# The new norm?: Descriptive norms of online expression on Facebook, Twitter, Instagram, WhatsApp, and Snapchat

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#### Abstract

The purpose of this thesis is to expand previous research examining the perceived appropriateness of expressing various emotions on social media platforms, using a different set of norms. This study extended the scope of social media platforms by adding Snapchat to the list of platforms studied (Facebook, Twitter, Instagram, and WhatsApp). Findings suggested that participants perceived there to be the most joyous and prideful expressions on Facebook and Instagram, and the least on WhatsApp and Snapchat. Moreover, participants reported a greater prevalence of negative emotion expression on Facebook, followed by Twitter, Instagram, Snapchat, and then WhatsApp. Collectively, findings suggested that participants were more likely to encounter both positive and negative emotion expressions on Facebook than on any other platform. The findings shed light on how norms shape emotional expression differently across different social media platforms.

# The new norm?: Descriptive norms of online expression on Facebook, Twitter, Instagram, WhatsApp, and Snapchat

Social media has provided new venues through which people express emotions. With the multitude of platforms available for adoption, users have the option to pick the option that best suits them. Although much research has been conducted on social networking sites, little research around the norms across social networking platforms has been done prior to the study of Sophie Waterloo, Susanne Baumgartner, Jochen Peter, and Patti Valkenburg (2017). The purpose of this thesis is to expand on the Waterloo et al. (2017) study titled "Norms of online expressions of emotion: Comparing Facebook, Twitter, Instagram, and WhatsApp" focusing on the "perceived appropriateness (i.e., injunctive norms) of expressing six discrete emotions on social media platforms using a different set of norms" (p. 1813). In their study, Waterloo et al. (2017) sought to better understand the norms of expressing discrete positive and negative emotions on social media; specifically, they looked at the injunctive norms— people's perceptions of what behaviors are appropriate or inappropriate in social situations.

In line with the Waterloo et al. (2017) study, this study aims to "identify patterns in the perceived prevalence of both positive and negative emotional expressions" (p. 1816) through a self-reported survey. This study has two main objectives: to provide a better understanding of the potential effect the "positivity bias"—a term which refers to the tendency of individuals to post content that is "positively rather than negatively valenced" (Waterloo et al., 2017, p. 1914) has on the perceived prevalence of emotional disclosures on various social media platforms, and to determine how (if at all) the perceived prevalence of emotional expressions differ on and across social media platforms (i.e., Facebook, Twitter, Instagram, WhatsApp, and Snapchat).

This study extends on the work of Waterloo et al. (2017) by evaluating the same research question through the lens of descriptive norms—the frequency with which users perceive others engage in certain behaviors. Research on descriptive norms is especially important in that it sheds light on the self-reported behaviors of users (i.e., descriptive norms), and not just what users *perceive* to be appropriate behaviors (i.e., injunctive norms). Since emotional expression across social media platforms is a vastly under researched area of study, this extension is an important contribution meant to paint a more well-rounded picture of the dominant norms that surround emotional expression. This additional research will contribute to future investigations that seek to identify the features, affordances, and practices that may contribute to differences in how people express themselves on social networking sites (SNS).

#### Literature Review

## Norms, emotion expression, and social media

Although social norms govern society offline, it is unclear if they have infiltrated the world of social media. Social norms— shared constructs, rules, and standards— are one of the many elements that shape human behavior, as people desire external approval from the networks they subscribe to (Cialdini & Trost, 1998; Cialdini & Goldstein, 2002). Norms include anything from grandiose societal expectations (i.e., being "always on and connected" to your phone), ingroup expectations created by those we interact with (i.e., expecting members of a group project to contribute equally), and the expectations inspired by firsthand observations that we tend to put on ourselves (i.e., noticing a friend is wearing an "I VOTED!" sticker, so you, too, feel the need to vote) (Cialdini & Trost, 1998).

Although there are many possible social norms to study, the scope of this paper will be limited to injunctive norms and descriptive norms (Lapinski & Rimal, 2005). Injunctive norms pertain to the various pressures individuals feel they must conform to. This type of norm refers to

people's perception of what "ought to" be done (or what is appropriate) in various social situations (Lapinski & Rimal, 2005; Waterloo et al., 2017). Drivers, for example, "ought" to abide by traffic lights. Comparatively, descriptive norms, or "popular norms," refer to beliefs regarding the frequency with which users perceive others engage in certain behaviors (Carpenter & Amaravadi, 2016; Cialdini et al., 1991; Cialdini & Trost, 1998; Lapinski & Rimal, 2005). For example, subjects in a litter-filled environment (wherein the descriptive norm encourages littering) are more likely to litter, whereas subjects in a clean environment (where the descriptive norm opposes littering) are less likely to litter (Cialdini, 2007). Although notorious for its power of persuasion, the usefulness of descriptive norms is often underestimated, as individuals tend to drastically underestimate the effect descriptive norms have on behavior. In reality, however, the greatest method of persuasion lies in conveying facts about the majority opinion and/or behaviors (Cialdini, 2007). Thus, descriptive norms function as an impression management technique to "help individuals coordinate their social action to achieve favorable outcomes" (Gelfand & Harrington, 2015, p. 1274).

As per the Expectancy Violations Theory, it follows that violations of and/or noncompliance to both injunctive and descriptive norms result in social sanctions (or punishments) of varying degrees (Howell & Conway, 1990; Lapinski & Rimal, 2005; McLaughlin, 2012). These sanctions can range from being "unfriended" or "unfollowed" to being isolated from one's network (McLaughlin, 2012). To avoid such punishments, self-expression, a form of impression-management, has become an essential aspect of self-presentation on social media platforms such as: Facebook, Twitter, Instagram, and WhatsApp (Leary & Kowalski, 1990). By meticulously manufacturing one's self-image, users are able to put forward a persona in line with appropriate behaviors and favorable attitudes (Walther, 2006).

