Telegram messenger – An overview of Telegram's features that affects language use

Jolee Oh Yan Xia, U1830772D, HG2052

INTRODUCTION

Telegram is a cloud-based messaging application which requires internet access for users to communicate. With internet connection as a requisite, this Instant Messaging (IM) platform can be accessed through applications on mobile phones, tablets, desktops and the web. Except for voice calling, this messaging application is an asynchronous mode of communication, meaning that users need not be online simultaneously or in the same location in order to exchange messages (Herring, 2007). Message transmission in telegram is one-way as messages can only be seen after it has been sent (Herring, 2007). Recipients are only notified when messages are being typed without being able to see the exact character-by-character production process. In addition, each unique account is linked to the user's country code and mobile number.

LITERATURE REVIEW ON TELEGRAM

Telegram's focus on the speed of messaging and security has attracted a large number of subscribers. South Koreans switched from Kakao Talk, a Korean messaging service, to Telegram to seek asylum after realizing that their messages have been monitored by Korean authorities (Scaife, 2017; Jin, 2018; Jin, 2017). Apart from that, literature on Telegram focuses on it's use by terrorists to recruit, coordinate and communicate on this platform. Studies found that the Islamic State (IS) moved from open platforms such as Twitter and Facebook to Telegram because of strict monitoring by the authorities and subsequently, the shutdown of ISIS-linked accounts (Bloom, Tiflati & Horgan, 2017; Celso, 2019;).

Upon noting that terrorist communications were linked to Telegram, the Federal Security Service of the Russian Federation requested for Telegram to handover their encryption keys in order to access private conversations of users suspected to be terrorists (Hodson, 2019). As the request goes against the IM application's mission to provide a secure mode of messaging, the founders of Telegram refused and stood by their stance on protecting users' privacy. However, Telegram's refusal to share users' personal data with governmental agencies does not mean that illegal activities can be carried out on their platform. This IM service will not hesitate to block illegal activities when reported by users although this does not apply to local restrictions or law on freedom of speech (Telegram, n.d.). Therefore, Telegram has become a preferred mode of communication with their reliable encryption as the main attraction among users.

PROPERTIES OF TELEGRAM AND WHATSAPP

Similar to Telegram, WhatsApp is another popular IM that is a dominant mode of communication. Table 1 shows the similarities and differences in the functions of both IMs.

	Telegram	WhatsApp
Launch year	2013	2009
Number of monthly active users	200 million	1.6 billion
Types of chats	Individual	
	Secret chat (individual)	
	Group chat	
	Channel	
Channels of communication	Text messages (including emoji)	
	Images	
	Videos	
	Video messages	
	Audio messages	
	Stickers	
	Documents	

Messaging functions	Graphic Interchange Formats (GIFs)	
	Voice calls	
		Video calls
	Edit sent messages	
	Delete sent messages	
	Pinning of messages	

Table 1. Differences between Telegram and WhatsApp

As shown in Table 1, both IMs share similar functions with only a few differences. Telegram launched in 2013, four years after WhatsApp was introduced in 2009 (Borges, Ulbricht & Pallas, 2016). As of October 2019, the number of monthly active users of the former was at 200 million while the latter outnumbered the former with 1.6 billion (Statista, 2019). Telegram allows for communication through individual chats, secret chats, group chats and channels, while individual and group chats are only available in WhatsApp. Individual chats and secret chats differ in terms of security, where only the latter supports end-to-end encryption. In addition, Telegram caters up to 200,000 members in group chats and even unlimited audiences for channels (Telegram, n.d.). While for WhatsApp, group chats cater up to 256 members, a huge distinction from Telegram. The difference between Telegram's channels and group chats is that messages sent in the former is one-way while for the latter, it is both unidirectional and multidirectional, depending on the chat's settings customized by the administrator.

