

## Spotting the Omnipresent ‘Emojis’ in the Contemporary Communication Paradigm: A Historical Analysis

DOI: <https://zenodo.org/records/11230077>

---

Amrita Chakraborty \*

### *Abstract*

*‘Emojis are increasingly becoming popular in contemporary communication. Be it personal or professional communication or marketing communication, ‘emojis’ are there to be seen everywhere. It would not be too off the mark to say that ‘emojis’ have breathed a new lease of life into modern textual communication. From the inception of ‘emoticons’ as typographical expressions of emotions in the 1980s to the development of the pictorially rich ‘emojis’, text messages have evolved in form and meaning. However, it is equally important to understand that ‘emojis’ have not developed in seclusion and have been significantly influenced by concurrent global developments. What was once a pleasant textual break has become an art form.*

*This research paper primarily focuses on the development of ‘emojis’ from their initiation till date, covering the major milestones. It also throws light on the primary platforms that are used for ‘emojis.’ Further, this paper deliberates on the newer ‘emojis’ and tries to decipher what is in store for the future. The Case Study method has been primarily used for penning this paper. Through this paper, the researcher digs deep into the various online platforms to discover rare insights on this topic. This paper is expected to delineate the history of ‘emojis’ and map their impact on the current communication paradigm.*

**Keywords:** Emoticons, Writing, Communication, Interactions, Digital Communication

---

\* The author is an Assistant Professor of Mass Communication at the School of Liberal Studies (SLS), Pandit Deendayal Energy University (PDEU), Gandhinagar, Gujarat, India.

## Introduction

It would not be an overstatement if one were to say that communication constitutes the essence of human existence. Life stops if communication stops. However, the process of human communication has evolved over the ages. From cave paintings to advanced computer-assisted infographics and body gestures to complex language structures, there has been a paradigm shift in human communication practices (Munoz, 2017). Communication through signs and symbols is as old as humanity (Cangelosi, 2001). The normative codification of these signs and symbols eventually gave birth to written languages in different parts of the world.

If one needs to take a closer look at the development of writing, she/he must go back to 3,400 BC, when cuneiform was developed in present-day Iraq (then known as Mesopotamia) (Mark, 2022). Cuneiform is a form of writing where wedge-shaped impressions are used as writing signs. If one traces the history of cuneiform, she/he would figure out that it was initially developed to write southern Mesopotamia's Sumerian language. Scholars believe that cuneiform is the oldest writing system.

Just about a couple of centuries later (around 3,200 BC), the Egyptians came up with an alternative writing form known as Hieroglyphics (Scoville, 2015). Hieroglyphics is a form of ancient written communication, where pictorial symbols or images were used to depict movements, activities, emotions, human beings, and even animals. Additionally, it represented equipment that was used at that time. However, what is the etymology of the word 'Hieroglyphics'? In Greek, 'Hieroglyph' literally translates to 'sacred carving'. In fact, the Egyptians considered 'Hieroglyphics' to be the 'Words of the God.'

Similar writing forms independently developed in modern-day Turkey (also known as Anatolia or Asia Minor), South America, and Greece's Crete Island (Violatti, 2016). Although largely similar in structure, scientists have not been able to find any linkage in terms of the development of all these writing forms across different parts of the globe (Wright, 2015).

Years later, alphabets were developed, and thus various phonetically written languages came into existence. Over the millennia, written communication developed further through texts and images. However, Hieroglyphics continued to remain an area of interest for historians and archaeologists for its unique and interesting form.

Towards the end of the 20<sup>th</sup> century though, Hieroglyphics seemed to make a comeback, albeit in a different and contemporary avatar. Known as 'emoticons', this parallel system of communication opened new vistas in the communication paradigm. The word 'emoticon' is derived from 'emotion' and 'icon'. In other words, 'emoticons' can be described as 'emotional icons.' To put it in simple terms, 'emoticons' constituted typographical images representing a few facial expressions. 'Emoticons' eventually evolved as a means of expressing emotions.

