



# Modeling the hidden mediating relationships between SNS privacy and SNS impression construction

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## ARTICLE INFO

### Keywords:

Social networking systems  
SNS  
Impression management  
Stalking awareness  
SNS privacy  
Image construction

## ABSTRACT

This research develops and tests a social networking site (SNS) responsible impression management (SNS-RIM) model to investigate the impact of social networking site impression management (IM) on users' continued SNS engagement, thereby contributing to information systems research. To collect data, the authors administered a customized survey instrument over three weeks and gathered 456 responses. A total of fifty-seven incomplete responses were removed, resulting in 399 useable responses, with which to calibrate and test the model. The model increases understanding of SNS-RIM patterns which are strategies for protecting privacy. Findings indicate that users desire both privacy and an active social media presence, and there is a tradeoff between having an overall active social media presence and protecting personal information privacy. This study determines that SNS impression management, SNS stalking awareness, and technological SNS privacy controls are good predictors of online SNS behaviors. The methodology employs factor analysis and PLS/SEM to test and confirm that the SNS-RIM model creates responsible impressions in SNS environments. This research increases model complexity over previous work, mediating behavioral relationships posited in this study. It demonstrates the complexity of social networking behavior and IM theory's appropriateness to explain dynamic changing social structures, complementing existing SNS research, and how social capital influences IM.

## 1. Introduction

Impression management is an essential skill for an individual who initiates and maintains social relationships (Günsoy, Olcaysoy Okten, Cross, & Saribay, 2020; Krämer & Winter, 2008). While the individual seeks to convey a positive impression, they work at appearing genuine or authentic by deftly avoiding the façade of deceit or insincerity (Krämer & Winter 2008). In essence, the impression consumer's reaction to the self-portrayal determines the individual's impression success—called a resonant image if successful, and a discordant image if not (Goffman, 1959, pp. 1–76). Accordingly, the focus of this research is impression management in the social network environment.

When Mark Zuckerberg introduced Facebook© in 2004, he intended it as a web-based social forum only for Harvard students, their families, and friends (D. M. Boyd & Ellison, 2007). Unexpectedly, Facebook quickly expanded to include other institutions and users throughout the

USA and world (D. Boyd, 2006). Because of its remarkable growth as a leading social networking site (SNS), Facebook's controversial privacy and information misuse issues have become increasingly unsettling. As Facebook evolved, recent research has discovered an unwieldy privacy paradox besetting its users, as well as other SNS site users (Durnell et al., 2020).

This research characterizes the paradox as follows: most SNS users aspire to protect their personal information while simultaneously revealing selected personal information through active social media engagement (Acquisti & Grossklags, 2006; Choi & Kim, 2016). Although earlier research has investigated impression management in SNS settings (Gerhart & Sidorova, 2017), this work is the first to explore online, user-created impression management strategies that attempt to address and resolve the inherent privacy paradox. Being forced to deal with possible public exposure and algorithmic content censure, contemporary users exhibit an enhanced awareness that SNS information

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<https://doi.org/10.1016/j.chb.2021.106941>

Received 3 November 2020; Received in revised form 24 June 2021; Accepted 1 July 2021

Available online 14 July 2021

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exposure can induce inadvertent and unwanted impressions, heightening their privacy anxiety (Durnell et al., 2020). Consequently, increasing numbers of SNS users now perceive a compelling need for managing their public-facing impression online (Zhang & Rau, 2020).

The overarching research questions of this study are then:

1. What are SNS impression management behaviors? and
2. What are the factors that influence these behaviors? More specifically, in response to unintended target audiences violating SNS users' online privacy, the relevant question is: What are the SNS users' impression management strategies that allow SNS users to enjoy uninterrupted social media presence?

Within the SNS-RIM model, impression motivation contains three dimensions: SNS-RIM awareness, SNS-RIM stalking awareness, and technological SNS privacy. Such dimensions described in the construct section inspire SNS-RIM users to devise impression management strategies that confront the privacy paradox. SNS ascendancy did not go unnoticed by the commercial world. Businesses and other institutions quickly recognized the potential value of harvesting SNSs for user information advantageous to marketing, branding, procurement, and other venues (Argyris, Muqaddam, & Liang, 2020).

The commercially oriented information harvesters co-opted the already-active social media environment to promote products and build brand identity, augmenting the SNS with an extensive store of business contacts and connections (Kavanaugh et al., 2012; Nguyen et al., 2019). Silent listeners, e.g., businesses, governments, and other attracted organizations mined the now-amplified network, scouring SNS accounts for business-beneficial user information. Thus, the silent listeners exploited their unauthorized access, creating an unintended audience for once-private user data (Stutzman et al., 2013). The perceived loss of privacy by users is significant. The Pew Research Center reported that an astonishing ninety-one percent of SNS-using respondents believe they are powerless to prevent such unauthorized use, despite Facebook's much-celebrated security features (Rainie, 2018). Besides Facebook, unintended audiences also harvest from online dating sites.

Unauthorized data access also compromises user privacy on dating sites. Approximately 380 million people use dating sites throughout the world, using online dating sites such as Bumble, OkCupid, eHarmony, Tinder, and Match (Mantell & Sapena, 2018). While some online users are honest in their self-presentation, they are the exception. Serious users typically engage in gratuitous self-presentation, portraying an illusion of exaggerated quality intended to impress the target-audience (Ramdenee, 2019). One by-product of dating sites is the proliferation of dating-strategy sites (Sharabi & Dykstra-DeVette, 2019). Subscribers develop peculiar skills. Research of dating-site data suggests that increased online engagement (i.e., practice) heightens the users' efficiency in searching for a dating partner (Rosenfeld et al., 2019). During the searches, users also develop interpersonal skills that improve their offline relationships and improve their quality of life (Erjavec & Fiser, 2016).

Although Facebook has encouraged users to develop and maintain online relationships, the introduction of Facebook Dating in 2019 formally inaugurated the SNS as a dating service. The new service affords individuals over eighteen years of age with an integrated tool designed to facilitate interpersonal relationships—drawing on its vast information stores (Matsakis, 2019). Users can be self-present by selecting and uploading personal information from Facebook or other venues into their dating profiles. However, evidence suggests that Facebook fails to adequately police profile authenticity, significantly increasing privacy risk exposure for its subscribers (Zap et al., 2018). Cyberattacks also risk SNS subscriber information. Popular trusted providers like Yahoo and LinkedIn have acknowledged cyber-attack information breaches (Fogues et al., 2015; Stempel & Finkle, 2017). As a result, SNS users are becoming increasingly aware of data breaches and their exposure consequences (Albayram et al., 2017). Users are

concerned about protecting their privacy, but not enough to forego an active social media presence. Research indicates that SNS users have been inconsistent about protecting their personal information (Acquisti & Grossklags, 2006; Barnes, 2006; Barth & de Jong, 2017). As they pursue interpersonal relationships essential to their social lives, imprudent moments can compromise their personal information (Stutzman et al., 2013). Therefore, many preventable breaches are the direct consequence of lax user attitudes and careless information sharing behaviors (Albayram et al., 2017).

