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From Hieroglyphs to Digital Glyphs – Are the Millennials Bidding Adieu to Words?

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Abstract

For human beings, expressions are inevitable; no expression is yet another expression. For millennia, we have been in constant endeavor to explore and find better ways to better our expressions. When we speak, we continually use paralinguistic features of which, gestures play a pivotal role in supporting and demonstrating what we intend to express. On the contrary, gestures have no role to play in writing and at times, expressing what we exactly want to express seems an ambitious task.

The challenge was always there, right from the use of *Hieroglyphs* to the alphabetic-language followed by a combination of both (alphabetic language & digital glyphs) we use today. These days, we have Emojis to support what we intend to express through writing and have the inclination to use them. Now, the question is – do Emojis assist us in expressing what we intend to? Do Emojis form a language? Do words not suffice or are they too tedious to be used quite often? Are we getting used to using short cuts because of laziness that tempts us and saves our time and efforts?

These are just a few questions; many others might be tormenting intellectuals who have been in constant love with words.

This paper is an empirical study that intends to explore the use of Emojis, its role and prevalence in written communication, through a survey.

Keywords: Emojis, Hieroglyphs, Digital Glyphs, Millennials, Written Communication.

Aims of the study

1.1 To identify the common trends of digital glyphs as preferred by millennials in their day-today communication.
1.2 To identify if digital glyphs is an independent language.
1.3 To analyze that despite (Emojis) having one CLDR Short Name, are interpreted by users in variety of ways.

1.4 To identify if the millennials are bidding adieu to words.

Research Methodology

Survey-based research using *google form* consisting of 19 questions – (https://docs.google.com/forms/d/e/1FAIpQLScbd8uRtwMdJ-qyfMJ6QMOUncdreX9YEIOh5s96PGot3aG-3g/viewform)

- First four questions to identify subjects' age, gender, demographic identity and name of academic institution.
- Next ten questions to identify the trends of digital glyphs as preferred by millennials in their day-today communication.
- Interpretation of selected "Emoji sentences" by subjects (Oliver)

The methodology used is a research analysis based on empirical data collected from five well-established universities using self-designed and administered google form survey. The first part of the survey is a diagnostic quiz that gives a background of the subjects taking the survey such as age, gender, demographic identity and name of academic institution.

The second part of the survey captures subjects' response on their preferences related to use of Emojis and words. These ten questions of the survey capture various responses to questions like – their preferred mode of communication in texting, objective of using Emojis and their opinion on Emojis as an independent language.

Last part of the survey is based on five "Emoji sentences" to study the responses that are subjective in nature.

Research Background

The survey was carried out on the UG & PG students in the age range of 17-28 years

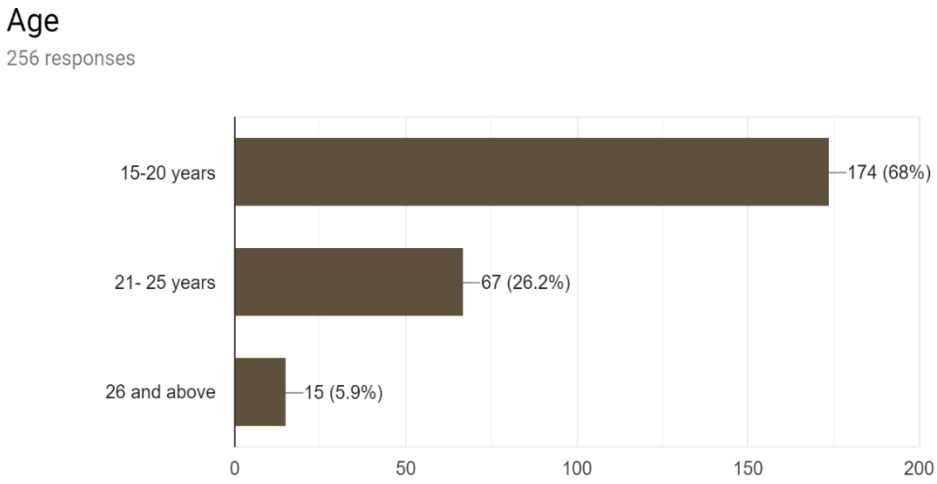

Figure 1.

Regional Background: The subjects involved in this survey are from Andhra Pradesh, Assam, Bihar, Chandigarh, Delhi, Gujrat, Haryana, Himachal Pradesh, Karnataka, Kerala, Madhya Pradesh, Maharashtra, NCR, Odisha, Punjab, Rajasthan, Tamilnadu, Uttar Pradesh, Uttarakhand & West Bengal.

