A SOCIO-SEMIOTIC MULTIMODAL ANALYSIS OF EMOJIS AS USED IN TEXT MESSAGING

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A Research Project Submitted in Partial Fulfillment of the Requirement for the Award of the Degree of Masters of Arts in Linguistics

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DECLARATION

This project report is my original work and has not been presented for the award of a degree in any other University.

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Signature.....

Date.....8/11/2018.....

This project report has been submitted for examination with our approval as University Supervisors.

DR. CATHERINE AGOYA

Signature.....

Date.....09.11.2018.....

DEDICATION

For

Damianus Sadia

Recently departed,

You are immortalized in print

ACKNOWLEGMENTS

No ingenious work of research is ever done in complete isolation. The completion and success of this work was realized due to the contributions, guidance, support, advice and motivation accorded to me by a great number of people and in whose gesture, I wish to express my heartfelt gratitude.

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ABSTRACT

The goal of this study was the analysis of emojis using socio semiotic multimodal theory by Kress & Leeuwen (2006). Many studies on emojis have largely specialized in examining them purely on the basis of provision of emotions in computer mediated communication (CMC) more specifically, online writing. This study attempts to investigate their communicative functions in terms of how they have been exploited by users and characterized as a new form of language in the written text by examining their linguistic properties. Semiotics is particularly concerned with how people use signs and symbols to generate meaning and achieve their communicative goals. It lays forth the idea that meaning is no longer a construct of coding and decoding of signs but a product of different semiotic resources. On the other hand, socio semiotic multimodal theory captures the use of combination of different semiotic modes in a social context in order to generate meaning. The study therefore sought to establish the semantic properties and multimodal attributes of these graphic signs as used in the written form. A sample size of 385 respondents was used based on Krecjie and Morgan's formula for deriving a sample size for large population. A questionnaire was objectively designed to collect data from the respondents in line with the objectives of the research. The results reveal that emojis offer gestural affordances based on their graphics, whereupon users can derive meaning, and that their interpretation is only context specific. This makes them inadequate as a form of written grammar. On the other hand, the findings show that emojis are sufficient in provision of paralinguistic features and serves to aid online written communication.

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LIST OF ABBREVIATIONS

CMC - Computer Mediated Communication

HCI - Human Computer Interaction

MRT -Media Richness Theory

SIP - Social Information Processing

CHAPTER ONE

Introduction

1.0 Introduction

This study aimed at the linguistic analysis of Emoji using Socio-semiotic multimodal theory of Leeuween and Kress (2006) as the theoretical framework. The main aim of semiotics is to examine how people use signs and symbols as a means of presenting ideas and generating meaning in communication, while social semiotics deals with how meaning is derived from social institutions and semiotic resources in the society. This first chapter contains the background to the study which highlights the major concerns and advancement of communication in this new age of modern technology. It is then followed by a brief background to the main concept of discussion; Emoji. Also contained in the chapter are: the statement of the problem, the research questions, objectives, the scope and limitation as well as the justification of the study. The last part of the chapter highlights the theoretical framework and research methodology that was used in the study.

1.1 Background to the study

This section is divided into two parts namely; background to the concept of language and Technology and description of Emoji as a modern day icon.

1.1.1 Background to the concept of language and Technology

We live in times and cultures where digital technology is rapidly changing the way people interact and communicate both verbally and in the written form. As technology transcends towards infinite boarders, new forms of computer mediated communication (CMC) are realized. In giving a review of language change and digital media, Androutopolulos (2011: 1) notes that there are certain new features of the written language that have increasingly become part of usage of a generation of users known as the 'digital natives'(Androutsopulos, 2011: 1). She further gives a prototypical classification of this kind of digital writing by characterizing it as molded by four main conditions, which are: (a) it is vernacular, meaning that it is goes beyond educational or professional control. (b) It is a type of writing which is interpersonal and relationship focused as opposed to being subject-oriented. (c) This type of writing is unplanned and spontaneous and lastly, (d) dialogical (conversation based) and interaction-oriented(Androutsopulos, 2011: 1).Technology has been and still continues to be an essential tool in the modification and advancement of language, be it written or spoken, the language of the internet is increasingly being corrupted and adulterated due to the

manner in which people are crafting traditional writing or even speaking in face-to-face communication (Baron, 2008: 176). Various technology- platforms have arisen where people are able to exploit and express their linguistic creativity. The internet provides an ever increasing range of services and creates a number of keyboard-based communication platforms such as electronic mail, online internet chat rooms which include "*whatsapp, facebook*, *twitter, instagram, online game groups* among others.

In trying to understand the effect of the internet on language, Linguistics and communication experts are provided the task of investigating the linguistic properties of this digital revolution and are pushed to ask thought provoking questions such as; is the relationship between technology and language mutually or exclusively beneficial? What effects have been realized in both disciplines as a result of the other? Can this change be described as revolutionary? The world is on the brink of the greatest language revolution and that "netspeak" which according to Crystal (2001) is the language of the internet, will become part of a much larger computer mediated language. (Crystal, 2001: 17). He further adds some names to it such as 'electronic discourse, electronic language, interractive written discourse' in describing this language, he states'itarises from the fact that it is medium which is interractive, electronic and global.'(Crystal, 2001: 18). He divides netspeak into sub varieties according tohow it relates to modes of communication, for example , 'the language of e-mails' which is composed of 'functionally distict elements' that are 'central for the identification of e-mail as a linguistic variety'.These alements are greetings, headers, signatures, spelling variations. (Crystal, 2001: 94, 122). Another sub –division of netspeak is the 'language of chatgroups, He notes that this type of language is highly colloqual and has many non-standard uses. (Crystal, 2001: 148, 165).

The written language is the largely used form of communication on the internet. Text messages are often sent and received through online chat groups and applications. Text messaging refers to the ability to send and receive text on digital merchandise such as cell phones, tablets and computers (Reid, 2004: 2). Text messaging falls into non-verbal and dyadic category of communication. A standard text message can be 160 characters in length including space (Aitchson, 2003: 23). However, recent technological advancements have ensured that text messages can accommodate as many characters as the need or intention of the user dictates. Early studies on text messages observed that in the traditional handsets, users were provided with a small

cramped key board on which to type messages. Each 'multitap' key requiring a number of phrases to get the character that one wanted (Reid, 2007: 2) Some of the attributes of text messages as listed by Haig (2002) include: immediacy, this is an attribute where texts can be quick to type and are sent and received quite fluidly, asynchronous communication; This is the ability of text messages to offer users beneficial affordance where they are able to carefully construct their texts, re-read them before sending them (Haig, 2002: 4). It also offers invaluable opportunities for maximizing one's self presentation. This quality also presents a cooling off mechanism (Etzioni, 1999: 34) between participants where the window period of exchanges allows users to reduce any tensions or anxiety that may build up between them.

In contemporary text messages though, the 'traditional small cramped key board' has been replaced by an integrated and dynamic interactive keyboard where users can single handedly select characters easily and efficiently, more interestingly and to which this study is relevant, is the inclusion of Emoji into the smart phone keyboards. This ingenious and creative mode of text messaging elicits curiosity and inspires observation and it is for which this study sought an exploration on.

1.1.2 Background to the concept of Emoji

Emojis are two dimensional pictograms originally designed with the intention of conveying emotions between participants in text based conversations. They were first invented by a Japanese worker Shigetaka Kurita in 1990 (Burge, 2013: 1). He devised a method of adding a simplistic cartoon image to the company's pager service so as to distinguish their services from that of their competitors and also to appeal to teenagers. In Japan, the word Emoji means more or less "picture-word" It is a combination of the Japanese words *"e"* meaning picture and *"moji"* meaning word. Today, they are used in Computer Mediated Communication (CMC) to convey certain gestures, emotions or ideas.

Users can either type emojis from their key boards or even download them as an application or program on a smart phone, computer or tablet (Unicode, 2013). Emojis exist in numerous variations and projections some include facial expressions that denote varied emotions such as happiness, sadness, hunger, buildings, stones, glasses among others. Others show location and places, others include; fingers, folded arms, waving arms, running feet, clenched fists, slant bodies, tools, foods, and clothing among others (Unicode, 2013) (see appendix)

Initially, emojis were only used by Japanese mobile operators NTTDoCoMo and Softbank mobiles. However, in 2010, emoji characters were included into Unicode consortium. This is a standard and universal system of coding, meant to support and facilitate worldwide interchange, processing and display of written text across languages in the modern world. (Watts, 2015: 67). Due to their advanced technological nature, Emojis have been modified so much that they go beyond the traditional role of portraying emotions only. As is evident in the succeeding chapters, various emoji characters are being employed creatively to substitute for intentions such as "fine, ok, cool, nice, well" among others. As observed, some emojis like the "winking and frowning face" emojis are now used in place of exclamations like *"wow! Huh! mmh!"*

1.2 Statement of the research problem

While there are many studies and scholarly research that have been carried out on emoticons as means of conveying emotions in text based conversations, very little concern has been given to address the phenomenon of emoji as a unique language form in text messaging. Many studies focus on how they are used by people to provide emotions and portray feelings in Computer Mediated Communication. Xu,Yi & Xu (2007), discovered that emoticons are only used in accentuating or emphasizing on the tone or the meaning of a meaning of a message thereby making the message lively (Xu., Yi., & Xu., 2007: 24). Elsewhere, Kavanagh (2010) reports emoticons are used as devices of modesty and for softening requests and positive politeness strategies (Kavanagh, 2010: 75, 76). However, these studies among others do not capture the use of emojis as a new form of online language which is capable of offering alternative form of writing in CMC. In this respect therefore, this study set out to establish and assess the socio-semiotic elements of emojis. This study aimed to characterize emoji icons in terms of their relational value of meaning and intent using socio-semiotics multimodal theory. It examines the roles played by emojis in terms of controlling conversation threads, creating of new online linguistic behavior, how emojis are important in creating, maintaining or even breaking online conversations. It analyses the impact that these icons have created in the language of text messaging where issues such as brevity and punctuation are discussed.

1.3 Research Questions

The issues intended for investigation in this research are summarized in three broad questions:

i. Can emojis be considered as an alternate language form capable of fulfilling all the needs of text based communication?

ii. Are emojis a complete substitution for paralinguistic features lacking in the written text as is seen in face-to face communication?

iii. Are emojis only used to embellish text messages or they can fulfill other communicative functions?

1.4 Objectives

The following are the objectives of the study:

i. To describe how emojis have been characterized as a new form of language in text messaging.

ii. To identify the role played by emojis in provision of paralinguistic features in text messaging

iii. To establish the broader linguistic elements of emoji and its communicative functions.

1.5 Justification of the study

The study makes enormous contribution towards understanding the role played by emoji as significant properties of the language of texting. It explores their social usage both as signifiers of emotions and as valuable codes necessary in generating cues needed to complete communication via text in this era of technology. By igniting interest and stimulating curiosity, the research hopes to pave way for further study by exploring new opportunities and challenges raised by emojis. Finally, the results, recommendations and suggestions provided will not only be beneficial to language, linguistics and communication experts, but also to the robustly active group of people from all walks of life who are constantly using emojis in this ever dynamic environment of technology.

1.6 The scope and Limitation of the Study

This was a linguistic analysis of emojis which sought to analyze their linguistic and communication properties. The analyses undertaken have strictly remained within the borders of linguistics; it is however worth noting that emojis can be analyzed on other numerous platforms such as the psychological effect of their usage among persons. Sociological studies can also be concerned about the spread of their usage as with regard to gender and age.

In this digital era, emoji has become a worldwide phenomenon which has been greatly embraced by millions of people all over. The characters themselves are numerous and varied. As at 2010, Unicode consortium reported that there are over a million number of emoji characters used within various operating system platforms. In this regard, the study could not attempt to examine in detail how each and every emoji character functions or is used since this would be overtly tedious and wearisome. It therefore concentrated on the major and most commonly used emoji characters. This categorization was taken from *emojitracker* which relays in real time the most commonly used emojis on social media platforms (see appendix).

1.7 Theoretical Framework

The world is currently seeing changes in the availability, usability and distribution of technology which is rapidly altering the way in which people interact and communicate. This raises some insights about how earlier existing theories of Computer Mediated Communication (CMC) could have explained and even accounted for these changes, though not sufficiently. These earlier theories of CMC include: Social Presence Theory (SP) (Short, Williams, & Christie, 1976), Social Information Processing Theory (SIP) (Walther, 1994), and Media Richness Theory, (MRT) (Daft & Lengel, 1984: 191). A common feature that is evident in all these theories is that, the need for social bonding is the same in CMC as it is in Face-to Face communication. Elsewhere, as postulated by Media Richness Theory, all communication media have variations in the way that they aid users to communicate and make meaning. It also postulates that users who prefer to use less rich communication media must put into consideration the fact that these medium might have limitations and hindrances in terms of feedback, multiple cues, message tailoring and emotions. (Daft & Lengel, 1984: 191)

While these theories provided excellent points for examining new media forms, and because of the dynamic and progressive nature of technology, there is a need to explore other existing theories

and find new ways through which we can explain and even understand these new forms of interactive media that is emoji.

As noted by Jewit, (2005) at the center of internet communication, image is taking more and more, the place of writing (Jewitt, 2005: 315). It has become increasingly impossible to isolate digital writing from the various multimodal ensembles in which it is embedded. She notes that screen based texts are composed of multimodal ensembles which are interwoven like sound, image, animated movement, graphics and other modes of representation and communication (Jewitt, 2005: 316).Looking at digital writing in semiotics, with its various multimodal ensembles, it is imperative to note that digital writing has now to be considered in its environment of multimodal textual symbols, and in a wider environment of the connections of these symbols to their intended or perceived meaning and objectives. For these reasons, this study therefore used the Socio Semiotic Multimodal approach.

1.7.1 Social Semiotics and multimodality

The fundamental aim of any semiotics theory is to outline the structure and system of a sign and relate it to the manner in which this sign is designed socially so as to convey meaning. The focus of social semiotics is no longer interested with the knowledge of the sign; it is now primarily concerned with how people are using 'semiotic resources' in their daily communicative endeavors Leeuwen (2005) defines 'semiotic resource' as actions and artifacts that people use to communicate. The production of these actions can be physiological, e.g. the use of vocal apparatus to speak, use of technological aids such as pen and paper or the use of computers. (Leeuwen, 2005: 3). And that traditionally these were called only referred to as signs. He adds that resources are signifiers, observable objects and actions that have been brought into the realm of social communication and posses a theoretical semiotic potential. (Leeuwen 2005: 4)

Social semiotics is the study of how meaning is derived from social institutions and relationships in the society. People normally employ signs and symbols that have been previously learnt from a corpus pool within their culture in an attempt to effectively communicate their views, feelings, attitudes and ideas about life. Social semiotics is therefore important to this work, with the qualification of emojis as semiotic resources-capable of generating semiotic potential, it therefore offers a utility framework for approaching, analyzing and interpreting the character of these technological artifacts as a form of meaning making resource. Within social semiotics is a term

known as semiotic structuralism. Semiotic structuralism looks at the meaning of semiotic resources within the social context in which they occur. This is based on the fact that meaning is no longer a construct of coding and decoding. It considers the string linkages between 'signifier and signified,' between one sign and the other, between two varied contexts which can be either situational context or even political context and above all how people derive meaning within all these contexts. It analyzes semiotic units on the grounds of contexts rather than texts alone. Simply put therefore, semiotics has transcended beyond the study of signs as codes to a more elaborate system of social and multimodal analysis.

The use of emoji among people has numerous social dimensions, for example when purely used between members of a particular age group, among friends to achieve personal desires such as group identity and belonging, to exclude or include, or even when emoji properties are exploited by users to achieve communication goals such as portraying emotions or replacing words, acting as syntactic markers like punctuation marks, and their uses in group chats to achieve brevity and save time. All these uses are dependent on the context of engagement between the participants. They derive meaning and meet their communication goals depending on existing and established knowledge about the emojis they use.