If a user's information is compromised, they develop privacy awareness resulting in them subsequently adopting use strategies aligned with SNS privacy features. These behaviors can be explained through the lens of impression management theory (Goffman, 1959, pp. 1–76), extended by the two-factor impression management model (Leary & Kowalski, 1990). Leary and Kowalski (1990) defined impression motivation as an individual's desire to influence other people's opinions about them. As a response to impression motivation, they described the impression construction as people modifying their behaviors to influence others' impressions about them. The Two-factor model suggests that impression motivation is an antecedent of impression construction (Leary & Kowalski, 1990).

Although the two-factor model predates the SNS, it is foundational for this research. To that end, this research contextualized the offline model for SNS, enlarged it to address online behaviors and amended its exclusive face-to-face focus with online deputation (Leary & Kowalski, 1990). The incipient two-factor model posits impression motivation to consist of three dimensions: goal relevance of impressions, the value of the desired goals, and discrepancies between selected and current images (Leary & Kowalski, 1990). However, it does not consider the awareness effect on motivation. Earlier research indicates that the awareness of the surrounding environment is a fundamental motivational force (David Gefen & Straub, 2004); people are motivated to act because they know (are aware) that they can achieve beneficial results (Bagozzi & Yi, 1988).

Furthermore, a recent study in another application revealed that when consumers are aware of usefulness, adoption is motivated (Hegner et al., 2019). This work analyzes user SNS-RIM strategies by renovating the offline Two-Factor model (Leary & Kowalski, 1990), and contextualizing it to the online SNS context. First, the research objectives are to contribute to IS research by identifying and bridging identified gaps in the online impression management (IM) literature with IS theory. Second, this research extends the Two-Factor Impression Management Model to embrace online environments where communication is web-based, distributed, asynchronous, and anonymous. Third, this research integrates how the awareness of usefulness influences motivation (Ijaz, Ahmadpour, Wang, & Calvo, 2020; Ju & Cho, 2020) into the new SNS-RIM model, introducing three novel dimensions related to the awareness dimension and contextualizing them to the SNS framework.

## 2. Literature review

### 2.1. The framework of impression management (IM) theory

This theoretical framework draws from research on self-presentation, moral values, the threat to identify, and the IS and SNS literature. Goffman's (1959) IM theory explicates the human interactive communication process, characterizing human behavior in social interactions. Using a theater metaphor, Goffman (1959, pp. 1–76) postulates that an individual engaged in social interaction performs for a target-audience. Impression motivation, the reason for performance behavior, galvanizes an actor's resolve to captivate an audience, thus informing the actor's impression construction process (Leary & Kowalski, 1990). The audience's reaction will signal whether the impression was successful. If the impression was unsuccessful, it would evoke a discordant image. However, if the image were successful, it would evoke

a resonant image, which is the actor's goal (Goffman, 1959, pp. 1–76). Several research streams have explored IM theory. For example, Dillard et al. (2000) applied Goffman's (1959) theater metaphor as a device to describe the institutional role of innovative information systems in the collection, storage, and retrieval of information. Similarly, Krasnova, Spiekermann, Koroleva, & Hildebrand (2010) depicted a self-disclosure structural equation model based on IM. The model quantifies perceived benefits as individuals carefully manage their impressions, helping them build and maintain interpersonal relationships. One way for Facebook users to enjoy these benefits is to engage in self-disclosure behavior (Krasnova et al., 2010).

Recently, Chen, Dong, Wang, & Chen (2020) found that the formation of resonant or discordant impressions for a preferred target-audience (e.g., ordinary, close, and best friends) depends on the volume of “real-time daily-activity information” the user is willing to share (Chen et al., 2020). This research similarly characterizes constructs, relationships and develops hypotheses based on IM theory within the SNS context.

## 2.2. SNS impression management (SNS-RIM)

SNS profiles help users build online personas—a semblance, or guise, of one's personality presented to others. In conformity with their personas, users create connections via friend lists (a feature of many SNSs) and then traverse the connections as communication paths (Boyd & Ellison, 2007). When facilitated by the organization, employees navigate SNS connections to interact with colleagues, thereby improving institutional communication, collaboration, and performance in the online workplace (Schmidt et al., 2016).

Self-presentation involves ingratiation (Azeem, De Clercq, & Haq, 2020). An ingratiation is a deliberate act intended to convince associates that the actor possesses the desirable qualities and skills necessary to complete a job with competence (Broisy, Bangerter, & Sieber, 2020). In other cases where an actor aims to achieve personal recognition or promotion, the actor's awareness and insight into their superiors' power to promote (or demote) can prompt specific IM behaviors (Broisy et al., 2020). As a result, IM embeds self-presentation in organizational settings (Rui, 2020).

Online, people engage in IM when they regulate information in SNS environments (Wu et al., 2016; Zheng et al., 2016). Research indicates that today's SNS users tend to integrate their social and professional connections (Argyris et al., 2020). They strategically choose with whom to connect, purposely, and cautiously posting self-enhancing content visible to both professional and personal contacts (Günsoy et al., 2020). As a result, the user becomes more familiar in a broader range of social circles and, simultaneously, gains respect at work (Batenburg & Bartels, 2017).

## 2.3. SNS impression motivation

Leary and Kowalski's two-factor impression management model suggests that impression motivation leads to IM (Leary & Kowalski, 1990). In the SNS context, SNS users are motivated to engage in SNS IM. This prior research drew parallels between Leary and Kowalski's (1990) factors of impression motivation and SNS impression motivation factors in the current study.

People find themselves in situations where they are acutely conscious of others observing them and hence become particularly attentive to their appearance and behavior (Buss, 1980; Sohn, Chung, & Park, 2019). Karunakaran (2019) concluded that scrutiny and accountability are related. They established that digital technologies, like mobile devices and social networking sites, facilitate visible scrutiny and monitoring of prominent, front-line professionals—promulgating a heightened sense of organizational accountability (Karunakaran, 2019). Other research examined human artificial intelligence performance, where management scrutinized and imposed accountability metrics on

their employees, amplifying employee vigilance and stirring them to engage with supportive AI technologies (León, Chiou, & Wilkins, 2020). Thus, scrutiny puts people on notice to be aware that they are broadcasting their impressions and managing them (Leary & Kowalski, 1990).

When people are aware of others' scrutiny, they become acutely aware of their impression construction (DV), a dependent variable (Leary & Kowalski, 1990). Thus, people are motivated to engage in impression management, an independent variable, when they target others, especially when creating relevant impressions. For instance, when job seekers create relevant impressions that target an interviewer, they strengthen their job-offer expectations (Gino et al., 2020). Similarly, once hired, employees will ingratiate themselves with their superiors by creating relevant impressions in hopes of advancement or additional benefits (Bohra & Pandey, 1984). The current study equates goal relevance (of impressions) with a person's awareness that others are scrutinizing them, which leads the person to develop SNS stalking awareness.

Leary and Kowalski (1990) define the second factor of impression motivation as the desired goal's value. Prior research indicates that motivation is directly proportional to the desired goal's value (Beck, 1983). Recently Adapa et al. (2018) investigated factors influencing motivation to adopt smart devices such as Google Glass® and smart watches. They reported that a smart device's perceived value is critical to adopting smart devices (Adapa et al., 2018). Cambridge Analytica, a U.K.-based data analysis company, collected data to manipulate Facebook users' voting preferences in the 2016 US Presidential elections. They violated eighty-seven million Facebook users' privacy based on Analytica's perceived value of the votes (Hinds et al., 2020). As discussed in the earlier section, SNS users have begun perceiving the value of privacy and the relative risk of privacy loss in SNS adoption (Acquisti & Grossklags, 2005; Barnes, 2006; Stutzman et al., 2013). This research equates the perceived value of the goal, one part the value of unviolated privacy, and we propose that SNS privacy is one factor of SNS impression motivation. This work proffers SNS privacy as a strong SNS impression motivator.

