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Studying the relationship between purpose of use and characteristics of cues in text-based CMC

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ABSTRACT

Our textual communication across platforms is facilitated by the presence of various cues like emojis, GIFs, stickers, acronyms, lexical surrogates, voice notes, silence etc. These cues can be broadly divided into four categories – visual cues, textual cues, audio cue and chronemic cue. Each one of us use these cues to fulfill our own different purposes. The inherent features of the cues help us to fulfill these purposes as we use them. The paper studies the relationship between purpose of use of cue categories and their characteristics in text-based CMC from the lens of the demographic parameter of gender. Purposive sampling method was used and the data was collected through a questionnaire. Gender was found to be associated with purpose of using textual cues and visual cues. Purpose of using cues were found to be associated with only some of the characteristics of each cue category.

Introduction

Be it a Gen X teacher teaching a Gen Z student, a millennial boss dealing with a Gen Z employee, or boomers interacting online with their children and grandchildren etc. This online communication takes place across various platforms like WhatsApp, Facebook, Twitter, Snapchat, Tinder, Gmail etc. A plethora of options are available at our disposal in the form of various cue categories to make text-based communication process more engaging for one and all. For example – voice notes, GIFs, emojis, emoticons, stickers etc. Sometimes cues like acronyms, intentional misspellings or online silence are also used. They are not available as a feature on the platforms, but interlocutors tend to use them. These cue categories can be overall divided in four categories like visual cues, textual cues, audio cue and chronemic cue.

A certain user might use visual cues like emojis because for them it saves time in conveying their emotions. They might be using it also because it clearly conveys the facial expression of the user during the conversation. One user might be frequently audio cue because they find it convenient to speak rather than type. Voice notes also come handy in situations when there is no time to type like when you are at your workplace. Voice notes also allow you to clearly communicate your pitch volume etcetera which is stuff through texting. Chronemic cue is referred to as online silence in simpler terms. It means when the receiver of the message due to whatever reason decides to not reply to the text message. Every paralinguistic cue possesses a certain characteristic due to which users use it to fulfill their purpose. This paper attempts to study the purpose and the characteristics of the cue categories in detail.

Review of Literature

Voice notes are referred to as the new text messages for millennials in a (Lever, 2020) study. The author put out a message on Twitter wanting to speak to people who use voice notes. Responses to the tweet had statements like "it is a lovely little podcast for my friends", "it is the joy of the phone call without any commitments." Respondents

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mentioned that they can talk on voice notes without interruptions, awkward silences and confrontations. Tone can be conveyed more easily on a voice note than on text. When one has to talk about something at length, it is easier to use voice note than type long paragraphs as texts. It is logistically better than a call. Our social networks are expanding across time zones and hence voice notes make sense.

A 2018 study analysed the respondent's experience of miscommunication while using animated GIFs. 24 in-depth qualitative interviews were conducted. The participants were first asked about their pattern of using GIFs, real-life experiences where miscommunication happened because of GIFs and interpretation of specific GIFs. They were also asked to create potential conversations. 'To convey emotion' was the most commonly cited purpose for using GIFs. 'To initiate and maintain conversation' was the second most popular reason. Participants said they could express emotions in a better way using GIFs than using texts. Messages become eye catching with GIFs. Technicalities associated with using GIFs were found to be miscommunication causing agents. (Jiang, Fiesler, & Brubaker, 2018)

(Nicole, 2020) mentions that there is a difference in actually screaming while recording a voice message and sending 'ahhhh' with countless exclamation marks as a message while you scream in real life. The receiver gets to know your situation better via voice message. As they are better communication tools. Audio message comes in handy when you have a lot to say, are tired of typing and feel your voice will give more clarity to the text. We send voice messages only to the closest people and not to anyone and everyone in contacts list.

The use of animated GIFs was phenomenologically explored in computer mediated communication in a 2018 study. Through in depth interviews (Madden, 2018) found that individuals who use these GIFs formulate a mental image in their mind of the expression which they wish to convey. They selected GIFs on the basis of the topic of the conversation as well as the person on the other end. Respondents understood the meaning of any GIF on the basis of the facial expression and the body language of the person in the GIF. Respondents also mentioned that they feel a conversation involving GIFs is more enjoyable compared to any conversation where there are just words.

