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# What Are Meaningful Social Interactions in Today's Media Landscape? A Cross-Cultural Survey

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**Abstract**

As we increasingly integrate technology into our lives, we need a better framework for understanding social interactions across the communication landscape. Utilizing survey data in which more than 4,600 people across the United States, India, and Japan described a recent social interaction, this article qualitatively and quantitatively explores what makes an interaction meaningful. A qualitative analysis of respondents' own words finds that meaningful interactions are those with emotional, informational, or tangible impact that people believe enhance their lives, the lives of their interaction partners, or their personal relationships. A quantitative analysis predicting respondents' ratings of recent interactions finds the attributes most likely to facilitate meaningfulness include strong ties (e.g., friends and family), community ties (e.g., neighbors), shared activities, and synchronicity; meaningful social interactions are also more likely to be planned in advance and memorialized with photos or videos. These attributes are consistent across cultures. Although popular rhetoric often juxtaposes people's online lives against their offline lives, this research finds in-person interactions can be just as meaningful as technology-mediated interactions. We conclude with a new framework for thinking about social interactions more holistically.

**Keywords**

computer-mediated communication, meaningful interactions, social media, well-being

Social interactions are an integral part of what makes people human. Humans are one of the only species that engage in interactions for purely social purposes (Gelfand, 2018) and often opt for social experiences over solo ones "even in the absence of a hedonic boost, and at a monetary loss" (Jolly et al., 2019, p. 15). However, not all social interactions are equal; it is the deeper and more meaningful ones that people yearn for from infancy to old age (Baumeister & Leary, 1995; Bhargave & Montgomery, 2013; Blumer, 1986; Hardin & Higgins, 1996; Jolly et al., 2019; Levine & Higgins, 2001; Searle & Willis, 1995).

Meaningful interactions are social interactions that are of higher quality (Gonzales, 2014, p. 197) and deeply subjective, serving as the foundation for our strongest relationships (Barnes & Duck, 1994). Researchers over several decades have consistently linked these types of interactions to important life outcomes and health benefits (e.g., Shor et al., 2012, 2013; Shor & Roelfs, 2013). Although past research has highlighted the importance of meaningful social interactions, there is still a limited and disjointed understanding of these social interactions and the characteristics that make them valuable. Meaningful social interactions are coming under scrutiny as people increasingly turn to social media for these exchanges; as with any new technology, people are apprehensive about its potential impact. Are online interactions less meaningful than offline ones? Is the quality of social interactions decreasing as technology use increases? Can people have meaningful interactions mediated by technology? As we increasingly integrate technology into our daily lives, it is important to understand what makes an interaction valuable so we can better shape our institutions and technology to strengthen society (Aron & Aron, 1986; Shteynberg, 2015). To build the right "social infrastructure" that helps facilitate meaningful social

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interactions (Klinenberg, 2018, p. 1), we need to understand the core ingredients of quality social interactions. The goal of this research is to examine meaningful social interactions in today's media landscape, and what makes some interactions more meaningful than others.

## Literature Review

### *Meaningful Social Interactions*

Scholars in psychology, sociology, and other disciplines have advanced our knowledge of the associations of social behaviors, social relationships, and social network structures with different physical, health, and emotional outcomes. For example, in a series of meta-analyses, Shor and colleagues have shown moderate associations between all-cause mortality and the frequency of people's social contact (Shor & Roelfs, 2015), their membership and participation in religious and other voluntary associations (Shor & Roelfs, 2013), their marital status (Shor et al., 2012), and the social support they receive from friends and family members (Shor et al., 2013). Social interactions are more than just social behaviors that people enjoy; they can shape important life outcomes such as how quickly people heal and how long they live (Anderson et al., 2011; Baumeister & Leary, 1995; Brubaker et al., 2012; Cohen, 2004; Cooper et al., 1992; Echterhoff et al., 2009; Gomillion et al., 2016; Holt-Lunstad et al., 2015; Levine & Higgins, 2001; Pinel et al., 2006; Thoits, 2011; Wheatley et al., 2012). Social interactions also create a sense of "interdependence" (Kelley & Thibaut, 1978) and allow for the exchange of memories, resources, and traits, ultimately expanding and merging people's identities and creating cohesion (Aron & Aron, 1986; Shteynberg, 2015).

Entire research streams and instruments have evolved to study the attributes of social interactions (Kamarck et al., 1998; Reis & Wheeler, 1991), their subjective quality (e.g., UCLA Loneliness scale from Russell et al., 1980), and the social support associated with them (e.g., the Social Support Questionnaire from Sarason et al., 1983). These instruments often ask people to assess the meaningfulness of their relationships, the frequency of their meaningful social interactions, and how their interactions make them feel. These instruments have led to decades of work exploring the associations between meaningful interactions and various covariates (Hawkley & Cacioppo, 2010; Holt-Lunstad et al., 2010; Klinenberg, 2013). However, much of this work has only looked at people's overall assessment of their social interaction quality, studied only specific aspects of interactions in isolation, or focused mainly on the link between meaningful interactions and specific outcomes, such as loneliness. This leaves a lack of consensus on what meaningful interactions are holistically and leaves a gap in understanding on what these are in people's own words, which this research hopes to fill.

### *Characteristics of Meaningful Interactions*

Although there is a limited holistic understanding of meaningful social interactions, research has explored various factors independently that may or may not facilitate meaningfulness during a social interaction including who is involved (e.g., strangers or romantic partners) and what happens before, during, and after the interaction (Cooper et al., 1992). One of the largest bodies of research has focused on the impact that the interaction partner has on how people evaluate their interactions. For example, people tend to rate interactions with stronger ties, such as friends, family, and romantic partners, as higher quality than interactions with weaker ties, such as acquaintances and strangers (Baym et al., 2004; Reis et al., 2017). Stronger ties and in-group members can bolster an experience, while weaker ties and out-group members often have little impact on an experience and sometimes detract from it (Boothby et al., 2016; Eskenazi et al., 2013; Raghunathan & Corfman, 2006; Shteynberg, 2010, 2015; Shteynberg & Apfelbaum, 2013). Yet sometimes weaker ties can enhance meaningfulness because of the novel information and tangible support they can provide (N. Lin et al., 2006; Wellman & Wortley, 1990). The number of interactors, and not just their identities, may also be important since some research suggests people find more meaning in smaller groups than larger ones (Hilvert-Bruce et al., 2018). Some have also theorized that because many of our interactions evolved in small group settings, people may be more comfortable in such settings (Shteynberg, 2015). However, as people increasingly interact with larger audiences through social media, there needs to be a better understanding of the impact, if any, that the number of people involved has (Y. R. Lin et al., 2014; Shteynberg, 2015).

