Emoji: Thoughts and Observations

絵文字：考えと観察

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1. Introduction

Like it or not, it is no exaggeration to say that emoji's effect upon human communication has been revolutionary and phenomenal. The statistics are huge. According to Emojipedia（emojipedia.org）, five billion emoji were sent on *Facebook Messenger* daily in 2017. If the emoji sent from other communications（e.g., other SMS providers including *Twitter* and *Instagram*, regular email, blog posts, Internet site comments）were all factored in, the total number of emoji sent on a daily basis in 2021 would be staggering. A further indication of the magnitude of their impact can be seen in recent academic studies on the subject of emoji, which have included the research fields of computer and behavioural science, communication, marketing, linguistics, psychology, medicine, and education（Bai, Dan, Mu & Yang, 2019）. Books on emoji,（e.g., Evans 2017; Danesi 2017; Seargeant 2019）are comprehensive and in-depth, involving subject areas such as pragmatics, semantics, symbiotics, psychology, politics, culture, and the history of writing. It seems that the laughing faces and hearts that adorn our messages are far from frivolous – emoji usage is massive, and the topic is at the very heart of language and communication, which makes us human.

People like pictures and have done so for a long time. From ancient peoples blowing oca onto rock walls producing simple yet eloquent hand stencils, to smartphone users of today sending animated *stickers* through Line social media, humans appear to have always possessed an innate desire to express themselves pictorially. This fondness for image creation can easily be observed in children, as they seemingly take great delight in drawing and painting. People of all ages show a similar eagerness when send-

ing emoji. Nobody is forced to use emoji and the like（with the possible exception of peer pressure）, yet they are sent by the billions every day. Unlike reading and writing, emoji usage is not taught in school and is not a requirement to fully function in society. If people choose not to use them（as many do）there is no real disadvantage to their lives. It seems that a significant portion of the human population use these small pictures regularly because they genuinely like them. Put quite simply – emoji are fun. Emoji popularity has grown out of our desire to use them; they were never imposed upon us.

Before mobile technology and the Internet became commonplace, a type of 'emoji' appeared and became very popular. The Smiley was a harbinger – a stark yellow indication of what was to come decades later. The image was designed by Harvey Ball in 1963 to boost a company's morale. Badges featuring the simple smiling face became extremely popular, as according to Lucas（2016）"by 1971 over 50 million of them had been sold and the smiley was dubbed a national icon"（p. 32）. Smileys took the world by storm, and this may have been due to their simple design, expressiveness, positive message, and lack of ambiguity（i.e., it is just a smiling face – be happy!）. The same might be true for emoji, as users appear to enjoy sending the images because they are generally simple, expressive, upbeat, and clear in their meaning. Today's emoji smiling faces have evolved to convey a variety of expressions, as can be seen in *face with tears of joy* 😂, *smiling face with heart eyes*, 😍 and *rolling on the floor laughing* 🤣, which according to emojipedia.org, were the first, third and fourth most popular emojis in 2019. Despite these smiley iterations existing in the digital realm, the basic design of the yellow circle with the simple oval eyes and linear smile – once so popular pre-Internet on badges, t-shirts, and patches – has persisted, as shown in Figure 1.

2. Breaking free of text

When working within our limited set of symbols, the desire to break free and go beyond the boundaries set by written characters has persisted. Letters and written

Figure 1. (From left to right) Classic Smiley designed by Ball, Docomo & au by KDDI *smiling face* emoji, Microsoft *slightly smiling face* emoji, Apple *slightly smiling face* emoji. Sources: Smiley.com (left), Emojipedia.org (all others). Images used for educational purposes only.

words serve us extremely well, yet punctuation marks have provided a convenient means by which textual meaning can be altered. For example, repeating a symbol increases emotional intensity: *Please! Please!! Please!!! Really? Really?? Really???* and words can drift off into thoughts with a series of full-stops: *Life goes on* ..... Even with a slight usage of symbols, subtle nuance can be achieved: *He said he didn't know (?), She is a lawyer (!)*. Another example of note is how swearing was often represented in satirical publications such as Mad Magazine and in cartoon captions as a series of random symbols: *&*$%#@&*$%&!!* Writing can also be shouted using capitalization: *SEND MONEY NOW*. Before the advent of emoji, writers found inventive and understandable ways to escape the confines of written forms, enabling them to temper the meaning of their words despite having a limited number of characters.

