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# A Provocation for Rethinking and Democratising Emoji Design

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**Abstract**

Use of emoji is now pervasive in all manner of online messaging and communication. We review how emoji are selected for inclusion in the widely-accepted Unicode Standard and argue that end users are insufficiently engaged in this design process. We argue that this is a timely topic for discussion and call for suggestions to democratise methods for emoji design and selection. As an example we propose our own online platform for emoji co-design and argue that a design approach that engages with user communities more will result in emoji that are flexible across languages and cultures, and are used more frequently.

**Author Keywords**

Emoji; online messaging; standards; co-design.

**ACM Classification Keywords**

H.5.m. Information interfaces and presentation (e.g., HCI).

**Introduction**

Emoji are picture symbols that originally became available on Japanese mobile phones in 1999 [6]. While the term has been loosened to refer to any digital pictograph (e.g. Kimojis [30]) true emoji are arguably those that have been included in Unicode's Standard and thus may be available regardless of the messaging application, operating system, or platform [26].



Figure 1: Face with tears of joy, Apple design [20].

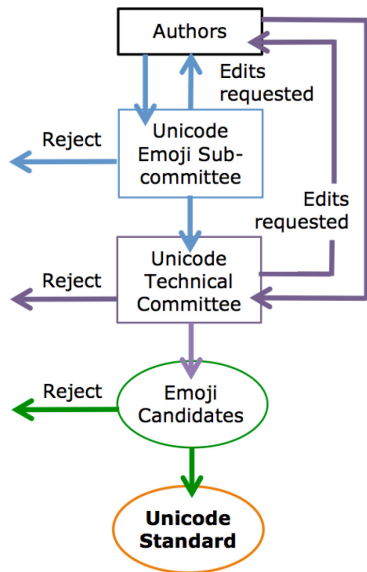


Figure 2: Representation of Unicode's emoji design and selection process. The process starts with authors submitting a proposal based on [22].

Since the emoji keyboard's incorporation into iOS in October 2011 and into most Android platforms in July 2013 their use has increased exponentially. According to Instagram, for instance, in March 2015 nearly half of all posts on its service contained emoji [5]. It is also evident that the role of emoji has evolved from its conception as mere pictographs of, for example, food or animals, or icons to indicate the emotional tone of messages. While Unicode explicitly states otherwise [24], there is enthusiasm for considering emoji as if it were an actual language. For instance: Oxford Dictionaries named "face with tears of joy" (Figure 1) as the US and UK Word of the Year in 2015 [10], Australia's National Young Writers Festival ran a 140 character narrative writing competition in emoji [13], and several literary works have been "translated" into emoji [3,7]. It is questionable, however, whether the meaning of these emoji translations would be accessible without the original material being a well-known story or having sufficient context provided: try, for instance, reading *Emoji-Dick* [3] without the text for support.

Amongst linguists, there is also debate as to whether emoji could become a language; some argue such a premise is "ridiculous" [4] whereas others say this is a future possibility [27]. Some have even proposed that emoji could be the ultimate Lingua Franca [9,15,32]: an intermediary language that can be used in situations where users of different languages interact [29]. The examples above, however, are all translations from and into the same language (English), and there are currently no examples of emoji being used as a Lingua Franca in the general media or academic press. As Unicode states, the meaning of emoji is not universal [24] and so knowledge of cultural background would be

essential in the translation of messages from one language into emoji and then into another different language. Therefore, Lu et al's [9:770] assertion that emoji "do not have language barriers" can be perhaps viewed as rather naive. Regardless of these issues, the first paid emoji translator job has been advertised [18] and an emoji translator engine proposed [2].

### How are emoji designed and selected?

For a new emoji to be incorporated into the Unicode Standard, it must be approved by Unicode's emoji design and selection process shown in Figure 2 (based on [22]). Once a year new emoji candidates are reviewed and rejected or accepted for encoding into the following year's Unicode Standard release. A public review is included as part of this process in order to "elicit better information on the practical impact of such proposals on users" [21]. However, it is unclear where exactly in the process this happens, and, to date, evidence shows that there appears to have been little actual end-user engagement. For example, during the public reviews of the four most recent emoji amendments a maximum of 25 (predominantly a group email signed by 14 authors) [25] and sometimes as few as 3 people [23] provided feedback.

### Why is user engagement important?

In language, the invention of new words, and their proliferation (or not), is entirely dependent upon a community [8]. In contrast, it is more difficult to perform such creative processes with emoji. For further clarity, we compare emoji to emoticons. Both emoticons and emoji are icons; visual signs that physically represent what they stand for. However, while emoticons are made up of characters, such as numbers, letters and punctuation marks (Figure 3) and

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( - \_ - ; )  
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Figure 3: Emoticon examples: smiley face, worried face, a rose, and a cheerleader [31].

can be combined in new ways to create new and innovative pictorial representations, emoji are units in themselves that cannot be edited or manipulated. Therefore, aside from the annual inclusion of new emoji, new meanings can only be created by assigning them to already existing emoji or by combining emoji. Therefore, the prescribed nature of emoji creation and acceptance, as outlined above, brings to mind *newspeak*; a language whose vocabulary is controlled by the totalitarian state in the Orwell's novel '1984' [14]. While there is currently some user input, this is a long way from a collaborative process. We argue that it is imperative that a dialogue is established with users in regards to new emoji considering that the methods for manipulating current emoji are so constrained, regardless of whether it is to become a language or not. The design and selection of emoji equates to the design and selection of the meanings available in this medium and therefore directly impacts on the messages, topics, and interactions that can take place.