Although it is difficult to pinpoint the exact origin of 'emoticons', Prof. (Dr.) Scott Fahlman from the Pittsburgh, Pennsylvania-based *Carnegie Mellon University* is said to have invented the first 'emoticon' – 'the humble smiley' on September 19, 1982 (Wilkinson, 2023). The story of its inception is quite interesting, though. Someone posted information concerning a fake mercury spill on the university's online message board, and the authorities were miffed over the development. Dr. Fahlman devised a unique way of expressing approval and disapproval for all the jokes posted on the message board. He introduced the smiley face [:-)] and the frowning face [:(] in the process (Korn, 2022). Both the set of characters instantaneously became a rage among the young university students, and voila, the culture of expressing emotions through 'emoticons' saw its birth.

The ushering in of the *World Wide Web* or the Internet in the last decade of the past century paved the way for the further development of 'emoticons.' Multiple websites introduced 'emoticons' as a definite way of communication and were named differently (Correia, 2021).

As newer platforms of digital communication evolved, novel forms of 'emoticons' started ruling the roost. The revolutionary concept of 'Chat Rooms' was introduced by *Yahoo Messenger* on March 9, 1998. *Yahoo* popularized the concept of anonymous chatting through *Yahoo Messenger*, the first of its kind, and with it, a wide array of 'emoticons' were also developed (Team, 2016). Thus, one could express love, anger, and any other emotion with just a few typographic characters.

However, the widescale usage of 'emoticons' was restricted by a major impediment. To understand the impediment, it is important to understand how an 'emoticon' is created. It is a typographic representation of a facial emotion. Therefore, 'emoticons' primarily found usage in text-only media. However, the receiver needs to know how to decipher the typographic representations for her/ him to understand the emotion

conveyed. With the advancement of technology and the dominance of multimedia, 'emoticons' seemed inadequate. Thus came the ubiquitous 'emojis'. Distinctly different from 'emoticons', emojis pictorially represent emotions. From anger to laughter and from claps to handshakes, 'emojis' represented everything through actual pictographs and hence did not require any deciphering at the end of the receiver (Hern, 2015). The question remains though. What does 'emojis' mean? The word 'emoji' originates from two Japanese words. While 'e' means 'picture' in Japanese, 'Moji' means 'characters.' (Nannestad, 2022) Therefore, 'emojis' are pictographs that represent faces and objects.

In the given context, it is important to look at how the concept came through. It was 1999, the penultimate year of the past millennium. Information and Communication Technologies (ICTs) were becoming the order of the day. The Japanese interface designer Shigetaka Kurita was working on *i-mode*, which was an early cellular internet platform. *i-mode* was used for the Japanese mobile company *NTT DOCOMO*. Kurita created a total of 176 pictographs. These pictographs, which included facial expressions and other symbols, were arranged on a 12x12-pixel grid (Galloway, 2016). These pictographs later came to be known as 'emojis'. 'Emojis' were successfully able to add emotional undertones to messages.

### Research Objectives

1. To analyze the development of 'emojis' since its inception covering the major development milestones.
2. To identify the primary platforms which are using 'emojis'.
3. To deliberate on the newer 'emojis' and decipher what is in store for the future.

***Decoding the Communicative World of 'Emojis':*** It can be safely said that 'emojis' changed the definition of electronic communication. While static text messages can hardly express emotions, 'emojis' can readily do so. The primary reason behind the development of 'emojis' was to devise a way through which text messages could express body language and voice tones. If one were to use the renowned psychologist Albert Mehrabian's theory, it could be deduced that what one speaks conveys only seven percent of the information, and the rest 93 percent is conveyed by how one speaks (Belludi, 2008). Therefore, spoken communication is largely dependent on voice modulations, intonations, speech rhythm, accent, and, of course, gestures and postures. Now, think about the written version of the same

spoken communication. The text or the written content, thus, hardly represents the totality of the communication. Now, think about the intelligent use of 'emojis' to punctuate written text. While comprehensiveness cannot be claimed under any circumstances subject to the loss in translation, there is no denying that a systematic juxtaposition of text and 'emojis' can go a long way in reducing the bottlenecks that seldom afflict written conversations.