## 3. Constructs and hypothesis development

### 3.1. SNS impression construction

Users consciously construct SNS profiles to impress their target audiences (Oh & LaRose, 2016). This study defines SNS construction as a user creating an SNS profile to impress his or her target-audience. Since college graduates are aware that recruiters screen prospective applicants' SNS profiles, they engage in SNS self-presentation. A recent study found that having an active social media presence positively influenced job seekers' job search (A. El Ouiridi et al., 2016). Therefore, job seekers engage in SNS self-presentation, displaying various job-specific skill sets (M. El Ouiridi et al., 2015). Therefore, this study suggests that SNS users are motivated to engage in SNS-RIM strategies. Each social circle has norms of acceptable and unacceptable behaviors for its group members. SNS users who are aware of their SNS-target-audience expectations customize their behaviors accordingly (Hughes et al., 2012). Since SNS users have SNS-target audiences belonging to multiple social circles, their SNS profiles please some while offending others. When people believe that their behavior falls outside the norm, they engage in IM strategies (Leary & Kowalski, 1990). In the context of SNS information, this research suggests that people will engage in SNS-RIM construction.

Prior research attributes value to the informant in quantitative research because they have inside knowledge of their unique life experiences (Campbell, 1955). The value is not on the informant's ability to represent but to inform (Campbell, 1955). In information systems (IS) research, a recent study found that 6.1 percent of total articles published in four peer reviewed leading IS journals focused on the individual-level analysis (Montabon et al., 2018).

### 3.2. SNS privacy

This study defines SNS privacy as the user's knowledge of SNSs functional and technological privacy settings that can empower them to execute their SNS-RIM strategies. This study also developed an SNS privacy scale, which used exploratory factor analysis, evaluated convergent validity and reliability analysis.

Prior research indicates that users engage in self-presentation to ingratiate themselves to their target-audience to pursue the desired goal (Jones, 1964; Jones & Pittman, 1982) for a reward from the target-audience (Schlenker, 1980). People are motivated to engage in IM or self-presentation to fulfill their desired goals (Leary & Kowalski, 1990). For example, information and telecommunication technologies help people improve their job performance (Zhang & Venkatesh, 2013). Gratification is an emotion associated with feelings of happiness and comes from fulfilling the desired goal (Baumeister & Bushman, 2008). Prior research also indicates that social and psychological motivation and technology adoption correlate with the gratification process (Lee et al., 2010). Acquisitive self-presentation is an IM strategy where people pursue social approval to create favorable impressions on others (Arkin & Baumgardner, 1986; Arkin, 1981). People actively use information and telecommunication technologies in strategic online self-presentation (Rui & Stefanone, 2013). Hence, this research proposes that users adopt evolving and emerging technologies when motivated to engage in gratuitous self-presentation in the framework of SNS-RIM strategies. These emerging SNS features increase SNS users' ability to implement SNS-RIM strategies effectively. This study uses the findings of a qualitative interview of a single respondent (Guruprasad Gadgil et al., 2019) to inform this research's hypothesis development.

### 3.3. SNS stalking awareness

This study defines SNS stalking awareness as awareness that users retain access to their SNS-target-audience profiles. For this study, the SNS-target-audience includes all intended and unintended individuals who can either create desirable or undesirable outcomes. The most substantial audience effect is the power SNS audiences wield by way of socio-economic gains or losses they frame for SNS users (Marder et al., 2016). As people interact on SNS, they add friends, which are their primary connections. They can also interact with secondary connections of their primary connections (Boyd & Ellison, 2007). Thus, users gain visibility among people who belong to multiple social circles (Marder et al., 2016). Each social circle expects its members to conform to that group's behavioral norms (Chatman, 2000). SNS users face differing behavioral expectations from their SNS-target audiences (Marder et al., 2016). Having experienced the consequences of the most substantial audience effects, both the gains and losses, SNS users become aware that SNS Stalking awareness imparts potential gains or losses. For example, prospective employers screen their probable candidates' SNS profiles. Therefore, a prospective employer will be the target-audience who pronounces the fitness verdict on a prospective candidate. Job seekers' online, career-oriented images and their awareness that SNS plays an essential role in an employer's recruitment process significantly influence SNS users' professional and unprofessional disclosures (M. El Ouiridi et al., 2015). Thus, SNS stalking awareness motivates job seekers to construct SNS profiles using conscious SNS-RIM strategies to make them look capable and efficient. Aligning with IM theory, this research hypothesizes that SNS stalking awareness motivates conscious SNS-RIM strategies. This study uses the findings of a qualitative interview of a single respondent (Guruprasad Gadgil et al., 2019) to inform this research's hypothesis development.

### 3.4. The mediation of SNS privacy between SNS stalking awareness and SNS impression construction

Cambridge Analytica, a politically linked analytics company,

infringed on the privacy of approximately eighty-seven million Facebook users during the 2016 US Presidential elections (Hinds et al., 2020). This privacy breach would have been entirely avoidable had SNS users been more aware of their Facebook privacy features and settings. After the breach became public knowledge, SNS providers belatedly set out to instill an awareness of the roles privacy features and settings plays in securing their profiles. Being cognizant that the big data companies had exploited their profiles, SNS users displayed a resolve to understand and implement the features through tightening personal privacy settings. This particular Facebook debacle, portending many to come, shows the vulnerability of SNS users to being stalked—first, by the intrusion of an unintended audience, and second, from having their personal data exploited commercially. The case also shows that SNS users quickly develop an awareness of their exposure, especially when informed by alert SNS providers and other users.

This study uses the findings of a qualitative interview of a single respondent (Guruprasad Gadgil et al., 2019) to inform this research's hypothesis development. Gadgil et al. (2019) explored the case of an assailed entrepreneur on Facebook. The assailed entrepreneur became aware of SNS stalking behaviors following an onslaught of messages from an unintended audience. The person realized that strangers had attained unauthorized access to personal information, including home address, business address, mobile number, birthday, and car registration. The stalked individual developed concerns for personal and virtual safety owing to their account exploitation. The individual immediately sought to secure the SNS account and restrict access by changing the profile security settings, tightening user account control and selecting who viewed the information. That would require a time commitment. Unsurprisingly, the compelling need that motivated reevaluating Facebook privacy settings soon led the individual to a deeper understanding of SNS privacy features (Gadgil et al., 2019).

**H1.** SNS stalking Awareness is positively correlated with SNS privacy

Prior research indicates that technological awareness of SNS privacy features allows users to share specific information with multiple audiences having varied personalities (Proudfoot et al., 2018). Consequently, the individual created Facebook profiles for the intended and unintended audiences, adjusting privacy settings for each. While the intended audience included business clients and associates, the unintended audience comprised curious and inquisitive strangers, business competitors, and people foraging for information. The dual strategy generated sizable traffic to the Facebook page, which grew the business. As a result, the SNS IM strategies proved successful in protecting personal information and improving access to business information; one approach for the intended audience and one for the unintended audience (Gadgil et al., 2019). This research suggests that technological SNS privacy will mediate the relationship between SNS stalking awareness and SNS impression construction based on the preceding discussion. Therefore, this research proposes the following hypotheses.

