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Who (and with whom) uses more emoji? Exploring individual, relational, and motivational characteristics driving emoji use

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ABSTRACT

Emoji use, despite being pervasive in digital communication, is often dependent on individual characteristics (e.g., gender, age, personality), relational dimensions (e.g., intimacy with specific others), motives for using them (e.g., because emoji allow to better express emotions), and the context in which they are used (e.g., emoji use is considered more appropriate with closer interlocutors, such as friends). However, research has yet to examine if and how these variables associate with emoji use frequency when considered together. In a correlational study ($N = 444$), we explored the relative contribution of individual characteristics, perceived relatedness to others, and motives to explain the frequency of emoji use with different interlocutors. Hierarchical linear regressions showed that being younger, scoring higher on conscientiousness, and resorting to emoji for personal contact were correlates of emoji use frequency with closer interlocutors (e.g., family and friends). In contrast, being older, scoring lower on agreeableness, and perceiving more relational intimacy were correlates of emoji use frequency with more distant interlocutors (e.g., supervisors and doctors). Overall, results highlight the need to account for multiple variables at different levels to examine emoji use patterns in digital communication.

1. Introduction

The available set of emoji has been greatly improved in recent years, with around 2,000 emoji available in 2018 (Rodrigues et al., 2018) and 3,745 emoji in 2022 (emojipedia.org). The current set of emoji includes a wider representation of contents (e.g., emotions, activities, objects) and symbols (e.g., specific cultural symbols, such as flags), helping individuals to express and/or represent themselves (e.g., variations in skin tones) and meet their goals when communicating digitally. According to Unicode, 92% of the world's population who used the internet in 2021 also used emoji (Daniel, 2022). Research has made several efforts to understand when and why individuals use emoji with different interlocutors. Overall, the patterns of emoji use have been shown to differ according to individual characteristics (e.g., age, gender, personality; Liu & Sun, 2020; Prada et al., 2018), motives to use emoji (e.g., clarify messages or express emotions; Kaye et al., 2016; Liu & Sun, 2020), and contextual cues (e.g., distance between interlocutors; Cavalheiro et al., 2022). However, researchers have mainly focused on single (or restricted number of) variables and contexts when exploring emoji use patterns. We argue this approach offers a limited understanding of digital communication and, thus, conducted a study considering multiple variables from different levels at the same time. Our goal was to explore *if* and *how* each variable contributes to emoji use frequency.

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1.1. Differences in emoji use

Past research has shown differences in emoji use according to distinct variables and/or interlocutors. Overall, when asked about the reasons for including emoji in their communication, individuals indicated that emoji helped them improve self-expression (i.e., attribute an emotional tone to messages) and reduce ambiguity in written communication (e.g., making sure the other person understood what was meant; Kaye et al., 2016). Other studies indicated that individuals use emoji to match their interlocutor's communication style, signal compatibility, and improve interest in the interaction (Nexø & Strandell, 2020), and even to convey specific intentions when meeting potential partners (Rodrigues et al., 2022). More broadly, individuals report a tendency to use emoji more often when they communicate with closer interlocutors (Thomson et al., 2018) and less so when they communicate with more distant interlocutors (e.g., authority figures in work settings; Kaye et al., 2016; Riordan & Glikson, 2020). Supporting this, a recent study showed that participants deemed emoji use more appropriate in communications with closer interlocutors (e.g., family, friends) than with more distant ones (e.g., professors, doctors; Cavalheiro et al., 2022).

Considering individual differences, Prada et al. (2018) found that younger individuals and women reported using emoji more frequently in their daily digital communications. Younger participants also identified more strongly with motives to use emoji, including helping them to express their feelings, strengthen the content of messages, or even soften the content of a message. Likewise, Jones et al. (2020) found that women tend to use emoji more often when communicating with their family and friends, whereas men tend to use emoji more often when communicating with their co-workers. According to the authors, these findings align with previous research showing that women use smartphones more for social purposes, whereas men use them more for informational purposes (e.g., communicating with co-workers, J. Roberts et al., 2014).

