



Putting your best face forward: How instructor emoji use influences students' impressions of credibility, immediacy, and liking

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Abstract

This project explores the impacts of emojis on students' impressions when used in a course welcome email. We adopt a 4×3 factorial design to determine how different emojis (i.e., 😊, 😄, 😁) impact students' impressions of credibility, immediacy, and liking. Data from students ($N = 368$) indicates emoji choice does impact impressions. Consistently, instructors' emoji use resulted in decreased perceived competence and trustworthiness but increased perceived caring, immediacy, and liking. Findings have implications for instructors who engage in technologically-mediated out-of-class communication and want to strengthen early student-instructor relationships. Limitations and future directions are also discussed.

Keywords Technologically-mediated out-of-class communication · Emojis · Instructor-student relationships · Credibility · Immediacy · Liking

1 Introduction

Communication between instructors and students is not restricted to formal classroom contexts. Especially now, given the shifts to mediated learning environments during and after the COVID-19 pandemic, instructors seek innovative ways to leave a lasting – and hopefully, *positive* – first impression. An oft-overlooked opportunity to craft this impression may be an introduction email sent to students before the start of the semester (Legg & Wilson, 2009). While these forms of communication are

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standard – perhaps even trivial – an introductory email may be just what’s needed to start the semester out right. Instructors might enhance these benefits by including textisms (Adams et al., 2018), or cues that convey nonverbal meaning in text-based communication, within their message to help convey their emotion or tone (Vareberg & Westerman, 2020).

One type of textism is the emoji. Emojis are pictorial but still represent text-based communication. A recent publication from the messaging service Slack (2022) reported workers feel their messages are *incomplete* without emojis; further, young adults may at times prefer emojis and other types of pictorial messaging to words (Steinmetz, 2017). The reasons for this preference are clear in the positive impacts of emoji use: emojis add socio-emotional information to mediated messages that would otherwise have been reduced or removed; in doing so, communicators may cut back on misunderstandings and display personality (Gesselman et al., 2019; McCulloch, 2019; Pfeifer et al., 2022). These positive impacts have been observed in the classroom. For instance, instructors who used a 😊 appeared more caring and more immediate – both factors that aid in impression and relationship development (Vareberg & Westerman, 2020). This does not account for all emojis, nor does this reveal how the emojis shifted students’ interpretations. The prompts the questions, are emojis *worth* using, and if so, does it matter which emoji that is?

The current study addresses these questions. Emojis are becoming more common and more accepted in professional contexts (Kaye et al., 2016; Li et al., 2019; Slack team, 2022), though they are not one-size-fits-all. The choice of whether to include an emoji is complicated by having to also choose which one. Over 3,300 emojis exist, and of those, 151 reflect faces (Emoji frequency, 2021). We explore how using different emojis in a welcome email impact students’ impressions. Importantly, in mediated environments, students perceive and interpret cues that *are* present whether intentionally sent or not (Walther, 1992). Instructors must be deliberate in their choices to add socio-emotional cues; emojis may serve that function (Kaye et al., 2020) in ways that both benefit students’ views of instructors and ease message interpretation. This study helps to define the boundaries regarding how emojis potentially cultivate strong impressions by exploring how different emojis (e.g., 😊, 😊😊😊, 😊😊😊😊) affect students’ perceptions of instructors’ immediacy, credibility, and liking.

1.1 Emojis as interpersonal cues

Computer-mediated communication (CMC) is often criticized for its lack of nonverbal cues, resulting in its inability to allow for interpersonal impression development. Walther’s (1992) social information processing theory posits a contrary explanation: over time, CMC users can and do create impressions and develop relationships with others that reach similar levels of maturation as face-to-face (f2f) relationships (Walther, 1992, 1993). The difference between these processes in CMC and f2f communication is not the *amount* but the *rate* of social information exchanged. Less information is transmitted per message due to the absence of traditional nonverbal

cues (i.e., smiling, proximity), so communicators interpret other, existing cues (e.g., emojis) in ways they may and may not have been intended (Walther, 1993).

The lack of nonverbal cues is not unique to CMC. A disadvantage of text-based communication stems from a lack of “body” or the inability to represent emotions and mental states (McCulloch, 2019), but emojis (e.g., 😊, ☹️) have increasingly been used to convey ideas or emotions, to increase attention, and to enhance messages (Kaye et al., 2020; Pfeifer et al., 2022; Walther & D’Addario, 2001; Willoughby & Liu, 2018). Though emotion can be expressed during CMC through cues such as emojis, (Derks et al., 2007), it is not a direct match. As such, scholars who study emojis argue more work must be done to capture the receiver’s perspective and to understand how emojis help form shared meaning (Derks et al., 2008; Tang & Hew, 2019).

It must also be noted that not all emojis communicate the same meaning. Some are easy to assign a valence of positive or negative rather than a specific emotion (Cherbonnier & Michinov, 2022) while others may communicate multiple meanings based on context (Cavalheiro et al., 2022; Kaye et al., 2020). Further, some emojis are more popular than others (e.g., the 😊 was the word of the year in 2015; “Emoji frequency,” 2021; Quito, 2019), which likely exposes users to those emojis more often. This study purposely selected popular emojis that carry potentially varied meanings that may or may not be appropriate for the context of the message. This study uses the *winking face* (😉), the *face-with-tears-of-joy* (😂), and the *tongue-sticking-out face* (😜). What’s in question here is whether these emojis will produce similar responses as the 😊 when used in student-instructor communication, or whether varying emojis prompt shifts in students’ impressions.

1.2 Student-instructor communication

Instructors communicate with students outside of the classroom. While scholars have studied more traditional out-of-class (see Nadler & Nadler, 2001) or extra-class communication (see Waldeck et al., 2001), mediated spaces were excluded (Goldman et al., 2016). Given the increasing demand for mediated connection both before and after the pandemic, more research must examine the role of technologically-mediated out-of-class communication, or communication between instructors and students that occurs via mediated channels during non-traditional class time (Vareberg et al., 2020). Students who receive this communication felt higher state motivation and affective learning in the classroom. While several newer forms of communication are available for interpersonal interactions (e.g., social media, video conferencing), emails sent between instructors and students remain a dominant form of mediated communication, persisting by necessity or students’ preference (Chromey et al., 2016; Vareberg et al., 2020). An important time to send an email to students is before or on the first day of class; sending a positive, welcoming email may impact students’ impressions before ever meeting face-to-face (Legg & Wilson, 2009).