**H2.** SNS privacy is positively correlated with SNS impression construction

Before stalkers compromised her business, the entrepreneur mentioned earlier owned an established business. Following significant life changes, the individual lost face-to-face clientele and needed to develop a new online business model and new clientele. The individual created an alluring SNS persona by selectively uploading glamorous personal images and showcasing business achievements, including skills, work products, and industry awards. The persona captivated business clients and concurrently triggered unsought attention, such as invasive messages, likes, and comments of a non-business nature. The individual quickly solidified an anticipatory awareness as users stalked the SNS persona. In response, they evolved an improved persona, focused on the business, and designed to attract new clients rather than unintended and unwanted viewers (Gadgil et al., 2019). This work proposes the following hypothesis.



**H3.** SNS stalking Awareness is positively correlated with SNS impression construction

### 3.5. SNS impression management awareness

This research has identified a gap in Leary and Kowalski's definition of impression motivation. Leary and Kowalski (1990) have defined only three dimensions of impression motivation in their model. These dimensions are goal relevance of impressions, the value of the desired goals, and the discrepancy between desired and current image. They have not considered the effect of awareness on motivation. An earlier study found that awareness of the surrounding environment is a fundamental motivational force (David Gefen & Straub, 2004). People are motivated to act because they are aware that they can achieve valuable results distinct from the activity (Bagozzi & Yi, 1988). Also, the awareness of usefulness influences motivation (Davis et al., 1992). This research proposes that SNS Impression Management awareness is a dimension of SNS impression motivation. As discussed earlier, current SNS users are aware that unintended audiences stalk them. Extrapolating the effects of IM (Goffman, 1959, pp. 1–76) to SNSs, the current study proposes that SNS impressions can become a perceived reality for the unintended audience. It follows that users are aware of IM features and potential effects on their SNS; this awareness leads to SNS impression motivation. This research suggests that the relationships between awareness and motivation with self-presentation are not straightforward. This study has uncovered a mediating relationship, stalking awareness that demonstrates the complexity of social networking and IM theory's appropriateness to explain dynamic social structures and complement existing social networking and social capital research.

### 3.6. Mediation of SNS impression management awareness between SNS privacy and SNS impression construction

The individual used “real and fake images” in the initial persona. Real images were standard, business-appropriate photos, while fake images were alluring and glamorous and intended to attract attention. The individual intended the so-called fake images to be illusory, sparking audience curiosity and attracting prospective clients' attention. Unsatisfied curiosity energizes information-seeking behaviors, while interest or curiosity governs how users seek certain information (Hidi, 1990, p. 549). Metacognitive emotions drive hedonic curiosity, which varies and is context-driven (Bowler, 2010). Accordingly, SNS users displayed an intense interest in the entrepreneur's life experiences; some expressed a desire to imitate the individual, while others attributed appealing appearance to professional expertise. Despite not being part of the client's inner circle, most can connect with the secured site by locating it through SNS posts; people sought after this person, both offline and online.

Since enforcing refined Facebook privacy settings, the unintended audience assessed only the “fake” profile populated with crafted information for a beautician/fashion model. The intended audience accessed the “real” profile, containing personal information intended for business contacts, friends, and family. By interacting with users through both profiles, the entrepreneur became aware that the “fake” profile was perceived as reality by the unintended audience. Consequently, the business model evolved from the two profiles, directing business and friends to the “real” profile and its brand while maintaining an avatar persona with the “fake” profile. Over time, the “real” Facebook profile has been instrumental in fostering new inquiries, business, and revenue streams—but fewer intrusions (Gadgil et al., 2019).

This research anticipates that SNS impression management awareness will mediate the relationship between SNS privacy and SNS impression construction. Therefore, it proposes the following hypotheses.

**H4.** SNS privacy is positively correlated with SNS impression

management awareness

**H5.** SNS impression management awareness is positively correlated with SNS impression construction

## 4. Research model

This research integrates the cited constructs from several different models and develops the Facebook Responsible Impression Management Model that explains the impression construction by Facebook users. Fig. 1 shows the hypothesized model.

## 5. Methodology

### 5.1. Scale development

This study obtained University Institutional Review Board (IRB) approval, a federally licensed organization designated by the FDA to review and monitor biomedical research. The authors conducted this research using human subjects, which required IRB approval before collecting data. The authors chose Facebook as the subject SNS and developed the instrument contextualized to Facebook. The constructs' definitions explain the scales employed. This work then modified and contextualized preexisting scales, measuring all instrument items on a five-point Likert scale.

This work developed two new constructs: SNS stalking awareness consisting of nine items and SNS privacy consisting of four items. Analysis of pilot study data demonstrated convergent validity and reliability. Exploratory factor analysis revealed that the outer loadings exceeded 0.5. According to Hair et al. (2010), factor loadings that exceed 0.5 inclusive are acceptable. Additionally, this work calculated Cronbach's alpha in SPSS; all the reliability values exceeded 0.8, which is deemed acceptable (Nunnally et al., 1967, p. 226). These strong reliability values support the appropriateness of the scales used in this study.

### 5.2. Sample and data collection

The authors administered the survey instrument electronically using Qualtrics, an online survey software tool, to a group of students attending a large university in the Southwest region of the United States. The authors also asked a smaller group of users to take the survey as quickly as possible and used their average time to set a lower threshold. The Qualtrics survey software facilitated collecting the timings of each response. If the time taken to complete the response equaled or exceeded the minimum time, the authors deemed the response acceptable. As a group, student users are heavy users of SNSs. All study participants are acknowledged users and fit in an appropriate age group. In SNS research that engaged student subjects (Chang & Heo, 2014; Kalpidou et al., 2011; Kirschner & Karpinski, 2010), researchers found that a student sample is indispensable in SNS studies. The authors administered the survey instrument over three weeks and gathered 456 responses. The research discarded 57 observations of the total responses due to incomplete or unacceptable responses, leaving 399 useable responses. The authors confirm that the data supporting the findings of this study are available on request.