The variation of language structure in any particular case is based on social context, in other words- on its occasion of use. In order to locate a register of a certain linguistic activity, one must observe its specific purpose and how this purpose serves the participants of that language. In terms of context, it is imperative to observe as well the body of knowledge and values that these participants share in their quest to make a particular semiotic resource serve them accordingly.

The various modes of communication such as language, gestures, images and signs often yield multiple meanings depending on the context in which they are produced. Context usually allows the listener to form a bridge the text and the situation in which the text actually occurs.

The study of context is expounded by Malinowski (1944: 94) who introduced the theory of "context of situation" or 'the environment of the text" He posits that in any successful description of a conversation and correct interpretation of meaning in a context, it was important to give information on what was happening at that time as well as a total cultural background of the participants. This idea was elucidated by Firth (1935) who says "All linguistics was the study of

meaning and all meaning was function in a context." He described Malinowski's ideas of "context of situation" as persons and personalities and the participants in the situation"

Halliday presented the three concepts of field, tenor and the mode to help interpret "the social context of the text, which is the environment in which meanings are being understood". He says "The field of discourse refers to what is happening or the nature of the social action that is taking place; what is it that the participants are engaged in, in which the languages figure as some important component?" In this study field is represented by the aspect of written text messages as the forms of communication. (Halliday, 1978 : 89)

"The tenor of discourse refers to who is taking part, to the nature of participants, their statuses and roles; what kinds of role relationship obtain among the participants including permanent and temporary relationships of one kind or another, both the types of speech role that they are taking on in the dialogue and the whole cluster of socially significant relationships in which they are involved". In this study, this refers to the people involved in using emojis i.e. the actual participants in the text messaging process.

"The mode of discourse refers to what it is that participants are expecting the language to do for them in that situation; the status that it has and its function in the context, including the channel whether spoken or written or some combination of the two, and also the rhetorical mode, what is being achieved by the text in terms of such categories as persuasive, expository, didactic, and the like". In this study, this refers to the functionality of emojis and how it has been used in the context of text messaging to fulfill issues such as portraying emotions, creating brevity, and acting as syntactic markers. (Halliday, 1978 : 89)

1.7.2 Approaches to Multimodality

Multimodality is an inter-disciplinary approach whose main objective is to provide an understanding of how communication and representation goes beyond the use of language alone. It systematically addresses concerns as to how the society is rapidly changing its language system to effectively adapt to new media and technologies. The term has received many interpretations from many linguists and semioticians. Leeuwen (2005) defines multimodality as the combination of different semiotic modes such as language and music or language and signs in a communicative artifact or event. (Leeuwen, 2005: 28) Multimodality can also refer to the various ways in which

different resource systems are combined and integrated within a certain context to derive meaning. It is also defined as a combination of activities that have been shaped through changes within the social, cultural and technological realms, so as to make meaning. Multimodality relays the argument that for representation and communication to make meaning, they must rely on multiplicity of the modes that they employ. It is concerned with the whole collection of meaning making resources that are employed by people in communication such as visual, spoken, written, gestural, three dimensional among others. Multimodality also takes into account the fact that for resources to make meaning and aid communication, they must be are socially shaped and culturally molded by a 'system' designed by its users.

Multimodality postulates that for a semiotic resource to draw meaning, representation and communication must be presented by a multiplicity of modes. Its focus relies on the wholesome cauldron of meaning generating resources that people employ. It attempts to give an analysis on how all these resources are organized to achieve meaning.

Within multimodality, different terminologies are introduced: mode, semiotic resource, and modal affordance. A mode arises out of the cultural shaping of a material as well as how it is used by people in their daily social interaction. 'Modes' are semiotic resources that are culturally and socially shaped and culturally molded for representation and communication, for example, language, image and gesture (Kress, 2010: 79). In social semiotics, all modes are seen as possessing particular meaning making potentials. As Kress observes, 'semiotic modes promote different kinds of possibilities of human expression this is because of the varying potentials through which human expression and engagement with the world leads to different possibilities of affective development' (Kress, 2010: 79).Because of multimodality, it is easy to construct a collection of semiotic resources, that is, the actions, materials and artifacts that people use to communicate by. These semiotic resources include: visual communication, gaze, voice and even music. Jewitt (2005) states "print- based reading and writing are by nature of constitution, multimodal this means that they require the interpretation and design of visual marks, space, color, font or style and increasingly image, and other modes of representation and communication".(Jewitt, 2005: 315).

1.8 Literature Review

With the constant growth and transition in the dynamic field of computer mediated communication (CMC), the various forms of electronic communication have had to undergo transformation to fill up or adapt to these changes. For the fact that written forms of electronic communication lack the situational attributes as is seen in Face -to-Face communication, recent developments in technology have enabled users to equate or just compensate for these missing attributes. Within the realm of text-based electronic communication, emojis have taken a significant role in the provision of socio-emotional attributes in CMC.

With the aid of the internet, CMC has seen tremendous changes. Walther & D' Addario (2001) observe that computer mediated communication has developed from a medium which is related to work to a medium which is playful in nature (Walther & D' Addario, 2001: 326). As is noted by Crystal (2001) 'netspeak' is bound to grow through sociolinguistic and stylistic ladders towards what is known and practiced in traditional speech and writing (Crystal, 2001: 239). He describes emoticons as 'combinations of keyboard characters which have been designed to show an emotional facial expression' (Crystal, 2001: 36).He observes that whereas Face- to- Face communication ranks as primary in account of the linguistic potentiality of any humankind, this may be not so true in the future. In reality today, Crystal's observations cannot be fully ignored especially with the rise of emojis borne out of emoticons.

Numerous researches have been carried out on traditional emoticons and they heavily focus on the use of emoticon for the provision and portrayal of emotions in CMC. According to Luor, Lu, (2010), emoticons can act as a silent way of adding expressions to a text that seems flat due to the fact that their meaning mirrors emotion, 'their actual function hinges on the definition of the word emotion' (Luor.et al, 2010: 890). They also observe that with the use of emoticons, it easy to observe the mood or mental state of the writer and that this also helps in providing certain cues of the person's personality (Luor.et al, 2010: 892). Their study also aimed to look at how emoticon usage was perceived at place of work. Their findings show that the use of emoticons may arouse varied emotional feelings among colleagues depending on how they are interpreted.

Lo (2008) carried out a study to investigate the non-verbal communication functions of emoticons in CMC. He concludes that internet users cannot perceive emotions and attitudes of their conversant in text messages without emoticons. (Lo, 2008: 595).

Another study was carried out by Ip (2002) where he undertook an experiment to compare and find out the effects of both emoticons and two grammatical markers (use of punctuation and exclamation mark) in terms of how users will understand text messages either positively or negatively. Results of the study showed that when emoticons were used, the text messages appeared to be extreme and full of decorations that made them embellished. The findings further showed that where there is no exclamation mark, emoticons created a greater impact on the messages. On the other hand, messages with a negative connotation are made more negative with exclamation marks yet in the presence of emoticons, there is no impact. The study concluded that since a positive message will be made more positive with exclamation marks, the inclusion of emoticons also makes a text message emotionally intense (Ip, 2002: 2).

In analyzing emoticons, Dresner & Herring (2010) argue that there is a deficiency in the conceptions of emoticons purely as emotion icons, as is seen in the use of a smiley to indicate sarcasm. Using speech act theory, they make a conclusion that emoticons do not always serve the function of being vehicles for expressing emotions, and that sometimes their meaning is closely tied to language than what is allowed for by their assumption as emotion icons (Dressner & Herring, 2010: 5).

A Literature research on emoticons show how the main concern for scholars have tended to focus on their use with regard to how they provide emotions in written discourse. The available literature is instrumental to this work for the reason that they provide sufficient information necessary for the analysis of emojis in terms of their paralinguistic features. However, this study gives a linguistic analysis of not just emoticons, but emojis, (which are a significant improvement of emoticons) and makes observations that go beyond provision of emotions in text based language

1.9 Research Methodology

This section provides an overview of the methods of data collection and analysis.

1.9.1 Methodological Insight

The goal of this study was to describe how emoji has been characterized as a new form of online language by examining its linguistic elements and communicative functions. The first motivation of the research lies in the observation that despite growing significance of emoji as a variable in text messaging, there has yet been little attempt by linguists to describe in depth its characters as

form of possible online written language. Through daily usage of social media chat groups such as *facebook*, *whatsapp* and twitter, the researcher randomly noticed that there were texts in conversations where emojis were used numerously and that this usage was intriguing. Progressively, a 'pattern of usage' was noticed, or rather emerged and which sparked curiosity. The researcher then set out to objectively collect data and carry out the research.

1.9.2 Methods of Data Collection

The researcher collected data in two categories; first, the researcher started by carrying out an extensive and intensive desk research especially on how emojis were being used by people. This desk research involved gathering data (emoji texts) mainly from social media platforms. At this stage data was collected through participant observation. Whenever the researcher came across conversations and dialogue where emoji had been used on social media platforms (*whatsapp, telegram, twitter, instagram* and *facebook*), this was systemically noted down and recorded via screen snap-shot on smart phone. So as to gather as many texts as was necessary, and even personal and private ones, the researcher approached close friends and relations as well as any willing persons. This collection method was complicated by the fact that some text messages are conceived as highly personal. However, many individuals upon agreement (based on mutual understanding and clarification of research work) were willing to submit their personal text messages either online or in person. Elsewhere, the researcher joined online public chat groups more specifically *whatsapp, telegram, twitter, instagram* and *facebook*. This total immersion provided the researcher with a 'front view arena' from where he could directly observe and record the data.

Following this, the recorded data was synthesized and analysis made, whereupon the researcher was interested in fishing for patterns (or lack of it) in the way that people used emojis to communicate. The analyses revealed that there was a particular manner and way in which there seemed to be an 'agreement' of sorts on how these icons were characterized by users albeit with a lot of questions. From this the researcher then moved to the next stage of collecting valid answers from actual users.

The second method of data collection involved the use of questionnaires. But before this, a population of the number of people who use emojis needed to be laid down from where a valid sample size would be generated. In finding the right sample number, the researcher needed to first obtain the number of people who use emoji worldwide. 92% of the world's online population use

emojis. This is according to infographic (2017). To find the total number of this online population, the researcher accessed 'internet world wide stats' which documents the accurate statistics of online users. It is reported that 51% of the world's population is on the internet as at June 2017 (inforgraphic, 2017). This translates to 3,885,567,619 people. 92% of this number thus provides the exact number of people who use emoji as 3,574,722,209. This was the population size of the study. From this population size, and making note of how large it was, the researcher then used, Krejcie and morgan's formula for deriving a sample frame. The formula being:

$$\mathbf{S} = \frac{X^2\, NP\,(1-P)}{d^2(N-1) + X^2\, P\,(1-P)}$$

Where;

S = required sample size

X = confidence level (as a z score)

N = population size

P = population proportion/ percentage value expressed as a decimal

d= degree of accuracy (margin of error) expressed as a proportion

In this case, since the population size was very large, a higher confidence level was needed and a smaller margin of error, which the researcher set at 5%. The researcher chose 95% confidence level so as to maintain reliability and accuracy of the measure of results. To express this percentage on the z-score (as a decimal for mathematical workings) 95% confidence level translates to 1.96. Finally, based on the workings of this formula, (workings as shown in chapter 4) the sample size arrived at was 385. The researcher then used purposive sampling to collect data from this number of persons aged between 18-36 years. This age bracket was objectively arrived at based on information detailing the age of persons who most likely use emojis. According to statistics on the use of emoji, the majority of people who use emojis are the youth (emojipedia, 2017). A report carried out on the persons who use emojis indicate that the youth are most commonly found to be using emojis than adults in many countries in the world. (Unicode, 2013).

1.9.3 Data Analysis

The researcher used both qualitative and quantitative procedures in analyzing the data from the responses. It employed a descriptive survey design to investigate the properties associated with emoji. Creswell (2002) notes "A descriptive survey method is often used when data is collected to describe persons, organizations, settings or phenomenon" (Cresswell, 2002: 89) Quantitative data was analyzed by use of descriptive statistics which included frequency counts and percentages. On the other hand, qualitative data was used to compare responses from different respondents. Qualitative data was analyzed according to the five steps proposed by Miles and Huberman (1994: 278) which include: data cleaning, condensing, interpretation, making sense of the data and presenting it in narrative and interpretative forms. As noted by Hendricks (2006) "The general purpose of a qualitative research is to understand and interpret phenomena as they occurred in their natural setting." Qualitative analysis was based on observant participation. Both methods of data analysis were presented in line with the three main objectives of the study and sought to provide satisfactory responses to the research questions.

1.10 Conclusion

This chapter provided an in depth background into the concept of emoji in text messaging where it observed that the phenomenon is a recent occurrence that is swiftly gaining prominence in the manner people are using them. The chapter also stated the objectives, statement of the problem, research questions and justification for the study. It then discusses the scope and justifies the choice of theory for the study. The theory chosen is Social Semiotics Multimodal Theory by Leeuwen and Kress (2006) which lays the foundation that in order to understand a semiotic resource; we must observe it within the boundaries of a social system as well as the multimodal ensembles that it offers to its users. Finally, the chapter provides the methods that were used in collecting and analyzing of data.

CHAPTER TWO

The Semiotics of Emojis

2.0 Introduction

This chapter lays focus on the semiotics of emojis. It begins by discussing in detail the definition and of a sign, then goes on to introduce the term 'semiotic resource' and finally gives a discussion on semiotic structuralism. At the core analysis of emoji is the need to understand the term semiotics. Semiotics is considered to be more than just the usage of signs but also the interpretation of these signs. This chapter therefore presents emoji as signs capable of producing meaning and as a semiotic resource aided by aspects of social and contextual integration.

2.1 signs and signification

At the onset, it is imperative to note that over time, emoji has been manipulated as a new form of media and as signs that represent ideas. Users have exploited these signs and put them together to form complex structures that eventually make meaning and communicate ideas. These signs are encountered, made into structures and units that ultimately are interpreted and meaning derived. For this reason, it is imperative that a good understanding of the term sign should be laid forth.

Over the years many scholars of semiotics have given their take on the definition of the sign. Such scholars include de Saussure (1966) and Peirce (1958) . Peirce, who is often considered as the father of semiotics, postulated a sign theory which gives an account of signification, representation, reference and meaning. Therefore, in the definition of a sign, it is crucial to first examine Peirce's theory in its breadth and complexities.

2.1.1 Peirce's Sign Theory

Peirce's basic claim in the definition of a sign is that it has three inter-related parts: The "*representamen*", the object and the "*interpretant*." He writes:

> I define a sign as anything is so determined by something else, called its object, and so determines an effect upon a person, which effect, I call its *interpretant*, that the latter is thereby mediately determined by the former (Peirce, 1998: 478).

