Graphicons as Functional Communication Tools in WhatsApp Interactions of UNILAG Undergraduates

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Abstract

Social media as a fast-growing mode of communication has disruptive tendencies that create language change in digital contexts. A global trend of language transformation from words to pictograms (graphicons) in digital communication is observed in messaging language use, usually initiated by the young people in online interactions which eventually becomes established. This paper examines the functional use of graphicons such as emoji, sticker, GIF and meme as effective communication tools in digital conversations. Specifically, the study aims at exploring usage trends and meaningful ways the visual icons are used to achieve communication goals with or without texts. Data was purposefully drawn from 309 screenshot messages obtained from the respective class representatives of the selected classes' WhatsApp platforms of students in Accounting, Computer and Systems Engineering Departments of the University of Lagos. 203 google questionnaires and follow-up unstructured interviews were also used to collect data. Pragmatic analysis of data was conducted using the Gricean cooperative principles or conversational maxims as the theoretical underpinning. Results show that emoji and sticker in particular, are an intrinsic part of young people's social media communication with strong chances of sustained usage. They are used mainly for reaction, rapport management and message clarification. New functional and more expressive graphicons are recommended for technological devices. This paper not only expands literature in the field of linguistics, but also contributes to the fields of digital/computer communication and language development. It also fosters knowledge, facilitates understanding in digital user experience and adds pedagogical stimulus for students and software developers.

Keywords: Graphicons, Communicative Tool, WhatsApp Interactions, UNILAG, TMC

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Introduction

The global spread of technology (computer) mediated communication (TMC) has enabled creative dynamism in language development, redefining interpersonal communication. This is evident in the increasing preference for digital engagements over face-to-face interactions. Technology and communication constantly interface to sustain and enhance the ways human beings interact, resulting in widespread use of artificial intelligence, virtual and augmented reality communication media/platforms (Obasi & Obiekwe, 2025; Stanescu, 2023). The advent of the social media allows for migration of communication from the traditional media to a blend of sophisticated mediums and devices (Adedoja et al., 2025). Due to social media dynamics, digital communication transformations reveal continuous language change usually initiated by young people between ages 13 and 30 mostly, expressed using linguistics and visual features in the form of pictorials known as graphicons. Herring and Dainas (2017) introduced the word 'graphicons' to refer to graphical icons found on social media such as emoji, emoticons, stickers, images, graphics interchange format (GIFs), and videos, which can be used to convey propositional content in message exchanges. These visual denotations are not only used to enrich message contents, but also the overall communication process, whilst considering the communicativeness of the graphics in use.

Though various social media platforms exist, *WhatsApp* has emerged as the preferred platform for most academic and social group engagements in Nigeria, thus, it is the chosen platform for this study. *WhatsApp* is an instant messaging application with over two billion subscribers (Koska, 2023) who individually or collectively engage in consistent text-based interactions on their electronic devices, using graphicons as non-verbal cues to convey emotions and sentiments. Class group *WhatsApp* communication is common among university students, especially in University of Lagos (UNILAG) to facilitate learning and information sharing among students. Stickers, emoji, memes and GIFs are mainly observed as visual communicative and expressive tools deployed by UNILAG undergraduates during *WhatsApp* interactions in creative ways, while performing various linguistic and pragmatic functions. The digital space offers a fertile ground for observing the consistently evolving creative change in language use (Locher, 2010).

To this end, exploring the use of graphicons and ascertaining their functions and communicative roles in text-based interactions among UNILAG undergraduates becomes a focus for determining their usage potentials, challenges and implications in language development. This paper seeks to examine the inventive ways in which graphicons- stickers, emoji, GIFs, memes - are deployed in digital communication (*WhatsApp*) by undergraduates in UNILAG and the impact on message meaning. Previous studies in diverse cultural settings outside Nigeria, have focused largely on social media usage patterns and psychological implications of either emoticons or emojis. (Hsieh & Tseng, 2017; Joshe, 2023; Stark & Crawford, 2015; Vidal et al., 2016). This paper, however, specifically explores the use of stickers, emoji, GIFs and memes usage on *WhatsApp* interactions of undergraduates of University of Lagos. It aims to

contribute to the expanding literature on digital communication practices, presenting notable opportunities and (or) challenges of the use of graphicons by university undergraduates in the Nigerian context. Understanding how these expressive symbols impact the clarity of text-based interactions can have practical implications, not only for digital communication, but also for symbolic language development, web development and pedagogy.