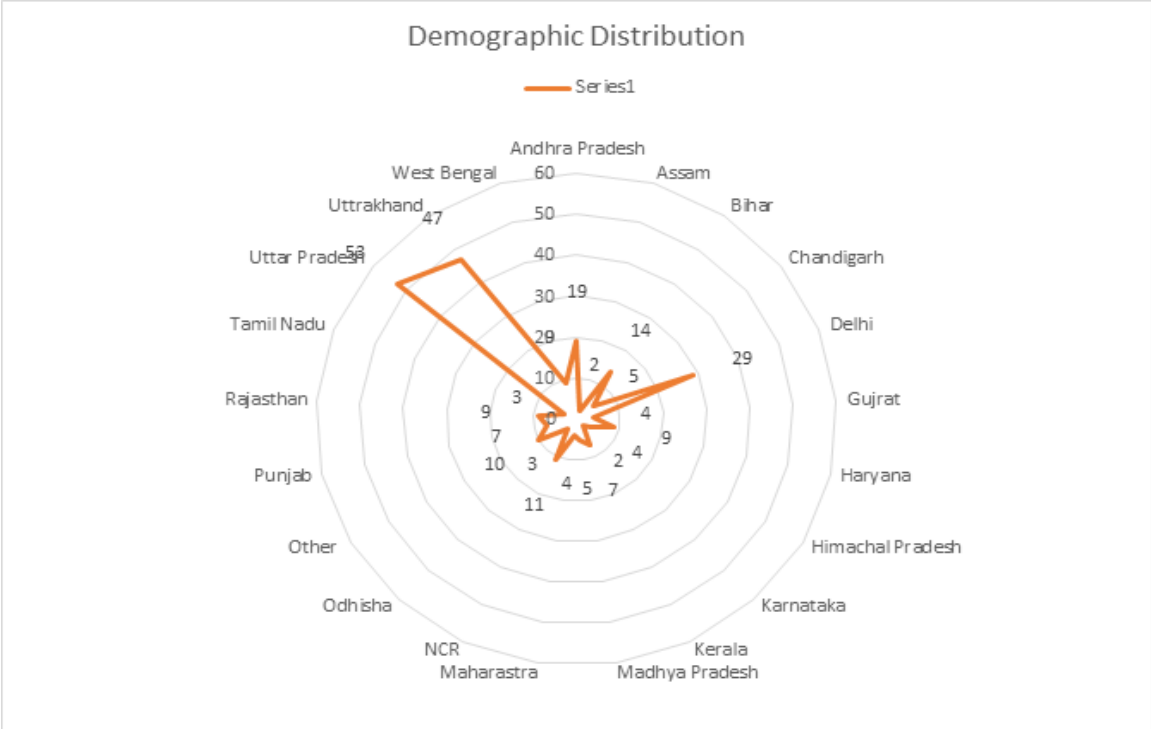

Figure 2.

Gender Ratio:
Male: Female – 54:46

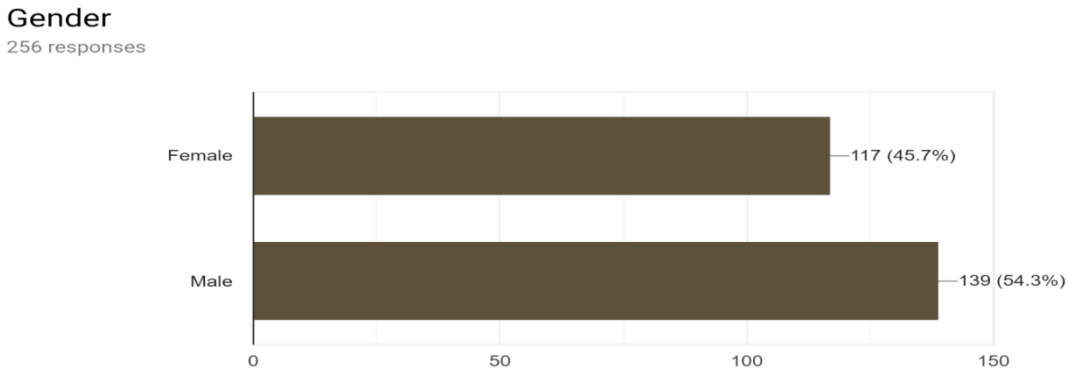

Figure 3.

The subjects are from educational institutes (from within India) of national and international repute such as BITS Pilani Goa Campus, University of Delhi, New Delhi, IIIT Allahabad, University of Petroleum & Energy Studies, Dehradun, SRI City Hyderabad and a few others as well.

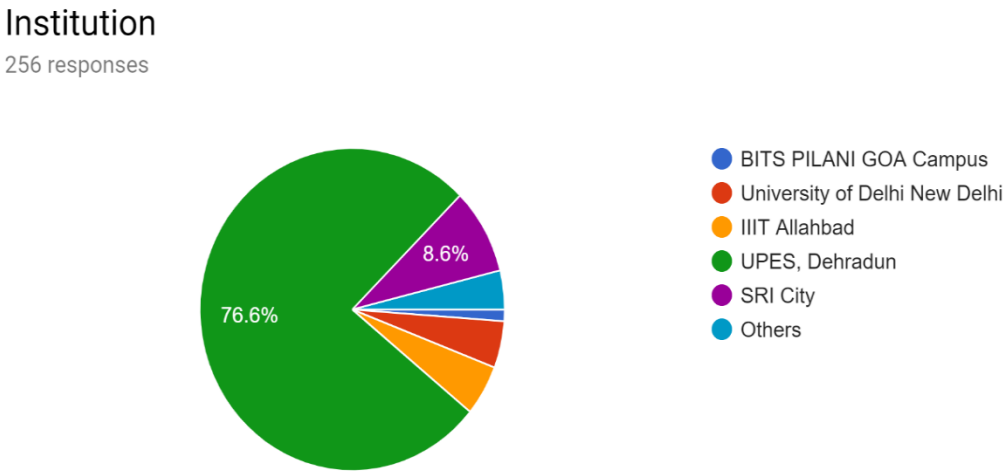

Figure 4.

