

The communicative functions and adequacy of emoticons¹

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Abstract

This study examines the functions and communicative adequacy of emoticons, a research topic that is still very much in its infancy. Using insights from discourse analysis, we develop an instrument for the functional analysis of emoticons. This instrument is then applied to 200 facial emoticons.

Our results show that emoticons can function as speech acts, as politeness strategies, and as contextualization cues. Emoticon forms differ with respect to the functions that they fulfill. The majority of emoticons are found to be communicatively adequate, although they appear to be less adequate in business than in personal contexts.

Keywords

Emoticons, discussion lists, communicative functions, communicative adequacy, business communication

About the author

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being exploited in far more intricate ways than either users or many scholars realize. Emoticons are thus justly deserving of our attention.

This study analyzes a collection of 200 emoticons with respect to form, communicative function, and adequacy. The following questions are addressed:

- 1 What communicative functions are fulfilled by emoticons? For instance, are they simply used to embellish a message? Do they impart relevant information? Do they prevent or create misunderstandings?
- 2 Do all emoticon forms fulfill these functions equally?
- 3 Are emoticons used in a communicatively adequate way?
- 4 Are the communicative functions and the adequacy of emoticons influenced by contextual variables, such as the mood and the topic of the chat?

Our study is restricted to the analysis of facial emoticons produced by young women. In methodological terms, the research can be qualified as both discourse-analytic and descriptive. We aim to clarify communicative processes without claiming that the analysis reflects psychological processes of production and perception.

2 Previous research on emoticons

2.1 Functions

A review of previous research on emoticons reveals that analysts have attributed a wide range of functions to them. It is generally believed that emoticons are indicative of people's feelings and emotions (Crystal, 2001; Rezabek & Cochenour, 1998). They are thought to add expressiveness and warmth (Wallace, 1999), humor (Wolf, 2000), or sarcasm (Walther & D'Addario, 2001) to a text-based message. Emoticons might also reveal a person's attitudes (Crystal, 2001).

Another widely-held view is that emoticons are "surrogates for nonverbal communication" (Thompson & Foulger, 1996) and "electronic paralanguage" (Ma, 1996). Emoticons provide a substitute for audible, visible, and tactile elements of interpersonal, face-to-face communication (Blackman & Clevenger, 1990). "Smileys" are a "shorthand" means of describing physical conditions, and help to convey a message's intended tone. As "paralanguage," emoticons can also be used specifically to convey the fact that one is not being serious (Danet, Ruedenberg-Wright, & Rosenbaum-Tamari, 1997). Emoticons can

disambiguate meaning and change the valence of a message. Some authors associate this function specifically with irony (Danet, 2001).

Some authors have examined the possibility that emoticons can lower tension in exchanges; that is, that they can function as mitigating devices (Thompson & Foulger, 1996). Others have paid explicit attention to the idea that emoticons are related to the sender's identity: they identify the author of the text as playful, young, and inexperienced (Danet, 2001; Huffaker & Calvert, 2005). Several scholars have also highlighted the fact that emoticons, although potentially helpful, can confuse a message's meaning, because their semantic role is limited (Crystal, 2001; Thompson & Foulger, 1996; Walther & D'Addario, 2001). There is no guarantee that the interlocutor will understand the intended meaning. The following example illustrates this point (Van Tiggelhoven, 2005):

- (2) Chatter 1: *Hey, how are ya?*
 Chatter 2: *School's kinda busy.*
 Chatter 1: *That's a good sign, isn't it?*
 Chatter 2: *Yes, it is, but I'm not enjoying it much anymore.*
 Chatter 1: *Oh.*
 Chatter 2: *I think I'm gonna quit school 😊*

Chatter 2 signals with a “smiley” that she is not serious. However, her interlocutor might think that she genuinely intends to quit school and feels happy or relieved as a result. The literature also suggests that not all emoticons function in the same way. The “wink”, for example, is often used to prevent misunderstandings, while the “laughing face” might be used specifically to express emotions.

In sum, emoticons are thought to relate to many different aspects of the communicative event. Emoticons reflect the sender's internal state, his or her facial expression, and the tone of message delivery. Moreover, they mark the identity of the sender, they act as a guide to interpreting the text, and lower levels of tension in an exchange. Not all emoticons necessarily serve the same functions equally, however, and it is to be doubted whether all emoticon use is communicatively adequate.