Additionally, both IM services provide similar kinds of 'channels of communication' such as visual channels (text messages, images, videos) and audio channels (voice messages and calling) (Herring, 2007). Both IM applications allow for the exchanges of messages, images, videos, audio, stickers, documents and Graphic Interchange Formats (GIFs) among users. While both services allow for voice calls, WhatsApp also allows video calls. In addition, stickers are a new mode of messaging that was introduced by Telegram in 2015 before WhatsApp in 2018 (Telegram, 2015; WhatsApp, 2018). For both IMs services, images and videos can be sent from one's own photo gallery, forwarded from another chat or by opening the camera on the platform to instantly take a photo or video. These items will appear in the shared media folder which allows users to view the items that they have sent in the chat at any time. Meanwhile, Telegram's video messaging function only gives users the option to record videos in real time before sending it as a message. These video messages cannot be sent from one's own photo gallery and does not appear in one's shared media as it is treated like a text message that can only be seen from the conversation thread. In addition, Telegram has a self-destruct timer function for videos and images which ranges from one second to one minute. When senders select the timer for self-destruct, interlocutors can only view the media for the stipulated amount of time before it gets deleted. Messages, too, can self-destruct from one second up till one week, but only if it is sent in a secret chat. When recipients try to screenshot such messages in the secret chat, senders will receive a notification. Furthermore, a secret chat disables the forwarding of messages out of the chat and the editing of messages.

For the text messaging function of both IM services, Telegram allows senders to edit, delete and pin messages while WhatsApp only allows for the deletion of messages. In this case, the deletion of messages works differently for both services. Telegram allows users to delete messages without a trace in the conversation while WhatsApp leaves a notification in the conversation thread specifying that a message has been deleted. When senders edit a message in Telegram, the modified message will be tagged with 'edited', which notifies the interlocutors that a message has been amended. The aforementioned secret chat function of Telegram ensures an end-to-end encryption which restricts messages to be forwarded out of the chat.

Apart from the functions that Telegram provides, users can also interact with a Telegram bot. This bot is a third-party application running in Telegram which is an account that does not require a phone number to be registered (Freitas & Bhintade, 2017). However, this paper will focus on the language use through Telegram's features rather than third-party applications.

<div align="center">PROPERTIES OF TELEGRAM THAT AFFECTS LANGUAGE USE</div>

As seen in Table 1, Telegram provides a list of different communication methods for the purpose of chatting. This allows users to express themselves in a variety of ways. Herring (2007) described eight situation factors which determines the style and variety of language used in computer-mediated discourse. These factors are participant structure, participant characteristics, purpose, topic, tone, activity, norms and code. Although the situation factors interact with one another, tone and code in particular will be addressed here. Herring (2007) describes the former as the manner of speech along a scalar dimension which includes formality, seriousness, cooperation and contentiousness. Next, she defines the latter as the language or language variety used in different domains.

Firstly, users are in control over the type of language or language variety they wish to employ during their conversations. Especially in a multilingual society like Singapore, diglossia exists. A diglossic situation defined by Ferguson (1959) is when different languages or language varieties serve distinctive social roles (as cited in Van Herk, 2012). He explained that the high (H) variety is used in formal situations while the low (L) variety in informal situations. The use of Telegram for the purpose of chatting is an informal domain which greatly encourages the use of the L varieties as a code. In addition, the idiolect of an individual also plays a part in their choice of language variety used as speakers tend to have more than one speech variety in different situations and contexts. This is also known as intra-speaker variation by sociolinguists (Van Herk, 2012). Thus, the tone and code that users can opt to communicate informally is through textese, which prevalent in messaging. Textese is defined as a casual register of writing style which includes the use of abbreviated and unconventional spelling (Kemp, 2018).