In addition, prior research has highlighted that the activities in the interaction may also influence meaningfulness. For instance, activities that take place during an interaction can play an important role in improving well-being (Offer, 2013; Reis et al., 2000). Research has found that co-workers who engaged in activities like chatting or eating and drinking together felt less stressed (Henderson & Argyle, 1985). Playing sports together has also been found to enhance social integration and cooperation (Long & Sanderson, 2001). In addition, associated activities like planning that occur before the interaction starts may affect meaningfulness. While prior research has found that many social interactions are spontaneous in nature (Maitlis et al., 2013), it is unclear whether planning impacts meaningfulness. For instance, planning events may create expectations and require effort which could make planned interactions, especially leisure ones, less enjoyable than spontaneous ones (Tonietto & Malkoc, 2016). Similarly, memorializing an interaction for future reminiscing could matter for meaningfulness (Barasch et al., 2017; Diehl et al., 2016). Through a series of experiments, Diehl and colleagues (2016) found that photo-taking made experiences more enjoyable because people engaged more in the interaction. In addition, meaningful social interactions may

be more likely to be remembered, which has been linked with positive outcomes like relationship satisfaction and happiness (Bazzini et al., 2007; Bryant et al., 2005; Lyubomksky et al., 2005; Strack et al., 1985).

### *Meaningful Interactions and Technology*

For more than three decades, researchers have debated the impact of technology on the quality of people's interactions. Scholars have noted that face-to-face interactions are the "prototypical case of social interaction" (Berger & Luckmann, 1966, p. 43) because "in person" is our oldest, most used, and the richest communication medium (Baym et al., 2004). As technological advancements have made new modes of communication possible (e.g., from letters and phone calls to social network sites), some scholars have proposed that technology-mediated communication could be "hyperpersonal," providing communicative advantages that exceed traditional face-to-face interaction quality (Walther, 1996). However, many scholars have questioned the quality of such interactions (see more in Kiesler et al., 1984; Nie, 2001; Putnam, 2000; Scott & Carrington, 2011; Sproull & Kiesler, 2008; Wang & Wellman, 2010) and highlighted the importance of being physically together in shared spaces (Klinenberg, 2018).

Studying technology-mediated communication like voice calls and emails, research has noted the lack of social cues available in comparison to face-to-face interactions and questioned the potential social support available (Holtzman et al., 2017; Jin & Park, 2013; Short et al., 1976; Sproull & Kiesler, 2008). Newer technologies, such as social network sites and online groups and forums, have faced similar scrutiny (Cummings et al., 2002; Fernback, 2007; Hunsaker et al., 2020). For example, some research has found that participants judge face-to-face interactions as higher quality than technology-mediated communication, especially online text-based communication (Brubaker et al., 2012; Fernback, 2007; Lee et al., 2009; Williams et al., 2006). Some early research also found online communication to be especially problematic for maintaining social relationships (Cummings et al., 2002); similarly, other research has highlighted that online-only friendships are rare (Baym et al., 2004; Swinth & Blascovich, 2002; Terveen & McDonald, 2005; Wang & Wellman, 2010; Williams et al., 2006). However, some research has started to suggest that technology-mediated interactions could be catching up to face-to-face interactions in terms of quality (Bueno Alastuey, 2011; Gonzales, 2014).

In addition to the communication medium, its synchronicity (Brennan, 1998) could also affect meaningfulness. Interactions are synchronous when the people involved are engaged at the same time. Although past scholars have considered synchronicity as a binary, defining feature of a communication channel (e.g., in-person interactions are synchronous while email is not), communication channels today vary in degree of synchronicity (e.g., fast replies in instant messaging applications or typing indicators when someone is composing a message). Synchronous interactions may be more meaningful because of the "amplification effects" synchronicity can produce (Boothby et al., 2014; Martin et al., 2015; Reis et al., 2010, 2017; Shteynberg, Hirsh, Apfelbaum, et al., 2014; Shteynberg, Hirsh, Galinsky, et al., 2014); such interactions have been connected to more vivid memories, intense feelings, and motivation (Baron-Cohen, 1997; Boothby et al., 2014, 2016; Carr & Walton, 2014; Eskenazi et al., 2013; He et al., 2011, 2014; Martin et al., 2015; Shteynberg, 2010, 2015; Shteynberg & Apfelbaum, 2013; Shteynberg & Galinsky, 2011; Walton et al., 2012; Wiltermuth & Heath, 2009).

While the research cited here suggests attributes of interactions that could enhance their meaningfulness, much of this work has focused on a limited sample (e.g., college students only or United States only), focused on only one attribute at a time (e.g., only tie strength or only mode of communication), and rarely tried to understand a social interaction as the unit of analysis. As a result, we are left with a fragmented understanding of meaningful social interactions and the relationship among their attributes. In addition, it has been more than a decade since a study holistically explored meaningful social interactions across a variety of communication channels (Baym et al., 2004). Since then, both the variety and the quantity of technology-mediated communication have continued to increase. Utilizing both qualitative and quantitative data, the current research takes a deep dive into understanding more holistically what meaningful interactions are, both subjectively and objectively, and what characteristics help evoke meaningfulness. The research presented here examines a diverse set of social interactions and a diverse set of attributes simultaneously, collected from a large, international sample from the United States, Japan, and India, to answer the following research questions:

RQ1: What are meaningful social interactions?

RQ2: What are the attributes of social interactions associated with meaningfulness?

## Methods

To understand what makes social interactions meaningful, we conducted an online survey in late 2018 utilizing a YouGov panel.[1] YouGov is a research company that provides access to online panels in more than 30 countries. This study utilized YouGov's panels for the United States, India, and Japan along with its quota frames for age, gender, race (US only), and internet usage. Quota frames were created using publicly available sources like census data. These countries were selected based on variations in technology adoption as well as cultural differences. Prior to fielding the survey online, cognitive interviews were conducted with people from each country to help ensure questions were understood

similarly across countries. The survey was piloted on YouGov and Amazon Mechanical Turk. Any teenage participants (aged 13–17 years) had explicit parental consent.

More than 5,200 people filled out the survey. Roughly, one-third (30%) of the responses came from India, 31% from Japan, and 38% from the United States. The survey was available in English and Japanese. Participant demographics are described in Table 1. Approximately 10% of the responses were removed because the first open-ended response, in which respondents described a recent interaction, was blank, irrelevant, or the participant wrote that they had not had a recent social interaction.[2] This left 4,632 usable responses.

## Survey Design

Participants began the survey by describing their most recent social interaction in an open-ended question and then were asked to use that interaction to answer the rest of the survey.