Certain individual characteristics or traits have been associated with the frequency of (or motives for) emoji use. However, the findings are far from straightforward. For example, Völkel et al. (2019) found that individuals who scored higher on neuroticism (i.e., lower level of emotional stability; Liu & Sun, 2020) reported using emoji more frequently, whereas Marko (2022) found the opposite. Moreover, this author found emoji use to be positively associated with openness to experience (i.e., appreciation of new experiences) and negatively associated with extraversion (i.e., preference for social interactions). Extending these findings, Liu and Sun (2020) examined the relationship between personality traits and motives for using emoji. The authors found that individuals who scored higher on neuroticism or lower on extraversion used emoji to avoid awkward interactions in online conversations. The authors also found that individuals who scored higher on agreeableness (i.e., being soft-hearted, and trusting; Nunes et al., 2018) used emoji to express their emotions, clarify messages, lighten up the mood, and show a sense of humor. These studies did not specifically test the relationship between personality traits and emoji use with different interlocutors. This is relevant given that Cavalheiro et al. (2022) showed that distance between interlocutors is likely to shape emoji use, such that individuals consider more appropriate to use emoji when communicating with closer interlocutors (e.g., friends) when compared to more distant interlocutors (e.g., doctors). Hence, we explored if (and which) personality traits were associated with emoji use depending on interlocutors' distance. Finally, previous studies have also shown that emoji can be used for specific relational motives. For example, Sampietro (2019) analyzed a corpus of WhatsApp messages and found that participants reported using emoji to foster affiliation and intimacy (e.g., to provide interpersonal support). In a similar line, Minseong Kim et al. (2022) asked participants to read a fictitious welcoming letter from a professor to new students, which included (or not) emoji. Results revealed that the use of emoji led to the professor being rated higher on perceived intimacy (e.g., warmer, emotionally closer). However, we are unaware of research systematically examining the association between different relational motives and emoji use. To this end, in the current study, we sought to assess how relatedness to others (i.e., the need to feel belongingness and connectedness with others; Ryan & Deci, 2000) is associated with emoji use depending on interlocutors' distance. More specifically, we assessed acceptance (i.e., the feeling of belonging, being socially supported, respected, and included in a given context) and intimacy (i.e., the feeling of closeness or inclusion by others; J.-I. Kim et al., 2018).

Briefly, we conducted an exploratory study to systematically examine *if* and *how* individual (i.e., age, gender, personality traits), relational (i.e., perceived relatedness to others), and motivational variables (i.e., to establish personal contact, decrease loneliness, and social ease) contribute to emoji use frequency, distinguishing the communication between closer and more distant interlocutors.

2. Method

2.1. Participants

A sample of 444 participants volunteered to take part in this study. Participants were aged between 18 and 67 ($M = 33.73$, $SD = 13.96$), most were women (57.0%), had a higher education (53.2%), and were workers (52.8%).

2.2. Procedures and measures

This study was approved by the Ethics Council at Iscte-Instituto Universitário de Lisboa (#97/2021). The survey was designed in Qualtrics, and distributed online through social media platforms, e-mailed to different organizations (e.g., public sector departments, student organizations, local libraries), and shared with students from the host institution. Participants were asked to report demographic information (age, gender, education level, occupation), how often they use their smartphones, computers, and tablets to communicate (1 = *Rarely* to 7 = *Frequently*), how comfortable they feel with technology (1 = *Not comfortable at all* to 7 = *Very comfortable*), and how frequently they send emoji (1 = *Rarely* to 7 = *Frequently*). We then presented the Portuguese version of the Ten-Item Personality Inventory (Nunes et al., 2018) and asked participants to indicate to what extent they identify with 10 characteristics,

using a 7-point rating scale (1 = *Strongly disagree* to 7 = *Strongly agree*). Responses were averaged into five personality traits: extraversion ("extraverted, enthusiastic"; "reserved, quiet"; r_s = .71), agreeableness ("sympathetic, warm"; "critical, quarrelsome"; r_s = .36), conscientiousness ("dependable, self-disciplined"; "disorganized, careless"; r_s = .38), emotional stability ("calm, emotionally stable"; "anxious, easily upset"; r_s = .41), and openness to experience ("open to new experiences, complex"; "conventional, uncreative"; r_s = .55). Because in the current inventory, each personality subscale was measured by two items, internal consistency was assessed using the Spearman-Brown coefficient (Eisinga et al., 2013).