2.2 *Empirical research*

Previous empirical studies of emoticons fall into two categories: first, experimental studies; and second, descriptive studies.

2.2.1 Previous experimental studies of emoticons aimed to trace the *effect* of emoticons upon readers. Starting with hypotheses drawn from the literature on nonverbal communication, Walther & D'Addario (2001) assessed the extent to which the verbal vs. nonverbal aspects of a message contributed to its interpretation. They found that nonverbal emoticons had less impact

than the verbal text. When the emoticon was negative, however, its impact increased. The effects of emoticons have also been examined in the context of “flaming” (Thompson & Foulger, 1996). As expected, the results showed that the presence of emoticons reduced perceptions of flaming. As the intensity of hostility increased, however, this effect was diminished.

Other effect-related studies of emoticons include those by Constantin et al. (2002a; 2002b), King, Dent, & Miles (1991), Utz (2000), and Walther & Tidwell (1995). In the context of moderated chat rooms, Constantin et al. (2002a; 2002b) found that emoticons had negative effects: moderators who used them were judged to be less dynamic by other chat room users, less friendly, less valuable, and less talkative. Utz (2000) investigated the effect of emoticons in Multi-User Dungeons, and found that they acted as predictors of social relationships. Walther & Tidwell (1995) also found that nonverbal cues in computer-mediated communication could have a positive effect on the development of social relationships.

In sum, one empirical study found no, or only a limited, effect resulting from the use of emoticons; another study found a negative effect; and several studies concluded that the effect was positive. Only the first-mentioned study controlled the form of the emoticons.

2.2.2 The majority of descriptive studies have been variational, aimed at detecting differences between groups. Witmer & Katzman (1997) identified a *gender* difference in emoticon use: they found that women used emoticons more frequently than men. Wolf (2000) also found that women used more emoticons than men, and that in discussions involving both genders, men adapted to women’s level of usage, rather than the other way around. Lee’s (2003) study showed that men do not use emoticons frequently in contact with other men, but do use emoticons when communicating with women. Women, by contrast, do not adapt their emoticon use to the gender of the interlocutor. We found two studies offering less definite conclusions about gender differences in emoticon use, however. Walther & D’Addario (2001) reported that the female and male subjects were equally experienced in emoticon use. Huffaker & Calvert (2005) studied web logs and found an equal percentage of men and women using emoticons. Men used them more frequently than women, however, and also used different emoticon forms.

Van der Loo (2004) reported *cultural* differences in the use of emoticons. Van der Loo compared emoticon-use among adolescents in the Netherlands with Turkish roots, and Dutch adolescents without a background of migration. The “Turkish” group used emoticons less frequently than the “Dutch” group. Rezabek & Cochenour (1998) compared university sites and individuals with respect to emoticon use. They found much individual variation, while “site” had only a minor effect. A study by Asteroff (1987), meanwhile, found that novice respondents use more emoticons than advanced respondents. Another group of studies looked

in detail at emoticon usage in Japan. Nishimura (2003) researched emoticon use within the broader framework of describing linguistic innovations in Japan. Katsuno & Yano (2002) reported that emoticons are used in Japan to establish subjectivity online.

Finally, our review of the literature revealed an in-depth description of teenage web logs, in which one of the characteristics studied was the use of emoticons (Huffaker & Calvert, 2005). The study identified different emoticon forms and functions. The researchers found that the most frequently-used categories of emoticon were “happy” and “sad”, and that emoticons helped to emphasize the tone or meaning of the message, and to establish an impression of the author. Moreover, the use of emoticons added expression to an otherwise wholly textual form.

This overview of previous research into emoticons shows that a discourse-analytic corpus description, such as this one, has not yet been undertaken. While we found that a diversity of functions has been ascribed to emotions, no study has explicitly probed this diversity. We also found that insight is lacking into the empirical distribution of different emoticon functions, as is an assessment of the adequacy of the use of the various forms. This study thus aims to build upon and extend the existing literature in these respects.