Introduction

17 July is the day that is celebrated as "World emoji Day" every year across the globe and the year 2015 has been truly a remarkable year in the history of English language with the *Oxford English Dictionaries* declaring 😂 (an emoji) official meaning "face with tears of

joy" as “Word of the Year”. Though this emoji is the word of the year 2015, barring several other questions, the primary question is - is it a word?

To add to this primary question, we have many other related questions that arise viz. Can emoji form a language and share a similar kind of grammatical system like the English language? Do they help us convey and express feelings & emotions that words cannot per se? In order to find answers to a few basic questions, we perhaps need to go back in time and try to understand the evolution and devolution of English language.

One of the oldest forms of written language is *Hieroglyphics* that traces back to somewhere between 3300–3200 BC. The Cambridge Dictionary defines hieroglyphs as “a system of writing that uses pictures instead of words, especially as used in ancient Egypt”. The ancient Greeks coined this term that described the ‘sacred carvings’ on Egyptian monuments, while, in ancient Egyptian it means ‘the word of the Gods’. A small population (that included the royal family, priests and officials) of the ancient Egypt was taught to write in Hieroglyphics. Gradually hieroglyphics limited its use to religious and sacred texts, recording historical events and creating royal documents. Hieroglyphs is a complicated form of logographic writing, more precisely a logogram that has phonetic values. The Editors of Encyclopedia Britannica in an article write: (Britannica)

> Egyptian hieroglyphic writing was composed entirely of pictures, though the object depicted cannot be identified in every instance. The earliest examples that can be read show the hieroglyphs used as actual writing, that is, with phonetic values, and not picture writing as that of the Eskimos or American Indians.

In addition, in the same article they insist on four major aspects of hieroglyphs that made it a language, though a complicated one:

> Hieroglyphic writing followed four basic principles. First, a hieroglyph could be used in an almost purely pictorial way. The sign of a man with his hand to his mouth might stand for the word “eat.” Similarly, the word “sun” would be represented by a large circle with a smaller circle in its centre. Second, a hieroglyph might represent or imply another word suggested by the picture. The sign for “sun” could as easily serve as the sign for “day” or as the name of the sun god Re. The sign for “eat” could also represent the more conceptual word “silent” by suggesting the covering of the mouth. Third, the signs also served as representatives of words that shared consonants in the same order. Thus, the Egyptian words for “man” and “be bright,” both spelled with the same consonants, hg, could be rendered by the same

hieroglyph. Fourth, the hieroglyphs stood for individual or combinations of consonants.

Owing to the complicated system of writing that was used in hieroglyphs, another common and cursive form of writing called hieratic script came to existence that replaced hieroglyphs and continued its use for creating religious texts. While hieratic script continued to be used in religious texts, Demotic script derived from hieroglyphs and hieratic, gradually gained popularity and became the language for day today affair including business and literature.
The discovery of Rosetta Stone on 19 July 1799 in Rashid (also called Rosetta) in Egypt allowed linguists to decipher hieroglyphs. Rosetta Stone, a large and black granite-like slab is inscribed with three scripts; Hieroglyphs, Demotic and Greek. Linguists and scholars were quite familiar with Demotic and Greek and this is how they were able to decipher hieroglyphs by comparing it with a much familiar language.

The oldest languages did not have alphabets rather symbols and that is why writing with symbols and/or images/pictures is a familiar concept with best examples like the Chinese (Hanzi) & Japanese (Kanji) that are logographic writing systems.

Emoticons, **Kaomoji** and **Emojis** are comparatively newer developments in the order they are mentioned. The portmanteau "emoticon" comes from "emotional icon" that is a combination of either numbers, letters and/or punctuations marks to depict an emotion by creating pictorial icons e.g. **:-D** for laughing. Kaomoji are a Japanese creation that started appearing in the 1980s. **Kaomoji** has its origin in Japanese where **Kao** stands for "face." Kaomoji uses typographical characters just like emoticons but also includes symbols that helped Kaomoji in expressing emotions that are more complex in nature. They range from a simple expression of dissatisfaction, (—_—), laughter (｡➔∀←｡) to pure joy: .:☆*:･'(*⌒―⌒*))). (O'DONOGHUE) **Emoji** has its origin in Japanese word for pictograph i.e. **e** (picture) and **moji** (character) e.g. 😀 (grinning face) that is an internet shorthand for various emotions like its predecessors.

The Cambridge Online Dictionary defines ***glyphs*** as *a picture or symbol that represents a word, used in some writing systems, such as the one used in ancient Egypt*, while the Merriam-Webster Online dictionary defines ***glyphs*** as *a symbol (such as a curved arrow on a road sign) that conveys information nonverbally*. Based on these definitions of the term *glyphs*, Emojis definitely could be called the **digital glyphs**.