Category	Example
Accent stylization	*wiv* for *with*
Disemvoweling	*ppl* for *people*
Emoji	☺
g-clipping from *-ing*	*goin* for *going*
Initialism standing for word or phrase	*btw* for *by the way*
Phonetic non-standard spelling	*skool* for *school*
Apparent spelling error	*university* for *university*
Omitted apostrophes and/or omitted capital letter	*im* for *I'm*
Shortening	*cause* for *because*
Single or combined letter / number homophones	*u 2* for *you too*

<div align="center">Table 2. Examples of textese</div>

<div align="right">(Kemp, 2018; Crystal, 2008; Seargeant, 2019)</div>

Table 2 demonstrates the shorter orthography of textese compared to the conventional spellings and exemplifies and the different categories of this language variety. This orthography was originally developed due to the 160-character limit of a short message service, thus messages had to be succinct (Blake, 2019). Although modern messaging does not limit characters, this orthography can also be easily be typed on a qwerty keyboard in smartphones and computer keyboards. This creates convenience and efficiency in typing as expressions are shortened whilst still conveying the intended information.

Secondly, emoji as an example of textese, along with the use of stickers and GIFs allow users to communicate ideas and information visually (Seargeant, 2019). This mode reduces the use of texts as images signify emotions, facial expressions, ideas and sometimes the emotions that people find difficult to express with words. These visual messages restore emotional closeness that texts cannot convey such as a facial expression (Seargeant, 2019). In addition, users can create their own stickers in telegram. Stickers can be made using images such as a person's face or food. This creates stickers that are localized and collateralized. Thus, these visual channels are another form of communication that replaces texts.

Finally, the use of Telegram as a personal or informal chat flouts many aspects of the Gricean Maxim. The following are some examples of how the maxim is violated or flouted. Firstly, the orthography of textese flouts and sometimes violates the maxim of manner with examples from Table 2 such as disemvoweling and spelling error. These non-conventional spellings flout the maxim when it is purposefully drafted despite the sender being knowledgeable in conventional spelling and violates the maxim when it is a genuine spelling mistake (Grice, 1989). Next, the maxim of manner is flouted most of the time because of humour, style or choice of linguistic codes and violated due to accidental errors. An example of the former is the accent stylization and for the latter, apparent spelling error as seen from Table 2. In addition, the large variety of stickers and emoji available on this messaging platform flouts the maxim of quantity and relation. The former is flouted because of the spamming of stickers, emoji or text messages that convey similar meanings or that it conveys no information at all. The latter is flouted because of the fact that not all stickers and emoji perfectly convey what users intend to express. Most of the time, senders pick the visual message with the closest meaning, but does not relate to the intended information. Lastly, the maxim of quality is flouted when messaging content in a conversation becomes a gossip or is violated when false information is forwarded over multiple users. Similar to other forms of informal communications, users have the freedom to decide from a huge range of topics to talk about, which can be false.

LANGUAGE USE IN TELEGRAM IN THE WIDER CONTEXT

Telegram as compared to WhatsApp shown in Table 1 demonstrates slight differences in the properties of both mediums. Although there are distinctions, both messaging applications serve communication purposes which are typically informal. This indicates that situation factors such as purpose, code and tone on either platform should typically be the same, which are for casual and informal conversations. However, the additional features of Telegram which is absent in WhatsApp might bring about slight differences in language use.

One distinct feature of Telegram is the self-destruct and heavily encrypted secret chat which provides opportunities for users to send confidential items or to even exercise illegal conduct. This provides opportunities for users to talk about topics which are sensitive and illegal such as the aforementioned use of Telegram by terrorist groups to recruit and plan attacks. As this IM service promises privacy, users can be assured that their freedom of expression shared within the secret chat is only for the intended recipients (Telegram, n.d.). This is because Telegram does not keep logs of users' conversation content in secret chats unlike WhatsApp (Hodson, 2019). Hence, the difference between the language use of both IM services is that conversations in Telegram reflect the exact thought of a person which illustrates a larger range of language varieties. In contrast, conversing using WhatsApp restricts certain topics which influences a smaller variety of language use.