3 Data collection

When conducting a study such as this, the researcher must choose whether to investigate a large sample in few aspects, or a small sample in many aspects. Our focus on functions and adequacy was the decisive factor in opting for a “middle course”. Bearing in mind that the discourse analysis of natural interaction is a time-consuming process, we decided to examine a limited and relatively homogeneous sample. We collected 200 emoticons embedded in naturally occurring chats between young women. The term “naturally occurring” means that the chats were not produced in the context of the investigation. A data set of 200 emoticons would be sufficiently large to detect variations and to apply quantitative tools.

Data were collected via the following publicly-accessible forums and discussion lists:

- 1 www.vrouwenpraat.nl (“vrouwenpraat” is Dutch for “women’s chat”).
- 2 www.bnn.nl (BNN is a broadcasting company oriented towards young people).
- 3 www.fok.nl (the largest forum in the Netherlands, mainly attracting young participants).
- 4 www.kvswift.nl (a website belonging to a korfbal club).

We looked for chat fragments containing one or more of the following indications of female authorship:

- 1 The signature. In most cases, Dutch first names indicate the person’s gender. Many nicknames also give an indication of gender, e.g., *Miss Dynastie*.

- 2 The profile. On some forums, information can be found about the gender of the participants in their profiles.
- 3 The character statement, such as *Pure Angelic Evilness Inside*.
- 4 The identifying picture, such as 
- 5 The content of the message. Example (6) probably has a female author, for instance.
- 6 The surrounding messages in a discussion thread, which can indicate when a thread is female-only (this was apparent, for instance, when discussions were concerned with aspects of the female body and health, such as in example (4)).

We are aware that there is no guarantee that Internet gender and age converge with gender and age in real life. It is safe to say, however, that we collected emoticons produced by authors who displayed young female online personae.

Discussion topics in the data set included: love and relationships, health, leisure, radio and TV, fashion and beauty, sports, news, culture, housekeeping, chat, work, and school and education. Many discussions start with a person asking a question or making a statement, such as:

(3) *Coming Wednesday, I have to visit the dentist 😞 Does someone know a procedure to get whiter teeth without aggressive bleaching methods?*

Others then either react to the question or statement, or specifically address follow-up reactions.

The collection of 200 emoticons varied in form, as shown in Table 1.

Table 1: The emoticon forms in the data collection.

Emoticon form	Absolute frequency	Relative frequency
	58	29.0
	39	19.5
	21	10.5
	20	10.0
	15	7.5
	12	6.0
	11	5.5
	10	5.0
	3	1.5
	3	1.5
	2	1.0
	2	1.0
	1	0.5
	1	0.5
	1	0.5
	1	0.5
Total	200	100.0 %

This data collection was further analyzed with respect to meaning, function, and adequacy. It was not controlled for contextual variables, such as the mood of the interlocutors or the topic of the chat. It was thought that these variables might influence the forms and functions of the emoticons, however, as well as their adequacy. We coded the contextual variables so as to be able to evaluate their relevance (see overview in Table 2).

Table 2: The contextual variables.

Variable	Values	Distribution	Operationalization	Further reading
• Mood	Positive/neutral	85.5	Not negative	Bales (1951)
	Negative	14.5	The interactants disagreed, showed signs of tension and were unfriendly	
• Context	Personal	58.0	Exchange of evaluations, feelings, and opinions	Brown & Levinson (1987)
	Business	42.0	Facts and practical matters dominate the exchange	
• Topic	Small talk	55.0	Leisure, sports, culture, housekeeping, clothing, appearance, chatting, radio and TV	
	Serious	45.0	School and education, current affairs and news, love and relationships, health and nutrition, work	
• Time of production	Weekdays	67.5		
	Weekends	32.5		
• Togetherness	Yes	92.0	Chatters are together in the activity, show solidarity	Brown & Levinson (1987)
	No	8.0	Chatters are not together in the activity, keep a distance	
• Spontaneity	Yes	95.0	Not produced in response to an emoticon of the interactional partner	
	No	5.0	Produced in response	

4 Analysis

4.1 *Semantic decomposition*

As we have argued elsewhere (Huls, submitted for publication), emoticons are communicative structures bearing similarities to language forms. They have a syntactic structure and carry meaning. Although it is a prerequisite for the analysis, however, their meaning is difficult to grasp. We suggested that meaning should be attributed as if emoticons were interjections; that is, utterances such as “ah” and “oops.” Interjections are defined as exclamations that (generally) constitute independent utterances; that is, they do not function as parts of sentences or phrases, cannot be inflected, and are not used in derivations. They are *vocal* gestures, whereas emoticons can be seen as *visual* gestures.