In 1982, a joke went wrong at Carnegie Mellon University and created confusion. As a result, Dr. Scott E. Fahlman suggested using different markers to identify jokes and non-jokes and used **:)** the smiley face and **:(** the frowning face for the said purpose. This is how emoticons

came into existence but within no time became a hit amongst internet users. Before emoticons could establish itself as a language, it upgraded to a newer variant called Emojis.

Emojis, on the other hand are different from its predecessors and they are pictographs (of faces, buildings, objects, animals, etc.). Shigetaka Kurita created the first Emoji in 1999 while working on a mobile internet platform in Japan. If we talk of Emojis now, we cannot imagine and think of instant messaging and social media all over the world without Emojis. Shigetaka Kurita introduced Emojis into Japanese cellular phones and they became so popular that *Apple* included a hidden feature in its phone that turned its keyboard to an emoji keyboard. Kurita's 176 Emojis are now a part of permanent collection at New York Museaum of Modern Art.

Emojis were born in 1999 that were barely 12-by12 pixels and the original set included icons for the weather, traffic, technology, and time. In 2007, Google decided to take charge and petitioned to get Emojis recognized by Unicode Consortium, which is a non-profit making group that maintains text standards across computers. Unicode officially adopted Emojis in 2010 and added many more to its basket that included Emojis of cat faces, various emotions like anger, happiness, Emojis depicting tears etc. Year 2015 marked the beginning of a contemporary variety with new skin tones and Emojis to represent same-sex couples followed by Emojis for single dad, pride flag, and weightlifting woman in 2016. Year 2017 was a remarkable year with new emoji to convey information across language and culture, like a mosquito to represent illnesses like malaria and Zika. (PARDES)

If we consider Emojis as a writing system, it is important to note that Emoji are not a logographic system that use a sign or symbol to represent an entire word, rather Emojis are ideographic and pictographic writing system where each Emoji represents an object and/or an idea, not a specific word. Emoji-lexicon is not something we can rely on but the cultural lexicon has a lot to offer. Irrespective of the knowledge of a particular language like English, anyone can easily understand the mosquito Emoji that represents mosquito-borne diseases like malaria and Zika that was approved by Unicode in early 2018.

Research Analysis

The research analysis is based on the survey that received 256 responses from various educational institutions as mentioned in the paper earlier. The responses in the form of graphical data are captured and mentioned below as per the question sequence in the survey. The results of the survey questions are assorted in terms of conclusion, which leaves the topic debatable. The subjects who took the survey do not support one school of thought; hence, there is not a clear category of millennials who entirely support Emojis or words. On being asked the medium in day-today communication, the subjects responded to our utter surprise with majority (81.3%) choosing more words, less Emojis whereas, only 10% opted for more Emojis, less words:

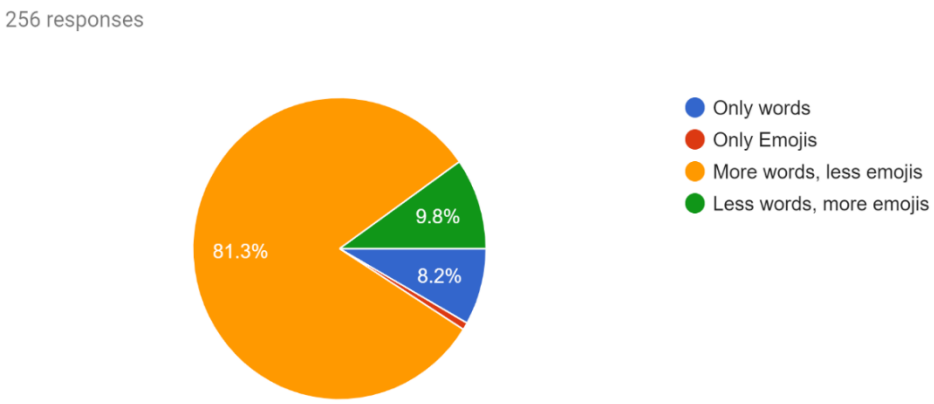

Figure 5.

Apropos the preference of using words over Emojis and vice versa, the subjects' responses (as expected) were opposite for these claims. Majority of the subjects prefer using Emojis to words with the age group lesser than theirs or between the age group of 16-25 years. On the contrary, majority of subjects prefer using words to Emojis with either their age group or higher (26-35 & 36 years and above).