To simplify this, the *representamen* (sign) can be looked at as a signifier, for example an utterance, smoke for fire or just letters on a paper. While the object is seen as the idea or reality that is being conveyed by the sign, that is the material that the utterance or written letters attaches; their

signification. For example, the letters “c h a i r” signify in English, the constructed material that is primarily used for sitting. And finally, the *interpretant*- which was Peirce’s most innovative and distinctive feature is defined as the logical understanding that we derive in the relationship found between the sign and the object. According to him, the *interpretant* was the most fundamental element of the sign due to the fact that the process of signification is only made solid and complete because of the availability of the *interpretant* without which there is no dyadic relationship that cuts between sign and object. This means that a sign can only signify something upon being interpreted. That the meaning of a sign can only be realized in the interpretation it generates among sign users. He presented this relationship in a figure as shown below:

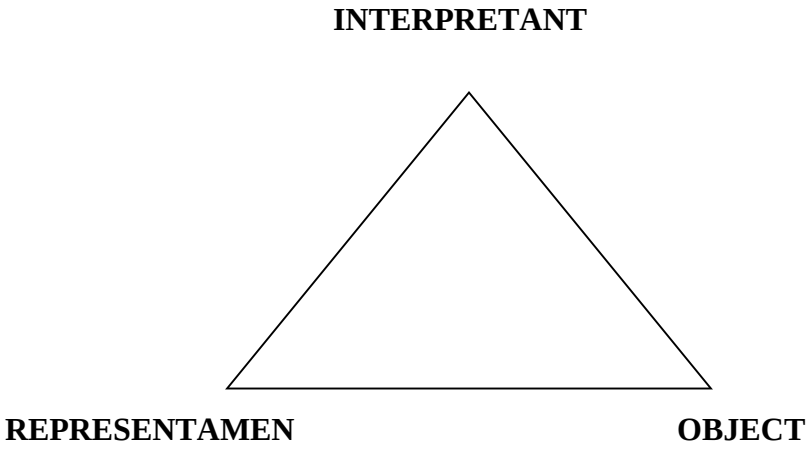


Fig 1.1 Peirce's triadic model of the sign (source: O'neil, 2008: 69)

The process of reference made between the connection of the *representamen* and object is a mental one that links the experiences of the *representamen* and the object. Peirce calls this mental process “abductive reasoning” where he says that based on available information, a person can make their best guess, this being the *interpretant.* (Peirce, 1935: 16)

2.1.2 The Object

Peirce postulates that the relevance of an object for signification does not always lie in all its characteristics; that the object only has certain features that will make a sign to signify it. There has to be determination so as to create the relationship between the object of a sign and the sign of the object and that the object determines the sign. This is synthesized by the idea that if a sign has to represent the object, then there are certain parameters that it has to fall within.

2.1.3 The Interpretant

The *interpretant* is defined as the underlying connection that exists between the object and the *representamen.* It is the understanding which is reached in the relationship of the sign and the object. It can also be considered as the translation or the development of the original sign. The notion here is that the *interpretant* provides a translation of the sign which then allows a more complex understanding of the sign's object. He adds that the relationship between the sign and the *interpretant* is laid by determination. For the sign to determine an *interpretant*, it has to use some of the very features it uses on its object. For example, the i*nterpretant* sign of smoke is seen as fire. The observation made is based on the physical connection between the two

In summary, Peirce believes that for signification to occur there has to be two facts: sign-vehicle, and an object and *interpretant.* The object functions to determine the sign by putting constraints or parameters, which in all accounts must be met by the sign, and this is when it will signify the object. As a result, the sign will be signified by the object only by of some of its features. In Addition, the sign will determine an *interpretant* when we focus our understanding of certain features of the signifying relation between the two.

Elsewhere, in description of his concept of sign and signification, Peirce developed three different kinds of experiences. He named them, *firstness*, *secondness* and *thirdness*. He described the concept of firstness as the primary and ideal experience of phenomenon that does not have any reference to any other subject or object at all. He adds that *firstness* occurs in a situation where we are faced with an experience that we are unable to accurately describe, identify or even state. This is the state of undifferentiated and qualitative feeling.

The state of secondness involves the experience where one gets to experience a 'phenomenon or event that they do not recognize or cannot make an identification of but which resists them in some way.' In secodness we are able to differentiate between what is known and that which is not known. For instance, seeing smoke will give a signification of fire. This then moves us to the notion of thirdness, this is where mental objects of representation are used to represent experiences of real objects. Thirdness is aided by other cognitive factors such as mental cognition, recall, and recognition

In relation to these three notions, Peirce also defined three sign type category. These were: icons, indices (index) and symbols. An icon, relates to firstness; as signs that represent their objects through a direct likeness or similarity. A card, a picture, a photograph or painting that has somebody's image is an icon of that person. Similarly, a map is an icon of the geographical area it demarcates. It is intuitively easy to understand icons because of the nearness of relationship they create with their referents. (Pierce, 1935: 17)

He relates index to the concept of secondness. It is a sign that has causal relationship with its referents, connected by some physical or presumed relation. For example, the specific position of the sun and shadow angles at a particular point will inform us the time of day. Foot prints of someone will definitely show the path he has travelled. For indices, there is a direct link between the object and the sign. They are signs that are manifest on physical entity creating a distinct connection between the form and content.

2.1.4 De Saussure's sign

Saussure defined a sign as that which is experienced when someone comes into contact with a set of stimuli that can be equated to a mental concept. (Saussure, 1966: 140) He posited that in order for words to convey meaning, it must consist of two significant parts; the 'signified' and the 'signifier.' The signified is that part of a word that pertains its meaning while the signifier is that part of the word that is representative of that meaning. (Saussure, 1966: 142).Through his concepts of langue and parole, he notes that there is a mutual presupposition between the signified and the signifier. The 'signifier' he described as the form taken by the sign and 'the signified,' he considers to be the concept in the mind. This could include our experiences, impressions, feelings, perceptions, and attitudes in relation to an object or situation. For example, mentally, there is a representation of the word "cat". It is intrinsically bound to the signifier which is representative of that concept that is to mean that when put together; the letters CAT signify the concept of cat in written English.

In essence therefore what Saussure means is that the signifier represents the physical part of the sign while the signified is the meaning represented by the physical entity. Saussure's concepts are later clarified and strengthened by Hjelmslev (1961) where he introduces the two terms form and substance. He likens the substance of the signifier as the physical materials of the medium for example, sound, light, wood or stone (Hjelmslev, 1961: 51). The form of the signifier is that which

is recognized through interpretative codes as a representation of something, simply put, the form shows the way in which the concept is coded while substance is the concept in the mind. The relationship between signified and signifier as well as form and substance is considered as both syntactic and structural. As seen in the figures below representing Saussure's concept and Hjelmsev's

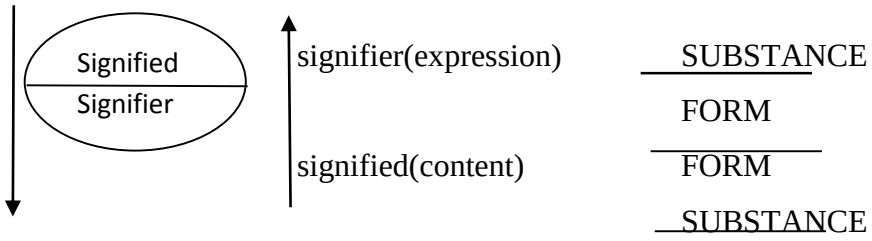


Fig 1.2 Saussure and Hjelmslev's sign (Source: O'neil, 2008: 68)

Hjelmslev's contributions provide important ways of looking at forms and structures of digital signs. For example the pixels on the screen provide us with substance of expression. The graphological qualities of the symbol represented on the screen for example, color, shape and structure give the form of expression. The form of the content is therefore that which the structure is identified with, for example a button or switch to be pressed or word for us to read. The substance of the content is what the form means for example 'play' or 'stop' button or an error message. (Shaumyan, 1987: 78)

However, Palmer (1981) argues that because of this type of categorization, sometimes meaning can be difficult to establish. He states that it is a difficult to create the nature and relationship between the 'signifier' and the 'signified.' He then proposes the use of other terms such as "denotation and reference." Denotation describes the group of persons and things- everything that the word or sign denotes and reference describes, the actual persons or things or simply, everything the word refers to (Palmer, 1981: 8). Earlier, Ogden and Richards (1949) had introduced 'the concept of the mind' where they state that 'thought' forms the strongest link between the 'symbol' and the 'referent.' (Ogden & Richards, 1949: 11) They describe this relationship in a triangle as shown in the figure below:

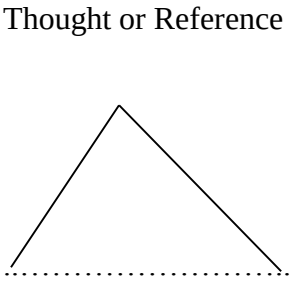


Fig 1.3 Showing Ogden & Richard's link Source :(Ogden &Richards, 1949:11)

2.2 The Sign as a Social System of Meaning

After looking at the definitions of Pierce, Saussure and their ilk, we now turn to the definition of the sign that considers its dynamicity to the social system that it occurs in. Social semiotics operates on the premise that the sign is not an arbitrary element instead; it is a social system of meaning. It is regarded as socially motivated and consumed (Hodge & Kress , 1988: 45). As postulated by Kress et al, 'The connection between form and meaning, signifier and signified, is not arbitrary but motivated by the interests of the maker of the sign to find the best possible, most plausible form for the expression of the meaning that he or she wishes to express.' (Kress & Leuween, 2006: 87).This means that a signifier is chosen for representation because of its aptness in expressing that which the individual wishes to mean rather than for arbitrary reasons.

They also note that the use of a particular sign to express a particular meaning is affected by the demands and needs of the particular occasion where the interaction takes place as well as the social and cultural characteristics exhibited by the individual maker of the sign. The interpretation of this is that two factors motivate the sign; first one is the interest of the sign maker in representing a phenomenon in a particular context and the second one being the socio-cultural trends associated with using particular signs (Kress, 2006: 87). Imperatively so, a sign is not a system of 'arbitrary codes' instead it is a system of resources which an individual uses for expression. They seek to define signs as resources as opposed to codes and this is the boundary between social semiotics and semiotics. Systemic Functional Linguistics (SFL), as proposed by Halliday, is a social semiotic account of the study of texts. It is a model of grammar that is structured to investigate "the organization of meaning according to the communicative functions that systemic systems have

evolved to fulfill. (Halliday, 1978: 192) Halliday states that while semiotics sees signs as "an isolate, as a thing in itself, social semiotics on the other hand looks at the sign as socially oriented. He adds that when observing the grammar of a language, it should not be seen as a code or a set of established rules rather, a 'resource' that helps in making of meaning.

Elsewhere, contemporary semioticians such as Eco (1976), Chandler (2002) have re-evaluated the branches of semiotics from those of Saussure and Peirce. They have not been entirely interested in the definition of the sign but rather an in-depth observation of the sign that considers the various cultural, social and contextual issues that underpin every instance of the use of the sign. Eco's theory boarders on the socio-cultural aspects related to the sign and the manner in which users exploit these environments to achieve desired communicative goals.

He proposes a theory where signs are seen as acts of coding and decoding of messages while giving reference to sets of culturally defined convections or codes. He believes that for the full understanding of the sign, the reader or listener has to be in possession of the right socio-cultural codes for correct and accurate interpretation (Eco, 1976: 61) For example, the word 'green' can be seen in relation to the color of the grass, a better state of affairs, or the sense unknowing (ignorance). Each alternate use of the word changes the meaning of 'green' offering different denotations and connotations. 'The girl wears green shoes' simply implies the color of the shoes while 'the grass is always green overseas' means that the overseas side is better elsewhere, 'The student is green on the topic' meaning that the student has no idea on the topic. He posits that meaning is no longer an individual construct as is seen in the arbitrary semiotics of Saussure rather, an engagement in which an individual engages in society through coding and decoding of the relationship with their cultural values and societal norms of the time (Eco, 1976: 61) this is rightfully put across by Chandler (2001). He writes:

> A code is a set of practices familiar to users of the medium operating within a broad critical framework. They are not just convections which operate in certain domains (Chandler, 2001: 147).

This means that codes are unique and specific within social activities. Chandler then lays three major groups of codes: First, The Interpretive codes: These are codes that represent situations of the world which are out of the boundaries of their particular set of signs; because of this they provide numerous ways of presenting and relating objects to each other. A second type of code is

the textual codes which form coherent texts unique to themselves they include scientific codes, aesthetic, rhetorical codes and mass media codes. Chandler says "every text is a system of signs arranged according to codes as well as sub codes which reflect specific assumptions, values, beliefs practices and attitudes and these codes move along texts in the process linking them together in an interpretive framework" (Chandler, 2002: 157)

From the discussions, it is imperative to conclude with the writings of Leeuwen (2005) "semiotics is the study of signs, symbols and signification as communicative behavior" (Leeuwen, 2005: 67) A semiotic approach to any study accounts for the relationships between 'signifier' (a sign) and the 'signified' (its referent) and the interpretation of visual cues, gestures, sounds and other contextual clues. It examines how words and other signs Make meaning. Studies and research in semiotics are therefore concerned with the implications of signs and their meaning and with how this meaning is shaped from society and context.

2.3 Emoji as Semiotic Resource

Leeuwen defines Semiotic resource in reference to a means for making meaning. 'Semiotic resources are the actions, materials and artifacts we use for communication purposes, whether produced physiologically- for example, with our vocal apparatus, the muscle we use to make facial expressions and gestures-or technologically-for example, with pen and ink, or computer hardware and software-together in the ways in which these resources can be organized. Semiotic resources have a meaning potential based on their past uses and a set of affordances based on their possible uses and these will be actualized in concrete social contexts where their use is subject to some form of semiotic regime' (Leeuwen, 2005: 3).

This elaborate definition captures the functionality and elements of emoji as is used in text messaging. First, Emojis are found and used on smart phones. According to Oxford Dictionary (2017), a smart phone is a mobile phone that performs all the functions of a computer; it typically has a touch screen interface, internet access and an operating system (O.S) which has the capability of running downloaded applications (Oxford, 2017). The dynamic elements of emojis such as its layout, colors, flashing technology, font and graphics are able to be harnessed by users and in the long run play a significant part in creating a platform of reference that qualifies them as interactive icons. The emoji icons provide users with a signifier for some elements of functionality. That is to say, that by just looking at them, they signify to the user, some form of functionality. The key

aspects of these icons lie in their ability to communicate their purpose to the users. The affordances that emojis provide are like pictograms. According to Bertin (1983) affordances of graphic medium, such as color, line, shape etc. relate to our perceptual capacity as ways of relaying and communicating information. For example it is easy to identify pictograms due to a loose association of the connection of its objects and cultural values (Bertin, 1983: 86, 88)

2.4 Conclusion

This was a very significant chapter that was designed to present a number of key issues; it began by giving a definition of the term sign, where the works of earlier pioneers of semiotics are discussed. Peirce defines a sign as a constitution of three elements; the object, *representamen* and the *interpretant*. He posits that a sign can only signify something upon being interpreted and its meaning is manifested in the interpretation it generates among its users. Saussure argues that a sign is composed of two parts; the 'signifier' and the 'signified' representative of form and concept.

The next part of the chapter looked at the sign as a social system of meaning where socio-cultural and contextual issues are laid forth. The gist of which being that, for signs to relay meaning, their usage must be connected within the contextual environments that they occur in. together with how they are consumed by users. Finally, from the interpretations of the sign, the chapter then places the value of emojis as signs that generate affordances worthy of acting as semiotic resources beneficial in meaning potential and completing communication goals, consequently this sets the stage for the next chapter which gives a typology of emoji characters as used in text messaging.

