International Journal of Communication 18(2024), 4121-4144 1932–8036/20240005

Leaning In or Turning Away? Differential Effects of the Early Pandemic Lockdown on Twitter Use

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The COVID-19 pandemic raised interest in the question of digital participation and expression during crises. Our study contributes to this debate through a deep dive into differential effects the pandemic had on the social and political expression of Twitter users. We report results from a mobile experience sampling method survey of intense users from Jerusalem, Israel. As the study was in the field when lockdown measures were implemented, it can trace changes in expressive behaviors as the crisis emerged. Our data demonstrate differential patterns in use intensity and communication about the pandemic. Many people intensified their Twitter use, but some turned away. Compared with younger users, older people used Twitter less and communicated about the pandemic less. More educated users intensified their use, compared with less educated users. Rather than causing complete realignments of expression, the pandemic intensified existing differential

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Date submitted: 2023-09-11

[1] Funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation)—Project No. 290045248 – SFB 1265.

patterns. Our study demonstrates how, in a moment of uncertainty, a situation-specific information elite formed within a set of intense Twitter users, one that could gain disproportionate power in shaping public understanding of the pandemic.

Keywords: crisis communication, differential effects, information elite, mobile experience sampling method, political expression, Twitter

In March 2020, when a still-obscure virus spread around the globe, causing severe respiratory illness and overwhelming hospitals, Israel became a bellwether for the pandemic response. Among the first in the world, the Israeli government put the population under stay-at-home orders. Quickly, narratives emerged about the role of digital media in connecting people and driving public debate under these unprecedented conditions. The crisis did not suspend public life but shifted it into an experimental, digitally driven mode, characterized by a pronounced need for information, communication, and coordination (Trenz, Heft, Vaughan, & Pfetsch, 2021). This was a time at which public understanding of the nature of the pandemic was just being negotiated. Despite an overall increase in digital media use in those days of the pandemic, different groups used digital media for information and expression in differential ways—and some even turned away (Nguyen et al., 2020). This could contribute to a decreased representation of their pandemic experience (see Cesare, Grant, & Nsoesie, 2019).

The COVID-19 pandemic had a differential impact on people's lives and behaviors, depending on personal circumstances and sociodemographic characteristics. This notion is reflected in an influx of research tying the concepts of digital inequalities or digital divides to the pandemic (e.g., Reynolds, Aromi, McGowan, & Paris, 2022; Sostero, Milasi, Hurley, Fernandez-Macías, & Bisello, 2020; Zheng & Walsham, 2021). We take a complimentary yet distinct approach by focusing on differential effects of the pandemic in terms of social media use and, specifically, the emergence of an information elite. In moments of uncertainty, some users take to social media platforms to share information, express themselves politically and socially, and thus contribute to the collective negotiation of meaning around current events (Bruns, 2015; Lane, Do, & Molina-Rogers, 2021; Tandoc & Takahashi, 2017; Velasquez & Rojas, 2017). These actors are likely to be part of an already active user base. However, who among the user base becomes part of this situation-specific "information elite" (cf. Robinson & Wang, 2018) and thus becomes influential in framing the crisis, and who leans away from participating, is unclear.

The motif of differential consumption and expression patterns in the early days of lockdown emerged in our own predominantly qualitative exploration of Twitter use in Jerusalem, Israel (Kligler-Vilenchik et al., 2020). Analyzing users' open-ended descriptions of Twitter's role during this uncertain time, we found that some reported intensifying their use, while others turned away, and for some, but not all, the pandemic became the predominant topic in their Twitter communication. Twitter was known in Israel at the time as an elite platform, mostly used by journalists, politicians, and public influencers (see also Laor, 2022; Tenenboim, 2017). It thus represented a central arena in which public meanings of the pandemic were negotiated.

In this mixed-methods study, we build on our preliminary exploration (Kligler-Vilenchik et al., 2020) by presenting quantitative results, further elucidated by a qualitative analysis of open-ended responses,

from a study of intense Twitter users from Jerusalem. This user group, which should be understood as influential, not representative, elucidates the emergence of a crisis-specific information elite. We investigate whether, within our already active and digitally savvy set of respondents, differential patterns in their political expression emerged. We ask:

RQ1: How did intensive Twitter users employ the platform to communicate publicly in the face of the emerging pandemic? And can differential effects be found in who became part of the situation-specific information elite?

We conducted a mobile experience sampling method (MESM) survey in March and April of 2020, aimed at understanding how people used Twitter to connect to others. While the survey was not designed to study pandemic social media use, its timing allows a glimpse into the first days of lockdown communication. We focus on three distinct aspects of active, public Twitter use, which emerged from our earlier study (Kligler-Vilenchik et al., 2020), and enable a comprehensive view of users' employment of the platform to express themselves during the crisis: (a) the intensity of use overall, (b) the role the pandemic played in the content of communication, and (c) the imagined audiences.

Our findings reveal strong variance in use intensity, imagined audiences, and the role of the pandemic in communication. Compared with routine behavior, Twitter users imagined a general, nonspecific audience to a larger extent, pointing to the platform's role as an information broadcasting tool in a moment of crisis. Age and education predict use intensity and communication about the pandemic, even within our set of digitally privileged participants. At a time in which public meanings of the pandemic were negotiated, younger and highly educated participants expressed themselves more, thus taking a dominant role in shaping how the pandemic was understood, with important potential implications for public policy.

Social Media Use in Times of Crisis

The role of media in moments of crisis has long intrigued communication researchers (e.g., Liebes, 1998). Social media platforms serve as both amplifiers and partial substitutes to professional journalism to keep the public informed and to negotiate the meaning of events, especially at the onset of crises (Bruns, 2015). The role of social media has been studied in natural disasters, such as storms and floods (Paul & Sosale, 2020; Tandoc & Takashi, 2017), or earthquakes (Bruns, 2015). Public health emergencies, such as the Ebola and Zika epidemics (Dalrymple, Young, & Tully, 2016; Young, Tully, & Dalrymple, 2018), have also been investigated, with researchers recognizing social media's role in how the public makes sense of these crises.