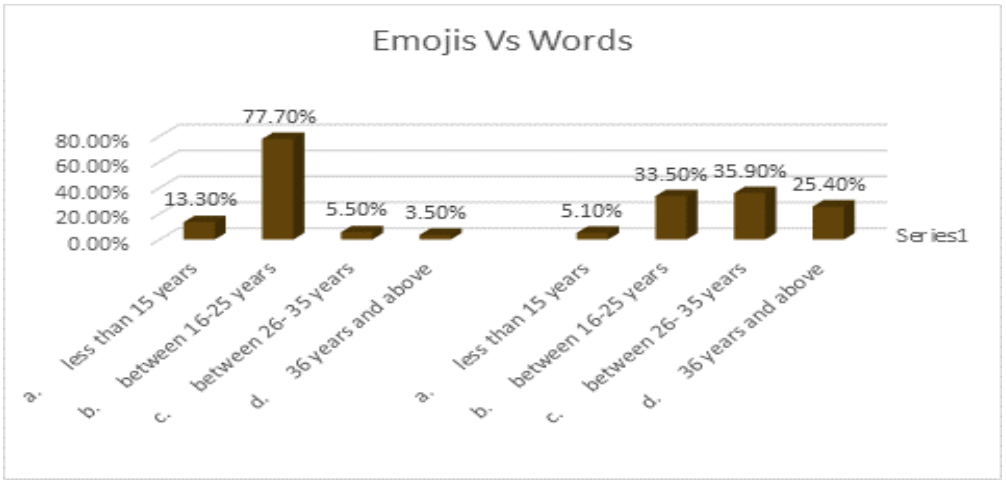

Figure 6.

The second section of the survey puts forth a variety of questions that try to explore the fundamentals and/or common trends in millennials with respect to the use of Emojis.

Communication is too vast a topic to be covered under one absolute definition. The context, mood, interpretation, cultural background and many other factors leave their impact on the whole process of communication right from ideation to feedback. The relationship between interlocutors can also affect the pattern and the frequency of the use of Emojis. (Revilla)

When asked about the form of communication the subjects use in which they find the use of Emojis more relevant and frequent, a majority of 74.2% said that it is only informal communication where they use Emojis and 15.6 % said that they use Emojis both in formal as well as informal communication.

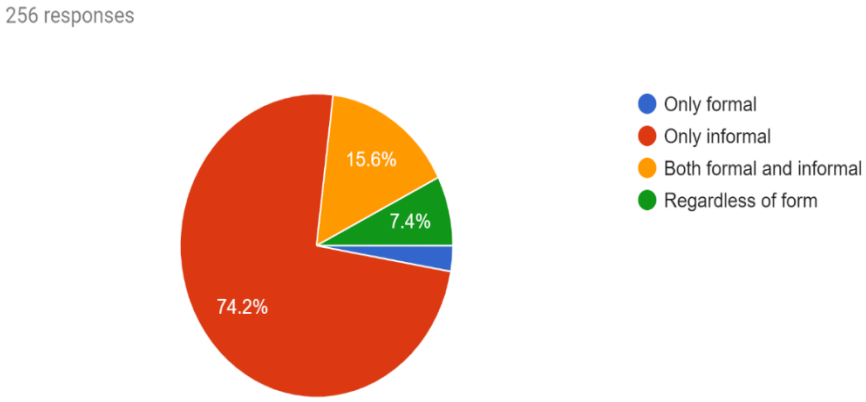

Figure 7.

When asked about the connection between their mood and the use of Emojis, majority of subjects (60.2%) said that they use Emojis when they are happy and 37.1% said that they use Emojis out of habit and regardless of their mood.

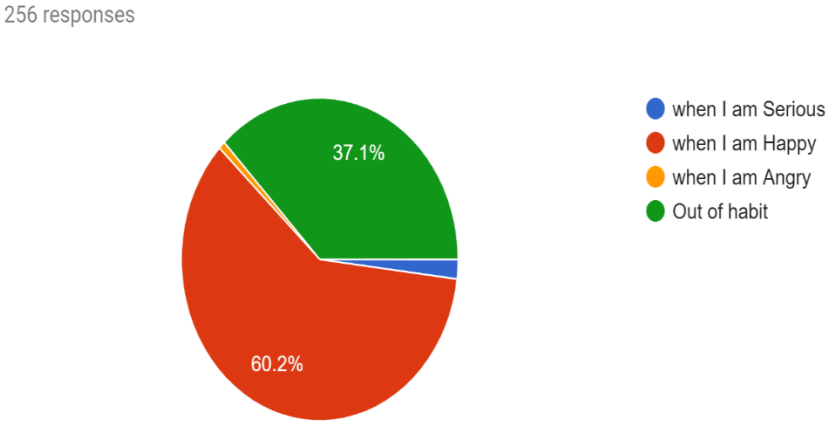

Figure 8.

In response to an important and quite relevant question that what makes or compels these subjects to use Emojis in their communication, 62.7% said that using Emojis adds more expression to their message, 19.6% said using Emojis adds clarity to message and 14.1% said using Emojis makes their message/conversation more interesting. A small percent said that using Emojis makes their message look/appear good.