Along with the desire to break free from the confines of written text, the means to do so is also necessary. In the time (not so long ago) of writing letters, including pictures in your correspondence may have been done by drawing them, or by cutting out images from newspapers or magazines and including them in the letter. Having pictures with correspondence required: (1) a medium – such as drawings, paintings, collage; (2) time – the time available to add the images; (3) special skills – such as the ability to draw or source images. Advances in communication technology have provided us with the ability to circumvent all of these conditions; choosing, creating, and sending pictures easily and instantly was simply not an option before the rise of infor-

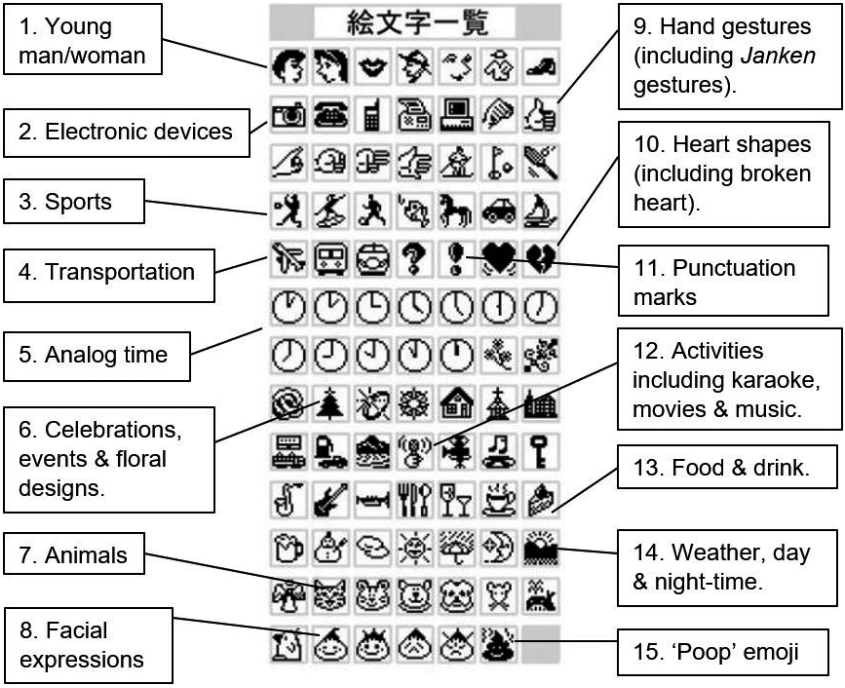
mation technology. Chemical, optical, electronic, and digital advances have resulted in a world flooded with images. According to Seargeant（2019）, “Both hardware and software influence what we are able to do, along with how and when we’re able to do it”（p. 6）. This is very much the case with sending each other emoji – we do so because we can.

3. Emoji origins

What could be described as the first true emoji was one single, solitary character on the NTT Docomo pager *poke-beru* or *Pocket Bell*, a device popular with Japanese youth including high schoolers in the mid to late 1990’s. This lonely pictogram was a heart shape, which according to the Unicode Consortium（unicode.org）remains extremely popular, as it is the second most frequently used emoji in current usage. The icon’s enduring popularity is unsurprising given that the classic heart shape（🖤）is synonymous with the base human emotion of love. According to Lucas（2016）, Docomo（in order to appeal to the business market）removed the heart shape from subsequent models of the *Pocket Bell*, resulting in unhappy high school students, market rejection, and plummeting sales. With their lesson learned, the company charged Shigetaka Kurita（often considered the inventor of emoji）with the task of designing characters for their Internet connected *i-mode* mobile phone service. In doing so, he created the first set of 176 emoji in 1999 that subsequently evolved into the emoji of today. However, Burge（2019）points out that another Japanese communications company, Softbank（known as J-Phone at the time）, had already designed and released a set of 90 icons two years prior on November 1, 1997 for the *SkyWalker DP-211SW* mobile phone. And so, emoji lore has been revised.