People who become active contributors of information early on in a crisis can contribute an outsized amount to its understanding. At the onset of an epidemic event, an information elite may define how and why the crisis is newsworthy (Leslie, 2006). In digital contexts, this role is no longer exclusive to journalists, but may be fulfilled by "network-savvy, prolific members [. . .] forming a new information elite" (Robinson & Wang, 2018, p. 92). Robinson and Wang (2018) argue that social privilege and positionality affect participation and success in this group. Yet, who among the active set of social media users becomes part of the situation-specific information elite and thus takes part in shaping the meaning of the crisis?

To further unpack this question, we delve into a specific aspect of social media use: political expression. Political expression is a concept that grew alongside the rise of digital and social media, as these platforms have enhanced the ability of everyday people to express themselves politically while also potentially shaping what this expression looks like (Boulianne, 2019; Kligler-Vilenchik & Literat, 2024). Political expression can be understood as "communications that express a specific opinion on current events or political processes or that disseminate information relevant to the interpretation of these events or processes" (Velasquez & Rojas, 2017, pp. 2–3). We see the COVID-19 pandemic as an important political event with significant repercussions on citizens' lives. Beyond being related to increased political participation at the individual level (Lane et al., 2021), those who engage in political expression are partaking in shaping public discourse around important topics. As epidemiologist Nina Cesare et al. (2019) claim, social media is used to offer insight into health trends, yet "researchers must consider which communities and demographic groups are represented within their data" (p. 7).

We use the terminology of *differential effects* to capture the notion that effects of the crisis on digital participation and expression may "hinge on social categories" (Xenos & Moy, 2007, p. 708), rather than being uniform across populations. Out of the already active user base of a platform, it is conceivable that those with social privilege expressed themselves more around the pandemic and thus contributed more to the information elite (cf. Robinson & Wang, 2018), but also that those with specific experiences (e.g., needing to care for children during lockdown) took the opportunity to raise particular issues.

In the following, we focus on research about the patterns of (social) media use during COVID-19, especially as it relates to individual and group-based differences. We pay attention to three aspects: the intensity of media use, the role of the pandemic in communication, and the imagined audiences people conjure.

Intensity of Digital Media Use During COVID-19

Although the pandemic brought a rise in the use of digital tools (Georgescu, Pantelimon, & Posedaru, 2021), adoption was not universal. Adaptation to physical distancing policies could "take the form of intensification of existing practices or (temporary) withdrawal from them" (Trenz et al., 2021, p. 122). At the platform level, an analysis of the Swiss Twittersphere showed an increase in activity as the pandemic reached Europe (Rauchfleisch, Vogler, & Eisenegger, 2021). At the individual level, too, many people increased their activity. In a survey of U.S. adults, 35% reported an increase in their social media use. Yet, 8% of respondents reported decreased social media use two weeks into lockdown (Nguyen et al., 2020).

Where people fell on this spectrum was influenced by their situations. Younger people, women, and those living alone increased their digital media use, while older people decreased theirs (Nguyen et al., 2020). Parents faced challenges as formal education and care systems fell away. Some took to social media to express their distress (Lemish & Elias, 2020), but others may have abstained.

The Role of the Pandemic in Personal Communication

As the pandemic changed the lives of people, it also became a subject of communication. Rauchfleisch, Vogler, and Eisenegger (2021) showed that COVID-19 temporarily displaced nearly all other

topics on Twitter. Twitter functioned as a livestream of pandemic events, which was also driven by ordinary users (Yang & Vicari, 2021). Through these public debates, Twitter's information elite constructed an understanding of events, policies, and their meanings.

Yet, this platform-level pattern may not be mirrored for each user. Some may have turned to social media for other topics. Choi and Choung (2021) found that people used social media for both information and entertainment during lockdown. An intensified social media use for news and information is corroborated by large-scale, comparative research, including for Israel (van Aelst et al., 2021). Social media played an increasing role in information seeking for those particularly concerned about the pandemic and for women, whereas older people favored other sources (van Aelst et al., 2021).

Less is known about the extent to which the pandemic became a topic in people's active posting. Our own analysis showed that some Twitter users perceived their communication to become focused entirely on the pandemic (Kligler-Vilenchik et al., 2020). Other research suggested that people were discerning about the forums in which they discussed controversial aspects of the pandemic. Many limited these discussions to close circles of like-minded individuals, rather than engaging on social media (Mihelj, Kondor, & Štětka, 2022).

Social Connections and Imagined Audiences

During the early pandemic, mediated communication became the main source of social connection beyond one's household. Sociality through digital media took various forms, including "semi-private encounters, purposefully organised groups, more loosely organised gatherings of online communities and anonymous mass publics" (Trenz et al., 2021, p. 113). Depending on users' priorities and personal situations, they may have used media to maintain personal and group-based connections or to share information with a wider public.

The former has received more attention. People used digital platforms to maintain ties with friends and family (Watson, Lupton, & Michael, 2021). Social groups that usually met offline, such as colleagues or hobby groups, moved to digital platforms (Costa, Esteve-Del-Valle, & Hagedoorn, 2022). Additionally, people used social media to organize support and mitigate the pandemic's impact (Carlsen, Toubøl, & Brincker, 2021).

However, not all digital tools were used equally to maintain or create social ties during the pandemic. The biggest increases for maintaining strong ties were reported for text messaging and voice calls, with social media playing a smaller role (Nguyen et al., 2020; see also Choi & Choung, 2021). To what extent people also used a public-facing platform, such as Twitter, to address specific groups—or whether information broadcasting took precedence—is not clear. Using Twitter in the early days of the pandemic to address those devising the public response to the event could mean being part of the group whose voices are considered within these policies (see Cesare et al., 2019).

The *imagination* of audiences on social media platforms has not received attention in the context of pandemic communication. Research has focused on one-to-one or group communication and not

accounted for the diffuse one-to-many nature of social media. This aspect is highlighted by the concept of imagined audiences (e.g., Litt & Hargittai, 2016; Stoltenberg, Pfetsch, Keinert, & Waldherr, 2022). It captures how social media users envision whether their content is read by broad, abstract or more specific, targeted (e.g., personal, professional, communal, phantasmal) groups of addressees (Litt & Hargittai, 2016). One's imagined audience may reflect whether one sees oneself in the position to take part in shaping the conversation around an emergent crisis.