This paper objectively identifies and analyses graphicon usage patterns, trends and its role as functional communication tool among UNILAG undergraduates, while answering the following questions:

1. What common graphicon(s) are used by the undergraduates in their *WhatsApp* conversations?
2. How are function and meaning communicated through their usage?
3. To what extent is graphicon usage accepted and what are the prospects of its usage?

Literature

Conceptual Framework

Visual aid is commonly known to facilitate learning and understanding (Alabi, 2024; Qasserras, 2024). Indeed, people seem to communicate more with nonverbal gestures/facial expressions of feelings and emotions in face-to-face interactions, now adapted in TMC as graphical icons such as emoji, stickers, GIFs, memes etc. Graphicons support text-based interaction the same way facial and body expressions support face-to-face communication (Koska, 2023; Tang & Hew, 2018). Rise of TMC has made usage of graphical icons an integral part of daily human interaction in the digital space. Through social media, written conversations are not only expressed in verbal, but visual forms which enhance message clarity, whilst introducing vitality and fluidity to digital communication. *WhatsApp* is the prevalent social media communication platform adapted to academic use in Nigeria, where individual and group interactions occur across various levels. Usually accessed through the internet on mobile devices, young and older interlocutors rely heavily on the messaging application to exchange verbal and visual chats. Research claims that young people use emoji, stickers, memes, GIFs etc. to interact with others on their communication platforms for roles beyond semiotics to semantic, pragmatic and phatic functions within text (Dolot & Opina, 2021; Li & Yang, 2018; Logi & Zappavigna, 2021; Ochulor et al. 2023). UNILAG undergraduates deploy emoji, memes, GIFs and stickers with personalised versions, in their daily interactions on *WhatsApp* for various communicative roles.

Emoji

Emoji refers to expressive digital icons or visual images used to convey various feelings and emotions that would be ordinarily absent in a textual discourse. It is a picture character of Japanese origin which appeared first in the late 1990s in Japan as graphical representations of various facial moods, animals, fruits, concepts etc. Emoji is a Japanese word; 'E' means

image or picture while 'Moji' stands for characters or letters. Widely used across social media platforms globally, emoji developed as a more expressive form of emoticons, created for expressing non-verbal cues in digital communication. Commonly used emoji are coded in Unicode standard which currently contains over 3000 emoji, also accessed via mobile operating systems such as android and apple. Research claims that emoji can improve the clarity and accuracy of communication, reduce ambiguity as well as misunderstanding, and enhance the social presence cum empathy of the users (Koska, 2023). Popular examples of emoji are found below:

♥▌ ☺✅💧😄👆🏠✖

Sticker

The sticker was introduced in 2011 as an enhanced emoji, produced in the form of post-it images or illustrations depicting real life concepts, events and situations. Digital stickers are "images, usually larger than emoji, offered as thematic sets in the communication interfaces of instant messaging apps or social networking services, often organised in tabs and personalised collections" (Ochulor et al., 2023). Stickers are a recent addition of graphicons combining graphics with phrases to express emotions not conveyed by only writing. Their animated and more sensational appeal gave rise to increased social media usage, especially with the option of creating personalised, character-driven expressions. The use of digital stickers, especially on *WhatsApp* promotes brevity. Sometimes, words are totally eliminated and replaced with expressive picture stickers, thereby creating humour, facilitating contact and negotiating turns. Examples of Love Stickers used on *WhatsApp* are found below;

GIF – Graphics Interchange Format

Graphics Interchange Format (GIF) is an image file format released in 1987 using lossless data compression technique to produce high quality images with a reduced file size and no impact on visual quality (Schneebeli, 2019). GIFs provide further examples of "vernacular creativity," as users appropriate existing media and produce new content using digital media. The GIF therefore is said to be a raster file format online graphic which combines photo or

frame to create ordinary animations which express emotions and moods. It creates remix and inter-textual play opportunities. GIFs also express emotions, use movement, colour, and repetition to create sensations as well as affect (Onuoha, 2024). Examples of GIFs are shown below:

Memes

In the digital age, memes are humorous images, videos, texts or combination of images and corresponding texts shared online, often with slight modifications to convey specific meaning, emotions, reactions or commentary in digital communication. Like emoji, stickers and GIFs, memes have become an integral part of digital communication as these cultural concepts and humorous ideas are shared daily among interlocutors on social media. They point to specific life experiences and are often shared as a reflection of users' own creativity or perspectives. Meme's humourous nature makes conversations fun and interesting. Below are examples of memes:

Deployment of graphicons such as emoji, sticker, meme, GIF etc., on *WhatsApp* and other social media platforms reduces writing and reading time experience for interlocutors. Most animations, including the aforementioned, express meaning using mainly pictorials not just words, a conversational trend on social media. *WhatsApp* and social media interactional

format thus become; message sender - recipient rather than speaker - listener. The sender uses texts and graphic animations to connect with the recipient, while the recipient interprets the meaning within the context of the interaction.

Empirical Review

Many scholars have expressed interest in studies on the usage of social media images such as stickers, emoji, and GIFs in communication. Onuoha (2024) explored the communicativeness of stickers, emoji and GIF in *WhatsApp* group chats and concluded that they are no replacement for words, but language tools which facilitate meaning and understanding in text-based conversations. Koska (2023) studied the acceptance of emoji, stickers and GIFs as communication tools in *WhatsApp* among college students in Chennai. The study found that these tools are commonly accepted and used in communication by the students, especially the female students. Sadia and Hussain (2023) applied a social semiotic framework to investigate functions of emoji and stickers in digital discourse. They found that these graphicons facilitate interactions through message clarifications and lucid expression of emotions, extending its functions to their serving as a global language which the majority understand. Yang et al. (2023) applied an intercultural perspective to understanding virtual stickers on social media and found no correlation between prior experience of foreign culture and interpretation of stickers in use. Chukaokeke and Obiamalu (2021) studied implicature in usage of stickers by UNIZIK students and found their major motivation for usage as being more expressive. Tang et al (2021) investigated mis(communication) in the use of stickers in online group discussions and found disparities between senders' intentions and receivers' interpretations, although communication was still successful in these cases. Schneebeli (2019) who explored the role and functions of GIFs as embodied nonlinguistic cues and beyond, concludes that its illustrative and metaphorical nature not only exhibits pragmatic functions, but also proposes a complex visual representation that adds dramatic affect to speech. However, Tang and Hew's (2018) study of emoticon, emoji and sticker usage in CMC revealed significantly different user behaviours across cultures. Jansen et al. (2017) who investigated *WhatsApp* usage of emoji and stickers among college students in China found that usage was positively correlated to social interaction within social context. The study also found a higher percentage of users among female students. Highfield and Leaver (2016) in their study on the visual social media ranging from selfies, to GIFs, memes and emoji, raised questions which sparked further research on usage of graphons in digital communication. They found that these graphicons were useful communication tools for expressing emotions, humour and strong bonds amongst the users, especially younger users.

Results and conclusions of the preceding studies demonstrate that graphicons play critical roles in digital communication which is a widespread conversational preference today. Since usage is commonly found among young people, this paper examines graphicons' usage in *WhatsApp* interactions of UNILAG undergraduates. Grice's theory of cooperative principles is used to demonstrate how meaning is constructed behind the representative icons and words.

THEORETICAL FRAMEWORK

The theoretical underpinning for analysis in this paper is pragmatics, focusing on the Gricean cooperative principle of conversations. The concept of 'cooperative principle' (CP) was founded by Herbert Paul Grice, on the premise that humans make cooperative efforts during conversations to achieve successful communication. The theory implies that more is often said beyond explicit statements and provides a framework for understanding effective communication by deconstructing shades of meaning in conversations. Grice claims that human talk exchanges rely on shared knowledge and context to produce meaningful remarks which are not disconnected. Thus, every party recognises "a common/set of purpose (s) or at least a mutually accepted direction" in the discourse. The principle, which reinforces pragmatic approaches to language, posits thus: 'Make your conversational contribution such as is required at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged' (Grice, 1975:45). The CP eases meaning inference by answering questions such as "What does the expression mean?" "How does it relate to the earlier statement?" and "What intent is behind it?" Grice did not merely spell out his CP; he also developed a set of general conversational concepts he refers to as 'maxims,' which allow the CP to take effect. The maxims of **quantity, quality relation, and manner** (Ochulor et al., 2023). The maxim of quantity speaks to the sufficiency of information, averring that interlocutors contribute only as much information as is required for the immediate purpose and not more. The quality maxim, proposes that interlocutors make truthful contributions rather than erroneous statements which lack evidence. The relational maxim, posits that interlocutors keep their conversations relevant to the subject matter. The maxim of manner stipulates that interlocutors make precise and orderly statements while avoiding any ambiguity or obscurity. The maxims basically highlight the need for interactants to consciously provide adequate, truthful, relevant, brief and clear information during talk exchanges.