The level of mobile technology in the 1990s meant that（by today’s standards）the memory space on the *SkyWalker* phone was extremely limited, so icons intended for the device would have been carefully designed and chosen. Figure 2 shows the *SkyWalker* icons classified into subgroups, which include transportation, electronic devic-

Figure 2. Main categories of icons for the *SkyWalker DP-211SW* mobile phone. Launched on November 1, 1997, it predated Shigetaka Kurita's 1999 emoji set. Source: Adapted from Burge (2019). Comments by the author.



es, analogue clock faces, weather conditions, and animals. There are six hand gestures, including characters that enable users to do the popular *janken* or 'rock, scissors, paper' game/activity. Many icons focus on the youth market, with the depiction of a young Japanese man and woman, sports, special events/celebrations, activities (such as karaoke), food & drink, and music, all indicating an active lifestyle. Punctuation marks (**?** and **!**) are included to give text messages the right emphasis, and the oldest electronic icon, the heart, appears in two forms: energized or sadly broken. *Poop* emoji even makes its debut. These icons have persisted, as all 90 have modern emoji versions (see Burge, 2019). Perhaps the main difference between the *SkyWalker* set and modern emoji is the lack of facial expressions. The teardrop shaped faces are dissimilar to the

classic smiley-type faces of subsequent emoji generations, and there are only four: two types of happy, one sad, and one angry. It appears that this first true emoji set focuses more on practical necessity（i.e., for socializing, dating）rather than emotional expression as seen in the high frequency emoji（e. g., *tears of joy* 😂）of today.

Consistent with the limitations of 20th century mobile device technology, emoticons（e.g., ":-D" – *smiling face*）and kaomoji（e.g., "(^_^)" – *smiling face*）were often used to create pictorial information. These are inventive pictures which utilize existing textual characters to make a variety of meaningful images. Texting with a mobile phone's small keypad is an arduous task compared to interfacing with a standard keyboard, so textspeak（e.g., *H8 = hate*, *HAND = Have a nice day*）evolved in accordance with user languages（e.g., Japanese textspeak）. The *P209iS keitai*（mobile phone）was launched by NTT DoCoMo in 2000 and featured their revolutionary *i-mode* access to the Internet. Apart from numbers, standard punctuation marks, and textual characters, the only other symbols the author can find on his old purple *P209iS* is a musical note（♪）and a star shape. Their inclusion appears to specifically be for adding a positive emotion to text messages, and for emoticon/kaomoji creation. The musical note is similar to the *Pocket Bell*'s solitary heart shape in that it can give messages a lighthearted, fun, and whimsical impression. The musical note has the added advantage of being able to represent music and singing（i.e., karaoke）.

The *P209iS* includes a set of 30 kaomoji（顔文字）, including "(*__*)" – *surprise*, "(ToT)" – *crying,* and "m(_ _)" – *begging forgiveness*, all of which continue to be used today. Interestingly, extensive sets of emoticons and kaomoji can still be found on the latest smartphone virtual keyboards. This enduring availability is indicative of how these images are still valued by many users, and how they continue to be sent despite their crude form in comparison to the emoji of today's devices. See Figure 3 for examples of four kaomoji the author created on his old *P209iS*（which still works）.

Mobile phone technology continued to advance rapidly after the year 2000, with larger and higher resolution screens, better Internet service, and improved operational

software and memory capacities. One such mobile device was the Sharp *V402SH* launched by Vodafone on July 24th, 2004. The technological advancement of the *V402SH* when compared to the *P209iS* (launched four years prior) is evident in its improved display, functionality, and collection of 250 colorful and detailed pictograms, some of which are animated. The *V402SH* features a large number of facial expressions. Apart from four smiley-style icons on Screen 2, Screen 5 contains 24 different facial expressions (see Figure 4). These images do not conform to the classic smiley-design emoji, as they are square shaped and 'skin' colored. These images suggest that the need was being recognized at that time for icons depicting emotional expression.

Figure 3. The *P209iS* launched in 2000 by NTT DoCoMo. Kaomoji denoting (from top to bottom): (1) *karaoke*; (2) *thinking* or *nothing to say*; (3) *anger* featuring a pound symbol used as a manga style protruding vein; (4) *happiness* enhanced with the addition of a musical note. Photograph by the author.

