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I am Safe, so I will Help: Prosocial Impact of Marking Oneself Safe during Disasters

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I am Safe, so I will Help: Prosocial Impact of Marking Oneself Safe during Disasters

Full research paper

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Abstract

In the aftermath of disasters, people anxiously desire to immediately inquire or inform their loved ones about their safety. A social safety check system (SSCS) is a single-click safety status broadcasting mechanism on social platforms during crises. While millions of people use it globally during disasters, millions ignore the system. Research investigating the antecedents and consequents of SSCS adoption during disasters is scarce. We examine the unforeseen prosocial consequences (donations, volunteering, information sharing) of SSCS adoption. Based on theoretically established link between individuals' state gratitude and prosocial tendencies, we posit that using SSCS would act as a gratitude intervention and will lead to higher prosocial intentions among adopters as compared to non-adopters. We test our hypotheses using scenario-based controlled experiment. A post-hoc study reveals the motivators and concerns in adoption of SSCS. The study investigates a sociotechnical tool in disaster management with impact on the societal welfare of disaster-hit communities.

Keywords Disaster, social platforms, prosocial, controlled experiments, state gratitude.

1 Introduction

Disasters, whether natural or manmade, unfortunately are inevitable at times. However, the negative impact of disasters on human lives could be mitigated to some extent if people have avenues to connect with each other, demonstrating solidarity and prosocial behavior during the times of crisis (Victor and Ahmed 2019). In the immediate aftermath of devastating disasters, people anxiously desire to immediately enquire or inform their loved ones about their safety status. However, the typical means of communication may not fit the requirements of mass-communicating one's safety status and needs with the larger network of family and friends using the least possible amount of time, data, and connectivity, each of which could be constrained during disasters. In a bid to potentially address this problem, Facebook piloted a form of Social Safety Check System (SSCS) (our terminology) in 2014 as a feature of its Crisis Response Tool¹, by which users can conveniently inform their social network about their safety status during times of crises with just a single click. In crisis Facebook identifies users who live or may be traveling in an area affected by a disaster and automatically sends them a query asking about their safety. Users can easily mark themselves safe by clicking on 'I'm Safe' button, or request help if needed; and this information gets shared with their network on the platform. Since its launch, it has been used by people globally in over 50 disasters by millions of people. Citing one instance, more than 7 million people used the Facebook's SSCS to mark themselves safe or request help during the Nepal earthquake in 2015. SSCS seems to be a practically useful socio-technical system as it provides a simple and efficient way to broadcast one's safety status to multiple concerned recipients at a time, alleviating their anxiety that may build up due to lack of communication during a disaster.

Despite being a promising addition to the space of digital innovation in disaster response, not much attention has been paid by researchers to study its usage behavior. Antecedents and consequences of adopting SSCS have yet not been investigated in the existing body of research. Especially, given the disaster context, unearthing any potential social benefits of adopting SSCS could be valuable. Studies have shown that during disasters, local citizens act as crucial resources as they exhibit emergent prosocial behavior (Whittaker et al. 2015), such as donating money and resources, sharing disaster-related information and real-time updates (Shahbazi et al. 2018), and volunteering in relief efforts (Barsky et al. 2007). Social platforms also facilitate coordination of such local support by affording the users to engage in prosocial activities that hugely impact societal welfare of disaster-hit communities. They can provide opportunities for donation, sharing information and situational updates on disasters and the disaster-hit localities, and offering help to fellow citizens in terms of food, shelter, healthcare resources. Some studies have shown how social platforms can act as enabler of citizens' prosocial behavior during disasters by permitting localized and decentralized decision making and actions (Gunessee et al. 2018; Kristofferson et al. 2014; Wamba et al. 2019). Although their immense potential in triggering and enabling prosocial activities during disasters, overall research investigating users' prosocial behavior on social platforms in disaster scenario is scarce. And to the best of our knowledge, no study has specifically examined citizens' prosocial tendencies as consequences of adoption of an SSCS. Recent studies have underlined the increasing use of digital technologies and innovations (e.g., bots, virtual agents, wearable devices) to nudge users towards prosocial behavior such as donation, helping others, human cooperation (Oliveira et al. 2021; Shin and Kim 2018). However, these studies deal with digital innovations that are designed purposefully to induce prosocial behavior. Prosociality as an unintended positive consequence of using a digital system is not studied so far. Prosocial consequences of SSCS, if any, could be of significant practical impact. Apart from its intended outcome of broadcasting one's safety status during disasters, knowledge about any unintended externality in terms of prosociality may benefit the disaster-hit community. Social platforms could leverage SSCS to induce prosocial behavior if there is a positive link, or may devise strategies to curb associated negative consequences, if any. Insights into the usage of SSCS in disasters have important design implications for various social platform-based disaster management systems.

In this paper we would like to unravel the potential of social safety check system (SSCS) in nudging prosocial tendencies among users apart from its obvious function of broadcasting one's safety status during crises to their social network.

Our proposition on a potential link between adopting SSCS and prosocial behavior emerges from the psychological theory on gratitude where a proven relationship exists between 'state gratitude' and prosociality (Ma et al. 2017). Using SSCS for declaring oneself safe during disaster is an explicit way of

¹ [Crisis Response \(facebook.com\)](https://www.facebook.com/crisisresponse)

acknowledging one's better situation during a crisis. While the obvious purpose of the feature is effective communication of one's safety status to others, it may also serve as self-disclosure of a personal positive outcome, which in turn may increase user's state gratitude. Serving as a digital mode of gratitude acknowledgement, use of SSCS can be positively linked with its users' prosociality during disaster, that may lead to unforeseen positive impact on societal welfare. Literature suggests that globally governments, public and private agencies are eagerly looking for tools that can contribute to greater good during emergencies (Chen et al. 2013; Park et al. 2015). Thus, in this paper we plan to investigate the following research question:

RQ. Does use of a social safety check system (SSCS) make a user more prone to prosocial tendencies during disasters?

To test our research question, we conducted a scenario-based controlled experiment with 270 participants from the USA, Australia, and South Africa. In the experiment, a disaster scenario was simulated that the participants were asked to imagine having faced themselves, albeit being safe during the disaster. The participants were then presented with a mock-up of a social platform with SSCS, followed by a message requesting help for the disaster-hit community. They were asked to report their willingness to use the system to broadcast their safety status, followed by a set of questions that measured their prosocial tendencies. We measured their *likelihood of donation* to the disaster relief funds, their *likelihood of volunteering* in disaster recovery activities, and their *likelihood of sharing relevant disaster-related information* on the social platform. These were the prosocial outcomes of our interest for this study. Controlling for various external and individuals' psychological factors, we found that *users who chose not to use SSCS were significantly less likely to engage in prosocial behavior than those who did*. Additionally, we compared the results with a control group who did not have access to the SSCS on their social platforms. Interestingly, we found that users who had access to SSCS but chose not to use it, demonstrated lower levels of prosocial behaviour even compared to the control group having no SSCS access, thus cumulatively negatively affecting the overall societal good at scale.

