ABSTRACT: The rapid spread of mobile messaging applications like WhatsApp has its impact on generating special linguistic features archetypal for this type of Computer Mediated Discourse. This study investigates Whatsapp digital language from a discourse analysis approach. The study aims at analyzing the linguistic features and the functions of WhatsApp language among undergraduate students in Mount Kenya University. The study employed a descriptive research design that utilized qualitative research methods. The study employed Computer Mediated Discourse analysis framework. The findings of the study revealed that The findings of the study revealed that linguistic features of WhatsApp digital language are characterized by the use of casual speech and a netlingo among undergraduate students. Linguistic features were reflected in terms of contractions, phonetic spellings, abbreviations, regiolectal contractions, emoticons/Emojis and Punctuation Marks. The data examined revealed that language plays a key role in social media as it is the form of communication. The data revealed the following functions of language: phatic function of language for social connection, Interactional function of language for friendship maintenance, Informational function of language, directive function of language and multilingual function of language. The study recommends that that educators should reconsider how they respond to this new form of writing since the study shows how students are using WhatsApp digital language for academic purposes. The study adds knowledge to linguistics, Computer Mediated Discourse and language and communication.

KEY WORDS: Whatsapp digital language, Computer Mediated Communication, Computer Mediated Discourse, Undergraduate Students.
WhatsApp Digital Language among Undergraduate Students in Mount Kenya University

widespread use is attributed to the view that the application is appealing as it offers cheap and affordable means of sending information worldwide. Moreover, McKierna (2016) notes that WhatsApp affords its users the ability to send synchronously, in near real time, text messages, photos, videos, mapped geographic locations, voice messages and the contact details of others.

Adika (2014) reports that 49% of mobile subscribers in Kenya use WhatsApp. In 2016, Groupe Spéciale Mobile Association noted that Kenya’s smartphone penetration is estimated to be 70%, which is higher than that of Africa which stands at around. Students particularly prefer the use of WhatsApp as a means of communication (Price, 2015). In 2015 Deshmuk’s research reported that there are more than 750 million users of the tool and increases 20 million every month worldwide. The study, reported that more than 18% of the users are mostly students and between the ages of 17 to 25. Therefore, the rapid spread instantaneous mobile messaging applications like WhatsApp has its impact on generating special linguistic features archetypal for this type of computer mediated discourse (CMD). Moreover, the overuse of a special form of language for text messaging is notable among youths which have rather extended to be used in other types of pieces of writing. Text messaging has also influenced the social and cultural textile of our society by revolutionizing the way people communicate and socialize. Despite, the positive and prominent role instant text messaging plays in socializing and sharing information; researchers claim that it has an adverse influence on language proficiency particularly spelling and grammar skills. Therefore, scrutinizing online social networking language usage which is still in its infancy could result in a great revelation of this novel linguistic environment. In fact, Church and de Oliveria (2013) observe that, despite WhatsApp’s current global popularity, the platform is yet to be sufficiently addressed by academics. Thus, this study explores the rich discourse data provided on WhatsApp platform.

The study therefore contributes knowledge on the impact of the widespread improvements in the fields of communication, technology and linguistics. The study also gives insight into language use, how language evolves due to technological advancements, and how it is also constrained by the limitations of the technology it is centered around. It is also expected that the study will provide insights into the understanding of WhatsApp Digital Language thus providing tangible information on CMD.

2. LITERATURE REVIEW

Previous research has shown various characteristics of CMD. Sproull and Kiesler (1991) in their study observe that CMC lacks the specifically relational features (social cues) which enable users to identify correctly the kind of interpersonal situations they find themselves. The study concludes that CMC occurs in a social vacuum where the personal identities of subjects tend to fade and vanish. Reid (1991) examined the features of Internet Relay Chat (IRC) and observed that there is a reduction in social context cues forces the users of CMC to adapt and adjust by providing substitute nonverbal cues and allowing the shy and socially ill-at-ease’ a way of learning social skills in a non-threatening environment. Walther and Burgoon (1992) also note that CMC can become more personal than FtF interaction. The three studies provide insights on the key phenomenon that the present study explores.