Grice's maxims have come under criticism by some scholars who believe it is flawed in some language aspects, nevertheless, application of the maxims in conversations has been lauded for their robustness (Traugott et al., 2007), and for producing very successful communication. This makes it apt for this conversational analysis, particularly textual analysis within online contexts. Social media dynamics occasioned language use transformation from words to pictograms (graphicons) in digital communication, where feelings, emotions, opinions, nuances etc., are expressed alongside words or with representational images/icons. Interestingly, graphical icons (images) may be used as representations for introducing new concepts, building vocabulary and also facilitating meaning, especially where the images are synchronised with verbal expressions.

Analysing meaning construction and functional relevance of graphical icons in digital conversations using the conversational maxims is considered a good measure for communication effectiveness. This is because the cooperative principles still provide framework for understanding how nonverbal icons are used to convey meaning beyond their literal forms.

Like words, graphicons can also convey information, be relevant, show truth conditions and clarity (or ambiguity) while meaning interpretation is still guided by the same principle. It is against this backdrop that this paper uses Grice's theory of cooperative principles otherwise called conversational maxims to interpret the meaning of the selected emoji, stickers, memes and GIFs to gauge effective communication in *WhatsApp* interactions of UNILAG students.

DATA AND METHODS

The primary data consists of everyday conversation tokens which include graphicons (emoji, stickers, GIFs and memes) from *WhatsApp* class group chats of the three (3) selected departments in University of Lagos. Screenshots of comments and replies with graphicons from *WhatsApp* group chats of 300 level Accounting, 200 level Computer Engineering and 400 level System Engineering students, taken in January and April 2025, were received and stored for analysis. A total of 309 screenshot messages (including comments and replies) were received from the three class representatives. Sample data is also obtained through google questionnaires purposefully deployed through *WhatsApp* class groups and personal platforms of select undergraduates of UNILAG.

The analysis involves both qualitative and quantitative methods. For the quantitative analysis, creation and distribution of a web-based semi-open-ended questionnaire is employed to obtain detailed meaningful insights on the student's usage of graphicons in *WhatsApp* communication. 203 respondents from several departments in UNILAG provide functional relevance to graphicon usage in online interactions based on demographic and other information. The questionnaire was initially forwarded to the three selected class platforms, but was extended to others to elicit more responses. It compiles data on the students' demographics, top preferences of graphicons among emoji, stickers, GIFs and memes, their communicative value, degree of immediate acceptance and perceptions on future use, including its language universality status. The google form responses containing data summaries, graphical percentages and others are accessed through google sheet where they were automatically collected and stored for analysis. Qualitative analysis using Gricean cooperative principles of conversation was done after careful observation and purposeful selection from the screenshots stored on the computer. Data for qualitative analysis is limited to the three students' *WhatsApp* group platforms for ease of collection, while the online questionnaires for quantitative analysis extend beyond the three class platforms for adequate reach. Ethics and privacy protection of personal data of respondents is strictly applied as names and phone numbers on *WhatsApp* posts are covered. Both qualitative and quantitative methods are used to critically analyse data, compare results, obtain comprehensive understanding and balanced opinion versus action of the students, while drawing conclusions on the functional relevance of graphicons in conversations.

DATA ANALYSIS AND DISCUSIONS

This paper analyses the communicativeness of graphical devices such as emoji, stickers, memes and GIFs as functional tools by UNILAG undergraduates. It examines common graphicon(s) used by the undergraduates in their class group *WhatsApp* conversations. Data from the group chats and survey responses reveal that the students tend to show higher preference for emoji and stickers over memes and GIFs. These graphicons are used as non-verbal cues to achieve various interactional functions and convey meaning, mainly in informal settings. This aligns with the corporative principles as meaningful, interconnected statements produced under shared assumption of mutual understanding with real intentions.