Multiple studies have shown that 'emojis' possess the unique capacity to elicit emotions among the message receivers. At times, 'emojis' can go as far as evoking empathy. Increasingly, business organizations are taking recourse to 'emojis' to enhance the impact of messages (Yokoi, 2022). Let us take an example. The Indian online food delivery platform *Zomato* extensively uses 'emojis' to strengthen its messages on motivating people to order food online. In other instances, 'emojis' are used to communicate negative messages like rejections and complaints to soften the impact. Studies have established that the usage of 'emojis' makes the sender seem more 'friendlier'. While messages sans 'emojis' are still considered to be more professional, the traditional concepts of message propriety are increasingly being challenged.

There is another rather interesting facet that people often ignore about 'emojis.' The usage of 'emojis' helps us enjoy the process of communication and makes us more receptive. Receivers consider messages laced with 'emojis' to be richer in terms of connotations. This has been proven by multiple psychological studies.

One of the most important reasons why 'emojis' are widely used is the conveyance of emphasis. At times, words cannot really communicate the intensity of what is being communicated. 'Emojis' can be a fantastic way of conveying just that. An 'I Love You!' seems rather mechanical and very dry at times to express one's love for someone else. However, a heart symbol at the end of 'I Love You ❤️!' can significantly enhance the warmth and intensity of what is being communicated.

One of the most marked advantages of 'emojis' is that it makes communication more democratic and non-hierarchical (Olding, 2017). 'Emojis' bring everyone on a level playing field and remove unnecessary communication barriers. What was once considered frivolous is now deemed to be an extremely friendly option to establish friendships.

By their very definition, ‘emojis’ are inclusive. They take care of cultural sensibilities and respect diversity. While the internet can be a very dangerous territory for the weaker sections of society, ‘emojis’ provide a sense of calm to even the most discriminated lot.

Last but not least, one cannot ignore the fact that ‘emojis’ have the ability to transcend linguistic barriers. In an essentially multilingual world, languages often create artificial divides. ‘Emojis’ can go a long way in ensuring that communication is not hampered in the process. A heart or a smiling face or a frowning face pretty much means the same thing across cultures and countries.

Coming back to the corporate usage of ‘emojis’, there is one trend that has gathered momentum ever since the Covid-19 pandemic restricted human beings within the confines of the four walls (Kiner, 2021). Work-from-home or WFH transformed corporate culture. Remote management of workers thus became one of the focus areas of corporate higher management. What was earlier communicated face to face was now being communicated over a message. Therefore, a novel message strategy needed to be worked out. ‘Emojis’ became an instant aid. Serious messages were being punctuated with ‘emojis’ so that the employees did not become demoralized. Multiple studies were conducted to determine the usability of ‘emojis’ in leadership communications. The results were fairly encouraging (Yokoi & Jordan, 2022). It was found that the usage of ‘emojis’ significantly simplified tough corporate communication. The fact that even official videoconferencing platforms are providing the option of using ‘emojis’ is an indication of the popularity of ‘emojis’ in the workplace. The conveyance of appreciation for a job well done is being increasingly done through the popular clap symbol.

***The Evolution of from ‘Emoticons’ to ‘Emojis’:*** Through his usage of a humble colon (:), a hyphen (-), and a parenthesis () on a pre-internet social platform, Fahlman introduced a new language altogether, a language that was set to change textual communication forever. Fahlman used the first ‘emoticon’ as an instrument to express humor in a text message. His idea was to use the ‘emoticon’ as a response to the difficulty in understanding the correct tone of jokes on the university bulletin board. Most of the time, there were widespread misunderstandings that emerged out of innocuous jokes. Following Fahlman’s innovation, some of the other typographical symbols that started to be used were ampersand (&), asterisk (\*), percentage (%) and pound (#). It must be mentioned here that experiments with

expressing emotions through texts had been done even before the Fahlman episode. However, Fahlman took the process a step ahead by assigning specific meanings to symbols. In other words, there was an attempt to codify the usage of emotions in text messages universally.

While *Carnegie Mellon University* was the first institution to witness the inception of 'emoticons', it did not take long before it became quite popular beyond the confines of the university as well. 'Emoticons' were a preferred lot on both Arpanet and Usenet. Some of the most common 'emoticons' used at the time included open-mouth gasps, noseless smiles, and winking faces. All these 'emoticons' were developed using dash, colon, and parentheses.