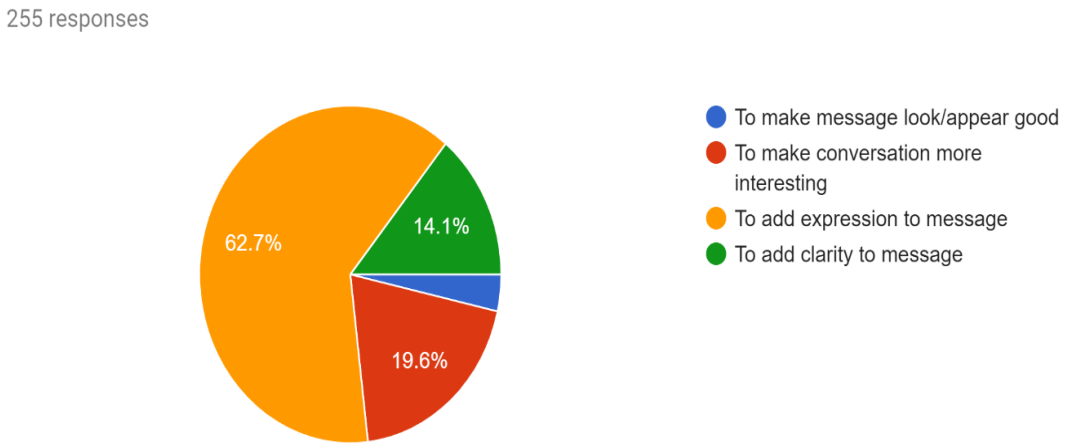

Figure 9.

It was pertinent to ask the subjects about the reason behind using Emojis, majority of the subjects said that using Emojis help them express their emotions in a better way. With Almost equal percentage of the subjects claim that using emojis saves time, saves effort of typing and substitutes words that they are unable to recall.

> Individuals use emojis with specific communicational purposes. Emojis have been considered as a substitutive tool for non-verbal cues (Kaye et al., 2016), implying that the use of emojis is related to an enhanced capacity of expressing the real meaning or the emotional intention of the message. A research conducted by (C. Kelly, 2015) on high school students observed that the majority of the respondents used emojis to make the text easier to understand, with the principal objective of conveying emotions. (Revilla)

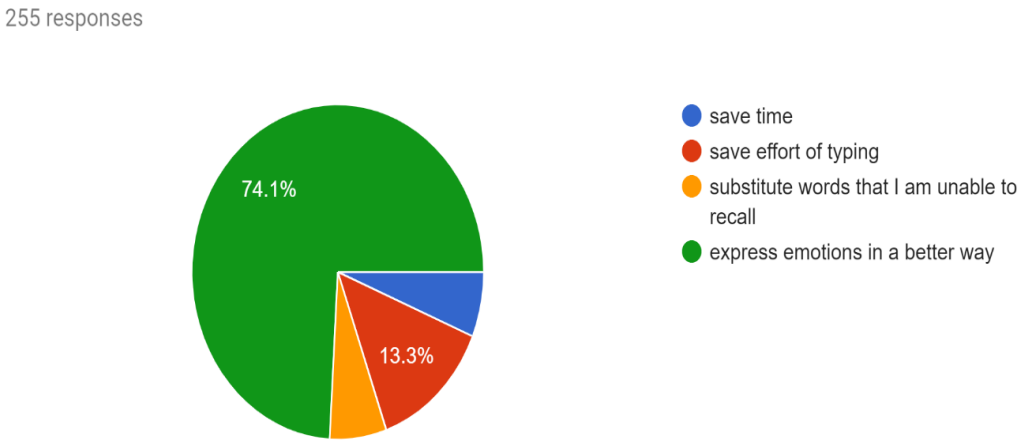

Figure 10.

Interestingly, the subjects who are millennials and are considered to be over with the transitional phase of technologies establishing itself in their lives and are rather the harbingers of the technology assisted communication tools, the Emoji dictionary of these millennials does not exceed 500. It is to be noted that the majority of these subjects chose 'less than 500' (on the higher side) but the next question made it clearer that 500 is just the upper limit while actual number may be more than its half, or even less.

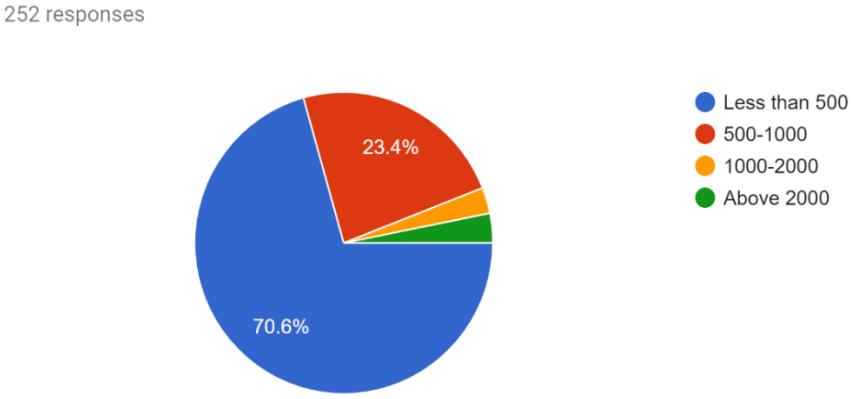

Figure 11.

When asked about the number of different Emojis the subjects identify majority (70.6%) said that their emoji vocabulary is limited to 500 on the contrary when asked about the number Emojis they use in their day-to-day communication (74.6%) say it is less than 50 in number.