Figures. 1: Blend of use of emoji and stickers by interlocutors in two class group chats

Communication flow in fig. 1 above shows a functional use of emoji and stickers in response, reaction, clarification, punctuation, text-complimentary, sentence ending and emotional display

positions. While fig. 2 below shows a comparative quantitative analysis of the respondents' use of graphicons, also indicating strong preference for emojis and stickers over others.

Table I: Frequency of graphicon usage

Graphicon	5 (Very high)	4 (High)	3 (Moderate)	2 (Low)	1(Very low)	Most Frequent
Emoji	47.3%	29.6%	17.2%	3.9%	2%	5 (Very high)
Sticker	47.8%	23.2%	14.3%	7.4%	7.4%	5 (Very high)
GIF	1.5%	1%	9%	19%	69.5%	1 (Very low)
Meme	11.1%	14.5%	20.2%	17.7%	36.4%	1 (Very low)

Table I above shows that the undergraduates have strong preference for emoji and stickers with 156 (76.9%) respondents' rating either 4 or 5 for emoji, noted as high users and 144 (71%) high users of stickers. Follow-up unstructured interviews with some respondents equally revealed their preferences for emoji and stickers commonly believed to be ideal for engagement, emotional expression and clarity. GIFs are the least commonly used graphicons in the *WhatsApp* conversations with (177) 88.5% respondents rating either 1 or 2 indicating extremely low usage and 107 (54.1%) low users of memes, meaning that the respondents rarely use memes.

Secondly, the paper examines how function and meaning is communicated through the use of graphicons. Both figs. 2 and 3 below align with Grice's maxims of quantity, quality, relation and manner, while the graphic icons perform functions of clarification, complement, reaction, response and expression in clear, brief, relevant, informative and fun manner for mutual understanding. In fig. 2, student B responds to student A's funny statement about his brain with a calm request for help which he compliments/clarifies with repeated crying emoji indicating distress call for help. Speaker B responds to another student's request for assistance with an expressive sticker of a man with both hands on his bent head implying a needy person in a helpless situation, which further clarifies meaning and demonstrates student B's empathy towards the other student. Emoji laughter reactions are observed in the last statement as other students' non-verbal responses (expressions) to student A's message asserting that he equally needs help as much as student B. Fig. 3 also reveals meaningful and functional relevance in the use of emoji and stickers to express emotions, clarify meaning and react to messages in line with the cooperative principles of conversation.
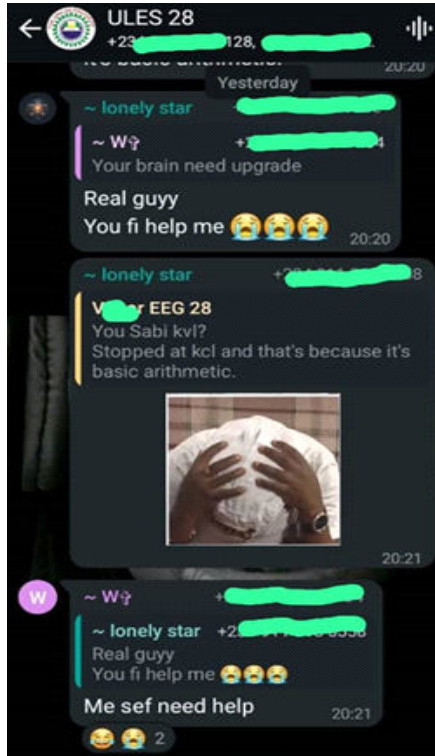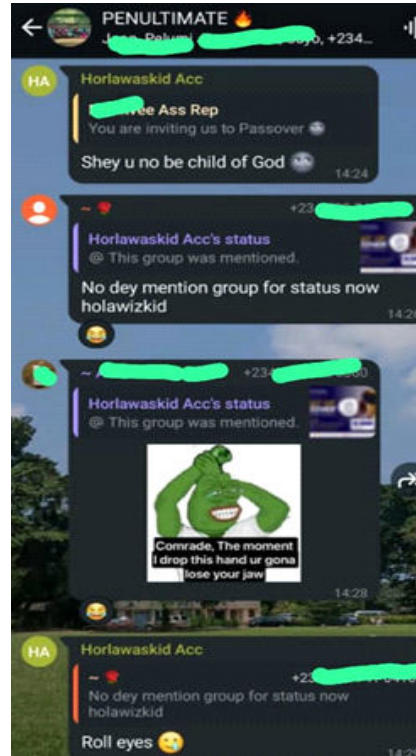
Figure. 2: Function and meaning in usage   Figure. 3: Function and meaning communication