First impressions are formed early and often remain constant. Once formed, an impression becomes difficult to change (Asch, 1946). Early impressions become a type of roadmap for understanding communication with someone; when forming

impressions, individuals use minimal cues to craft large opinions. Scholars label impressions as automatic, unspoken, unconscious, and difficult to bend (Asch, 1946; Carter, 2003; Kohlan, 1973), making it imperative that instructors recognize the weight of first impressions (Teven & Katt, 2016). In short, if an early negative impression is formed, it may be difficult to break; at the same time, if an early positive impression is formed, students may find the instructor more approachable (Frymier et al., 2019). While online receivers require little motivation to interpret presented cues (Walther et al., 2005), people interpret cues in different ways (Miller et al., 2016), or these cues may have altering effects on types of impressions (Vareberg & Westerman, 2020; Willoughby & Liu, 2018). Though emojis have been associated with strong first impressions in past research (Vareberg & Westerman, 2020), this does not indicate how various emojis influence these impressions, especially when emojis may not be suited to the context.

Emojis in Student-Instructor Communication Past scholars have explored the use of emojis in student-instructor communication, though not always in a mediated out-of-class communication context. Ledbetter and Larson (2008), for example, studied emoticons in authentic teacher-sent emails and found only minimal differences in perceived presence when emoticons were used. Further, Clark-Gordon et al. (2018) explored emojis used in instructor feedback and determined the use of emojis did not significantly impact students' perceptions of feedback or the instructor. The lack of any emoji lexicon (i.e., a set pattern for use) for higher education might increase chances for shifting interpretations (Doiron, 2018), so instructors uncomfortable with emojis might only parrot back what they see (Priddis, 2013). Last, emojis are most prominently used in informal communication (Kaye et al., 2016), which may be an appropriate label for mediated communication beyond the classroom or an inappropriate label for communication from an authority. The mixed past findings indicate emojis in any instructor context are likely to be met with differing interpretations, at best. Therefore, we ask the following question:

RQ₁: What is the impact of context on emoji interpretation?

Though a relationship between emojis in emails (i.e., 😊) and students' impressions of instructors exists (Vareberg & Westerman, 2020), the use of varied emojis might produce divergent impressions as not all emojis carry the same meaning. Thus, we focus on the influences of emoji use on students' perceptions of instructor immediacy, credibility, and liking.

1.3 Factors influencing students' impressions

Immediacy Mehrabian (1969) defined immediacy as perceived closeness or decreased psychological distance; he connected the idea of closeness with the approach/avoidance construct, arguing those who are *immediate* are also approachable (see also Frymier et al., 2019). Importantly, past findings have linked immediacy

to students' intrinsic motivation and, either directly or indirectly, student learning (Frymier et al., 2019; Vareberg et al., 2020). In mediated environments, cues like emojis and response rates relate positively with immediacy (Ledbetter, 2008; Vareberg & Westerman, 2020). As such, much as Fusani (1994) wrote, immediacy serves as one of the most important considerations in out-of-class communication and, by extension, technologically-mediated out-of-class communication.

Importantly, however, the behaviors that indicate closeness and the feeling of closeness are distinct and separate constructs. As Mehrabian (1981) argued, the behaviors may decrease distance, but the behaviors do not account for how one feels (Kelly, 2012; Kelly & Westerman, 2016). Past work on immediacy explored verbal or nonverbal behaviors (Frymier, 1993; Gorham, 1998), which would include textisms; the behavior (i.e., use of emoji) influences perceived closeness (Vareberg & Westerman, 2020). We explore perceived closeness after viewing an instructor email under the assumption that instructors can impact students' impressions with emojis (Horan et al., 2011; O'Sullivan et al., 2004); however, because an emoji is interpreted in context variably, it is necessary to explore how varying emojis impact perceived immediacy. Therefore, we ask the following question:

RQ₂: How does varied emoji use impact perceived immediacy?

Students prioritize specific instructor behaviors: some are deemed essential (i.e., competence) while others (i.e., immediacy) are only luxuries (Goldman et al., 2017). While the influence of emojis on perceived closeness is helpful for understanding impression formation in technologically-mediated out-of-class communication, it is as necessary to explore the behaviors students find more important, such as perceived credibility.

Credibility Credibility is comprised of three dimensions: *competence*, *character* (also *trustworthiness*), and *caring* (McCroskey & Young, 1981). Past findings support the use of credibility as an outcome for its “key role in facilitating teacher-student interactions, and ultimately, classroom learning” (Finn et al., 2009, p. 530). Students naturally assess instructors' credibility; we want instructors who are smart, honest, and good. It also makes sense that students interpret early messages as clues about credibility. Students hold certain expectations for their instructors' out-of-class communication, including in the messages sent via mediated channels, and violations of these expectations may alter the impressions formed and harm overall credibility (Dobransky & Frymier, 2004; Teven & Katt, 2016). Emojis, given their more informal interpretations (McCulloch, 2019), may violate students' expectations. Past findings also show different impacts on the different parts of credibility (Vareberg & Westerman, 2020), so we explore each separately.

Competence *Competence* measures a perceiver's impression of a sender as knowledgeable. Past work indicates instructors may not use textisms often in email messages (Ledbetter & Larson, 2008; Priddis, 2013), so instructors who do use them may stick out or have their competence questioned (Adams, 2013). In f2f, nonverbal cues that go against expectations stand out (Burgoon & Walther, 1990), so emojis

that do not fit appropriately within the context of the message may also stand out. Although emojis may increase perceived immediacy, their informality may feel out of place (Banfield et al., 2006). While past findings show emoji use is associated with a decrease in perceived competence (Vareberg & Westerman, 2020), Marder et al. (2020) determined emojis used in emails sent by university staff did not negatively impact competence. These mixed findings prompt us to ask the question:

RQ₃: How does varied emoji use impact perceived instructor competence?