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Due to its various social and spatial affordances such as its ubiquity and ability to facilitate instantaneous connection, (Campbell, 2013) communications on social media platforms encourage self-expression. Whether it be through the sharing of photographs or the posting of "statuses," social media actively facilitates the exchange of social capital— a term Lambert (2016) describes as "the two-fold pursuit of connections and resources" (p. 2560). Social capital can be accumulated through either bonding—exchanges between strong ties which increases intimacy and solidarity within groups—and bridging—exchanges between weak ties which tends to create an increased sense of belonging (Lambert, 2016; Schrock, 2016). According to the Disclosure Decision Model, throughout these exchanges, the "perceived severity of social risks" are believed to "influence the depth" and amount of "emotionally intense" and/or "personal information" disclosed (Waterloo et al., 2017, p. 1815). For example, studies have shown that the expression of positive emotional disclosures on social media platforms are thought to be significantly more appropriate than negative disclosures, which are perceived to be private information meant only for strong personal ties rather than public broadcasting/admissions/confessions (Waterloo et al., 2017). Thus, although no visible (physical) "social cues" (i.e., body language, eye contact, or tone of voice) exist on social media platforms, social norms nevertheless actively regulate the extent to which users disclose emotional, intimate information (Postmes et al., 2000).

Social norms dictate the appropriateness of intimate disclosures of personal information on social media platforms (Cialdini & Goldstein, 2002; Howell & Conway, 1990). However, user behavior has been demonstrated to vary according to social media platforms due to the normative differences of various social media platforms (i.e., audience, following-mechanisms, modalities, etc.). Specifically, the perceived level of "disclosure appropriateness" depends on platform-specific social norms, cultural criteria, and network size and density (Greene et al.,

2006; Lin et al., 2014). On Facebook, for example, "overly emotional" posts are considered to be a norm violation (Waterloo et al., 2017, p. 1815). Research by Chaikin and Derlega (1947) supports this idea that disclosing intimate information at the wrong time or to the wrong audience may reflect "maladjustment" (p. 592). More specifically, it was found that intimate disclosure to a stranger was not considered appropriate, while disclosure to a friend was perceived as appropriate, and nondisclosure to a friend was seen as "significantly less appropriate than to a stranger or acquaintance" (Chaikin & Derlega, 1947, p. 592). These results suggest that there is a linear relationship between self-disclosure of personal information and relationship development— an idea mirrored in the Social Penetration Theory (SPT) (SPT, Greene et al., 2006; Chaikin & Derlega, 1947).

The SPT posits that relationship formation is a "gradual process" in which individuals are expected to reveal a greater variety and breadth of intimate information as a relationship develops (Chaikin & Derlega, 1947, p. 589). Interestingly, however, this is not necessarily the case on social media platforms; although individuals disclose both positive and negative information, there is a "positivity bias" (Waterloo et al., 2017, p. 1814). While there is no finite explanation for this, research suggests this tendency to post mostly positive information is likely due to the fear of being perceived as maladjusted by other users (Waterloo et al., 2017). In other words, while expressions of positivity are thought to be "typical" and thus appropriate (as indicated by the greater rate in which they are reciprocated), negative disclosures are increasingly considered to be more intimate, and therefore atypical and undesirable (Chaikin & Derlega, 1947; Howell & Conway, 1990, p. 468).

Almost all theories surrounding the prevalence of norm-inconsistent behaviors on social media platforms revolve around Social Comparison Theory (SCT). SCT posits that individuals evaluate the "correctness" (Cialdini & Trost, 1998, p. 155) of their beliefs, values, and behaviors

relative to others to relieve "uncertainty in social contexts" (Gelfand & Harrington, 2015, p. 1274). Thus, in an effort to imitate others, users typically engage in a process of "imitation and learning" (Jost et al., 2015, p. 1288) to become more consistent with the majority beliefs, values, and/or opinions (Carpenter & Amaravadi, 2016). Descriptive norms are thus especially important in that they provide a great deal of information regarding what is "likely to be adaptive, effective, and appropriate conduct in a setting" (White et al., 2009, p. 137; Cialdini, 2007, p. 265). As Cialdini (2007) notes, "Descriptive social norms send the message 'If a lot of people are doing this, it's probably a wise thing to do,' which serves to initiate norm-congruent behavior" (p. 264). It therefore follows that situations of high uncertainty or ambiguity spur greater "descriptive norm-consistent behaviors" (Gelfand & Harrington, 2015, p. 1274).

Walther (1992) postulates that the "impersonal nature" of Computer Mediated Communication (CMC) forces individuals to perceive social media channels as a place not fit for "highly personalized interaction" (p. 58). Thus, in an effort to compensate for the impersonal nature of CMC, users dramatically adapt their behavior in the hopes of "manag[ing] impressions" and "facilitat[ing] desired relationships" (Walther, 2009, p. 2538). The hyper personal model reflects this idea that users "exploit the technological aspects of CMC in order to enhance the messages they construct" (Walther, 2006, p. 2538). Waterloo et al., (2017) propose that these characteristics "facilitate" a sense of "disinhibition" which may lead to increasing expressions of positive and/or negative emotions (p. 1815). Since authentically emotional sentiments are difficult to express in the "reduced-cue setting" of CMC (Waterloo et al., 2017, p. 1815), social context (governed by social norms) has become increasingly important. This idea is reflected in the Social Identity model of Deindividuation Effects (SIDE) model which states that "meditated groups can develop a meaningful and strong sense of identity through interaction,

even though many of the factors traditionally associated with social and interpersonal attraction ... are absent in such contexts" (Postmes et al., 2000, p. 334).

Although this is a rather new area of study, the research that is available suggests that there is a "greater perceived appropriateness of expressing positive emotions relative to negative emotions" (Waterloo et al., 2017, p. 1815). As an extension of the research done by Waterloo et al., (2017), this study will also focus on "discrete emotions," distinct emotions (i.e., joy, pride, sadness/anger, disappointment/worry) instead of taking a "valence-based approach" which "compares positive and negative emotions" (Waterloo et al., 2017, p. 1816). As noted by Waterloo et al., (2017) examining discrete emotions is a favorable approach as it tends to be "more informative" and "avoids oversimplifying the patterns of [descriptive] norms across social media platforms" (p. 1816). In line with Waterloo et al. (2017), all hypotheses will remain the same, with slight changes to reflect the study of descriptive norms (rather than injunctive norms). Based on the aforementioned literature, H1 reads:

H1: The expression of positive emotions (i.e., joy and pride) is considered more prevalent compared to the expression of negative emotions (i.e., sadness, anger, disappointment, worry) on social media platforms.