Overall, the crisis altered social media use for many people. It influenced the amount of time spent on platforms and the way people employed them to address particular audiences. It led people to turn to social media for both information and distraction, and the pandemic became a dominant topic of political expression. Research suggests that these patterns may have been contingent upon people's sociodemographic characteristics (e.g., age, gender, or education) as well as their situational context (e.g., their living situation, to what extent they engaged in physical distancing); we maintain an exploratory approach.

Differential effects may be driving a puzzling observation from our own earlier research: Aggregate measures for different motivations of Twitter use stayed largely constant in lockdown but masked movement in opposite directions from different respondents (Kligler-Vilenchik et al., 2020). We build on this work by quantifying how intensive Twitter users chose to participate and express themselves on the platform and how this differed between sociodemographic groups and situational contexts. We thus investigate who became part of the information elite on Twitter.

The Case: Twitter Use in Jerusalem During Early COVID-19 Lockdowns

Our research project was not aimed at capturing social media participation during crises. When we launched our survey of intense Twitter users on March 9, 2020, Israel had only 50 confirmed COVID-19 cases, and it was not clear that the virus would affect our research (Figure 1). However, the 10 days of our first survey cohort (see Study Design) occurred during a period of dramatic change, as Israel was among the first countries to introduce public measures, from banning large public gatherings (March 10), to school closures (March 14), to strict stay-at-home orders (March 19). This gave us the opportunity to study intense Twitter users as they realized a crisis was unfolding. Our second cohort of data collection occurred at a time in which COVID-19 case numbers were quickly rising, while public measures basically stayed as they were, with school closures and lockdowns continuing.

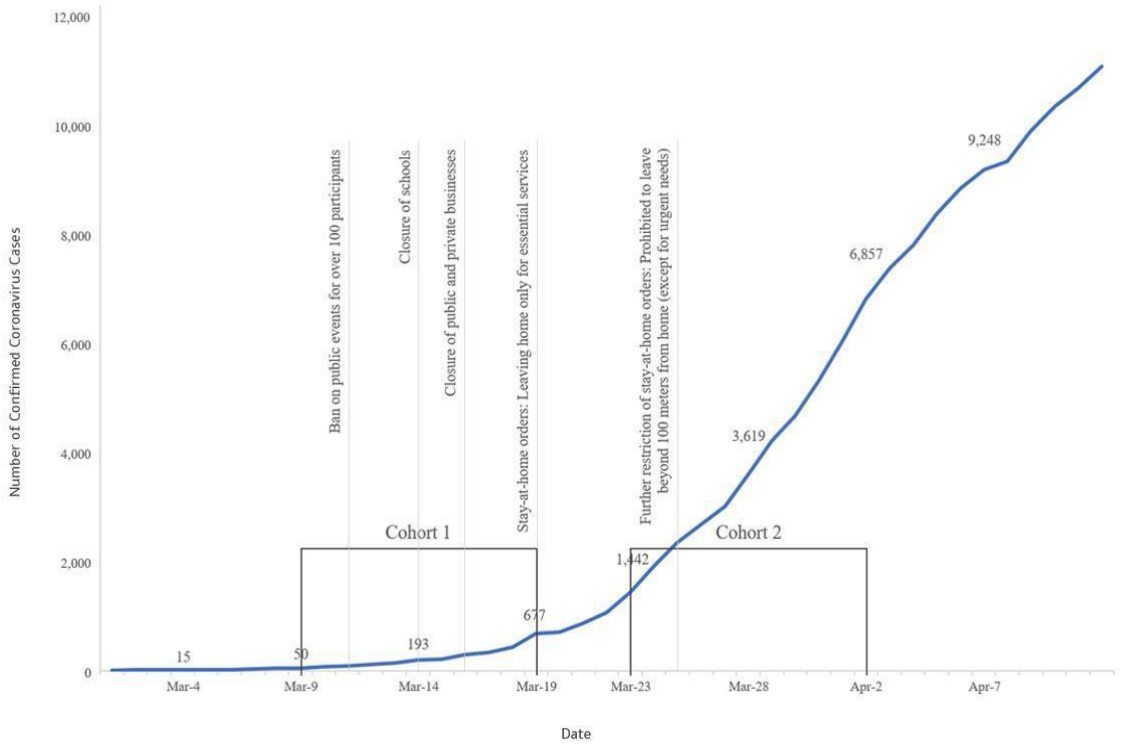

Figure 1. COVID-19 cases and public measures by date and survey cohort.

Israel provides an interesting case in terms of social and political expression in crisis situations. It is a nation accustomed to crises, although usually in the form of armed conflict or political crises. Cohen (2002) describes Israel as a "crisis-ridden democracy" (p. 14) with its news media adapted to covering crises in a nonstop manner that has been said to "regurgitat[e] disaster" (Liebes, 1998, p. 72). Social media enables Israelis to consume information and interact during crises. This has been shown for platforms ranging from Facebook (e.g., John & Gal, 2018) to WhatsApp (e.g., Malka, Ariel, & Avidar, 2015).

Although Israelis are prolific social media users, Twitter is considered a niche platform, used by relatively prominent users such as journalists, politicians, and public influencers (Laor, 2022; Tenenboim, 2017), with lower adoption among the wider public (around 12% in 2020; Bezeq, 2021). Laor (2022) characterizes Israeli Twitter as dominated by a clique of journalists and politicians. This helps us characterize members of the public who are active on Twitter as a privileged set of users who are highly connected to news and, particularly in the early days of a crisis, may become involved in shaping the interpretation and decision making around it.

Study Design and Data

Our data stem from a research project investigating the communication geographies of intense Twitter users in two cities, Berlin and Jerusalem.[2] We conceptualized a MESM survey, which is adept at capturing everyday media usage by collecting data on routine behaviors close to the situation (Karnowski, Kümpel, Leonard, & Leiner, 2017). As pandemic protective measures began to be implemented, we had just entered the field. Realizing that our initial, comparative aims—understanding how and in what everyday situations respondents used Twitter to form communication networks across space—were no longer feasible, we pivoted in two ways. First, by adding a postquestionnaire aimed at capturing respondents' pandemic experiences, and second, by interrogating the data about what it could tell us about the crisis. Although our survey was not designed to study pandemic communication, which results in some limitations about what concepts were measured, MESM's ability to capture immediate, subjective perceptions and behaviors is useful to understand acute crisis experiences.