Additionally, 92.5% of the respondents agreed that graphicons are functional communication tools, highly rating reaction (80.2%), rapport management (66.3%) and message clarification (58.4%) as key functions. Other functions rated in descending order include; action, prompting/questioning, representation and tension reduction functions. (Fig. 4)
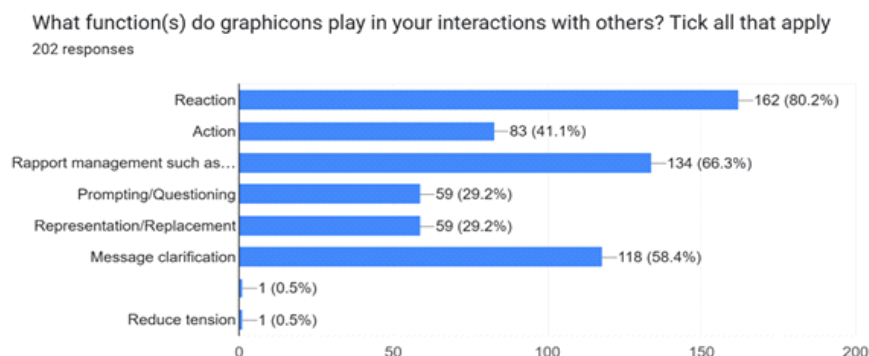

Figure. 4 Chart of responses to graphicons functional relevance in communication

Finally, the paper examines the extent of the student's current and future usage of graphicons.

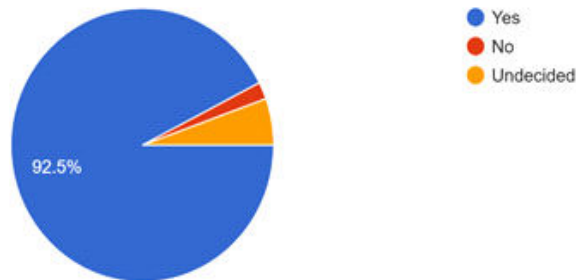Do you encourage the usage of graphicons on WhatsApp and other social media interactions?
199 responses

Figure. 5 Chart of responses to graphicons usage acceptance on social media

92.5% of respondents in fig. 5 endorse the use of graphicons on social media, 2% decline while 5.5% remain undecided. This indicates its wide acceptance as an effective communication tool on social media among UNILAG undergraduates. Similarly, fig. 6 points to 83.5% respondents who will sustain future usage, while 5.5% will not and 11% are undecided for reasons rated in fig. 7.

Do you consider it so useful to continue using graphicons in your digital conversations in the future?
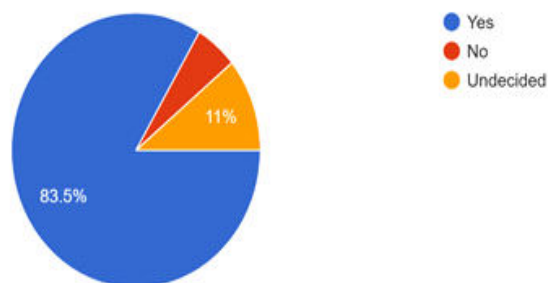200 responses