### 5.3. Non-response bias

The authors assessed non-response bias in the data using the Karahanna & Straub (1999) approach, which treats late respondents as non-respondents because they initially demonstrated reluctance to participate. This work grouped respondents into the first 90% of respondents and the last 10% of respondents during the data collection period to assess bias and compared the demographics and critical constructs of the two groups with independent sample t-tests (Armstrong &

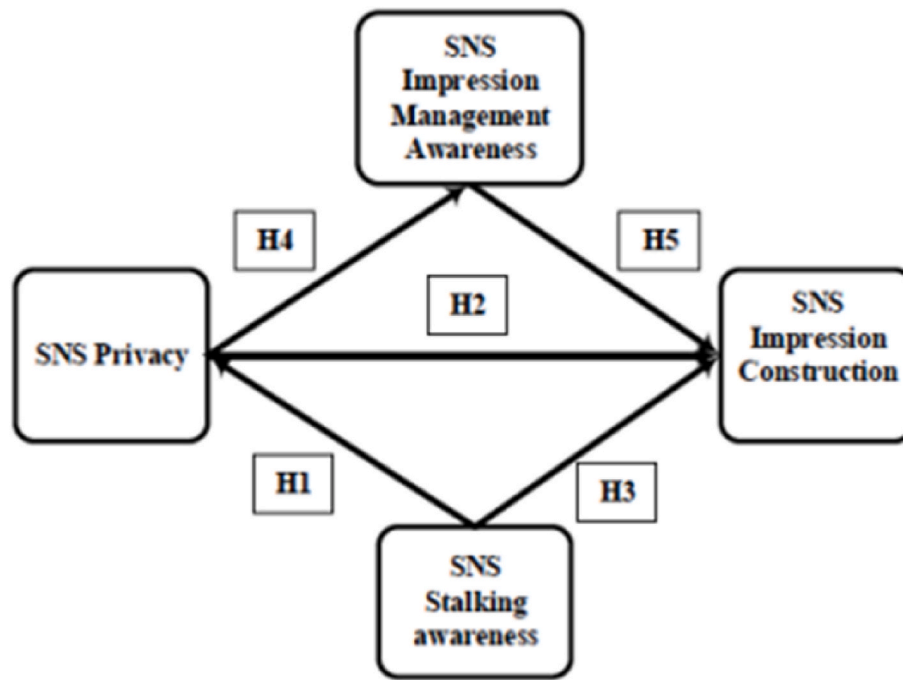


Fig. 1. Facebook responsible impression management model.

Overton, 1977). Results showed no significant differences, indicating that non-response bias was not an issue.

5.4. Common method bias

Self-reported survey research can exhibit common method bias (CMB) (Esfandiar et al., 2019). As recommended by Tajvidi, Richard, Wang, & Hajli (2018), the authors endeavored to reduce CMB in the study. They validated the survey by experts, provided clear instructions when the authors administered the survey, eliminated ambiguity in the survey items and separated the predictors from dependent variables (Tajvidi et al., 2018).

VIF greater than 3.3 suggests strong multicollinearity and the occurrence of common method bias. Hence, if a full collinearity test reveals that all the VIF's are less than 3.3, it suggests that the model does not have common method bias (Kock, 2015, p. 7). We observe that all VIF values are below 3.3 as shown in Table 1. These low values support the contention that common method bias is not present.

6. Analytical approach

6.1. Measurement model

This study uses partial least squares, a multivariate statistical technique, to test the hypothesized relationships (Wold, 1985). Partial least

Table 1 Inner-VIF values from SmartPLS 3.3.3

	SNS Impression Management Awareness	SNS Impression Construction	SNS Privacy	SNS Stalking Awareness
SNS Impression Construction		2.240		
SNS Impression Management Awareness	1.000	1.454		
SNS Privacy			1.000	
SNS Stalking Awareness				1.000

square-structural equation modeling (PLS-SEM) is helpful in exploratory model analysis that contains reflective and formative constructs. Smart PLS 2.0 is particularly useful in evaluating an initial structural model having a path-weighting scheme (Ringle et al., 2005). The study employed a two-step model evaluation.

The first step validates the measurement model, which examines convergent validity and performs the measurement scale's reliability analysis. Prior studies show that only after assessing the outer model can one use the inner model and its path coefficients in inference analysis (George & Prybutok, 2015). Evaluating the reliability of the reflective constructs in Table 2, the predictors satisfy the levels necessary to confirm composite reliability (Werts et al., 1974). All values exceed 0.8, which is acceptable (Nunnally et al., 1967, p. 226). Composite reliability (CR) is considered a more appropriate reliability measure than Cronbach's alpha for PLS-SEM because CR uses an unequal indicator weighting technique (George & Prybutok, 2015).

As shown in Table 2, the authors established the model's convergent validity using exploratory factor analysis. While the minimum acceptable level of the predictor variables' external loadings is 0.4, the more acceptable outer loadings exceed 0.5 inclusive (Hair et al., 2010). Also, in Table 3, this study analyzed the construct cross-loadings, which supported the requirement for discriminant validity (D. Gefen & Straub,

Table 2 AVE scores, Composite Reliability, and Cronbach's Alpha with factor loadings.

	SNS Impression Management Awareness	SNS Impression Construction	SNS Privacy	SNS Stalking Awareness
AVE	0.760	0.611	0.744	0.769
Composite Reliability	0.941	0.916	0.920	0.943
Cronbach's Alpha	0.941	0.918	0.921	0.939
Item 1	0.881	0.724	0.942	0.718
Item 2	0.876	0.719	0.921	0.718
Item 3	0.851	0.703	0.749	0.967
Item 4	0.881	0.780	0.823	0.885
Item 5	0.869	0.872		0.923
Item 6		0.847		0.872
Item 7		0.810		

**Table 3**  
Fornell-Larcker values.

	SNS IM Awareness	SNS Impression Construction	SNS Privacy	SNS Stalking Awareness
SNS IM Awareness	0.872			
Impression Construction	0.751	0.782		
SNS Privacy	0.531	0.517	0.862	
SNS Stalking Awareness	0.717	0.652	0.501	0.877

2005). Moreover, the indicators in Table 3 are congruent with the Fornell-Larcker criterion (Fornell & Larcker, 1981), which states that the latent constructs' highest correlation should be lower than the square root of the AVE of the reflective constructs.

This research also noted the observation from the Heterotrait-Monotrait ratio (HTMT) from SmartPLS 3.3.3. in Table 4. HTMT is used for assessing the discriminant validity in variance-based structural equation modeling. The maximum HTMT value is 0.745 and less than 0.85, which is the most conservative critical HTMT value. Therefore, this work established discriminant validity (Hair et al., 2016; Henseler et al., 2015).

## 6.2. Structural model

The second step of model assessment validates the structural model (Henseler et al., 2009). By examining the exploratory factor analysis (EFA), the authors confirmed model reliability and convergent validity. The study then examined the inner structural model by evaluating the path coefficients. The authors estimated a standard error from 5000 bootstrap samples and calculated the t-statistics (Hair et al., 2013).

Fig. 2 represents the fitted SNS-RIM structural model, showing R square values, the path coefficients, and t-statistics, as does Table 5. The model results. As expected, the model does not support a direct relationship between the independent and dependent variables. The model supports all the indirect mediating relationships, demonstrating p-values of less than 0.001. Thus, the model does not indicate redundancy and confirms convergent validity. From SmartPLS 3.3.3, we determined the path coefficients which are shown in Table 5.

The authors also observed inter-item correlations among the first-order indicators were at acceptable levels. The indicator weights of the first-order reflective latent constructs that form the higher formative constructs are all significant. Hence, this research confirms that each underlying latent factor is present. The R<sup>2</sup> values and t-statistics indicate that the hypotheses are supported. Fig. 2 represents the structural model showing R squared and t-statistics; the authors have provided more detailed information in Tables 6 and 7.

Predictive relevance is vital in the assessment of complicated models (Geisser, 1975; Stone, 1974). Q2 > 0 is deemed a **predictive** model (Chin, 2010). As shown above, the Q2 values indicate that the above model is a predictive model.