(Ling, Baron, Lenhart, & Campbell, 2014) examined the strategies used by US teenagers aged between 12-18 years when textually communicating with members of the opposite gender. Data was collected via 9 focused groups defined by geographic location, age and gender. Females saw themselves as being more adept at texting and males as being more reticent. Females said males are usually to the point while texting. Males mentioned that females used a lot of smiley faces and wrong spellings while texting. Using these smiling faces is not a guy thing to do as per them. They also mentioned that females' mood can be judged from punctuation. If they are happy, there will be lot of exclamation marks. Females reasoned emoticons and extra punctuation to be necessary as they marked the interlocutor's involvement and also helped avoid misinterpretation.

(Lyddy, Farina, Hanney, Farrell, & O'Neill, 2014) examined textual characteristics of messages of 139 English speaking undergraduate students in Ireland. Participants were asked to transcribe up to ten texts verbatim on paper. They also had to provide information like relation with the recipient, their age and gender and that of the recipient and purpose of the message. The researches ended up with 936 text messages having a total of 13391 words and 676 non word units (symbols, emoticons, punctuation marks). Average message length was 70 characters and consisted of average of 2 sentences. 25% of the total word count were non-standard spellings majorly including missed capital letters, accent stylization, use of letter/number homophone, G clippings. 10% messages contained more textism than standard spellings. 676 emoticons were found in the messages. Majority of them were smile and frown faces. 81% of the emoticons were sent by women. No significant difference was found in the length of messages sent by men and women. Although messages sent by women had more non-standard spellings than those sent by men. Gender was found to be associate with purpose of use of textual cues and visual cues.

Theoretical Framework

As per the Social Information Processing (SIP) theory developed in 1992 by JP Walther, it is said that a medium can still lend itself to closeness even when it doesn't have social presence. Social presence, in layman terms, can be understood as the feeling of being there with a "real" person. Users adapt to the medium as per their need and they use the available cues to suit their purpose. The same is also found to have been conveyed via the findings of this chapter too. Bringing attention to certain part of message, varied availability saving time, desire for non -engagement are the various reasons due to which the respondents use textual, visual, audio and chronemic cue categories respectively. The respondents see as to what purpose they need to fulfil in a particular communication and use the cues accordingly. They do this as this helps them to attain that feeling of social presence when communicating online.

Objectives

The paper aims to study the purpose of use of cue categories and the characteristics of the categories that help respondents fulfill their purpose of use of cue categories. It also aims to study the association if any between purpose of use of categories and the characteristics. The paper also studies the association between characteristics of cue categories, purpose of use and the demographic parameter of gender.

Research Methodology

No sampling frame is available for people who engage in text-based CMC. Thus, purposive sampling (non-probability method) was used for data collection. Purposive sampling helped to ensure that respondents from all categories of the required parameters could be tapped. Responses were collected from 357 respondents (271 males and 168 females). For the purpose of easy understanding of the respondents about the cue categories, examples of cues under each cue category were mentioned in the questionnaire as a part of instructions. The examples were –

Visual cues – Emojis, stickers, GIFs.

Textual cues – Lexical Surrogates (hmm, umm), intentional misspellings (woowww), strategic capitalization (WOW), acronym (LOL, ROFL).

Audio cue – Voice notes.

Chronemic cue – Silence i.e reading but not responding to a text message.

Data analysis and Discussion

Respondents were asked to select one primary purpose for using each of the mentioned cue categories. They were given the options 'to inform', 'to educate', 'to entertain', 'to persuade' and 'don't use' to choose from. Figure 1 depicts the responses obtained.

On the basis of Figure 1 it can be seen that visual cues are used the most to entertain. Textual cues and voice notes are used the most to inform. For silence, majority of the respondents replied that they don't use silence at all. Those who do use silence mentioned that they use it to inform and then to persuade (in that order.) (Mehra, 2023)

Gender and Purpose

Gender was asked as a close ended question in the questionnaire having options male and female. It was hypothesized that –

H_a – Gender and purpose of use of cue categories are associated.

Figure 2 below details gender and purpose of use of cues of all categories.

