter behavior would inhibit feelings of integration and connection within one's current environment, while the former may promote it.

Work on motivations for using Facebook also supports the distinction between connection-promoting and non–connection-promoting use. A longitudinal study conducted across two time points looked at the impact of Facebook use on adolescents' well-being. Use motivated by compensating for insufficient social networks predicted increased loneliness at follow-up, while use motivated by the desire to connect with other people predicted decreased loneliness at follow-up (Teppers, Luyckx, Klimstra, & Goossens, 2014). The authors explained these results by suggesting that compensation motives led to passive use and connection motives led to active use, but they did not measure this distinction directly. However, other research has empirically distinguished between passive Facebook use (defined as consuming information without direct exchanges) and active Facebook use (defined as activities that facilitate direct exchanges with others). Across two studies using experimental methods and experience sampling, passive Facebook use was linked to declines in well-being, while active Facebook use was not (Verduyn et al., 2015). In other words, the effect of using social network sites depended entirely on the nature of that use.

## Conclusions

While it is tempting to search for a simple effect of social network sites on well-being, the literature is best explained by differentiating between connection-promoting and non–connection-promoting use. Much of this literature is correlational, prohibiting any absolute claim that this framework has causal validity. However, it is consistent with the sum of the existing research. Positive associations between well-being and use of social network sites are typically linked to benefits of increased connection, such as social support, while negative associations between well-being and use of social network sites go hand in hand with behaviors that do not help to meet users' needs for acceptance and belonging.

The interpersonal-connection-behaviors framework has other benefits beyond illuminating contradictions in prior research. Though we have primarily reviewed literature on Facebook, this theoretical approach is applicable to social media generally, as well as to other forms of mediated communication. The rapid evolution of the Internet allows specific platforms to rise and fall; research too heavily rooted in the particular features of any given social network site may be made irrelevant as that platform's use wanes. By focusing instead on behavior and motivation, this theory can explain the consequences of any form of mediated communication in ways compatible with basic psychological research on human social interaction. This theory also has room to account for individual differences, such as self-esteem and social anxiety; their effects should manifest through different patterns of behavior that should still drive well-being in ways predicted by the current framework.

If social network sites are to function as constructive tools that foster healthy relationships, researchers must focus on identifying further beneficial and detrimental behaviors for users of these sites and disseminating this knowledge to inform their actions and decisions.

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Burke, M., & Kraut, R. E. (2016). The relationship between Facebook use and well-being depends on communication type and tie strength. *Journal of Computer-Mediated Communication*, *21*, 265–281. doi:10.1111/jcc4.12162. Additional research supporting the importance of specific Facebook behaviors in predicting well-being as a consequence of use.

Wilson, R. E., Gosling, S. D., & Graham, L. T. (2012). (See References). A comprehensive review summarizing much of the early research on Facebook from multiple theoretical perspectives.

### Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

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