Character Source *character* is the perception of a source as honest; in this case, students would perceive their instructor as trustworthy. Assumptions exist that students naturally trust instructors (Dobransky & Frymier, 2004), which may explain findings that emojis had no impact on perceived character (Vareberg & Westerman, 2020): with or without emojis, students trust their instructors. Emojis serve interpersonal communication functions (Kaye et al., 2016), including decreasing ambiguity and, potentially, increasing character; however, others claim emojis decrease message believability (Willoughby & Liu, 2018), which may be the opposite of trustworthiness. Some instructor behaviors may come across as trying too hard and may result in negative effects (Nussbaum & Scott, 1980); emojis fit this description as Adams (2013) has found their impact to be curvilinear (what is perceived positively is eventually perceived negatively). Thus, because of mixed past findings, and because we do not know how various emojis will impact perceptions of trustworthiness, we pose the following research question:

RQ₄: How does varied emoji use impact perceived instructor character?

Caring The third dimension, *caring*, measures perceived understanding and responsiveness. Being seen as warm and inviting is important for positive impression development (Asch, 1946). Despite communication online potentially lacking interpersonal cues, Walther (1992, 2019) argues relational others may develop closeness via mediated channels. *Caring* serves as an important consideration for instructors. Instructors who are caring often generate more positive student perceptions of character and competence (Teven, 2007b). While instructor emoji use may result in lowered perceptions of competence and character, perceived caring may be unaffected (Thweatt & McCroskey, 1998). Further, in a staff-to-student email context, the positive impacts of perceived warmth outweighed the negative impacts of competence (Marder et al., 2020). However, the impact of various common emojis on perceived caring is unknown, and thus we ask the following question:

RQ₅: How does varied emoji use impact perceived instructor caring?

Liking Given the assumption the student-instructor relationship is interpersonal, it is necessary to examine not only how much students perceive the instructor to care about them, but how much students perceive they will *like* the instructor (Martin & Dowson, 2009). Scholars argue multiple benefits exist when students like their instructor: students may engage more in class (Myers et al., 2018), may feel increased motivation (Frymier, 1994), or may experience increased affective learning (Frymier, 2016); therefore, instructors need to recognize strategies they can

implement when sending technologically-mediated out-of-class communication to generate feelings of liking.

Affinity-seeking strategies are those which result in increased liking. One such strategy is the use of immediacy cues (e.g., emoji). Teven (2007a), in a study of supervisors and subordinates, found a link between nonverbal immediacy and liking. Given the comparable, hierarchical relationship between instructors and students, similar outcomes would be expected here. Additionally, users were more likely to use increased textisms – mediated, relational cues – when they *liked* their conversation partner (Adams et al., 2018); this can be expanded to presume students will be more likely to communicate back if they like their instructor. In addition to exploring students' perceptions of caring (from the instructor), we must also examine students' perceptions of liking (of an instructor), and thus, we ask the following research question:

RQ₆: How does varied emoji use impact perceived liking?

2 Method

The current study is part of a larger experiment that manipulated both emojis (none, 😊, 😊, 😊) and instructor gender (male [Scott], female [Sarah], and undisclosed [S.]) in a 4 × 3 experimental design. This study builds on the increased confidence in findings from experimental methods (Waldeck & LaBelle, 2016) to balance the lack of experimental research on initial impressions (Harnish & Bridges, 2011). This study replicates past research (i.e., Vareberg & Westerman, 2020) to extend the results to other conditions and circumstances. In what follows, we discuss the participants, procedures, experimental manipulations, and measures used.

2.1 Participants

Respondents were 419 students from a mid-sized Midwestern university. Sixteen were removed due to an error in the Qualtrics display and 35 were removed for incomplete or inconsistent responses, leaving a sample of 368 participants (between 28–32 per condition). Participants ages ranged from 18 to 46 ($M = 20.83$, $SD = 4.36$); three did not disclose. Most respondents had not received an email from an instructor with an emoji used ($N = 283$, 76.9%). Full demographics are available in Table 1.

2.2 Procedures

Procedures for this study closely followed those used in Vareberg and Westerman (2020). After receiving IRB approval, we collected data through a university list-serv. Importantly, data collection occurred in January 2020, just before the COVID-19 pandemic and online learning migration. Students first saw the informed consent and, upon clicking to begin, indicated their agreement and willingness to participate. Participants were randomly assigned to one of 12 experimental conditions. The conditions contained the following welcome email for an undisclosed course:

Table 1 Participant Demographics

	#	%
Gender		
Male	136	37.0%
Female	225	61.1%
Undisclosed	6	1.6%
Race/Ethnicity		
African American	4	1.1%
American Indian	1	0.3%
Asian/Pacific Islander	12	3.3%
Caucasian	329	89.4%
Latino/Hispanic	4	1.1%
Middle Eastern	2	0.5%
Self-Identified	5	1.4%
Undisclosed	11	2.9%
Class Status		
Freshmen	166	45.1%
Sophomore	55	14.9%
Juniors	55	14.9%
Seniors	85	23.1%
Undisclosed	7	1.9%

Greetings students:

My name is [Instructor Name], and I will be your instructor this semester. I am looking forward to our work together throughout the course. [manipulation]

The syllabus for our class is posted to Blackboard. Please make sure to purchase your textbook prior to the first day of class. If you have any questions, please let me know. [manipulation]

See you in class,

Prof. [Instructor Name]

Following the email, students answered two open-ended questions regarding the **literal** meaning (i.e., “What message is being conveyed by this email message?”) and the **perceived** meaning (i.e., “Is this the message the instructor is trying to convey?”) of the email. Students responded to measures for mediated immediacy, perceived instructor credibility, and liking, and provided relevant demographics.

2.3 Measures

Mediated Immediacy Immediacy was measured using O’Sullivan et al.’s (2004) mediated immediacy scale. The 10 items measure immediacy perceptions on a 1–7 semantic differential scale. Participants responded to bipolar adjective pairs (e.g., “distant/close” and “unkind/kind”), with higher numbers representing more perceived immediacy. A confirmatory factor analysis (CFA) was conducted, and after

removing one item (i.e., disclosing/ nondisclosing) because of low factor loadings, the goodness-of-fit statistics for the model were: $\chi^2=76.96$, ($p<0.001$); $df=22$; comparative fit index (CFI)=0.98; and root mean square error of approximation (RMSEA)=0.082, demonstrating an acceptable fit. This scale has a reliability (Cronbach's α) of 0.94.