Follow-up questions on participants' state gratitude and overall attitude towards the social platform conformed the theoretical underpinnings of the study. Results showed a heightened state gratitude for those who used the SSCS compared to those who chose not to adopt the system. In fact, overall attitude towards the social platform was lower for the non-users than the control group. This indicated a possible transfer of negative attitude towards the SSCS to the social platform itself, and thus reluctance to engage in prosocial activities requested by the social platforms for the disaster-hit community.

In a post-hoc study, we tried to identify the reasons behind adopting or not adopting SSCS in disasters. While majority of the participants of the main experiment chose to use the feature, some chose to ignore it. In real life as well, many ignore the request to use the feature. To the best of our knowledge, the factors motivating users to adopt SSCS or discouraging them to not adopt SSCS in social platforms during disasters are presently unknown. Understanding the 'why' behind these actions can not only lead to improvements in the design and adoption of the tool, but also provide psychological insights on human-technology interaction during disasters. Thus, following the main experiment, in an exploratory study, we plan to investigate the following question: *What are the user motivations and concerns on adopting SSCS?* We conducted the open-ended exploratory survey with 300 respondents. The valid responses were then coded and categorized. 4 major themes in motivations and 5 major themes in concerns emerged. Some key motivations of adopting SSCS were found to be *reduction of anxiety of their loved ones* and *altruistic motives (such as raising awareness about disasters, ensuring help reaching the right people)*. Key concerns were related to the critical issue of *privacy and trust on the platform, reliability of using the system, and any unintended consequences of usage (such as being perceived as an 'attention seeker')*.

Our proposed research aims at presenting novel theoretical perspectives on use of SSCS during disaster and any unintended consequences that it may have on users' prosocial tendencies. Thus, we intend to expand the existing body of knowledge on the role of social platforms in disaster management. Extant literature largely considers social platforms as interactive channels of written communication during disaster recovery, primarily focusing on Twitter tweets and Facebook posts (Abedin and Babar 2018; Brengarth and Mujkic 2016; Leong et al. 2015; Liu and Xu 2018; Takahashi and Tandoc, E.C. Jr. Carmichael 2015). By introducing SSCS into this research domain, we can intellectually contribute by providing unforeseen insights into a theoretically different form of communication on social platforms specific to disasters, more akin to an SOS signal than interactive messaging. Our interesting proposition to link SSCS usage with prosocial behavior can enrich literature by unearthing an unexpected unique way by which social platforms can create societal impact and community welfare.

Prosociality during disasters can be critical for communities to make a faster return to normalcy. A shortfall in the amount of money and resources needed for disaster relief and recovery has been typically observed across the history of all major disasters. Hence, studying the prosocial consequences of adoption of SSCS will offer interesting and usable insights to the decision of embedding it on various social platforms. Positive prosocial impact of SSCS usage may recommend many disaster relief agencies and NGOs to push popular social platforms not only to embed SSCS, but also to induce its adoption among users. Also, to alleviate the negative consequence of non-adoption of the system, social platforms may devise various nudging mechanisms for higher adoption of SSCS.

2 Prior Studies on Social Platforms in Disaster Management

2.1 Social Platforms for Disaster Communication and Assistance

Social platforms are used in disasters by citizens for emergency communication, seeking and offering help from (or to) fellow citizens and concerned authorities. On the other hand, some institutional bodies use social platforms to disseminate disaster-related information to common people. Thus, social platforms are already coming up as potent channels for disaster communication (Martínez-Rojas et al. 2018). Prior studies have focused on various aspects of peer-to-peer emergency communication and support using social platforms during emergencies. After a thorough review of the entire research literature, we could classify it into the following three distinct broad themes -

Institutional emergency communication and disaster recovery: The first stream of research has shown how social platforms such as Twitter and Facebook were used by disaster management agencies and governments to share official updates on the disaster situation, and information on recovery processes during disasters such as Boston marathon bombing in 2013, Australian bushfire in 2014, Houston flood in 2015 (Abedin and Babar 2018; Eismann et al. 2021; Kaewkitipong et al. 2016; Lee et al. 2015; Liu and Xu 2018; Tim et al. 2016).

Citizen-to-citizen emergency communication and assistance: A wide array of studies explored the emergence of citizen-to-citizen emergency communication and assistance on social platforms (Twitter and Facebook). Common public and digital volunteers took to social platforms for sharing local updates and collating and forwarding official information and guidelines (Abedin and Babar 2018; Liu and Xu 2018; Takahashi and Tandoc, E.C. Jr. Carmichael 2015; Tim et al. 2016), sometimes even spreading rumors (e.g., (Oh et al. 2013)). More recently social platforms (especially Twitter) were used by citizens and authorities for emergency communication during COVID-19 pandemic (Kalra and Ghoshal 2021; Rosenberg et al. 2020; Rufai and Bunce 2020). Not only information dissemination, but social platforms were also used by public, volunteers and non-profit personnel for taking tangible actions such as coordinating relief efforts and sharing resources with fellow citizens (Brengharth and Mujkic 2016; Kaewkitipong et al. 2016; Leong et al. 2015; Takahashi and Tandoc, E.C. Jr. Carmichael 2015).

Citizen-driven online communities and support groups: Social platforms have been found instrumental in building online communities of support (informational and emotional) transcending geographies during times of crisis (Kaewkitipong et al. 2016; Tim et al. 2016). Although not much research has been done in this space, it too holds immense potential for novel research.

Although there is plenty of research that explores the role of social platforms in disaster communication and assistance, be it govt to citizen or citizen-to-citizen, the majority of the studies focuses on tweets on Twitter and/or Facebook posts and comments. Also, most of the studies are based on qualitative methodology and are exploratory in nature. Past research has not looked into the role of SSCS or any other similar IS artifact exclusively dedicated for easy and one-click emergency/SOS communication on social platforms or even on other disaster assistance websites. Very few studies that have mentioned the SSCS of Facebook in disaster context (Jayasekara 2019; Lee 2019) are exploratory in nature and have not empirically studied the factors of its adoption and its associated consequences.