It can be seen from Figure 2 that both male and female respondents use visual cues the most to entertain. Both gender of respondents use textual cues and audio cue the most to inform. Male respondents use chronemic cue the most to inform but female respondents use chronemic cue the most to persuade.

When chi-square test was applied to check for association between gender and the primary purpose of use of the various cue categories, the following came out to be the values -

From the above obtained values it is concluded that gender was found to share a statistically significant association with only purpose of use of textual cue and purpose of use of visual cue as the p values obtained in these cases are less than the significance value of 0.05. No statistically significant relationship was found between gender and purpose of use of voice note and gender and purpose of use of silence. Hence it was found that data only partly supports the hypothesis.

Figures 3-6 show the characteristics showing the characteristics selected by the respondents because of which they use the respective cue categories. Characteristics were asked as a close ended question in the questionnaire. Respondents could select more than one characteristic per cue category as their response.

Characteristics of Cue Categories

Textual cues

It can be seen from Figure 3 below that the majority respondents use textual cues because they help bring

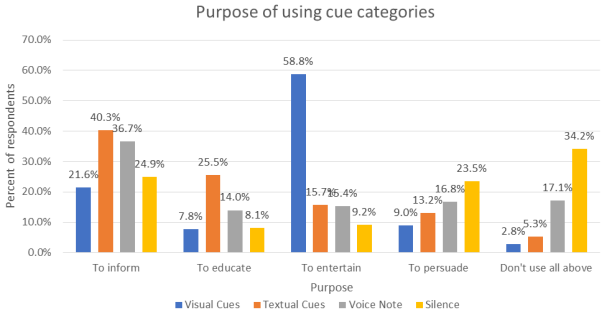

Figure 1: Depicting percentage of respondents who use the cue categories for fulfilling various purposes

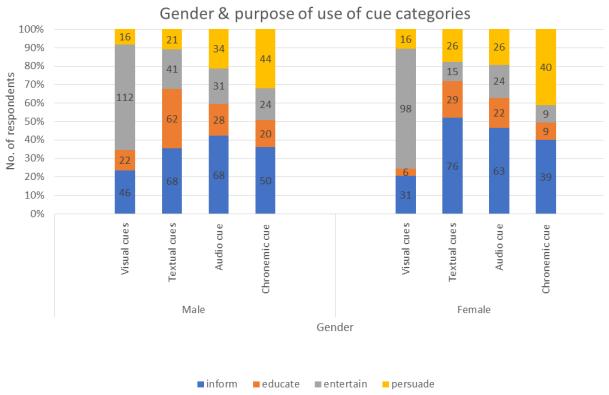

Figure 2: Depicting purpose of using each of the cue categories by gender

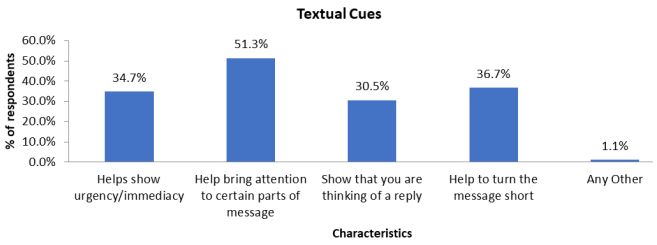

Figure 3: Characteristics of textual cues

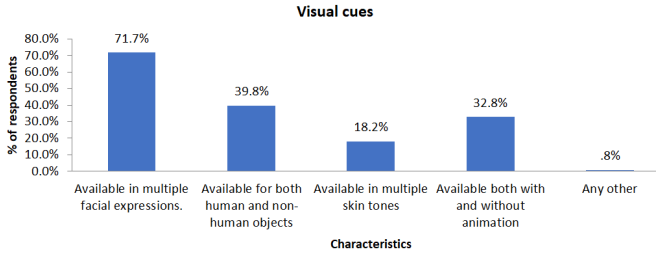

Figure 4: Characteristics of visual cues

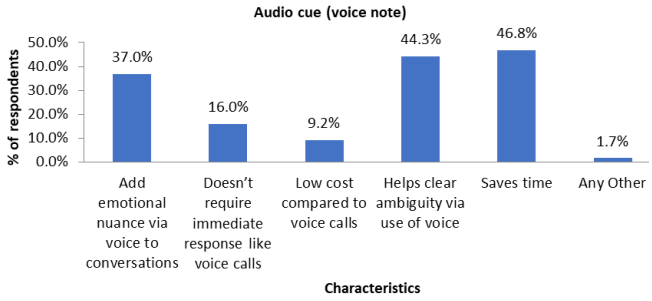

Figure 5: Characteristic of audio cue

attention to certain parts of message. Least number of respondents said that they use textual cues as it shows that they are thinking of a reply.