Credibility Credibility was measured using the multidimensional scale from McCroskey and Teven (1999), including competence, character, and caring. Participants answered 18 questions total, six items on each dimension, using semantic differential scales from 1–7 (e.g., *competence*: “incompetent/competent”; *character*: “immoral/moral”; *caring*: “insensitive/ sensitive”). Responses were recoded so higher numbers represented more positive perceptions. A CFA was conducted on each subdimension. After removing one item because of low factor loadings (“self-centered/not self-centered” from *caring* dimension), the goodness-of-fit statistics for the model were: $\chi^2=353.16$, ($p<0.001$); $df=115$; CFI=0.94; and RMSEA=0.074, demonstrating an acceptable fit. Reliability (Cronbach's α) for this scale were: *competence*=0.91; *caring*=0.87; and, *character*=0.89.

Liking Liking was measured using Frymier's (1994) Liking Scale. Participants responded to nine bipolar adjective pairs (e.g., “likeable/dislikable” and “pleasant/unpleasant”), with higher numbers reflecting a more positive perceived liking. A CFA was conducted on the 9-item measurement. After removing two items because of low factor loadings (i.e., “humorous/humorless” and “not respectable/respectable”), the goodness-of-fit statistics for the model were: $\chi^2=41.98$, ($p<0.001$); $df=12$; CFI=0.98; and RMSEA=0.082, demonstrating an acceptable fit. This scale has a reliability (Cronbach's α) of 0.90.

2.4 Qualitative analysis

As a complement to the quantitative methods, the two open-ended questions provided a deeper look into the thought processes and feelings associated with students' answers. To parse this qualitative data in a productive, meaningful way, answers were strategically analyzed and organized through an iterative process (Luker, 2008). Throughout this cyclical analysis, themes began to emerge, which will be elaborated on further below. This way of analyzing qualitative data lends the advantages of insight and flexibility that ensure all possibilities are considered and accommodated within the results of a study.

2.5 Results

We used univariate analysis of variance (ANOVA) to examine how varied emoji use impacts RQ2) perceived immediacy, RQ3) perceived competence, RQ4) perceived trustworthiness, RQ5) perceived caring, and RQ6) perceived liking. Levine (2013) argues the use of MANOVA increases the number of significance tests, adding to rather than eliminating Type I error. We employ multiple ANOVAs for reasons

outlined in Huberty and Morris (1989): our interest is in each outcome variable as opposed to how they interrelate; this study is exploratory in that it is currently unknown how the emojis selected will impact selected outcome variables; and following similar analytical procedures to previous research yields comparable data.

Results from the ANOVA revealed significant main effects between emoji use and study variables (see Table 2). Perceived immediacy, competence, trustworthiness, caring, and liking were statistically impacted by instructor emoji use. No interaction effects were found between instructor emoji use and instructor gender.

Post hoc analysis revealed specific differences between the emojis used and study variables (see Table 3). Emails using no emojis resulted in the highest levels of perceived competence and perceived character. Emails using an emoji resulted in the highest levels of perceived caring – except for the 😊 which was met with lower perceived caring even when compared to no emoji use. Emails using the 😊 and 😊 emojis resulted in increased perceived immediacy and perceived liking when compared to other conditions.

2.6 Emojis and context

To answer RQ1 regarding the impact of context on emoji interpretation, we conducted a comparative and inductive analysis of the open-ended responses. Importantly, an emoji carries vague meaning alone, but amongst other social cues – messages, a sender, and a recipient – meaning forms. Students offered positive

Table 2 Between-Subjects ANOVAs

Source	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>P</i>
Immediacy					
Factor	3	53.75	17.92	16.26	<.001
Error	356	392.24	1.10	-	-
Competence					
Factor	3	115.31	38.44	34.59	<.001
Error	356	395.59	1.11	-	-
Caring					
Factor	3	46.39	15.46	12.65	<.001
Error	356	435.19	1.22	-	-
Character					
Factor	3	64.04	21.35	21.94	<.001
Error	356	346.39	.97	-	-
Liking					
Factor	3	36.75	12.25	10.81	<.001
Error	356	403.41	1.13	-	-

The dependent variable for each ANOVA is specified in the table spanner above each set of results. The various email emoji conditions (four groups: none, 😊, 😊, 😊) served as the factor in all ANOVAs

Table 3 Post hoc analysis

	None		 Winking Face -		Face-With-Tears-  Of-Joy -		Tongue Sticking-Out  Face -	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Credibility – Competence	5.23 _a	1.05	4.66 _b	1.19	3.81 _c	1.00	4.03 _c	.94
Credibility – Character	5.22 _a	1.01	4.81 _a	1.07	4.18 _b	.93	4.30 _b	.92
Credibility – Caring	4.61 _a	1.31	5.14 _b	1.04	4.13 _c	1.12	4.68 _a	.94
Perceived Immediacy	4.87 _a	1.38	5.76 _b	.89	4.87 _a	1.02	5.43 _b	.87
Perceived Liking	4.91 _{a,b}	1.18	5.39 _c	1.06	4.50 _a	1.02	5.08 _{b,c}	1.01

Means with different subscripts differ at $p < .05$ using *Scheffe* post hoc comparison

impressions of instructors who used emojis, viewing the instructor as “fun,” “casual,” or “laid back.” These interpretations showed the potential benefits of emoji use for instructors hoping to create a good impression. However, the more the emoji diverged from the students’ expectations given the context (i.e., instructor email), the more this positive interpretation was met with skepticism and uncertainty. This theme is explored below.

The  was interpreted as “creepy” or “unprofessional” – perhaps associating the emoji with its cultural connotations of *suggestiveness*. Much as a wink at someone in real life may be misconstrued for flirting, the winking emoji was easily read with discomfort. Students, however, were also likely to let this instructor off the hook. One participant went as far as to argue, “I don’t think he is attempting to appear creepy at all; probably just cheerful, but the winking emoji is strange at best.” Winks are, by definition, ambiguous, so it is plausible students read this emoji as more *fun* than *unprofessional*. Regardless, if not properly matched to context, an emoji might create potential issues rather than camaraderie.