#### Normative differences across social media platforms

Facebook, Twitter, Instagram, WhatsApp, and Snapchat are inherently different social media platforms that offer unique features meant to attract different audiences and behaviors. According to Waterloo et al., (2017) these characteristic differences generate drastically different "social contexts" users must adapt to (p.1813). To understand the varying "features that characterize a platform's social context," it is important to understand the differences across these platforms (Waterloo et al., 2017, p. 1816). To remain consistent with Waterloo et al.'s (2017) research, I will follow a similar structure that evaluates the features "used to characterize

a platform's social context" through the lens of privacy settings, following-mechanisms, and each platform's modalities (Waterloo et al., 2017, p. 1816). This study will extend the scope of social media platforms by adding Snapchat to the list of platforms studied by Waterloo et al. (Facebook, Twitter, Instagram, and WhatsApp).

It is no surprise that privacy settings greatly affect the extent of personal information users disclose. Although self-disclosure is thought to "reflect and enhance social relationships," it can also have undesirable negative effects when information is "shared to a wider audience than intended" (Wang et al., 2016, p. 74). Privacy-based boundaries are thus essential in establishing specific parameters around a user's intended audience (Bazarova & Choi, 2014). Although almost all social media platforms allow users to alter their privacy settings (from the pre-set functions), "default settings tend to function as the standard" (Waterloo et al., 2017, p. 1816). For this reason, we will be focusing on the default public settings of each platform being evaluated— Facebook, Twitter, Instagram, WhatsApp, and Snapchat.

Of these social media platforms, WhatsApp provides the highest level of privacy (Waterloo et al., 2017). WhatsApp is a global instant messaging platform that allows users to share direct, SMS-like messages to the contacts of their choice. Conversely, Twitter, a "microblogging site where users can follow others without the need for approval" or reciprocity invites any and all users to view its content (Waterloo et al., 2017, p. 1817). By encouraging the use of #hashtags to streamline similar content, Twitter furthers possibilities of permeable, linkable content (Bazarova & Choi, 2014). Facebook, on the other hand, invites "semi-private" discourse that is only visible to approved friends (Waterloo et al., 2017, p. 1817). As shown in a study by Barazova (2012), intimate disclosures are considered to be "less intimate" and inappropriate on "public communication" platforms, such as Facebook, than they would be on private platforms, such as WhatsApp (p. 642). As shown in a 2012 study by Barazova, intimate

disclosures are considered to be "less intimate" and inappropriate on "public communication" (p. 830) platforms, such as Facebook, than they would be on private platforms, such as WhatsApp. Much like Twitter, Instagram— a photo-sharing social networking platform— affords users the ability to view content from any and all users online; additionally, Instagram, like Twitter, also invites users to use #hashtags to streamline like-minded content (Waterloo et al., 2017). Unlike any other social media platform, Snapchat— a multi-media application— allows users to send photos or videos to other users for up to ten seconds before they become inaccessible to each user; users can also post photo "stories" on their profiles, which can last up to 24 hours.

In addition to unique privacy policies, each social media platform also has varying "following" mechanisms with which people can communicate. Waterloo et al., (2017) makes the important distinction between reciprocal and non-reciprocal affordances. On platforms that require reciprocal following such as Facebook, WhatsApp, and Snapchat, each user involved in a communication is required to "accept" each other into their respective networks. Conversely, on platforms that support non-reciprocal following, such as Twitter and Instagram, users are not required to reciprocate a "follow" by another user (Waterloo et al., 2017). According to Waterloo et al. (2017), following mechanisms are especially significant in providing "information about the diversity of tie strength in one's network" (Waterloo et al., 2017, p. 1817). Because disclosures tend to become more intimate as relationships become stronger (as posited by the Social Penetration Theory), the breadth (or lack thereof) of one's network size becomes influential (Chaikin & Derlega, 1947; Waterloo et al., 2017). As such, networks that welcome larger, less personal networks, are increasingly likely to encourage less intimate disclosures than those consisting of smaller networks of more intimate, strong ties (Lin et al., 2014). In the case of WhatsApp, its private nature and default reciprocal following provides a setting with which strong ties can communicate more intimately (Waterloo et al., 2017). Facebook, on the other

hand, has a "semi-public setting" that attracts both strong and weak ties, while both Twitter and Instagram, both of which support non-reciprocal following, tends to create weaker ties among a greater variety of users (Waterloo et al., 2017, 1817). Uniquely, Snapchat's default setting is for each user to be "private," requiring reciprocal following to become friends. Users of Snapchat can also elect to make their profiles public.

The modalities each social media platform affords affect both the types of content (i.e., text, photos, or videos) users generate and the frequency with which they share (Lin et al., 2014; Waterloo et al., 2017). Facebook, for example, notoriously offers its users a variety of ways to share any type of content, regardless of its length or size (in gigabytes). Twitter, on the other hand, limits user expression (and sharing) to 280 characters, making it increasingly difficult to make intimate disclosures. With this feature in mind, Twitter, as Waterloo et al. (2017) notes, is a public platform used primarily by users to "publish information" and provide "commentary visible to weak ties" (p. 1818).

Much like Twitter, Snapchat, too, limits its modalities to only a single photo or video; Instagram, on the other hand, allows its users to share multiple photos and/or videos at once. Unlike Facebook, Twitter, Instagram, and Snapchat, WhatsApp affords users the ability to share an unlimited amount of personal disclosures through text, videos, or audiovisuals among close ties (Waterloo et al., 2017).

While existing research has evaluated the normative differences of each social media platform (i.e., privacy settings, following mechanisms, and modalities) on perceived appropriateness of intimate disclosures, the present study aims to understand the frequency with which users perceive others engage in making both positive and negative disclosures. Taking tie strength, modalities of content, and level of privacy of each social media platform into account, we hypothesize that:

H2: The perceived prevalence of expressing negative emotions (i.e., sadness, anger, disappointment, and worry) is higher for Facebook, followed by Twitter, WhatsApp, Snapchat, and then Instagram.

In light of current research that supports the idea of a "positivity bias" in emotional expressions online (i.e., Waterloo et al., 2017), we also hypothesize that:

H3: The perceived prevalence of expressing positive emotions (i.e., joy and pride) is higher for Instagram, followed by Facebook, then Twitter, Snapchat, and finally, WhatsApp.

Lastly, in evaluating the various affordances of each social media platform, it is apparent that WhatsApp affords the greatest amount of privacy to its users; because of this, we hypothesize that:

H4: For WhatsApp, the perceived prevalence of expressing both positive and negative emotions is highest compared to Facebook, Twitter, Snapchat, and Instagram.

RQ1: How do individuals vary in their perceived prevalence of the six types of emotional self-expression (i.e., joy, pride, sadness/anger, disappointment/worry) across different social media platforms?