We identified intense Twitter users in Jerusalem through a data collection of tweets by users from the area via the application programming interface (API), some weeks before recruitment. Twitter's API, at the time, allowed requesting data based on a geographical bounding box, which pulled information from users' profile location field. This information was manually refined to confirm users' locations and limited to users posting in Hebrew, Arabic, or English. Users were included if they had tweeted at least five times over the 10-day data collection window (November 27 to December 6, 2019). Initially, 933 accounts fulfilled these criteria, 412 of which we ended up contacting. The primary reason for not contacting people was because they did not enable Twitter direct messages and no other means of contact (e.g., Facebook, e-mail) could be found. Others were excluded because they had become inactive in the intervening time or were not run by an individual. In a city of slightly under 1 million residents, these numbers confirm that the highly active Twitter-user base is a small but influential group.

Of the potential respondents whom we contacted, 66 filled out the recruiting questionnaire and a share of the MESM prompts (response rate: 16%). We excluded two participants who only responded to one or two prompts. Of the remaining 64 participants, 59 responded to an additional questionnaire at the end of the field period, in which we inquired about their experiences of the pandemic. Participants received a 100 NIS gift card from the platform BuyMe. The study received Institutional Review Board approval from Freie Universität Berlin and Hebrew University of Jerusalem. Participants were asked for consent to the storage and use of their data for research, in compliance with general data protection regulation (GDPR) rules.

The field period was split into two cohorts, lasting from March 9 to 19 and March 23 to April 2, 2020, respectively.[3] During this period, participants received text messages to their smartphones twice a day. The messages contained a hyperlink to a questionnaire, hosted on SoSci Survey (Leiner, 2019). Each participant received 20 prompts. Compliance was high, with participants responding to an average of 16.1

[2] The Berlin data was collected a few months earlier, before the COVID-19 pandemic impacted everyday life.

[3] The decision to split the sample into two cohorts was made, unrelated to the pandemic, to keep the high-maintenance process of administering the survey manageable.

prompts (*Mdn* = 17, *SD* = 3.8). Not all prompts resulted in data, as respondents had not always tweeted in the relevant time window. In total, 64 respondents reported 674 Twitter usage situations.

Compared with the population of Jerusalem overall, our sample skewed male (70%) and more highly educated (72% possessing a university degree vs. around 26% in the overall population). At a median age of 36 years, respondents were much older than the city's population overall (*Mdn* = 24.1 years, owing to the high number of children). Overall, our sample should be understood not as representative of the general population but as a subset of an influential group of Twitter users. Further descriptive statistics can be found in Table 1 and in the Online Appendix.[4]

Table 1. Sample Description.

Variable	Values	Distribution
Age (n = 63)	2020 – year of birth	M = 38.46, Median = 36, *SD* = 12.17
Gender (n = 63)	Male	71.43%
	Female	28.57%
Education (n = 64)	No degree	04.69%
	High school degree	14.06%
	Professional diploma	09.38%
	College/university degree	71.88%
Parental status	No children	41.94%
(n = 62)	Children	58.06%
Extent of physical distancing (n = 59)	7-point Likert scale indicating whether respondents stayed home more than usual as a form of self-isolation (1 = Do not agree at all, 7 = Strongly agree or in formal quarantine)	M = 6.07, *SD* = 1.48
Cohort (n = 64)	Cohort 1 (surveyed March 9 to 19, 2020)	56.25%
	Cohort 2 (surveyed March 23 to April 2, 2020)	43.75%

Measures

Measures stem from three different questionnaires: (1) a recruitment questionnaire, which included questions on sociodemographics and general (social) media use; (2) the short, repeat MESM questionnaires, which pertained to participants' most recent Twitter use; and (3) a post-MESM questionnaire, which inquired about participants' experience of the COVID-19 crisis.[5]

[4] See: https://osf.io/wfthn/?view_only=54a9e5b6a3af47b3a12966b42158f88c

[5] The relevant portions of the questionnaire as well as descriptive statistics and details on variable transformations are available in the Online Appendix.

Dependent Variables

We investigate three aspects of how Twitter users used the platform during early lockdown. For (a) the *intensity of use overall*, we rely on a measure from the post-MESM questionnaire asking participants to indicate on a 7-point Likert scale whether, over the past 10 days, they had tweeted more, about the same, or less than they usually do. The measure focuses on active participation in Twitter discussions, consistent with our interest in who partakes in social and political expression in this moment of crisis.

To capture (b) the *pandemic's role in the content of communication*, we classified respondents' open-ended short descriptions of their most recent tweet's topic into a binary variable, which reflects whether the tweet's content was related to the pandemic. We calculated the share of pandemic-related tweets for each respondent.

The (c) *imagination of audiences* is captured by bringing together measures from the recruitment questionnaire and the MESM questionnaire. In the recruitment questionnaire, we asked respondents to indicate whom they imagined reading their tweets, generally speaking, providing a multiple-choice list of 15 options (e.g., close family, friends, people sharing my hobby, coworkers, see Online Appendix). In the MESM questionnaires, we posed the same question in relation to respondents' most recent tweet. To understand deviations between Twitter use, generally, and audience imaginations during the 10 days of pandemic tweeting, we put these two variables in relation.[6] The resulting measure allows us to capture whether certain audience segments were imagined more or less frequently during the pandemic survey period than respondents' general self-reports indicate. It allows us to assess whether Twitter's public-facing, informational nature became more important in the minds of respondents by comparing the prevalence of a general, abstract public versus more specific groups. For further analysis, we aggregated the 15 options into five broader imagined audiences, which align with those defined by Litt and Hargittai (2016). A general audience was coded when our respondents imagined "the public/no one in particular." The other four audience groups describe spheres of social life, namely personal audiences (including friends and family), professional audiences (including colleagues, classmates, and clients), communal audiences (including people from one's hobby, political or religious engagement), and public figures (including celebrities, political decision makers, and more; see Stoltenberg et al., 2022).

