
The Dark Side of Social Media: What Makes Some Users More Vulnerable Than Others?

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ABSTRACT

Existing studies have not reached a consensus with regard to how social media may positively or negatively affect users' well-being. In this study, we endeavor to contribute towards HCI/CSCW knowledge on this open space and offer more empirical evidence. In doing so, we conducted 10 semi-structured in-depth interviews to explore the downsides of social media. We present four themes in social media use that adversely affect users' well-being emerging in participants' self-reports, namely, social comparison, fear of missing out, political discussions, and cyberbullying. Furthermore, we discuss two potential dynamics through which people consider their social media use negative to their well-being: 1) self-oriented internalization where users perceive the social media experience differently (negative or neutral) based on their personality traits; and 2) content-oriented internalization where

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CSCW '19, November 09 - 13, 2019, Austin, TX, USA

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ACM ISBN 978-1-4503-6692-2/19/11.

<https://doi.org/10.1145/3311957.3359493>

KEYWORDS

social media;well-being;social comparison;FOMO;cyberbullying;political discussions

Table 1: The demographic information of participants

FB: Facebook, IG: Instagram, SC: Snap Chat. The platform names are listed based on use frequency for each user.

Participant	Gender	Age	Platforms
P1	F	24	FB/IG
P2	M	24	FB/IG
P3	M	20	FB/IG
P4	F	21	IG
P5	F	19	SC/FB/IG
P6	F	20	TW/FB
P7	F	20	FB/SC/IG
P8	F	19	SC/IG/TW
P9	M	30	FB
P10	M	33	FB

users perceive the experience negative regardless of their personality traits. We argue that identifying these two dynamics of internalization helps understand the complex relationships between social media use and user well-being, which can then inform the future design of social media systems to remedy these adverse social and psychological impacts.

INTRODUCTION

As of 2019, there are 3.26 billion users interacting with social media[3]. A large body of studies has investigated the potential effects of social media on user's mood and well-being. Yet results of these investigations seem to be inconsistent. For example, Jelenchick found no significant association between the use of social networking sites (SNS) and older adolescent university students' degree of depression [2]. In contrast, five years later, Lin surveyed 1787 adult users of multiple social media platforms and found a positive relationship between social media use and depression [5]. In addition to the debates regarding whether engaging in social media is positive or negative to users' mental states, some researchers argued that such an effect is subject to personality traits: Kraut et al. [4] suggested that online communication is positively associated with well-being for extroverts and people with adequate social support, but negatively for introverts and people with low social support. Similarly, no significant relation was found between instant messaging and depression for people who score low on loneliness, but the relationship was significant for lonely people [8]. In terms of the need for social support and self-determination, existing studies show that users with low self-esteem could increase their social capital by using Facebook while those with high self-determination do not [1]. In summary, researchers do not have consensus on how social media may positively or negatively affect users' well-being. Therefore, in this study, we endeavor to contribute towards HCI/CSCW knowledge on this open space and offer more empirical evidence. In doing so, we conducted semi-structured in depth interviews to explore the downsides of social media using participants' own accounts, such as situations and contexts in which social media may adversely affect their well-being.

METHODOLOGY

We recruited 10 participants through flyers distributed in a mid-sized university in the US. Interviews were conducted face-to-face and lasted around thirty minutes. The average age of participants was 23 years old ($SD=4.9$) (Table 1). All participants used at least one social media platform at least once a day. Example interview questions include *"What are negative things on social media? What were the occasions that you felt bad on social media?"*. We specifically asked our participants to openly discuss how using social media platforms can affect their well-being in any negative way without priming or reminding them of the stereotypical social media cons. After completing the interview, each participant received a \$5 gift card. We then followed an open coding approach and qualitatively analyzed frequent themes emerging in participants' accounts [6].

RESULTS

Here we present four themes of social media that adversely affected participants' well-being.