Several pragmalinguistic scholars (Ameka, 1992; Wierzbicka, 1992; Wilkins, 1992) have “dissected” interjections semantically, in order to be able to determine their functions. This procedure is termed semantic decomposition, and has been achieved using Natural Semantic Metalanguage (NSM) (Wierzbicka, 1996). Following their example, we semantically decomposed the emoticons before analyzing their functions.

NSM consists of a list of semantic primitives, used to describe meanings. The following categories are relevant for the semantic decomposition of emoticons:

- Substantives: you, I, someone, people, something
- Mental predicates: think, know, want, feel, see, hear
- Actions, events, and movement: do, happen, move
- Evaluators: good, bad
- Intensifier: very
- Space: where, far, near, under, above, side, inside, here
- Clause operators: not, maybe
- Similarity like

The semantic primitives can be applied to a single object, such as a smiling face (which is “something good” in NSM). This disregards the fact, however, that emoticons not only refer to an object, but are also exchanged between interaction participants. Facial emoticons concern a human being (“I,” “you,” “someone,” “people”) and say something about them. For example, in the case of a “smiley,” I (or you, someone, people) show a smiling face; or I (or you, someone, people) feel good. Such emoticons must, therefore, be regarded as utterances.

Regarding emoticons as utterances that have a propositional content, however, creates a problem, because an emoticon consists of a single unit, whereas a proposition consists (at a

minimum) of a predicate and an argument. To solve this problem, we followed Weinreich (1980), who proposes filling “empty” arguments in the semantic structure – that is, arguments without a corresponding syntactic surface manifestation – with elements of the context. By accepting this principle, and by assuming that the default referent of the smiling face is the sender of the message, the following meanings can be attributed to emoticons:

😊, 😊 and 😊	I feel good
😞, 😞, 😞, 😞, 😞 and 😞	I feel bad
😄, 😄 and 😄	I feel very good
😡, 😡 and 😡	I feel very bad.

Such meanings do not fit in all contexts, as is apparent in example (4). The chatter is someone who engages in self-harm:

(4) *I'd appreciate feedback from you, or pointers that would help me 😊*

The chatter is not feeling good; instead, she is making a request and embroidering it with a smiley face as a symbolic gift. The empty argument here is not assumed to be the mental predicate “feel,” but an action or movement, something like “give” or “show,” or, in the non-natural terminology of NSM, “move near you.”

There is one facial emoticon that cannot be described in the terms used so far: 😊. The evaluator of the “wink” is “not good, not bad” or “maybe good, maybe bad”, but this meaning is not particularly helpful. We assume, then, that the “wink” claims common ground: “If you understand what I mean.” It offers something and expects something in return, namely, understanding. This meaning can be expressed in the non-natural language NSM as, “I want you know like I think.”

Once equipped with these minimalist assumptions about the meaning of emoticons, we analyzed their functions.

4.2 *Functional analysis*

4.2.1 Emoticons can function as graphic equivalents of speech acts. In accordance with the basic meanings, “I feel (very) good/bad,” they can function as expressive speech acts (Searle, 1976). Expressive speech acts make the speaker’s inner state explicit. They do not change the world, nor do they reflect it, but they do suppose a certain state of affairs and express the feelings of the speaker towards it. The speaker commits him- or herself to an expressed psychological state, as in the following example:

- (5) Chatter 1: *So did you get any Economics examples?*
 Chatter 2: *Erm, well, he really just kinda referred to the literature and derived a few questions from that as examples. But I didn't take them down very well 😞*

This emoticon can be paraphrased as, “and I feel bad,” and it performs an expressive speech act.

Although there appears to be full correspondence between the meanings, “I feel (very) good/bad,” and the function of an expressive speech act, this is not in fact the case. These meanings can be used to carry out other acts as well. For example, “I feel bad” can be used to refuse an invitation to go to a movie; “I feel good” can be used to stimulate desired behavior on the part of the addressee; and with 😊 or 😞, one can even make a statement about the government’s policy on immigration.