**Table 4**  
Heterotrait-Monotrait test values.

	SNS Impression Construction	SNS Impression Management Awareness	SNS Privacy	SNS Stalking awareness
SNS Impression Management Awareness				
SNS Impression Construction	0.745			
SNS Privacy	0.529	0.511		
SNS Stalking Awareness	0.719	0.653	0.500	

We also calculated the effect size for paths in our PLS model and provide those as shown in Table 8. An effect size above 0.15 suggests a reasonably good effect, and less than 0.1 implies a small effect. Accordingly, SNS impression management awareness has a strong effect on SNS impression construction. Also, SNS Privacy has a strong effect on SNS impression management awareness, and SNS Stalking awareness has a strong effect on SNS Privacy. As predicted, effect size of both SNS privacy on the SNS Impression construction and SNS stalking awareness on the SNS impression construction is small. This small effect also supports our hypotheses that positive correlation of SNS Privacy on SNS impression construction is mediated by SNS Impression management awareness. SNS privacy has little direct effect on SNS impression construction. Also, there is little direct effect of SNS stalking awareness on impression construction. SNS impression management awareness thus mediates the effect of SNS privacy on SNS impression construction.

The Sobel test determines whether a mediator variable significantly influences the relationship of an independent variable to a dependent variable, i.e., whether the indirect effect of the independent variable on the dependent variable through the mediator variable is significant. This calculation returns the Sobel test statistic and both one-tailed and two-tailed probability values. Table 10 summarizes the Sobel test statistics for mediating relationships. SNS impression management awareness positively influences the relationship between SNS Privacy and SNS Impression construction.

Fig. 3 and Table 9 show SNS Impression Stalking Awareness positively influences the relationship between SNS Privacy and SNS Impression Construction. Results are 1) Sobel test Statistics 6.11171352, 2) One-tailed probability 0.0, 3) Two-tailed probability 0.0.

Fig. 4, Beta Coefficient's summary, as shown in Table 10 computes Sobel test values for mediating relationships. Specifically, SNS Stalking Awareness positively influences the relationship between SNS Privacy and SNS Impression Construction. Results are 1) Sobel test Statistics 3.85305835, 2) One-tailed probability 0.00005833, and 3) Two-tailed probability 0.00011665.

Since the Sobel test statistic absolute value exceeds 1.96, and the two-tail probability is less than 0.05 in both mediations, as shown above, the results indicate that the mediation effect is significant.

## 7. Discussion

We asked what are the SNS impression management behaviors and what are the factors that influence these behaviors? In response, this study developed the SNS responsible impression management (SNS-RIM) model that posited and tested relationships between factors that influence SNS impression management behavior. This study finds that SNS users are aware that unintended audiences are constantly scanning social media for SNS information appropriation leading to SNS stalking awareness. This study further finds that SNS users are aware that SNS impression management behaviors are effective strategies that allow them to enjoy social media's benefits while avoiding potential negatives. SNS users' conscious SNS impression management and stalking awareness plays a critical role in driving SNS users' online behaviors. Impression management strategies allow SNS-users to enjoy uninterrupted social media presence and ensure the privacy of critical information such as personally identifiable information from unwanted predators.

Building upon the theory of impression management (Goffman, 1959, pp. 1–76; Leary & Kowalski, 1990) and trust in digital information (Kelton et al., 2008), this research investigates IM strategies that can protect the privacy of their personal information and allow users to enjoy an uninterrupted SM experience. To do so, it offers and tests a research model that measures SNS user online IM behaviors. All five hypothesized relationships are significant at the 0.0001 levels. This research makes the following theoretical contributions to the existing literature.

This research proposed and tested an SNS-Responsible IM Model that

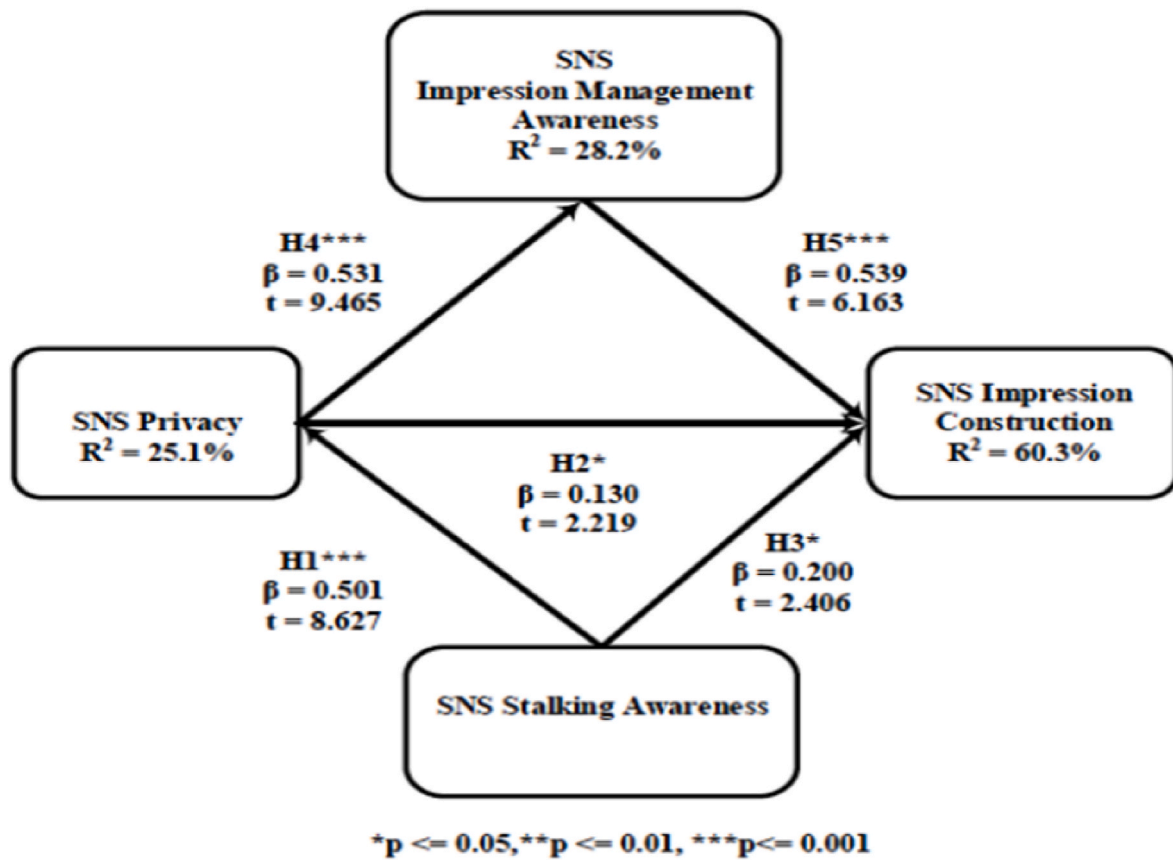


Fig. 2. The fitted SNS-RIM model with R<sup>2</sup> and t-statistics from Smart PLS.