2.2 Prosociality on Social Platforms during Disasters

Extant literature documents, albeit sparsely, citizens' prosocial behavior on social platforms during disasters. As discussed in the previous section, social platforms are widely used for citizen-to-citizen disaster communication and assistance. This includes sharing relevant information on disasters and victims, which is a form of prosocial behavior that one can engage in on social platforms. Apart from that, social platforms could be enabler of other prosocial acts such as donation in disaster relief funds, offering help in terms of food, medical resources, shelters, and/or coordinating volunteering efforts for disaster relief activities (Houston et al. 2015). Prior studies have shown that social platforms significantly impact people's prosociality during emergencies (Gunessee et al. 2018; Wamba et al. 2019).

It was found that social platforms accentuate individuals' social and psychological motivators of prosocial behavior (such as digital volunteerism) by enabling decentralized decision making and effective communication between local actors (Gunessee et al. 2018). Another study presented a different, yet interesting, view on how joining a social platform (Facebook) group on disaster-relief charity as an initial "token support" led to subsequent tangible prosocial actions by people owing to the desire to present a positive image to others (Kristofferson et al. 2014). We intend to extend the body of knowledge in this area by investigating the effect of SSCS, an artifact of social platform on subsequent prosociality of the users of the artifact.

3 Theoretical Background and Conceptual Model

Potential consequences of using SSCS and their implications for socially connected platforms leveraged for disasters (e.g., social media platforms, official disaster management platforms) are not yet investigated in academic research. It would be interesting to know that other than the obvious benefit of providing real-time update on users' safety status, does using the feature produce any positive externalities for disaster response? Particularly, given that social platforms enable prosocial support from people, we are interested to know if embedding SSCS can positively influence prosocial behavior, a positive societal outcome for collective good during disasters. A potential link between adoption of SSCS and prosocial behavior emerges from the psychological theory on gratitude which connects 'state gratitude' with prosocial tendencies (Ma et al. 2017). State gratitude is a cognitive and emotional reaction at a given point in time, arising from noticing and appreciating the benefits that one has received (Wood et al. 2014). One of the causes of state gratitude is "the realization of doing better compared to others" (Wood et al. 2008). Marking oneself safe during disaster is an explicit way of acknowledging one's better situation during a crisis. While the obvious purpose of the feature is effective communication of one's safety status to others, it may also serve as self-disclosure of a personal positive outcome, which in turn may increase user's state gratitude. This is akin to the widely used instrument of psychotherapists of inducing gratitude by journaling one's positive personal experiences in difficult situations. A recent study demonstrates how writing about gratitude experiences increased prosocial tendencies among individuals during the COVID-19 pandemic (Oliveira et al. 2021). This confirms the theory that under the influence of state gratitude, individuals act prosocially even towards those who are not responsible for inducing their feeling of gratitude – a phenomenon known as 'indirect reciprocity' (McCullough et al. 2002). Extending the concept of gratitude intervention from offline context to online social platforms, we theorize that using SSCS to mark oneself as safe may act as a 'digital' mode of gratitude acknowledgement and can be positively linked with its users' prosociality during disaster. On the other hand, non-adoption of SSCS, possibly due to negative attitude towards the artifact, would demonstrate lower level of prosociality. We posit this based on Attitude Transfer hypothesis (Ranganath and Nosek 2008) that suggests that individuals' perceptions and attitudes can be transferred from one entity to other related entities (Jiang et al. 2016). If individuals' concerns outweigh the perceived benefits from using SSCS, they will ignore the prompt for using the system on social platform. The concerns may create negative attitude towards the system that can be transferred to subsequent related entities on the social platforms, such as links to donate for disaster or upload relevant information. Thus, prosociality on the social platform hosting the SSCS may be affected.

Prosociality at the times of disasters could be in terms of monetary donations (giving of money) and volunteering or information sharing (giving of time) (Kawawaki 2023). Therefore, adoption of SSCS by a user may trigger positive prosocial likelihood of various types (likelihood of donation, likelihood of volunteering, and likelihood of information sharing) through gratitude intervention, whereas non-adoption of SSCS by users may dampen their prosocial likelihood of various types. Therefore, we propose the following hypothesis:

H1. Users who use SSCS to declare one's safety status during disasters show a higher likelihood of donation to disaster relief funds as compared to those who do not use SSCS.

H2. Users who use SSCS to declare one's safety status during disasters show a higher likelihood of volunteering in disaster-relief activities as compared to those who do not use SSCS.

H3. Users who use SSCS to declare one's safety status during disasters show a higher likelihood of sharing disaster-related information on social platforms as compared to those who do not use SSCS.

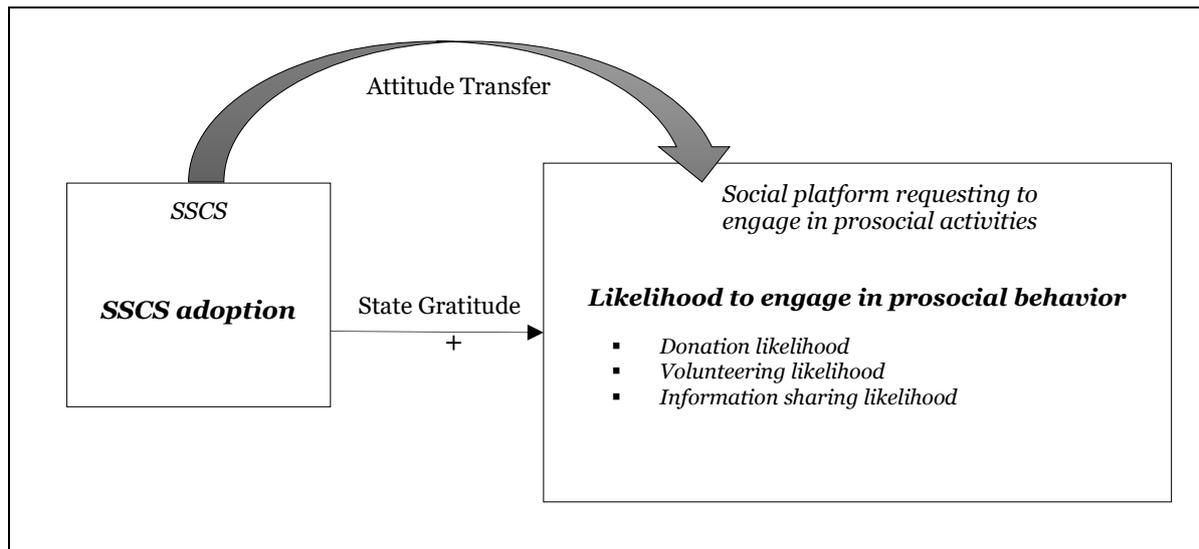


Figure 1: Conceptual model

4 Research Methodology

4.1 Experiment Design

We designed a scenario-based controlled experiment to ascertain the effect of participants' usage of SSCS during disaster scenario, and their subsequent willingness to engage in prosocial behavior on the social platform. Controlled laboratory experiment is a natural choice for behavioral research in disasters because it is often impossible and even unethical to access behavioral data during real life disasters (Savage and Torgler 2021). A hypothetical disaster scenario (as shown in Figure 2) was presented as the stimulus of the study. The disaster scenario was of a tropical storm (cyclone/ hurricane) of moderate intensity which hypothetically resulted in moderate destruction. The participants were asked to imagine themselves to face the disaster, however they were safe.