4.2.2 Not all emoticons function autonomously to perform speech acts. They can also function in the context of a verbalized speech act – an assertion, a promise, or a directive – as a mitigating or aggravating device, or as a kind of “embellishment” or “strategy” (as in example (4) above). We used Brown & Levinson’s (1987) inventory of politeness strategies as a framework for the classification of these non-autonomous uses of emoticons. In particular, three strategies from this inventory are relevant as functions that emoticons can fulfill. First, emoticons can function to presuppose, raise, or assert common ground. An example is (6):

- (6) Chatter 1: *How do you deal with the fact that you earn more than your partner?*
 Chatter 2: *I was mindful of him when buying things, and if it was the case again that he didn't have any money, we used to do things that don't cost anything, which can also be really fun. 😊*

Second, emoticons can be inserted into the message as a kind of joke:

- (7) *When does the training resume after the summer break, so I know for how long I can go on holiday 😊🇺🇸*

Third, emoticons can be added to a message as a symbolic gift, as in example (4) above and example (8):

- (8) *Who can give me Angela Verdoncke's email address and telephone number?
 You can mail it to ilsekramers@hotmail.com .
 Thanks 😊*

We suggest that all emoticons can be classified as either autonomous speech acts or as politeness strategies. Assuming that this suggestion is correct, this would imply that speech act

theory and politeness theory together provide exhaustive and mutually exclusive categories in an instrument for the discourse analysis of emoticons.

4.2.3 In addition to the pragmatic functions described above, emoticons can function as contextualization cues (Gumperz, 1982). Contextualization cues steer the interpretation of an utterance as a part of an activity; they are cues that supply context. They can signal, for example, that the speaker is joking rather than being serious; the speaker is playing instead of being offensive; the speaker is requesting information rather than giving directives; or that the speaker is being kind instead of being arrogant.

Contextualization cues can be found in many aspects of an exchange, including syntax, lexical choices, intonation, conversational openings and closings, and the sequential structure of the interaction. Auer (1992) takes Gumperz' work one step further, arguing that contextualization cues can also be given nonverbally. Using this insight, we found that emoticons can perform a similar function. For example:

- (9) Chatter 1: *Did you know that I had been out on a date...?*
 Chatter 2: *Who, you? Finally! But that's great for you. Who, what, where?*
 Chatter 1: *Robin.*
 Chatter 2: *How was it?*
 Chatter 1: *Oh, quite fun, but that was all.*
 Chatter 2: *Wouldn't expect anything different, a light like you... 😊*

The emoticon indicates that Chatter 2 is teasing Chatter 1. Without the emoticon, the exchange could have been interpreted as offensive.

The instrument that we developed for the functional analysis of emoticons can now be summarized as follows. Emoticons can fulfill a function in discourse in several respects. Pragmatically, they can function as speech acts (for example, as expressives) and as politeness strategies (for example, to presuppose, raise or assert common ground, to joke, or to offer a gift to the addressee). Emoticons can also function as contextualization cues.

4.3 *Communicative adequacy*

In order to be able to assess emoticons' communicative adequacy, we also coded them with respect to "redundancy" and "vagueness." We considered an emoticon redundant when its meaning in NSM was also explicit in the textual part of the message. We considered it vague when there was more than one possible referent.

Based on these codings, we created a new variable, which we called "communicative adequacy." An emoticon is communicatively adequate when the following three conditions are met: first, the emoticon functions as an expressive speech act and/or as a contextualization cue; second, the emoticon is not redundant; and third, its referent is clear.

We did not include the strategically-used emoticons in the “communicatively adequate” category because they are dispensable. They can be removed without fundamentally damaging the exchange. Of course, this is a matter of choice.

4.4 Quantitative analysis

The data lent themselves mainly to cross-tabulation. The relationships between forms, functions, and communicative adequacy were evaluated statistically using χ^2 –tests. The effects of the contextual variables on the functions of the emoticons, as well as on their communicative adequacy, were analyzed using logistic regressions (Field, 2000). The emoticons studied were spontaneously produced. This was a definite advantage for the ecological validity of the study, although it made it necessary to join categories in cases of uneven distribution (Siegel & Castellan, 1988). Two variables met this condition: the form of the emoticon and its function.