Interestingly though, just about the same time, there was a similar trend that started to surface in Japan. This type of 'emoticon' known as 'kaomoji' uses Japanese typographical characters in addition to the *American Standard Code for Information Interchange* (ASCII) characters (Lim, 2016). While 'emoticons' tended to emphasize the expressions of the mouth, 'kaomoji's' focused on the expression of the eyes.

However, the usage of 'emoticons' remained restricted until the coming of the internet in the last decade of the past century. Online communication started depending on the usage of 'emoticons' for the conveyance of specific meanings. Different online forums that normalized remote human interactions largely had to draw from the available array of 'emoticons' to reduce misunderstandings between people, who could not see each other. The increasing importance of 'emoticons' in the online world, even during the nineties of the last century, can be understood when one considers the book *Smileys*, penned by David Sanderson, and released in the year 1997 (Sanderson, 1997). The book listed about 650 different types of 'emoticons' that were used at that point in time. To take the process forward, James Marshall prepared *The Canonical Smiley (and 1-Line Symbol) List* in 1999, which contained more than 2,000 emoticons (Marshall, 2008).

While 'emoticons' were used as potent communicative elements, 'emojis' were the real game-changer. *NTT DOCOMO* was the first mover in 'emojis' (Pardes, 2018). They introduced a small black heart for their pagers in the mid-1990s. In a way, that was the first 'emoji' ever used. In 1997, another Japanese company, *SoftBank Group* loaded a 90-character set of 'emojis' into a cellular phone model. However, it was Kurita's

development of the grid that introduced ‘emojis’ to the world. Suddenly, one did not have to depend on typographic characters for the expression of emotions. Pictorial symbols that did not require any decoding became the order of the day. During the initial days, the phenomenon was largely restricted to Japan, with occasional usage in other countries.

However, tech giants, including *Google* and *Apple* soon realized the universality of ‘emojis’ (Byford, 2017). They started taking it seriously and requested *Unicode* to take on the rather important work of standardizing the ‘emojis.’ It is important here that one understands what *Unicode* actually is. *Unicode*, or *The Unicode Standard*, is the global technological standard for the consistent and uniform representation, handling, and encoding of texts in most of the languages of the world. *Unicode* started codifying the ‘emojis’ only in 2010 (Berard, 2018). By that time, the smartphone revolution had already begun. Therefore, ‘emojis’ as a worldwide phenomenon started only about 13 years ago. Today, there are clear specifications vis-à-vis the introduction of newer ‘emojis’. However, during the early days of the development of ‘emojis’, there were quite a few questionable items, including the dreaded middle finger (Desk, 2018). Subject to the very sensitive nature of the topic, the process of introducing new ‘emojis’ has become quite rigorous these days. Just as any changes to the existing grammar of any language require quite a few clearances, similarly newer ‘emojis’ are approved only after ensuring that they do not end up creating any unnecessary controversies (Lien, 2016).

***Apple and Its Tryst with ‘Emojis’:*** While Japan was the first country to give ‘emojis’ to the world, it was *Apple*’s *iPhone* series that changed the game around the parallel pictorial language. On many counts, the *iPhone* changed the history of cellular telephony in general and communication in particular (Burge, 2019). Interestingly, *Apple* did not provide any support for ‘emojis’ when the *iPhone 3G* was launched in 2008. Only in November of the same year, it introduced a set of characters for only the users in Japan for the *iOS 2.2* update. It was only with the introduction of *iOS 5* in 2011 that *Apple* officially enabled the ‘emojis’. It needs to be mentioned here that *Apple* was the first global manufacturer of cellular telephones that experimented with compatible characters to its own ingrained software. This decision by *Apple* to integrate ‘emojis’ into its own software could be the first attempt to internationalize the already popular ‘emojis’. It is difficult to imagine how the ‘emoji’ market would have shaped up had *Apple* not taken this decision. What was essentially Japanese in essence became the global talk. Then, it was the turn of the other big players in the cellular phone market to take



'emojis' seriously and most of them did not take much time to follow the path set clearly by *Apple*. It was clear that the young generation loved the distinct advantages that were offered by the ubiquitous and innocuous 'emojis'.