*Prompt.* To collect a wide variety of social interactions varying in levels of meaningfulness, two-thirds of the respondents were randomly prompted to describe their *most recent social interaction* and one-third to describe their *most recent meaningful social interaction.* Except for the word *meaningful*, the questions were identical and read,

> In this survey, we'd like to hear more about your most recent [meaningful] social interaction. It can be online or offline. Describe your most recent social interaction in the box below. Please share as many details as you feel comfortable.

The survey did not define any of the terms used (e.g., "meaningful"), allowing the participants to interpret the words themselves. Participants described their interaction in their own words in an open-ended text box. The remainder of the survey asked about this interaction: "Throughout the rest of this survey, stay focused on the social interaction you described above, and answer ALL of the remaining questions in the survey about this social interaction." Regardless of which prompt the participants saw, once they described their social interaction, they then rated how meaningful and valuable the interaction was and then explained in an open-ended text box why they thought it was or was not meaningful. Then they answered a series of close-ended questions to capture the attributes of the interaction: who was involved, what activities occurred during the interaction, whether or not it was planned, whether or not it was memorialized, what communication channel was used, and whether or not the interaction was synchronous.

## Data

The analyses described in this article combine data elicited from both prompts described above (3,162 "most recent" and 1,470 "most recent meaningful" interactions).[3] Tables 1 and 2 present descriptive statistics for all the variables.

**Table 1.** Participant Social Background.

| | Overall sample (%) |
|---|---|
| Gender | |
| Men | 52 |
| Women | 48 |
| Age (years) | |
| 13–17 | 28 |
| 18–29 | 19 |
| 30–44 | 23 |
| 45–64 | 26 |
| >65 | 5 |
| Has a child below 18 years | 18 |
| Internet use daily | 89 |
| United States | 38 |
| India | 30 |
| Japan | 31 |

*Participant Backgrounds.* Respondents answered questions about their age, gender, internet use, and if they had children below 18 years of age. Roughly half identified as men (see Table 1).

*Meaningfulness Rating.* Respondents rated their social interaction on two unipolar Likert-type scales from 1 = *meaningless* to 5 = *meaningful* and from 1 = *valueless* to 5 = *valuable*. Meaningfulness, the main outcome of our quantitative analyses, was measured as the average of these two items ($\alpha = .81$). "Meaningful" and "valuable" were not defined for participants. Average meaningfulness for the sample was high (4.14 out of 5; $SD = 0.93$). While this positive skew is partially because of the meaningful interaction prompt, even participants in the regular interaction prompt rated their interactions as meaningful ($M = 4.06$, $SD = 0.96$).

*Meaningfulness Reason.* To help define what is a meaningful interaction, the main goal of the qualitative analysis (RQ1), respondents were asked to explain their meaningfulness rating in an open-ended text box. If they rated the interaction on the "meaningful" item described above as a 3, 4, or 5,[4] they were asked, "What was the MAIN reason why this social interaction was meaningful?" If they rated the interaction as 1 or 2 on the meaningful item, they were asked, "What was the MAIN reason why this social interaction was not meaningful?"

*Interaction Partners.* "Who was part of the social interaction? (select all that apply)." People could select from "spouse/girlfriend/boyfriend/partner," "close friend," "friend," "someone from work or school," "family," "someone I don't know," "acquaintance," "community member/group member," "celebrity/public figure/creator/online personality," "professional (doctor, server, driver, etc.)," "neighbor," or "other." Each option produced a binary response (e.g., a neighbor was present or not). Conceptually, similar categories were combined to

**Table 2.** Social Interaction Descriptives.

| | | Overall sample (%) |
|---|---|---|
| Meaningfulness rating | | *M* = 4.14; *SD* = 0.93 |
| Interaction partner | Strong tie | 72 |
| | Community tie | 24 |
| | Work tie | 26 |
| | Weak tie | 33 |
| | Number of interaction partners | Md = 4; IQR = 8 |
| Activity | Conversing | 61 |
| | Eating | 35 |
| | Listening to music | 22 |
| | Studying | 21 |
| | Celebrating | 20 |
| | Exercising | 19 |
| | Other activities | 55 |
| Planned | | 47 |
| Memorialized | | 33 |
| Communication medium | Phone/voice call | 18 |
| | Video call | 10 |
| | Text message/instant message/SMS | 19 |
| | In person | 64 |
| | Email | 12 |
| | Mail | 6 |
| | Social media/social network site | 24 |
| | Other | 9 |
| Synchronicity | | 75 |

IQR: interquartile range.

produce the final main binary variables: strong ties ("spouse/girlfriend/boyfriend/partner," "family," "close friend," or "friend"); community ties ("community member/group member" or "neighbor"); work ties ("someone from work or school"); and weak ties ("someone I don't know," "acquaintance," "celebrity/public figure/creator/online personality," "professional [doctor, server, driver, etc.]," or "other"). The majority of interactions (72%) involved at least one strong tie, a quarter (24%) involved a community tie, and another quarter (26%) involved a work tie. About one-third (33%) involved a weak tie. Participants were also asked, "how many people, including yourself, were part of the social interaction?" (open text box with numeric validation). People described interactions involving one person to thousands of people (Md=4, interquartile range [IQR]=8). Because this variable had a long-tailed distribution, with a small number of interactions having many participants, we took the log of this number during the analyses.

*Activity During Interaction.* "What did you do during the social interaction? (select all that apply)." People selected from a list of 21 activities, such as "talked/chatted/conversed," "volunteered/helped others together," "played a video game together," "listened to music/podcast together," and "read together," and "other." This list was constructed from previous research that explored how people spend their time (U.S. Bureau of Labor Statistics, 2019) and further refined based on the cognitive interviews and pilot data responses. Statistical analyses included the six most frequent activities as binary variables, such as talking (in 61% of interactions), eating (35%), listening to music (22%), studying (21%), celebrating (20%), and exercising (19%), and collapsed the remaining 15 activities into a binary variable of "other activities" (55%).

*Planning.* "Was this social interaction planned in advance?" Respondents described 47% of their social interactions as planned in advance.

*Memorialization.* "Did you take any photos or videos of the social interaction?" One-third (33%) of the participants said they captured their social interaction through photo or video.

*Communication Medium.* "How did the social interaction take place? (select all that apply)." Responses were as follows: "phone/voice call," "video call," "text message/instant message/SMS," "in person," "email," "mail," "social media/social network site," "dating app/site," "video game," and "other (please specify)."[5] Each of these responses was treated as individual binary variables because people could select more than one. The majority took place in person (64%), followed by social media (24%), messaging (19%), phone calls (18%),

emails (12%), video calls (10%), mail (6%), video games (6%), dating app/site (3%), and other (<1%). Dating app/site, video game, and other were collapsed due to low frequency.