Thurlow and Brown (2003) conducted a discursive analysis of 544 text messages written by teenagers by applying Grecian maxims of (a) brevity and speed, (b) paralinguistic restitution and (c) phonological approximation. The study found that the messages were both linguistically unmarked, but communicatively adept. Ling and Baron (2007) compared text messages and instant messages produced by American college female students. The findings of the study show that the salient linguistic properties were emoticons, acronyms (e.g. ‘ttyl’ for ‘talk to you later’), abbreviations (e.g. ‘R’ for ‘are’), and vowel deletion (e.g. ‘over’ for ‘over’). CMC interactions through media like chats, Short Message Service (SMS) messaging, Instant Messaging (IM) and mobile- text chats contain clear oral traits along with features characteristic of written language (Baron, 2008; Yus, 2011; Jones & Hafner, 2012).

Ong’onda, Matu and Oketch (2010) studied the implication of text messaging on social interaction. They examined how the youth create social relations in CMC. The key finding in their study was that text messaging redefines users’ behaviour and provides them with many choices of expression. The study found that users adapt their social and cultural style to the online forum by changing the Face to Face interaction. Sewe (2014), study takes a functional approach. Sewe’s study found that many people use SNSs to stay in touch with friends and family as well as share their views on an array of topics including popular culture, religion and politics. Sewe focuses on social media as a tool of communicating in the corporate world regardless of the language being used, which is relevant. The current study focused on linguistic features of WhatsApp from a discourse analysis perspective.

Otemuiya (2017) analyzed WhatsApp conversations among undergraduate students of Joseph Ayo Babalola University. The study analyzed conversations from five undergraduate students which were collected through forwarding and screen shots. The study adopted a pragmatic approach. The study found that context plays a key role in the speaker’s meaning and speaker’s intention. The study revealed the use of WhatsApp messages for formal instructions between teachers and students. Otemuiya’s study provides information on turn taking and takes a pragmatic approach. The current study focused on the linguistic features
of WhatsApp digital language from Discourse analysis perspective. Al-Shishtawi (2019) investigated the discourse of three hundred WhatsApp's status written by the users of WhatsApp application. The analysis shows how the users manipulate the language used to suit their concerns in order to represent their feelings. The study revealed that WhatsApp's status serve as a way to convey specific messages, identities, and feelings through the language used by the users to be seen by others. Al-shishtawi focused on WhatsApp status but the current study focuses on the aspect of texting. Ayan (2020) explored persuasive messages with emoticons/emoji based on digital languagestylistics with non-standard writing. The study found that Wh-adverbs (WRB) and Wh-pronouns (WP) are often used in initiation of persuasive language patterns and that female participants more frequently choose emoticons, photos, abbreviations, question/question marks, friend’s names and pictures of the events than male participants do. Ayan’s study focused on persuasive messages only while the proposed study will analyze a variety of WhatsApp features with an intention of generalizing the characteristics of digital language.

3. THEORETICAL FRAMEWORK
This study applied Computer Mediated Discourse Analysis (CMDA) as propounded by Herring (2004). CMDAis a framework to researching online behavior that is grounded in empirical textual observations. CMDA is adapted from language-focused disciplines such as linguistics, communication, and rhetoric to the analysis of CMC (Herring, 2001, 2004). Lamy and Hampel (2007) state that online communication gadgets alter discourse conventions, adding a new electronic element to language forming CMD. Herring (2001) observes that CMDA is an interdisciplinary approach in the area of CMC that takes at its core the analysis of the language used in electronic environments by means of discourse analysis methods. Among the discourse behaviours that CMDA can be applied to include structure, meaning, interaction, participation and social behavior. Each of this discourse behaviour was useful in indicating language features of WhatsApp. The domain of structure was applied in the analysis of typography, orthography and morphology. The social behaviour includes norms of appropriateness, politeness, solidarity, sociability, support, criticism and conflict management. The study applied the domain of social behaviour in the analysis of the communication intent of the messages.

Herring (2007) observe that both medium and situational variables are assumed to influence the linguistic features of CMC. Herring’s (2007) classification proposes two factors: medium factors and situational factors. Among the medium factors that affect linguistic interactions is synchronicity of participation, message transmission, persistence of transcript and size of message buffer. Among the situational features that explain the linguistic manifestations of CMD are (a) the degree of participants' common background knowledge and interests, (b) the purpose of communication, (c) the roles played by an addressee, and addressee and an audience in a communicative situation, and (d) the speaker-text relationship. The medium and situational variables were applied in the analysis of the language adapted and used on WhatsApp.

4. RESEARCH METHODOLOGY
This study sought to answer two questions which were to:

I. What are the key linguistics features of WhatsApp language platform among undergraduate students of Mount Kenya University?