With respect to the emoticon’s form, we created a new variable that we termed the “form category” of the emoticon. The “good” and “very good” faces were merged into one category, “good;” 😊 was kept apart as “maybe good, maybe bad;” and the “bad” and “very bad” ones were merged into one category, which we termed “bad.” With respect to the emoticons’ functions, we put all the politeness strategies under the heading, “solidarity strategy,” as these strategies share an orientation towards solidarity in human relationships.

5 Results

5.1 The communicative functions and adequacy of the form categories of emoticons

Table 3 shows the communicative functions and adequacy of the different form categories of emoticons.

Table 3: The communicative functions and adequacy of the form categories of emoticons (percentages).

	Expressive speech act	Solidarity strategy	Contextualization cue	Communicative adequacy
“Good” (n=83)	77.1	22.9	18.1	75.9
“Bad” (n=78)	100.0	00.0	1.3	92.3
“Maybe good, maybe bad” (n=39)	00.0	100.0	51.3	48.7
Total (n=200)	71.0	29.0	18.0	77.0

Form category and pragmatic functions: $\chi^2(2) = 128.85, p < .001$.

Form category and function as contextualization cue: $\chi^2(2) = 44.03, p < .001$

Form category and communicative adequacy: $\chi^2(2) = 27.99, p < .001$

With respect to pragmatic function (see the first two columns of the table), the majority of emoticons perform an expressive speech act, although a considerable number of emoticons are used strategically. The form categories differ according to pragmatic function: the “bad” category is always used for performing expressive speech acts; the “maybe good, maybe bad” category never has this latter function, and is only used to show solidarity; and the “good” category fulfills both pragmatic functions. Here is an example of a “sad face” performing an expressive speech act:

(10) (Chatters 1 and 2 are busy preparing for an examination)

Chatter 1: *But I'd better get on with reading, reading, reading, reading, reading, reading, reading*

Chatter 2: *yeah, me too*

Chatter 1: 😞

The third column shows that 18% of the total number of emoticons function as contextualization cues. The form categories differ with respect to this function: the “maybe good, maybe bad” category fulfills it most frequently; the “good” category can have this function, but rarely does; and the “bad” category almost never functions in this way.

From the fourth column, one can see that the great majority of the emoticons are used in a communicatively adequate way. Distinctions can be observed in the communicative adequacy of the form categories. The “bad” category achieves the highest percentage, the “good” category occupies second position, and the “maybe good, maybe bad” category is slightly more frequently inadequate than adequate.

5.2 *The effects of contextual variables*

We evaluated the effects of the contextual variables using logistic regressions. “Pragmatic function,” “function as a contextualization cue,” and “communicative adequacy,” were the dependent variables used. The variables mentioned in Table 2 were included as factors.

We found that the models were not significant, and the explained variances were low. Moreover, the factors in the model overwhelmingly showed no significant relationship with the functions, with one exception: we found that communicative adequacy was related to the context of the chat. Table 4 shows this relationship.

Table 4: The communicative adequacy of the form categories of emoticons in a business vs. a personal context.

	Business context		Personal context	
	<i>N</i>	Adequate	<i>N</i>	Adequate
“Good”	34	58.8	49	87.8
“Bad”	36	91.7	42	92.9
“Good/bad”	14	35.7	25	56.0
Total	84	69.0	116	82.8

According to these results, emoticons are less communicatively adequate in business than in personal contexts. Moreover, in business contexts, the form categories differ with respect to adequacy: the “bad” faces were found to be more adequate than the “good” faces, while the “maybe good, maybe bad” face was found to be the least adequate. Example (11) illustrates these findings. The emoticon duplicates the textual part of the message, and is thus redundant:

(11) (Two chatters have just passed an exam)

Chatter 1: *I'm happy for us too* 😊

In a personal context, the “maybe good, maybe bad” category differed from the other form categories, yielding the lowest percentage. A comparison of the “good” categories in the two contexts reveals significantly less adequate functioning in business contexts than in personal contexts. The other categories do not differ regarding context.