CHAPTER THREE

A Typology of Emoji characters as used in text messages

3.0 Introduction

The sole concern of this chapter is to present a typology of emoji characters. At the onset, it must be stated that gathering a typology of emoji characters with their supposed meaning does not occur without problems. The first problem encountered was how to assign meaning to the various emoji characters, and that this meaning would be found valid by all users. It was noted that the interpretation of emoji is not straight forward; this is due to the fact that they cannot be laid down in a 'dictionary' whereupon their users can make a 'referential' or even 'literal 'syntheses of their meaning. Available literature on the internet seems to provide their 'meaning' in relation to how people use them (Unicode, 2013).Therefore, a problem arises in the classification of these characters. Certain questions that come to the foreground include; what agreements are there with regard to their meaning in different contexts? And is there a universal or standard way of interpreting them that is unanimously agreed upon by users? The simplest answer to these questions is not in the affirmative, for now, there is no laid down structure of meaning derivation and universal interpretation of emoji. In aiming to overcome this problem, the researcher first classified emoji as specimen of linguistics signs. This was arrived at by relying upon certain works of linguistic scholars on semiotics. Firstly, the notion of affordance, Affordance is a term used in explaining the various dynamics of people's relationship with technologies. It is primarily concerned with the common sense design and usability in human computer interaction (HCI). Technologies that exhibit affordance are often considered to be more in touch with the everyday concerns of people and therefore considered easy to use (Oneill, 2008: 78). The term is adopted by Norman (1988) in order to describe how users can easily understand what an object is used for by merely perceiving the properties that it portrays. He says that it is through affordance that people can get clues into the workings and utilities of particular objects. Like we use a knob to turn things and a slot is used for inserting things. He adds that it is easy to simply know the use of a particular thing just by looking at it and without requiring any instructions, directives or picture labels. (Norman, 1988: 9). As stated by Gibson (1971), who developed an alternative theory of perception known as 'The Theory of Ecological Perception,' affordances are a direct result of the relationship between the objective physical properties of the environment and the subjective experience of the

perceiving actor within that environment. (Gibson, 1971: 34).He considers affordances not just as the properties of the environment but both as subjective and objective element of perception. He considers affordances in a manner that does not have anything to do with cognitive modeling or thinking but are properties that emerge because of the physical relationship between environments and the direct perceptual acts of embodied beings. Gibson is quiet clear that an affordance can be both objective and subjective. An affordance must be considered as the underlying relationship between the information available to the ambient array of a perceiver that specifies the properties of the environment and the self-awareness of that perceiver which contributes to the perceptual process. Norman concludes by stating "I believe that affordances result from the mental interpretation of things, based on our past knowledge and experience applied our perception of things about us." (Norman, 1988: 219). Another factor that was used in assigning meaning to the emoji is the principal of semiotic relevance. Shaumyan (1987) defines language as a sign system which is characterized by six properties: two semiotic strata, sequencing, use of rules, structure, hierarchal stratification and semiotic relevance. He posits that because of the limited capacity of the human memory, natural languages are so richly endowed with a large number of various signs that it would be completely impossible to remember all of them without the need for a diacritic stratum. He then introduces basic concepts that characterize the sign stratum. For the sign stratum two primitive concepts are suggested

1. Sign of: X is a sign of Y
2. Meaning of: Y is a meaning of X

This therefore means that when we speak of signs, there exists a binary relation 'sign of' this is simplified in the sense that the sign of X is a sign of Y if X means Y, that is, if X carries the information Y (Shaumyan, 1987: 3). In relation to emoji, a particular sign will carry information that correlates to what it signifies. As noted by Shaumyan, linguistic signs have various degrees of complexities and even language does not offer itself as a set of pre-delimited linguistic signs that can be observed directly. This therefore means that a sign can propose relative meanings. The meaning of a sign can serve as the sign of another meaning. For example, the sign Lion is a sign of a strong, large, carnivorous animal. In another situation, it can be used to mean a person who exhibits leadership qualities or a cruel and tough person. As with the emoji typology used, the signified with regard to Saussure's definition, is the concept that is found within the mind and we

want to communicate. This may include a set of feelings, impressions and experiences that are related to an object (Saussure, 1966: 66). Elsewhere, Hjelmsev (1961) looks at the signifier as the physical entity or material e.g stone, wood, light among others. He adds that for it to be interpreted as a sign, there has to be perceptual input from within the environment(Hjelmsev, 1961: 46) In Eco's theory of semiotics he gives a definition of a sign that considers the myriad, cultural, social and contextual issues that underpin every instance of the use of the sign. (Eco, 1976: 44), He proposes a semiotic theory that looks at the use of the sign as acts of coding and decoding messages with reference to sets of culturally defined convections or codes.

For ease of categorization and analysis, the emoji characters were grouped according to their observable specifications and in line with how people use them in text messages.

3.1 Code and Brevity

Emoji symbols are often used as a system of creating language codes. These codes may be effectively used and understood by a given group of persons who intend to pass across certain messages and information that they may want to exclude others from accessing or making meaning from. The coding of the messages could be restricted or elaborate.

3.1.1 Facials for words

This is a situation where a facial emoji is used to signify a particular word that denotes a feeling

(1) **Chatter A:** Today my favorite team lost, I feel like 😢

Chatter B: oops, sorry, I'm all 😶

(2) **Chatter A:** came home late, mum not talking

Chatter B: why so?

Chatter A: she's 😠

(3) **Chatter A:** Hey, did you manage to complete the work?

Chatter A: hey, hey, you so quiet???

Chatter B: talk tomorrow, 😩😩

Chatter A: come on I still want 💬💬

Chatter B: 

(4) **Chatter A:** 

Chatter B: what's with the smiles?

Chatter A: make a guess

Chatter B:  ……  ….and am still blank

In example (1) above, chatter A intimates that his team lost and that he feels like **crying** (uses the crying face emoji) while the respondent is lost for words and says that he is **speechless** (uses the mouth less emoji) Similarly, in example (2) chatter A informs the other that they came home late and for that reason, the mother is **angry** and not talking to them. In (3) chatter A asks a question whereupon chatter B responds by saying that they are **tired and exhausted.** However, chatter A insists that they still want to **chat more and more** where B responds by saying they are already **asleep.** In (4) chatter A begins the conversation by saying that they are all **smiles**, when asked why, he insists that the respondent makes a guess, in proceeding, the respondent says **they have thought and thought** and yet they are still blank. In the above examples the facial emojis presented have been used to refer to the words in bold. Other examples include the following:

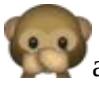
(5) **Chatter A:** I hear the biology test results are out today, am so 

Chatter B: No wonder Kev was so  this morning, seems he didn't do well.

That the Chatter A has heard of the results and that he is **worried** and that chatter B had noticed that kev was **sad** could have been for the said reason.

(6) **Chatter A:** have you heard? Bree is expectant!!!

Chatter B: what! Am  , by whom? How? Tell more

Chatter A: not yet, I was told to be  and 

That chatter A asks B if they are aware that a certain Bree is pregnant, chatter B says they are **surprised** and asks for more information at which A says he was instructed to be **silent about it** and **zip their mouth**.

(7) This food is so  makes me so 

That the food is so **delicious** and that it makes them so **happy**. Other examples are:

(8) **Chatter A:**  

Chatter B: Why are you stressed

Chatter A: Ain't stressed. 'am sad

(9) **Chatter A:** Food is ready

Chatter B: Wait for me

Chatter A:  

Chatter B: Ok go ahead

(10) **Chatter A:** How do you feel today

Chatter B:  

Chatter A: That's nice  

(11) **Chatter A:** The results are out

Chatter B: How did you fare??

Chatter A: 😟 😟

Chatter B: wth?? 😠 😠

In (8) Chatter A uses the 'girl holding her head' emoji to tell her friend how **sad** she is, the friend on the other hand misconstrues this as she is stressed, whereupon Chatter A has to explain that she is not stressed rather **sad**. In (9) Chatter A upon relaying the information that the food is ready, he gets the response that he should wait for the other person, to which he responds using the **salivating** emoji to express his **eagerness** and **anticipation** of the food. His friend clearly understands this and urges him then to continue without him. In (10), the response to the question of how the person feels is met by "smiling man in suit" emoji to say that they feel **"good, nice, happy, and joyful"** Lastly in (11) Chatter B uses the emoji to say how **disappointed** they are in their results as chatter A understands and also feels anguished for their friend.

The examples given above present a typology of facial emojis where certain facial gestures are used in places of words or as words in themselves.

3.1.2 Hands and body parts for words and sentences

This involves the use of certain hands and body parts to represent certain gestures which when conceptualized presents meaning and intent. As seen in the examples below

(12) **Chatter A:** Were you in church today?

Chatter B: 👍

Chatter A: and how was the sermon?

Chatter B: 👏

(13) **Chatter A:**Hey, James everybody in your group is lazy, you need to start 💪

Chatter B: Nop, how do I flex my muscles on grown up?

(14) **Chatter A:***vippy mzito*  (hallo big man)

Chatter B:*poa sana buda*  (so much fine, sir)

(15) **Chatter A:** hey girl

Chatter B: 

(16) **Chatter A:***vipy bana* game *imeanza?* (Hi, has the game begun?)

Chatter B:  uko? (Where are you?)

Chatter A: *nakam*  (I'm coming)

(17) **Chatter A:***Ume* watch game of thrones? (Have you ever watched game of thrones)

Chatter B: zii, naskia ni 

(18) **Chatter A:** hey, I heard you fell sick, how are you now

Chatter B: Got some drugs, ill b  thanks

(19) **Chatter A:** *Hizo chuja ni noma ulibuy mangapi?* (those shoes are nice, how much did you buy them for?)

Chatter B: ngiri  (five thousand only)

In example (12) , the chatter asks if the person was in church, the respondent says **yes** and that the sermon was **wonderful**. In (13) James is informed that his group members are lazy and that he needs to start flexing his muscles on them. Example (14) and (15) are classic examples of **online greetings.** In (14) the person uses the pointing fist as a **greeting sign** most common among a certain group of urban youth which is responded to by the same. This is also Similar in (15). Sometimes the effect of this is to create emphasis as will be seen in later examples. In (16) the chatter asks if the game has begun and the response is a thumps-up emoji signaling the **affirmative- yes**. Consequently, the chatter indicates that they are on their way coming and emphasizes this by using the running man emoji to signal **speed** or **haste.** In (17) the respondent is asked if at all they have watched the TV series game of thrones to which they say they haven't yet they hear that it is **real, nice, fine**, **interesting** by using both the thumps-up emoji as well as the "ok" sign. The use of the thumbs up emoji here is slightly similar to its use in (16) to relay the thought that communication intended is accepted. Interestingly, the "ok" sign has replaced the ok word itself and as such is commonly used as seen in (18). In (19), the respondent is asked how much they bought their shoes for to which they give the five-finger emoji meaning the shoes were bought for five thousand only. Other examples include:

(20) **Chatter A:** Hey what are you doing?

Chatter B: just about to sleep wanna 🙏

(21) **Chatter A:** We having a party at home who's in?

Chatter B: ✋

Chatter C: ✋

(22) **Chatter A:** how is the soup?

Chatter B: the soup is 👌

(23) **Chatter A:** my life is currently moving  only because of the  and  of God the almighty.

In (20) the respondent indicates that they are in bed and are preparing to **pray** before sleeping. while in (21) both respondents B and C raise their hands as indications that they are willing to be counted as part of the people who are ready for the party. They are in essence saying or rather responding by saying **I, I am here, me, I accept.** In (22) the respondent B says the soup **is wonderful, fine, ok, great, good.** (23) Is a case example where the chatter confesses that his life is currently **moving up wards** or successful and this fact, he admits is only due to the **peace** and **love** of God the almighty.

The examples presented show how hand and body emoji have been used to represent certain words that they denote. The next category shows how different containers are conceptualized and idealized for their content. Other examples include:

(24) **Chatter A:** Any news?

Chatter B: 

Chatter A: over Sammy's 

Chatter B:  

(25) **Chatter A:** Guess wat? Dev and Sherly

Chatter B: wat abt em?

Chatter A: 

Chatter: Wow are we invited?

(26) **Chatter A:** When do we meet?

Chatter B: Evening

Chatter A: Time???

Chatter B: 

Chatter A: 

(27) **Chatter A:** am tired, I talk but you never 

Chatter B: am all 

In (24) Chatter B in response to the question of any news, responds with the "flapping hands emoji" thus asking **"about what or over what/regarding what"** Upon getting the topic of intended discussion, interestingly so, the same emoji is used to say **I know nothing about that.** The emoji gesture is here used in a manner that would **say not aware, what do you mean?, what about and I don't know.** In (25) Chatter A uses the "girl in veil" emoji to say that **Sherly and Dev are getting Married** or **having a wedding.** In (26) the 'five finger emoji' is used to indicate the time, that is five o'clock in the evening. Lastly, (27) the 'ear' emoji is used in association of words like **hear, listen, understand.**

3.1.3 Container for content

This category involves emoji characters that are used mentally to access the objects of their referents. There is a kind of mental activation where the concrete image is internalized and activated for what it portrays. The material observed or substance viewed is conceived of as a part that makes up or constitutes things. As seen in the examples

(28) **Chatter A:** hey Sammy, where are you?

Chatter B: its after hours

Chatter A: so?

Chatter B: 🍻

Chatter A: which one?

(29) **Chatter A:** hey are you free we chat?

Chatter B: 🚚

Chatter A: cool, talk later

(30) **Chatter A:** the baby's been crying, the mother is away

Chatter B: try 🍼

Chatter A: I have tried the milk, it aint working

Chatter B: 🍲

Chatter A: alright, ill do the soup, thnks

(31) **Chatter A:** ✉️ ✉️

Chatter B: Got the mail, I appreciate

(32) **Chatter A:** Brace yourself

Chatter B: why is that

Chatter A: The test ain't ☕ ☕

Chatter B: Alright. Got me prepare

(33) **Chatter A:** I want him out of my place

Chatter B: watssapp?

Chatter B: 🧳 🧳

Chatter A: What, he's baggage now?

Chatter B: Exactly

In the examples above, part of what the container hold is used as a representative of the meaning. In (28) the respondent user the beer in a glass mug to answer the question of his location. The Chatter A in this case readily learns that his respondent is in a **bar** drinking and therefore only asks the specific name of the bar. This is same as in (29) where the first chatter hopes to engage the respondent in a chatting session, however, the respondent sends the car emoji to directly indicate to the other that they are in a vehicle **either driving** or just **busy travelling** and hence busy, unable to chat. This conclusion is driven to by the response of the chatter B that they will chat later. The derivation of meaning here is only solidified by other social and contextual factors such as the awareness of both parties. Where for example chatter A owns a vehicle and often drives it and that chatter B is aware of this factor. Or even that chatter B is cognizant of the notion that when chatter A travels, he does not like or enjoy chatting. As with the case of (30), Chatter B informs chatter A to give the baby **milk,** where A intimates that they have tried doing that to no avail. B then suggests the offer of **soup** instead. Both the chatters are prior- aware of the relevance of the **bottle** and the **bowl** in their conversation. This is also seen in (31) where the envelope is used to say **mail/message.** In (32) the emoji used is a cup of coffee to represent the idiom of the same phrase: **that the test is not easy.** Lastly, in (33), uses the emoji to describe the reason why they want the person out of their place, Chatter B immediately recognizes the intention of **Baggage** to which the chatter A acknowledges. That the container represents its content is aided by certain factors such as context, relationship of participants.

3.1.4 Instrument for product

Some emojis are used to refer to the product of the given instrument it portends as is exemplified in the following chat discourse

(34) **Chatter A:***vipy umeskiza nyachinski malaika*? (hi, have you listened to nyashinki, malaika)

Chatter B:*zii bado* (no, not yet)

Chatter A;*skiza kenye*  *ina toa* (listen to what the piano gives)

(35) **Chatter A:** didn't sleep well last night

Chatter B: why

Chatter A: we were woken up by 

(36) **Chatter A:** hey are you coming?

Chatter B: look at the 

Chatter A: get an umbrella please

(37) **Chatter A :** thanks for your big heart

Chatter B: am my father's son 

Chatter A: haha, don't I know

(38) **Chatter A;** what's your plan for next year?

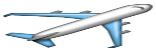
Chatter B:  ….. 

