



The Great Emoji War

BY DAVID KALAT

The advent of Unicode character encoding in 1991 largely solved the problem of competing character sets, but the solution opened a new Pandora's box. Using Unicode to provide enough binary code points to encompass the various written alphabets increased the number of unused code points exponentially. Software developers found new uses for those "extra" codes, for things like emojis. The graphical characteristics of any given emoji, however, can vary across platforms, and these differences can substantively alter the emoji's meaning. A message composed on one platform but received on another could convey unintended meanings, creating opportunities for severe misunderstandings.

The first emojis consisted of a set of ninety graphics included with SoftBank's SkyWalker DP-211SW mobile phone in 1997. These images, which included the still-popular poop emoji, allowed users of the SkyWalker cellphone to better customize their text messages. Over the next several years, similar palettes of playful graphics were developed by other Japanese cellphone manufacturers.

As the popularity of emoji use grew, major tech giants like Google recognized that widespread adoption of the idea required standardization. Users of the SkyWalker cellphone could exchange emoji-based communications, and users of cell phones on the NTT DoCoMo service could exchange a different set of emojis, but these sets of users could not interact.

This was, fundamentally, the same problem that had plagued the encoding of written language into binary in the era before Unicode, and indeed the solution was the same. Standardizing a set of Unicode codepoints to represent specific emojis would enable users across platforms to "speak" emoji to each other. Between 2006 and 2010, a furious effort to standardize emojis into Unicode took place, and with the release of Unicode 6.0, it became possible to transmit emojis across platforms.

Emojis caught on in part for the way they offered new opportunities to convey meaning and emotion through text message communication. Instant messaging more closely resembles spoken conversation than it does long-form letter writing or emails. The use of only written text to model spoken communication can, however, omit crucial auditory communication signals regarding tone or intention. Inserting visual cues in the form of emojis helps convey the sender's mood and often can encapsulate ideas more efficiently than the written word.

Users also could divine new connotations from the appearance of certain emojis that were neither intended nor previously present. A famous example of this phenomenon is the way that the eggplant and peach emojis came to be used as sexual symbols, based entirely on peculiar suggestions in their specific graphical design, despite little or no prior such associations with either the words or the fruits themselves.

Shigetaka Kurita, one of the principal inventors of emojis, had set out to assist users in avoiding socially embarrassing misunderstandings that could arise from text messages lacking indicators of tone or mood. Ironically, the tendency to imbue the visual design of emojis with additional layers of meaning, unintended by their creators, would (does? still might?) lead to the very misunderstandings Kurita had sought to avoid.

This potential problem boiled over into public controversy regarding the gun emoji.

Unicode character U+1F52B had been assigned to a left-facing pistol. In the same way that a Unicode character for any letter of the alphabet merely describes a generic concept, which can be expressed visually in different fonts, the Unicode description of a left-facing pistol leaves it open to each individual platform and system to render its own visual representation. When Apple first added emoji functionality to certain devices with iOS 2.2 in 2008, the U+1F52B pistol emoji appeared as a realistic handgun. As other platforms added emoji functionality, they generally followed suit.

In March 2016, this image became notorious. A twelve-year-old Virginia girl posted a message on Instagram that read in part: “meet me in the library Tuesday.” Following those words were three emojis—a gun, a knife, and a bomb. This message resulted in her arrest. The school deemed the threat “not credible,” and her family argued the message should not have been interpreted as a threat anyway. Nevertheless, she awaited trial in juvenile court on charges of threatening her school and computer harassment. In light of a rising incidence of mass shootings, activists took to Twitter to implore Apple to remove the gun emoji altogether.

In August 2016, Apple announced a set of new emojis that would be included in the upcoming iOS 10 update. One of these “new” emojis was a revamped old one. The handgun design of U+1F52B would henceforth appear as a cartoony lime-green toy water gun. Although the blog made no mention of any specific rationale for the change, both the media and the general public interpreted the move as a response to the increasing frequency of mass shootings, if not a direct response to the Virginia case and the Twitter pressure it inspired.

Whether Apple’s change was meant as a political statement or not, the sudden discrepancy between how this emoji appeared across platforms amplified the opportunity for significant misunderstandings. This was especially acute given the fact that up until Apple’s change, Microsoft had been an outlier in depicting the pistol emoji as a retro sci-fi ray gun. Shortly after Apple’s announcement, Microsoft’s Windows 10 Anniversary Update replaced the ray gun with a realistic revolver.

The website Emojipedia demonstrated the problem with a message sent from an iOS10 device that read “2pm tomorrow. Local park. Bring it:” followed by the toy water gun image generated by iOS10 for U+1F52B. As demonstrated in the example, that message received on an Android or Windows device displayed a realistic handgun at the end, significantly changing the message’s meaning.

This discrepancy persisted for several years. By 2018, most major platforms, including Microsoft, had changed the emoji’s appearance to a water gun of some type. The various social pressures and incentives to standardize imagery across platforms had led to a semantic drift. The original specification for U+1F52B had not intended or described the image as a toy gun or a water gun, but this has now emerged as the default rendering for that emoji.

The views and opinions expressed in this article are those of the author and do not necessarily reflect the opinions, position, or policy of Berkeley Research Group, LLC or its other employees and affiliates.

This article was originally published in Legaltech News on January 4, 2023. The opinions expressed in this publication are those of the individual author and do not represent the opinions of BRG or its other employees and affiliates. The information provided in the publication is not intended to and does not render legal, accounting, tax, or other professional advice or services, and no client relationship is established with BRG by making any information available in this publication, or from you transmitting an email or other message to us. None of the information contained herein should be used as a substitute for consultation with competent advisors.