It is interesting to note that the emojis on Screen 1 of Vodaphone's *V402SH* closely resemble (in terms of content and ordering) the first 50 icons on the J-Phone *SkyWalker*, as shown in Figure 5. Perhaps the design team for the *V402SH* required a starting point for their designs, so they chose the first 50 items from the *SkyWalker* set – which it is assumed they could legally do given that Vodaphone used to be known as J-Phone – and created their own versions of these icons, and then proceeded to add 200 more items. It might also be possible that the designers wanted to maintain continuity and proprietary over the original J-Phone designs. The icon set on the *V402SH* has nowhere near the same level of resemblance to Kurita's emoji set from 1999, which may have been purposefully done to avoid copyright issues since he was working for the rival company NTT Docomo at the time. Regardless of the reasons behind the *V402SH* designs, the images show a direct link between (what most likely is) the very first set of emoji from 1997 to a set of the 21st century.

Figure 4. Screen 5 of the Sharp *V402SH* featuring 24 facial expressions (upper portion) dissimilar to modern smiley-style emoji. Photograph by the author.

Figure 5. The 1997 *SkyWalker* icon set (left) as it appears in the user manual, and Screen 1 of the *V402SH* from 2004 (right) indicating major similarities in design content and ordering. Sources: Burge (2019) (left) and photograph by the author (right).

Despite emoji becoming colorful, animated, and easy to use, they suffered a major drawback. Different proprietary systems were often incompatible, resulting in what the Japanese term as *mojibake*（文字化け）, described by Seargeant（2019）as “garbled characters that result from text being encoded and decoded using incompatible systems”（p. 15）. This problem was solved in 2010 when emoji were granted standardized

coding by the Unicode Consortium. The organization introduced Unicode 6.0 which supported 994 emoji characters. This meant that companies such as Microsoft, Apple and Google could create their own versions of emoji designs that would be recognized on all operational platforms. Some emoji from the Vodaphone *V402SH* survived to appear in Unicode 6.0, such as *alien* , *woman dancing* , and (as seen in Figure 4) *people with bunny ears* . Unicode heralded a new era for emoji, as standardized encoding meant they could finally be shared regardless of the service provider, device, or operational system. Emoji were free to roam – on par with text.

Some emoji on the *V402SH* appearing in Unicode 6.0 are specific to Japanese culture, such as *cherry blossom* , *Tokyo Tower* , *kimono* , *love hotel* , and *Japanese castle* . (Interestingly, the notorious *pile of poo* emoji is in the *SkyWalker* and Kurita sets but is not included in the *V402SH*). Emoji appear to have maintained their Japan-centric quality despite being adopted and used internationally. This situation would certainly not have been the case if the symbols had originated in another part of the world, such as Silicon Valley. Unicode 6.0 includes a considerable number of emoji depicting aspects of Japanese culture – testament to emoji origins. Mix a pinch of Japanese obsession for cuteness, a passion for graphic expression (as evident in the popularity of manga), an enthusiasm for the latest technology, then add a healthy dose of the fickle Japanese youth market, and you have a perfect recipe for the 'picture writing' so prevalent today.

4. What emoji cannot do

Emoji have been in popular usage for over 20 years now, and in this time have shown their capabilities. Despite their mainstream popularity and revolutionary impact upon communication, their limitations are apparent. Contracts, trade agreements, and traffic fines do not use emoji. Emoji are increasingly appearing in court cases (see Browning & Seale, 2017) yet are typically only submitted as evidence (e.g., a bomb threat using a *bomb* emoji; a message being taken in the context of added emoji)

and do not play a role in legal proceedings（i.e., court documentation）. Governments do not enact laws using emoji, and emoji are not used in medical journals to describe surgical procedures. Emojis have been utilized for important tasks, such as teenage patients in an Australian hospital using emoji to communicate their feelings（Hoh, 2017）. However, when language is required wherein there are serious 'real world' consequences（e.g., for the purposes of law, business, finance, science, medicine, or engineering）emoji are well and truly out in the cold.

Emoji is restricted in this way because it is not a language. In order to make this assertion, it is necessary to define the word *language.* Harley（2014）explains the inherent difficulty with defining language yet offers a simple definition: "a system of symbols and rules that enable us to communicate"（p. 5）. This definition can be used as a basis to offer the following: *Language is a rule governed system that uses a finite number of symbols to create an infinite number of different messages for the purpose of communication.* The number of symbols such as sounds and written characters that make up a language is limited（e.g., 26 letters in the English alphabet）yet combining these elements in different ways can produce virtually any utterance. This 'finite to infinite' quality of language could be considered fundamental in the determination as to whether or not emoji is a true language.