Chatter A: haha hope that day comes, we will 

In (34) the first conversant asks the other if they have listened to a particular song to which the respondent says no, he then uses the piano to let him now that the kind of music emanated from the **song** is nice- The piano for **music**. In (35) person insists that they didn't sleep well the previous night after having been woken up by noise from the flutes or horns- Horn for **noise.** In (36) the respondent uses the clouds to signify that it is **about to rain** consequently they are asked to carry an umbrella. Clouds -**rain**. In (37) the person uses the feet emoji to say that **they follow in their father's footsteps** finally, in (38) the respondent B says that within the next year they want to **study** and **graduate** to the encouragement of the other person who hopes they will **celebrate and dance.** Other examples include:

(39) **Chatter A:** How's the dress

Chatter B: Trust me, am 

Chatter A: haha, you 

Chatter B: Way way up

(40) **Chatter A:** Where r yu, Mum is 

Chatter B: Jesus. Am scared

Chatter A: yu better be

Chatter B: How r things

Chatter A:  

(41) **Chatter A:** yu coming right

Chatter B: 

In (39) the star emoji is used to show that the person is **shinning bright** and the aeroplane emoji to show how they are **flying high.** In (40) the bomb emojiis used here to show that mum is **mad**, **angry** and they might **explode** and that things are **hot** and **violent** at home. Lastly, in (41) chatter A uses the percentage emoji to answer the question of if they are coming home in the **affirmative** or simply to say **yes.**

The above examples have highlighted situations where emoji characters are used as means of creating brevity and coding in text messages. This brevity is created where and when texters would want to say a lot in very few words. They do this for a number of reasons such as to save time, avoid the bulkiness of text a text message, and make meaning in the shortest way possible. As coding, the various usages of the emoji characters as seen above may sometimes present ambivalences and this may in turn need some form of deconstruction to decipher the intended meaning. In situations where certain characters are only relevant to the participating parties, there

can be some form of restricted code that is meant for the participants only. The next part looks at emojis as paralinguistic features

3.2 As Non-verbal prosody

Written communication is often considered as lacking in the emotiveness of face to face communication. In electronic communication, Emojis function to provide the missing human and emotional touches and feelings. Since written text are considered completely 'removed from facial expressions, gestures, and prosodic features' (Amaghlobeli, 2012: 348). Emoticons have over time become widely known and embraced by computer mediated communication (CMC) users. They are seen as "substituting for the non-verbal cues" (Luor &Tao, 2010: 894-895).

'Conceptual oralty' is a term coined by Androustopolous (2006). This is where every quality of the spoken language can be manifested in written language (Androutsopulos, 2006). Baron (1986) viewed CMC as part of a 'general tendency for writing to become a transcription of speech'. Meaning that CMC engineers itself so as to equate for the factors that are available in face-to- face communication yet absent in communication via computers. (Baron & Kenny, 1986: 46) by the standardized means of keyboard and typeface. Compensation devices are used to achieve this. These engineering designs include; the use of emoticons and abbreviations that portray laughter, and other expressions of prosody by interaction of letters and punctuation marks. A seen in the examples below:

(42) **Chatter A:** are you mad

Chatter B: 

Chatter A: oh, that much

(43) **Chatter A:** hey you get the joke?

Chatter B: 

Chatter A: nice, nice

In (42) the respondent answers to the question of if they are mad by using the 'red faced anger' emoji without having to use any word for it. To signify how grave this is received, chatter A, acknowledges the level of this anger and even asks the intensity of it. In (43), chatter B responds to the question of if they get the joke by using the 'laughing with sweat on head' emoji to show the person that they are actually laughing at the joke to which the person reckons as well. In both cases, to show the intensity of their supposed actions, the respondents use the emojis more than once to emphasize their message.

When communicating online, the words available may not be sufficient in provision of feelings emotions and attitudes. Fussell & Moss (1998). In addition, the lexicon of words might not entirely aid the users of that particular language to sufficiently show all the nuances and dynamics of their emotions. Tosell (2012) observes that the role played by emoticons in computer mediated communication mirrors non-verbal behavior as is observed in face-to-face communication (Tosell, 2012: 659). He says that the inclusion of emoticons help readers 'better understand the level and direction of the emotional context surrounding the message relayed over the internet' In addition, (Lo, 2008: 595) and (Luor, 2010: 890) add that it is not easy to perceive the emotions feelings and intents of users when they send texts that do not have emoticons. That a message which is considered positive and has a smile will be rated more positively as compared to a positive pure message, similarly, a message which is considered negative but has a supporting frown is looked at as more negative than a negative pure message. (Luor et al., 2010: 890). Kappas & Kramer (2011) sought to find out how emoticon usage affects participant evaluation of extroversion and agreeableness. Their findings conclude that when people chat online, it is easy to tell who is an extrovert depending on how they use emoticons or not. (Kappas et al., 2011: 126). The study of (Derks et al., 2007) emphasizes how emoticons provide additional social cues that are not normally found in plain text messages, for this reason they serve to heighten the exchange of social information (Derks et al., 2007: 843)

3.2.1 Emoji and illocutionary force

Dressner & Herring (2010) argue that when emoticon is attached to a particular text, then it will serve to indicate the illocutionary force of that particular message. (Dressner et al.,2010: 263). Emojis as an illocutionary force is where the emoji character directly presents the intended emotion that its pictorial quality is concomitant with the sentence

(44) Mary: I have great news, ‘am getting married this December

Anne: Oh wonderful

(45) Mary: I have great news, ‘am getting married this December

Anne: Oh wonderful 😃😃

(46) Mary: I have great news, ‘am getting married this December

Anne: Oh wonderful 😒☹️

In (44) Anne’s response to Mary’s good news is rather ‘flat’ and expressionless devoid of any emotional undertone, in (45) Mary’s news is received with a lot of enthusiasm as this is witnessed by the broad smiling emoji which serves to strengthen the sentence attached to it. Ironically, in (46) the response given is accompanied by two emoji characters, the sad and frowning face. This would act as form of sarcasm considering the opposing statement that it comes with. The above uses of emoji creates an indication of their usage not as emotional vehicles rather as indications of the illocutionary force that accompanies the semantic property of the textual utterances. They aid in conveying the speech act portrayed by the production of the utterance. That is, relaying the intention of the user.

(47) **Husband:** I want a divorce

Wife: what, ah???

Husband: April fool’s day 😜😛 got ya

Wife: Ooo 😏

The husband uses the wink and tongue out emoji to signal to the wife that he was just goofing around or rather joking with her. The two emoji strengthen the semantic significance of the day; April fool’s day. The wife on the hand uses the smirk face emoji to signal the husband that she gets the joke and understands its context but is rather not really amused by it. This is strengthened by the exclamation preceding the emoji. The emojis used in the above example portray a direct emotional indication of the intentions of the users, even where the written text portrays differently as seen in (44) and (45)

The wink face emoji with tongue out as used in example (47) may be considered to mean that the husband is joking or not serious; however, in a different context of usage, the wink face emoji may not entirely mean a joke. For example

(48) John; I may need to know your exam grades 

The modal auxiliary (May) suggests a strong possibility, on the other hand, the winking emoji holds the notion that the utterance should not be taken as a request or a demand, it also does not serve as a joke, but to bring down the utterance or lower it to a speech act that is not very threatening on the face value, John is only giving a preference in a simple yet compelling manner. The emoji here serves to show that john is merely asserting a point and not being directive. It only imitates the utterance's illocutionary force. Searle's taxonomy of speech acts (1979),

3.2.2 Expressing redundancy

This is where the emoji expresses the direct correspondence between itself and what it signifies as shown below:

(49) Jane has had a baby

I am so happy for her 

(50) My football team lost to England, 'am distraught 

As shown in both (49) and (50) the emoji used, indicate that the user is happy alongside the news they are projecting as well as distraught as for the loss of the football team the emojis only serve to express the same feelings.

3.3 Conclusion

This chapter presented a typology of emoji characters based on the how users exploit the affordance that they offer graphically. It begun by defining the term affordance as postulated by scholars and goes further to categorize the emojis as used in code and brevity; facials for words, hands and body parts for words and sentences, container for content, instrument for product, non-verbal prosody, emoji and illocutionary force and expression of redundancy.

CHAPTER FOUR

A Socio-Semiotic Account for the Use of Emojis

4.0 Introduction

This chapter discusses in detail the analysis of the data collected in relation to how and why emoji is used in text messages. It gives a comprehensive detail of how data was collected, analyzed, synthesized and observations made. It sought to establish the linguistic and communicative functions that emojis contribute to a text message and examine the manner in which their usage fulfills the needs of the users.

4.1 Method and Design

The research undertaken in this study is considered a descriptive, macro-linguistic study where a specific amount of data was collected and used so as to make broad conclusions and observations inregard to the manner in which there has been a universal use of emojis. Descriptive research involves gathering data that describes events and then organizing, tabulating, depicting and describing the collected data (Glass & Hopkins, 1984: 65). The data involved was analyzed in a quantitative way. The main source of data collection for the quantitative data was the use of questionnaires. Questionnaires have been considered to be very useful in studies where a diverse but representative range of people are required to answer a number of questions. (Domyei, 2007: 115). He adds that a questionnaire is suitable for statistical analysis since it is a structured instrument that provides specific options for information gathering. Data from the structured questionnaire are then grouped under the thematic tones in line with the three objectives of the study and then converted into frequency and percentage counts. The questionnaire used consisted of questions in three categories which include: Behavioral, multi-choice and open- ended questions. Behavioral questions sought to inquire from respondents about their actions or behaviors on the use of emojis while Multi-choice questions aid in revealing personal information about the respondents while open-ended questions seek to create space for interpretations, deductions and clarifications.

4.2 Sample size

The sample population number of **385** was arrived at based on Krejcie and Morgan's formula of sampling frame (1970). In finding the right sample number, the researcher needed to first obtain

the number of people who use emoji worldwide. According to infographic (2017) 92 % of the world's online population use emojis. (inforgraphic, 2017).To find the total number of this online population, the researcher accessed 'internet world wide stats' which documents the accurate statistics of online users. It is reported that 51% of the world's population is on the internet as at June 2017. This translates to 3,885,567,619 people. 92% of this number thus provides the exact number of people who use emoji as 3,574,722,209. This was the population size of the study.

The next step involved finding a population sample from this population size. Due to the fact that the population size is very large, Krejcie and morgan's formula (1970) for sampling frame was used. The formula being:

$$\mathbf{S} = \frac{X^2\, NP\,(1-P)}{d^2(N-1) + X^2\, P\,(1-P)}$$

Where;

S = required sample size

X = confidence level (as a z score)

N = population size

P = population proportion/ percentage value expressed as a decimal

d= degree of accuracy (margin of error) expressed as a proportion

In this case, since the population size was very large, a higher confidence level was needed. The researcher chose 95% confidence level so as to maintain reliability and accuracy of the measure of results. To express this percentage on the z-score (for formula workings) 95% confidence level translates to 1.96. as shown in the table below:

Confidence level	z-score
80%	1.28
85%	1.44
90%	1.65
95%	1.96
99%	2.55

Fig 4.1 showing Confidence level, Z-score conversion: (Smithson, 2000:152)

The population proportion value is taken at an optimum 50% value so as to produce a sample size estimate that is neither too conservative nor too loose for the survey questions. This value is expressed in decimals. This value is expressed in decimal (0.5).

The margin of error, indicated as d, is a percentage that describes how much the opinion and behaviors of the sample are likely to deviate from the totals of the population. Due to the largeness of the population size, the sample required needed to be as close to it as possible so as to make the results more representative. Therefore, the margin of error used was 5% (expressed as a proportion – 0.05%). Below is the working for the sample size:

$$S = \frac{X^2\, NP\,(1-P)}{d^2(N-1) + X^2\, P\,(1-P)}$$

$$S = \frac{1.96^2 \times 3574722209 \times 0.5(1-0.5)}{0.05^2\,(3{,}574{,}722{,}209-1) + 1.96^2 \times 0.5(1-0.5)}$$

$$S = \frac{3{,}433{,}163{,}210}{89{,}368{,}055.6}$$

S= 384.15

Sample size = 385

This value matches the value given on the sampling table Krejcie & Morgan (1970) shown below:

Table 3.1

Table for Determining Sample Size of a Known Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	346
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	354
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	191	1200	291	6000	361
45	40	170	118	400	196	1300	297	7000	364
50	44	180	123	420	201	1400	302	8000	367
55	48	190	127	440	205	1500	306	9000	368
60	52	200	132	460	210	1600	310	10000	370
65	56	210	136	480	214	1700	313	15000	375
70	59	220	140	500	217	1800	317	20000	377
75	63	230	144	550	226	1900	320	30000	379
80	66	240	148	600	234	2000	322	40000	380
85	70	250	152	650	242	2200	327	50000	381
90	73	260	155	700	248	2400	331	75000	382
95	76	270	159	750	254	2600	335	1000000	384

Note: N is Population Size; S is Sample Size *Source: Krejcie & Morgan, 1970*

Fig 4.2: Showing Krejcie and Morgans sample Frame. (Source: Krejcie, R., & Morgan, W, 1970: 67)

Upon deriving the sample size, the researcher then used purposive sampling to select the respondents. Purposive sampling, commonly referred to as selective sampling, involving selecting respondents based on their knowledge about the study and population. According to statistics on the use of emoji, the majority of people who use emojis are the youth (emojipedia, 2017). The youth are most commonly found to be using emojis than adults in many countries in the world (Unicode, 2013). A report on the number of adults using emojis per day puts the number at 48.9%. (Unicode, 2013). Due to this factor, the researcher therefore purposefully set out to interview persons between the ages of 18-35 and 36 and above.

The answers given in the questionnaire were analyzed by organizing them into a spread sheet. The results obtained in the questionnaire are then calculated and presented in percentages and frequencies. This is done so as to make it more user-friendly and easily synthesized. In addition, the use of percentages is beneficial since it makes analysis of variations between the different groups easy and efficient. The results are then given a theoretical and thematic discussion in line with the questions and objectives of the study.

4.3 Execution and Results

4.3.1 Usage among respondents

To begin with, the respondents were first quantified according to gender and age. This was done so as to create an elaborate distinction where differences or similarities could be observed from the bio-data. From the 385 respondents questioned, below is a spreadsheet showing the percentages with regard to age:

AGE	**FREQUENCY(F)**	**PERCENTAGE (%)**
18-24	157	41%
25-30	114	30%
31-35	80	21%
36-ABOVE	34	8%

Fig 4.3 Representation of sample size categorized into age groups

From the table above it was observed that **41%** of those between ages 18 and 24 were captured while those between age 25-30 were **30%,** between ages 31-35 were **21%** while those of ages 36 and above were **8%** of the total number of respondents interviewed. The percentage number of respondents between 18-35 years of age was **92%** leaving out **8%** for those above the age of 36.

AGE	GENDER			
	MALE		FEMALE	
	F	%	M	%
18-24	70	45	87	55
25-30	58	51	56	49
31-35	36	45	44	55
36-ABOVE	15	44	19	56

Fig 4.4 Respondents in terms of gender and age

In terms of gender, more female respondents were captured between the ages of 18-24 constituting **55%** against **45%** for the male. The same pattern is witnessed within the ages of 25-30 where (**51%)** captured were males while **49%** were females, 31-35 **45%** and 36-above (**55%).**

99% of the respondents interviewed had or owned a smart phone which they use in their everyday purposes of communication and interaction. Respondents between the ages of 18-36 know what emojis are and out of these **95%** of them use emojis while texting. This is as shown in the table below:

AGE	AWARENESS		UN-AWARENESS	
	F	%	F	%
18-24	157	100	0	0
25-30	114	100	0	0
31-35	80	100	0	0
36-ABOVE	32	99	2	0.06%
TOTAL	385		2	0.06

Fig 4.5 Representing emoji awareness among respondents.