NEW KINDS OF COMMUNICATION

Other than the usual text messaging, voice calling and the sending of stickers or emoji that other messaging services provide, Telegram allows users to communicate through video

messaging. This method of communication mimics a face-to-face interaction as extralinguistic cues such as prosody and facial expressions are present. The only exception is that conversations lack simultaneous feedback as video messaging is a fusion of messaging and videoing where transmission is one-way. This means that interlocutors are unable to react to video messages while it is being recorded as the message have not been sent out (Crystal, 2006). Although simultaneous reactions are not possible, interlocutors are able to replay the video message at any time, which is impossible in video calling.

In addition, Telegram is one of the few messaging applications, apart from Wickr and Kik, that enable users to send messages or documents to an unlimited number of subscribers within a single chat group or channel (Scaife, 2017). The broadcasting of messages to a large group of audience is unlike the typical function of messaging applications where conversations are multidirectional and personal. In such groups with large audiences, communication is usually unidirectional. The purpose of a channel or large group chat is to disseminate news, information and in the recent years, used by terrorist groups to disseminate propaganda as well as for recruitment and coordination of terror attacks (Bloom et al., 2017).

PROPERTIES OF TELEGRAM THAT AFFECT LANGUAGE AND THE SOCIETY

As mentioned earlier, the reasons for using Telegram to communicate ranges on a scale from using it as a chat for personal communication to advertisements or sharing of information and in the recent times, used by groups of people who do not bring positive impacts in the society. This IM service has become the preferred platform for terrorists to communicate because of its encryption as well as function to self-destruct messages or to delete messages without a trace (Bloom et al., 2017; Scaife, 2017). An example of the aforementioned terrorist group is the Islamic State in Iraq and Syria (ISIS). In general, language used in the terrorist group chats or channels are similar to typical conversations with the use of abbreviations such as *lol*, emoji, memes and stickers, except that these messages are ISIS related (Bloom et al., 2017). On top of that, there are rules in these groups that subscribers need to adhere to. Some of the rules are that polytheists, insults or foul language are not allowed in the chat (Bloom et al., 2017). A societal concern about the existence of and communication in these groups and channels is that it increases the possibility of exploiting vulnerable youths. This is because images and videos depicting graphic violence beheading and suicide bombings are shared (Bloom et al., 2017). The content of such messages concerns the public as these messaging groups is used to spread and plan acts of terrorism.

CRYSTAL'S (2006) FEATURES OF SPEECH AND WRITING

With the existence of multiple functions such as stickers and video messaging, is conversing through Telegram more speech-like or writing-like? Although the main feature of communicating via this IM service is texting, which is akin to writing, this messaging application overlaps with many features of speech. Table 3 below is a list of spoken and written features that Crystal (2006) had summarized from an encyclopedia.

Spoken	Writing
Time-bound	Space-bound
Spontaneous	Contrived
Face-to-face	Visually decontextualized
Loosely structured	Elaborately structured
Socially interactive	Factually communicative
Immediately revisable	Repeatedly revisable
Prosodically rich	Graphically rich

Table 3. Features of speech and writing

5

Firstly, communicating via text messages, voice messages, video messages and voice call in Telegram is time-bound. This is because users can be online simultaneously with the speed of the internet, enabling synchronous conversations to take place. In addition, all communicating methods except for voice calling are also space-bound as Telegram is a cloud-based messaging service, meaning that messages are permanently saved in the application. Despite having a delete and self-destruction option which is typically used for removing messages that are sent wrongly or confidential messages, messages that are not deleted are stored in the application.

Secondly, all communication methods in Telegram are spontaneous as interlocutors, when online at the same time, can receive and react to replies almost immediately except for an unstable internet connection which results in a time-lag between production and reception (Crystal, 2006). Voice calling is considered the most spontaneous type of communication compared to the other messaging methods as it is similar to a telephone call, enabling immediate exchanges. In terms of the broadcasting of messages in channels or unidirectional large group chats where administrators restrict the sending of comments by subscribers, text messages are contrived. Such messages are usually well drafted and organized. A time-lag in the reception of a message may occur when group chats are muted as users do not receive notifications for messages.