II. What are the functions of language on WhatsApp digital platform among students of Mount Kenya University?

The research was therefore guided with the research methodology as discussed in the following sections.

4.1 Research Design
This study employed descriptive research design that utilizes qualitative research techniques. Creswell (2012) describes descriptive research as a systematic subjective approach used to describe life experiences and give them meaning. Descriptive analysis entails the use of raw data that is easy to comprehend, explain, rearrange, organize, and manipulated data to produce descriptive information.

4.2 Participants and Data
The study utilized the snowball and purposive sampling procedures. Snowballing was used to identify the WhatsApp groups from which the texts were extracted. Before data collection commenced, the researcher was added to the WhatsApp groups by the various student’s group administrators upon request. The students voluntarily participated in the study upon knowing the aim of the study. All the participants agreed on the researchers’ use of their WhatsApp’s text messages. Moreover, the researchers got permission from the students to use the corpus for academic research purposes, publishing substantial amounts of the corpus. The final corpus consisted of 100 WhatsApp messages. To maintain privacy all personal information such as names were removed for the sake of texters’ privacy.

4.3 Data Analysis
The study utilized qualitative methods to analyze data. The study adopted CMDA that is data driven. Thus, the process began by extracting the texts that demonstrated WhatsApp digital language. The data was therefore analyzed in terms of linguistic features
5. RESULTS AND DISCUSSION

This section presents and discusses the results of each question.

5.1 Linguistic features of WhatsApp digital language

The first linguistic feature of WhatsApp language in the data collected reflected the use of contractions. Contractions in texting involve the removal of unnecessary parts of words while keeping the meaning clear. The data collected show that the undergraduate students formed contractions by taking the vowels out of a word but still by maintaining the general sound of it. The three types of contractions that were detected in the collected data included initialisms, clippings and dropping of vowels. Crystal (2008) defines initialisms as the use of the first letter of a group of words. Initialism is a strategy used by users by reducing words to the first letter of each word; that is, generating acronyms. Words in initialism can appear both in uppercase and lowercase. There are several combinations in which initialisms can appear: single words, compound words, phrases, elliptical sentences, whole sentences, and expostulations as in T for The, V for Very, TB for text back and ASAP for As Soon As Possible. The use of Initialisms shows how young users of social media are manipulating language to meet their communication needs. Initialisms were created by elision of vowels and the consonants remained in the word which facilitates the recognition and understandings of a word.

The examined data also reflected the use of clippings or omissions as form of contractions. Clipping is the deletion of some parts of a word from the initial, medial and end positions (Thurlow, 2003, Bieswanger, 2007). The first form of clipping in show instances of g clipping. G- Clipping is the dropping of the grapheme (g) in words like calling, morning, leaving to callin, morning, leavin. Clipping was also reflected in more words such as the dropping of the grapheme (e) in words such as date, where and life which were written as dat, wher and lif. The data collected also showed the clipping of the grapheme (i) in words such as till, will, and well which were written as til, wil and wel. The data collected also show clippings of single or multiple vowels in words that could remain comprehensible. Users recognize that consonants in English usually have some semantic details/value as compared to vowels as in wk for week, gd for good and swt for sweet. However, some words retained some vowels to help in the understanding of the meaning of word.

The second linguistic feature in the collected data is the use of phonetic spelling. Phonetic spelling is the use of letters or numbers to substitute a sound (Bieswanger, 2007). Phonetic spellings were used in instance where homophonic graphemes were used. Homophonic grapheme is a technique used to change words while texting so that they appear phonetically transcribed as in r for are, en for and, m for am and f for if. Phonetic spellings were also reflected in cases where numbers were used for sound substitution as in Bd for before, somel for someone, and Gr8 for great. Various scholars use different names to label such creative writings. Paterson (2010) calls it a netwrite while Humphreys (2007) calls it a netspeak. The undergraduate students reported that the use of creative ways of writing on social media is fashionable. Phonetic spellings were also reflected where whatsapp users attempted to approximate phonological transcriptions of words as in lyf for life, enaf for enough and ot for ought.