Visual cues

It can be seen from the Figure 4 that highest number of respondents use visual cues as they are available in multiple facial expressions and least number of respondents use visual cues as they are available in multiple skin tones.

Audio cue

It can be analysed from Figure 5 that voice notes save time and help clear ambiguity were selected as respectively the first and the second most popular characteristics of voice notes that help respondents fulfill the purpose of using voice notes.

The respondents who answered with 'any other' wrote that they use textual cues particularly 'hmm' and 'umm' when they are not serious about the topic or not interested in it. If they like the topic, they only use proper grammar.

Chronemic cue

Silence conveys desire for non-engagement has been selected by the highest number of respondents (48.5%) as the reason which helps fulfill their purpose of using silence. The respondents who selected 'any other' mentioned that they use silence because it helps to convey to the other person that you are thinking of response.

Those who selected 'any other' mentioned that they use silence in texting when they are in agreement to what is being said by the other person. They do not wish to repeat the same point again to show their agreement so they use silence from their end as the response. Hence for

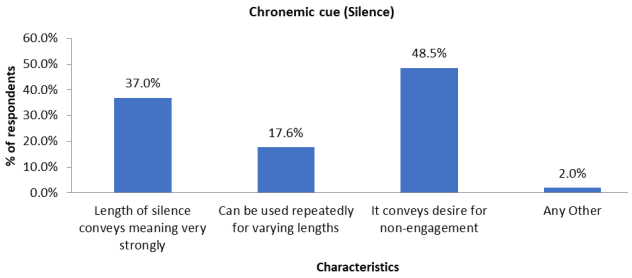

Figure 6: Characteristics of chronemic cue

them, 'shows positive agreement' is also a characteristic of chronemic cue.

Further, association is studied between characteristics and purpose of use of cues.

Association between characteristics of cue categories and gender

The tables below detail the p values obtained when chi square test was applied to check for association between respective characteristics of each cue category and gender. It was hypothesized that –

H_a – Characteristics of cue categories and gender are associated.

Visual cues

Three characteristics of visual cues were found to share a statistically significant association with the demographic parameter of gender. The characteristics were - available in multiple facial expressions (p value .027), available in multiple skin tones, (p value .048), available both with and without animation (p value .011).

Table 1: Chi square test results for association between gender and purpose of using various cue categories

	Chi square	*p-value*	*Df*
Gender and purpose of use of textual cues	19.442	.001	4
Gender and purpose of use of visual cues	9.507	.050	4
Gender and purpose of use of voice note	5.950	0.203	4
Gender and purpose of use of silence	6.201	0.185	4

Table 2: Chi square test results for association between characteristics of visual cues and gender

	Chi-Square	*p-value*	*df*
Available in multiple facial expressions.	4.861	.027*	1
Available for both human and non-human objects	2.436	0.119	1
Available in multiple skin tones	3.919	.048*	1
Available both with and without animation	6.446	.011*	1

Table 3: Chi square test results for association between characteristics of textual cues and gender

	Chi square	*p-value*	*df*
Helps show urgency/ immediacy	11.137	.001*	1
Help bring attention to certain parts of message	8.432	.004*	1
Show that you are thinking of a reply	.089	0.765	1
Help to turn the message short	.226	0.634	1

Table 4: Chi square test results for association between characteristics of audio cue and gender

	Chi square	*p-value*	*df*
Add emotional nuance via voice to conversations	2.028	0.154	1
Doesn't require immediate response like voice calls	.028	0.867	1
Low cost compared to voice calls	1.347	0.246	1
Helps clear ambiguity via use of voice	5.905	.015*	1
Saves time	8.285	.004*	1

Textual cues

Two characteristics of textual cues were found to share a statistically significant association with the demographic parameter of gender. The characteristics were – Helps show urgency/immediacy (p value .001), help bring attention to certain parts of message (p value .004).