From the data it is easily observed that the cumulative percentages of the number of people who are aware of what emojis are is **100%.** A total of **99%** of the respondents admitted to having seen the icons on their phones and even refer to them as emojis. **100%** of the respondents also owned a smart phone which they used for their daily interactions. From this, the researcher was overtly confident that the respondents were a true representative of the desired information in terms of knowledge and awareness of emoji. Apart from being aware of the emojis on their phone, **100%** of the respondents also admitted to using or having used emoji when sending text messages. The researcher asked the respondents how often they used emojis on their text messages

RESPONDENTS	**QUITE OFTEN**		**OFTEN**		**SOMETIMES**		**RARELY**	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**
18-24	102	64	40	26	15	9	0	0
25-30	60	53	34	29	20	17	0	0
31-35	46	57.5	20	25	12	15	2	2.5
36-ABOVE	10	29	8	24	14	41	2	6

Fig 4.6 Representation of the frequency of the usage of emoji among respondents.

An observation was hereby made that a majority of the respondents used quite often, this as indicated by over **50%** above the total number of respondents within each age group, with the exception of the ages of 36 and above where only **29%** of the respondents used them quiet often. inversely, a fewer number of the respondents rarely used emojis as seen with the respondents between the ages of 18-35 and only an insignificant number **(6%)** of those between 36 and above who admitted to rarely using them. These observations were essential because they provided an accurate justification of the reliability of the further questions that the respondents answered with regard to how and why they used emoji in text messages.

4.3.2 Justification for the Use of Emoji

In response to the question on "why do you use emoji when texting?" **35%** of the respondents admitted to using emojis so as to help them type faster while **30%** admitted that they use emojis because they felt that it was a quicker way of typing than using actual words.**20%** agreed that they use emojis so as to make the text easy to understand, while only **14%** admitted to using them because they felt that it was fashionable and that everybody else was using it. From these figures it was easy to deduce that there was a strong balance in the way people use emojis both as elements that makes them type quicker and as a way that provides them with alternatives for words. Interestingly, a smaller number of the respondents hold the notion that they only use emojis because it was fashionable and that everybody else is using them. Kress observes that semiotic modes possess different potentials and that these potentials makes them afford the different kinds of possibilities of human expression (Kress, 2010: 79).

The three combinations and potentials of emoji use that is; to make the text easier to understand, as a substitution of words and efficiency of time, are all used in the context of making meaning and enhancing communication in the fastest of ways possible as opposed to usage being for a social trend hereby explained by just **10%** of participants who use emoji because it is fashionable and that everyone is using them. As laid forth by Kress (2009), the focus of sociolinguistics is evolving from the analysis of dialects and as well as social codes towards fusing the linguistics with the social. He adds that this occurs for the purpose of representation and "making of meaning" at all levels and aspects. (Kress, 2009:78)In response to the question of the manner in which they use emoji, **38%** admitted to using them in expressing emotions and feelings while **30%** use them to lay emphasis on their message here, **20%** use them to avoid using words. Only **10%** use them for fun. A clear observation is made here; that the use of emoji to express emotion still overrides its other functions. Even though the balance between its usage to express emotions and to enhance the message by laying emphasis is quite clear, it strengthens the notion that there is a strong need by users to fulfill their desires of portraying emotions and feelings in written text in the same manner that they would in face-to face communication. This is supported by a combination of **68%** of users who use emojis for emphasis and emotions. Accordingly, so, their usage in place for words still comes close to the former two, above its usage for fun. A more direct question was posed as to whether the respondents would find it easy to type the words of their emotions or instead they would use emojis. A majority of the respondents **(82%)** admitted to using emojis for

this state. This supports the observation made earlier that the use of emojis in place of actual words is substantial and embraced by a majority of users. Perhaps on the same note, users felt emotionally satisfied or accomplished when, in an attempt to portray their feelings and emotions, they found the right emoji they felt best expressed their situation. Walther (1992) argues that the social nature of the human being is the same in CMC and Face-to- Face environments. He posits that the need for special bonding is similar in both forms of communication and believes that when given enough time, people will find a way to compensate for any cues that are filtered in CMC. (Walther, 1992: 52). Inversely, many users **(86%)** felt annoyed if for one reason or another they are not able to find the right emoji to express their state of emotional affairs.

The deduction being that it is has increasingly become easy to use emojis to express emotions and to make one's self be understood via text or to emphasize the whole sentiment beneath the written text.

4.3.3 Contextual use and meaning interpretation

In terms of meaning interpretation, respondents were asked how they make meaning of the emojis that they use. This was an open- ended question, as such; no multiple choices were availed, since respondents were expected to write their answers in their own words. An interesting observation was made that, most of the users gave responses such as "because they look like what I think, their meaning is available in their face/image, they are easy to see, I just look at them and I already know what they mean, the facials represent actual human behavior, I make guesses based on their features," among others. Even though there were other answers that talked about "inquiring from friends, and looking up their meaning on the internet, in making a logical conclusion from these responses, the researcher concentrated on the words 'look, see, observe, think.' Norman (1988) introduces the term affordance in order to describe how users can easily understand what an object is used for by perceiving the properties that it exhibits. He says "affordances provide strong clues to the operation of things like knobs are for turning, slots for inserting things into. (Norman, 1988: 9) Similarly, Gibson (1971), states that affordances are a direct result of the relationship between the objective physical properties of the environment and the subjective experience of the perceiving actor within that environment. (Gibson, 1971: 23). In so, Gibson considers affordances not just as the properties of the environment but both as subjective and objective element of perception. A majority of users are able to make meaning out of the emojis that they want to use

or receive due to the fact that the icons(emoji) provides in themselves certain qualities that in one way or another makes is easily comprehensible by the user. This then means that the whole process of assigning meaning to the emojis is often left at the subjective hands of the user or interpreter and his perceptual and cognitive resources. An affordance is the information within the environment of a user and which the user can synthesize so as to perceive meaning and achieve communication. Emojis provide the user with physical enhancements from where they are able to engage their mental and perceptual resources to be able to assign meaning and use them for communication in text messages.

Elsewhere multimodality in socio semiotic theory states that representation and communication always use multiple modes which are essential towards achieving meaning. It introduces the term mode and semiotic resources; a mode is realized when a society uses a material and shapes it in its cultural dimensions through its daily use. Semiotic resource is considered as the link that is created between representational materials that make meaning and how people use them. Kress (2010) assert that semiotic resources have a meaning potential based on their past uses and a set of affordances based on their possible uses. (Kress, 2010: 11)

A question was asked on whether the respondents interpreted the emojis in different ways depending on who wrote them. Kress indicates that image is increasingly and rapidly taking the place of the verbal language in places of communication such online chat sites, school books, electronic media. **80%** of the respondents admitted that they usually interpreted the emojis in relation to what they think it means and that this was also dependent on who wrote the message. Saussure posits that 'the signified' is the concept that is in the mind. This may include a set of impressions and experiences or even feelings relating to an object. In this context he believes that the signifier represents the physical phenomenal part of the sign while the signified is the meaning that the physical artifact represents. (Saussure, 1966:142) In consideration of Palmer's definition of signs, icons, indices and symbols, (Palmer, 1981:8) emojis can be observed in their relation to the accompanying text as well as the interpreter. For example, in cases where emoji is used for sarcasm and not (in a serious manner) both parties (sender and recipient) were cognizant of the intention of the other. If the message was intended to create "humor, ridicule, irony or plain sarcasm" the accompanying emoji used would then be interpreted in context. The sender or receiver bases of the message bases their consumption on context together with pre-known

elements of the emoji used. In such a case therefore, context is dependent on the sender or recipient together with the emoji used. The usage of emoji is therefore easily understood depending on by whom, when and how a message needs to be conceived.

In terms of the seriousness and graveness of feelings and emotions, **90%** of the respondents indicated that the intensity of a message depended on the emoji used while only **10%** responded to not feeling any seriousness with emojis used. The majority gave their response with regard to the use of the 'angry face' emoji. This emoji has numerous versions of it even in terms of color. For example, 'the red-faced, purple-faced, wrinkled brows, gnashing teeth, devil's horns (see appendix). In usage, a sender's decision to use any of these is informed by factors such as; their thinking that this would represent the degree of anger or annoyance that they accurately feel, the interpretation that they seek to achieve from the recipient as well as the intensity of how this anger would be consumed by the receiver.

Another factor for intensity and emphasis lay in the number of times an emoji is used within a linear string of message. Participants admitted that when they intended to 'portray laughter' or 'show a smile' then they would use the smiling emoji or laughing emoji. Consequently, if this laughter or smile needed to be emphasized, then the same emoji would be used at least three or four times within the same line. The intention of doing this is so as to overtly create the indication of emphasis on the emotion or feeling being portrayed. Interestingly, recipients were also in agreement that where they received a message where the said emojis had been used repeatedly, they then interpreted it with the seriousness and emphasis that they felt the sender intended.

4.3.4 Emojis for coding

In response to the question in which respondents were asked if ever they use emojis in a way that only they would understand its meaning and not any other person, the answers given varied in terms of the age differences. **100%** of those between the ages of 18-24, responded to the question in the affirmative, while **95%** of those between the ages of 24-30 gave a similar response. Only **50%** of those between the ages of 31 and above admitted to using emojis in such a way. The implication of this is analyzed using Eco's concept of a sign. Eco (1976) He conceives signs as codes found within social groups which constitute society as a whole and he argues that it is only when a reader has the right codes that they can understand a sign.(Eco, 1976: 71). The deduction made here is that the 'younger users' (ages 18-24) find it easy to use emojis among themselves

and in a way that would exclude the others who do not share in their social group, the trend is also witnessed in the users of age 25-30 though in a declining percentage, In sociolinguistics, code refers to a language or a variety of language used in a set of conventions to relay meaning. Bernstein's theory on language codes (1971) is a theory of language that shows how people use language within certain parameters so as to include or exclude others. He adds that within the society people can organize or categorize themselves in particular relationships from where they would use language codes only unique to them. He introduced two types of language codes; the restricted code and the elaborate code. The restricted code is normally used by a given sociological speech environment who share assumptions and common understandings of a particular topic of discussion.

This type of code is usually considered economical and rich since with just a few words or codes conversant can communicate among themselves and understand one another due to certain shared knowledge of the entire communication process, where entire communication process includes everything that makes up the discourse such as; the topic and even the mode of communication. Restricted code is a condensed system of communication that is found among friends and families or other groups that share a particular feature. It functions on the principles of 'us/we' versus 'them.' That is to say, what we know versus what they don't know that we don't want them to know. From the study it was evident that a majority of users (age 18-30) would readily use emojis for 'inclusivity' and 'exclusivity 'where whatever message they pass across would only be understood by their targeted audience and not any other persons.

Multimodality argues for the fact that human beings are able to exploit the numerous communication modes accorded to them in their environments to achieve their desired communicative goals. This use of emojis as a source of language coding among particular groups of people serves as a strong indication of how people enjoy the affordance that it offers in terms of coding and even brevity. On the other hand, Semiotics has over-time re-engineered itself so as to look at meaning as a product of socio-cultural engagement and not individual based.

4. 4 Conclusion

This chapter presented an analysis of the data collected grouped in percentages and frequencies and observed in line with the three themes of usage, justification of usage, contextual use and meaning interpretation, these were done in line with the objectives of the study and conclusions made. The next chapter summary discussions, conclusions and recommendations.

CHAPTER FIVE

The summary, Conclusions and Recommendations of the Study

5.0 Introduction

This chapter presents the summary of the findings in this study in line with the three objectives that were tested. The objectives were: (1) To describe how emojis have been characterized as a new form of online language, (2) To identify the role played by emojis in provision of paralinguistic features in text messaging and (3) To establish the broader linguistic elements of emoji and its communicative functions. In addition to the summary of the findings, conclusions are drawn and the chapter gives the recommendations for further research more specifically on the areas that were deemed to be beyond the scope of the study.

5.1 Discussions of Research Findings

The study sought to do a socio semiotic analysis of emojis as used in text messaging. The theory that was used was the socio semiotic multimodal theory of Kress and Leeuwen (2006). It postulates that semiotic resources can be socially shaped and molded across time to become meaning making resources. The following were the findings of the study:

I. Emoji offer numerous multimodal ensembles
II. The use of emoji is context specific
III. Emojis provide sufficient paralinguistic features in written language
IV. Emojis are not grammar adequate

5.2 Emoji offer numerous multimodal ensembles

In multimodal research, a mode is seen as a product of the cultural shaping and molding of a material through its use in the daily social interactions of people. The analysis given in the study has shown that people have exploited in detail the various affordance that emoji can provide to come up with a variety of its uses in text messages. Among these uses include; the use of emoji in substitution for words as seen in the examples below:

(1) **Chatter A:** have you heard? Brenda is expectant!!!

Chatter B: what! Am 😮😮 , by whom? How? Tell more

Chatter A: not yet, I was told to be 🙊 and 🤐

That chatter A asks B if they are aware that a certain Bree is pregnant, chatter B says they are **surprised** and asks for more information at which A says he was instructed to be **silent about it** and **zip their mouth**.

(2) **Chatter A:** Today my favorite team lost, I feel like 😢

Chatter B: oops, sorry, I'm all 😶

The exploitation of the modal affordance of emojis goes beyond replacement of words, to its usage as a means of achieving brevity in written texts. In only a few gestural features, users are able to say more.

5.3 Emoji usage is context specific

Following the exploitation of its modal affordance, the researcher sought to find out the contextual and universal understanding of these signs in line with the first objective of the study. 90% of the respondents admitted that the meaning they derived from the emoji was based on factors such as who was sending the message and to whom they were sending it to. In addition, each emoji is often understood in relation to the text or conversation that it accompanies. Results show a particular emoji can be interpreted differently by many people, for example it can be sarcastic, funny, humorous, friendly, sincere, and honest. This is a clear indication that the interpreter requires both a context and a reference in order to adequately give meaning to an emoji. In this sense, emojis have no universal mode of understanding for they need to be put in context of that which is being communicated.

5.4 Emojis provide sufficient paralinguistic features in written texts

The second objective of the research was concerned with the manner in which emojis can provide paralinguistic features in online written texts. Social semiotic multimodal approach lays emphasis on the role of interaction of all modes in meaning making within a semiotic resource. It goes beyond the analysis of language and focuses on how the language of texts interacts with other semiotic resources that accompany it, such as music, design, graphics, style, color, visual images. From the research analysis, it was observed that emojis act as emotion indicators; this is made possible when they are mapped directly onto the facial expressions that they denote. When the facial expression accompanies a complementary text, users find it easy to depict the emotion that the sender intends to portray.

The intensity and emphasis of these emotions is also depicted by the various emoji graphics and designs. For example, color, as seen with the anger emoji that comes in (red face, purple face, frown, and grin). Elsewhere, the use of 'flash technology emoji design' in chatting platforms such as facebook messenger is essential in provision of paralinguistic features which users find exciting. Flash technology emojis are designed to make the images perform certain 'live' gestural features like dancing, running, crying, smiling among others.

The study also reveals that facial expression and gestural features of emojis help in establishing or emphasizing the mood of the sender. The findings further reveal that users find it effective to us emojis in expressing their feeling and mood in written text as opposed to typing down the feeling or mood in actual words. The repetition of the same type of emoji in a string of a text also helped in accentuating and emphasizing the mood.

5.5 Emojis are not grammar adequate

In assessing the linguistic elements of emojis, the researcher sought to examine its grammatical qualities such as their position as syntactic markers like punctuation. While it was evident from users' responses that certain emoji characters have been exploited by users to replace or rather for the use of directional pointers like the colon and the semi colon. The thump sign and the pointing finger have found prevalence among users as means towards indicating a sequence of thoughts or enumeration of factors. However, an observation is made that when these signs are used in that sense, the intention is not often to eliminate the standard punctuation signs but only as a means to embellish the text.

