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Online Information-sharing during Crises: What do Users' SOS Messages on Social Media Reveal about their Online Behavior in an Emergency Situation?

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Social media platforms have emerged as preferred channels to disseminate information and seek help during a public health crisis. Yet, an examination of users' information-sharing behavior during a crisis remains an under-researched area. With the public health infrastructure in shambles, people in India posted messages on Twitter (currently known as X) to seek help during the devastating second wave of the COVID-19 crisis in April-May 2021. Using content coding and inductive qualitative thematic analysis, we examined users' behavior online by analyzing tweets and retweets posted with the hashtag #COVIDSOSINDIA. We found that while tweeters used the platform both for information-sharing and for seeking help during the crisis, they, in a bid to get immediate help, prioritized sharing the completeness of personal information online. While tagging officials on help-seeking tweets was rampant, the SOS messages used very few emotional appeals. Implications of these findings are discussed.

Keywords: Online information-sharing behavior, India, COVID-19, online help-seeking, social media platforms

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The microblogging site X[1] played a crucial role in the dissemination of information during the devastating COVID-19 second-wave crisis that hit India in the summer of 2021 (Scarr et al., 2021), and killed at least 200,000 people within two months—the highest death rate in the world during the two-month period (Mordani, 2021). During this unprecedented public health crisis, primarily driven by the highly contagious Delta variant, India's public, COVID-19 patients, and hospitals inundated Twitter with desperate pleas for help (Scarr et al.,

[1] This paper uses Twitter instead of X as the data collection took place when the social media platform was still known as Twitter.

2021). According to *The Times of India*, the COVID-19 related tweets[2] (currently known as *posts* on X) increased by 600% during the crisis (Dhar, 2021) and Twitter emerged as the main helpline for the suffering people to seek scarce oxygen cylinders, hospital beds, and medicines as the government helplines failed to help the citizens (Sharma, 2021).

India's use of Twitter during a crisis is in line with social media's use in other parts of the world as these platforms have emerged as preferred sources of communication and information-sharing during emergencies (Stewart & Wilson, 2016). Prior studies note that users effectively used digital platforms to seek help during disasters such as Hurricane Harvey (Li et al., 2019; Seetharaman & Well, 2017), Hurricane Sandy (Stewart & Wilson, 2016), and a public health crisis like the H1N1 outbreak (Freberg et al., 2013). The challenges presented by the recent pandemic related to COVID-19, however, had been unprecedented as, unlike the above-mentioned natural disasters, the communication infrastructure remained intact even during the peak pandemic-related months and people's use of media technologies increased exponentially due to the restrictions on their physical movement (Blose et al., 2021; Kagan et al., 2020).

While some preliminary studies on online behavior during the pandemic, thus far, have reiterated people's use of social media sites to seek support (Luo et al., 2020), and to mobilize resources (Sharma, 2023), little research has been conducted on users' behavior online during the peak months of the crisis when the public health infrastructure completely crumbled, and people, especially those living in societies with limited-internet penetration, largely relied on social media platforms for sharing information and seeking help.

By investigating the use of Twitter during the peak months of the COVID-19-related second-wave crisis in India (April and May 2021), this exploratory mixed-methods study provides insights into user behavior during the critical weeks of the crisis by integrating the theoretical concepts of online help-seeking, information-sharing, and self-disclosure of personal information on social media platforms. This study demonstrates that while people used Twitter both for information-sharing and for seeking help during the crisis, they shared personal details about themselves and their family members to

[2] Posts and reposts are referred to here with their older names: tweets and retweets, respectively.

seek immediate help. Their focus was on the completeness of information shared, rather than on withholding their personal details online to protect their privacy.

COVID-19's Second Wave and the Use of Twitter in India

India suffered one of the most devastating COVID-19 outbreaks during its second wave of infections that peaked in May 2021. India's second-wave outbreak had severe consequences in the form of spiraling cases, reduced supplies of essential treatments, and increased deaths, particularly in the young population (Asrani et al., 2021). According to experts, the second surge started in mid-March 2021 and rose rapidly in April. After 10 consecutive days of recording more than 300,000 new infections, on May 1 India reported more than 400,000 new cases of COVID-19 infections in a single day (Samarasekera, 2021). According to the official numbers, over 200,000 people died in just two months during the second wave, while many believe that the deaths were underreported, and the actual numbers were several times higher (Mordani, 2021).