The  was met with more divergent interpretations. Though students felt the emoji provided some level of friendliness, many regarded the instructor as misusing the emoji. Though students also described the professor using this emoji as “friendly” and “relaxed,” these characteristics were accompanied by perceptions of the instructor as “old,” “out of the loop,” or “trying too hard to be relatable” – all potential threats to one’s projected credibility. The fact that the emoji may have been intended positively was largely their saving grace.

The  was labeled by some students as explicitly inappropriate given the message being sent. When an email used this emoji, students perceived the instructor to be laughing *at* them, or even at the idea of the class in general: “The professor may not be fully invested in his class,” said one student, while others repeated a variation of “class is a joke to him.” Students articulated that emoji use could be positive, in the right context, but that using emojis may simply be a misstep, especially as that use deviates from expectations. The mixed impressions created by the inclusion of emojis demonstrate a narrow path of acceptability that instructors may navigate, should they choose to pursue this route.

3 Discussion

Instructors can begin forming relationships with students before a semester begins. This may be aided through textisms such as emojis (Vareberg & Westerman, 2020). Our results extend past findings by examining how varying emojis (e.g., 😊, 😊, 😊, 😊) influence student impressions. Instructors who use emojis in their messages appeared more caring, more immediate, and more likable but less competent and trustworthy. As the emoji deviated from the expected context, students' views of instructors worsened. Below, we discuss what this means for instructor impression building and offer practical ways instructors can use emojis in their messages. We also offer limitations and future directions based on these results.

3.1 Different emojis, different meanings

Instructors begin to form impressions through their first communication. For instructors who choose to, emojis are a usable textism to influence students' impressions of instructors. Overall, emoji use negatively impacted competence and character (excluding 😊) and positively impacted caring, immediacy, and liking. Because not all emojis behaved similarly, however, our discussion focuses on how each emoji influenced students' perception of the message and messenger.

Interestingly, the *winking face* emoji appeared to be the safest option. Consistent with past studies (see Vareberg & Westerman, 2020), in email conditions with the *winking face*, students perceived the instructor as more caring, more immediate, more likable, and less competent. Respondents seemed to appreciate the message and read the email in a positive manner (Cherbonnier & Michinov, 2022). Students reasoned this instructor was potentially out-of-touch but relatively easy-going. However, we offer that perhaps students did not *see* the emoji or saw it as graphically similar to a smiley (i.e., 😊 vs. 😊). Perhaps the exclusion of color made it less obvious to receivers when compared to the 😊 (i.e., blue tears) or the 😊 (i.e., red tongue).

The remaining emojis had more negative impacts on impressions given the context of the message. Though participants generally responded positively to instructors' use of emojis (Cherbonnier & Michinov, 2022), their specific interpretations of the cues were less consistent. Students perceived instructors sending the *tongue-sticking-out* emoji as potentially likable and immediate, indicators of potential interpersonal relationships (Frymier & Houser, 2000; Frymier et al., 2019) but not as trustworthy. This conflicts with Vareberg and Westerman (2020) who found no impacts on trustworthiness. Students, however, viewed this instructor's emoji choice with skepticism, which may have prompted the decrease in trustworthiness.

The *face-with-tears-of-joy* emoji did not yield positive impressions. More than others, the 😊 was perceived as potentially detrimental to students' impressions of instructors. Though past findings indicated positive impacts toward caring and immediacy at the expense of competence (Vareberg & Westerman, 2020), the 😊 negated these positive impacts. Students viewed the instructor as making a joke about the message, about them, or about the class in a way that demonstrated a lack of seriousness (Willoughby

& Liu, 2018). The face did not reveal the instructor's personality so much as it added to students' uncertainty.

Holistically, findings suggest emoji use (excluding the *face-with-tears-of-joy*) sparked increased perceptions for several key variables (i.e., caring, immediacy, and liking). This does not, however, eliminate the potential drawbacks of competence and, in some cases, character. Emojis were generally interpreted positively (Cherbonnier & Michinov, 2022) and as genuinely well-intended. Students did make one thing very clear: the emoji must match the context. The current findings demonstrate students notice these cues and consider them in their interpretations of the message and the messenger.

3.2 Practical implications

Instructors face multiple decisions when communicating with students, but only have one opportunity to make a first impression. An email including emojis may be a strong tool to build these impressions and, resultingly, relationships (Legg & Wilson, 2009; Vareberg et al., 2020). Our results indicate instructors who use emojis in their opening message were perceived as closer, more caring, and more likable, but these benefits were in tension with decreases in competence and character. An instructor's choice, then, is to put forth the right face for the context. We offer insight into how that might occur.

First, not all emojis are created equal. The current study indicates students do notice emojis and, resultingly, develop different impressions of instructors. When choosing whether to insert an emoji, instructors weigh the benefits against the drawbacks and ensure the emoji is right for the context of the message. Instructors wishing to build relationships with students early in the semester might find an emoji is worth it, especially if competence can be made up for during the semester through discussions, lectures, and activities. Of course, this is not meant to suggest the winking emoji should be used in an opening email; quite the contrary, we advocate for smart, mindful emoji inclusion. Students read each cue as something about their instructor. Importantly, the more inappropriately perceived the emoji was, the more strongly students seemed to react. Students were inclined, however, to assume instructors were using emojis *incorrectly* but with good intentions. Especially early, more neutral emojis might be more appropriate.

While impressions do alter over time, they start and are established early. Early impressions become difficult to drastically shift as time passes (Asch, 1946; Kohlan, 1973). Emojis are a form of personality disclosure. Instructors can utilize these cues in strategic ways to reveal parts of their personalities to students. Instructors do not have to disclose everything on day one, but a 😊 goes a long way – and students do seem to recognize and reward authenticity. When communicating through technology, instructors have flexibility when developing student relationships – in that a first impression is not restricted to the first minutes of the first day of class. Past scholars call for more attention to the role of impressions in instructor-student relationships (Teven & Katt, 2016). The current evidence indicates textisms like emojis fuel this relational development when used appropriately for the context.