RQ2: How do the mean scores measuring the perceived prevalence of the six types of emotional self-expression across different social media platforms compare to the mean scores of Waterloo et al. (2017)?

#### Methods

### **Sample & Procedure:**

Participants were recruited via Amazon Mechanical Turk (MTurk), a "crowdsourcing marketplace" that offers a diverse age and gender range ("Amazon Mechanical Turk," 2018).

Participants first took a pre-screening survey (a sampling instrument) via Qualtrics to ensure they

satisfied the study qualifications (located in the U.S., between the age of 18-40+ years old, and an active user of social media). Aside from collecting each participant's "Worker ID," (used to contact the workers who met the pre-screen requirements), no other identifiable information was collected. After completing the sampling instrument, each participant was compensated \$0.20 for participation. Out of the 444 participants that qualified for valid participation in the study, 259 took the survey; of that 259, 120 (46.15%) identified as female, 138 (53.08%) identified as male, 1 (0.38%) identified as "other," and 1 (0.38%) preferred not to disclose their gender. Participant age varied; 47 (18.08 %) of participants were between the ages of 18 and 25, 88 (33.85%) of participants were between the ages of 26 and 33, 65 (25.00%) participants were between the ages of 34 and 40, and 60 (23.08%) of participants were over the age of 40 (see Table 1). Data for this study were collected during February and March of 2020.

Table 1. Participant Demographics

|           | N   | Sex     |        |       |                   | Age (years) |        |        |        |  |  |
|-----------|-----|---------|--------|-------|-------------------|-------------|--------|--------|--------|--|--|
|           |     | Male    | Female | Other | Prefer not to say | 18-25       | 26-33  | 34-40  | 40+    |  |  |
| Facebook  | 242 | 52.89%  | 46.69% | 0.41% | 0.00%             | 17.36%      | 33.06% | 26.86% | 22.73% |  |  |
| Instagram | 224 | 54.02\$ | 45.54% | 0.45% | 0.00%             | 20.54%      | 33.04% | 25.45% | 20.98% |  |  |
| Twitter   | 217 | 54.84%  | 44.24% | 0.46% | 0.46%             | 19.82%      | 31.80% | 25.81% | 22.58% |  |  |
| Snapchat  | 174 | 56.32%  | 43.10% | 0.57% | 0.00%             | 23.56%      | 36.78% | 22.99% | 16.67% |  |  |
| WhatsApp  | 149 | 57.05%  | 42.95% | 0.00% | 0.00%             | 19.46%      | 35.57% | 25.50% | 19.46% |  |  |

Individuals were only invited to participate in the password-protected study after giving consent and meeting the pre-screen requirements. The Qualtrics survey could only be accessed by participants who were given the link by the researcher. After survey completion via Qualtrics, each participant was compensated \$0.80 for their participation.

#### **Measures:**

### Platform use

To remain consistent with Waterloo et al. (2017), to be considered an "active user" of a platform — an individual must be "a registered user . . . having used the platform at least once in the past month"— (Waterloo et al., 2017, p. 1819). Participants were presented with five social media platforms— Facebook, Twitter, Instagram, WhatsApp, and Snapchat— for which they could indicate active use.

The clear majority of the sample (N = 259) indicated using Facebook (93.1%), followed by Instagram (86.1%), Twitter (83.4%), Snapchat (67.18%), and WhatsApp (57.14%). Consistent with the Waterloo et al. (2017) study, the distribution of gender across each platform was approximately equal.

## Descriptive norms of positive emotion expression

This study extended the scope of social media platforms by adding Snapchat to the list of platforms studied (Facebook, Twitter, Instagram, and WhatsApp). In extending on the Waterloo et al. (2017) study, participants were asked to indicate the extent to which they agreed with the following questions for each social media platform (Facebook, Twitter, Instagram, WhatsApp, and Snapchat): "The people who are important to me post about things that make them joyous" and "The people who are important to me post about things that make them proud." Each item was created considering the "operationalization" (Waterloo et al., 2017, p. 1819) of personal descriptive norms typically iterated in scholarly literature. Much like in the Waterloo et al. (2017) study, to measure descriptive norms, each item focused on the perceived prevalence of others' approval of emotional expressions. Responses were measured using a five-point Likert-

type scale (1 = completely disagree to 5 = completely agree). Responses for which participants responded "N/A, Don't Use" received a score of 0.

All data were coded, grouped by emotion (joy, pride, sadness/anger, disappointment/worry), and then grouped by survey item. Mean (*M*) and standard deviation (*SD*) were calculated using Excel formulas for each emotion/social media platform pairing (see Table 2).

Table 2.

Mean (M) and Standard Deviation (SD) for perceived prevalence of emotion expression

| Perceived norms      | M    | SD   |
|----------------------|------|------|
| Facebook             |      |      |
| Joy                  | 3.66 | 1.41 |
| Pride                | 3.65 | 1.46 |
| Sadness/Anger        | 3.19 | 1.49 |
| Disappointment/Worry | 3.12 | 1.45 |
| Twitter              |      |      |
| Joy                  | 2.83 | 1.81 |
| Pride                | 2.83 | 1.79 |
| Sadness/Anger        | 2.77 | 1.84 |
| Disappointment/Worry | 2.76 | 1.81 |
| Instagram            |      |      |
| Joy                  | 3.44 | 1.82 |
| Pride                | 3.34 | 1.81 |
| Sadness/Anger        | 2.29 | 1.59 |
| Disappointment/Worry | 2.26 | 1.59 |
| WhatsApp             |      |      |
| Joy                  | 1.68 | 1.99 |
| Pride                | 1.67 | 1.96 |
| Sadness/Anger        | 1.49 | 1.81 |
| Disappointment/Worry | 1.48 | 1.82 |
| Snapchat             |      |      |
| Joy                  | 2.36 | 2.13 |
| Pride                | 2.18 | 2.06 |
| Sadness/Anger        | 1.80 | 1.83 |
| Disappointment/Worry | 1.76 | 1.84 |

*Note*. The range (R) for all measures in the table is 0-5.

## Perceived descriptive norms of negative emotion expression

Being that this is an extension of Waterloo et al.'s (2017) study, their procedures remained consistent. As such, the perceived prevalence of users expressing negative emotions was also measured using a five-point Likert-type scale (1 = completely disagree to 5 = completely agree); participants indicated the level of agreement they felt with the following statement: "The people who are important to me post about things that make them [sad/angry, disappointed/worried]."