The magic of a written language is in its capacity to link symbols with sounds, thereby enabling a text to be read. Even pictographic written forms, such as Chinese and Japanese *Kanji* characters, use this process. Robinson（2007）believes that, despite scholarly disagreement, "Chinese characters do *not* speak directly to the mind without the intervention of sound..."（p. 17）. Emoji do not possess this sound/meaning quality. For example, the *cat* 🐈 emoji can never be read as *puss*, *kitty*, *moggy*, or *feline*, yet it is easy to do so with writing. Communicating the names of different cat breeds using emoji is also troublesome. A different emoji would need to be used for each breed, and then the reader would have to be able to identify the breed from the image, whereas simply writing *Persian* or *Russian Blue* is sufficient. Furthermore, problems arise with

the inherent difficulty of representing vocabulary items in iconic form. The meanings of 'picturized' words can be highly ambiguous and incomprehensible, with complex and/or abstract words being more difficult to represent in pictorial form than concrete words, as shown in a study by Bates and Son（2020）. The prospect of replacing a large portion of a lexicon with emoji is untenable, as despite their renown, emoji are basically just small pictures.

According to emojipedia.org, there are 3521 emoji listed in the Unicode standard as of September 2020. Kolowhich（2016）reported on how Michael Everson, linguist, and Unicode Consortium member, warned of a "Great emoji flood", as he was concerned that the approving of new emoji for Unicode standardization would be a never-ending process: "How many food items do we really need? I'm not really sure. Do we really need dinosaur heads"? The prospect of having many thousands of emoji seems impractical, as emoji would then basically be an encyclopaedic collection of illustrations. Given that the five most commonly used emojis make up over a quarter of total emoji usage（see Section 5）it is likely that the vast majority of emoji on a list of many thousands would hardly ever be used; most users might not even know these emojis existed. Presenting pictures as a substitute for written text appears futile. Such an endeavour cannot compete with the relatively simple task of presenting words from 26 or so symbols（i.e., an alphabet）in a readable form.

Another reason why emoji is not（and can never be）a language is due to its lack of a sufficient grammar. Evans（2017）defines a grammar as "a system of rules that lets us combine the individual glyphs into more complex units of meaning"（p. 17）. Apart from a chronic deficiency in vocabulary items, when attempting to read emoji versions of *Moby Dick*（entitled *Emoji Dick*）or *Alice's Adventures in Wonderland*（see Figure 6）, finding language-like meaning from the glyphs and their arrangement remains elusive. Mufson（2015）quoted Joe Hale, the emoji translator of *Alice's Adventures in Wonderland*, in reference to his translation as having said, "It's not necessarily meant to be read". This is probably due to the fact that it can't be.

Figure 6. Emoji used in an extract from Hale's emoji translation of Lewis Carroll's *Alice's Adventures in Wonderland*, including the original text.

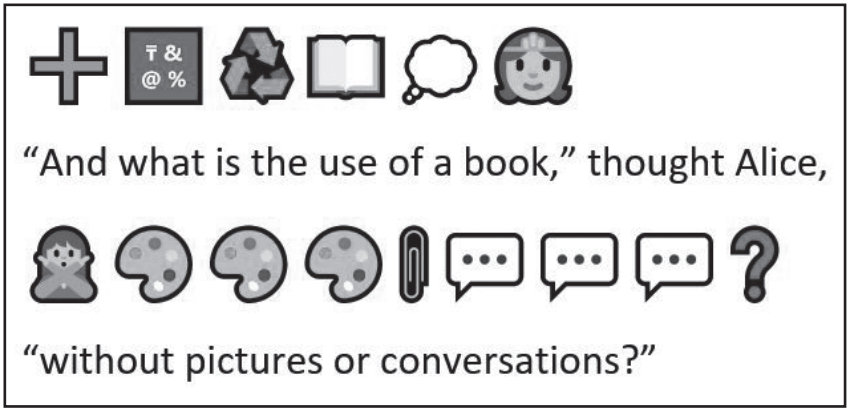
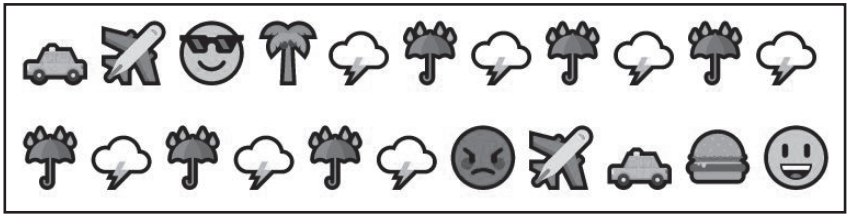


Figure 7. Emoji used in a McDonalds advertisement from 2015.



