

Sentiment of Emojis

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Abstract

Emojis are one of the phenomenons of the technological age. What started out as the odd smiley face at the end of a text message :) has evolved into being an indispensable part of informal computer mediated communication. For example, Instagram reports that in March 2015 nearly half of the texts on their platform contained emojis. But what is the emotional context of emojis? We engaged 83 human annotators to label over 1.6 million tweets in 13 European languages by the sentiment polarity (negative, neutral, or positive). About 4% of the annotated tweets contain emojis. By computing the sentiment of emojis from the sentiment of the tweets in which they occur, we constructed the first emoji sentiment lexicon, called the Emoji Sentiment Ranking, and draw a sentiment map of the 751 most frequently used emojis. The sentiment analysis of the emojis allows us to draw several interesting conclusions. It turns out that most of the emojis are positive, especially the most popular ones. The sentiment distribution of the tweets with and without emojis is significantly different. The inter-annotator agreement on the tweets with emojis is higher. Emojis tend to occur at the end of the tweets, and their sentiment polarity increases with the distance. We observe no significant differences in the emoji rankings between the 13 languages and the Emoji Sentiment Ranking. Consequently, we propose our Emoji Sentiment Ranking as a European language-independent resource for automated sentiment analysis.