Before March 2021, the COVID-19 situation in India had improved and the country seemed to be in a recovery mode after its relatively benign first wave toward the end of 2020. Chinnaswamy (2021) reported that India's first wave was so mild that people and the government started believing erroneously that they had successfully defeated the virus, leaving public health infrastructure largely unprepared to deal with the upcoming crisis. India's vaccination drive, which started in January 2021, was also slow to pick up the pace when the second wave knocked on the doors in March 2021, thereby leaving people with little immunity to fight the novel delta variant of the coronavirus (Chinnaswamy, 2021).

The second wave overwhelmed the healthcare system, leaving hospitals struggling to cope and critical drugs and oxygen in short supply (Biswas, 2021). At the peak of the crisis, the hospitals were overwhelmed and basic supplies such as beds and oxygen cylinders were unavailable for the victims (Scarr et al., 2021). Government machinery failed to keep up with the overwhelming demand, and there were long queues to even cremate the dead (Biswas, 2021). This is when the public turned to the microblogging site Twitter to gather information about the availability of drugs, supplies, beds, etc. (Scarr et al., 2021). India, one of the world's largest digital media markets, has more than 26

million Twitter users (Sharma & Sivakumar, 2023). Kalra and Ghoshal (2021) note that Twitter emerged as a platform for hope amid the despair as it served as a lifeline for ailing people as users overwhelmed the platform with images, videos, and personal details to seek immediate medical help.

Twitter India acknowledged the role it had been playing during the crisis and opened separate pages such as COVIDhelpindia to link users with the available resources. According to Twitter's data, tweets about COVID-19 grew manifold from April 1 - May 31, 2021, and the service witnessed 100% growth in COVID-19 conversations compared with the previous two months (February 1 - March 31, 2021). Twitter India stated that tweets related to medical help witnessed a 1958% increase, sharing information increased by 916%, raising funds increased by 731%, and prayer or hope emojis increased by 153% when compared with the previous two months. #SOS hashtags trended the most during the crisis and regional hashtags such as #SOSDelhi, #SOSMumbai, #SOSBangalore, etc. trended as the virus peaked at different places at different times during the two months (Twitter India).

Scarr et al. (2021) note that the country had not witnessed such a vital role of Twitter, or any other social media platform, during a crisis as social media seemed to fill a gap when all other lines of seeking help became ineffective. Politicians also used the platform to share information to deal with the crisis. Jain et al. (2021) examined the use of Twitter by India's four leading politicians, including Prime Minister Narendra Modi, and concluded the platform was mostly used positively to share crisis management information and build followers' resilience and trust in the leadership.

Information Sharing and Resource Mobilization on Social Media During Crises

Social media platforms, due to their characteristics of easy creation and sharing of content in real-time, have been used effectively for sharing information during crises as these platforms act as resource mobilization tools that enhance public participation in emergency situations (Spring et al., 2019). Prior studies document that social media platforms, particularly open platforms such as Twitter, were used to share information in real-time during California wildfires (Lenhart & Fox, 2009), hurricanes such as Hurricane Harvey and Hurricane Sandy (Chen et al., 2018; Stewart & Wilson, 2016), and more

recently during the ongoing pandemic related to the COVID-19 outbreak (Blose et al., 2021; Sharma, 2023).

Studies have shown that the users' online behavior during crisis differs from their behavior during non-crisis as users focus more on sharing information with the intent to help themselves and others, rather than simply using the platforms for entertainment or routine scrolling. Chen et al. (2018) state that during Hurricane Harvey, which devastated the Greater Houston area in 2017, users shared information not for entertainment, but for obtaining information from others' comments, and socializing with others. Chen et al. (2018) found that social media provided emotional and material support during the crisis, and voluntary helpers connected with the victims directly via social media and offered help during the hurricane. Similarly, during Hurricane Sandy, online humor and jokes began to diminish on Twitter once the true impact of the storm damage was realized, and the general environment on social media turned serious and somber (Guskin & Hitlin, 2012). Gushkin and Hitlin found that as the hurricane gained momentum, online fundraising efforts, prayers, and well-wishes also increased.

