HG2052 Language, Technology and the Internet
Li Keqingqing U1830766C

Analysis of a medium of communication: Wechat voice messaging

Abstract

Technological advancements in today's world have drastically changed the way we communicate with others. Research with regards to this medium of communication is limited, possibly due to its limited popularity in the Western world. In this paper, I will introduce Wechat voice messaging and its features, and discuss its implications on communication within its users and how it can potentially impact language use. I will also compare this medium against similar popular instant messaging apps and the differences between them are discussed. Finally, it is compared against Crystal(2006)'s seven characteristics of speech and text communication for future references.

Introduction

WeChat, also known as Weixin in Chinese, is a messaging app by Tencent. In Chinese, it means 'micro-message'. According to a data report by Hootsuite in 2020, Wechat is the fifth most widely used mobile social app in the world. Being a versatile app that is used for work, study, and everyday life, it has reported 1 billion daily users in 2019, being China's most active social media platform. Tencent Holdings also reported 6.1 million voice messages sent daily by its 963 million users in 2017.
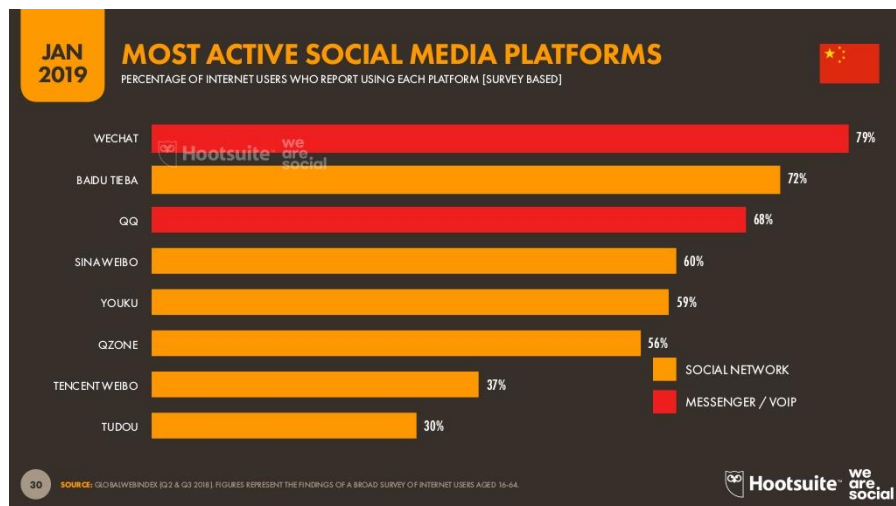

Figure 1: Most active social media platforms in the world, retrieved from
https://wearesocial.com/blog/2020/04/digital-around-the-world-in-april-2020

The Wechat voice messaging function is a key feature of Wechat, and it is used through a 'hold-to-speak' manner, allowing the user to speak directly into the phone and send a voice message. The voice messages are limited to 60 seconds, and both the sender and receiver can listen to the message as many times as they want, as long as the message does not get deleted (or as Wechat names it, 'recalled'). A relatively recent feature of voice messages in Wechat also allows users to convert their voice message into text, with the ability to edit the text message before sending it. This feature will be further discussed.
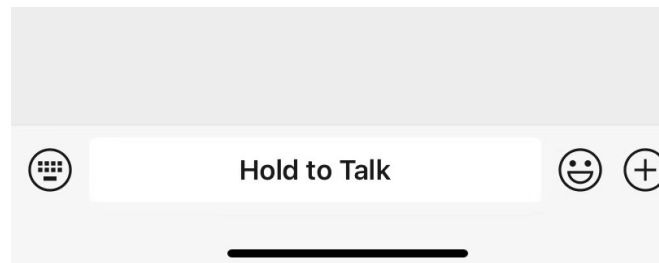
Figure 2: Wechat voice messaging input 'hold to talk'

With regards to education, some studies have been done on Wechat voice messages and its impacts on English language learning. In the study by Wang and Crosthwaite in 2021, a combination of learners' Wechat chat logs and qualitative data were used to explore the efficiency of learning pronunciation and fluency through using Wechat voice messaging. This study presents how Chinese EFL(English as a foreign language) learners make use of the WeChat voice messaging functions to improve English pronunciation and fluency, and backs up their claim with data showing how this function is indeed used for learning. Most students reported manipulating *cancelling* and *recalling* of voice messages to be useful, as they can then use this to check and improve their output quality by listening back to either a model message sent by the teacher, or their own voice messages. The act of listening to English and producing it back and forth with the teacher is productive in learning English. The paper suggests that the Wechat voice messaging function is unique in a way that it aids in meaningful and inclusive interaction and demonstrates its pedagogical use.