***Google and Its Usage of 'Emojis':*** *Google's* journey with 'emojis' followed a similar trajectory as that of *Apple* (Ion, 2018). It was 2008 when *Google* launched its set of 'emojis'. Interestingly, all the 79 'emojis' that *Google* launched were animated. Also, the 'emojis' were limited to the top three telecom carriers of Japan. It was only in 2012 that the tech giant made 'emojis' universal. *Google's* experimentations with 'emojis' continue to this day. If one looks at the development of 'emojis' over the past 12 years, *Google's* contributions become more than clear.

***The Contemporary Development of 'Emojis' Since 2015:*** 2015 can be considered to be a landmark year in the history of 'emojis.' 'Emojis' until that time had the same skin tone. However, *Unicode 8.0*, released in 2015 revolutionized the usage of 'emojis' by introducing skin-tone modifiers. Five distinct skin tones were made available to users so that they could appropriately use 'emojis'. This was done to remove the racist undertone of using 'emojis' with only one skin colour. 2015 will remain memorable for another rather significant reason. *Oxford Dictionaries* acknowledged the importance of 'emojis' by declaring that the word of the year for 2015 was not a word but an 'emoji' – the 'face with tears of joy'. While the decision was contested by many, it was generally considered to be a progressive decision as 'emojis' indicate emotions, ideas, words, and phrases.

'Emojis' have always been conceived to be a friendlier version of texts. The gun 'emoji', thus, was a sort of a misnomer. *Apple* recognized this earlier than most other communication service providers. In its pursuit to stay true to the original intention behind creating 'emojis', *Apple* replaced the gun 'emoji' with a toy gun 'emoji' in 2016. However, other service providers did not make this change until 2018. It needs to be remembered here that the United States of America has had its share of problems with gun-trotting youngsters, and the country has been witnessing a significant number of shootouts in recent years. In the same year itself, *Unicode* went a step ahead and introduced an 'emoji' with a *hijab*. The idea was to make the entire concept more inclusive. Ideologically, 'emojis' were becoming politically, culturally, and socially conscious.

However, one of the most interesting developments in the history of the development of 'emojis' was the release of the Anthony Leondis-directed computer-animated movie known as *The Emoji Movie* (2017). While critics slammed the movie, it turned into a cult classic for its seemingly ludicrous depiction of 'emojis'. While the creative brilliance of the movie or the lack of it is a separate discussion, what is infinitesimally more important is the importance that corporate America was according to the newest linguistic sensation – the 'emoji'. 2017 is also the year when *Apple* introduced the revolutionary 'Animojis.' Now, the question arises. What is an 'Animoji.'? An 'Animoji' converts 'emoji' icons into customized animations representing a person's voice and facial expressions. This feature has been instrumental in creating a parallel communication culture that is based on customizations and personifications.

2018 saw the acknowledgment of 'emojis' as an accepted language. *Dictionary.com* started giving explanations for various 'emojis'. While it did not accept 'emojis' as words, it did provide specific insights into the usages of 'emojis' in various situations.

In 2019, *Unicode 12.0* was released, which was acknowledged as a major landmark. This new release saw the launch of many new 'emojis' representing wide-ranging and socially relevant issues such as disabilities, gender neutrality, and cultural indicators. Again, the idea was to make 'emojis' cognizant of the concurrent social, cultural, political, and economic realities. In the same year, *Twitter* saw the emergence of *Emoji Mashup Bot*. It could fuse multiple 'emojis' to create new 'emojis'. Some of the 'emojis' that were created in the process were useful while others were simply bizarre. However, it did open a window for the creation of creative 'emojis'. One of the most interesting 'emojis' that was created by the bot was that of a crying face with a sunglass. 2019 also saw *Facebook* removing some of the seemingly lewd 'emojis' from its repertoire. As has been said multiple times in this paper, 'emojis' are meant to be universal and non-infringing. However, 2020 proved to be a major milestone in 'emojis.' For the first time, the pride flag was introduced as an 'emoji' after years of struggle by the LGBTQIA+ community. Until that time, people from the queer community represented themselves through the lobster 'emoji'. However, the introduction of the pride flag significantly transformed the scenario. The advent of the dreaded Covid-19 pandemic significantly impacted all the cultural artifacts 'Emojis' were not an exception, either. Several 'emojis' were created as a response to the global pandemic. There were 'emojis' that represented masks, washing hands and social distancing. Again, the idea

was to increase awareness about Covid-19 and the possible ways to stop the spread of the disease.