Users employ certain tools and techniques on social media in an attempt to reach their target audience on these platforms. For example, users on social media participate in social tagging—the use of hashtags and of tagging persons individually—so that users can effectively reach their target audience and present a common, shared voice (Balaban-Sali & Erben, 2016). The effectiveness of tagging messages on social media, however, has shown mixed results as too many hashtags or tagging of individuals using @usernames can create noise and increase cognitive difficulties in processing the text (Pancer & Poole, 2016). Limited research, however, exists on tagging during crises, especially in SOS messages where people are looking for immediate help.

Online Help-seeking and the Disclosure of Personal Information During a Crisis

In an offline environment, self-disclosure or disclosure of personal information is critical to relationship building and relationship maintenance. Theories such as Social Penetration Theory (Altman & Taylor, 1973) and Social Exchange Theory (Thibaut & Kelley, 2008) state that disclosure of personal details is necessary for interpersonal relationships as people first start with sharing superficial information about themselves

and then, as the relationship progresses, share more intimate and personal details to continue the relations. Social Exchange Theory links the interpersonal relationship to a cost-reward analysis and posits that when people feel rewarded, they continue to be in the relationship.

As interpersonal relations move online, people disclose a lot of personal details about themselves on social media platforms to fulfill their personal needs and maintain their relationships (Ostendorf et al., 2020). Users, however, look for short-term rewards and ignore any long-term consequences of disclosing their personal details such as phone numbers, emails, pictures, videos, location, etc., online (Ostendorf et al., 2020).

In a news report for *The Wall Street Journal*, Seetharam and Wells (2017) observed that during Hurricane Harvey, users completely disregarded privacy concerns and shared all their personal details online to send out SOS messages to seek help on Twitter. Blose et al. (2021), who posit that privacy concerns will be largely ignored during a crisis, have found that while seeking help during the COVID-19 pandemic, tweeters disclosed a lot of personal information about themselves, and the disclosure of personal information also helped to build emotional support during the crisis. Pan et al. (2020) state that peripheral self-disclosure online such as name, gender, geographical information, etc., elicits more polite responses from support providers as these messages are perceived as low on anonymity. Thus, self-disclosure of personal information online may not be viewed as a violation of privacy by users during crises, especially when they rely on online platforms to seek help.

Contrary to the notion of withholding information during crises, studies have found that sharing complete personal details online helps in increasing the chances of getting help online. Researchers assessed the role of Chinese social media in seeking help during the COVID-19 pandemic and found that the completeness of shared information was critical to building credibility online, and increased users' chances of getting help online (Luo et al., 2020). The completeness of information, thus, ensures credibility and more visibility on these platforms during a crisis. Therefore, users focus on the short-term goal of seeking immediate help rather than concerning themselves with the long-term effects of the disclosure of personal information online.

Chen and Sakamoto (2013) found that perspective-taking mattered during a crisis; they found that people shared more information about themselves when they imagined themselves in a crisis versus when they imagined someone else in that situation. Therefore, the more a crisis affects the users' personal lives, the more readily they share information on social media platforms.

No empirical study, to our knowledge, has investigated the nature of information exchanged on Twitter during India's second-wave crisis or has examined whether the messages posted on the platform pertained to seeking immediate help or sharing resources with the affected people. We, therefore, pose the following research question:

RQ1: What types of messages—information-sharing or help-seeking messages—were most frequently posted on Twitter during India's COVID-19-related second-wave crisis?

Research on self-disclosure of personal information online during crises reveals that users tend to disclose a lot of personal details on social media platforms in a bid to seek immediate help. Initial studies on users' behavior during the pandemic reiterate that people do not hesitate in sharing their personal details online during an emergency (Blose et al., 2021). Furthermore, the more widespread the crisis is, the more readily users share their personal details online to seek immediate help. Thus, we predict that most of the help-seeking messages will contain personal details like the location, age, health vitals, etc., of the users.