Wechat voice messaging features and its impact on communication
<u>On language use</u>
1. Voice messaging
   Voice messaging in itself, despite the messaging app used, is more convenient than sending text messages as the user does not have to type and send messages manually. However, the convenience is usually only experienced by the sender and not the receiver. When a voice message is received, the sender has to be in a conducive environment and have the resources to listen to the voice message. To some extent, it can also cause the sender to speak in a clearer manner in order for the receiver to comprehend the message. Compared to text, voice messaging does not have room for emojis and emoticons but the sender can express their tone through voice. Additionally, compared to text messaging, the receiver cannot tell how urgent the message is and more time is needed to receive and process the message. However, this limitation is relatively curbed with the new function of converting voice messages to text.

2. Converting from voice to text
   Wechat had introduced this relatively new function where voice messages are able to be converted to text, supporting Mandarin, English and Cantonese.
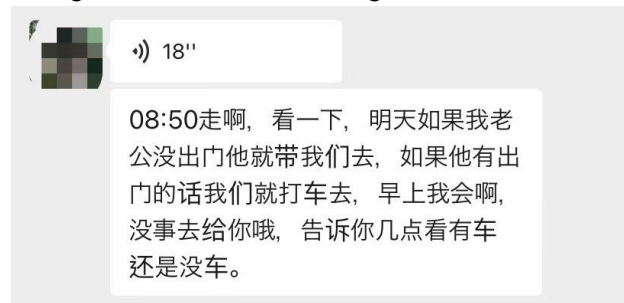
Figure 2: Wechat's 'change to text' function

Figure 3: Voice-to-text conversion in Wechat

The user can hold (long press) the voice message to activate this function, and the voice message is translated to text after a few seconds, depending on the duration of the voice message. This feature attempts to curb the inconvenience on the side of the receiver, but it has its limitations. Firstly, it supports a limited number of languages, considering the sheer number of Chinese varieties present. Secondly, the voice-to-text function is heavily dependent on the accuracy of voice recognition, and as such the output text might not be fully accurate at all times. However, limitations of this function exist, for one it does not support the pausing of a voice message, and secondly, the converted text form is unable to be searched from chat records. The first issue can be solved with voice-to-text conversion as mentioned above.
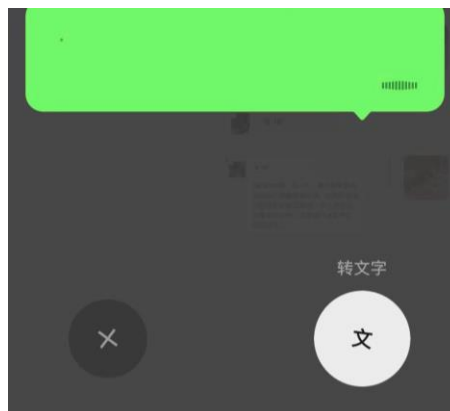

Figure 4: Converting speech directly to text in Wechat

A relatively new function is also available in Wechat voice message such that users can use voice input to create a text output. This function is similar to speech-to-text conversion, only that it immediately creates a text output which is received by the receiver.

3. Time limit of voice messages
   The 60-second time limit of voice messages forces the sender to keep each voice message short, though it is possible to send multiple voice messages at a time.

4. Ability to delete/ recall messages
   As mentioned in the literature review, this eliminates the permanency of voice messages and allows for editing of voice messages to some extent. This function is limited to a 3-minute window, where a message cannot be deleted or recalled after 3 minutes. Hence, it is up to the sender to check and review the message and decide whether the message should be made permanent to the receiver.
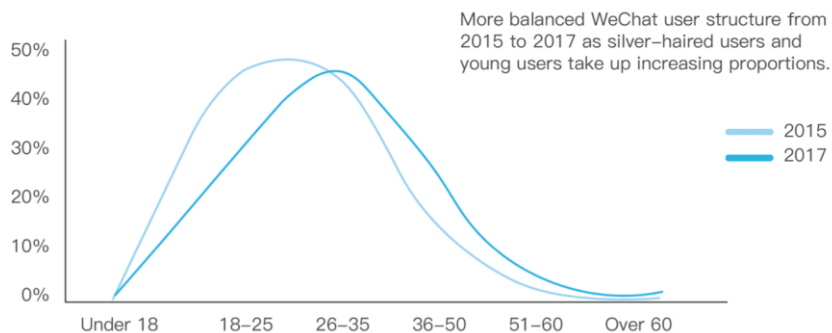
5. Languages with no written form
   Limited research has been done on the impact on non-written languages with regards to this medium of communication. However, minority languages have the potential to be used and spread with this function, considering that there are 7,117 living languages but only 3,982 have a developed writing system, as recorded in Ethnologue. Additionally, though some languages do have written forms, they may not be available digitally. The use of voice messages especially in today's increasingly digitised world can then potentially aid in the survival of these languages.