3.3 Limitations

This study is not without limitations. First, email as the primary form of mediated communication seems antiquated; critiques exist that emails are *not* used by students. On many campuses, however, email is still the official means of communication. Students report email is a more professional means of communication (Chromey et al., 2016), so while not popular, email is still a significant form of technologically-mediated out-of-class communication. We recommend future studies explore the use of various tools (e.g., Zoom, Slack, Remind), as some may allow for varying levels of interpersonal relationships.

Second, relying on source credibility may pose problems. Myers et al. (2018) recommend a reconceptualization of the *credibility* construct, arguing that while “students generally associated instructor competence with content expertise, instructor character with integrity, and instructor caring with responsiveness,” these are not the only associations. They continued, noting “instructor affect for students and verbal fluency conveyed competence; instructor immediacy, flexibility, and promotion of understanding conveyed character; and instructor accommodation and accessibility conveyed caring” (p. 137). More work should be done to disentangle the cues of source credibility, especially in mediated environments.

3.4 Future research

Future work should unpack the limits to the effect of emojis on impression development. Nussbaum and Scott (1980) warned that instructors may try too hard to appear relationally similar. Evidence from the current study supports this. Though some students forgave instructors for inappropriate emoji use, others viewed the instructor as out-of-step or trying too hard. Future research should seek a limit or boundary to the relational benefits of emoji use by examining how the placement or frequency of emojis shifts students’ impressions.

Second, future work should build model explanations for impression development. Currently, each impression is viewed in isolation, but Asch (1946) suggests we do not form impressions as such; rather, we form a picture of the whole person, and thus, some impressions might decrease while others increase – and that all of this affects the overall impression. Future work might explore whether students feel they would approach or avoid instructors who use textisms. We can hypothesize students would approach instructors, but without future research, this question remains unanswered.

Last, future research should explore the complex relationship between emoji use and gender. Past research (Vareberg & Westerman, 2020) found no relationship between a student’s impression of the instructor who used emojis and the instructor’s gender; however, this did not account for the receiver’s gender. Given the expressive nature of emojis, their use is often associated with women, so naturally one might expect female students to interpret emojis differently than male students. Future research should explore these relationships more fully.

4 Conclusion

Instructors balance several choices when considering out-of-class communication with students, especially through mediated channels, and each decision might influence students' impressions. In this study, the use of emojis in a welcome email shifted students' perceptions of their instructors, either for better or for worse. Ultimately, instructors must balance establishing positive first impressions through emojis with maintaining professionalism. To do this, instructors should ensure they include emojis that are appropriate for the context.

Data availability The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Declarations

Conflict of Interest None.

References

- Adams, A. S. (2013). *Student perceptions of teacher emoticon usage: The effect on teacher credibility and liking* (Master's thesis). Retrieved from ScholarWorks of Sacramento State (No. 1924).
- Adams, A., Miles, J., Dunbar, N. E., & Giles, H. (2018). Communication accommodation in text messages: Exploring liking, power, and sex as predictors of textisms. *The Journal of Social Psychology*, 158(4), 474–490. <https://doi.org/10.1080/00224545.2017.1421895>
- Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology*, 41, 258–290.
- Banfield, S. R., Richmond, V. P., & McCroskey, J. C. (2006). The effect of teacher misbehaviors on teacher credibility and affect for the teacher. *Communication Education*, 55, 63–72. <https://doi.org/10.1080/03634520500343400>
- Burgoon, J. K., & Walther, J. B. (1990). Nonverbal expectancies and the evaluative consequences of violations. *Human Communication Research*, 17(2), 232–265.
- Carter, K. A. (2003). Type me how you feel: Quasi-nonverbal cues in computer-mediated communication. *An Internet Fieldtrip Report*, 29–39.
- Cavalheiro, B. P., Prada, M., Rodrigues, D. L., Lopes, D., & Garrido, M. V. (2022). Evaluating the adequacy of emoji use in positive and negative messages from close and distant senders. *Cyberpsychology, Behavior, and Social Networking*, 25(3), 194–199. <https://doi.org/10.1089/cyber.2021.0157>
- Cherbonnier, A., & Michinov, N. (2022). The recognition of emotions conveyed by emoticons and emojis: A systematic literature review. *Technology, Mind, and Behavior*. <https://doi.org/10.1037/tmb0000067>
- Chromey, K., Duchsherer, A., Pruett, J., & Vareberg, K. (2016). Double-edge sword: Social media use in the classroom. *Educational Media International*, 53(1), 1–12. <https://doi.org/10.1080/09523987.2016.1189259>
- Clark-Gordon, C. V., Bowman, N. D., Watts, E. R., Banks, J., & Knight, J. M. (2018). “As good as your word”: Face-threat mitigation and the use of instructor nonverbal cues on students' perceptions of digital feedback. *Communication Education*, 67(2), 206–225. <https://doi.org/10.1080/03634523.2018.1428759>
- Derks, D., Bos, A. E. R., & von Grumbkow, J. (2007). Emoticons and social interaction on the Internet: The importance of social context. *Computers in Human Behavior*, 23, 842–849. <https://doi.org/10.1016/j.chb.2004.11.013>
- Derks, D., Bos, A. E. R., & von Grumbkow, J. (2008). Emoticons in computer-mediated communication: Social motives and social context. *CyberPsychology & Behavior*, 11(1), 99–101. <https://doi.org/10.1089/cpb.2007.9926>