Hyp 1: The tweets that seek help will be more likely to disclose personal information than to not disclose personal information.

Furthermore, the role of tagging different users on social media platforms during crises is an under-researched area. Though social tagging is associated with increased visibility and virality of messages, along with projecting a common voice for a cause, limited research exists on whether people mention officials on social media to seek help. Therefore, we pose our second research question:

RQ 2: What is the social tagging behavior of the users during the second wave of the COVID-19 crisis in India?

The Role of Varied Emotions During a Crisis

Prior studies demonstrate that users are likely to experience negative emotions such as anxiety, fear, anger, and sadness during a crisis, and users are likely to engage in conative coping (action-oriented strategy) when facing difficult situations (Jin et al., 2014). Users likely use social media during a crisis to seek emotional support and to calm down their anxiety and fears (Choi & Lin, 2009). Choi and Lin (2009) proposed two types of emotions: attribution-independent emotions, and attribution-dependent emotions, both identified in understanding affective components during a crisis. Emotions such as anger and contempt are likely elicited from the attribution process; other types of emotions (i.e., fear) without a clear direction of attribution or blame might be categorized into attribution-independent crisis emotions (Choi & Lin, 2009).

Among all the emotions, scholars posit that outrage or anger is among the most prevalent emotion on social media platforms during a crisis (Krauth-Gruber & Bonnot, 2020). People get outraged when they perceive that something wrong has happened that could have been corrected on time, and usually direct their outrage toward higher authorities for the action or inaction during the crisis (Sharma, 2023). Social media platforms have made it easier to express outrage online as people simply have to use their devices to like, share, or write a comment rather than go into the field to protest (Crockett, 2017).

The role of emotions such as fear, anger, and anxiety on people's perception of the COVID-19 pandemic and their support of policies and restrictions have been an area of growing concern. Renström and Bäck (2021) found that fear and anger predicted people's support for restrictive policies to limit the spread of the virus, while anxiety predicted support for economic policies. Luo et al. (2020) found that the emotion of anger expressed on Twitter received more retweets than other kinds of emotions such as fear, sadness, etc., and concluded that retweeters used the platform to vent their anger and to urge the relevant departments to take effective measures. The emotion of sympathy (the feeling of compensation for the plight of others) is also used during crises where people get emotional about the disadvantaged group's suffering (Harth et al., 2008). Sharma (2023) found that sympathy, along with outrage, was a common emotion aroused and expressed

during the pandemic as tweeters felt sympathetic toward the suffering of domestic migrants in India and offered to arrange help.

The expression of emotions on social media platforms during the pandemic-related crisis is an under-researched area. While scholars have examined the use of these platforms for information sharing and seeking help online, we do not know if a section of users also actively engage on these platforms to attribute or question the authorities and their role during the crisis by tagging them or posting anti-government tweets, etc. Thus, it remains to be seen, as in the case of India's second wave COVID-19 crisis, whether tweeters used the platform to express outrage or to seek help and share information during the unprecedented health crisis. We, therefore, pose our next research question:

> *RQ 3: What is the frequency of different emotional reactions such as outrage, blame, sympathy, gratitude, etc. in the emergency-related messages during the second wave crisis?*

In addition to finding out how many users used the social media platform for information sharing and help-seeking, we also want to investigate what are the main themes found in the tweet data. Prior research highlights the importance of emotions and completeness of the information (Pan et al., 2020) online when seeking help online. Therefore, it is vital to understand the depth and context within which the users posted their information online during the second wave crisis in India. We, therefore, pose our final research question:

> RQ 4: *What are the main themes that emerged in the SOS messages on Twitter during India's second wave-related COVID-19 crisis?*