Audio cue

Two characteristics of audio cues were found to share a statistically significant association with the demographic parameter of gender. The characteristics were – Helps clear ambiguity via use of voice (p value .015) and saves times (p value .004).

Chronemic cue

No characteristic of chronemic cue was found to share a statistically significant relation with gender.

Thus, the data obtained only partly supported the hypothesis as only specific characteristics of visual cues, textual cues and audio cues were found to be associated with gender and no characteristic of chronemic cue was found to be associated.

Association between characteristics and purpose of use of cues

It is hypothesized that-

H_a: Characteristics and purpose of use are associated.

The results are detailed below.

Visual cues

From Figure 7 it can be seen that most respondents use visual cues to inform as they are available in multiple facial expressions. 43 use it inform as they are available in both human and non-human objects. 14 use the visual cues to inform as well as to persuade because they are available in multiple skin tones. 31 use it to inform as they are available both with and without animation. Available in multiple facial expressions was the characteristic selected by most number of respondents as the characteristic that helped them fulfill their purpose of using visual cues.

Table 5: Chi square test results for association between characteristics of chronemic cue and gender

	Chi square	*p-value*	*df*
Length of silence conveys meaning very strongly	1.026	0.311	1
Can be used repeatedly for varying lengths	.315	0.575	1
It conveys desire for non-engagement	.374	0.541	1

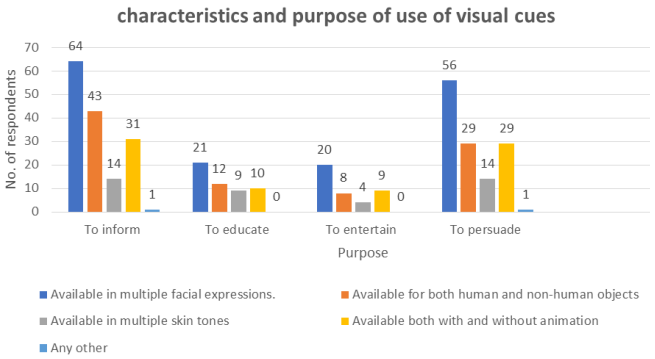

Figure 7: Depicting characteristics of visual cues today help fulfill each of the purposes the most

Table 6: Chi square test results for association between characteristics of visual cues and purpose of use

	Chi square	*p value*	*df*
Available in multiple facial expressions	10.959	.027*	4
Available for both human and non-human objects	2.972	.563	4
Available in multiple skin tones	4.546	.337	4
Available both with and without animation	8.034	.090	4

When chi square test was applied to check for association if any between characteristics and purpose of use of visual cues, the following values came out –

From the above obtained values it is concluded that purpose of using visual cue was found to be associated with only 'availability of visual cues in multiple facial expressions'.

Textual cues

Figure 8 given below details that 53 respondents use textual cues to inform as it helps bring attention to a certain part

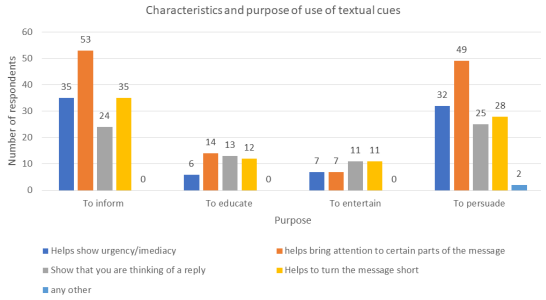

Figure 8: Depicting characteristics of textual cues that help fulfill each of the purposes the most

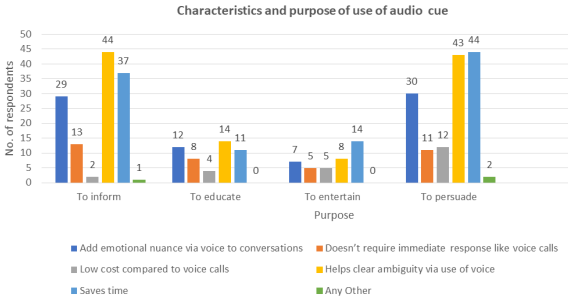

Figure 9: Depicting characteristics of audio cue that help fulfill each of the purposes the most