The third feature that the examined data also revealed frequent use of text abbreviations to compose WhatsApp messages as an effort to reduce time as in BAE for before anyone else, YOLO for you only leave once and TBT for throw back Thursday. The participants reported that acronyms are used within specific groups where the participants could decipher the meaning. The forth strategy revealed in the data collected was the use of regiolectal contractions. Androutsopoulos (2000) define regiolectal contractions as the reduction of words based on colloquial pronunciation or regional varieties. Regiolectal contractions among the participants were reflected in cases where students used language mixing (English and Kiswahili) and in some case the local languages as in tutamt for we will meet. The use of language mixing that is common among the youth is used for identity purposes. The use of Kiswahili which is agglutinative as compared to English which is analytical was also used for word economy and to maintain a quick response to a chat. For instance Nitacome is one word as compared to its English counterpart I will come. The undergraduate students also displayed the use of Colloquial contractions and respellings (Cf. Weber, 1986). Colloquial contractions are the reduction of words based on colloquial pronunciation or regional varieties (Androutsopoulos, 2000). They included dis for this, kinda for kind of and Nope for no problem.

The fifth strategy in the data examined reflected the use of Emoji and emoticon facilities as present feature on WhatsApp. Emoticon or emoji is a chat facility presented in messenger WhatsApp in form of icon or image that shows expressions like sad, happy, shocked, impressed, scared, and so on. According to Crystal (2001) Emoji could also be called as facial emotion, or combination of keyboard characters expressed along with a text message that shows the writer’s mood. The results show that the users used the emoticons which carry some prominent functions that convey certain messages and hidden meaning in online conversations. The emoticons that were common in the data collected includes the of a grinning face 😊 or a tearful face 😢. The users reported that emoji and emoticon nowadays are available on their smartphones with different color and interesting shapes that helped them to express emotions and enrich their language on social media. The participants also expressed the ability to express wider
The last strategy that is discussed in this section is Punctuation marks. The study found that on WhatsApp the ‘high-level’ functions of punctuation marks lose their relevance and are skipped. The data collected shows unique use of punctuation marks. This was due to lack of paralinguistic features on social media as compared to face to face communication. This is in an effort to add more emphasis or express their enthusiasm. The data collected show use of multiple end marks to express emotions as in Where have you been???, Really!!!??, and How are you???. The data shows how end marks are used in texting to express a certain feeling or state of mind of the person who is writing. The use of sequential repetition of punctuation was to interpret the degree of emotional intensity in a text message. It is clear that the WhatsApp users and mostly the youth do not pay attention to the rules of grammar, but to the tone and impression that every punctuation mark communicates to the correspondents. The end marks are tripled in order to convey a strong feeling or as a way of compensating for the loss of nonverbal cues as used in face to face communication. Thus, the exclamation mark is interpreted as an expression of enthusiasm and multiple question marks at the “???” can be interpreted as a sign of real excitement. Full stops are used to show that one is rude or denoting anger if used at the end of a text message; when used in between every word they can serve to drive a point home as in We lost her...am so devastated...she was my only hope. Another punctuation mark that was violated is capitalization. The data showed instances where users used (“all caps”) writing in all capital letters and randomly mixed capitalization as in: SERIOUSLY WHY IS EVERYONE QUEITE IN THIS GROUP. You will be BLOCKED if you send an OFFENSIVE video in this group and I am just glad I met YOU. The use of (all caps) is interpreted as shouting on WhatsApp, capitalization for emphasis and to express intonation and to highlight the main idea.

5.2 The functions of language on WhatsApp platform among undergraduate students

Language plays a key role in social media as it is the form of communication. In social media language is the best way to express everything. WhatsApp communication among the students reflected the phatic function of language. The phatic function of language keeps the channels of communication open and the content is minimal. The data collected show that one of the phatic functions of language is mainly for social connection. In this sense the students exchanged messages that maintained their connection in the WhatsApp group and while they were apart. This was reflected in the messages that were purely Greetings and farewells. Greetings are also called salutary messages. The findings show that almost all of the participants use greetings compared to the rare occurrences of sign-offs as in hey, hi, hello. The students reported that they send greeting among themselves as a means of stayings in touch with friends and relatives and WhatsApp group members. They also reported that sending short greetings are a means of maintaining their networks. Greetings were also used as a mean of filling the social gap between them as shown in the text messages below:

Hey bro are you okay? I just wanted to say hey.
(Hey brother? Are you okay? I just wanted to say hey.
Niaje I hope ukopoa
How are you? I hope you are okay.

The messages above show the need of communicating to maintain friendship networks. WhatsApp provides a space where users use language for the sake of interaction and is therefore associated with the Contact/Channel factor.