**Table 5**  
Path coefficients, T statistics and P values from SmartPLS 3.3.3

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
Impression Management Awareness => Impression Construction	0.538	0.541	0.087	6.170	0.000***
SNS Privacy => Impression Management Awareness	0.531	0.530	0.056	9.465	0.000***
SNS Privacy => SNS Impression construction	0.130	0.128	0.059	2.195	0.028*
SNS Stalking Awareness => SNS Impression construction	0.201	0.199	0.082	2.435	0.015*
SNS Stalking Awareness => SNS Privacy	0.501	0.501	0.058	8.627	0.000***

presented the dimensions of SNS impression motivation constructs. That builds on previous research by investigating impression motivation as antecedents that influence online social media (SM) behaviors. The SNS-RIM posits that trust in digital information and motivation leads to impressions (Roulin, 2016; Barsness et al., 2005); college students

typically upload carefully chosen content to their SNS profiles, deliberately creating audience impressions. They are more aware of their audiences, both intended and unintended, view their SNS profiles and more intensely focus on the information they disclose (Yu et al., 2020). These growing privacy concerns motivate users to engage in IM. If the target-audience believes those impressions, it creates resonant impressions (Goffman, 1959, pp. 1–76). In the context of SNS-RIM impression management, SNS-RIM motivation is not sufficient to explain the impression construction; SNS information trustworthiness is vital. The SNS-RIM model extends the theory of IM by linking trust in digital information. It explains strategies for dealing with privacy breaches, which results from all types of audiences using SM information. Prior research has investigated privacy concerns in various social media (Koohikamali et al., 2017). The current work supplements Koohikamali et al.'s (2017) research on social media privacy concerns by further exploring the privacy paradox; SNS users want an active social media presence counterintuitively disclose and protect personal information. Users worry about keeping personally identifiable information (PII) private, which provokes IM strategies.

7.1. Contributions to practice

This research makes several contributions to practice that can be summarized as below.

First, this research expands the body of knowledge about IM motivations and associated user behaviors in marginalized and minority populations.

Second, this research explains IM strategies to deal with stigmatized afflictions in marginalized and minority populations. For example, in some cultures, communities of people living with HIV, addiction, or other maligned afflictions can be social outcasts. Such populations seek a certain degree of anonymity while being able to interact with each



**Table 6**  
Confidence interval values.

	Original Sample (O)	Sample Mean (M)	2.5%	97.5%	Standard Deviation (STDEV)	T Statistics	P Values
IM Awareness => Impression Construction	0.538	0.544	0.366	0.713	0.087	6.176	0.000***
SNS Privacy => IM Awareness	0.531	0.532	0.414	0.642	0.057	9.354	0.000***
SNS Privacy => Impression Construction	0.130	0.128	0.013	0.250	0.060	2.190	0.029*
SNS Stalking Awareness => Impression Construction	0.201	0.196	0.035	0.354	0.083	2.431	0.015*
SNS Stalking Awareness => SNS Privacy	0.501	0.501	0.382	0.614	0.059	8.456	0.000***

**Table 7**  
Q-Squares values.

	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
SNS Impression Management Awareness	2305.000	1852.429	0.196
SNS Impression Construction	3227.000	2102.775	0.348
SNS Privacy	1844.000	1525.045	0.173
SNS Stalking Awareness	2305.000	2305.000	

**Table 8**  
F-Square values.

	SNS Impression Management Awareness	SNS Impression Construction	SNS Privacy	SNS Stalking Awareness
SNS Impression Management Awareness	<b>0.325</b>			
SNS Impression Construction				
SNS Privacy	<b>0.393</b>	0.029		
SNS Stalking Awareness		0.047	<b>0.336</b>	

other socially. The lack of anonymity and support leads to further social suffering. As for redress, this work suggests defining a maligned disease continuum ranging from more-to less-stigmatized. For example, more-stigmatized diseases would reside at one extreme of the continuum, such as AIDS, drug dependence, and STDs; located near the middle would be internal ailments, neurodegenerative disorders, corpulence, and dental deformities; situated at the other extreme would be less-stigmatized afflictions, such as muscular sclerosis, cancer, and dystonia. Individuals who contract an illness plotted near the stigmatized end

of the continuum behaviorally eschew timely help, leading to tragic consequences and vice versa.

Third, this research suggests that IM supports strategies for marginalized and minority populations. Research indicates that social support and societal interactions contribute to a higher quality of life (Gadgil et al., 2018). Implementing SNS IM strategies for these populations would accommodate their unique requirements, initiate privacy awareness, afford more privacy protection, and help businesses target their needs—creating products and making services readily available to the cited niche market (Gadgil et al., 2018).

And last but not the least, this research advocates IM as an integral component of SNS use. It suggests SNS features for inclusion by developers and designers to reduce user SNS privacy concerns while interacting. For example, should a prospective employer initiate a SNS interview? Such responsible behavior also expands user loyalty to the SNS, called continued commitment (Chen et al., 2015). Thus, SNS users experience the utilitarian value of SNS IM, nurturing an emotional commitment toward the SNS (Zhou et al., 2012).

**Table 9**  
Beta coefficients and Standard Errors for Mediation 1.

Effect	Beta Coefficients
Direct with Mediation beta	0.517
SNS Privacy => Impression Management Awareness (IV to Mediator Beta)	0.532
SNS Impression Management Awareness => Impression Construction (Med to DV Beta)	0.666
SNS Privacy => Impression Management Awareness (IV to Med Standard Error-SE)	0.064
SNS Impression Management Awareness => Impression Construction (Mediator to DV SE) 0.059	0.059

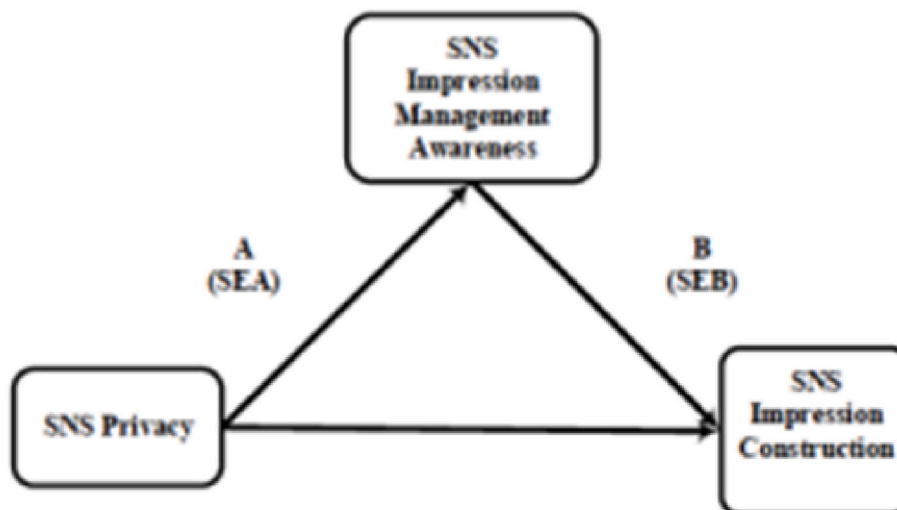


Fig. 3. Mediation 1.