However, emoji does possess a grammar. Figure 7 shows the emoji used in an all-emoji McDonalds advertising campaign from 2015. When viewed from left to right, the emoji tell a story: *A holiday that started well, then had constant bad weather, anger, returning home, then things finally made better with a burger.* According to Danesi（2017）, emoji grammar is not bound to the syntactic rules of a language（e.g., English）, but instead “has its own ‘iconic conceptual’ structure, much like pictographic scripts that allow for a direct iconic connection between the forms and their referents”（p. 81）. Similar to observing the panels in a comic book, emoji can（with a bit of imagination）use their pictorial form to create a storyline. However, as seen in the McDonalds advertisement, a familiar schema is required for comprehension – in this case our general knowledge of vacationing and what can go wrong. Understanding stand-

alone emoji phrases without schemata to follow or a good deal of contextual information appears very difficult. Emoji combined can certainly put a message across, but apart from simple narratives and combinations of various types that rely heavily upon context for their meaning（e.g., *No pets* = 🙅 🐶 🐱; *You are late!* = ⌚ 😠）a full-blown emoji grammar seems impossible. Emoji（according to our definition）is not a language. However, the power of emoji does not lie in it trying to be a language.

5. What emoji can do

Rather than seeing emoji as a new 'return to the age of hieroglyphs' language, perhaps it is more befitting to regard it as a *paralanguage*, defined by Dictionary. cambridge.org as "the ways in which people show what they mean other than by the words they use". This definition could easily be applied to emoji, as it can be argued that emoji glyphs are not words（with prescribed meanings）in themselves, but they communicate the sender's intended meaning through their pictorial form. Pictures have advantages over text. They do not require the understanding of a linguistic code（e.g., 🙂 is universally understood）, nor do they necessarily need to conform to one（e.g., 🙂 can be added regardless of sentence structure）. The addition of emoji can provide an encounter with a message that text alone simply cannot. For example, adding 😷 to *2020 was not a fun year* makes the message a more visual experience, as another modality has been included. As with other paralinguistic signals such as facial expressions, laughter, eye-contact and hand gestures, emoji（which are basically small pictures allowed the privilege of appearing instead of and/or alongside text）have the capacity to express our intended meaning without the use of words, either by themselves or by affecting the meaning of our writing.

Perhaps the first and foremost way emoji excel is their capacity for emotional expression. This function is by far the most common, evident as seen in the most frequently used emoji listed on Unicode.org. The top five emoji are all clearly emotional and make up over a quarter（25.9%）of all emoji used: (1) *tears of joy* 😂 9.9%; (2)

red heart ❤ 6.6%; (3) *heart shaped eyes* 😍 4.2%; (4) *rolling on the floor laughing* 🤣 3.2%; (5) *smiling face with smiling eyes* 😊 2.0%. Of the top 100 emoji, 46 can be classified as the smiley-type (e.g., *disappointed but relieved* 😥), 15 heart shapes (e.g., *broken heart* 💔) and 3 expressive gestures (e.g., *face palm* 🤦). With such a large proportion of emoji being used to express emotion, it is little wonder that the *emo* in emoji is often mistaken to mean *emotion*, instead of the correct Japanese word origin: *e* 絵 (picture) *moji* 文字 (character). Regardless of this etymological misunderstanding, to define emoji as: *Pictorial representations used primarily a means of adding emotional expression to (or in leu of) text* would not seem inaccurate.