*Synchronicity.* "Did you participate in this social interaction at the same time as the others who were part of this social interaction?" This variable was treated as a binary variable for those who responded "yes" to this question versus not. Three-quarters of the interactions were synchronous (75%).

## Methods of Analysis

To understand the interactions holistically, this research utilized a convergent mixed method design (Fetters et al., 2013). RQ1 used a qualitative approach, involving content analysis, to understand meaningful social interactions in respondents' own words. RQ2 utilized a quantitative approach, involving linear regressions, to understand the characteristics of social interactions most likely to be associated with meaningfulness. Merging the qualitative and quantitative data in the discussion allowed for a more in-depth understanding of meaningful social interactions and the ability to create a working framework.

*Qualitative Analysis (RQ1).* The goal of the qualitative analysis was to produce a holistic understanding of meaningful social interactions from the perspective of those who participate in them by content analyzing (1) participants' open-ended descriptions of social interactions they rated as meaningful and non-meaningful and (2) their explanations for their meaningfulness rating. We leveraged Strauss and Corbin's (1994) grounded theory approach, including open and theoretical coding. Two of the authors coded the data. They utilized line-by-line coding and a spreadsheet for the process. The spreadsheet contained a column with the open-ended responses described above; the remaining columns were used for conceptual memoing in the early rounds of developing a coding scheme. These free-form memos were eventually translated into codes about the people involved in the interactions, activities associated with the interactions (i.e., mentions of experiences, events, topics, and interests), and the impact of the interaction (i.e., emotional, informational, and tangible) (see Table S2 for the final coding scheme in the online supplementary material). Through four rounds of training on new random subsets of data (~1% each time), two researchers, blind to the meaningfulness classification of an interaction, coded the open-ended responses to develop the codebook. The coders met weekly after each round to compare memos, applications of codes, discrepancies, and refinements of the evolving codebook. For example, in explaining why they rated an interaction as meaningful, participants described a variety of informational gains, utilizing language indicating that they "learned," felt "updated," "added new knowledge," "[were given] lots of information," and "discussed" new topics. In contrast, in explaining why they judged an interaction as non-meaningful, people less often referenced any form of information exchange and sometimes explicitly referenced the lack of it, with phrases like "there was nothing new or revolutionary discussed" or "Not[sic] information of real use." While the coders started off with memos noting the nuanced ways that information exchange was discussed, they ultimately collapsed these into the following codes: (1) the person referenced an information impact; (0) the person made no reference to an information impact at all; (−1) the person referenced a lack of information impact. Similar processes and refinements occurred for each of the themes discovered. After four rounds of coding on new subsets of data, no new themes emerged and the coders had achieved an acceptable level of inter-rater reliability.[6]

Overall, the open-coding process identified three overarching themes that were highlighted in people's responses for what made something meaningful or not: the people, activities, and impact. On the fifth and final round of coding, each rater independently coded an approximate 10% random sample of the open-ended responses, with approximately 1% of responses coded in common. For each survey response, and for each theme, the raters looked for an explicit reference of the theme, an explicit reference of the absence of the theme, or no mention of the theme at all. Agreement among the coders was excellent (Cohen's Kappa = .86). Any discrepancies identified were resolved and recoded. Similar to the training rounds, the researchers coded descriptions of both meaningful and non-meaningful interactions blind to their meaningfulness classification so that they could conduct a negative case analysis to look for instances when the themes were not present in meaningful interactions or when they were present in non-meaningful ones. See the "Results" section and Table 4 for a summary of the major findings based on the final round of coding.

*Quantitative Analysis (RQ2).* Researchers used linear regression to assess the relationship of meaningfulness ratings of social interactions based on respondents' demographics and characteristics of the social interactions suggested by prior literature (e.g., who was involved in the interaction, how the interaction happened). All independent variables in the model were binary except for the following: number of people (log-transformed continuous variable), age (categorical variable with 30–44 years as the omitted category), and country (categorical variable with US omitted). Table 3 shows the results for three models. Model 1 predicted meaningfulness from demographics only. Model 2 predicted meaningfulness from communication medium only. Model 3 included demographics, communication medium, and all of the characteristics of the interaction (e.g., activity type) as well as the prompt. Figure 1 shows the coefficients from the full model.

**Table 3.** Linear Regression Predicting What Makes an Interaction Meaningful.

| | | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|---|
| | | *B* | *SE B* | *B* | *SE B* | *B* | *SE B* |
| Interaction partner | Strong tie | | | | | .17*** | .03 |
| | Community tie | | | | | .09* | .04 |
| | Work tie | | | | | −.11** | .03 |
| | Weak tie | | | | | −.04 | .03 |
| | Number of interaction partners | | | | | .01 | .01 |
| Activity | Conversing | | | | | .14*** | .03 |
| | Eating | | | | | .07* | .03 |
| | Listening to music | | | | | .06 | .04 |
| | Studying | | | | | .12*** | .04 |
| | Celebrating | | | | | .14*** | .04 |
| | Exercising | | | | | .09* | .04 |
| | Other activities | | | | | .11*** | .03 |
| Planned | | | | | | .17*** | .03 |
| Memorialized | | | | | | .07* | .03 |
| Communication medium | Phone/voice call | | | .12** | .04 | .02 | .04 |
| | Video call | | | .10† | .06 | −.02 | .05 |
| | Text message/instant message/SMS | | | .09* | .04 | .03 | .04 |
| | In person | | | .11*** | .03 | −.04 | .03 |
| | Email | | | .06 | .05 | .03 | .05 |
| | Mail | | | .02 | .07 | −.01 | .07 |
| | Social media/social network site | | | .05 | .04 | .02 | .04 |
| | Other | | | −.13* | .05 | −.12* | .05 |
| Synchronicity | | | | | | .14*** | .03 |
| Men | | −.16*** | .03 | | | −.14*** | .03 |
| Age (30–44 years omitted) | 13–17 | .11** | .04 | | | .03 | .04 |
| | 18–29 | −.13** | .05 | | | −.12** | .05 |
| | 45–64 | .17*** | .04 | | | .16*** | .04 |
| | >65 | .31*** | .07 | | | .17* | .07 |
| Has a child below 18 years | | .10** | .04 | | | .07† | .04 |
| Internet use daily | | .16*** | .04 | | | .10* | .04 |
| Country (US omitted) | India | .31*** | .04 | | | .10* | .04 |
| | Japan | .04 | .03 | | | .09* | .04 |
| Prompt | | | | | | .25*** | .03 |
| Intercept | | 3.89*** | .06 | 4.02*** | .03 | 3.14*** | .08 |
| Adjusted $R^2$ | | .03 | | .01 | | .11 | |

†$p < .1$. *$p < .05$. **$p < .01$. ***$p < .001$.