[6] For each participant, we calculated the number of audience groups checked in the recruitment questionnaire. We defined the expected value for groups checked in the recruitment questionnaire as 100% divided by the number of checked groups, multiplied with the average number of groups checked in the MESM questionnaires (e.g., a participant checked four groups in the recruitment questionnaire and an average of two groups in the MESM questionnaire. The expected value for the checked groups is $100 \div 4 \times 2 = 50\%$). The maximum value was defined as 100%. For groups that were not checked, we defined the expected value as 0%. We subtracted this value from the share of MESM questionnaires, in which the audience group was checked. This yields a measure between −100 (the group was imagined much less often than expected) and +100 (the group was imagined much more often than expected).

Independent Variables

To understand what influenced differences in the dependent variables, we accounted for sociodemographic characteristics and situational contexts. We included respondents' gender, age, and education. To capture situational contexts, we focused on parental status and the extent to which respondents self-isolated. The latter was captured by whether respondents were in formal quarantine and their agreement that they had stayed home more than usual over the past 10 days.[7] To account for possible habituation effects between our first and second cohorts, we included the cohort number as a control variable. We selected these variables because they were shown to be influential (e.g., Nguyen et al., 2020; van Aelst et al., 2021) or discussed as theoretically compelling (e.g., Lemish & Elias, 2020) in the literature on digital media during the early COVID-19 pandemic. Although the inclusion of further sociodemographic descriptors may have provided additional insights, the limited number of participants forced us to specify parsimonious models.

Open-Ended Item

During the field period, we realized that pandemic experiences were shaping our data in ways we did not yet fully understand. To capture this, we added the following item to the post-MESM questionnaire: "Please share with us in an open-ended manner how you feel the coronavirus situation shaped your Tweeting habits over the past 10 days." We translated open-ended responses provided in Hebrew and Arabic.

Answers were qualitatively analyzed to identify emerging themes and patterns (Corbin & Strauss, 2008). We first sought recurring concepts (e.g., how COVID-19 changed everyday life, comments about increased/decreased/unchanged Twitter use) and then coalesced these into three themes (information goals, using Twitter for maintaining social connections, and use habits). An in-depth focus on our qualitative data is provided elsewhere (Kligler-Vilenchik et al., 2020). Here, we use the qualitative data to aid the quantitative analysis and gain a nuanced understanding of reported behaviors. This approach is informed by triangulation, or the use of multiple methods to gauge a phenomenon (Jick, 1979). For example, if the quantitative data allowed us to understand the social composition of those with high versus low Twitter use, looking at their open-ended responses elucidated how they felt their tweeting habits shifted. We use these responses to add nuance to our quantitative findings; sometimes they are consistent with the patterns captured by quantitative findings, whereas at other times they may illuminate new aspects. Such "messiness" is to be expected, as different methods probe different kinds of meanings (Boxman-Shabtai, 2020, p. 410).

The quantitative data for each aspect—active Twitter use, communicating about the pandemic, imagined audiences—is used in two ways. First, descriptive statistics and frequency distributions provide insights into how the aspect played out, supplemented with qualitative observations. Second, regression models are calculated to understand how sociodemographic and situational characteristics influenced who became part of the early pandemic information elite.

[7] Being in formal quarantine was recoded to maximum agreement with the statement: "Over the past 10 days, I stayed home more than usual as a form of self-isolation."

Results

To investigate the emergence of Twitter's local information elite in a time of crisis, we examine how respondents engaged on Twitter during the early days of the pandemic and what differential effects we observe. We focus, first, on the intensity of active Twitter use before moving on to the role of political expression around the pandemic and the activation of imagined audiences.

Intensity of Twitter Use

Many people changed the intensity of social media expression in the early days of the COVID-19 lockdown. At the end of the survey period, we asked respondents whether they had tweeted much less (1), about the same (4), or much more (7) than usual. As Figure 2 illustrates, respondents on average increased their expression on Twitter (M = 4.56, SD = 1.27). Out of 57 respondents, only six decreased their expression, while 29 increased it. For 22 respondents, their expression frequency was not affected. In a moment of uncertainty, most active users leaned into the platform.

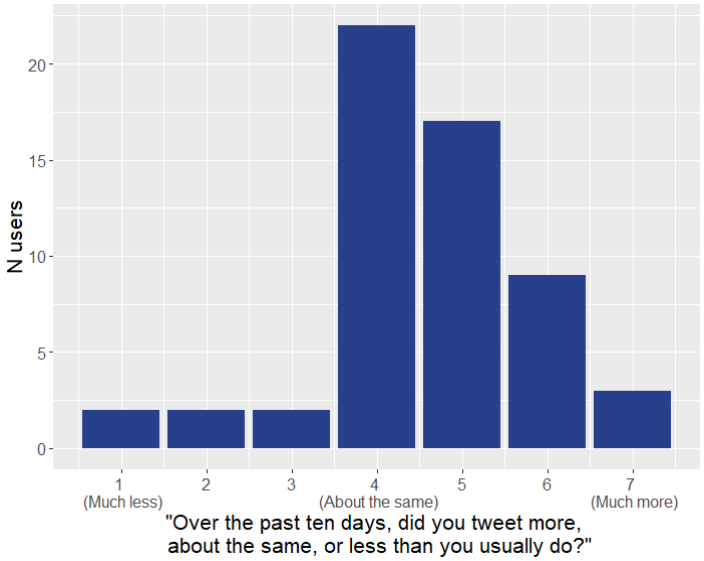

Figure 2. Intensity of Twitter use.

Under the theme of use habits, we noticed differential patterns through which the pandemic lockdown changed respondents' Twitter use. Respondents who reported a higher intensity of expression on Twitter described how the pandemic shifted their habits in ways that made the platform more central: "COVID-19 made me waste a ton of time on Twitter instead of working on things I should have done from home" (F, 30, cohort 1) or "I kept up to date on developments through Twitter and I tweeted a lot around Covid and choosing to quarantine." (M, 31, cohort 1).

Those whose expression on Twitter decreased ascribed this to the ramifications of the situations on their lives (e.g., "logistics and having kids at home all of the time changed my social media habits," M, 65, cohort 2; or simply "I was busier so I used Twitter less," M, 45, cohort 1).