METHOD

In Twitter's Advanced Search Tool, we used the hashtag #COVIDSOSINDIA to extract all the most recent tweets and retweets that were openly available on the platform. The hashtag #COVIDSOSINDIA was selected after conducting preliminary research on the most used hashtags during the crisis in India. While we found that several hashtags were in use, we wanted to examine a hashtag that has a pan-India presence, unlike regional hashtags like #SOSDelhi or #SOSMumbai (Twitter India) and is used primarily in an emergency situation (#SOS messages on social media denote an emergency

situation. According to Merriam Webster dictionary, SOS means a call for a request to help or rescue). Since India's second wave lasted from mid-April to the end of May 2021, we searched for tweets and retweets posts from April 29 - May 31, 2021. After discarding duplicate tweets, we included all the 1107 tweets and retweets posted with the hashtag #COVIDSOSINDIA in the selected period. We included tweets that were posted only in English and Hindi languages because the coders were familiar with these two languages. This inclusion was done for practical reasons though this excludes tweets that were posted in the regional languages, thereby not bringing in the perspectives of regional communities.

To answer all the RQs and hypotheses in this study, we conducted a mixed-method analysis that included a quantitative content-coding of tweets and a thematic analysis of tweets. For the quantitative analysis, we manually coded the 1107 tweets. The unit of analysis was a single tweet. We used the absence/presence method of coding. We categorized and coded the data under the main theoretical concepts of information-sharing and online help-seeking behavior. Each tweet was assigned one primary code. Thus, a tweet was not coded under multiple categories.

Two coders, after receiving training over several sessions, used the following coding scheme to manually code the data:

1. Information-Sharing: Chen et al. (2018) highlighted the role of social media platforms in providing material support to users during a crisis. To examine the nature of information-sharing messages on Twitter, we coded tweets and retweets that included information about the availability of resources such as hospital beds, oxygen cylinders, COVID-19 management, and treatment options, information about online frauds, information about donation links, free food, etc. (e.g. Figures 1 and 2).
2. Online Help-Seeking: Prior research highlights that users write SOS messages during crises to seek immediate help (Seetharam & Wells, 2017). To examine the help-seeking behavior in this study, we coded tweets that contained clear messages asking for help either for themselves or for their family, friends, or acquaintances. The tweets coded in this category mostly asked for help to procure oxygen cylinders,

hospital beds, ventilators, ICU beds, plasma donors, and medicines and injections such as Remdesivir, etc. We thus, coded tweets under the following subcategories:

2a: Self-disclosure of personal information: Following the definitions of disclosure of personal details online (Ostendorf et al., 2020), we coded tweets that shared personal patients' or family details including names, residential addresses, age, blood group, medical reports, phone numbers, bed number, platelet counts, etc. (Figures 1, 2, 3, and 4).

2b. Tagging of the officials: We also coded tweets that tagged (directly used @usernames) an official, politician, or celebrity to amplify their messages (Figure 5).

3. Users' emotions on Twitter: Any emotional appeals such as the personal story of a person's struggle to seek sympathy, anti-authority tweets (outrage), gratitude (positive emotion), fear, etc. were coded in this category (Figure 6).
4. Appeals: tweets where users made broad and general appeals such as the appeal to maintain social distancing, the appeal to make donations, etc. were coded in this category.
5. Personal services: Tweets in which users offered their personal services without the help of an organization. Tweets such as sharing details to donate plasma, etc., were coded in this category.

One coder coded the entire sample and the other coder coded 20% of the tweets. Intercoder reliability was reached and the Krippendorf alpha range (0.80-0.90) was acceptable.

To gain deeper insights into the data, we conducted a thematic analysis of all 1107 tweets. Thematic analysis is a method for identifying, analyzing, and reporting themes and patterns emerging from the data (Braun & Clarke, 2006). In this study, two coders closely examined the content of the tweets and retweets and coded all the 1107 tweets and retweets in the sample.

The coders followed the following steps laid out by Braun and Clarke (2006) for the thematic analysis of the text:

1. Familiarization with data: In this step, two coders read and re-read the tweet data several times to understand what each user wanted to convey.