Thirdly, face-to-face interactions are partially available in Telegram despite the lack of physical interactions. Through the use of video messaging, the camera is able to capture user's face and a view of their location which allows for the use of deictic expressions, facial expressions and gestures (Crystal, 2006). These extralinguistic cues are also prominent in stickers, GIFs and emoji which visually expresses emotions and gestures. However, text messages follow the text-like aspects, which are visually decontextualized. Recipients are unable to perceive gestures and facial expressions through writing.

Next, communication in Telegram is usually loosely structured. Similar to speech, communicating through voice calls, voice messages and video messages typically contain short messages to convey information. In addition, text messages are usually written in the same way a person speaks, which is a different register from the written work produced for official and formal documents (Spector, 2017). This is known as an idiolect which was explained earlier. Text messaging for the purpose of chatting are usually written in the form of textese (as seen in Table 2) where expressions are shortened for convenience and efficiency. On top of that, depending on individuals' styles, a sentence may be sent over several messages, creating short and multiple texts which are loosely structured. Elaborately structured messages are typically sent in multidirectional group chats or channels to share information or news. However, interlocutors may reply with comments or acknowledgements which are loosely structured.

On top of that, the use of Telegram as a platform for chatting demonstrates social interactivity as most conversations are casual and personal (Crystal, 2006). The existence of the internet accelerates the speed of sending and receiving messages compared to mails, thus allowing the frequent exchange of messages (Kato, Kato & Ozawa, 2019). This provides opportunities for messages to be exchanged within a short period of time when interlocutors are online at the same time. Speed is demanded in electronic communications for interactivity in order to follow the speed of spoken conversation (Blake, 2019). Social relationships are thus maintained through chatting because of the back-and-forth interaction. Furthermore, the audio and video messaging as well as voice calling increases the opportunities for audio communication which is prosodic in nature. These functions promote social interactivity as it mimics live conversations where interlocutors listen to auditory messages. With regards to the features of writing, images and text messages in telegram are factually communicative. Written messages

in channels and large group chats are usually more factually communicative than one-to-one or small group chats because of the dissemination of information and ideas. Images such as infographics and posters also serve as a mean to communicate facts and ideas.

In addition, verbal communication through voice messages, video messages and voice calls allow for ideas to be immediately revisable before making an utterance, similar to the features of speech. Following the features of writing, text messages sent in Telegram are repeatedly revisable. Senders can revise text messages before hitting the send button, or even edit it after the message has been sent through the edit option. Because of the editing function, text messaging on Telegram is the literal denotation of 'repeatedly revisable' compared to other forms of writing where only the drafts can be edited. Additionally, with the delete function of messages, voice and video messages can be considered repeatedly revisable as users are able to make changes to their speech by deleting before re-recording their messages.

Finally, the voice call and both the voice and video message aspect of Telegram allows for the production of verbal speech which has prosody. The intonation, pauses and loudness make verbal communication prosodically rich. This aspect is something that written texts cannot convey. The written messages on the other hand is graphically rich with orthography, punctuations and capital letters. Table 4 and 5 below is a summary of the application of Crystal's (2006) features of speech and writing on Telegram.

Spoken	Text message	Voice message	Video message	Video call
Time-bound	yes	yes	yes	yes
Spontaneous	yes	yes	yes	yes
Face-to-face	partially	no	yes	no
Loosely structured	yes	yes	yes	yes
Socially interactive	yes	yes	yes	yes
Immediately revisable	no	yes	yes	yes
Prosodically rich	no	yes	yes	yes

Table 4. Features of speech and writing

Written	Text message	Voice message	Video message	Video call
Space-bound	yes	yes	yes	no
Contrived	yes	no	no	no
Visually decontextualized	yes	no	no	no
Elaborately structured	yes	no	no	no
Factually communicative	yes	no	no	no
Repeatedly revisable	yes	partially	partially	no
Graphically rich	yes	no	no	no

Table 5. Features of speech and writing

CONCLUSION

Telegram as a medium of communication offers speed, security and a variety of communication methods. With the variety of functions this IM service provides, users are not bounded to only text messaging as a form of communication. Additionally, the end-to-end encryption is a feature that is worthwhile when users manually enable the secret chat option. This allows users to communicate with ease. A diversity of languages and language varieties may exist on this messaging platform because of different situation factors of each conversation. On top of that, the features of communication through Telegram is a mixture of both speech and writing. In essence, Telegram is a medium of communication which encourages the freedom of speech, informal communication and unconventional writing styles.