## Analyses:

All mean (M), standard deviation (SD), and range (R) values were compared to determine if descriptive norms for negative emotions (i.e., sadness, anger, disappointment, and worry) were statistically different than descriptive norms for positive emotions (i.e., joy, pride).

#### Results

## **Emotion expression norms and platform differences**

RQ 1 addressed how individuals vary in their perceptions of prevalence of the six types of emotional self-expression across different social media platforms; hypotheses 1, 2, 3, and 4 stemmed from this question. H1 stated that the expression of positive emotions (i.e., joy and pride) would be considered more prevalent compared to the expression of negative emotions (i.e., sadness, anger, disappointment, worry) on social media platforms. The mean (M), standard deviation (SD) of each emotion, individually, and grouped positive (joy & pride, combined) and negative emotions (sadness/anger & disappointment/worry, combined) are presented in Table 3. The data show that the perceived prevalence of positive emotion expressions, such as joy and pride, was higher (M = 2.76, SD = 1.82, R = 0.5) than the perceived prevalence of negative emotion expressions (M = 2.29, SD = 1.71, R = 0.5). Therefore, participants were more likely to

perceive there to be more positive than negative emotional expressions on social media platforms. Thus, H1 was supported.

Table 3. *Descriptive Statistics* 

| Variable  | M    | SD   |
|---|------|------|
| Joy   | 2.79 | 1.83 |
| Pride   | 2.73 | 1.82 |
| Joy & Pride (combined)                          | 2.76 | 1.82 |
| Sadness/Anger                                   | 2.31 | 1.71 |
| Disappointment/Worry                            | 2.28 | 1.70 |
| Sadness/Anger & Disappointment/Worry (combined) | 2.29 | 1.71 |
|   |      |      |

*Note.* Combined data is italicized. Range (R) = 0-5

H2, H3, and H4 examined differences in the perceived prevalence of positive and negative emotion expressions on Facebook, Twitter, Instagram, WhatsApp, and Snapchat. In line with Waterloo et al. (2017), analyses were performed on each individual emotion (joy, pride, sadness/anger, and worry/disappointment) to gain a better understanding of potential patterns and consistencies in the data. An overview of the estimated means of emotion by platform can be found in Table 4. The perceived prevalence of sadness/anger expressions varied by platform; Facebook had the greatest prevalence (M = 3.19, SD = 1.49, R = 0.5) followed by Twitter (M = 2.77, SD = 1.84, R = 0.5), Instagram (M = 2.29, SD = 1.59, R = 0.5), Snapchat (M = 1.80, SD = 1.83, R = 0.5), and WhatsApp (M = 1.49, SD = 1.81, R = 0.5). Similarly, feelings of disappointment/worry also were highest on Facebook (M = 3.12, SD = 1.45, R = 0.5) and Twitter (M = 2.76, SD = 1.81, R = 0.5), followed by Instagram (M = 2.26, SD = 1.59, R = 0.5), Snapchat (M = 1.76, SD = 1.84, R = 0.5), followed by WhatsApp (M = 1.48, SD = 1.82, R = 0.5).

Collectively, the perceived prevalence of negative emotion expressions (sadness/anger and disappointment/worry) were highest on Facebook, followed by Twitter, Instagram, Snapchat, and then WhatsApp. Put differently, participants reported a greater prevalence of negative emotion expressions on Facebook than any other platform. Therefore, H2 was partially supported.

Table 4.

Differences in perceived prevalence of emotion expression.

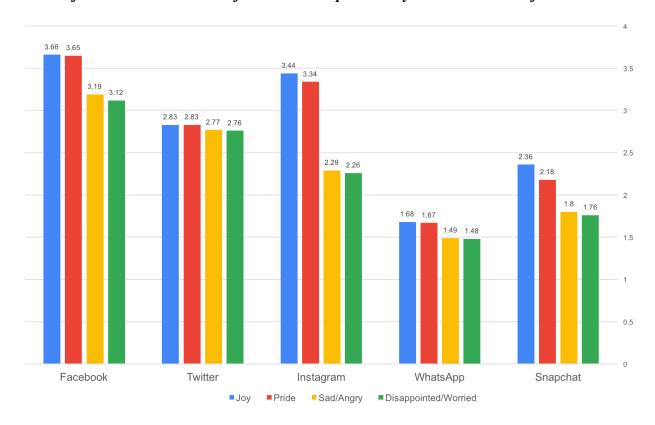
| Perceived norms                      | M    | SD   | R |
|--------------------------------------|------|------|---|
| Facebook                             |      |      |   |
| Joy & Pride                          | 3.65 | 1.43 | 5 |
| Sadness/Anger & Disappointment/Worry | 3.15 | 1.47 | 5 |
| Twitter                              |      |      |   |
| Joy & Pride                          | 2.83 | 1.80 | 5 |
| Sadness/Anger & Disappointment/Worry | 2.77 | 1.83 | 5 |
| Instagram                            |      |      |   |
| Joy & Pride                          | 3.39 | 1.81 | 5 |
| Sadness/Anger & Disappointment/Worry | 2.28 | 1.59 | 5 |
| WhatsApp                             |      |      |   |
| Joy & Pride                          | 1.67 | 1.97 | 5 |
| Sadness/Anger & Disappointment/Worry | 1.48 | 1.81 | 5 |
| Snapchat                             |      |      |   |
| Joy & Pride                          | 2.27 | 2.09 | 5 |
| Sadness/Anger & Disappointment/Worry | 1.78 | 1.83 | 5 |

H3 predicted that Instagram would have the highest prevalence of positive emotion expressions, followed by Facebook, Twitter, Snapchat and then WhatsApp. Comparisons between each social media platform showed that the perceived prevalence of joyful expressions was highest on Facebook (M = 3.66, SD = 1.41, R = 0.5) and Instagram (M = 3.44, SD = 1.82, R = 0.5), but lowest on WhatsApp (M = 1.68, SD = 1.99, R = 0.5) and Snapchat (M = 2.36, SD = 2.13, SD = 2.13,

5). Otherwise stated, participants perceived there to be the most joyous and prideful expressions on Facebook and Instagram, and the least joyous and prideful expressions on WhatsApp and Snapchat (see Figure 1). Thus, taken together, H3 was partially supported.

Figure 1.