Following the scenario, the subjects were shown a mock-up of a social platform with SSCS (Figure 3a). Subjects had the option to use the SSCS to mark themselves safe (in the disaster) on the social platform, broadcasting their safety status to their social network, and the option not to use the SSCS. Following their action, an open-ended question was posed asking the reason for their choice. The responses to the open-ended question would help us identify factors that motivated or hindered the usage of SSCS.

Next, a mock-up of the social platform displaying a message (as depicted in Figure 3b.) were shown to the subjects. The message was a request to the users to engage in various prosocial activities that would benefit the disaster-affected community. Prosocial activities were i) to donate money to legitimate charitable organizations involved in disaster relief, ii) to volunteer in disaster recovery efforts and/or offer help (food, shelter, medicine) to the victims, and iii) to share relevant information and situational updates on the disaster on the social media.

The subjects were then asked to fill in a survey questionnaire to report their likelihood of engaging in prosocial activities, including donation, volunteering and information sharing on 9-point Likert scales (increasing scale of 1 (very low) to 9 (very high)). The questionnaire also included questions regarding their attitude towards the social platform and their state gratitude. These questions were relevant to test the theorization of the study. Several questions pertaining to control variables were posed. Control variables included: participants' *Trust on the social platform*, *Familiarity with SSCS*, *Prior experience with disaster*, *Frequency of their exposure to disaster news*. Also, participants' psychological attributes were controlled: *Trait gratitude*, *Apprehensiveness*, *Sociability*, and *Empathy*. Their demographic data were also captured. The survey instruments were borrowed and adapted from existing scales, wherever possible. New scales were developed in some cases by consulting literature and experts. Table A1 of Appendix lists the variables used in the study. The questionnaire included questions pertaining to attention checks and marker variables to identify erroneous reporting. Table A2 of Appendix lists the survey questions.

For the main experiment 270 subjects were recruited using Prolific, an online survey platform widely used by academic research community. Participants were invited from the USA, Australia, and South

Africa. Tropical storms or cyclones are common natural disasters in these regions, making the scenario relatable to the participants. Participation was voluntary, anonymous, and incentivised. We invited only those who were fluent in English and were current or former users of any social platform.

Majority of the participants were from the USA (226 out of 270 participants), followed by South Africa (42 out of 270 participants), and 2 were from Australia. 23% of participants were from low-income groups, 55% were from middle income groups, and 21% were from high income groups.

Imagine the following scenario:

Your city is hit by (Hurricane) cyclone Harrold, a Category III (moderate) tropical cyclone² with wind speed 115 miles per hour (185 kilometers per hour). Fortunately, you are completely safe. The estimated impact of the hurricane as reported by news agencies are the following:

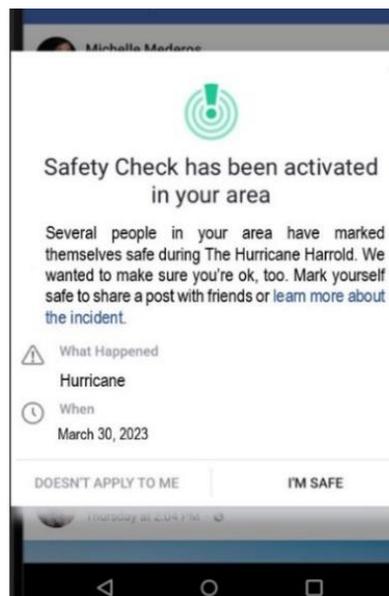
- 30 deaths; 230 injured with more than 70 needing hospitalization.
- Flooding and landslides. Moderate damage to homes; uprooting of trees; blocked roads; damages to power lines, power outage for many hours.
- Damages are estimated to cost around \$180 million.



(Images are for representational purposes only)

Figure 2: Hypothetical disaster scenario as stimulus

While scrolling you receive a notification on your social media platform. Please check the notification carefully and respond to the survey questions³.



³ For participants from Australia and South Africa, 'hurricane' was replaced by 'tropical cyclone/ storm'.

Figure 3a: Mock-up of social platform with SSCS

While scrolling you come across a link to a FEMA (Federal Emergency Management Agency)⁴ approved page on the social platform, dedicated to disaster relief activities.

There you can donate funds to support disaster recovery efforts to a global non-profit charity platform - which will direct these funds to verified local charitable organizations.

You also have options to volunteer or find help with resources like food, supplies or shelter, and provide or receive relevant information about the crisis.

Figure 3b: Message on social platform requesting help for disaster-hit community.

4.2 Analyses and Results

Out of 270 participants 212 reported that they would use the SSCS and share their safety status with their social network. 58 participants reported that they would ignore the notification, thus forming two groups: users of SSCS (Group 1) and non-users of SSCS (Group 2).

We analysed the effect of use/ non-use of SSCS on participants' self-reported prosocial likelihood. We performed robust regression analysis for each of the dependent variables, the independent variable being the group that they chose to belong. We controlled for several control variables to address the effect of any external factors. Importantly, we controlled for trust on the social platform to eliminate any effect of disparate trust on the platform between two groups that may influence their choice to use SSCS as well as their prosocial behavior on the platform.

Results of the regression analysis showed that donation likelihood was significantly less ($\beta = -1.12$, $p < 0.01$)⁵ for Group 2 vis-à-vis Group 1. Likelihood to volunteer for disaster recovery efforts was also significantly lower ($\beta = -0.73$, $p < 0.05$) for Group 2 vis-à-vis Group 1. Similarly, for information sharing likelihood Group 2 reported significant less value ($\beta = -1.22$, $p < 0.001$) than Group 1. Hence, H1, H2 and H3 were supported. The results suggested that participants who chose to use SSCS were more likely to engage in prosocial activities to help the disaster-affected community than those who chose not to use SSCS.