Social implications
1. On an aged demographic
   Voice messages can be beneficial to older users as they can communicate more efficiently with mobile devices. Compared to text messaging, voice messaging spares the inconvenience of typing and reading messages. 63 million WeChat users above the age of 55 open their account at least once a month (in all China has 241 million citizens over the age of 60 – or 17% of the total population).

More balanced age distribution of WeChat users

More balanced WeChat user structure from 2015 to 2017 as silver–haired users and young users take up increasing proportions.

2015
2017

Source: CAICT WeChat Economic and Social Impact Report 2017, WALKTHECHAT

Figure 5: More balanced age distribution of Wechat users, retrieved from
https://walkthechat.com/wechat-impact-report-2016/

The above figure demonstrates how the number of older users have increased over the span of 2015 to 2017. The ease of use of voice messaging can aid in older users' inclusion in technological advancement and a more balanced age distribution in using technology.

2. In the working context
   The use of voice messaging in Wechat has been regarded by some to be a status symbol, where it is usually sent from a superior to a subordinate in the workplace. It is argued to symbolise to the receiver that the superior is 'busy' and has no time to type manually to send a text message. Therefore, it is almost always used in 'asymmetric relationships' (Zhang, 2018) in the workplace.

Comparison against other instant-messaging platforms
With regards to voice messaging, it is also (recently) present in popular messaging apps such as Whatsapp and Telegram. Therefore, most features and limitations of voice messaging in Wechat can be applied to these platforms as well. However, one key difference lies in the voice-to-text conversion feature in Wechat, which serves as an attempt to resolve limitations present in voice messages on the side of the receiver.

Comparing against Crystal (2006)'s seven characteristics

Speech	Wechat voice messaging	Text
Time bound	Both ● Though can be made non-permanent through deleting/recalling, the sent message is permanent after 3 minutes. ● There is a known audience (both personal one-to-one messaging and group messaging)	Space bound
Spontaneous	Both ● Spontaneous on the side of the sender ● There is a time-lag between when the message is sent and when a receiver receives and listens	Contrived

	(or reads) the message	
Face-to-face	Both ● Extralinguistic feature of tone can be expressed through voice ● Lack of visual contact ● Lack of immediate feedback	Visually decontextualized
Loosely structured	Loosely structured	Elaborately structured
Structurally interactive	Both ● Serves 'phatic' functions ● Can be used to convey facts and ideas, used to record	Factually communicative
Immediately revisable	Immediately revisable ● Can be withdrawn within a 3-minute window, but is permanent after 3 minutes ● subsequent texts ca be sent for correction	Repeatedly revisable
Prosodically rich	Prosodically rich	Graphically rich

Conclusion

In conclusion, Wechat's voice-messaging feature is rich in its functions and can be considered to be a medium of communication by its own. Though voice-messaging itself has many limitations, the Wechat model creates additional functions on top of it to make voice-messaging more convenient and efficient. These additional features also make it unique from other messaging apps with the voice-message function. There are many grey areas in Wechat voice messaging with regards to Crystals (2006)'s speech/text characteristics as it employs a speech input but can create both speech and text outputs. It will be interesting to observe future developments in this medium of communication, as well as how its speech-to-text system is further refined. More studies will need to be done on the impact of voice-messaging on non-written languages to observe how it can be potentially beneficial for them.

References

Currey, H., & Cox, S. (2020, April 23). Digital around the world in April 2020. Retrieved from
https://wearesocial.com/blog/2020/04/digital-around-the-world-in-april-2020

David Crystal (2006). Language and the Internet. Cambridge University Press, 2nd edition

Graziani, T. (2018, July 05). WeChat impact report 2018: All the latest WeChat data. Retrieved
from https://walkthechat.com/wechat-impact-report-2016/

How many languages in the world are unwritten? (2020, March 16). Retrieved from
https://www.ethnologue.com/enterprise-faq/how-many-languages-world-are-unwritten-0

Tencent腾讯. (n.d.). Retrieved from https://www.tencent.com/en-us/investors/financial-
news.html

Zhang, Z. (n.d.). Sending WeChat voice messages is a status symbol in China. Retrieved from
https://qz.com/1329259/sending-wechat-voice-messages-is-a-status-symbol-in-china/