Table 7: Chi square test results for association between characteristics of textual cues and purpose of use

	Chi square	*p-value*	*Df*
Helps show urgency/immediacy	9.217	.056	4
Help bring attention to certain parts of message	13.884	.008	4
Show that you are thinking of a reply	8.157	.086	4
Help to turn the message short	8.810	.066	4

of the message. 14 respondents use it to educate because of the same reason. Equal number of respondents use it to entertain as textual cues help show that you are thinking of a reply as well as they help to turn a message short. 49 the respondents use it to persuade as it helps bring attention to certain parts of the message. 'Helps bring attention to certain parts of the message' is the characteristic that helps most users of textual cues fulfill their purpose.

When chi square test was applied to check for association if any between characteristics and purpose of use of textual cues, the following values came out –

From the above obtained values it is concluded that purpose of using textual cue was found to be associated with only 'helps show urgency/immediacy' and 'helps bring attention to certain parts of the message'.

Audio cue

From Figure 9 given it can be seen that 44 respondents selected 'helps clear ambiguity via use of voice' as the characteristic which helps them fulfill their purpose of informing. 14 respondents use audio cue to educate for the same reason. 'Saves time' was selected as the characteristic that helped 14 respondents fulfill their purpose of using audio cues to entertain. 44 respondents use audio cue to persuade because it saves time. 'Helps clear ambiguity via use of voice' and 'saves time' came out to be the two categories of characteristics that helps majority of the respondents fulfill their respective purpose of use of audio cue.

When chi square test was applied to check for association if any between characteristics and purpose of use of audio cue, the following values came out – From the above obtained values it is concluded that purpose of using audio cue was found to be associated with characteristics

Table 8: Chi square test results for association between characteristics of audio cue and purpose of use

	Chi square	*p value*	*Df*
Add emotional nuance via voice to conversations	30.367	.0001	4
Doesn't require immediate response like voice calls	2.503	.644	4
Low cost compared to voice calls	6.712	.152	4
Helps clear ambiguity via use of voice	36.989	.0001	4
Saves time	21.628	.0001	4

Table 9: Chi square test results for association between characteristics of chronemic cue and purpose of use

	Chi square	*p value*	*Df*
Length of silence conveys meaning very strongly	19.209	.001	4
Can be used repeatedly for varying lengths	8.813	.066	4
It conveys desire for non-engagement	14.378	.006	4

– 'Add emotional nuance via voice to conversations', 'helps clear ambiguity via use of voice', 'saves time'.

Chronemic cue

From Figure 10 below it can be seen that 58 respondents use it to inform and 15 respondents use it to educate because it conveys a desire for non-engagement. For the purpose category of 'to entertain', equal number of respondents said that they use chronemic cue because length of silence strongly conveys meaning as well as it conveys desire for non-engagement. 45 respondents use silence to persuade because meaning can be strongly conveyed through length of silence.

When chi square test was applied to check for association if any between characteristics and purpose of use of chronemic cue, the following values came out –

From the above obtained values it is concluded that purpose of using chronemic cue was found to share a statistically significant association with characteristics – 'length of silence conveys meaning very strongly' and 'coneys desire for non-engagement'.

It was hypothesized that characteristics and purpose of use of cues are associated but from the results obtained

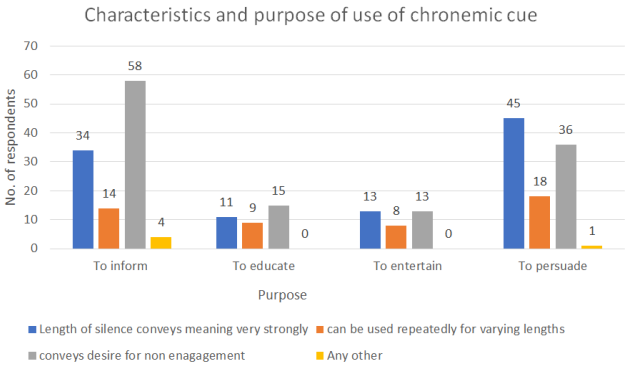

Figure 10: Depicting characteristics of chronemic cue that help fulfill each of the purposes the most

above across all four cue categories it is concluded that purpose of use of cues was found to be associated with only few characteristics across all categories. The data only partly supported the hypothesis.