Using separate items, we then asked participants to indicate how frequently they use emoji with their friends, family, romantic partners, work colleagues, school colleagues, supervisors, professors, and doctors (each item from 1 = *Rarely* to 7 = *Frequently*). Based on past research (Cavalheiro et al., 2022), responses to friends, family, romantic partners, work colleagues, and school colleagues were averaged into an index of emoji use frequency with closer interlocutors (α = .79). Responses to supervisors, professors, and doctors were averaged into an index of emoji use frequency with more distant interlocutors (α = .74). For each interlocutor, participants were also presented with the Need for Relatedness Scale (Richer & Vallerand, 1998) to assess their perceived acceptance (five items, e.g., "In my relationships with my supervisors, I feel supported") and intimacy (five items, e.g., "In my relationships with my friends, I feel close to them"; 1 = *Do not agree at all* to 7 = *Very strongly agree*). Again, responses were averaged into their respective subscale for closer ($\alpha_{acceptance}$ = .66 and $\alpha_{intimacy}$ = .61) and more distant interlocutors ($\alpha_{acceptance}$ = .64 and $\alpha_{intimacy}$ = .74).

Lastly, we presented participants with an adapted version of the Instant Messaging Motives Scale (Bardi & Brady, 2010) to assess personal contact motives (three items, α = .76; e.g., "Because emoji allow me to better express my emotions"), decrease loneliness motives (four items, α = .91; e.g., "Because emoji help me feel less lonely") and social ease motives to use emoji (four items, α = .87; e.g., "To feel less inhibited when I communicate"). Responses were given in 7-point scales (1 = *Strongly disagree* to 7 = *Strongly agree*) and averaged into the respective subscale. At the end of the survey, participants were thanked, debriefed, and provided with the contact of the responsible researcher.

2.3. Analytic plan

First, we present descriptive statistics of the frequency of emoji use with closer and more distant interlocutors, personality traits, perceived relatedness with closer and more distant others, and motives for emoji use. We also examined gender differences across these variables using independent samples *t*-tests. Next, we present the correlations between these variables with age and frequency of emoji use for closer and more distant interlocutors. Lastly, we computed two hierarchical linear regressions (one for each type of interlocutor) to examine the relative contribution of known correlates of emoji use frequency. In both analyses, age, gender, their interaction (Prada et al., 2018), and personality traits were entered in Step 1, perceived relatedness scores were entered in Step 2, and motives for emoji use were entered in Step 3.

3. Results

3.1. Preliminary analysis

Overall, participants reported being comfortable with technology use (M = 6.10, SD = 1.08, CI 95% [6.00, 6.20]), reported using

Table 1
Overall Statistics and Gender Differences.

	Descriptive statistics			Gender differences		
	Overall sample		Women	Men		
	M (*SD*)	95% CI [LB; UB]	*M* (*SD*)	*M* (*SD*)	*t**	*p*
Frequency of emoji use						
Closer interlocutors	5.78 (1.37)	[5.65, 5.91]	5.85 (1.31)	5.68 (1.44)	1.29	.198
More distant interlocutors	1.63 (1.24)	[1.50, 1.76]	1.72 (1.36)	1.51 (1.05)	1.57	.117
Personality						
Extraversion	4.67 (1.60)	[4.52, 4.82]	4.83 (1.58)	4.45 (1.60)	2.52	.012
Agreeableness	5.94 (0.91)	[5.86, 6.03]	5.97 (0.95)	5.90 (0.87)	0.74	.457
Conscientiousness	5.58 (1.16)	[5.47, 5.69]	5.73 (1.14)	5.37 (1.15)	3.23	.001
Openness to experience	3.76 (1.40)	[3.63, 3.89]	3.83 (1.27)	3.66 (1.55)	1.26	.208
Emotional stability	5.52 (1.12)	[5.42, 5.62]	5.58 (1.14)	5.44 (1.07)	1.32	.186
Perceived relatedness						
Acceptance closer	5.61 (0.88)	[5.53, 5.69]	5.68 (0.91)	5.52 (0.83)	1.83	.068
Acceptance more distant	4.78 (1.07)	[4.68, 4.89]	4.82 (1.17)	4.74 (0.94)	0.68	.497
Intimacy closer	5.66 (0.83)	[5.58, 5.74]	5.73 (0.86)	5.57 (0.79)	1.93	.055
Intimacy more distant	3.81 (1.36)	[3.67, 3.95]	3.99 (1.37)	3.60 (1.34)	2.86	.005
Motives for emoji use						
Personal contact	4.27 (1.50)	[4.13, 4.41]	4.22 (1.54)	4.34 (1.43)	−0.82	.412
Decrease loneliness	2.66 (1.56)	[2.52, 2.81]	2.54 (1.56)	2.82 (1.57)	−1.88	.061
Social ease	3.01 (1.64)	[2.86, 3.17]	2.74 (1.59)	3.37 (1.64)	−4.04	< .001

Note. Degrees of freedom for gender comparisons varied between 366 and 442; CI = confidence interval, LB = lower-bound, UB = upper-bound.