We conclude that the context-specific patterns in Table 4 are not completely in line with the overall patterns in Table 3. The most notable finding is the decline in adequacy of the “good” faces in business contexts. Also taking the low level of adequacy of the “maybe good, maybe bad” category in this context into consideration, our conclusion is that one should be cautious in one’s use of emoticons in business contexts.

6 Conclusions and discussion

With respect to the first research question concerning the communicative functions of emoticons, we found that emoticons fulfill a number of different roles. In the majority of cases, emoticons are used to perform expressive speech acts, while a substantial number are used strategically to embellish messages and express solidarity. In addition, emoticons are used as contextualization cues.

The second research question focused on the relationship between form and function, and we did indeed find such a relationship. The “bad” form category was always used to perform expressive speech acts; the “maybe good, maybe bad” category never had this latter function and was always used to express solidarity; and the “good” category fulfilled both these functions. Moreover, the “maybe good, maybe bad” category was most frequently used as a contextualization cue. The “good” and the “bad” categories also fulfilled this latter function, although less frequently.

With respect to the third research question, concerning emoticons’ communicative adequacy, we found that a considerable number of emoticons were not used adequately, with the “maybe good, maybe bad” form category yielding a lower score than the others. Regarding the final research question on the influence of contextual variables on communicative functions and adequacy, it was found that most of the variables that were investigated had no effect. There was one exception, however; we found the use of emoticons in business contexts to be less adequate than in personal contexts. The “good” form category was particularly notable in this regard.

Some of our findings have relevance for the practice of writing. Emoticons can be used as expressive speech acts and can provide the necessary context for adequate understanding. When used as such, facial emoticons can serve to enrich the communicative repertoire. We also found, however, that emoticons prove to be inadequate communicative devices when used in business contexts. Overall, we found that in business contexts, emoticons are inadequate in 31.0% of cases. The “good” category yields a higher percentage (41.2%), whereas the “maybe good, maybe bad” category is most frequently inadequate (64.3%). These data suggest that one should be cautious when using emoticons in the context of business communication.

A closer look at the figures for the “maybe good, maybe bad” category also reveals findings that are relevant to the practice of writing. It is clear that this category in particular functions as a “contextualization cue,” that is, preventing misunderstanding. In doing so, however, it is frequently redundant or vague, a finding that applies both to business and to

personal contexts. Users of this form should thus be aware that its use might create, as well as prevent, communication problems.

As regards methodology, we made some choices that, despite careful consideration, limited the study's validity. When collecting the data, we opted for a "middle course" and chose to analyze a restricted and relatively homogenous sample of emoticons. The sample size was large enough to provide answers to our research questions, but was too small to allow us to draw more general conclusions about broader groups, such as "adolescents" or "humans." Similar studies using different groups of subjects might reveal interesting patterns of social variation, as well as potential sources of misunderstanding between social groups.

We did not check the reliability of the coding by applying tools such as Cohen's (1960) Kappa coefficient. We approached the analysis of the emoticons as a collaborative task with judgmental and analytical aspects, and aimed to minimize judgmental and potentially subjective aspects by following procedures and explicating guidelines. Future research that includes inter- and intra-rater reliability tests could demonstrate the extent to which our attempt to minimize these judgmental aspects was successful.

These methodological issues are relevant for the appraisal of the descriptive value of the study. They do not invalidate its basic contribution, however, as a more detailed insight into what people do – and what they can do – when they use emoticons as part of computer-mediated communication. The study offers a classification of emoticons' functions based upon insights from pragmatics and from discourse analysis, providing a starting-point for future research.

Indeed, this classification of functions could be extended in a number of directions. For example, at the level of the speech act, an emoticon can function as a representative (that is, a description of a state of affairs in the world), and as a directive (that is, an attempt to steer the behavior of the addressee). At the strategic level, meanwhile, emoticons can also be used as code switches and, accordingly, as in-group identity markers. Moreover, emoticons can be used as indirect means of communication, for example, as hints or association clues, or to invoke vagueness. Future research could offer insights into these additional functions.

In sum, this study provides a discourse-analytic stepping-stone on the road to gaining more insights into the intricate communicative functions of the emoticon, that new and deceptively easy to insert entity in computer-mediated communication.

Notes

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