Generation Z cannot even think about written communication without using 'emojis', which is indicative of its cultural universality. As we are making our way through the digital age, the importance of 'emojis' is only increasing by the day. Along with its popularity, what has increased is the inclusivity quotient. The newer 'emojis' take care of regional, racial, cultural, and social differences. Given the past developments, the 'emoji' scene is only going to become richer.

***Ascertaining the Future Trajectory of 'Emojis' in the Changed Global Order:*** The COVID-19 pandemic was an eye-opener for the entire mankind. It rebooted human civilization and made people weary about a few factors. It only enhanced people's sensitivity towards the environment. Also, there is a global push for going indigenous. People are suddenly looking at their roots to find a better living strategy. 'Emojis' would probably not stay aloof from all these distinct trends. However, it is also important to look at some tangible developments that are slated to make a significant difference in the world of 'emojis.'

***'Emojis' and a Few Future Trends:*** The enormous popularity of 'emojis' can be gauged from the fact that people have now started celebrating 'World Emoji Day' which is July 17 every year. Over the past decade or so, the total number of 'emojis' that are in use today has swelled to more than 3600 (Buchholz, 2020). While creativity has always been one of the primary factors vis-à-vis the addition of newer 'emojis', the world might have reached a saturation point. There is very little that cannot be expressed through 'emojis' today. Also, 'emojis' were developed keeping in mind the nature of online communication. Therefore, it is only natural that its evolution would also be based on the evolution of online communication. Given the context, some trends are expected to emerge stronger. It is pertinent that one takes a close look at the trends:

1. **'Emojis' would Become More Inclusive:** The introduction of varied skin tones for 'emojis' was only the beginning. As online communication evolves, there is a strong possibility that newer 'emojis' will be developed keeping in mind cultural, social, economic, racial, gender, and sexual diversities. The idea is to ensure inclusivity and eliminate unwanted stereotypes.

2. **‘Emojis’ might Reflect Realism:** This trend has already started to appear. The world will be witness to more and more realistic ‘emojis’ being used. While some people argue that the dominance of realistic ‘emojis’ will reduce the interpretative ability of ‘emojis’, there are others who say that realistic ‘emojis’ will make communication easier and quicker.
3. **Reduction in the Quantum of ‘Emoji’ Usage:** Generation Z grew up with ‘emojis.’ Therefore, the easiest recourse for them is to use ‘emojis’ for all sorts of communication. However, there has also been an overkill in terms of ‘emoji’ usage. Consequently, people might become a little discretionary in terms of the opulent usage of ‘emojis’ in their conversational diets.
4. **Future ‘Emojis’ will be able to Convey Complex Ideas:** There has often been this accusation that ‘emojis’ fail to communicate complex ideas. While communicating technical pieces of information, one needs to again take recourse to the good old textual communication. However, over the past few years, ‘emojis’ have started to become more sophisticated than what was the case earlier. Analysts predict that newer ‘emojis’ will be able to convey fairly complex ideas. The mechanism is still unknown though.
5. **‘Emojis’ would Eventually become Official:** All this while, corporate leadership believed that ‘emojis’ are casual and unofficial. The popular idea was not to use ‘emojis’ while sending an official email or a *WhatsApp* message. The scene, however, seems to be transforming. Today, more and more corporate entities allow employees to use ‘emojis’ in their official communication. Thus, a smiley at the end of a leave application or a crying symbol after informing a subordinate about a tough job has become quite normal. In fact, using ‘emojis’ in official communication makes difficult communication much less offensive at times.
6. **Full-Service ‘Emoji’ Providers would become Common:** Take the case of *Joy Pixel* (JoyPixel, 2023), which is a full-service ‘emoji’ provider or that is exactly what they claim to be. Some people also call them and similar other organizations ‘emoji’ vendors. As one moves ahead, there would be a slew of just online vendors who would trade in ‘emojis’. While some people might brand this development as ‘bizarre’, this trend is here and to stay.
7. **‘Stickers’ will Pose a Serious Challenge to ‘Emojis’:** Over the past half a decade or so, the usage of ‘stickers’ has increased among youngsters. Given the fact that ‘stickers’ are detailed representations of characters, their popularity is only going to go up. However, there

still is a debate vis-à-vis its impact on the development of 'emojis'. Whether or not stickers can replace 'emojis' would be an interesting thing to see in the next few years.