Table 2
Correlations of Frequency of Emoji Use with Age, Personality, Perceived Relatedness and Motives for Emoji Use for Closer and More Distant Interlocutors.

	Correlations											
	1.	2.	3.1.	3.2.	3.3.	3.4.	3.5.	4.1.	4.2.	5.1.	5.2.	5.3.
1.Frequency of emoji use	–	.24***	.11*	-.16**	-.00	.04	.08	.12*	.25***	.09	.14**	.07
2.Age	-.26***	–	.10*	.06	.20***	.33***	.08	.07	.37***	-.18***	-.06	-.24***
Personality												
3.1.Extraversion	.06	.10*	–	.04	.13**	.17***	.38***	.19***	.20***	-.06	-.13**	-.28***
3.2.Agreeableness	.07	.06	.04	–	.30***	.16***	.18***	.17**	.16**	.01	.02	-.07
3.3.Conscientiousness	.10*	.20***	.13**	.30***	–	.19***	.17***	.09	.13*	-.07	-.09	-.18***
3.4.Openness to experience	-.04	.33***	.17***	.16***	.19***	–	.13**	.14**	.20***	-.02	-.04	-.14**
3.5.Emotional stability	.03	.08	.38***	.18***	.17***	.13**	–	.15**	.18***	-.02	-.04	-.18***
Perceived relatedness												
4.1.Acceptance	.17***	.09	.28***	.29***	.29***	.35***	.19***	–	.66***	.15**	.04	-.03
4.2.Intimacy	.19***	.05	.31***	.28***	.24***	.23***	.22***	.90***	–	.16**	.18***	-.00
Motives for emoji use												
5.1.Personal contact	.38***	-.18***	-.06	.01	-.07	-.02	-.02	.03	.07	–	.61***	.53***
5.2.Decrease loneliness	.24***	-.06	-.13**	.02	-.09	-.04	-.04	-.06	-.03	.61***	–	.73***
5.3.Social ease	.24***	-.24***	-.28***	-.07	-.18***	-.14**	-.18***	-.19***	-.16**	.53***	.73***	–

Note. Correlations for closer interlocutors are below the diagonal ($df = 438$) and for more distant interlocutors above the diagonal ($df = 368$).
* $p \leq .050$; ** $p \leq .010$; *** $p \leq .001$.

smartphones ($M = 6.72$, $SD = 1.05$, CI 95% [6.62, 6.82]) and computers often ($M = 5.85$, $SD = 1.74$, CI 95% [5.69, 6.01]), and tablets to a lesser extent ($M = 2.35$, $SD = 2.18$, CI 95% [2.15, 2.56]). As shown in Table 1, participants reported a higher frequency of emoji use with closer (vs. more distant) interlocutors, $t(367) = 52.48$, $p < .001$, $d = 2.76$. Participants also reported higher levels of acceptance and intimacy with closer (vs. more distant) others, respectively, $t(386) = 16.28$, $p < .001$, $d = 0.83$, and $t(385) = 27.69$, $p < .001$, $d = 1.41$.

Overall, participants reported a higher tendency to use emoji for personal contact motives, and a lower tendency to use emoji for decrease loneliness or social ease motives. Results showed no gender differences across our measures, with the exception that women (vs. men) scored higher on extraversion and conscientiousness, reported higher intimacy with more distant interlocutors, and were less likely to use emoji for social ease motives.

Results of the correlations (Table 2) further showed age was negatively correlated with frequency of emoji use with closer interlocutors, $p < .001$, and positively correlated with emoji use with more distant interlocutors, $p < .001$. Age was also negatively correlated with emoji use for personal contact and social ease motives, both $p < .001$. Examining correlations with personality traits, conscientiousness was positively correlated with emoji use for closer interlocutors, $p = .031$, whereas extraversion was positively correlated with emoji use for distant interlocutors, $p = .028$. In contrast, agreeableness was negatively correlated with emoji use for distant interlocutors, $p = .002$. Extraversion was negatively correlated with emoji use for decrease loneliness and social ease motives, both $p \leq .005$. Similarly, conscientiousness, openness to experience, and emotional stability were negatively correlated with emoji use for social ease motives, all $p \leq .004$.