Means of Perceived Prevalence of Emotional Expression by Social Media Platform

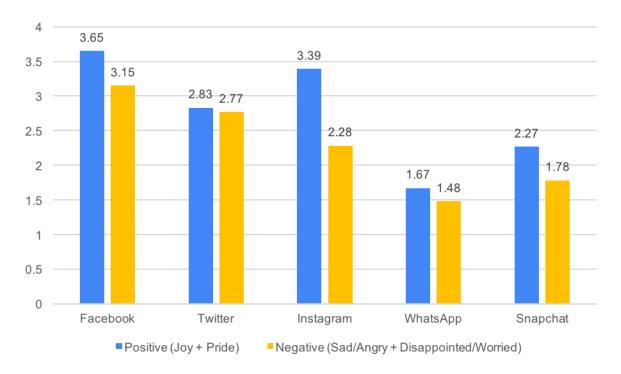


H4 posited that the perceived prevalence of expressing both positive and negative emotions would be highest on WhatsApp, compared to Facebook, Twitter, Snapchat, and Instagram. The data showed that Facebook had the highest rate of perceived positive emotion (M = 3.65, SD = 1.43, R = 0.5) followed by Instagram (M = 3.39, SD = 1.81, R = 0.5), Twitter (M = 2.83, SD = 1.80, R = 0.5), Snapchat (M = 2.27, SD = 2.09, R = 0.5), and lastly, WhatsApp (M = 1.67, SD = 1.97, R = 0.5). Similarly, Facebook also had the highest rate of perceived negative emotion expressions (M = 3.15, SD = 1.47, R = 0.5), followed by Twitter (M = 2.77, SD = 1.83, R = 0.5), Instagram (M = 2.28, SD = 1.59, R = 0.5), Snapchat (M = 1.78, SD = 1.83, R = 0.5),

and WhatsApp (M = 1.48, SD = 1.81, R = 0.5). In sum, participants were more likely to encounter both positive and negative emotion expressions on Facebook than on any other platform (see Figure 2). Thus, H4 was not supported.

Figure 2.

Perceived Prevalence of Positive and Negative Emotion Expression by Social Media Platform



RQ 2 asked about how the mean scores of this study, which measured the perceived prevalence of the six types of emotional self-expression across different social media platforms, compared to the mean scores in the Waterloo et al. (2017) study. Results indicated that there was a noticeable difference between the mean scores for each of the discrete emotions in the present study and the Waterloo et al. (2017) study (see Figure 3). For example, the lowest mean score of the present study was M = 2.28 (R = 0.5), while the lowest mean score of the Waterloo et al. (2017) study was M = 3.04 (R = 0.5). Additionally, the highest mean value for the present study was M = 2.79 (R = 0.5), while the highest mean value for the Waterloo et al. (2017) study was M = 3.92 (R = 0.5).

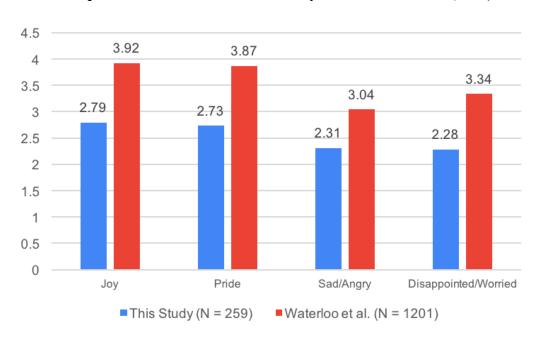


Figure 3.

Mean Comparison Between the Present Study and Waterloo et al. (2017)

Participants in the present study perceived joy to be the most prevalent emotion expressed across all social media platforms (M = 2.79, R = 0.5); the same was true in the Waterloo et al. (2017) study, which found joy to be the most appropriate emotion to be expressed (M = 3.92, R = 0.5). After joy, pride was perceived to be the most prevalent in the present study (M = 2.73, R = 0.5) and also perceived to be the most appropriate in the Waterloo et al. (2017) study (M = 3.87, R = 0.5).

Although there were patterns in positive emotional disclosures, the present study and Waterloo et al. (2017) study differed in their patterns among negative emotional disclosures. Following joy and pride, participants in the present study perceived sad/angry expressions to be most prevalent (M = 2.31, R = 0.5), followed by disappointed/worried expressions (M = 2.28, R = 0.5); alternatively, the Waterloo et al. (2017) study found disappointed/worried disclosures to be most appropriate (M = 2.28, R = 0.5), followed by sad/angry disclosures (M = 3.04, R = 0.5).

#### Discussion

By asking participants to respond to survey items asking about the perceived prevalence of positive and negative emotions on social media platforms, we were able to compare the perceived prevalence of emotional expressions. According to the findings, H1 was supported because participants were more likely to express positive emotions than negative emotions on the social media platforms covered in the scope of the present study. Results were in line with past research concerning the social norms that govern social media, which suggest that the expression of positive emotions is considered to be more "appropriate" and "typical," than negative emotional disclosures, which were deemed to be "unconventional" and "undesirable" (Hochschild, 1979, 1983; Thoits, 1987, as cited in Howell & Conway, 1990, p. 468). Since social media platforms yield relative uncertainty in social contexts, users may have been more inclined to only make positive disclosures, which were thought to be less intimate than negative disclosures.

Relative to other platforms, the perceived prevalence of expressing negative emotions was highest on Facebook, thereby only partially supporting H2 (which predicted that the perceived prevalence of expressing negative emotions would be higher for Facebook, followed by Twitter, WhatsApp, Snapchat, and Instagram); this finding was in line with Waterloo et al. (2017) in which participants rated the expression of negative emotions to be most appropriate on Facebook and Twitter. Barazova (2012) claimed that intimacy may be difficult to attain through a more semi-private platform like Facebook because "...intimate disclosures in public interactions are viewed as less intimate and less appropriate than intimate disclosures in private interactions on Facebook" (p. 830). Although research (i.e., Choi & Barazova, 2014) supported Brazova's (2017) claim, situational changes in society may engender changes regarding social

norms on social media platforms. For example, it is possible that social norms have circumstantially shifted due to the COVID-19 pandemic; it is therefore feasible that negative disclosures have become increasingly commonplace. In other words, it is possible that negative emotional disclosures have become a new (and strategic) way to emphasize commonalities within the current human experience, thereby strengthening both strong and weak social ties. In the future, additional research should be done to investigate the potential affect circumstantial events (i.e., a global pandemic) may have on social norms as well as emotional expressions across social media platforms generally.