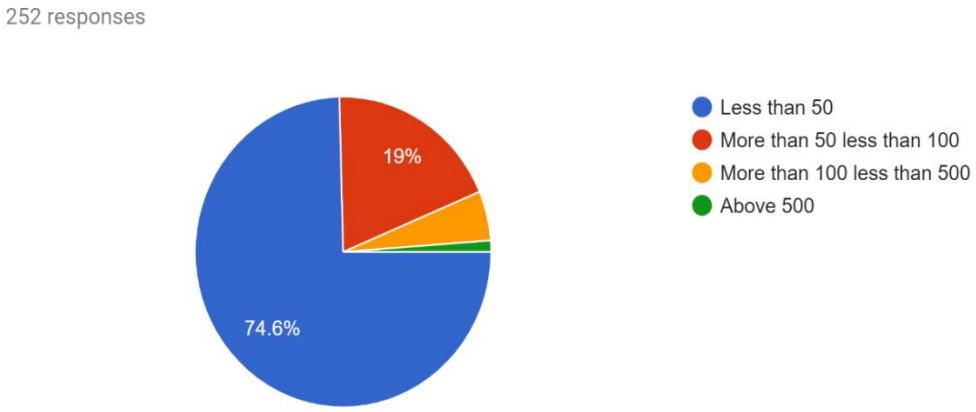

Figure 12.

Before we move ahead to the next question, it would be important to quote Neil Cohn, who is a linguist from San Diego, "to constitute a new language, emoji would need a key component: grammar.

> In Cohn's words, "[a] grammatical system is a set of constraints that governs how the meaning of an utterance is packaged in a coherent way." Research has found that, when it comes to syntax (the part of grammar dealing with sentence structure), "emoji don't have a fixed syntax in the same way language does (…) but their ordering isn't just random either." (Services)

Much relevant to the above-cited point, one of the most important questions was if the millennials considered Emojis as an independent language. To utmost surprise, the majority (those who say "Definitely Yes & "Yes") comes to a percent of 58.2 while 41.8 percent say it is not an independent language.

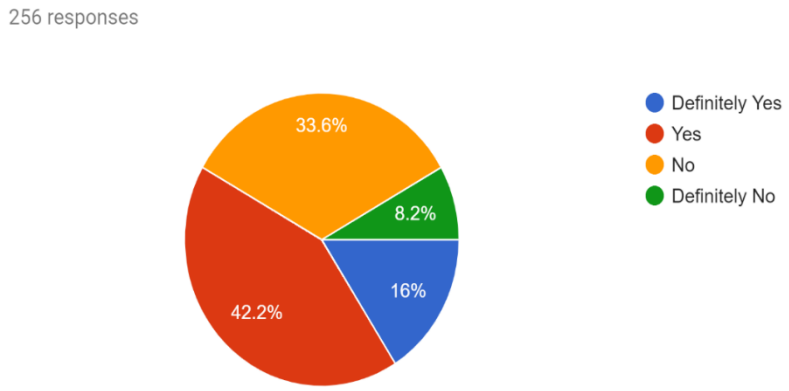

Figure 13.

For those who consider Emojis as an independent language, it will be a catch to understand the kind of lexicon and grammar this language carries. The Emoji-sentences included in the survey received varied responses while identifying the meaning of the same Emoji sentences. The millennials are much used to using this language, yet the responses do not establish it as one, as the varied perceptions are an output of personal, contextual and up to some extent the social use of these Emojis rather than the lexicon or the syntax it uses (if any).

Interpretation & Analysis of Emoji Sentences:

In the survey used, it was observed that there is no set pattern of interpretation in Emoji combinations including when the Emojis are put in a sentence in a particular sequence. Cultural background, level of education, age and even gender, and familiarity with & frequency of using technology, impacts the comprehension of the emoji sentence. For example, in the first emoji sentence, the meaning is predictable with 84.2% of the subjects going for the first option (my phone is dying. Do you have a charger?).

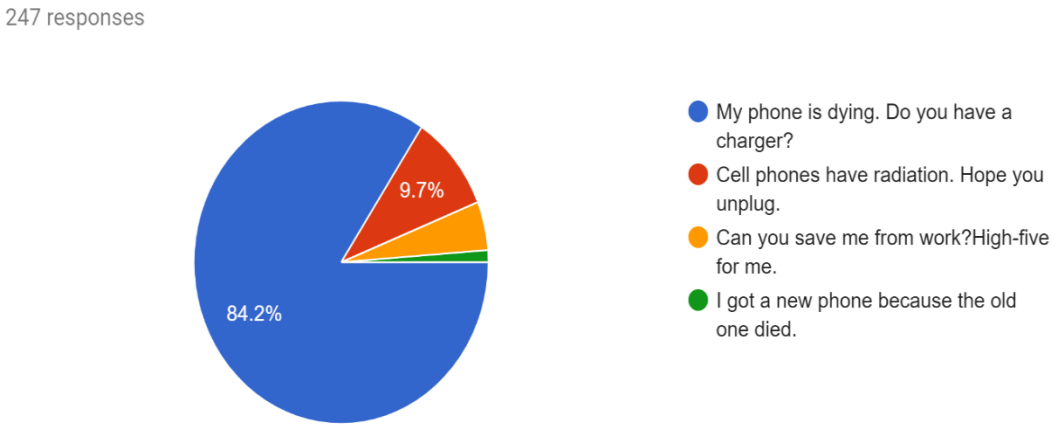

Figure 14.