The second function was for interactional function. Interactional function is used to make contact with others and form relationships (Halliday, 2002). The data collected also reveal WhatsApp messaging as a form of relationship maintenance. The texts were also sent for the purpose of establishing or maintaining a relationship as shown below:

Tym hazynt killed your spirit. Kp own fighting
(Time has not killed your spirit. Keep on fighting)

Congrats boy. Go 4 it.
(Congratulation boy. Go for it).

The above messages are friendly messages deal with friendship work. The above messages were mainly used to maintain personal relationship. The data collected reveal that undergraduate students use WhatsApp to enhance communication among friends and family by exchanging words of support.

The third function of language in the data collected was the informative function of language which involves information of giving and receiving information and ideas. The general assumption is that the content is believable and valuable. The informative function of language is used to offer opinions, give advice, make announcements, lecture, admonish, or news report, solicit input or ask questions. Through interviews and focus groups 90% of the participants reported that one purpose of language on WhatsApp application is to sharing and exchanging information. The student reported that they use WhatsApp to share information on education, media, sports and politics. The data collected shows that the messages collected were purely by students making inquiries about their classes as shown below:

What time is BLA 2103?
The above messages are purely giving practical details. Practical detail messages deal with practical facts or straight forward requests for information. Such messages show a low level of intimacy between interlocutors since they inquire or pass specific information that relates to truth and value.

The forth function of language is directive function is also called the conative function and is an orientation toward addressee. Language is used directive whereby the user aims to influence the behaviour or attitudes of others. The most straightforward instances of the directive function are commands and requests. Leech (1974) argues that the directive function language places emphasis on the receiver's end, rather than the originator's end of the message. Directive function language resembles the expressive function in giving less importance, on the whole, to conceptual meaning than to other types of meaning, particularly affective and connotative meaning.

The data collected reflected requests as shown below:

Hallo family. Can the meeting be pushed on Wednesday?
Hey guys. Let us meet at CT.

Language in the messages above helps users to make interlocutors something and it includes orders and imperative sentences. The messages perform a function of appellate that is the message allows the speaker to influence the receiver in a certain way.

The last function that is discussed is the Metalingual function. Metalingual function is used whenever the addresser and the addressee need to check whether they use same code and when the language is used to speak about language as shown below:

**7TH FLOOR**
3 to go

The meaning of the words *7TH FLOOR and 3 to go* is unclear to the reader because the meaning is ambiguous. “In 7th floor” the sentence does not give enough meaning too. The code can only be understood only by the speaker or readers within the same context. Thus, the **Metalinguistic function** allows the language to explain itself, that is, find equivalents from one language to another, or clarify terms that the receiver does not know, or even convert elements from one language to another. It focuses on the code of communication.

### 6. CONCLUSION AND RECOMMENDATIONS

This study concludes that a language variety has emerged due to technological revolution. This language is developed from Standard English or a local or regional dialect plus new lingo. The main findings of the study reveal that WhatsApp digital language is characterized by unconventional spelling through the use of contractions and expressives. This language suits a group of individuals, i.e., like a group of students in the same class who hang out together, or members of a sports team or dance group that are close to each other and spend a lot of time together. The study concludes that WhatsApp satisfies a wide range of needs including intimacy, growing relationships among friends and students, heightening a sense of presence in communication and providing a private channel where members can interact freely with each other. The study concludes that the manipulation of language on WhatsApp to carry out the different functions enables the students to meet their communication needs. The study shows the specific linguistic features are used by texters for the sake of speed, ease in communication and convenience. The use of creative linguistic features on WhatsApp among undergraduate students shows adaptation to technology for the purpose of achieving communication needs. The study predicts the use of shortening in academic writing. The study recommends that educators should reconsider how they respond to this new form of writing. The study also shows how students are using WhatsApp digital language for academic purposes. Due to the Covid 19 pandemic, the recommends that WhatsApp groups should be embarassed as a tool of social organization, academic and examination purposes in the realm of students’ life.

### REFERENCES


Computer mediated speech, or SMS, has gained a lot of attention recently. By looking at social media, the study of language is now a part of linguistics. One example of this is the use of hashtags and emojis in what is called the “language of the moment.”


Creswell, J. W. (2012) presents his study as he is a qualitative researcher. Creswell argues that his study is a case study, and he concludes that he used a mixed methods approach to his study.


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