- Dobransky, N. D., & Frymier, A. B. (2004). Developing teacher-student relationships through out of class communication. *Communication Quarterly*, 52, 211–223. <https://doi.org/10.1080/01463370409370193>
- Doiron, J. A. G. (2018). Emojis: Visual communication in higher education. *PUPIL: International Journal of Teaching, Education and Learning*, 2(2), 1–11. <https://doi.org/10.20319/pijtel.2018.22.0111>
- Emoji frequency. (2021). *UNICODE*. Retrieved March 15, 2020 from <https://home.unicode.org/emoji/emoji-frequency/>
- Finn, A. N., Schrodtt, P., Witt, P. L., Elledge, N., Jernberg, K. A., & Larson, L. M. (2009). A meta-analytical review of teacher credibility and its associations with teacher behaviors and student outcomes. *Communication Education*, 58, 516–537. <https://doi.org/10.1080/03634520903131154>
- Frymier, A. B. (1993). The impact of teacher immediacy on students' motivation: Is it the same for all students? *Communication Quarterly*, 41(4), 454–464. <https://doi.org/10.1080/01463379309369905>
- Frymier, A. B. (1994). The use of affinity-seeking in producing liking and learning in the classroom. *Journal of Applied Communication Research*, 22, 87–105. <https://doi.org/10.1080/00909889409365391>
- Frymier, A. B. (2016). Students' motivation to learn. In P. L. Witt (Ed.), *Communication and Learning* (pp. 377–396). Walter de Gruyter Inc.
- Frymier, A. B., & Houser, M. L. (2000). The teacher-student relationship as an interpersonal relationship. *Communication Education*, 49(3), 207–219.
- Frymier, A. B., Goldman, Z. W., & Claus, C. J. (2019). Why nonverbal immediacy matters: A motivation explanation. *Communication Quarterly*, 67(5), 526–539. <https://doi.org/10.1080/01463373.2019.1668442>
- Fusani, D. S. (1994). “Extra-class” communication: Frequency, immediacy, self-disclosure, and satisfaction in student-faculty interaction outside the classroom. *Journal of Applied Communication Research*, 22, 232–255.
- Gesselman, A. N., Ta, V. P., & Garcia, J. R. (2019). Worth a thousand interpersonal words: Emoji as affective signals for relationship-oriented digital communication. *PLoS ONE*, 14, e0221297. <https://doi.org/10.1371/journal.pone.0221297>
- Goldman, Z. W., Cranmer, G. A., Sollitto, M., Labelle, S., & Lancaster, A. L. (2017). What do college students want? A prioritization of instructional behaviors and characteristics. *Communication Education*, 66, 280–298. <https://doi.org/10.1080/03634523.2016.1265135>
- Goldman, Z. W., Goodboy, A. K., & Bolkan, S. (2016). A meta-analytical review of students' out-of-class communication and learning effects. *Communication Quarterly*, 64, 476–493. <https://doi.org/10.1080/01463373.2015.1103293>
- Gorham, J. (1998). The relationship between verbal teacher immediacy behaviors and student learning. *Communication Education*, 37, 40–53. <https://doi.org/10.1080/03634528809378702>
- Harnish, R. J., & Bridges, K. R. (2011). Effect of syllabus tone: Students' perceptions of instructor and course. *Social Psychology of Education*, 14, 319–330.
- Horan, S. M., Houser, M. L., Goodboy, A. K., & Frymier, A. B. (2011). Students' early impressions of instructors: Understanding the role of relational skills and messages. *Communication Research Reports*, 28(1), 74–85. <https://doi.org/10.1080/08824096.2011.541362>
- Huberty, C. J., & Morris, J. D. (1989). Multivariate analysis versus multiple univariate analysis. *Psychological Bulletin*, 105(2), 302–308.
- Kaye, L. K., Malone, S. A., & Wall, H. J. (2016). “Turn that frown upside-down”: A contextual account of emoticon usage on different virtual platforms. *Computers in Human Behavior*, 60, 463–467. <https://doi.org/10.1016/j.chb.2016.02.088>
- Kaye, L. K., Rodriguez-Cuadrado, S., Malone, S. A., Wall, H. J., Gaunt, E., Mulvey, A. L., & Graham, C. (2020). How emotional are emoji?: Exploring the effect of emotional valence on the processing of emoji stimuli. *Computers in Human Behavior*. <https://doi.org/10.1016/j.chb.2020.106648>
- Kelly, S. E. (2012). *Examining the role of perceived immediacy as a mediator: Revisiting the relationships among immediate behaviors, liking, and disclosure*. (Unpublished doctoral dissertation). University of Tennessee.
- Kelly, S. E., & Westerman, D. K. (2016). New technologies and distributed learning systems. In P. L. Witt (Ed.), *Communication and Learning* (pp. 455–479). Walter de Gruyter Inc.
- Kohlman, R. G. (1973). A comparison of faculty evaluations early and late in the course. *The Journal of Higher Education*, 44, 587–595.
- Ledbetter, A. M. (2008). Chronemic cues and sex differences in relational e-mail. *Social Science Computer Review*, 26(4), 466–482. <https://doi.org/10.1177/0894439308314812>