## Results

### *Understanding Meaningful Social Interactions Qualitatively*

To answer RQ1, on what are meaningful social interactions, we explored the themes people used to describe their social interactions and why they were meaningful or not. The types of interactions participants considered meaningful varied greatly, ranging from major life events like weddings and birthdays to everyday moments like dinners and greetings to loved ones. Typical descriptions of a meaningful social interaction included the following: "My birthday celebration at McDonalds . . . I invited my friends on my birthday. Hence bonding with them was increased" as well as:

> My most meaningful recent social interaction was with a friend I had known for years but we lost touch. We recently reconnected on Facebook and we both reminisced about the past and caught up about what we were up to. It was meaningful because I felt very connected to my past and present self.

People's social interaction descriptions and rationales for why they classified them as meaningful or not typically discussed the following three themes: people (who was involved), activities (the experiences/topics/events involved), and impact (what resulted because of the interaction). Although all three themes were present in both meaningful and non-meaningful interactions, each theme was more likely to be referenced in meaningful social interactions. For example, when people described social interactions they considered meaningful, they

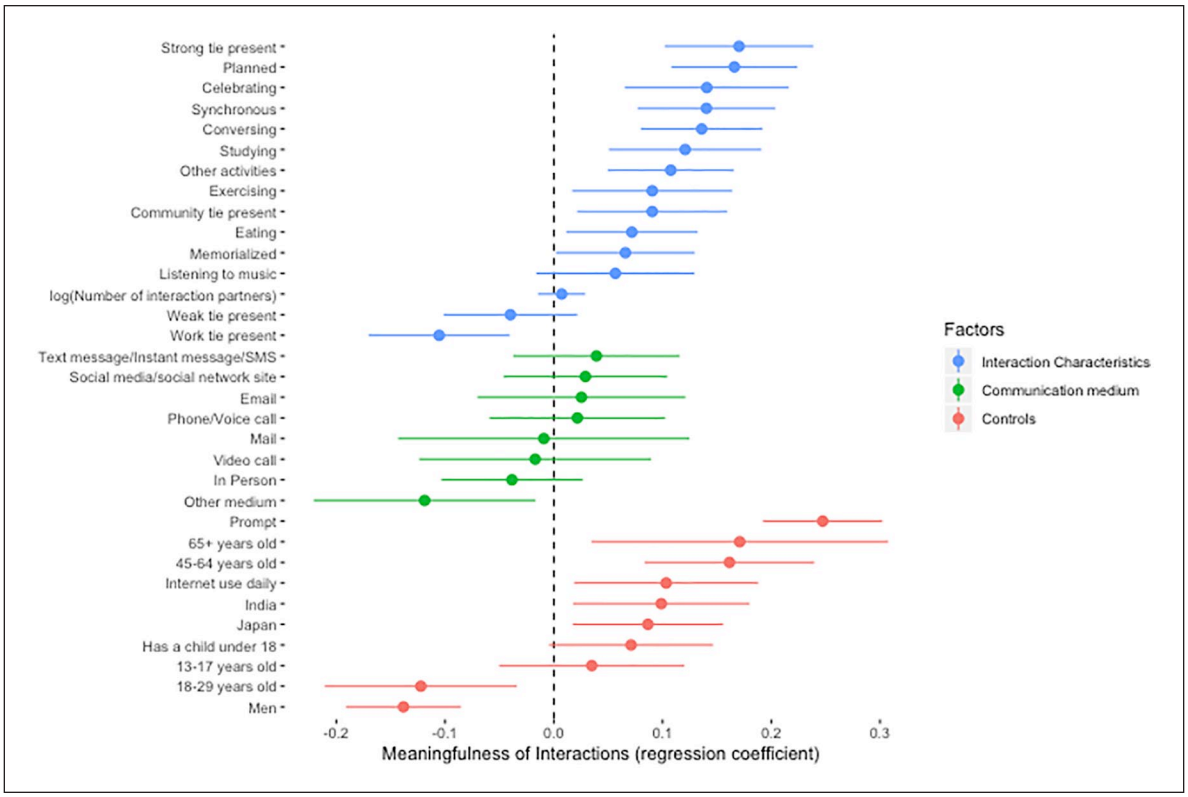


**Figure 1.** Coefficient plots from linear regression predicting what makes an interaction meaningful. Dots represent the coefficients from the regression analysis in Model 3 in Table 3, predicting meaningfulness ratings, and lines represent standard errors.

were more likely to describe the people and activity involved: "Coach praised me during football practice" or "text messaging with a co worke[r] to trade shift." In contrast, non-meaningful interactions were less likely to describe the people and/or activity involved: "texting" or "I posted articles on a facebook page I manage."

However, people rarely classified an interaction as meaningful or not meaningful solely *because* of the topic or person alone. For example, in only a handful of cases did people say the interaction was meaningful, "Because of who it was with" or "Because I got to spend it with my best friend." In other words, people were more likely to use people and activities as descriptors and contributors, and these were more common in meaningful social interactions than non-meaningful ones, but they did not seem to differentiate or be at the core of what actually made an interaction meaningful.

So then what made an interaction meaningful? The grounded theory approach revealed that the attribution of meaningfulness was most likely to be tied with the third major theme identified, the impact generated from the interaction. It was not just the people or the topic that made the interaction meaningful, but what resulted with the people or the activity. For example, rather than an interaction being meaningful because it was with someone's parent or during a major life event, the interaction was meaningful because there was impact. For example, it brought them "closer" with that person or because that person "taught" them or because they were able to "help" that person out.

In about two-thirds of the meaningful social interactions, people described its impact. The impact contributed to something beyond the immediate interaction itself. The impact could be big or small, planned in advance or spontaneous, but it benefited the respondent or another person in the interaction or both. It was typically in the form of positive emotions or information, and sometimes something more tangible. While the majority of descriptions of meaningful social interactions provided detail about the impact, including the nature of the impact and who experienced it, descriptions of non-meaningful interactions were shorter and included fewer details; in almost half of the non-meaningful interactions, people explicitly described the interaction as *lacking* the impact required to make it meaningful, using phrases, such as "no meaning," "trivial," "small talk," "nothing to offer," "not genuine," "only for timepass," and "a waste of time." Although people did not always explicitly articulate the exact impact in their descriptions of meaningful social interactions, in the subset of responses coded, people never explicitly described the interaction as lacking impact or used terms like these.