To test the theoretical underpinning of the results we compared State gratitude and Attitude towards the platform, controlling for their trait gratitude that may affect their state gratitude in general. We found a significant higher level of State gratitude ($\beta = 0.50$, $p < 0.05$), even after controlling for trait gratitude, for Group 1 vis-à-vis Group 2. This suggests that participants who chose to use SSCS experienced heightened sense of gratitude towards life for being safe in the disaster than those who chose not to use SSC. This supports our theory of SSCS being a digital mode of gratitude intervention that is likely to lead to prosocial behaviour among people. Furthermore, we found that attitude towards the platform was significantly less positive for Group 2 than Group 1 ($\beta = -1.32$, $p < 0.001$), even after controlling for trust on the platform. Therefore, we could say that for participants who chose to ignore the SSCS, a transfer in attitude from the artifact to the platform lowered their likelihood to engage in any prosocial behavior on the platform.

4.3 Comparison with Baseline Group

We further compared the results of the main experiments with a control (baseline) group. Participants belonging to this group would be exposed to the same stimulus as the main experiment (as shown in Figure 2). They were asked to imagine they were safe during the disaster. Next, they were directly shown the mock-up of the social platform with the message soliciting donation, volunteering, information sharing (as shown in Figure 3b). Unlike the main experiment, participants of the control group were not exposed to the SSCS on social platform. Thus, the control group was essentially the ones who were exposed to the disaster scenario (and were safe), without having an explicit option to declare their safety status to their social network.

⁴ For participants from Australia and South Africa, in the scenario, FEMA was replaced by 'your country's national emergency management agency'.

⁵ β is the coefficient in the regression model and p value denotes the significance.

For the control group 90 participants were recruited on Prolific platform. Again, they were citizens of the USA, Australia, and South Africa, countries that experience tropical storms or cyclones frequently⁶. They were asked to indicate their likelihood of donation, volunteering, and information sharing. Similar to the main experiment, each outcome was measured on a 9-point Likert scale (1: very low to 9: very high). Several control variables regarding their prior experience with social platform and SSCS, prior experience with disasters, demographic and psychological attributes were captured (as shown in Table A1 of Appendix).

Comparison of outcomes between the control group and Group 1 (users of SSCS) and Group 2 were (non-users of SSCS) made using robust regression models. Our analysis revealed that the control group showed similar levels of prosocial likelihood vis-à-vis Group 1 (users of SSCS) of the main experiment. However, Group 2 (non-users of SSCS) displayed significantly lower likelihood for two out of three prosocial outcomes (i.e., donation ($\beta = -1.09, p < 0.05$) and information sharing ($\beta = -1.5, p < 0.001$)), as compared to the control group. Likelihood to volunteer was not significantly different for Group 2 and control group. This indicates that presence of SSCS only leads to positive prosocial outcomes if the social platform users use the system to mark themselves safe. In case of non-adoption of SSCS, reduced prosocial tendencies among people was observed, even compared to control group (without access to SSCS). Thus, overall benefit of including SSCS could be achieved only if there is a mass adoption of the system. Otherwise, there would be an erosion of the overall societal benefit.

4.4 Post-hoc Study

We conducted an exploratory study where we invited 300 individuals to participate in a survey to identify their motivators and concerns of using SSCS. The survey described the SSCS artifact on a social platform and its use during disaster. Following the description, a questionnaire consisting of two open-ended questions (apart from questions on their demographic details) were posed. They were asked to mention their top two reasons of using a SSCS during disaster and their top two concerns regarding use of the system. 292 valid responses were recorded.

Reasons for using a SSCS	Concerns of using a SSCS
“For friends and loved ones to know I am safe and alive.”	“Giving your localization to social platforms”
“I am not in immediate danger and there are others who probably need the help.”	“That it only accounts for people who are safe”
“It is a quick way to let those who care about me know that I am alive and well.”	“Will annoy people that doesn't care about me/the disaster”
“To prevent others thinking or worrying about me”	“Doubt about how useful it actually is”
“To warn others of the disaster in my area”	“People can think I'm trying to take attention”

Table 1. Sample Responses of Post-hoc Survey

The responses were then systematically categorized by the researchers into different themes. Eventually 4 major themes in motivations and 5 major themes in concerns emerged.

Key motivators: Anxiety reduction of others, Ease of communication during disasters, altruistic motives (e.g., warning others about the disaster, ensuring help to needy people), regulatory directives (e.g., if mandated by government/ emergency management agencies)

Key concerns: Privacy and trust concerns, System access concerns (e.g., unavailability of the Internet), System scope concerns (e.g., uncertainty of one's safety status), System usefulness concerns (e.g., unsure about its on-ground implications), Unintended consequences (e.g., perceived as attention seeker).

The post-hoc study is a preliminary step towards uncovering of the motivations and concerns of adoption of SSCS during disasters. In future, we plan to develop a conceptual model that will help us identify the significant factors that affect SSCS adoption.

⁶ 45 out of 90 participants were from the USA, 44 out of 90 participants were from South Africa and 1 was from Australia.

5 Implications

By examining the unintended consequences of using the innovative SSCS on socially connected platforms, our study contributes to the stream of literature researching on the applications of Information Systems in disaster management and responses to adverse events (Abbasi et al. 2019; Beydoun et al. 2018; Chen et al. 2013). Validation of our interesting proposition on improving prosociality on a platform by simply clicking on the SSCS can lead to many theoretical implications for the prosocial literature on disaster support. It also makes a key contribution to core psychological theory on gratitude by suggesting that even a digital mode of gratitude intervention may improve user well-being and state gratitude during a crisis (thus, equating an IS usage with offline therapeutic actions like journaling).

Our proposition is based on the theoretical support provided by connecting two disparate threads of psychological literature, one on the relationship between State Gratitude and Prosociality (Ma et al. 2017), and another on the concept of Attitude Transfer (Ranganath and Nosek 2008). Studies suggest a positive link between individuals' state gratitude and their prosocial intentions in a variety of non-disaster contexts. We posit that adopting SSCS will trigger heightened state of gratitude as the user will be reminded of their own safety during disaster and will feel grateful for being in a positive situation even in times of crises. Thus, an increased state gratitude on the social platform due to SSCS may lead to increased prosocial tendencies in people. On the other hand, those who are unwilling to adopt SSCS due to negative attitude towards the artifact, may demonstrate a lower level of prosociality. Our conjecture is based on attitude transfer hypothesis that suggests that individuals' perceptions and attitudes can be transferred from one entity to other related entities (Jiang et al. 2016). We extend the theory to the hypothesize attitude transfer between one digital artifact (SSCS) to other digital artifacts (prosocial ones for donation, information sharing) within a social platform, reflected through user behavior on the platform. The study could lead to intellectually contributing back to these two psychological theories, enriching them in the new context of social platforms, prosociality, and disasters.