Those whose Twitter use intensity remained constant could be those whose life circumstances did not change much: "The amount of free time I have didn't change because I work the same job and have the same free time I had a month ago. So what was, stayed the same" (M, 42, cohort 2).

To understand what affected the intensity of expression on Twitter during the early days of the pandemic, we calculated an ordinal logistic regression. To address the low numbers in some categories, we pooled responses into three categories (less active Twitter use, about the same amount of active Twitter use, more active Twitter use). Table 2 shows that respondents' sociodemographic characteristics were relevant. Older participants reported less expression on Twitter (b = −0.08*, SE = 0.03). Highly educated respondents, however, were much more likely to have increased their expression (b = 2.59***, SE = 0.76), compared with less educated respondents. There were no differences based on gender, parental status, or self-isolation behavior. This means that younger and more educated respondents increased their expression during the early days of the pandemic, possibly overshadowing the voices of older and less educated users.

Table 2. Regression Model for the Intensity of Twitter Use.

	Intensity of Twitter use			
	Coef.	SE	OR	p-value
Age	**−0.08**	**(0.03)**	**0.92**	**0.011**
Gender: female	0.01	(0.70)	1.01	0.986
Education: university	**2.59**	**(0.76)**	**13.32**	**< 0.001**
Parental status: yes	−0.05	(0.70)	0.95	0.941
Extent of self-isolation	−0.17	(0.46)	0.84	0.711
Survey cohort: 2	−0.34	(0.59)	0.71	0.569
N persons				55
AIC				98.78

Note. OR = Odds Ratio, SE = Standard Error. Coefficients are from an ordinal logistic regression model. Dependent variable was a three-level factor (1: less tweeting than usual, 2: about the same amount of tweeting, 3: more tweeting than usual). The coefficients are not standardized.

The Pandemic's Role in Users' Expression

To be part of the public debate around the pandemic, Twitter users had to express themselves about this issue. Figure 3 shows the distribution of the percentage of pandemic-related messages across participants. For most, the pandemic became a topic that they at least occasionally tweeted about. Only 16% did not report any pandemic-related tweets, whereas 21% of respondents tweeted about the pandemic more than half of the time, including 5% for whom it completely displaced other topics. On average,

respondents tweeted about the pandemic 33.5% of the time (*SD* = 26.02) across 610 usage situations, showing it became a prominent topic of political expression.

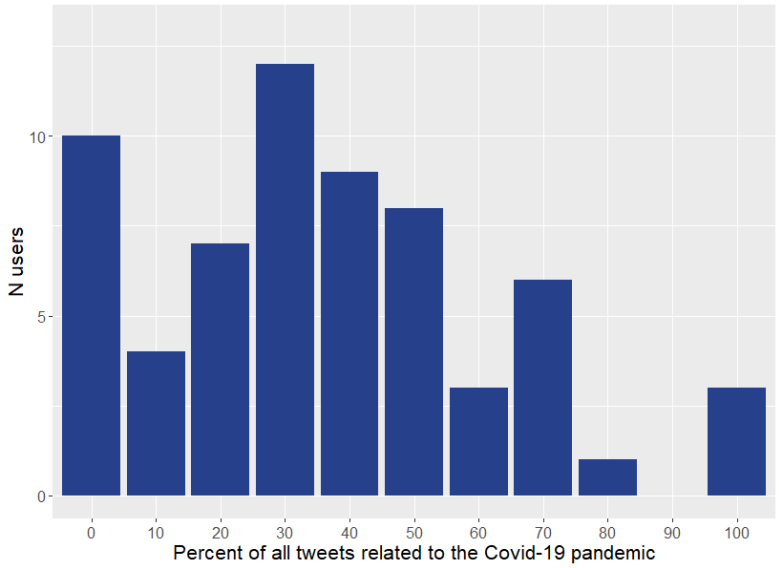

Figure 3. Percentages of pandemic-related tweets across respondents.

In the open-ended question, some respondents who did not tweet about COVID-19 explained this with their anxious mental state: "The anxiety and preoccupation with local, immediate issues makes it harder to focus on Twitter" (M, 68, cohort 1).

In contrast, some of those who tweeted about the pandemic more than half the time described it within the context of political expression about other major topics: "I tweet about news generally and this is certainly the biggest news story right now and possibly of our lifetimes so it certainly affected what I was sharing—likely 90% of my tweets have been about that recently" (F, 31, cohort 1).

To understand whether sociodemographic or situational characteristics explained the extent to which respondents tweeted about the pandemic, we calculated a negative binomial regression model (Table 3), which accounts for overdispersion in the data. The results repeat the patterns we observed for use intensity. Older respondents talked less about the pandemic compared with younger ones (b = −0.04**, SE = 0.01). University-educated respondents tweeted about COVID-19 more frequently than those with lower levels of education (b = 0.94**, SE = 0.31). Once again, the axes of age and education play a bigger role in predicting differential patterns in political expression than situational characteristics like physical distancing or parental status.

Table 3. Regression Model for the Extent of Communication About the Pandemic.

	Extent of tweeting about the pandemic		
	Coef.	SE	p-value
Age	**−0.04**	**(0.01)**	**0.005**
Gender: female	0.12	(0.29)	0.677
Education: high	**0.94**	**(0.31)**	**0.002**
Parental status: yes	0.36	(0.29)	0.211
Extent of self-isolation	−0.26	(0.19)	0.172
Survey cohort: 2	−0.11	(0.25)	0.669
N persons			57
N situations			578
AIC			524.48

Note. Coefficients are from a negative binomial regression model. The dependent variable indicated the share of reported usage situations in which a respondent talked about matters related to the COVID-19 pandemic. The coefficients are not standardized.

Imagination of Different Audience Groups

Being part of a public discussion also involves imagining your audience as a broad, public one. To assess whether users imagined their Twitter communication to become more public-facing or whether they imagined using it for keeping in touch with particular social groups, we investigated participants' imagined audiences. Based on data for 426 usage situations, we created aggregate measures per participant, ranging from −100 (the group was imagined much less frequently than the participant reported for routine times) to 100 (the group was imagined much more frequently; see footnote 5). Figure 4 shows how the reported imagined audiences in early lockdown deviated from routine imaginations for five types of imagined audiences.