Instead, the meaningful social interactions often included mention of one or more of the following types of impact: emotional impact, informational impact, and tangible impact. Emotional and informational impacts were more commonly

referenced than tangible impact. Table 4 summarizes these impacts. The interactions were coded as having emotional impact when people highlighted feelings experienced or witnessed, typically in the form of empathy, love, trust, or care that led to a change in mood or the strengthening of a relationship. For example, "I had a 2hr conversation with my partner wherein we had a back-and-forth dialogue, each building upon the other's ideas. I came away from it feeling like we had truly bonded and become closer." Informational impact happened when knowledge, advice, or a better understanding was developed, often through activities, such as teaching, advising, or instructing. For example,

> My most recent meaningful social interaction was with my engaged daughter. She was discussing decorating her soon to be finished new home. She asked my advice on colors, styles, furniture and accessories I was glad that she wanted my input and help. After discussing all of the possibilities, she made the final decision herself.

Finally, tangible impact occurred when someone in the interaction gained a concrete benefit, typically in the form of goods or services. For example, "The recent social interaction was during the kerala floods. we were busy helping the affected ones. we provided them necessary food and water."

While certain objective attributes may make an interaction more or less likely to be meaningful as the next section describes, meaningfulness is ultimately subjective. The single factor that most distinguished meaningful interactions from non-meaningful ones was that meaningful interactions had an impact that respondents felt went beyond the interaction itself to enhance their lives, the lives of their interaction partners, or their relationships, with emotional, informational, or tangible impact.

### *Understanding Meaningful Social Interactions Quantitatively*

To answer RQ2 about the specific attributes that may facilitate or inhibit a meaningful interaction, we conducted a series of linear regressions on respondents' meaningfulness scores for recent interactions. Table 3 presents the regression models, and Figure 1 visualizes the relative sizes of the coefficients.

*Interaction Partner.* Respondents rated interactions as more meaningful when a strong tie was present than when a strong tie was not, $B=.17$, $t(4483)=4.89$, $p<.001$. Community ties were also associated with more meaningful interactions, although not as strongly, $B=.09$, $t(4483)=2.57$, $p=.01$. In contrast, interactions involving work ties were rated as less meaningful, $B=-.11$, $t(4483)=-3.19$, $p=.001$, and there was no association with the presence of weak ties, $B=-.04$, $t(4483)=-1.27$, $p=.20$. No statistically significant association was detected between the number of people involved in the interaction and its meaningfulness, $B=.01$, $t(4483)=.65$, $p=.52$.

*Activities.* All of the activities except for listening to music had positive associations with meaningfulness. Controlling for the other variables in Model 3, the following activities were positively associated with meaningfulness: conversing, $B=.14$, $t(4483)=4.76$, $p<.001$; celebrating, $B=.14$, $t(4483)=3.66$, $p<.001$; studying, $B=.12$, $t(4483)=3.38$, $p<.001$; other activities, $B=.11$, $t(4483)=3.64$, $p<.001$; exercising, $B=.09$, $t(4483)=2.41$, $p=.02$; and eating, $B=.07$, $t(4483)=2.32$, $p=.02$. There were no statistically significant differences among activities. That is, respondents found the interactions more meaningful when people were doing something together; it did not matter if the activity was a celebration, a meal, or exercising.

*Planning.* Planned interactions were rated as more meaningful than spontaneous ones, $B=.17$, $t(4483)=5.62$, $p<.001$.

*Memorialization.* People rated social interactions documented through photos and videos as more meaningful than ones without memorialization, $B=.07$, $t(4483)=2.02$, $p=.04$.

*Communication Medium.* Because of uncertainty in the literature about the role that communication medium plays in determining the meaningfulness of social interactions, we ran Model 2 (Table 3) with just the communication media as predictors. In Model 2, interactions that took place in person were more meaningful than interactions that did not, $B=.11$, $t(4593)=3.46$, $p<.001$. Similarly, phone calls and texting were both more meaningful than interactions that did not involve those channels, while interactions over social media were not more or less meaningful than interactions that took place without social media. However, in the full model (Model 3), which controlled for who was involved, what people did, and the synchronicity of the interaction, the association between "in person" and meaningfulness disappeared, $B=-.04$, $t(4483)=-1.16$, $p=.25$ (see Model 3), suggesting that the importance of communication medium may be more linked to the traditional factors that affect meaningfulness, such as who was involved, rather than the medium in and of itself.

*Synchronicity (RQ8).* Synchronous interactions were judged as more meaningful than asynchronous ones, $B=.14$, $t(4483)=4.35$, $p<.001$.

## Discussion

### *Defining Meaningful Social Interactions and Understanding Their Core Ingredients*

Scholars have studied various aspects of meaningful social interactions for decades (Baumeister & Leary, 1995; Bhargave & Montgomery, 2013; Blumer, 1986; Hardin & Higgins, 1996; Jolly et al., 2019; Levine & Higgins, 2001; Searle & Willis, 1995). While an abundance of research

**Table 4.** Meaningful Social Interaction Impact.

| Impact type | Description | Verbatim quotes | Percent of meaningful interactions[a] (%) | Percent of non-meaningful interactions[a] (%) |
|---|---|---|---|---|
| Emotional impact | Describes the interaction as leading to emotions such as empathy, sadness, authenticity, or love. As a result, they felt different or their relationship changed. | "I went to chucky cheese with my downs syndrome cousin I had fun and I enjoyed being with my family . . . [it was meaningful b]ecause I had been feeling down lately and it helped me relieve some stress."<br>"I'm an artist and I'm also an introvert . . . the other day I was feeling especially down, so i got brave and posted about it on Facebook. I received a huge response from the art community, who rallied around me and offered their love and support for my artwork and for me. It meant the world to me and helped me feel less isolated and alone." | Positive emotions: 28<br>Mixed emotions: 0<br>Negative emotions: 0 | Positive emotions: 3<br>Mixed emotions: 2<br>Negative emotions: 7 |
| Informational impact | Describes the interaction as teaching, advice-giving, disclosing, discussing, or instructive so that they or someone else developed a better understanding of something. | "It was at a bible study at church, the first time attending . . . I was learning about a common subject."<br>"live chat during a live youtube stream. Got information on a TV show I might watch." | 35 | 12 |
| Tangible impact | Describes the interaction as providing goods or services so that they or someone else gained something physically in life. | "I connected with friend about a job through Facebook and found a temporary job through that connection. It allowed me to get a job."<br>"collecting food & used clothes for the needy people. [It was meaningful because it was] utilization resources which otherwise would go waste." | 17 | 7 |
| No impact | Describes the interaction with explicit lack of emotional, tangible, informational, or any generic impact. | "I talked to people in Spanish class . . . I didn't directly connect with anyone and there will literally be no use for this interaction in the near future that will affect me long-term."<br>"I posted on Facebook . . . it was a casual interaction, not bearing my soul." | 0 | 48 |

[a]Based on a random subset of data (~10% of responses).

exists that measures social interactions through validated instruments and explores their relationship with health and social and emotional dynamics (Hawkley & Cacioppo, 2010; Holt-Lunstad et al., 2010), little research has studied a meaningful social interaction as the unit of analysis or taken a holistic view to identify our most important types of interactions. As people increasingly utilize technology for interactions, more and more questions have arisen around the quality of our interactions through these media. The current research used a large and diverse sample of people and interactions to examine what makes an interaction meaningful or high quality in today's mediated world. This more holistic perspective combining qualitative and quantitative methods yielded a bird's-eye perspective that helps differentiate meaningful interactions from less meaningful ones as well as provides a framework for thinking about interactions more generally. A comparison of people's verbal descriptions of their meaningful interactions to less meaningful ones suggests the following definition for meaningful interactions:

> Meaningful social interactions are interactions that people believe enhance their lives, the lives of their interaction partners, or their relationships, with emotional, informational, or tangible impact.