- Ledbetter, A. M., & Larson, K. A. (2008). Nonverbal cues in e-mail supportive communication. *Information, Communication, & Society*, 11, 1089–1110. <https://doi.org/10.1080/13691180802109022>
- Legg, A. M., & Wilson, J. H. (2009). E-mail from professor enhances student motivation and attitudes. *Teaching of Psychology*, 36, 205–211. <https://doi.org/10.1080/00986280902960034>
- Levine, T. R. (2013). Quantitative communication research: Review, trends, and critique. *Review of Communication Research*, 1(1), 69–84. https://doi.org/10.12840/issn.2255-4165_2013_01.01_003
- Li, X., Chan, K. W., & Kim, S. (2019). Service with emoticons: How customers interpret employee use of emoticons in online service encounters. *Journal of Consumer Research*, 45, 973–987. <https://doi.org/10.1093/jcr/ucy016>
- Luker, K. (2008). *Salsa Dancing into the Social Sciences: Research in an Age of Info-Glut*. Harvard University Press.
- Marder, B., Houghton, D., Erz, A., Harris, L., & Javornik, A. (2020). Smile(y) – and your students will smile with you? The effects of emoticons on impressions, evaluations, and behaviour in staff-to-student communication. *Studies in Higher Education*, 45(11), 2274–2286. <https://doi.org/10.1080/03075079.2019.1602760>
- Martin, A. J., & Dowson, M. (2009). Interpersonal relationships, motivation, engagement, and achievement: Yields for theory, current issues, and educational practice. *Review of Educational Research*, 79, 327–365. <https://doi.org/10.3102/0034654308325583>
- McCroskey, J. C., & Teven, J. J. (1999). Goodwill: A reexamination of the construct and its measurement. *Communication Monographs*, 66, 90–103. <https://doi.org/10.1080/03637759909376464>
- McCroskey, J. C., & Young, T. J. (1981). Ethos and credibility: The construct and its measurement after three decades. *Central States Speech Journal*, 32, 24–34.
- McCulloch, G. (2019). *Because Internet*. Riverhead Books.
- Mehrabian, A. (1969). Methods & designs: Some referents and measures of nonverbal behavior. *Behavior Research Methods & Instrumentation*, 1, 203–207.
- Mehrabian, A. (1981). *Silent messages: Implicit communication of emotions and attitudes*. Wadsworth.
- Miller, H., Thebault-Spieker, J., Chang, S., Johnson, I., Terveen, L., & Hecht, B. (2016). “Blissfully happy” or “Ready to fight”: Varying interpretations of emoji. *Proceedings of the Tenth International AAAI Conference on Web and Social Media*, 259–268.
- Myers, S. A., Baker, J. P., Barone, H., Kromka, S. M., & Pitts, S. (2018). Using rhetorical/relational goal theory to examine college students’ impressions of their instructors. *Communication Research Reports*, 35(2), 131–140. <https://doi.org/10.1080/08824096.2017.1406848>
- Nadler, M. K., & Nadler, L. B. (2001). The roles of sex, empathy, and credibility in out-of-class communication between faculty and students. *Women’s Studies in Communication*, 24, 241–261. <https://doi.org/10.1080/07491409.2001.10162436>
- Nussbaum, J. F., & Scott, M. D. (1980). Student learning as a relational outcome of teacher-student interaction. *Communication Yearbook*, 4, 553–564.
- O’Sullivan, P. B., Hunt, S. K., & Lippert, L. R. (2004). Mediated immediacy: A language of affiliation in a technological age. *Journal of Language and Social Psychology*, 23, 464–490. <https://doi.org/10.1177/0261927X04269588>
- Pfeifer, V. A., Armstrong, E. L., & Lai, V. T. (2022). Do all facial emojis communicate emotion? The impact of facial emojis on perceived sender emotion and text processing. *Computers in Human Behavior*, 126. <https://doi.org/10.1016/j.chb.2021.107016>
- Priddis, D. (2013). Adding personality to the college online classroom: A comparative study between students and educators regarding the use of emoticons. Paper presented at Central States Communication Association.
- Quito, A. (2019). *Why we can’t stop using the “face with tears of joy” emoji*. Quartz. Retrieved March 10, 2020 from <https://qz.com/1726756/the-psychology-behind-the-most-popular-emoji/>
- Slack team. (2022). Beyond the smile: How emoji use has evolved in the workplace. Slack. Retrieved August 13, 2022 from <https://slack.com/blog/collaboration/emoji-use-at-work>
- Steinmetz, K. (2017). Forget words, a lot of millennials say GIFs and emojis communicate their thoughts better than English. *Time*. Retrieved August 12, 2022 from <https://time.com/4834112/millennials-gifs-emojis/>
- Tang, Y., & Hew, K. F. (2019). Emoticon, emoji, and sticker use in computer-mediated communication: A review of theories and research findings. *International Journal of Communication*, 13, 2457–2483.
- Teven, J. J. (2007a). Effects of supervisor social influence, nonverbal immediacy, and biological sex on subordinates’ perceptions of job satisfaction, liking, and supervisor credibility. *Communication Quarterly*, 55(2), 155–177. <https://doi.org/10.1080/01463370601036036>

- Teven, J. J. (2007b). Teacher caring and classroom behavior: Relationships with student affect and perceptions of teacher competence and trustworthiness. *Communication Quarterly*, 55, 443–450. <https://doi.org/10.1080/01463370701658077>
- Teven, J. J., & Katt, J. (2016). Instructor credibility. In P. L. Witt (Ed.), *Communication and Learning* (pp. 183–210). Walter de Gruyter Inc.
- Thweatt, K. S., & McCroskey, J. C. (1998). The impact of teacher immediacy and misbehaviors on teacher credibility. *Communication Education*, 47, 348–358. <https://doi.org/10.1080/03634529809379141>
- Vareberg, K. R., & Westerman, D. (2020). To: -) or to ☺, that is the question: a study of students' initial impressions of instructors' paralinguistic cues. *Education and Information Technologies*. <https://doi.org/10.1007/s10639-020-10181-9>
- Vareberg, K. R., Luo, Z., Westerman, D., Bartels, M., & Lindmark, P. (2020). For a good class, email: Technologically-mediated out-of-class communication and instructional outcomes. *The Internet and Higher Education*, 47, 100761. <https://doi.org/10.1016/j.iheduc.2020.100761>
- Waldeck, J. H., & LaBelle, S. (2016). Theoretical and methodological approaches to instructional communication. In P. L. Witt (Ed.), *Communication and Learning* (pp. 67–102). Walter de Gruyter Inc.
- Waldeck, J. H., Kearney, P., & Plax, T. G. (2001). Teacher e-mail message strategies and students' willingness to communicate online. *Journal of Applied Communication Research*, 29, 54–70. <https://doi.org/10.1080/00909880128099>
- Walther, J. B. (1992). Interpersonal effects in computer-mediated interaction: A relational perspective. *Communication Research*, 19, 52–90. 1177/009365092019001003.
- Walther, J. B. (1993). Impression development in computer-mediated interaction. *Western Journal of Communication*, 57, 381–398.
- Walther, J. B. (2019). Interpersonal versus personal uncertainty and communication in traditional and mediated encounters: A theoretical reformulation. In S. R. Wilson & S. W. Smith (Eds.), *Reflections on Interpersonal Communication Research* (pp. 375–393). Cognella Academic Publishing.
- Walther, J. B., & D'Addario, K. P. (2001). The impacts of emoticons on message interpretations in computer-mediated communication. *Social Science Computer Review*, 19, 324–347. 1177/089443930101900307.
- Walther, J. B., Loh, T., & Granka, L. (2005). Let me count the ways: The interchange of verbal and non-verbal cues in computer-mediated and face-to-face affinity. *Journal of Language and Social Psychology*, 24, 36–65. 1177/0261927X04273036.
- Willoughby, J. F., & Liu, S. (2018). Do pictures help tell the story? An experimental test of narrative and emojis in a health text message intervention. *Computers in Human Behavior*, 79, 75–82. <https://doi.org/10.1016/j.chb.2017.10.031>

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