8. **'Avatars' Set to Become Big in the Next Five Years:** 'Avatars', the spiritual successors to 'emojis' would increasingly become popular. These graphical representations of the users have already caught quite a bit of attention. Several research studies have shown that 'avatars' are set to make a big impact on future communication practices.

### Conclusion

Given the pace at which technology has redrawn communication over the past two decades, it is impossible to predict how the scene with 'emojis' will pan out. Since 'emojis' hit the market, there has been a drastic change in the way people communicate. 'Emojis' also have changed, keeping in tune with the concomitant realities and the changes continue to this day. The future developments would also largely depend on where technology takes the world. There is one thing, though, that can be said with some amount of certainty – the fact that written communication would never go back to the pre-emoji days ever again. When the history of the 21<sup>st</sup> century is written, there will be a fat section on 'emojis'. It will always be remembered that 'emojis' allowed people to translate their emotions into small and round pictorial icons.

### References:

1. Baer, D. (2015, September 15). *Emoticons were invented 33 years ago today and they've basically saved human communication*. Retrieved from Business Insider: <https://www.businessinsider.in/latest/emoticons-were-invented-33-years-ago-today-and-theyve-basically-saved-human-communication/articleshow/49027821.cms>
2. Belludi, N. (2008, October 4). *Albert Mehrabian's 7-38-55 Rule of Personal Communication*. Retrieved from Right Attitudes: <https://www.rightattitudes.com/2008/10/04/7-38-55-rule-personal-communication/>
3. Berard, B. (2018). I Second That Emoji: The Standards, Structures, and Social Production of Emoji. *First Monday*.
4. Buchholz, K. (2020, September 30). *The history of the 5 billion emojis used every single day*. Retrieved from World Economic Forum: <https://www.weforum.org/agenda/2020/09/emoji-numbers-facts-social-media-how-many-twitter-facebook-instagram/>
5. Burge, J. (2019, March 9). *Apple's Emoji Evolution 1997—2018*. Retrieved from Emojipedia: <https://blog.emojipedia.org/apples-emoji-evolution-1997-2018/>
6. Byford, S. (2017, June 29). *How the iPhone won over Japan and gave the world emoji*. Retrieved from The Verge:

- <https://www.theverge.com/2017/6/29/15892640/iphone-anniversary-japan-success-emoji-history>
7. Cangelosi, A. (2001). Evolution of Communication and Language Using Signals, Symbols, and Words. *IEEE Transactions in Evolution Computation*, 93-101.
  8. Correia, S. (2021, June 11). *How Emojis Have Changed the Way We Communicate*. Retrieved from MUO: <https://www.makeuseof.com/how-emojis-have-changed-the-way-we-communicate/>
  9. Desk, T. (2018, January 1). *No 'Middle-Finger' Emoji on WhatsApp? Here Are 6 'Sanksaari' Emojis We Want in 2018 Instead*. Retrieved from The Indian Express: <https://indianexpress.com/article/trending/trending-in-india/indian-lawyer-wants-whatsapp-to-remove-middle-finger-emoji-here-are-6-sanksaari-emojis-instead-5002419/>
  10. Galloway, P. (2016, October 26). *The Original NTT DOCOMO Emoji Set Has Been Added to The Museum of Modern Art's Collection*. Retrieved from MoMA: <https://stories.moma.org/the-original-emoji-set-has-been-added-to-the-museum-of-modern-arts-collection-c6060e141f61>
  11. Hern, A. (2015, February 6). *Don't know the difference between emoji and emoticons? Let me explain*. Retrieved from The Guardian: <https://www.theguardian.com/technology/2015/feb/06/difference-between-emoji-and-emoticons-explained>
  12. Ion, F. (2018, October 23). *From blah to blob: The history of Android emoji*. Retrieved from Androidcentral: <https://www.androidcentral.com/history-emoji-android>
  13. JoyPixel. (2023, January 7). *The finest emoji you can use legally*. Retrieved from JoyPixel: <https://joypixels.com/>
  14. Kiner, D. (2021, March 19). *Emojis grew more popular with people working from home. Is that good or bad?* Retrieved from Penn Live: <https://www.pennlive.com/life/2021/03/emojis-grew-more-popular-with-people-working-from-home-is-that-good-or-bad.html>
  15. Korn, J. (2022, September 18). *The 40-year evolution from :- ) to 🤔*. Retrieved from CNN Business: <https://edition.cnn.com/2022/09/18/tech/emoticon-birthday/index.html>
  16. Lien, T. (2016, January 26). *Meet the shadowy overlords who approve emojis*. Retrieved from Los Angeles Times: <https://www.latimes.com/business/technology/la-fi-tn-emoji-q-and-a-20160125-htmllstory.html>
  17. Lim, M. (2016, December 28). *Kaomoji as expression: Japanese emoticons in digital communication*. Retrieved from Unravel: <https://unravellingmag.com/articles/kaomoji-as-expression/>
  18. Mark, J.J. (2022, November 17). *Cuneiform*. Retrieved from World History Encyclopedia: <https://www.worldhistory.org/cuneiform/>
  19. Marshall, J. (2008, February 24). *The Canonical Smiley (and I-Line Symbol) List*. Retrieved from James Marshall: <http://marshall.freeshell.org/smileys.html>
  20. Munoz, R. (2017, June 15). *The Evolution of Communication through the Centuries*. Retrieved from MobileCon: <https://www.mobilecon2012.com/the-evolution-of-communication-through-the-centuries/>
  21. Nannestad, C. (2022, November 30). *The Real Meaning Behind the Most Popular Emojis*. Retrieved from Reader's Digest: <https://www.rd.com/article/emoji-meanings/>

22. Olding, R. (2017, November 3). *Creating emojis mixes grassroots democracy and opaque Silicon Valley aristocracy*. Retrieved from The Sydney Morning Herald: <https://www.smh.com.au/technology/creating-emojis-mixes-grassroots-democracy-and-opaque-silicon-valley-aristocracy-20171031-gzbgku.html>
23. Pardes, A. (2018, February 1). *The Wired Guide to Emoji*. Retrieved from Wired: <https://www.wired.com/story/guide-emoji/>
24. Sanderson, D. (1997). *Smileys*. Newton, Massachusetts: O'Reilly Media.
25. Scoville, P. (2015, July 2). *Egyptian Hieroglyphs*. Retrieved from World History Encyclopedia: [https://www.worldhistory.org/Egyptian\\_Hieroglyphs/](https://www.worldhistory.org/Egyptian_Hieroglyphs/)
26. Team, O. (2016, June 13). *Yahoo's Iconic Messenger Is Now A Thing Of The Past*. Retrieved from OfficeChai: <https://officechai.com/stories/yahoo-messenger-to-go/>
27. Violatti, C. (2016, December 6). *Linear A Script*. Retrieved from World History Encyclopedia: [https://www.worldhistory.org/Linear\\_A\\_Script/](https://www.worldhistory.org/Linear_A_Script/)
28. Wilkinson, R. (2023, January 7). *The Father of the Emoticon Chases His Great White Whale*. Retrieved from Narratively: <https://narratively.com/the-father-of-the-emoticon-chases-his-great-white-whale/>
29. Wright, J. (2015). *International Encyclopedia of the Social & Behavioral Sciences*. Amsterdam: Elsevier.
30. Yokoi, T. (2022, July 16). *Emojis In The World Of Work*. Retrieved from Forbes: <https://www.forbes.com/sites/tomokoyokoi/2022/07/16/emojis-in-the-world-of-work/?sh=60e5653e60d3>
31. Yokoi, T., & Jordan, J. (2022, May 30). *Using Emojis to Connect with Your Team*. Retrieved from Harvard Business Review: <https://hbr.org/2022/05/using-emojis-to-connect-with-your-team>