2. Assigning codes: After developing an initial understanding of the text, the two coders categorized the data into different categories and assigned codes.
3. Development of themes: Once the data were coded, coders identified the main broad themes in these codes.
4. Labeling the themes: We identified three broad themes and labeled these: a) completeness of personal details shared during the crisis and users' help-seeking behavior, b) Lack of expression of emotions during the crisis, and c) Tagging and fixing of accountability on social media during a crisis.

RESULTS

Quantitative Analysis

The results demonstrate that Twitter was used both as a platform for information-sharing as well as a platform for seeking help during the second wave of the COVID-19 crisis in India during the summer of 2021. The first research question asked about the main use of the platform during the crisis. In our sample, the information-sharing tweets comprised 49.50% (n=548) of tweets and retweets, and help-seeking tweets and retweets were just marginally lower at 45.17% (n=500). Thus, we find an almost even split between how users used Twitter and the hashtag #COVIDSOSIndia to share information about the resources and to disseminate information about themselves (Table 1).

Further analysis reveals that in the information-sharing category, most of the tweets shared information about the availability of healthcare infrastructures such as oxygen cylinders and their refilling, oxygen beds, ICU, and ventilator beds, etc. (n=187, 34.12%). This was followed by tweets that shared information about links to offer monetary donations to the needy, free food and supplies (n=30, 5.47%), the newly opened COVID-care centers and facilities (n=20, 3.64%), and information about ambulance services (n=18, 3.28%). The other categories include information sharing about news from the mainstream media (n=12, 2.19%), information about government helplines and official numbers (n=10, 1.82%), information about treatment available for black fungus (n=8, 1.46 %), information about the availability of certain drugs and injections such as remdesivir (n=12, 2.19%) and information about online fraud (n=4, 0.73%).

Table 1. A list of key variables used in the analysis of tweets extracted from the hashtag #COVIDSOSINDIA from April 28, 2021, to May 31, 2021 (n=1107)

Variables		
INFORMATION SHARING	548	49.5%
Information about available facilities such as oxygen, beds, ambulance services, etc.	205	34.12%
Information about COVID care centers information about medical treatment	20	3.64%
financial help and donations	30	5.47%
Information about news from mainstream media news	12	2.19%
Information about government helplines and official numbers	10	1.82%
Information about treatment and drugs	20	3.64%
Information about online fraud	4	0.73%
HELP-SEEKING BEHAVIOR	500	45.17%
Self-disclosure of Personal Information	350	70%
Tagging of prominent personalities	249	49.8%
EMOTIONS	58	5.24%
Anger, outrage	23	2.08%
Gratitude	20	1.81%
Seeking sympathy (in seeking help)	15	1.35%
APPEALS	14	1.27%
PERSONAL SERVICES	2	0.18%
TOTAL	1107	

The first hypothesis predicted that the frequency of self-disclosure in tweets seeking help will be more than the tweets that do not disclose personal details. To test this hypothesis, we sub-coded tweets within the help-seeking category that contained patients' and their families' details including patients' names, phone numbers, blood groups, bed numbers, home addresses, attendants' numbers, medical reports, doctor's prescription, and even their national identity card details. Out of the total 500 tweets coded as help-seeking tweets, most of these tweets, n= 350 (70%), contained personal details of patients and their family members. Our hypothesis, thus, was supported.

In RQ2, we wanted to know the social tagging behavior of Twitter users. We found that in 249 (49.8%) of the help-seeking tweets, a politician, elected representative officials such as the state medical chief, district collector, police chief, or celebrity philanthropists such as actors Sonu Sood, Nikhil, Tapsee Pannu, cricketer Hanuma Vihari, Irfan Pathan,

etc., were directly tagged by mentioning their usernames or using a hashtag with their names, or both. Users, given the philanthropists' reputation of replying during the COVID-19 crisis, directly sought their help from procuring hospital beds to asking for monetary help.

Additionally, most of the requests in the help-seeking category were to get plasma donors (n=187, 37.4%), followed by requests for oxygen cylinders, refills, or oxygen beds (n=90, 1.8%), and the prescribed drugs and injections such as Remdesivir, etc. (n=54, 10.8%) (Table 1).