It is because of the frequent use of these set of Emojis that has become a trend and made them digital glyphs of the millennials. If they were used independently, the meaning might vary. For example, 🙏 emoji that illustrates two folded hands came into existence in Japan where it meant salutation or gratitude; several other cultures consider this emoji symbolizing prayer while the millennials do not hesitate to describe it as two different people giving each other a high five. Similarly, skull in UNICODE means "Skull" while the common understanding amongst millennials refers to "dead" as its meaning. The choice of Emojis in digital communication depends as much as the choice of words or gestures in other forms of communication:

> Within the same language, we see several forms of the same expression, which is again replaced by another so often, which probably & fairly depends on the level of knowledge and feasibility of expression of the texter. (Radhika B. Pasricha)

In the second emoji sentence, the Emojis used are not the Emojis frequently used by millennials, hence leading to varied responses that can be seen dispersed in the pie chart (Fig. 15) below:

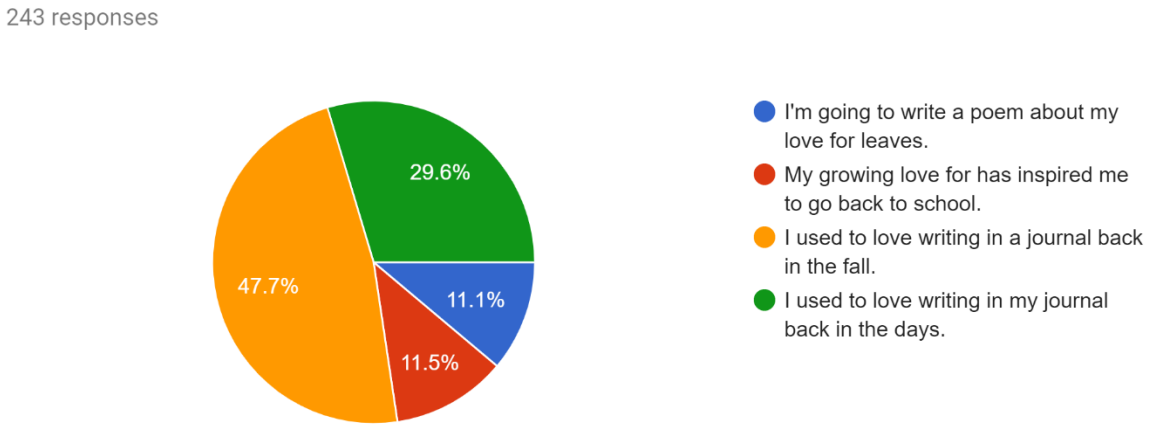

Figure 15.

Conclusion

For intellectuals who have been in constant love with words and strongly believe that words can express each and every emotion, have always raised this question if Emojis are capable of doing so. Emojis undoubtedly help us convey our messages, especially emotions in no time and have been complementing the English language used all over; they save us from the effort required for typing words and sentences; at times are a better option to present our emotions and feelings. Linguists say that language is multimodal, and writing takes away the non-verbal element, which Emojis substitute. On the other hand, Emojis do not seem to have a grammatical system and the Emoji lexicon is yet to be explored entirely. For simple and very common messages, Emojis could be a better substitute but for complex messages, Emojis do not prove to be a good choice. Probably, this is the reason, translation of "Moby Dick" it not that great a novel to read without its original key. The works of artists like Shakespeare, Alexander Pope, Keats, Milton, and Agatha Christie capture the moments of life so beautifully & elegantly and make them epitome of life itself in the form of written language. This is what makes us look up to them even to this day and probably for all the times to come. Yet, a few questions still remain to be answered including the variations in the appearance of Emojis across platforms like *Google*, *Apple*, *Microsoft*, *Samsung* etc. that creates varied interpretation of the same emoji. It is important to understand the dependency of Emojis on technology without which, it would not exist. The variation is well evident in the image below (Okrent)

Nerd Face:

Apple: Nerdy cuteness.
Google: Nerdy excitement!
Samsung: Nerdy astonishment!

In the era of digital communication where from daily chores to global business, the whole gamut is about digital communication, to use words efficiently to make the communication more effective is of utmost importance. In our endeavor to use technology to increase efficiency, we really need to pay close attention to this transition that absorbs shortcuts in communication and has made us shift from 'shrink texts' to Emojis; it would be like reverting to the age of Hieroglyphs. In addition, the important point is that the Hieroglyphs do have cultural significance as they were used to preserve a culture – rich and religious; Emojis need to identify the cultural significance they have, if any. Now we have Emojipedia, the Emoji search engine to ensure we do not waste much time in searching for the right Emoji. This cosmic use of Emojis these days may make emoji-lexicon an established language with a grammatical structure that sees the light of day in near future. On the contrary, there remains a fact that Emojis came as a better option to emoticons in terms of expressions and emotions. It is time that would probably offer the answer to this pivotal question – will emoji- lexicon establish itself as an independent language or upgrade to a newer variant like the ***stickers***.

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