Results additionally showed that higher perceptions of acceptance and intimacy were positively correlated with emoji use for closer, both $p < .001$, and more distant interlocutors, both $p \leq 0.030$. Perceived feelings of acceptance and intimacy with closer others were also negatively correlated with emoji use for social ease motives, both $p \leq .001$. Perceived feelings of acceptance with more distant interlocutors were positively correlated with emoji use for personal contact, $p = .004$, whereas perceived feelings of intimacy with more distant interlocutors were positively correlated with emoji use for personal contact and to decrease loneliness, both $p \leq .002$. Lastly, the frequency of emoji use was positively correlated with motives to decrease loneliness with closer and more distant interlocutors, both $p \leq .006$, whereas a positive correlation between the frequency of emoji use and both personal contact and social ease motives emerged for closer interlocutors only, both $p < .001$.

3.2. Correlates of emoji use

As shown in Table 3, participants who used emoji more frequently with closer interlocutors were younger, $p < .001$, scored higher on conscientiousness, $p = .007$, and used emoji for personal contact motives, $p < .001$. In contrast, participants who used emoji more frequently with more distant interlocutors were older, $p = .006$, scored lower on agreeableness, $p < .001$, and felt more intimate with distant interlocutors, $p = .038$.

4. Discussion

Aiming to better understand the determinants of emoji use with different interlocutors, in the current study we examined a comprehensive set of potential correlates. We replicated past findings by showing a higher frequency of emoji use among younger

Table 3
Correlates of Emoji Use Frequency for Closer and More Distant Interlocutors.

	Closer interlocutors			More distant interlocutors		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Individual variables						
Age	-.334***	-.324***	-.268***	.226***	.148*	.188**
Gender	-.028	.006	.022	-.144	-.108	-.123
Age × gender	-.114	-.142	-.169	.124	.083	.081
Personality						
Extraversion	.064	.026	.071	.053	.025	.063
Agreeableness	.058	.028	.020	-.179**	-.208***	-.203***
Conscientiousness	.118	.099	.130**	-.020	-.017	-.002
Openness to experience	.001	-.018	-.035	-.018	-.033	-.030
Emotional stability	-.045	-.053	-.051	.087	.070	.080
Perceived relatedness						
Acceptance		.001	.062		-.030	.004
Intimacy		.155	.091		.236**	.177*
Motives for emoji use						
Personal contact			.258***			.016
Decrease loneliness			.043			.048
Social ease			.083			.124
Adjusted R^2	.103	.119	.224	.075	.107	.123
ΔR^2	.121	.020	.108	.100	.037	.025
ΔF	6.93***	4.56*	19.07***	4.04***	6.13**	2.79*

* $p \leq .050$; ** $p \leq .010$; *** $p \leq .001$.

individuals (e.g., Prada et al., 2018) and those who score higher on conscientiousness (Wall et al., 2016). More importantly, we extend that evidence by suggesting that such associations are restricted to communication with closer interlocutors. On the one hand, these findings resonate with recent evidence showing that individuals generally report feeling comfort and disinhibition when interacting with close friends and adapt their behavior online to better express themselves emotionally in these contexts (e.g., by using emoji; Scott et al., 2022). On the other hand, the conscientiousness trait is characterized by social norm adherence and acting in goal-oriented ways (B.W. Roberts et al., 2014). Given that individuals use emoji more often with closer interlocutors (Cavalheiro et al., 2022; Thomson et al., 2018), a social norm relative to emoji use patterns may exist. Our results could be due to individuals with higher levels of conscientiousness seeing emoji use with closer interlocutors as part of typical communication patterns and intending to conform with these norms. Regarding motives for emoji use, we found personal contact motives to be one of the correlates of emoji use frequency with closer interlocutors. Previous qualitative studies have already argued that emoji can be a good tool to portray emotions in computer-mediated communication (Kaye et al., 2016), as well as capable of fostering closeness and intimacy (Sampietro, 2019). For instance, emoji may be used to help strengthen the emotional content of a message and nurture their relationship when supporting a family member (i.e., closer other) on a given life event (e.g., wishing good luck; Sampietro, 2019). Therefore, our study adds to the field by replicating and systematizing previous qualitative findings.