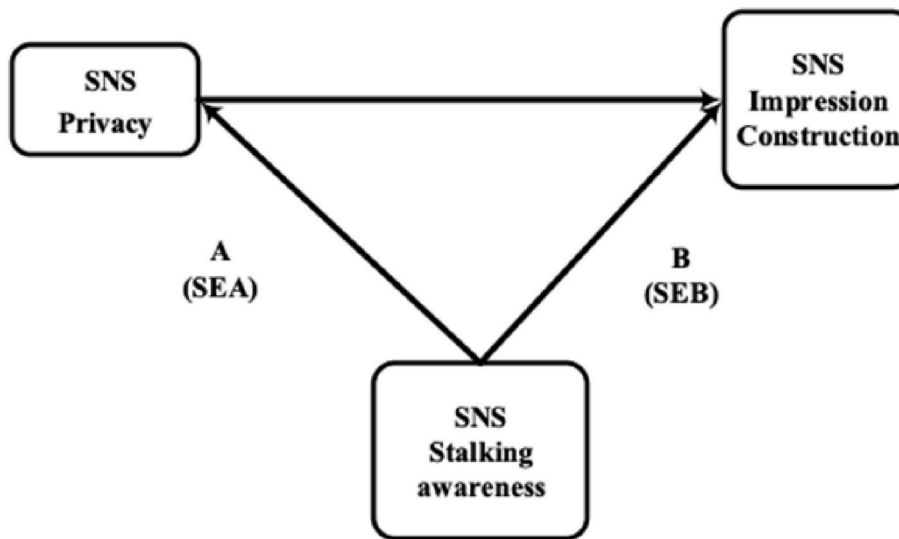


Fig. 4. Mediation 2.

**Table 10**  
Beta coefficients and Standard Errors for Mediation 1.

Relationships	Beta Coefficients
SNS Staking Awareness => SNS Privacy (IV to Med Beta)	0.501
SNS Privacy => SNS Impression Construction (Med to DV Beta)	0.254
SNS Staking Awareness => SNS Privacy (IV to Med SE)	0.058
SNS Privacy => SNS Impression Construction (Med to DV SE)	0.059

7.2. Contributions to research

This research makes several contributions to practice as follows. First, this study develops, tests and validates the new SNS responsible impression management (SNS-RIM) model that defines relationships between SNS-RIM motivation and SNS-RIM construction to investigate SNS impression motivation. SNS impression motivation introduces three dimensions: SNS-RIM awareness, SNS-RIM stalking awareness, and technological SNS privacy. Such dimensions inspire SNS-RIM users to develop IM strategies that lessen the paradox effects. Second, this research introduces user-created impression management strategies for marginalized and minority populations. The study confronts the stated populations’ SNS privacy paradox, offering risk-minimizing tactics to users and the IS literature. For example, the subject users become aware that their audiences, both intended and unintended, view their SNS profiles and intensify attention to the information they disclose (Yu et al., 2020). Privacy concern motivates users to engage in IM, while awareness and experience with privacy features lead to increased SNS privacy protection and SNS trust. Third, this research fills an IM research gap in the IS literature. Besides introducing the user-created IM concept and the research model, this study supplements research in persuasion applied in compliance practice (Simpson, 2008). Additionally, the psychology of persuasion applications in marketing and entrepreneurship research examines how organizations persuade consumers to purchase their products and services (Frary, 2014). The technique requires cultivating impressions that create vibrant images for the target-audience. Overall, this research contributes to the IS literature by adding and successfully examining new levels of detail to analyze SNS user behavior. It adds new constructs in the context of stigmatized online behaviors associated with social media. It also addresses the balance between IM and online behavior, respecting privacy concerns.

7.3. Managerial implications

This research has several managerial implications as follows. First, the pandemic has initiated an online era of how people will live their lives in the future. People have turned to online social networking sites. Users profusely use multiple social networking sites such as WhatsApp, LinkedIn, Facebook, Instagram and Twitter. Apart from these, people also use dating social networking sites and apps such as dating apps in Facebook, Tinder, Bumble, Grindr, Growlr, and Scruff. To create and manage impressions, users upload carefully orchestrated profiles that are aimed at impression management. Users’ awareness of SNS impression management strategies has direct managerial impact. Businesses invest huge capital in setting up data warehouses and data mining capabilities to collect and analyze user generated social networking data. However, they are unaware of impression management strategies that users engage in on social networking sites. This can lead to mismanagement and severe erroneous managerial decision making. Second, as online presence has increased, the need to consider individual projects is becoming increasingly important. Managers and organizations are not entirely comfortable monitoring individuals in non-work environments, but few companies can ignore when an employee posts content that is problematic, such as hate speech. As a result, it is increasingly important for organizations to remain as aware about any public presence that is presented by employees. On a positive note, businesses can engage in positive impression management by having an online presence that is managed with the intent of conveying positive values. For e.g., businesses can engage in impression management and social networking marketing to tap into potential customers and partners. Such positive organizational presence is not limited to Facebook but also includes other venues like LinkedIn, Twitter, and Snapchat. Businesses can use social media sites like LinkedIn, Twitter and Snapchat apart from Facebook to further marketing strengths. Especially by using SN impression management strategies, businesses can create brand awareness. And finally, people participate in closed social media groups to engage in SNS impression management that satisfies some purpose. User created closed social networking groups can open new opportunities to increase customer base. For e.g., a recent study revealed that a closed Facebook group for social support of people living with HIV and AIDS created business opportunities for specific necessary products and services. This study thus informs businesses of the business opportunities SNS IM strategies create in the form of social media groups having

varying levels of privacy settings.

#### 7.4. Limitations and suggestions for future research

First, this study focused on Facebook, where this work described antecedents of Facebook IM behaviors. Future efforts can investigate IM on other SNS sites such as LinkedIn and contexts such as Twitter.

Second, this study surveyed university students at a single university. Cultural values diversity will impact perspectives and reveal new patterns in online social media use and IM strategies. Therefore, future work can consider more diverse student populations as well as non-student populations and other age groups.

Third, research suggests differences in online presence are likely based on cultural differences like whether an individual is from an individualistic versus collectivistic culture. Collecting data from schools in diverse cultures like in the USA versus China would allow determining how culture modifies the relationships studied in this research. It is also possible that users become more sophisticated over time and conducting a longitudinal study would provide value about how online presence changes with usage.

And finally, this research investigated perceptions of engaging with employers, clients, family, and friends. Future scholarship can consider multiple categories of engagement bonding and bridging relationships with social capital to seek more profound insights.

## 8. Conclusion

Social media exposes personal information to varied and diverse individuals and to intended and unintended audiences—affording online engagement frequently at the expense of personal privacy (Acquisti & Grossklags, 2006). This work responds to SNS users' inherent quandary with the privacy paradox and the need to balance an active social media presence with SM privacy concerns (Acquisti & Grossklags, 2006). It confirms SNS users carefully orchestrate their IM strategies to balance privacy concerns and the desire to have an active social media presence.

The results illustrate how SNS profile owners can create dual personas (impressions, avatars) to manage the following. (1) the intended audience (a profile for friends, family, and business contacts filled with factual information) versus (2) the unintended audience (a profile for strangers filled with so-called fake information). Privacy-aware SNS profile owners upload carefully chosen content designed to project a personality on their social media, which becomes the target-audience's perceived reality. The audience can choose to either believe the impressions or reject them. One user's experience indicates that both intended and unintended audience profiles eventually were perceived—such impression realities direct the decision-making processes for SNS profile owners and audiences. In summary, this research strongly indicates that IM—either consciously or not—is an integral part of the SNS environment, where users require guidance for balancing SNS information privacy with engagement.

### Credit author statement

Guruprasad Gadgil: Conceptualization, Methodology, Formal Analysis, Investigation, Writing Original draft. Gayle Prybutok: Writing, Review and Editing. Daniel Peak: Writing, Review and Editing. Victor Prybutok: Writing, Review and Editing, Supervision.

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