Facial expressions are a central feature of emoji and are at the very core of emoji development. According to Danesi (2017), emoji first gained popularity by being a substitute for facial emoticons: "And, as such, they originated to represent facial expressions in written text through iconic visual images" (p. 62). Expressive faces (and heart designs) may be prevalent due to the simplicity and ease to which these images can be chosen and applied to a message, as emotions are universally understood, do not require lengthy decisions (to the extent that we just feel the way we do), and do not necessarily require words. Emotion expressing emoji can be used independently of text (e.g., *face screaming in fear* 😱*; tears of joy* 😂) or can significantly alter the meaning of text with an emotional punch. For example: Thank you 🙂 (*I am really grateful*); Thank you 😅 (*I am a little embarrassed*); Thank you ❤ (*I love you for doing this*); Thank you 😠 (*I am still very angry*). The intended meaning of 'Thank you' changes dramatically with one simple addition, demonstrating the undeniable emotional power of these small, iconic representations. One simple *eyeroll* 🙄 added to a text can speak volumes.

Emoji truly come into their own in the sphere of interpersonal communication. Evans (2017) notes the emotional dryness of emailing, going so far as to say that it "sucks away any vestiges of empathy" (p. 106). This sentiment is understandable, considering the formalities that must be followed and the brevity it demands given the

huge number of emails people can receive. For the most part, emails for 'serious' matters（i.e., business, work related）cannot use emoji, lest the sender be taken as insincere, unprofessional, or even downright childish. However, when communicating with friends, family, love interests, or just chatting with strangers from all over the world, the rules change, and users are free from these formal restraints. The electronic age enables us to message each other instantly and spontaneously; like a real conversation. Expressing ourselves pictorially is suitable for digital-style communication, as it helps us to go back and forth with all the humour, emotion, and 'tosses & turns' we can experience in face-to-face exchanges. Emoji（and other electronic pictures such as Line *stickers*）can provide an extra layer to our written communications – a channel unavailable to letter writers of the past and inappropriate for serious emailers of the present.

A major quality of emoji is their phatic function, which is not surprising given their capacity for emphatic emotional expression. Consider how someone may communicate with a close friend through social media. Why and how is emoji used? Just like when meeting face-to-face, people generally want to have a positive and meaningful experience, and not come across as boring or depressing. We want to maintain our personal relationships – to express our like for the other person and to be liked, to offer comfort, sympathy, reassurance, share a joke, and to finish our discourse on a high note so as to set ourselves up for future positive exchanges. Emoji does all of these things and much more. Danesi（2017）argues that the basic pragmatic functions of emoji are to "add emotional tone and to emphasize certain phatic aspects of communication"（p. 100）. This assertion rings true when looking at emoji filled exchanges. For example, a *frog face* 🐸 may be sent to cheer someone up, congratulations offered with *clapping hands* 👏, or empathy and/or sympathy shown with a *crying face* 😢. Far from being a fad that can add a bit of decoration to electronic messages, emoji use runs much deeper. Emoji can play（and indeed does play）an important role in maintaining interpersonal trust and social cohesion.

6. Conclusion

Emoji are not such a new phenomenon. The emoji wave has crashed and now they have found their place in our communicative landscape – not as some new hieroglyphic lingua franca, but rather as a fun and meaningful way for people to message each other. Emoji have certainly pushed the envelope by blurring the line between pictures and text, but now they seem well and truly at home in our informal, interpersonal exchanges. Despite their availability, ease of use, social acceptance, and ever-growing ensemble of icons reflecting modern society,（e.g., inclusive emoji – *couple with heart: woman, woman, light skin tone, medium-dark skin tone* 👩🏻‍❤️‍👩🏾）, people still value and need written language to reliably communicate what they want to say. However, the ability to send fun little pictures with our messages has provided an added dimension to human interaction; part of our progression from writing letters with pen and paper to communicating through the unpredictable, unfolding world of the Internet. Emoji and the like are products of our need for interpersonal communication – the joyful act of connecting and staying connected with others. Words rule, but emojis are not going away anytime soon.

What does the future hold for emoji? As with anything technological, it is extremely difficult to tell – our next step after smartphones is anyone's guess. In the age of proprietary, emoji only functioned properly within separate systems. Now in the age of Unicode, emoji will work anywhere yet their basic designs require the consent of one organization. Perhaps the next step for emoji will be a 'free' era bypassing the need for Unicode approval, in which any image can be sent and received amongst（or in place of）text on any platform at the sole discretion of the users. Even in such a Wild West scenario, the most frequently employed icons may well be very similar to those of today – hearts, an array of highly expressive faces, and a selection of emojis deemed popular and useful at the time.

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