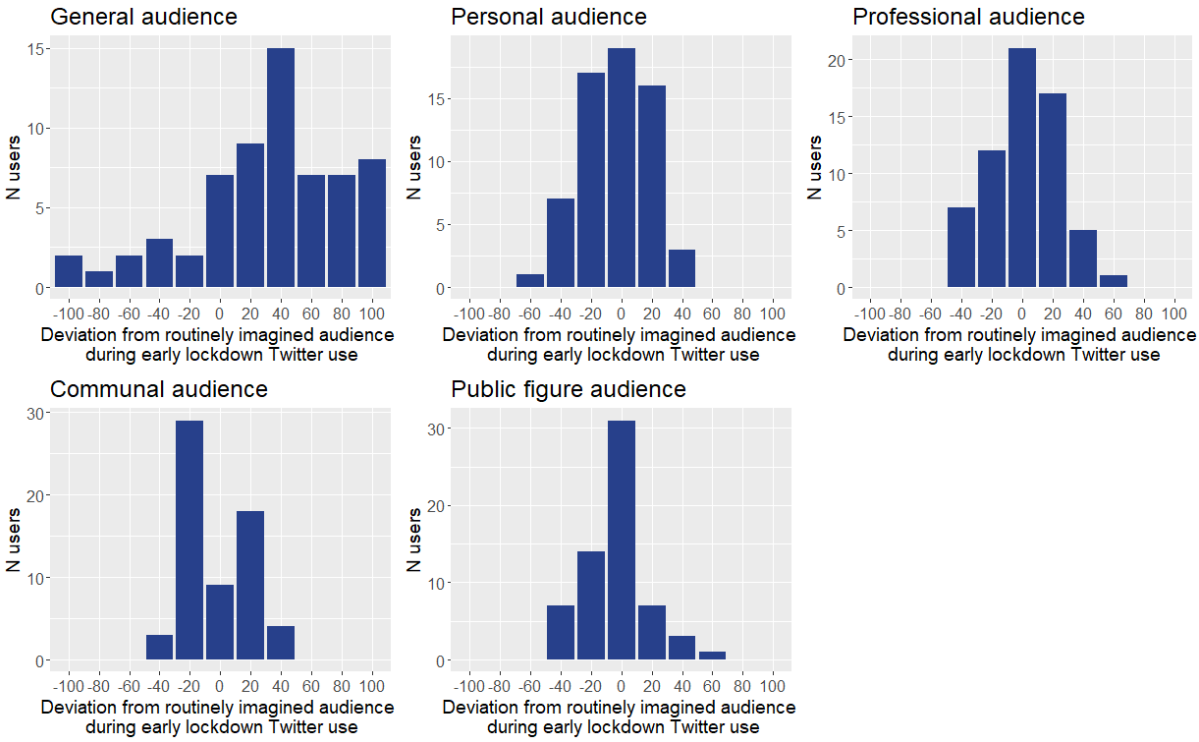

Figure 4. Deviation in imagined audiences relative to reported routine imaginations.

General or abstract audiences indicated that respondents were aware that anyone may be reading their tweets (cf. Litt & Hargittai, 2016). They were the only audience type that showed an increase of more than 26 units during early lockdown, compared with routine behavior (M = 26.73, SD = 45.49). Most respondents imagined diffuse, general audiences more frequently than their reported routine behavior indicated. They may have found themselves in the role of information broadcasters during this period of uncertainty. On the other hand, around 15% of respondents imagined abstract audiences less frequently than general self-reports indicated. They may have used Twitter to connect to more specific groups than usual, as described by this respondent: "My habits have been staying more or less the same, it may have gotten slightly more personal" (F, 20, cohort 1).

For the four types of target social groups (Litt & Hargittai, 2016), we do not observe shifts of more than three units, compared with before the pandemic. Although means are very slightly negative for public figures (M = −1.44, SD = 14.32; including celebrities, political decision makers, and companies) and personal audiences (M = −2.58, SD = 14.83, including friends and family), differences are not significant from professional audiences (M = 1.38, SD = 14.48, including colleagues, bosses, or clients) or communal audiences (M = 0.57, SD = 12.87, including contacts from hobbies, political engagement, or religious groups).

An ANOVA with post hoc pairwise paired t-tests revealed that the differences between imaginations of a general audience and all types of specific audiences (personal, professional, communal, and public figures) were significant ($p < 0.001$ for personal, communal, and public figures; $p < 0.05$ for professional audiences). Differences between the four specific audience groups were not significant. Overall, we see a large increase in the imagination of general audiences for intense Twitter users at the onset of the pandemic, whereas specific audience groups did not play an increasing role overall. Yet, for all groups, Figure 4 demonstrates the presence of differential effects. Almost equal numbers of respondents imagined the four specific audience groups more frequently during lockdown and did so less frequently.

To understand whether these differences in audience imaginations were driven by sociodemographic or situational characteristics, we calculated a series of ordinal logistic regression models (Table 4). The deviation variables were transformed to indicate less frequent than routine imaginations (−1, original values of < −10), no deviations (0, original values of −10 to 10), or more frequent than routine imaginations (1, original values of > 10).

Table 4. Regression Models for Deviations in Imagined Audience Groups During Lockdown.