To conclude that the use of emoji is sufficient in complete substitution of the standard punctuation marks would not be in agreement with the earlier findings of the study, based on their usage being entirely context- specific. In as much as users can exploit the affordance that they offer, emojis are still inadequate in provision of grammatical features necessary in written language. This is further validated by the fact that their usage is not controlled or conventionally monitored by a set system of standard rules as is the norm with any grammatical structure of a language. Elsewhere, because of their context-specific nature, they lack a universal understanding and interpretation of meaning and so, even when they are used as words, the meaning that they exhibit is sometimes misconstrued and is susceptible to ambiguity among users.

5.6 Conclusions of the Study

This study set out to analyze the usage of emojis in text messages using socio semiotic multimodal theory. It aspired to test the three objectives and provide answers to the relevant questions set forth. The whole study was set in five chapters. Chapter two presented the semiotics of emojis by laying focus on their definitions as signs. It gave a comprehensive definition of signs and signification and describes emojis as semiotic signs that are used to signify meaning. The third chapter was the chapter on data presentation. It presented a typology of emoji characters based on the affordance they provide to users and how these affordances have been exploited by users to achieve their communicative goals. Chapter four contained the analysis of the data through respondents' views analyzed from questionnaires. Observations are made and analyses based on the theoretical framework.

Finally, in chapter five, findings and observations are made and discussed. The observations made include the fact that emojis provide affordances, the use of emoji is context specific, emojis provide sufficient paralinguistic features in online writing and that emojis are not adequate in grammar. In conclusion, based on the findings, the study has revealed that the socio semiotic multimodal theory accounts significantly in analyzing emojis as used in text messages.

5.7 Recommendations of the Study

The study was expressively based on the analysis of emojis using socio semiotics multimodal theory in text messaging. Due to the dynamic nature of technology, emoji usage has been greatly witnessed in other areas outside text messages. These include, as literature on clothing items and advertising. Perhaps a study is needed to assess if their usage in these faculties varies significantly

from their usage as seen in text messages. Elsewhere, this study was purely linguistics in nature, however, the use of emoji often cuts across other disciplines such as sociology and psychology. In terms of its emotional relation, sociologists and psychologists may also be urged to study its attitudinal effects among users as well as the variations of its usage in terms of gender. Additional study is also recommended regarding its impact in benefitting those who are impaired of speech and hearing.

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APPENDICES

APENDIX 1: Questionnaire

DEAR RESPONDENT, THIS QUESTIONNAIRE IS DESIGNED TO COLLECT DATA THAT WILLHELP IN A RESEARCH ABOUT THE USE OF EMOJI IN TEXT MESSAGING. YOU HAVE BEEN CHOSEN TO BE PART OF THE RESEARCH.

BE HONEST INGIVING YOUR RESPONSES. CONFIDENTIALITY IS ASSURED.

THANK YOU IN ADVANCE FOR ACCEPTING TO PARTICIPATE.

PLEASE TICK THE APPROPRIATE ANSWER

GENDER

MALE ☐ FEMALE ☐

AGE BRACKET

18-24 ☐

25-30 ☐

31-35 ☐

36- ABOVE ☐

1. **DO YOU HAVE A PHONE/ TABLET THAT YOU USE FOR TEXTING**?

   YES ☐ NO ☐

2. **TYPE/MODEL OF PHONE**

   SMART PHONE ☐ CELL PHONE ☐

3. **DO YOU KNOW EMOJIS?**

   YES ☐ NO ☐

4. **HAVE YOU EVER SEEN THESE ICONS ON YOUR PHONE?**

   Yes ☐ NO ☐

5. **WHAT DO YOU CALL THEM?**

   ……
   ……

   ……
   ……..

   ……
   ……..

6. **DO YOU USE EMOJIS WHEN TEXTING?**

   YES ☐ **NO** ☐

7. **WHY DOYOU USE EMOJIS WHEN TEXTING? (EXPLAIN)**

   ……
   ……
   ……
   ……
   ……
   ……

TURN OVER...

8. HOW OFTEN DO YOU USE EMOJIS?

QUITE OFTEN ☐

OFTEN ☐

RARELY ☐

9. WHY DO YOU USE EMOJI WHEN TEXTING?

I DON'T USE EMOJIS ☐

TO HELP ME TYPE FASTER ☐

IT MAKES THE TEXT EASIER TO UNDERSTAND ☐

IT IS QUICKER THAN TYPING WORDS ☐

IT IS FASHIONABLE ☐

10. IN WHAT MANNER DO YOUUSE EMOJIS?

I DON'T USE THEM ☐

TO EXPRESS MY EMOTIONS ☐

TO ENHANCE MY MESSAGE ☐

I USE THEM FOR FUN ☐

NONE OF THE ABOVE ☐

11. **When you are 'happy, sad, frustrated, bored, anxious, tired, surprised' do you use emojis to express these emotions or simply type the word?**

    I use emojis ☐

    I type the words ☐

12. **Do you find it frustrating or annoying when you can't find the right type of emoji to express your appropriate feeling?**

    YES ☐

    NO ☐

13. **Whom do you use Emoji on mostly when texting?**

    Friends ☐ parents ☐ siblings ☐ Colleagues ☐

    Everyone ☐

14. **Have you ever used emoji in a way that only you and your target respondent would understand the meaning and not any other person?**

    YES ☐ NO ☐

15. **Do you interpret emojis differently depending on who wrote them?**

    YES ☐ NO ☐

16. **Would you send the same type of emoji to your elders as well as your age mates?**

    YES ☐ NO ☐

17. **Do you have certain emojis that you use with your friends and would never use with your elders?**

    YES ☐ NO ☐

18. Do you find it easy or difficult to interpret what your friends mean when they use emojis?

Easy ☐

Difficult ☐

19. Explain how

……

……

……

……

……..

20. Have you ever used emojis in place of or instead of a word?

YES ☐ NO ☐

21. How often do you use emojis in place or instead of a word?

QUITE OFTEN ☐

OFTEN ☐

RARELY ☐

22. Do you ever send a message that contains only emojis and no text?

Yes ☐ No ☐

23. Do you think that the available Emojis on your phone/tablet are sufficient to compensate for the words you use during texting?

Yes ☐ No ☐

24. How would you interpret the following sentences in a text

I am happy for you 

……
……
……..

Your team won the bet, congratulations 

……
……
……..

Your team lost 

……
……
……

I hate you 

……
……
……

25. How do you know the meaning of an emoji?

Similarities in the way people use them ☐

Personal interpretation based on intuition ☐

I study them keenly ☐

26. What meaning would you give to the following emojis

 ……  ……

 …… 

……

 …… 

……..