### **Making emoji design more democratic**

Unicode states that "every character that goes into [the standard is] scrutinized carefully" [24] and we posit that if a greater scope of communities, languages and cultures were consulted this could lead to the proposed emoji being assessed far more critically than they currently are. For example, while Unicode states that they will not include an emoji in order to promote a cause [22] the social and political issues surrounding an emoji could still be discussed and made visible. For example, the potential for skin tones to be used in a discriminatory fashion [19] or the concerns over the gun emoji [11] could have been identified in advance of their release.

Below, some of Unicode's factors for the selection and exclusion of emoji [22] are reviewed with this possibility in mind.

### *Frequency of use*

Unicode requires that the emoji is expected to have a high usage worldwide or in a particular community. After compatibility, "this is the most important factor for inclusion" [22], therefore it seems contradictory that the thoughts of a large number of users are not consulted. By engaging with a larger audience, Unicode can be reassured of the probability of usage. Currently, to demonstrate the estimated frequency of use Unicode suggests that proposal writers compare the word that the emoji represents (e.g. "pie") to others already in the relevant emoji set (e.g. "cookie", "cake") in Google Trends (the number of searches across time can indicate interest in the topic) and Instagram (suggests the number of posts that may be labeled with emoji). Therefore, how the emoji may be used in micro-blogging or instant messaging, where the function may be to provide additional meaning rather than repeating it or merely labeling content, is not considered. A dialogue with user communities could address this gap.

### *Multiple usages*

The desire for multiple usages is probably to maximize the number of utterances in which the emoji could be used. As Unicode suggests "the meaning of each emoji may vary depending on language, culture, and context" [24]. We propose that, similarly to frequency, a more accessible design process would allow for the potential meanings for a proposed emoji to be collected from a wider pool of languages and cultures and may go beyond compound constructions (putting two emoji next to each other to create one unit of meaning, e.g.

the “apple” and “pie” emoji). Without such multi-lingual and multi-cultural input emoji that may be semantically flexible worldwide could be overlooked.

Also, additional meanings may be developed as a result of an emoji’s appearance. In some cases this alternative meaning has come to be used more than the emoji’s literal meaning. [1] found that the peach emoji was used to refer to the fruit in only 7% of tweets, but used to refer to buttocks and buttock-related activities (e.g. sexual or fitness activities) in 73% of tweets. Such additional meanings cannot be discussed in the current emoji proposal process.

#### *Image distinctiveness*

Miller et al. [12] and Tigwell and Flatla [17] found discrepancies in the way that face emoji were interpreted across platforms due to their differing designs. Currently, Unicode provides a black and white line drawing of every emoji in the standard, but it is up to the individual platforms to produce their own version [24] and it is not clear whether any of these companies engage with users in their particular emoji design process. Therefore, consultation with users in regards to cross-platform equitability could also be explored.

#### *Frequently requested*

Finally, when the taco emoji was a candidate a petition was set-up to demonstrate the public’s desire for its inclusion [16]. Whilst the emoji was included in the subsequent Standard, Unicode says the petition “played no part in its selection, because there was no evidence of reliability” [22] (i.e. a lack of robot and duplicate votes). If Unicode were to directly establish a dialogue with user communities they could be far more confident in the genuineness of the requests that are made.

### **A potential design method**

Engaging emoji users in the design and selection process could be done in several ways. One of these is an online platform. Here users could make suggestions for new emoji, discuss their meaning and potential use, and vote to indicate which they prefer. This would attempt to address the weaknesses in the current process by: i) engaging with a diversity of languages and cultures across the world, ii) considering the use of emoji in more contexts such as micro-blogging or instant messaging, iii) assessing cross-platform equitability, and iv) providing a secure platform for petitions, increasing their reliability. Unicode could then take this data into account in its decision-making.

There is a wealth of knowledge available in regards to the design and management of such platforms. Inspiration can be taken from Walsh and Foss’s [28] work on platforms for geographically distributed and asynchronous co-design activities and Xu et al’s [33] exploration of structured feedback. Our proposed work could contribute to this topic also by exploring the ways that users can design meaning, an abstract entity, rather than just appearance and function.

### **Conclusion**

In this paper we have drawn attention to the hegemonic nature of Unicode’s emoji selection process. Regardless of whether emoji evolves to become a language, we outline how engagement with users in their design would be beneficial, and why this would be of interest to the design community. We have also identified a potential design method that addresses many of the pitfalls in the current process of selecting emoji to be integrated into the Unicode Standard. We hope to see further work in this area in the near future.

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