The findings of our study offer valuable insights to social media platforms and socially connected emergency management platforms. SSCS could be a valuable addition to socio-technical systems providing much-needed peer-to-peer emergency communication and assistance. A simple and effective way of broadcasting one's safety status during emergencies have many intended benefits. However, in our study we see unforeseen consequences of SSCS. Using SSCS have a positive prosocial impact but ignoring the same leads to reduction in prosocial tendencies, even compared to the case where there is no access to a SSCS. Disaster relief agencies may push popular social platforms to include SSCS to provide a one-click solution for easily broadcasting one's safety status during disaster but be cautious about the possible negative consequences. Since non-adoption of the system may lead to reduced prosocial intentions, it is imperative for the social platforms to motivate users, maybe by various nudging techniques, to use SSCS if they decide to embed it into their platform. Social platforms may also take into consideration the factors for SSCS adoption (or non-adoption) identified in the post-hoc study to design an effective SSCS by introducing features that will increase their motivation and address their concerns.

6 Limitations and Future Research Directions

The study is not without limitations. Future research may address some of the limitations of the study. First, we are considering SSCS, a one-click feature to declare one's safety status during disasters. There could be other technological tools or mechanisms of broadcasting one's safety status, such as a broadcast message on social media or chat group. These mechanisms may also influence user's prosocial behaviour by evoking higher sense of state gratitude or transferring their negative attitude. Future research may try to explore other social media-based mechanisms of safety check or similar IS artifacts and their consequences. Second, the scenario used in the experiment simulated a particular natural disaster, i.e., tropical storm. Whether the effect of using SSCS on prosocial tendencies remain the same for other type of disasters such as man-made disasters, could be examined in future studies. Third, we use static mock-ups of generic social platform and SSCS. To make the experiment more realistic and capture user behavior closely, future research may develop a working prototype of SSCS and run the experiment on the application. Also, in addition to measuring likelihood of prosocial activities, studies may also capture the intensity of prosocial activities by capturing donation amount, volunteering hours and information sharing efforts (in terms of hours and actual number of posts on social platforms). Fourth, being a scenario-based controlled experiment on a hypothetical disaster situation, the generalizability of the study is limited. Scenario-based experimental setting and simulated situations

are appropriate in the context of disasters due to possible ethical constraints and infeasibility in conducting field research during disasters. However, our study could be substantiated by developing an actual SSCS based on a socially connected disaster management platform, and making it live during disasters and using the platform to raise funds and crowdsource help during the recovery phase of the disaster. This would require collaborating with private or public disaster management agencies. Finally, the post-hoc study is exploratory in nature. While it is a necessary steppingstone in studying SSCS adoption, a systemic development and validation of SSCS adoption model is required. As an extension to the current study, the authors are working on theory-driven development of a conceptual model on SSCS adoption and validating it using expert feedback and large-scale surveys.

7 References

- Abbasi, A., Li, J., Adjeroh, D., Abate, M., and Zheng, W. 2019. "Don't Mention It? Analyzing User-Generated Content Signals for Early Adverse Drug Event Warnings," *Information Systems Research* (30:3), pp. 1007–1028.
- Abedin, B., and Babar, A. 2018. "Institutional vs. Non-Institutional Use of Social Media during Emergency Response: A Case of Twitter in 2014 Australian Bush Fire.," *Information Systems Frontiers* (20:4), pp. 729–740.
- Barsky, L. E., Trainor, J. E., Torres, M. R., and Aguirre, B. E. 2007. "Managing Volunteers: FEMA's Urban Search and Rescue Programme and Interactions with Unaffiliated Responders in Disaster Response," *Disasters* (31:4), pp. 495–507.
- Beydoun, G., Dascalu, S., Dominey-Howes, D., and Sheehan, A. 2018. "Disaster Management and Information Systems: Insights to Emerging Challenges," *Information Systems Frontiers* (20:4), *Information Systems Frontiers*, pp. 649–652.
- Brengarth, L. B., and Mujkic, E. 2016. "Web 2.0: How Social Media Applications Leverage Nonprofit Responses during a Wildfire Crisis," *Computers in Human Behavior* (54), pp. 589–596.
- Chang, S. E., Liu, A. Y., and Shen, W. C. 2017. "User Trust in Social Networking Services: A Comparison of Facebook and LinkedIn.," *Computers in Human Behavior* (69), pp. 207–217.
- Chen, Q., and Wells, W. D. 1999. "Attitude toward the Site," *Journal of Advertising Research* (39:5), pp. 27–38.
- Chen, R., Sharman, R., Rao, H. R., and Upadhyaya, S. J. 2013. "Data Model Development for Fire Related Extreme Events: An Activity Theory Approach.," *MIS Quarterly* (37:1), pp. 125–147.
- Eismann, K., Posegga, O., and Fischbach, K. 2021. "Opening Organizational Learning in Crisis Management: On the Affordances of Social Media," *The Journal of Strategic Information Systems* (30:4), p. 101692.
- Gefen, D. 2000. "E-Commerce: The Role of Familiarity and Trust," *Omega* (28:6), Pergamon, pp. 725–737. ([https://doi.org/10.1016/S0305-0483\(00\)00021-9](https://doi.org/10.1016/S0305-0483(00)00021-9)).
- Gilliland, A. R., and Burke, R. S. 1926. "A Measurement of Sociability," *Applied Psychology* (10:3), pp. 315–326.
- Gunessee, S., Subramanian, N., Roscoe, S., and Ramanathan, J. 2018. "The Social Preferences of Local Citizens and Spontaneous Volunteerism during Disaster Relief Operations," *International Journal of Production Research* (56:21), pp. 6793–6808.
- Houston, J. B., Hawthorne, J., Perreault, M. F., Park, E. H., Goldstein Hode, M., Halliwell, M. R., Turner McGowen, S.E. Davis, R., Vaid, S., McElderry, J. A., and Griffith, S. A. 2015. "Social Media and Disasters: A Functional Framework for Social Media Use in Disaster Planning, Response, and Research," *Disasters* (39:1), pp. 1–22.
- Jayasekara, P. K. 2019. "Role of Facebook as a Disaster Communication Media," *International Journal of Emergency Services* (8:2), pp. 191–204.
- Jiang, Z., Wang, W., Tan, B. C., and Yu, J. 2016. "The Determinants and Impacts of Aesthetics in Users' First Interaction with Websites," *Journal of Management Information Systems* (33:1), pp. 229–259.
- Kaewkitipong, L., Chen, C. C., and Ractham, P. 2016. "A Community-Based Approach to Sharing Knowledge before, during, and after Crisis Events: A Case Study from Thailand," *Computers in*