 …… 

……

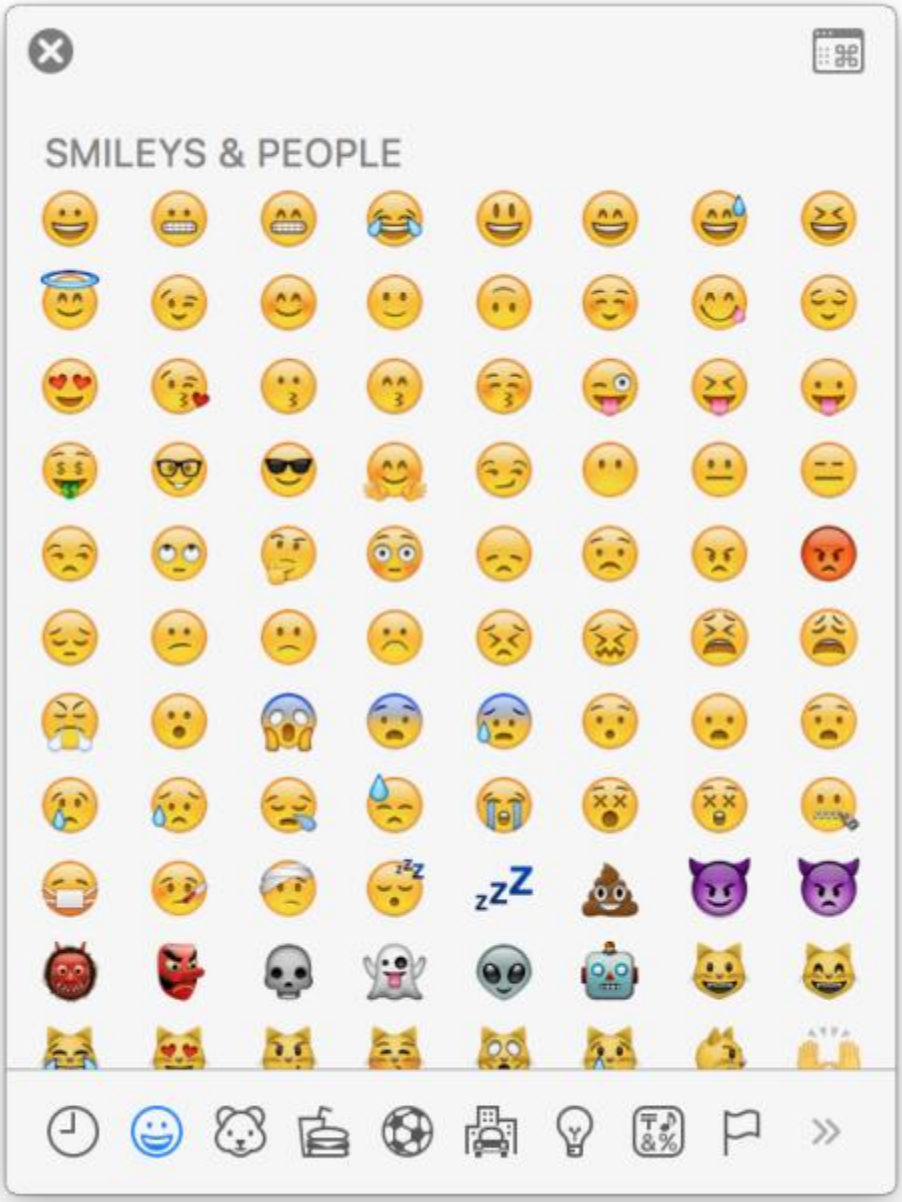
 …… 

……

Thank you for your time

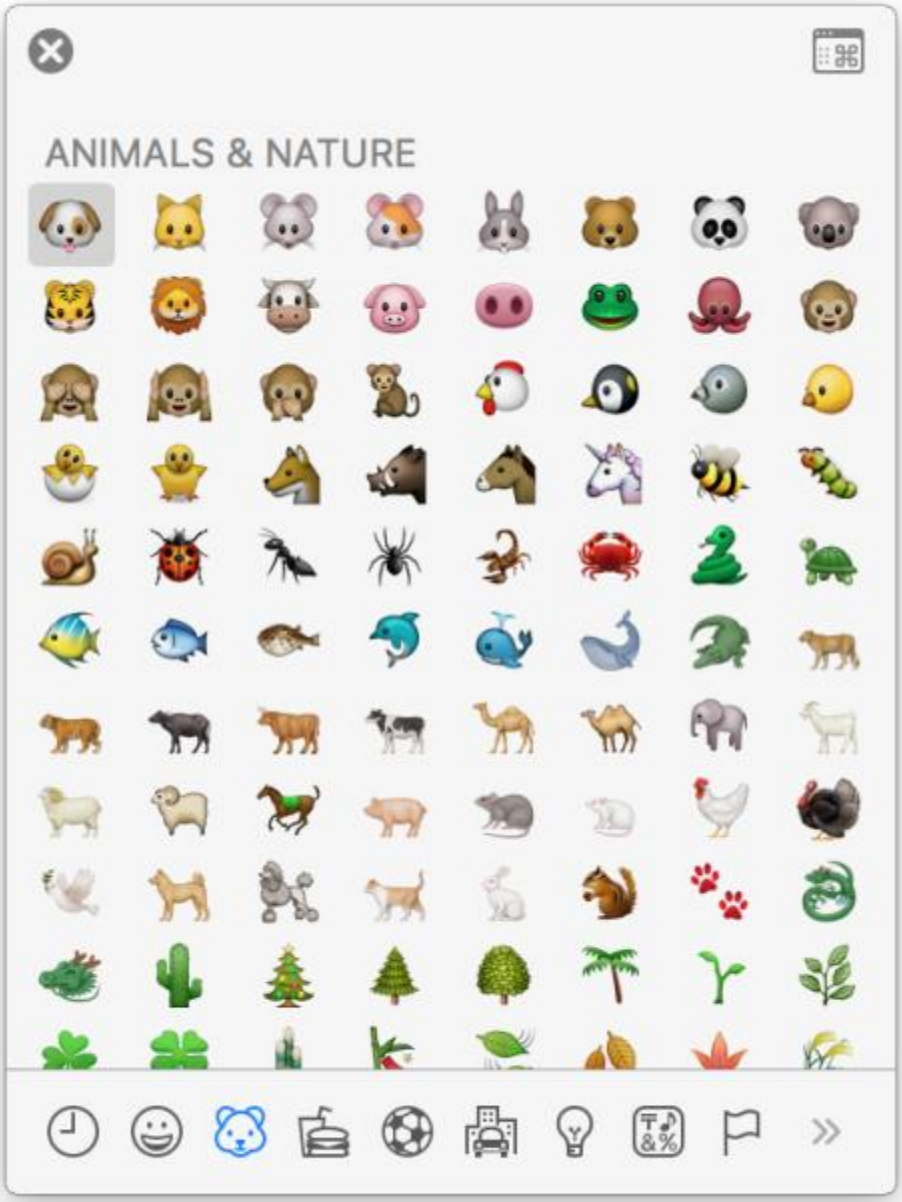
APPENDIX 2

EMOJII ICONS



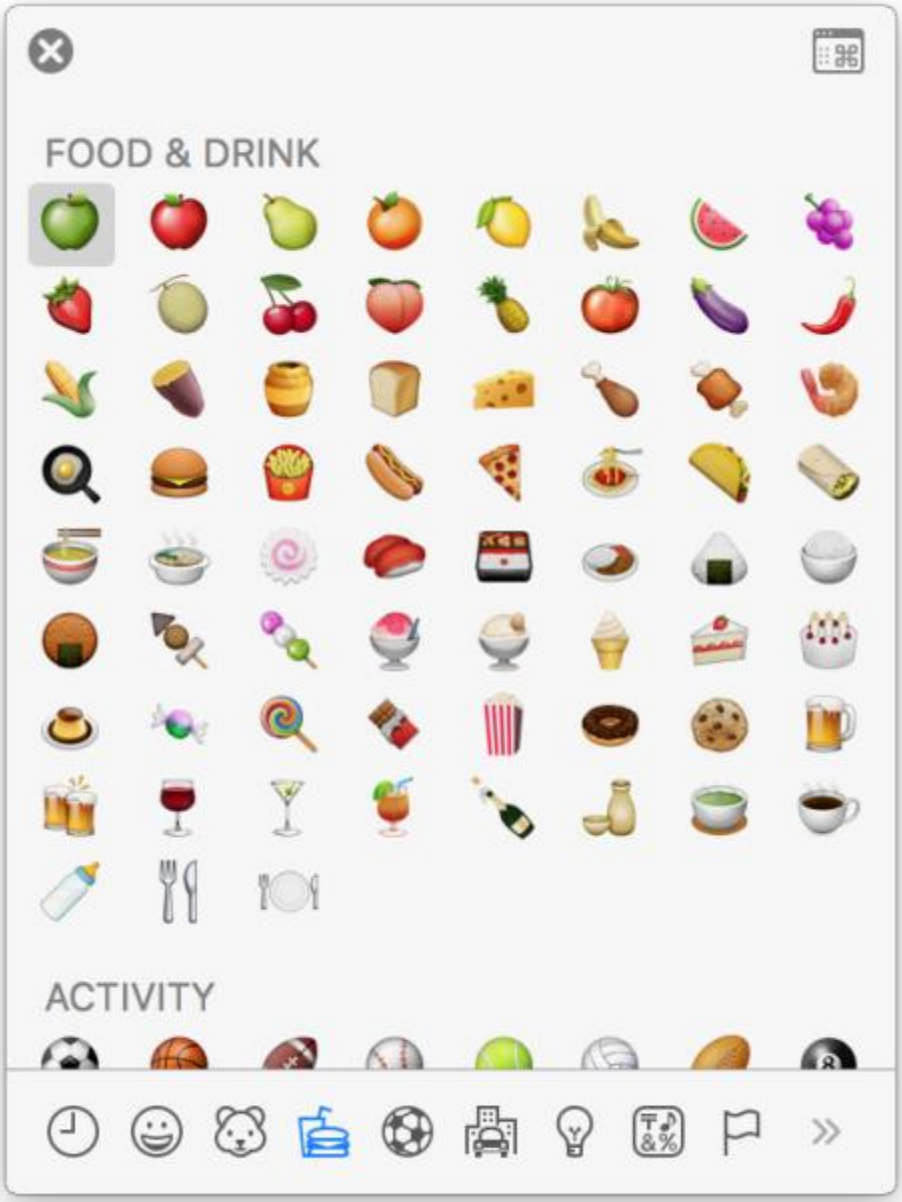
APPENDIX 3

EMOJI ICON



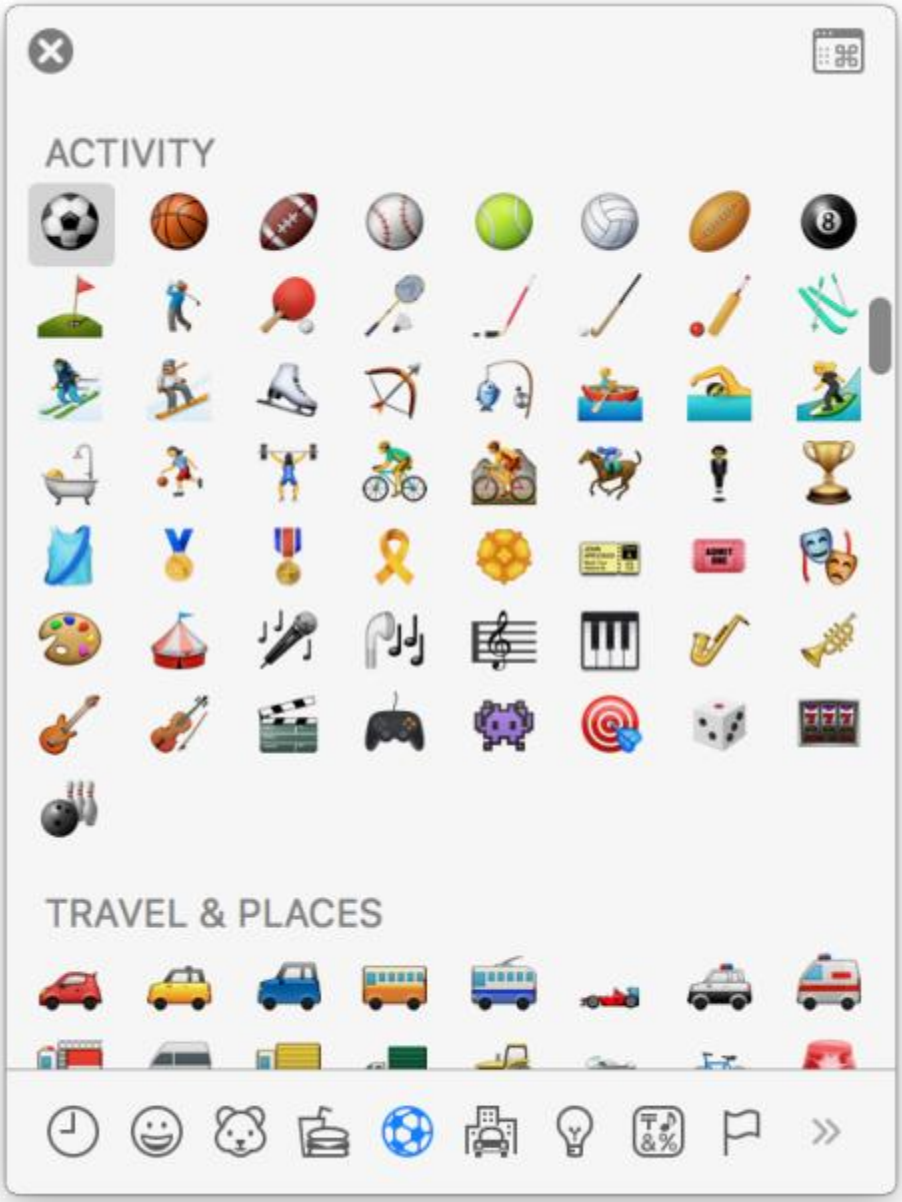
APPENDIX 4

EMOJI ICONS



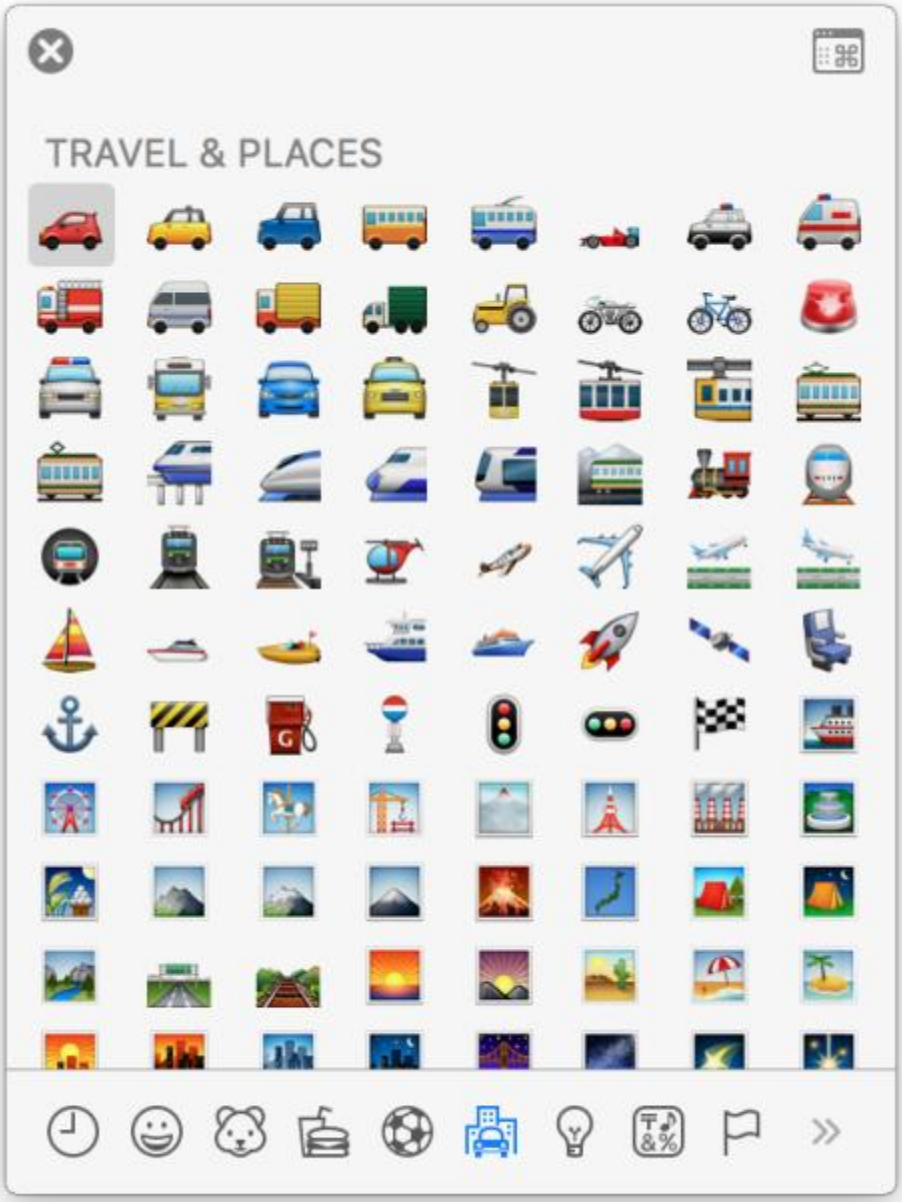
APPENDIX 5

EMOJI ICONS



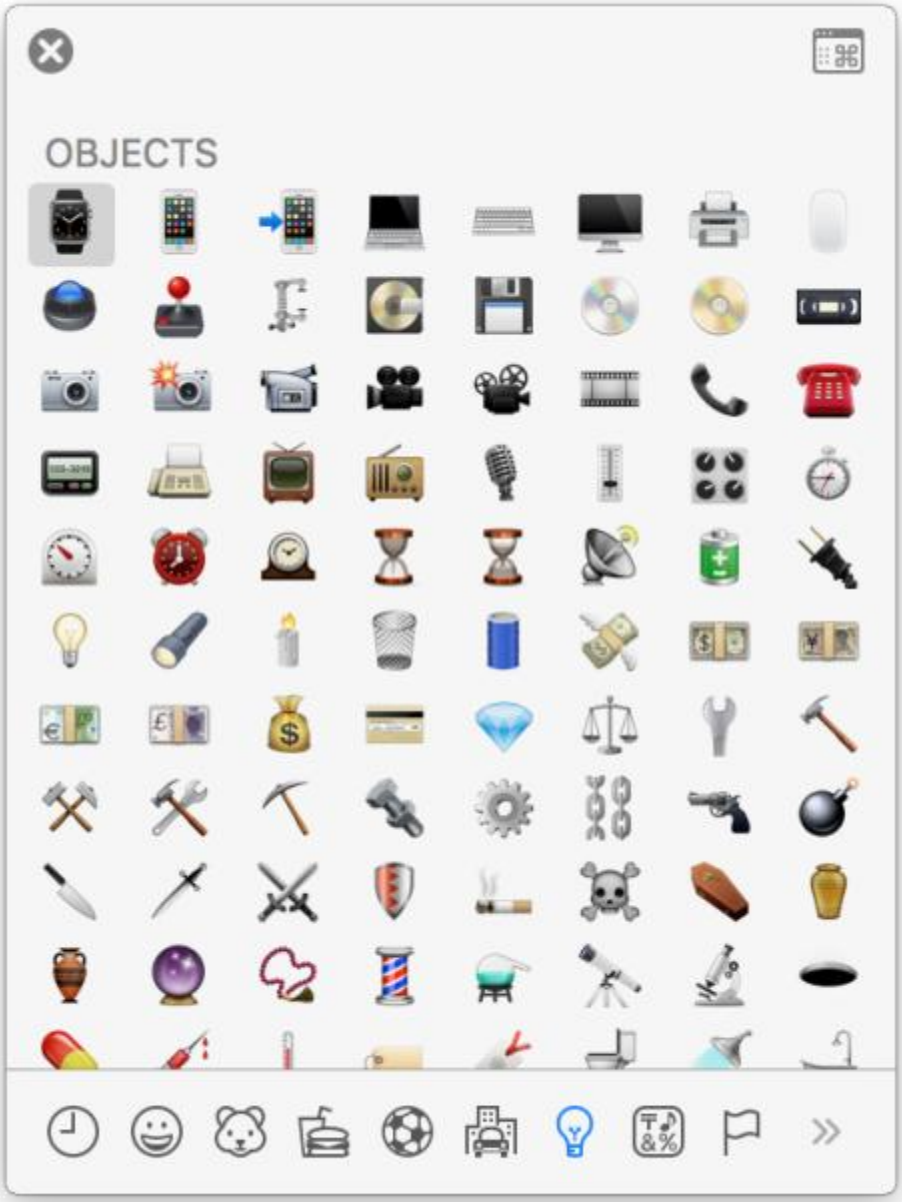
APPENDIX 6

EMOJI ICON



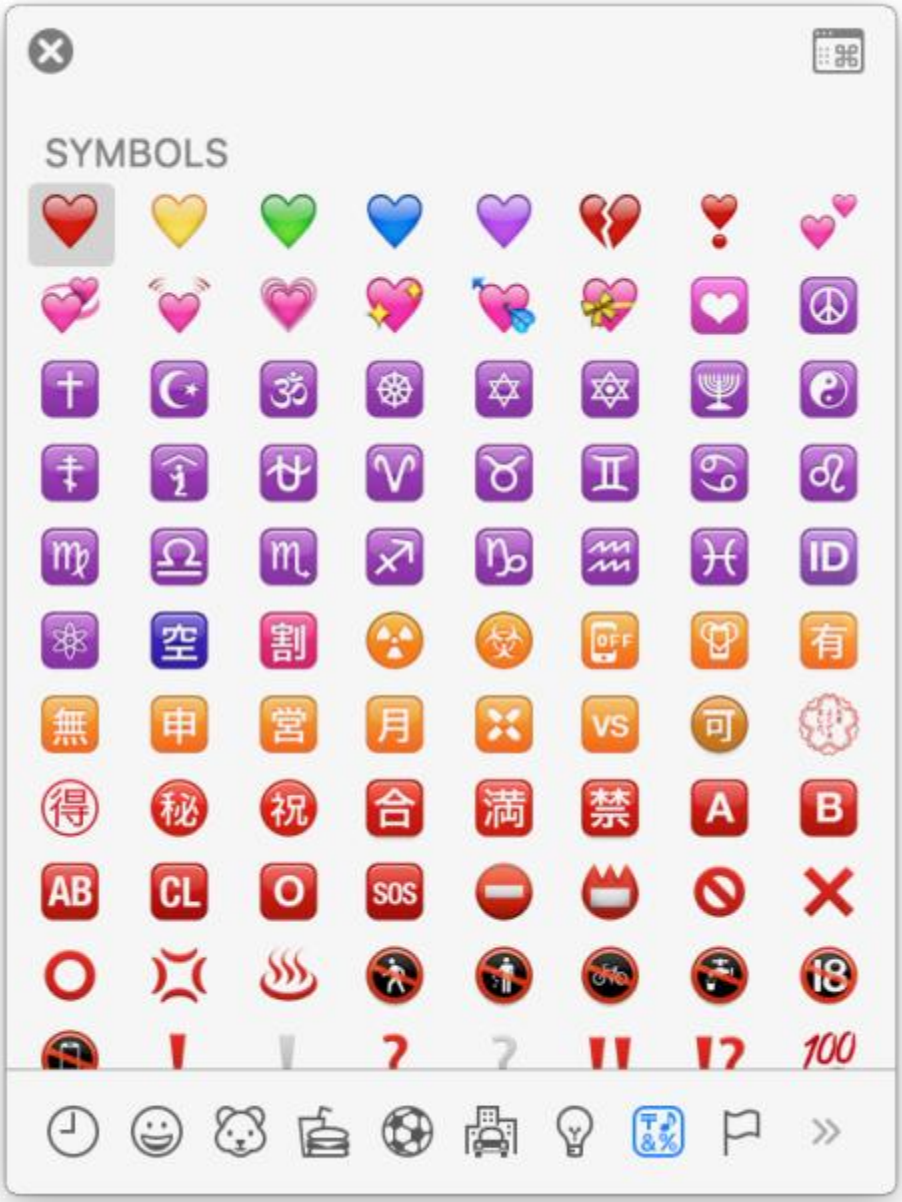
APPENDIX 7

EMOJI ICONS



APPENDIX 8

EMOJI ICON



APPENDIX 9

EMOJI ICON