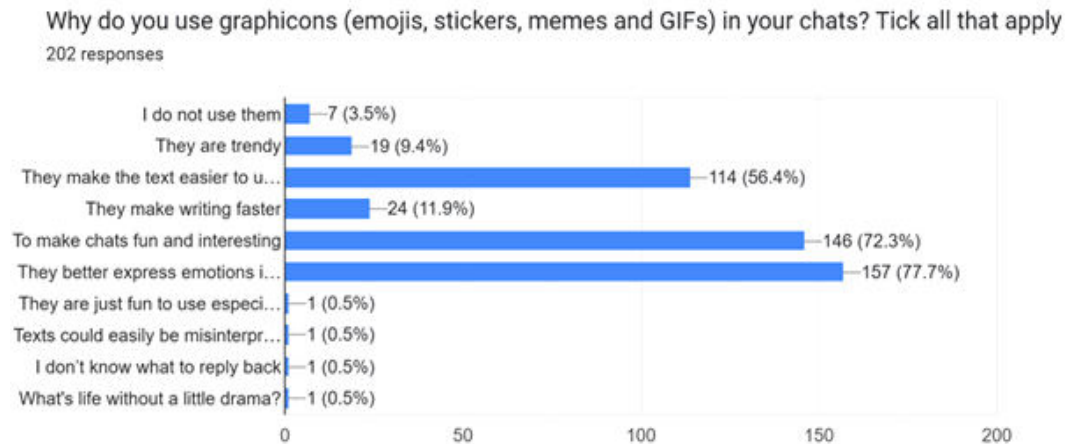Figure. 6 Chart of responses to graphicons future continued usage

Why do you use graphicons (emojis, stickers, memes and GIFs) in your chats? Tick all that apply
202 responses

I do not use them	—7 (3.5%)
They are trendy	—19 (9.4%)
They make the text easier to u...	—114 (56.4%)
They make writing faster	—24 (11.9%)
To make chats fun and interesting	—146 (72.3%)
They better express emotions i...	—157 (77.7%)
They are just fun to use especi...	—1 (0.5%)
Texts could easily be misinterpr...	—1 (0.5%)
I don't know what to reply back	—1 (0.5%)
What's life without a little drama?	—1 (0.5%)

Figure. 7 Chart of responses to graphicons use purpose

(Fig. 7 above shows the students' reason for using graphicons, whereas improved communication clarity, message efficiency, fun and better emotional expressions are the major reasons about 83.5% (Fig, 6) of the respondents will continue using graphicons in the future).

Observations from the *WhatsApp* class platforms reveal that graphicons have become an integral part of everyday digital communication expressed mainly in informal language, to convey meaning in fun ways, improve communication clarity, easy/efficient messaging as well as for emotional or social expression. In synchrony with the results from quantitative analysis, the qualitative analysis of data clearly demonstrates utterance meaning, message connectivity and communicative intent of users in their *WhatsApp* posts which is a major focus of the cooperative principles. Graphicons will likely remain generally accepted and central to online interactions, especially among young people, who will continue using them for quick and expressive conversations, mainly in informal settings.

Conclusion
This paper examines the patterns of communicativeness and usage trend of graphic icons such as emoji, stickers, GIFs and memes in *WhatsApp* conversations of UNILAG undergraduate students. Since emerging digital (social media) cultures resonate more with young people, investigation of creative, fun and functional conversation strategies among the group follows. Findings reveal emoji, sticker, GIF and meme as effective communication tools which convey meaning while performing various messaging functions such as reactions, rapport management, message clarification, questioning, text substitution and action (emotion expression).

However, emoji and sticker, favoured for their ease of use, expressiveness and speed, are more commonly deployed than GIFs and memes. This is a strong indication that users prioritise speed and expressiveness whilst complying with the cooperative principles in digital interactions. This slightly differs from the findings by Dolot & Opina (2021) where emoji emerged as the most used graphicon in the dataset and stickers, least. Additionally, results show that use of graphicons in interactions has become a digital reality which will be sustained by users in the future. As social media usage of graphicons increases, though few users acknowledge limitations, especially in formal and professional settings, the usage trend suggests that new and more expressive ones may evolve in the future. The findings pinpoint the need for addition of more appropriate and communicative graphicons on technological devices and also encourage usage across all user categories for more effective online communication. It may become a reference point for digital communication scholars, software application developers and communication enthusiasts.

Nevertheless, the study acknowledges limitations that may influence the scope and generalisability of its findings. The sample was limited to students of one university in Nigeria, which may not reflect broader cultural or academic contexts. Additionally, the absence of a longitudinal approach limits better understanding of how graphicon use evolves over time. Furthermore, while the study confirms that emoji, stickers, GIFs, and memes enhance communication, it does not deeply analyse their specific communicative functions or emotional impact. Future research could explore cross-platform comparisons, cultural and linguistic influences on graphicon interpretation, and their role in academic discourse and emotional expression. Investigating instructor-student dynamics and examining the evolution of graphicon use in virtual learning environments would also offer valuable extensions to this work.

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