- Human Behavior* (54), pp. 653–666.
- Kalra, A., and Ghoshal, D. 2021. “Twitter Becomes Platform of Hope amid the Despair of India’s COVID Crisis,” *Reuters*, New Delhi. (<https://www.reuters.com/world/india/twitter-becomes-platform-hope-amid-despair-indias-covid-crisis-2021-04-21/>).
- Kawawaki, Y. 2023. “Giving of Time or Giving of Money? An Empirical Analysis of Nationwide Prosocial Behavior in Times of Disaster,” *International Journal of Disaster Risk Reduction* (96:1), p. 103888.
- Kristofferson, K., White, K., and Peloza, J. 2014. “The Nature of Slacktivism: How the Social Observability of an Initial Act of Token Support Affects Subsequent Prosocial Action,” *Journal of Consumer Research* (40:6), pp. 1149–1166.
- Lee, J., Agrawal, M., and Rao, H. R. 2015. “Message Diffusion through Social Network Service: The Case of Rumor and Non-Rumor Related Tweets during Boston Bombing 2013,” *Information Systems Frontiers* (17:5), pp. 997–1005.
- Lee, K. S. 2019. “Explicit Disaster Response Features in Social Media: Safety Check and Community Help Usage on Facebook during Typhoon Mangkhut,” *Proceedings of the 21st International Conference on Human-Computer Interaction with Mobile Devices and Services* (September).
- Leong, C. M. L., Pan, S. L., Ractham, P., and Kaewkitipong, L. 2015. “ICT-Enabled Community Empowerment in Crisis Response: Social Media in Thailand Flooding 2011,” *Journal of the Association for Information Systems*, (16:3), p. 1.
- Li, L., Tian, J., Zhang, Q., and Zhou, J. 2021. “Influence of Content and Creator Characteristics on Sharing Disaster-Related Information on Social Media,” *Information & Management* (58:5), p. 103489.
- Liu, F., and Xu, D. 2018. “Social Roles and Consequences in Using SM in Disasters: A Structural Perspective,” *Information Systems Frontiers* (20:4), pp. 693–711.
- Ma, L. K., Tunney, R. J., and Ferguson, E. 2017. “Does Gratitude Enhance Prosociality?: A Meta-Analytic Review,” *Psychological Bulletin* (143:6), p. 601.
- Martínez-Rojas, M., del Carmen Pardo-Ferreira, M., and Rubio-Romero, J. C. 2018. “Twitter as a Tool for the Management and Analysis of Emergency Situations: A Systematic Literature Review,” *International Journal of Information Management* (43), pp. 196–208.
- McCullough, M. E., Emmons, R. A., and Tsang, J. A. 2002. “The Grateful Disposition: A Conceptual and Empirical Topography,” *Journal of Personality and Social Psychology* (82:1), pp. 112–127.
- Oh, O., Agrawal, M., and Rao, H. R. 2013. “Community Intelligence and Social Media Services: A Rumor Theoretic Analysis of Tweets during Social Crises,” *MIS Quarterly* (37:2), pp. 407–426.
- Oliveira, R., Arriaga, P., Santos, F. P., Mascarenhas, S., and Paiva, A. 2021. “Towards Prosocial Design: A Scoping Review of the Use of Robots and Virtual Agents to Trigger Prosocial Behaviour,” *Computers in Human Behavior* (114), p. 106547.
- Park, I., Sharman, R., and Rao, H. R. 2015. “Disaster Experience and Hospital Information Systems,” *MIS Quarterly* (39:2), pp. 317–344.
- Raggio, R. D., and Folse, J. A. G. 2011. “Expressions of Gratitude in Disaster Management: An Economic, Social Marketing, and Public Policy Perspective on Post-Katrina Campaigns,” *Journal of Public Policy & Marketing* (30:2), pp. 168–174.
- Ranganath, K. A., and Nosek, B. A. 2008. “Implicit Attitude Generalization Occurs Immediately; Explicit Attitude Generalization Takes Time,” *Psychological Science* (19:3), pp. 249–254.
- Rosenberg, H., Syed, S., and Rezaie, S. 2020. “The Twitter Pandemic: The Critical Role of Twitter in the Dissemination of Medical Information and Misinformation during the COVID-19 Pandemic,” *Canadian Journal of Emergency Medicine*, (22:4), pp. 418–421.
- Rufai, S. R., and Bunce, C. 2020. “World Leaders’ Usage of Twitter in Response to the COVID-19 Pandemic: A Content Analysis,” *Journal of Public Health* (42:3), pp. 510–516.
- Savage, D. A., and Torgler, B. 2021. “Methods and Insights on How to Explore Human Behavior in the Disaster Environment,” in *Economic Effects of Natural Disasters*, Academic Press, pp. 191–209.

- Shahbazi, M., Ehnis, C., Shahbazi, M., and Bunker, D. 2018. "Tweeting from the Shadows: Social Media Convergence Behaviour during the 2017 Iran-Iraq Earthquake.," in *Proceedings of ISCRAM Asia Pacific*, Wellington.
- Shin, Y., and Kim, J. 2018. "Data-Centered Persuasion: Nudging User's Prosocial Behavior and Designing Social Innovation.," *Computers in Human Behavior* (80), pp. 168-178.
- Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., and Jacobs, G. A. 1983. *Manual for the State-Trait Anxiety Inventory*, Palo Alto, CA: Consulting Psychologists Press.
- Takahashi, B., and Tandoc, E.C. Jr. Carmichael, C. 2015. "Communicating on Twitter during a Disaster: An Analysis of Tweets during Typhoon Haiyan in the Philippines," *Computers in Human Behavior* (50), pp. 392-398.
- Tim, Y., Pan, S. L., Ractham, P., and Kaewkitipong, L. 2016. "Digitally Enabled Disaster Response: The Emergence of Social Media as Boundary Objects in a Flooding Disaster," *Information Systems Journal* (27:2), pp. 197-232.
- Verhaert, G. A., and Van den Poel, D. 2011. "Empathy as Added Value in Predicting Donation Behavior," *Journal of Business Research* (64:12), pp. 1288-1295.
- Victor, G. S., and Ahmed, S. 2019. "The Importance of Culture in Managing Mental Health Response to Pandemics," in *Psychiatry of Pandemics: A Mental Health Response to Infection Outbreak.*, Springer, Cham, pp. 55-64.
- Wamba, S. F., Edwards, A., and Akter, S. 2019. "Social Media Adoption and Use for Improved Emergency Services Operations: The Case of the NSW SES," *Annals of Operations Research* (283), pp. 225-245.
- Whittaker, J., McLennan, B., and Handmer, J. 2015. "A Review of Informal Volunteerism in Emergencies and Disasters: Definition, Opportunities and Challenges," *International Journal of Disaster Risk Reduction* (13), pp. 358-368.
- Wood, A. M., Boyce, C. J., and Michalos, A. C. 2014. "Gratitude.," in *Encyclopedia of Quality of Life and Well-Being Research*, Dordrecht: Springer.
- Wood, A. M., Maltby, J., Stewart, N., and Joseph, S. 2008. "Conceptualizing Gratitude and Appreciation as a Unitary Personality Trait.," *Personality and Individual Differences* (44), pp. 619-630.