In the third research question, we wanted to understand the emotional reactions of users on the platform. We found only 58 tweets and retweets (5.24%) that expressed strong emotions—either positive or negative. A vast majority of tweets in our sample presented factual information about the patients or the available resources for treatment. The three main reactions were anger (anti-government), gratitude, and evoking sympathy to seek monetary assistance: 23 tweets (2.08 %). explicitly expressed anger toward the ruling government or blamed the government for inaction or mishandling of the situation; 20 tweets (1.81%) expressed appreciation and gratitude for volunteers who helped during the crisis; and 15 tweets (all seeking help on Twitter) tried to evoke sympathy among users by using emotive storytelling (n=15, 1.35%).

There were 14 (1.27%) tweets that urged users to follow COVID-appropriate behavior and only two tweets (0.18%) that offered personal services on this feed. Both these tweets were from plasma donors who offered to donate plasma and had shared their unverified contact numbers and personal details.

To understand the depth and context of the tweet messages, and to answer our RQ4, we conducted a thematic analysis of all the tweets in the study.

Thematic analysis

The following themes were identified:

The completeness of personal details shared during a crisis and users' help-seeking behavior: This study finds that most of the help-seeking tweets revealed personal details of the patients and their families, and these messages also focused on the completeness of the information. These included details about patients' names, street addresses, bed

numbers, and sometimes even their national identification card (aadhar card), etc. (Figures 1, 2, and 3).

Figure 1. A user shares their personal details to seek immediate help

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Figure 2. A user attaches their aadhar card (identity card) to share personal information in a bid to seek immediate help

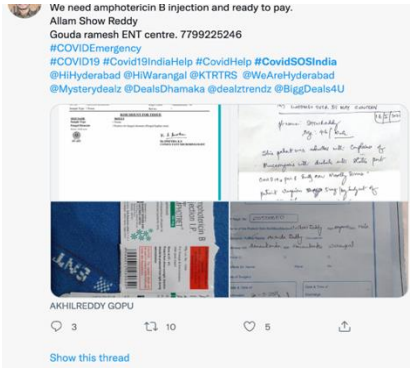

Figure 3. A user attaches doctor's prescription note to their post to seek help.

This finding is in line with previous research on the completeness of information during the COVID-19 pandemic as people perceive the completeness of information to be a mark of credibility; completeness of information during a crisis attracts attention and

people are more willing to help (Luo et al., 2020). In our study, we find that people not only provided personal details but, in some cases, tweeters also inserted an image of a doctor's prescription note (especially when requesting a certain drug or injection) (Figure 3), or a personal endorsement from another user that they know the patient. Like prior studies done during the COVID-19 pandemic (Blose et al., 2021), this study also reveals that privacy concerns are not paid much attention to during a crisis and the focus is on the immediacy of seeking help. Also, as Chen and Sokomoto (2013) note, perspective matters. If people are seeking help for themselves and their families, then they want the information to look more authentic so that immediate help reaches them.

Lack of emotions such as sympathy, outrage, fear, etc. in a crisis: In our sample, tweets containing factual information far outweighed tweets that contain emotional messages such as fear, anger, outrage, blame (attribution), or even sympathy. Most of the help-seeking tweets were fact-based and refrained from elaborate emotional storytelling (Figure 4, the facts are presented in a standard form-like format). We found very few examples in the sample where users tried to tell an emotive story while seeking help. For example, a user seeks help for a blind street vendor who has been hit hard financially during the crisis (Figure 4).

Figure 4. Users make an emotional appeal on X (Twitter) to help a needy, blind man

Such examples were not plenty and emphasized that tweets relied more on building credibility via facts and completeness of information, rather than on evoking sympathy from the users or expressing anger or outrage. Sympathy is useful when the help-seekers can arouse these emotions in a privileged group (less suffering group) so that the privileged group can help in the form of donations, etc. (Harth et al., 2008). Furthermore, moral outrage, blame, and anger are expressed especially when a vulnerable group or a

less-privileged group is affected by the crisis (Sharma, 2023). In the present study, such emotional reactions were perhaps irrelevant as everyone (i.e., people from all strata of society) were facing a crisis and there was no target audience for the arousal of emotions that can lead to collective action during a crisis.