Social Comparison Social comparison refers to the behavior of comparing oneself to others in order to evaluate some self-aspects [7]. Previous research suggests that Facebook frequent users tend to have poorer self-esteem when they are exposed to upward comparison than when they are exposed to downward comparison [9]. Our results were consistent with the idea that social comparison negatively affects social media users' well-being. For example, P4 stated: *"There are a lot of bloggers who make their Instagram very nice. I was comparing myself to them and was not happy! Comparison is a thief of joy!"* and P8 added, *"Goal on Insta is to get likes from at least one forth of followers. it was my goal at a point I was obsessed. I was obsessed about number of likes but now I'm better. I now put less value on social media account."* In these quotes, P7 and P8 expressed the desire to receive more *likes* on social media than others. To do so, P7 pointed to the importance of the so-called *prime times* on social media: *"I try to post on prime times, when my posts will get more likes."* They defined prime times as the times when it is more likely to receive more *likes* for a post than other times during the day. This obsession led them to feel bad about the posts that received a low number of likes and deleted them.

Fear of Missing Out Another negativity came from the fear of missing out (FOMO). For example, when observing a post from a group of friends, some of our participants felt left out. P2 and P3 discussed their frustration: *"If someone posts a story (in which) they are doing some fun, a group of friends that you are also their friends, I think why they are having fun and I am not. It makes me lonely."* (P3) and *"Sometimes you feel lonely, I don't know why. I See my friends and feel lonely that why I'm not there"*(P2). This experience led to their feelings of loneliness, loss of confidence, and de-attachment.

Cyberbullying Some participants reported instances of cyberbullying and noted them as one of the main downsides of social media. P5 told an important story, *"My sister got bullied by a girl in her class. In (her) middle school a girl made a post for my sister. (a) Picture commenting how fat she was. my Sister still thinks about that day. (she now is) In high school and puts shirts, before this, her opinion was that is me; but now she is more cautious.) by then (after being bullied) she cried hard. She also visited counselors."* In fact, all the participants who brought up cyberbullying had negative feelings about it.

Political Discussion Similar to cyberbullying, political discussions were also among most non-favorable experiences of using social media. Participants found such discussions unpleasant, ineffective, and frustrating. P3 described a negative experience of arguing with another user who even had the same political ideology with him: *"He was a bit insulting to other parties. I usually didn't comment, just a couple of instances. If he was going too far I used to comment, and I don't regret. It ended up generating discussion."* P5 also believed that political discussions on social media did not work: *"It's more that they want to tell people you are wrong and I'm right. But no why! There is no debate; it's fight."* Therefore, political discussions not only were perceived useless but also irritating to some users.

DISCUSSION: WHY NEGATIVE?

Why and how did some of our participants consider their social media use negative to their well-being? Here we discuss two potential dynamics: self-oriented and content-oriented internalization. In general, it appears that not all of social media experiences are a function of user's interactions with external stimuli; in some cases, there needs to be an internal factor nudging users' attention towards certain dimensions of available information. For example, not everyone gets involved in social comparison, while the content that can trigger social comparison (e.g., a higher number of likes) is available for most users. Another example is the FOMO. As mentioned, seeing images of a group of friends might trigger FOMO for some users while some others do not care. In this sense, social comparison and FOMO seem to promote self-oriented internalization meaning there is an internal stimulus in the users which can trigger the emotion. In contrast, content-oriented experiences are more context driven. In short, it is not the user's individual traits that trigger the attention but the content itself. Therefore, exposure to the content alone is sufficient for the user to feel the experience. However, an internal factor might still impact the extent to which the user would be affected by the experience, though most users may feel the effect regardless. These internalizations are not a dichotomy; they might be intertwined in users' experience, which point to the complex relationships between social media and user well-being.

Resilience and self-esteem as predictors The extent to which our participants were affected by self-oriented aspects varied. To better study this variation, we highlight the low levels of self-esteem [9] and resilience [10] among those who were more involved with social comparison or FOMO and occasionally high resilience and self-esteem among those who were not. For example, P9 was not involved in social comparison nor experienced FOMO on Facebook. He expressed a high resilience to unpleasant experiences on social media, saying "*I can get over difficult situations.*" Another example is P6, who was not involved in social comparison and believed that she is usually on her own, not caring about what others do as much. In contrast, those who are highly involved with social comparison and felt FOMO tended to exhibit some traces of low self-esteem and resilience. For example, "*I sometimes feel I'm not very useful*" (P7) and "*I'm a bit pessimistic about what I can achieve*" (P8). In this sense, those who have lower self-esteem and resilience levels due to their self-oriented internalization style may also tend to experience more of social media's negative effects on their well-being.

LIMITATIONS AND FUTURE WORK

A relatively small sample size from a subset of population (college students) is our main limitations. To reach saturation on all themes and find other possible themes, we need to recruit more participants.

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