Appendix

Variables	Type	Reference literature
<i>Independent variable</i>		
Adoption of SSCS	Binary (yes/no)	
<i>Dependent variables</i>		
Likelihood of donation	Ordinal (9-point scales)	(Raggio and Folse 2011)
Likelihood of volunteering in disaster recovery	Ordinal (9-point scales)	(Raggio and Folse 2011)
Likelihood of sharing disaster information on social platforms	Ordinal (9-point scales)	(Li et al. 2021)
<i>Variables for theory testing</i>		
State gratitude	Ordinal (9-point scales)	(Ma et al. 2017)
Attitude towards the platform	Ordinal (9-point scales)	(Chen and Wells 1999)
<i>Control variables</i>		
<i>Participants' psychological attributes</i>		
Apprehensiveness	Ordinal (4-point scales)	(Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg and Jacobs 1983)
Empathy	Ordinal (4-point scales)	(Verhaert and Van den Poel 2011)

Sociability	Ordinal (4-point scales)	(Gilliland and Burke 1926)
Trait gratitude	Ordinal (9-point scales)	(McCullough et al. 2002)
<i>Participants' experience with disasters</i>		
Disaster perception	Ordinal (9-point scales)	New scales
Disaster experience	Ordinal (3-point scales)	New scales
Frequency of exposure to disaster news	Ordinal (4-point scales)	New scales
<i>Participants' experience with social platforms</i>		
Trust on the platform	Ordinal (9-point scales)	(Chang et al. 2017)
Familiarity with SSCS	Ordinal (4-point scales)	(Gefen 2000)

Table A1. List of Variables in the Survey

Survey questions	Reference literature
<i>Independent variable</i>	
Would you mark yourself safe on social media platform for this disaster? 1: Yes, I will mark myself safe 2: No, I will ignore the notification	
<i>Dependent variables</i>	
DON. The likelihood that I will donate money on the social media platform for this disaster is (1: Very low – 9: Very high)	(Raggio and Folse 2011)
VOL. The likelihood that I will volunteer to provide help on the social media platform for this disaster is (1: Very low – 9: Very high)	(Raggio and Folse 2011)
INFO. The likelihood that I will share helpful disaster-related information on the social media platform for this disaster is (1: Very low – 9: Very high)	(Li et al. 2021)
<i>Variables for theory testing</i>	
State gratitude	
SG1. Although I define this disaster experience as a negative, I appreciate and acknowledge what it contributes to my life at a deeper level. (1: Strongly disagree – 9: Strongly agree)	
SG2. Even after suffering in this disaster, I feel gratitude for getting through it. (1: Strongly disagree – 9: Strongly agree)	(Ma et al. 2017)
SG3. Going through this bad time right now, I remember and feel grateful for the good things that I have. (1: Strongly disagree – 9: Strongly agree)	
Attitude towards the platform	
ATT1. I feel grateful to the social media platform for connecting us to verified charitable organizations for donating to disaster relief funds. (1: Strongly disagree – 9: Strongly agree)	
ATT2. I feel thankful to the social media platform for enabling users to volunteer and share disaster-related information. (1: Strongly disagree – 9: Strongly agree)	(Chen and Wells 1999)
ATT3. I feel like reciprocating to the social media platform by doing some disaster-relief activity on its platform. (1: Strongly disagree – 9: Strongly agree)	
<i>Control variables</i>	
<i>Participants' psychological attributes</i>	
Apprehensiveness	(Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg and Jacobs 1983)

APP. In emergency situations, I always feel apprehensive and uneasy.
(1: Strongly disagree – 9: Strongly agree)

Empathy

EM. I have caring and concerned feelings for people less fortunate than me. (1: Strongly disagree – 9: Strongly agree)

(Verhaert and Van den Poel 2011)

Sociability

SOC. I always welcome the opportunity to mix socially with people.
(1: Strongly disagree – 9: Strongly agree)

(Gilliland and Burke 1926)

Trait gratitude

TG1. I have so much in life to be thankful for. (1: Strongly disagree – 9: Strongly agree)

(McCullough et al. 2002)

TG2. If I had to list everything that I felt grateful for, it would be a very long list. (1: Strongly disagree – 9: Strongly agree)

Participants' experience with disasters

Disaster perception

DP1. How would you perceive this disaster? (1: Not seriously at all - 9: Extremely seriously)

New scales

DP2. How would you feel regarding the impact of this disaster on your friends and family living in the area? (1: Not concerned at all - 9: Extremely concerned)

Disaster experience

DE. Rate your experience with any natural disaster (e.g., hurricane, snowstorm, earthquake, pandemic, etc.).

New scales

1: Have only heard or read about natural disasters

2: Have only seen friends/ family face natural disasters

3: Have faced natural disaster myself

Frequency of exposure to disaster news

FREQDIS. In the last one month, how many natural or man-made disasters have you heard of or read about on news or other media?

New scales

1: None

2: Between 1 to 5

3: Between 5 to 10

4: More than 10

Participants' experience with social platforms

Trust on the platform

TR1. I feel that the social media platform that I use, is fair in its use of users' private data. (1: Strongly disagree – 9: Strongly agree)

(Chang et al. 2017)

TR2. Overall, I find the social media that I use to be trustworthy. (1: Strongly disagree – 9: Strongly agree)

Familiarity with SSCS

FAM. Safety Check is a crisis response feature by Facebook which checks the safety status of its users in the disaster-hit area and shares the information on their networks.

(Gefen 2000)

Have you ever received the Safety Check notification from Facebook in real life?

1: Yes, I have received the notification and I marked myself safe

2: Yes, I have received the notification, but I ignored it

3: Yes, I have received the notification and I marked "doesn't apply to me"
4: No, never received the notification

Table A2. Survey Questionnaire

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