Although this research took a bottom-up approach to understand meaningfulness, we found that the most distinct difference between meaningful and non-meaningful interactions, *impact*, is similar to the essence identified in existing social support frameworks (Cohen et al., 1985; House, 1987; Thoits, 2011). While people rarely used the word "support" when describing their interactions in this study, the results suggest the importance that social support, even if it is "invisible," plays in what makes an interaction worthy (Bolger et al., 2000). While social interactions are needed to strengthen relationships and build community (Argyle et al., 1985; Roloff & Berger, 1982; Thoits, 2011), and all relationship types have the potential to convey social support (N. Lin et al., 2006; Wellman & Wortley, 1990), the present research strongly suggests that the exchange of social support and micro-impacts they have on people's lives is a key outcome that makes interactions valuable. This research provides further evidence that instruments assessing perceptions of interaction quality (e.g., social support and loneliness) tap into constructs that people think matter and also ultimately make a difference in their lives. While these older instruments tend to pick up on support at the aggregate level of people's relationships, this research highlights support can also be seen even at an individual interaction level.

What makes interactions meaningful are the moments of change in people's lives as they experience shifts in their emotions, knowledge, and more; these become the building blocks that eventually lead to sustained meaningful relationships (Barnes & Duck, 1994). While the qualitative findings in this study helped get to this deeper meaning, the qualitative and quantitative findings in combination helped highlight the facilitators of what may enable impact and make it more likely to happen. For example, in both the qualitative and quantitative data, the people and activities involved came to the fore as elements for meaningful social interactions. However, according to the qualitative data, the people and activities did not seem to be the primary reason why the interaction had meaning, but they appeared to be ingredients that were likely to invoke the primary reason (the impact generated during the interaction). For example, prior research has found that strangers can induce stress (Martin et al., 2015), while loved ones may induce relief (Boothby & Clark, 2017; Helm et al., 2014), which may make it more likely one is able to disclose information and emotions. Interactions in our study with strong ties may also have been more likely to be linked with meaningfulness because of interdependence and shared history (Kelley & Thibaut, 1978), which may have made it more likely to know or guess what an individual needed and how to provide it. Similarly, this research found a variety of activities were linked with meaningfulness regardless of whether they were with strong or weak ties, and this may have been because activities could have provided material to bond over and make memories together; additionally, activities may have served as justification to spend more time together leaving more opportunity for information and emotions to exchange. For weak ties, activities could have served as ice breakers. Activities may also have boosted people's well-being in the moment (Offer, 2013; Reis et al., 2000), leading them to appreciate the interaction more during the survey.

While factors like the people and activities involved in an interaction were linked with meaningfulness in both the open-ended verbal descriptions, and the close-ended, quantitative data, other potential facilitators like synchronicity, planning, and memorializing were only visible from the quantitative analysis. One explanation of this discrepancy is that the verbal descriptions may reflect people's beliefs of what makes an interaction meaningful, and people may not have been conscious of the impact that other attributes had on their evaluations of the interactions. For example, some people may not have been aware of the "amplification effect" (Boothby et al., 2014; Martin et al., 2015; Reis et al., 2010, 2017; Shteynberg, Hirsh, Apfelbaum, et al., 2014; Shteynberg, Hirsh, Galinsky, et al., 2014) that people can experience when engaged in activities synchronously. The difference in qualitative and quantitative research may also have been the result of the cross-sectional nature of this study, which makes it difficult to distinguish between interaction attributes causing meaningfulness versus reverse causation and feedback loops. For example, people may have memorialized their most meaningful social interactions because they wanted to cherish a memory; however, phototaking may also have caused people to engage in the interaction more (Diehl et al., 2016) or it may have been that documenting and sharing a social interaction may have made an already meaningful occasion more meaningful as it may

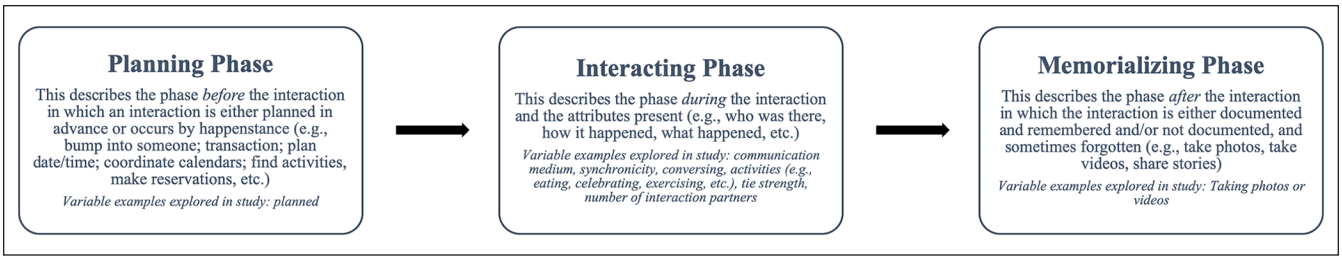


**Figure 2.** The life cycle of a social interaction. This figure highlights the life cycle of a social interaction and the different stages each interaction goes through. Each stage highlights the variables explored in this study.

have initiated some of the well-being effects of reminiscing (Bazzini et al., 2007; Bryant et al., 2005; Lyubomksky et al., 2005; Strack et al., 1985). Overall, this research highlights the importance of certain attributes that prior research has already individually identified as key facilitators of meaningfulness, including who is involved (Baym et al., 2004; Reis et al., 2017) and what happened during the interaction (Offer, 2013; Reis et al., 2000); only in this study we found that these mattered even after controlling for many attributes simultaneously.