H3's prediction was also partially supported in that participants perceived there to be the most joyous and prideful expressions on Facebook and Instagram, and the least on WhatsApp and Snapchat. Findings were in line with the concept of a positivity bias—that emotional expressions tend to be "... positively rather than negatively valenced" (Reinecke & Trepte, 2014, as cited in Waterloo et al., 2017, p. 1814). Furthermore, if participants were to consider Facebook and Instagram to be more public than the five other platforms, participants may be more inclined to post more positive information. This explanation would be in-line with Lin et al. (2014), which found that individuals with larger social networks were more likely to be concerned with their self-image, thereby having a stronger need to present themselves positively. This means of impression-management towards a more public network could explain why participants perceived there to be the most positive emotional expressions on Facebook and Instagram. These explanations would also support findings which revealed that participants were more likely to encounter both positive and negative emotion expressions on Facebook than on any other platform (which did not support H4).

The findings also supported the notion that a "positivity bias" does, in fact, manifest across the social media platforms studied. As explained by Reinecke & Trepte (2014), social media platforms, which "generally enable authentic self-presentation," tend to favor "positive forms of authenticity over the presentation of negative aspects of the true self" (p.95) in the hopes of gaining social currency. The data, which showed that on every platform, positive emotional expressions (i.e., joy and pride) had higher mean scores than negative emotional expressions (i.e., sadness/anger and disappointment/worry), may be in line with this finding. Therefore, participants perceived there to be more positive expressions than negative expressions on Facebook, Twitter, Instagram, WhatsApp, and Snapchat, respectively. Finding were thus socially constructive and supportive considering claims regarding a positivity bias.

Furthermore, the fact that both joy and pride were perceived to be the most prevalent (descriptive norms) and most appropriate (injunctive norms) emotions in both the present study and the Waterloo et al. (2017) study, suggest the prevalence of a positivity bias across the social media platforms studied; should this be true, further research should explore the potential presence of a positivity bias across the other social media platforms not evaluated in the present study. Additionally, future research should also investigate the relationship between descriptive norms, injunctive norms, and positive emotional disclosures on social media platforms.

Following joy and pride, participants in the present study perceived sad/angry expressions to be most prevalent (M = 2.31, R = 0.5), followed by disappointed/worried expressions (M = 2.28, R = 0.5); alternatively, Waterloo et al. (2017) found disappointed/worried disclosures to be most appropriate (M = 2.28, R = 0.5), followed by sad/angry disclosures (M = 3.04, R = 0.5). One factor that might explain why sad/angry expressions might have been more prevalent could be the aforementioned situational circumstances. Although both sad/angry and disappointed/worried emotions were both considered to be negative disclosures, future research

should replicate the current study to further investigate the prevalence and appropriateness across various social media platforms.

#### Limitations and Future Research

Though the present study yields important contributions regarding the dominant norms that surround emotional expressions across social media platforms, the present study does have limitations. Due to challenges of timing and limited resources during the COVID-19 pandemic in the Spring of 2020, inferential statistics were not generated, as originally planned. A future step will be to test for statistical significance.

Another limitation was that the present study relied on self-reported data. Although typically not considered to be a reliable means of measuring due to its "low criterion validity" (due to factors such as "cognitive burden," social desirability, and conceptual validity), the current study asked about user perception, which was difficult to measure without self-reported methods (Boase & Ling, 2013). The current research on descriptive norms is especially important in that it sheds light on the self-reported behaviors of users and not just what users *perceived* to be appropriate behaviors.

Lastly, the use of MTurk also yielded limitations. First, the sample size that met the study qualifications (located in the U.S., between the age of 18-40+ years old, and an active user of social media), was relatively small (N = 259). It is also important to note that many MTurk "workers" (participants) rely on MTurk surveys as a means of income; as such, it is possible that the workers may not have been as careful with their responses to make as much money as possible (by completing as many surveys as possible). Although actions were taken to counteract the potential for this to have influenced the data (i.e., requiring users' demographic information

to align with the data collected in the preliminary survey and discarding any submission with a duration of <5 minutes), it is nonetheless a possibility.

Future studies should continue to explore the relationship between social media platform modalities and the types of content shared while also considering the benefits of inferential statistics, different types of data collection methods, and a larger sample size. Additional research should also be targeted at forming a better understanding of the potential relationship between gender, age, and social norms—items which were beyond the scope of the present study. To give greater validity to the findings, the present study should also be replicated using a larger sample size with diverse respondents recruited from platforms other than MTurk.

Lastly, future research should also investigate how perceived behavioral privacy may affect both behaviors (injunctive norms) and the perceived prevalence (descriptive norms) of certain behaviors on and across social media platforms.

## Concluding remarks

The present paper investigated the perceived prevalence of positive and negative emotion expressions across various social media platforms. The findings were in line with current research (i.e., Reinecke & Trepte, 2013) regarding the social norms prevalent across social media platforms. The data collected support the notion that individuals perceive the expression of positive emotions on social media platforms to be more prevalent than negative expressions; results also suggested Facebook to be the social media platform most used for both positive and negative emotion expressions. In putting the present study's findings in conversation with past research, it is quite possible that negative emotional disclosures have become a new way to emphasize commonalities in times of uncertainty; it is also likely that there is a positivity bias that governs behavior across the social media platforms studied.

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## Appendix A.

## **Pre-Screen Demographic Survey**

- 1. Please enter your Worker ID
- 2. Do you live in the U.S.?
  - a. Yes
  - b. No
  - c. Prefer not to say

Please indicate the following demographic information with which you best identify:

- 3. What is your age?
  - a. 0 17 years old
  - b. 18 25 years old
  - c. 26 33 years old
  - d. 34 40 years old
  - e. 40+ years old
- 4. What is your gender?
  - a. Male
  - b. Female
  - c. Other
  - d. Prefer not to say
- 5. Please select the social media platforms you actively use (at least once in the past month):
  - a. Facebook
  - b. YouTube
  - c. WhatsApp
  - d. WeChat
  - e. Instagram
  - f. Tumblr
  - g. TikTok
  - h. Twitter
  - i. Reddit
  - j. LinkedIn
  - k. Snapchat
  - 1. Pinterest

# Appendix B.

# Follow-Up Survey

Please indicate the following demographic information with which you best identify:

- 1. What's your age?
  - a. 18 25 years old
  - b. 26 33 years old
  - c. 34 40 years old
- 2. What is your gender?
  - a. Male
  - b. Female
  - c. Other (please specify)
  - d. Prefer not to say