Regarding interactions with distant interlocutors, we found age to be positively (although weakly) associated with a higher frequency of emoji use. This was an unexpected finding, particularly considering that previous research found older individuals to have lower confidence in their capacity to use emoji and more difficulty in understanding their intended meaning (Herring & Dainas, 2020). From our perspective, our findings may actually reflect this misunderstanding, be it in perceiving emoji use with more distant interlocutors as somewhat appropriate (Cavalheiro et al., 2022) or having a different understanding of what is expected when communicating with these individuals. We also found a higher frequency of emoji use with distant interlocutors among less agreeable individuals. Agreeableness is associated with self-transcendence (i.e., general concern with others) and relational investment (i.e., the motivation to maintain positive relationships, even with distant others, such as leaders), while associated with adherence to social norms (Wilmot & Ones, 2022). Given that emoji use is generally deemed less appropriate when communicating with distant interlocutors (Cavalheiro et al., 2022), it could be that these individuals are less concerned with complying with the pattern of emoji use with specific interlocutors. Still, overall scores on this personality trait were fairly high, and thus results should be interpreted with caution. It is also worth mentioning that these questions were assessed in general terms in the current study, not defining the specificities of the communication context. Hence, it is possible that different participants evoked different emoji when responding about its use with specific interlocutors. For example, one person may use fewer emoji when communicating with a more distant interlocutor to signal specific information and at the same time use more emoji with a closer interlocutor to portray emotions. Hence, different types of emoji (e.g., informative vs. emotionally charged) may be used more (or less) with specific interlocutors, irrespective of distance. Future research could seek to test this possibility using experimental scenarios. Lastly, individuals who perceive themselves to be more intimate with distant interlocutors tend to use emoji more frequently with them. These results are aligned with previous work suggesting that emoji help stimulate more intimate interactions (e.g., Sampietro, 2019; Wiseman & Gould, 2018). Thus, even though such use has been identified as less appropriate (Cavalheiro et al., 2022), that could be challenged in situations in which the person feels closer to interlocutors that are typically considered more distant (e.g., supervisors, professors, doctors). Nevertheless, our findings are intriguing (and potentially contradictory) as we found that less agreeable individuals tend to use emoji more often with more distant interlocutors (which may suggest a lack of interest in establishing a closer relationship), while those who felt more intimate with more distant interlocutors reported higher frequency of emoji use. Noteworthy, emoji use with distant interlocutors was, overall, very low. Therefore, due to this potential floor effect, results should be interpreted with caution.

Our novel contributions notwithstanding, we must acknowledge some limitations of the current study. First, although we asked participants about emoji use according to different interlocutors, it would also be important to explore the overall frequency and means of communication (e.g., email; instant messaging) in each case. For instance, an individual may report not using an emoji with a doctor not because they see it as inappropriate, but rather because they seldom communicate with them through computer-mediated communication. As such, future research could seek to disentangle a possible confound between the frequency of emoji use with distant interlocutors and the frequency of digital communication itself with these interlocutors. We also evaluated emoji use generally and based on self-reported measures. Future studies could benefit from exploring the role played by our variables (i.e., age, gender, personality, perceived relatedness) in more realistic settings, namely examining messages exchanged with specific interlocutors (e.g., simulating a message exchange; Coyle & Carmichael, 2019), including closer (i.e., friends, family) and/or more distant interlocutors (e.g., professors, service providers; Prada et al., 2022; Vareberg & Westerman, 2020). Another limitation is the way we measured personality characteristics. Short measures such as the TIPI can have limitations (e.g., lower capacity of measuring multi-faceted constructs; Gosling et al., 2003), despite their adequate psychometric characteristics, and thus be considered a valid measure of personality traits (Nunes et al., 2018).

This study offered a systematic approach by including different individual (i.e., age, gender, personality), relational (i.e., perceived relatedness to others), and motivational variables (i.e., personal contact, decrease loneliness and social ease motives), and showing their relative contribution to explain emoji use frequency with closer and more distant interlocutors. These findings may contribute to the fields of social and communication psychology, by offering insights about the importance of individual and motivational factors to communication patterns in digital mediums. Our findings are particularly relevant by highlighting the need to have tailored messages when addressing and communicating with different interlocutors (e.g., regular interaction with work colleagues, when a service provider addresses a specific customer). For example, senders may need to consider whether to include emoji when writing messages for different age groups. The relationship rapport between interlocutors should also be considered: as emoji use seems to be especially relevant during personal contact with closer ones, it may be necessary to foster closeness with specific (distant) interlocutors to benefit

from emoji use (e.g., develop a more intimate relationship with a supervisor before sending them emoji).

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

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