Tagging and fixing of accountability on social media during crisis: We found many tweets and retweets in our sample that either used hashtags or tagged the officials', political leaders', or philanthropists' Twitter handles, especially while seeking immediate help. Tagging also revealed that users knew the officials who were accountable to dissipate the crisis and often tagged regional and national politicians, and ministers, including PM Modi, to seek help from (Figures 1, 5).

Figure 5. Users tag politicians to seek help during the crisis.

Thus, Twitter helped in fixing accountability and asking for direct help from sources that perceivably had the means to help during the crisis. The communication loop on social media platforms provides users with a two-way channel of communication during a crisis. When desperate people seek help online, they provide all their personal details to seek help, but also tag anyone they deem capable of helping them during the crisis.

India's crisis also highlighted how the overwhelming circumstances had rendered the official challenges clogged and inaccessible, thereby, making the users rely on unofficial channels such as celebrities, philanthropists, and their non-profit organizations. We also found that several celebrities such as Virender Sehwag (Figure 6), Irfan Pathan, and Amitabh Bachchan, jumped in the fray to help the needy either by donating money or by arranging oxygen cylinders.

Figure 6. Celebrity cricketer Virender Sehwag making an appeal to help the victims.

Other celebrities such as Sonu Sood, and his foundation, the Sonu Sood Foundation, were the frontrunners in offering help since the pandemic began in 2020 and people recognized their ability to arrange help and directly tagged them. Sood and Humana Vihari, an international cricketer who floated an NGO during the second wave to help the needy, and actor Nikhil, were the most prominent non-official celebrities who were repeatedly tagged. Thus, people reached out to both the official and non-official representatives directly on social media to get help.

DISCUSSION

This study highlights the crucial role social media platforms play during a crisis and emphasizes the extent to which users can share their personal details to seek immediate help. The study corroborates the recent findings, for example, Blose et al. 2021, that users are not concerned about sharing a lot of personal details online during a crisis especially when it aids in seeking immediate help. Cinelli et al. (2020) have already expressed concern that the pandemic may expose people to privacy violations. We posit that media literacy campaigns, especially in developing countries like India, must highlight the perils of sharing information online and the social media platforms must flag when the users are sharing a lot of personal details online. It is plausible that in India, where the Internet penetration is relatively low (less than 60%) and the use of Twitter during a crisis is a recent phenomenon (the COVID-19 second wave crisis is the first instance of the public health crisis in which Twitter was widely used), people may need to be educated on the dangers of privacy thefts online.

Tweeters can directly reach the officials responsible to manage the crisis and the celebrities who are willing to help them during a crisis. The existing literature on social tagging mostly addresses the issues of hashtag activism where users assign a symbolic meaning to a hashtag to rally around a common cause. Direct tagging of officials, political leaders, celebrities, etc. during a crisis (especially by using the @username) deserves more scholarly attention, especially in societies where questioning the authorities directly and demanding accountability is not the norm. In the traditional media landscape, the mainstream news media performed the role of intermediaries between the government and the citizens and questioned officials' role to mitigate the crisis. Social media platforms, especially open platforms like Twitter, enable citizens to directly reach out to officials and seek answers. The optics of managing a crisis in real times, thus, have changed. Therefore, the role of tagging, fixing responsibility, and user behavior in a crisis needs to be studied further to understand the interplay of their interactions on social media.

Limitations

This study is based on a small sample of tweets and reflects only the posts on one online platform, Twitter, and it analyzed messages that used one common hashtag. The results of the analysis of 1107 tweets, however, provide insights into future research on the use of digital platforms during a crisis. Additionally, this study relies on the manual coding of tweets. Though two coders independently coded the tweets, and the desirable intercoder reliability ratings were achieved in this study, the human bias of manually coding the data cannot be ruled out. Future studies therefore must employ other methods such as network analysis and sentiment analysis to investigate the nature and relationship of various elements in such tweets. However, these limitations do not flip the significance of this study and highlight information-sharing processes during a crisis.

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