REFERENCES

Blake, B. J. (2019). *English vocabulary today:* Into the 21st century. New York, NY: Routledge.

Bloom, M., Tiflati, H., & Horgan, J. (2017). Navigating ISIS's preferred platform: Telegram. *Terrorism and political violence, 31*(6), 1242-1254. doi: 10.1080/09546553.2017.1339695

Borges, M. C., Ulbricht, M., & Pallas, F. (2016). When culture trumps economic laws. In J. A. Bañares, K. Tserpes, & J. Altmann (Eds.), *Economics of grids, clouds, systems, and services: 13th international conference, GECON* (pp. 115-126). Gewerbestrasse, CH: Springer.

Celsco, A. (2019). How IS virtual planners use the dark web to recruit, direct, and inspire attacks in Europe and North America. In J. R. Vacca (Ed), *Online terrorist propaganda, recruitment, and radicalization* (pp. 317-338). Boca Raton, FL: CRC Press.

Crystal, D. (2006). *Language and the internet* (2nd ed.): 'Engaging & provocative' nature. New York, NY: Cambridge University Press.

Crystal, D. (2008). *Txtng*: The gr8 db8. Oxford, UK: Oxford University Press

Freitas, E., & Bhintade, M. (2017). *Building bots with node.js*. Birmingham, UK: Packt Publishing.

Grice, H. P. (1989). *Studies in the way of words.* Cambridge, MA: Harvard University Press.

Herring, S. C. (2007). A faceted classification scheme for computer-mediated discourse. *Language@Internet, 4*(1).

Hodson, C. J. (2019). *Cyber risk management*: Pioritize threats, identity vulnerabilities and apply controls. London, UK: Kogan Page.

Jin, C. (2018). Self-concepts in cyber censorship awareness and privacy risk perceptions: What do cyber asylum-seekers have? *Computers in human behavior, 80*, 379–389. https://doi.org/10.1016/j.chb.2017.11.028

Jin, D. Y. (2017). *Smartland Korea*: Mobile communication, culture, and society. Michigan, US: University of Michigan Press.

Kato, Y., Kato, S., & Ozawa, Y. (2019). Desired speed of reply during text-based communication via smartphones: A survey of young Japanese adults. In R. T. Gopalan (Ed), *Intimacy and developing personal relationships in the virtual world.* Hershey, PA: IGI Global.

Kemp, N. (2018). Texting. In B. Warf (Ed.), *The SAGE encyclopedia of the internet* (pp. 857-863). California, US: Sage Publications.

Scaife, L. (2017). *Social networks as the new frontier of terrorism*: #Terror. New York, NY: Routledge.

Seargeant, P. (2019). *The emoji revolution*: How technology is shaping the future of communication. Cambridge, UK: Cambridge University Press.

Spector, S. (2017). *The quotable guide to punctuation.* New York, NY: Oxford University press.

Statista. (2019). Most popular global mobile messenger apps as of October 2019, based on number of monthly active users. Retrieved from https://www.statista.com/statistics/258749/most-popular-global-mobile-messenger-apps/

Telegram. (n.d.). Telegram FAQ: General questions. Retrieved from https://telegram.org/faq

Telegram. (2015). Stickers done right. Retrieved from https://telegram.org/blog/stickers

Van Herk, G. (2012). *What is sociolinguistics?* Chichester, UK: Wiley-Blackwell.

WhatsApp. (n.d.). WhatsApp: Android. Retrieved from https://faq.whatsapp.com/en/android/28030015/