Purpose of using visual cue was found to be associated with only 'availability of visual cues in multiple facial expressions.' Purpose of using textual cue was found to be associated with only 'helps show urgency/immediacy' and 'helps bring attention to certain parts of the message'. Purpose of using audio cue was found to be associated with characteristics – 'Add emotional nuance via voice to conversations', 'helps clear ambiguity via use of voice' and 'saves time'. Purpose of using chronemic cue was found to share a statistically significant association with characteristics – 'length of silence conveys meaning very strongly' and 'coneys desire for non-engagement'.

Implications of findings

Currently on WhatsApp the maximum time duration allowed for a voice note is 1 minute. Voice notes as per findings are being used because they help save time. If the platform increases the time duration for which voice notes can be recorded, then by allowing people to record longer voice notes they may help people save more time and hence will thereby end up increasing the user engagement with the platform. Emojis are one of the highly used cues under the visual cues category. A lot of gender neutral and specially-abled friendly emojis are pending for approval by the Unicode Consortium. Our study concludes that emojis are used the most to entertain by both men and women. Once the new emojis are approved, they along with the previous ones will make all platforms an even more inclusive and entertaining space for all types of men and women.

Conclusion

The paper begins by analyzing the purpose of using of cue categories by the respondents. It was found that visual cues are used the most to entertain. Textual cues and voice notes are used the most to inform. 'Don't use' was selected as the option by majority of the respondents for silence. The difference in the purpose of use of cue categories was then analyzed from the lens of gender. It found that both male and female respondents use visual cues the most to entertain. Textual cues and audio cue are both used the most to inform. Difference emerged in the purpose of use of chronemic cue. Male respondents were found to be using chronemic cue the most to inform but female respondents were using it the most to persuade. When statistically analysed, gender was found to share a significant association with purpose of use of textual cue and visual cue. The respondents were asked to select the cue categories which help them fulfill their purpose of using the cues. For textual cues – helps bring attention to certain parts of the message was selected as the category. 'Available in multiple facial expressions was selected for visual cues', 'saves times' for audio cue and 'conveys desire for non-engagement' for chronemic cue. Then, association was analysed between gender and characteristics of each cue category. Except chronemic cue, some cue categories each from visual cues, textual cues and audio cue were found to be associated with gender. Association was then studied between purpose of use of cue categories and characteristics. Purpose of use was found to be associated with only few characteristics across all categories. Today the gamut of gender has expanded to include LGBTQIA+. This study, apart from including other demographic and psychographic parameters, can be expanded to include the entire gamut mentioned. Understanding the texting nature of the people across the gender spectrum will help push further for inclusivity in the society.

References

1. Jiang, J. A., Fiesler, C., & Brubaker, J. R. (2018). *The perfect one*: Understanding communication practices and challenges with animated GIFs. *Proceedings of the ACM on Human-Computer Interaction*.
2. Lever, K. (2020, April 27). How voice notes became the new text message. *The Sydney Morning Herald*. https://www.smh.com.au/lifestyle/life-and-relationships/how-voice-notes-became-the-new-text-message-20200316-p54amf.html
3. Ling, R., Baron, N. S., Lenhart, A., & Campbell, S. W. (2014). *"Girls text really weird"*: Gender, texting, and identity among teens. *Journal of Children and Media*, 8(4), 423-439.
4. Lyddy, F., Farina, F., Hanney, J., Farrell, L., & O'Neill, N. K. (2014). An analysis of language in university students' text messages. *Journal of Computer-Mediated Communication*, 19(3), 546-561.
5. Madden, J. S. (2018). *The phenomenological exploration of animated GIF use in computer-mediated communication* (Doctoral dissertation).
6. Mehra, P. (2023). Purpose of using paralinguistic cues in text-based CMC. In *ICAN 6 Conference Proceedings Part 2* (p. 13). Media School, Delhi Metropolitan Education.
7. Nicole, G. (2020, August). Normalize sending audio messages instead of text messages. *Mashable India*. https://in.mashable.com/culture/16640/normalize-sending-audio-messages-instead-of-text-messages

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