### *Offline Interactions Versus Online Interactions*

One attribute, in particular, has been of great interest to the research community: whether the communication medium facilitates or inhibits meaningful social interactions. Although rhetorically face-to-face interactions are the presumed gold standard, this research highlights that meaningful social interactions happen through many different communication media. In daily life, people may have more meaningful social interactions face-to-face than online, but this is likely because people tend to have more face-to-face interactions than through other modalities (Baym et al., 2004; Gonzales, 2014). Although decade-old research has found face-to-face interactions to be higher quality than online interactions (Baym et al., 2004; Brubaker et al., 2012; Fernback, 2007; Lee et al., 2009; Williams et al., 2006), and early scholars worried about the "richness" of mediated channels (Daft & Lengel, 1986; Kiesler et al., 1984; Nie, 2001; Putnam, 2000; Scott & Carrington, 2011; Sproull & Kiesler, 2008; Wang & Wellman, 2010), this current research, which explored a diverse, international sample, and a dozen variables simultaneously, found that the medium may be less important than other interaction characteristics. Rather than treat communication media as monolithic, it seems more fruitful to think about communication media through affordances and capabilities (e.g., synchronicity; ability to engage in activities). Juxtaposing online versus offline or utilizing terms like "real life" to discuss in-person interactions may reduce and minimize the quality of the experiences people sometimes have on mediated communication channels today. Although social media platforms did not exist two decades ago, we found nearly one in four of people's most recent meaningful social interactions happened in on a social media platform; these social interactions were rated just as meaningful as those that happened in person.

### *Toward a Framework for Social Interactions*

To understand meaningfulness more holistically, we examined a wide variety of potential important characteristics of social interactions. Putting all these characteristics together and building on Cooper and colleagues' (1992) framework, we propose a new way to categorize social interactions and think about them and their link to meaningfulness more holistically. Figure 2 titled "The life cycle of a social interaction" highlights this updated framework. We propose three main stages of a social interaction: the planning (before) phase, the interacting (during) phase, and the memorializing (after) phase. The planning phase highlights whether people coordinated the interaction beforehand or whether it happened spontaneously or serendipitously. The interacting phase highlights all the characteristics that describe the interaction as it is occurring—from the participants involved, to the activities that transpired, and the medium through which it occurred. The memorializing phase captures whether the interaction is remembered, including through memories, storytelling, photos, videos, or more. The current research suggests that the details of each phase may play a role in how people reflect upon their interactions, as all the phases in this study had attributes that were associated with meaningfulness. Although most prior research has focused on the "interacting phase," future work can test and flesh out this framework, developing the details of each phase further.

## Limitations

While this research adds to the literature in defining meaningful social interactions and understanding their attributes in a large, international sample using both qualitative and quantitative methods, it had several limitations. This study used an online panel of respondents who regularly used the internet. Furthermore, while we aimed to capture people's most recent social interactions, some people may not have focused on a concrete example or their most recent interaction and may

have systematically underreported certain types of interactions. Finally, our study was cross-sectional, making it unclear whether the attributes studied caused meaningfulness or were just associated with meaningfulness; future research is needed to understand causality. Future work should also explore other methods, such as ethnography, experience sampling, and use of log or sensor data. Beyond these methodological limitations, there is still much left to explore in this domain: the main regression analysis only explained about 11% of the variance in meaningfulness. Additional research should continue to explore other variables that may mediate the relationship between the characteristics of an interaction and its meaningfulness and help build out the social interaction life cycle framework further.

## Conclusion

Using an international sample of more than 4,600 people reporting on a wide variety of online and offline interactions, this research explored what makes social interactions meaningful in today's media landscape. Meaningful social interactions are interactions that have impact on the people involved that transcends the event itself. Certain attributes are associated with more meaningful interactions, including interacting with strong or community ties and participating in shared activities, as well as engaging in interactions synchronously, and planning and memorializing them. Whether an interaction occurred online or offline was not associated with differences in meaningfulness after taking into account who was involved and what activity was done. The main findings held across the three cultures studied.

As society looks to develop ways to strengthen the social fabric, staying focused on meaningful social interactions as a core building block is imperative (Barnes & Duck, 1994). For those embarking on studying and building with this in mind, this work provides important methodological considerations, as well as a formal definition, measures, and a framework to help understand social interactions more holistically. Moving forward, researchers studying social interactions, particularly those focused on the impact of technology, should consider exploring and controlling for important characteristics identified in this study (e.g., who is involved). This work also suggests if society is looking for solutions to help foster cohesion and meaningfulness, particularly as technology-mediated communication continues to increase, the focus should be less on whether or not to use technology; instead, we should focus more on how the technology can support meaningfulness in life more generally by helping reveal the characteristics that matter the most. For example, how could technology enhance the ability to plan together, get together in person, or reminisce together? How could technology unlock the ability to do more activities together even if physically apart (e.g., co-reading, co-watching, and co-working out)? Findings from this type of research not only add to our theoretical understanding of communication more generally but may also help build better technology, norms, and relationships that ultimately better strengthen society.

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### Supplemental material

Supplemental material for this article is available online.

### Notes

1. https://today.yougov.com/about/about-the-yougov-panel/.
2. One of the authors read through each response and manually cleaned the data. Irrelevant responses were phrases like "Good" or "that means fully meaning full life style." The majority of these came from India where participants took the survey in English (regardless of their first language).
3. As a robustness check, we ran a supplementary analysis (Table S1 in the online supplementary material) testing for statistical interactions between prompt type and all relevant variables. As expected, participants with the "most recent meaningful" prompt rated their interactions as more meaningful than those with the "most recent" prompt. However, only one of the 21 interactions between the prompt type and variables describing interaction attributions ("prompt X 'other' activities") was statistically significant, $B=-.19$, $t(4462)=-3.076$, $p=.002$. Therefore, we combined both datasets in the present analysis and include the prompt as a control in our main analyses.
4. Because the mean for meaningfulness was high (4.1 out of 5), we coded the responses of 3, 4, or 5 as "meaningful." When evaluating people's free-response descriptions for those who gave a 3 for meaningfulness rating, the language appeared more similar to the descriptions for those who gave ratings of 4 or 5 than those who gave ratings of 1 or 2. Less than a percent of descriptions of interactions rated as 3 indicated the interaction was not meaningful (e.g., "Using bad words is not meaningful" or "Not sure that it was [meaningful].").
5. Those who selected social media were also asked to follow up and indicate on which site the interaction occurred. The majority of social interactions through social media occurred

on Facebook, WhatsApp, Instagram, and Line; for instance, 1 in 10 meaningful social interactions happened in part on Facebook.

6. While the open-ended responses in Japanese were explored utilizing Google Translate during the open-ended coding process, native Japanese speakers from YouGov formally coded the open-ended responses in Japanese for the major themes. The native speakers were trained with a codebook that included the codes, their formal definitions, and example quotes for each. All trends in the open-ended questions persisted across English and Japanese.

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