This section is asking you about what the people important to you actually post on various social media platforms. Please answer the following items with this in mind. For ease, questions are separated by platform.

|   | Completely<br>Disagree | Disagree | Neutral | Agree | Completely<br>Agree | N/A (Don't<br>Use) |
|---|------------------------|----------|---------|-------|---------------------|--------------------|
|   | FACEB                  | оок      |         |       |                     |                    |
| The people who are important to me post on Facebook about things that make them joyous                | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Facebook about things that make them proud.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Facebook about things that made them sad/angry.            | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Facebook about things that made them disappointed/worried. | 1                      | 2        | 3       | 4     | 5                   | 0                  |
|   | TWIT                   | TER      |         |       |                     |                    |
| The people who are important to me post on Twitter about things that make them joyous                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Twitter about things that make them proud.                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Twitter about things that made them sad/angry.             | 1                      | 2        | 3       | 4     | 5                   | 0                  |
| The people who are important to me post on Twitter about things that made them disappointed/worried.  | 1                      | 2        | 3       | 4     | 5                   | 0                  |

| INSTAGRAM  |       |      |   |   |   |   |  |  |
|--|-------|------|---|---|---|---|--|--|
| The people who are important to me post on Instagram about things that make them joyous                | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on Instagram about things that make them proud.                | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on Instagram about things that made them sad/angry.            | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on Instagram about things that made them disappointed/worried. | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
|  | WHAT  | SAPP |   |   |   |   |  |  |
| The people who are important to me post on WhatsApp about things that make them joyous                 | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on WhatsApp about things that make them proud.                 | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on WhatsApp about things that made them sad/angry.             | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on WhatsApp about things that made them disappointed/worried.  | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
|  | SNAPO | НАТ  |   |   |   |   |  |  |
| The people who are important to me post on Snapchat about things that make them joyous                 | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on Snapchat about things that make them proud.                 | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post on Snapchat about things that made them sad/angry.             | 1     | 2    | 3 | 4 | 5 | 0 |  |  |
| The people who are important to me post about things that made them disappointed/worried.              | 1     | 2    | 3 | 4 | 5 | 0 |  |  |

Now, we're interested in people in general. Please answer the following items with this in mind. For ease, questions are separated by platform.

|  | Completely<br>Disagree | Disagree | Neutral | Agree | Completely<br>Agree | N/A (Don't<br>Use) |  |  |  |
|--|------------------------|----------|---------|-------|---------------------|--------------------|--|--|--|
| FACEBOOK   |                        |          |         |       |                     |                    |  |  |  |
| In general, people post on Facebook about things that make them joyous.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Facebook about things that make them proud.                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Facebook about things that make them sad/angry.             | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Facebook about things that make them disappointed/worried.  | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
|  | TWIT                   | ΓER      |         |       |                     |                    |  |  |  |
| In general, people post on Twitter about things that make them joyous.                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Twitter about things that make them proud.                  | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Twitter about things that make them sad/angry.              | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Twitter about things that make them disappointed/worried.   | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
|  | INSTAG                 | GRAM     |         |       |                     |                    |  |  |  |
| In general, people post on Instagram about things that make them joyous.               | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Instagram about things that make them proud.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Instagram about things that make them sad/angry.            | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on Instagram about things that make them disappointed/worried. | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
|  | WHAT                   | SAPP     |         |       |                     |                    |  |  |  |
| In general, people post on WhatsApp about things that make them joyous.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on WhatsApp about things that make them proud.                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on WhatsApp about things that make them sad/angry.             | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |
| In general, people post on WhatsApp about things that make them disappointed/worried.  | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |  |

| SNAPCHAT  |   |   |   |   |   |   |  |
|---|---|---|---|---|---|---|--|
| In general, people post on Snapchat about things that make them joyous.               | 1 | 2 | 3 | 4 | 5 | 0 |  |
| In general, people post on Snapchat about things that make them proud.                | 1 | 2 | 3 | 4 | 5 | 0 |  |
| In general, people post on Snapchat about things that make them sad/angry.            | 1 | 2 | 3 | 4 | 5 | 0 |  |
| In general, people post on Snapchat about things that make them disappointed/worried. | 1 | 2 | 3 | 4 | 5 | 0 |  |

The next section is asking you about what people important to you would think if you took specific actions on various social media platforms. Please answer the following items with this in mind. For ease, questions are separated by platform.

|   | Completely<br>Disagree | Disagree | Neutral | Agree | Completely<br>Agree | N/A (Don't<br>Use) |  |  |
|---|------------------------|----------|---------|-------|---------------------|--------------------|--|--|
| FACEBOOK  |                        |          |         |       |                     |                    |  |  |
| The people who are important to me would be okay with me posting on Facebook about something that made me joyous.               | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Facebook about something that made me proud.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Facebook about something that made me sad/angry.            | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Facebook about something that made me disappointed/worried. | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
|   | TWIT                   | TER      |         |       |                     |                    |  |  |
| The people who are important to me would be okay with me posting on Twitter about something that made me joyous.                | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Twitter about something that made me proud.                 | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Twitter about something that made me sad/angry.             | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |
| The people who are important to me would be okay with me posting on Twitter about something that made me disappointed/worried.  | 1                      | 2        | 3       | 4     | 5                   | 0                  |  |  |

|  | INSTAC | GRAM |   |   |   |   |
|--|--------|------|---|---|---|---|
| The people who are important to me would be okay with me posting on Instagram about something that made me joyous.               | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Instagram about something that made me proud.                | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Instagram about something that made me sad/angry.            | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Instagram about something that made me disappointed/worried. | 1      | 2    | 3 | 4 | 5 | 0 |
|  | WHAT   | SAPP |   |   |   |   |
| The people who are important to me would be okay with me posting on WhatsApp about something that made me joyous.                | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on WhatsApp about something that made me proud.                 | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on WhatsApp about something that made me sad/angry.             | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on WhatsApp about something that made me disappointed/worried.  | 1      | 2    | 3 | 4 | 5 | 0 |
|  | SNAPO  | СНАТ |   |   |   |   |
| The people who are important to me would be okay with me posting on Snapchat about something that made me joyous.                | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Snapchat about something that made me proud.                 | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Snapchat about something that made me sad/angry.             | 1      | 2    | 3 | 4 | 5 | 0 |
| The people who are important to me would be okay with me posting on Snapchat about something that made me disappointed/worried.  | 1      | 2    | 3 | 4 | 5 | 0 |