	Deviation from reported normally imagined audiences while using Twitter during early lockdown																			
	General audience				Personal audience				Professional audience				Communal audience				Public figures audience			
	Coef.	SE	OR	p	Coef.	SE	OR	p	Coef.	SE	OR	p	Coef.	SE	OR	p	Coef.	SE	OR	p
Age	0.03	(0.03)	1.03	0.446	0.01	(0.03)	1.00	0.870	−0.02	(0.03)	0.98	0.429	−0.01	(0.03)	0.99	0.796	−0.04	(0.03)	0.96	0.1
Gender: female	−0.63	(0.68)	0.53	0.353	0.02	(0.66)	1.02	0.979	−0.50	(0.66)	0.60	0.447	−0.21	(0.71)	0.81	0.766	−0.76	(0.72)	0.47	0.2
Education: university	−0.46	(0.82)	0.63	0.578	**1.61**	**(0.73)**	**4.99**	**0.027**	0.50	(0.69)	1.64	0.472	−1.35	(0.77)	0.26	0.080	−1.02	(0.77)	0.36	0.1
Parental status: yes	−0.27	(0.73)	0.77	0.715	−0.83	(0.65)	0.44	0.205	0.68	(0.66)	1.97	0.302	0.34	(0.68)	1.41	0.614	0.34	(0.70)	1.40	0.6
Extent of self-isolation	−0.10	(0.49)	0.91	0.840	−0.82	(0.44)	0.44	0.062	0.06	(0.46)	1.07	0.889	**−1.23**	**(0.49)**	**0.29**	**0.012**	0.81	(0.46)	2.24	0.0
Survey cohort: 2	0.22	(0.62)	1.24	0.727	−0.93	(0.58)	0.40	0.107	0.41	(0.56)	1.50	0.464	−0.32	(0.60)	0.73	0.594	0.00	(0.60)	1.00	0.9
N persons			56				56				56				56				56	
N situations			409				409				409				409				409	
AIC			129.29				111.40				125.57				106.92				108.15	

Note. OR = Odds Ratio, SE = Standard Error. Coefficients are from ordinal logistic regression models. Value −1 indicated that respondents imagined the group less often than expected, value 0 indicated imagining the group as often as expected, and value 1 indicated that respondents imagined the group more often than expected based on their general reported imaginations. The coefficients are not standardized.

Even though we found deviations in audience imaginations between routine and pandemic times, the predictors cannot explain these patterns well. Significant effects are found for only two predictors. The extent to which respondents engaged in self-isolation had a negative effect on the imagination of communal audiences (b = −1.23*; SE = 0.49). This does not mean that these social connections lost importance altogether. It is possible that communication shifted from Twitter toward other channels. Moreover, highly educated respondents were more likely to think of personal audiences (b = 1.61*, SE = 0.73). No effects were found for age, gender, or parental status. Thus, even if younger and more educated participants expressed themselves on Twitter more, both in general and specifically around the pandemic, they did not necessarily target a wide audience or an audience of public figures more than their older or less educated counterparts. This may mean that their more dominant voice around the pandemic did not necessarily stem from a conscious intent to target the wider public or political opinion leaders.

Discussion

COVID-19 brought attention to the question of who participates publicly in moments of crisis and rupture, a question with importance beyond the pandemic. Through an in-depth investigation of the behavior of intense Twitter users early on in lockdown, we add to the understanding of differential effects of crises on political expression. We found differential patterns, rather than universal boosts, in how Twitter was employed by some of its most dedicated users. Although many people leaned into the platform to share ideas and understandings of the emerging pandemic, some turned away.

We propose that, in a moment of crisis, a situation-specific information elite emerges from the active user base on a public-facing platform, such as Twitter. Our results showed that demographic features predicted who actively used Twitter, including to express themselves politically about COVID-19, more than situational contexts. Even among our set of digitally privileged high-intensity users, not all became part of the situation-specific information elite, which intensified its Twitter use, tweeted about the pandemic, or addressed a broad, public audience. Rather, younger and highly educated people turned to Twitter to discuss the pandemic, more than older and less educated users. The situation-specific information elite thus mirrored existing societal power relations, especially in terms of age and educational attainment (cf. Zheng & Walsham, 2021). The findings align with prior research on digital media use in the pandemic, which showed that younger people intensified their digital media use during the pandemic, while older people tended to turn to other sources (Nguyen et al., 2020; van Aelst et al., 2021).

In contrast, we found no effects of gender, parental status, or physical distancing behavior. This partially runs counter to prior research (Nguyen et al., 2020), which found gender and living situation to influence digital media use during the pandemic. One explanation may be that although parents and caregivers were overwhelmed by responsibilities during lockdowns, Twitter specifically may have provided an outlet. Since the platform can be used in short bursts of time, it may have been a way to express experiences and frustrations for some caregivers (cf. Lemish & Elias, 2020).

Our findings showed that in early lockdown, the pandemic was an unavoidable topic, which became an opportunity for social and political expression for nearly all respondents. In line with the idea of an information elite, which uses digital platforms to shape public conversations (Robinson & Wang, 2018), for

most users, an abstract, general audience became relevant, indicating a shift toward using Twitter as a hub for information. At the same time, this effect was not more pronounced for the younger and more educated, indicating that although their expression increased compared with their older and less educated counterparts, they did not necessarily intentionally attempt to partake in shaping public understandings of the event.

Overall, about the question of differential effects, our results suggest an intensification of existing use patterns rather than complete realignments. The situational information elite mirrors the characteristics of intense Twitter users overall, but they become even more pronounced with those expressing themselves leaning younger and more highly educated still. Consequently, the voices of some of the most vulnerable sectors of society (e.g., the elderly, the less educated) may have been missing from the pandemic conversation on Twitter. As Cesare and colleagues (2019) claim, although social media provide a window into users' health habits, they also "carry significant biases due to demographic differences in who chooses to use each platform, and what they choose to share" (p. 7). In the early days of COVID-19, this bias was particularly problematic because the pandemic had specific, unique effects on these populations, e.g., on the elderly (because of their heightened susceptibility both to be more seriously ill and to be lonelier or more isolated) or on the less educated (e.g., in terms of implications of lockdown for the ability to make a living in work-from-home conditions).

At the same time, the study has important limitations because of its narrow geography, platform, and usership coverage. The user sample was a revealing one for our purposes of studying an emergent information elite, but certainly not representative of the Israeli population. That the research was not designed to capture pandemic communication results in some limitations about the fit of measured concepts. Moreover, the relatively small data set required the specification of parsimonious statistical models and did not allow us to test all possible predictor variables or interaction effects. Given the lack of statistical power because of the few participants, results should be interpreted with appropriate caution. Still, our findings illustrate the benefits of an in-depth investigation of usage patterns of one platform and user group for understanding who becomes central in shaping a public conversation in times of crisis.

Future research should investigate whether and how differential effects emerge in political expression surrounding other issues, including other health crises, political conflicts, natural disasters, or climate emergencies. It should include a wider range of populations and digital platforms. Overall, the connections between the notion of situation-specific information elites and crisis communication can advance our understanding of how social position affects people's ability to participate publicly through digital media in moments of rupture.

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