

Describe one medium of communication not discussed in class and compare it to both speech and text. (So you should not discuss: face-to-face conversation, book publication, telephone conversation, email, blogs, chat or wikis.)

Danmaku: The Culture that Refuses to be Globalized

Introduction

The Internet has often been often lauded as the ultimate global system, with billions of users sharing ideas and learning from one another. With this almost borderless environment for technological and cultural exchange, we would expect every Internet user to enjoy the same type of service or follow the same trend. However, it turns out that differences still exist in the use of Internet technologies, as can be seen from the example of Danmaku.

Danmaku (だんまく), also known as 弹幕 (*dan4 mu4*) in Chinese and “bullet screen comments” in English, are a subtitle system used by some online video platforms, which allows users to post moving comments onto a video as it is playing. These comments are synchronized to the video timeline, and are typically presented as “shooting” across the screen, resembling a barrage - which is the literal meaning of their Japanese and Chinese names. (Although, while だんまく usually involves the comments appearing in huge quantities, its Chinese counterpart 弹幕 has been used more loosely to refer to any comment within the system.)



Figure 1.

@吃米粉咯. (2019, November 8). [Screenshot of a Damuku Video on Bilibili].

<https://www.Bilibili.com/>.

https://www.bilibili.com/video/BV1yE411i7Po?spm_id_from=333.851.b_62696c695f7265706f72745f67756f636875616e67.73

Originated in Japan's video-sharing website Niconico (ニコニコ) in 2006, Danmaku was later introduced in 2008 to anime, comic and games (ACG) sites in China such as AcFun and Bilibili, and rapidly gained popularity among ACG users, which are predominantly millennials (). Soon, other major Chinese platforms, such as iQiyi, Youku and Tencent Video. Today, the most popular Danmaku video website in China, Bilibili, ranks #102 in global internet engagement (Alexa, 2021).

Yet, despite the popularity of Danmaku in China and Japan, there is a striking lack, if not total absence, of their usage in other countries. In particular, US websites such as YouTube and Netflix do not employ this system, even though they dominate the global video service market and should face no technical barrier adding this novel function to their platforms. Given the global nature of the Internet and its related technologies, it is curious that such a gap should exist.

In this essay, I will discuss Danmaku as a new medium of communication, its unique properties and affordances, and how they both shape, and are shaped by, language and society. Focusing mainly on Danmaku usage in China, where it is arguably most popular today, I hope to shed some light on why such a dynamic, creative mode of communication has remained largely unused, even unknown, by the rest of the world.

Literature Review

Due to the lack of presence of Danmaku outside Chinese and Japanese websites, literature on this medium is nascent and relatively limited.

Much of existing research has focused on the unique features of Danmaku and people's perceptions of it, including reasons for and against using such a function. Danmaku comments have been proven linguistically and emotionally rich, creating "an illusion of synchronous group viewing" (Ma & Cao, 2017, p.772). Liu, Suh and Wagner (2016) studied the effects of Danmaku using the Media Synchronicity Theory, and identified how the five capabilities of Danmaku - namely, transmission velocity, symbol sets, parallelism, rehearsability, and reprocessability - contribute to perceptions of Danmaku websites as more interactive, thus encouraging users to share and continue to use the website. A study by Chen, Gao and Rau (2017) found that people watch Danmaku videos to acquire information and entertainment from the bullet comments, and seek a sense of community and social connection. However, some are deterred from Danmaku by reasons such as excessive information and the unaesthetic appearance of words on screen (Chen et al., 2017).

Some researchers have also been interested in the practical applications of Danmaku, such as conducting sentiment analysis on the content of bullet comments on a video, in order to improve the website's accuracy in recommending related videos to a user (Wang et al., 2020), as well as help video producers and advertisers devise strategies that better cater to their audience (Li, Li &

Jin, 2020). Moreover, it has been found that Danmaku videos may be a good way of learning for students (Leng et al., 2016).

Danmaku as a New Mode of Communication

As a subtitle system, it seems that Danmaku would be closer to text than to speech. With reference to the features of text introduced by Crystal (2006), Danmaku indeed meets some of the defining criteria of a textual medium. Firstly, it is space-bound, as comments can only appear within the space of the video. For Chinese Danmaku websites, comments are found to be 11 ± 7 characters long on average (Ma & Cao, 2017) and each video is usually allowed a maximum number of a few thousand comments. Hence, Danmaku imposes spatial and textual limits on users just like any other written medium. Secondly, Danmaku is visually decontextualized, because the comments are all anonymous. Thirdly, Danmaku is contrived and (to some degree) revisable, as users can review and edit a comment before sending it out into a video. In addition, it is factually communicative; users actually report seeking useful information as a motivation to watch Danmaku videos, as the comments can provide supplementary knowledge, such as background information, hidden messages, and even translation, to the videos (Chen et al., 2017). As can be seen from Figure 1, the blue and orange texts at the bottom of the screen provide two separate Chinese translations for the English lyrics, presumably posted by two different users. Lastly, although perhaps to a less extent, Danmaku is graphically rich. Despite spatial limitations and formatting rules imposed by the video websites, commenters frequently play around with font size, font colour, special visual effects and emoticons to express themselves in creative ways.

However, if we were to also compare the characteristics of Danmaku to Crystal's (2006) proposed features of speech, Danmaku appears to be just as highly comparable to speech. To start with, Danmaku is time-bound. The flying comments are synchronized to the timeline of the video and each has a relatively short screen time spanning a few seconds, which makes Danmaku almost as transient as real-life speech. This temporal limitation thus results in loosely constructed sentences. For example, personal pronouns are often omitted in these comments (Ma & Cao, 2017). Secondly, these comments are largely spontaneous, responding to anything in the video - even anything not in the video. For a movie review video, about half the Danmaku comments were directly relevant to the movie scenes (*Ibid*, p.776). Other comments involved general remarks, responses to other comments, and off-topic matters (*Ibid*). Finally, Danmaku is highly interactive. Users not only interact with the video content, but also with other users. They can directly refer to other comments using descriptive labels such as "the one upstairs" "red words" (*Ibid*), or interact with the others more generally, such as posting a question with no specific addressee, but to which someone would respond in the comments that follow.

Therefore, like most computer-mediated communication (CMC), Danmaku possesses both text-like and speech-like features that make it an effective mode of online interaction. However, there are also unique properties and affordances of Danmaku which distinguish it from other modes of CMC.

One unique aspect of Danmaku is that it is directly overlaid on videos. Unlike traditional comment sections that are placed below or beside a video, Danmaku directly interferes with the contents of the screen; and unlike subtitles or closed captions, Danmaku is dynamic and can block significant portions of an image. Dwyer (2017) observes that such a format enables a shift in power, as “the audience makes its mark” and establishes its own role in the viewing experience (Dwyer, 2017, p.583). In frightening or gruesome videos, for example, viewers may choose to collectively post a wall of comments to obscure a particularly ghastly scene. Audience power and control are also evident when viewers can disagree with a video at any specific point, much like in a real-life viewing experience. As seen in Figure 2 below, in response to an (over)analysis of a TV drama by a film reviewer on Bilibili, a large number of commenters expressed incredulity and disagreement, with one comment even stating “I won’t give you my coin then”. Coins are a currency on Bilibili, which are purchased with real money and can be given to creators to support their content. By declaring this withdrawal of (financial) support, at this specific moment when a bad analysis is being made in the video, the commenter makes clear which part of the video they dislike, thus increasing their engagement with, and power over, video content. This is opposed to the more traditional comment section which disallows such specificity of response.

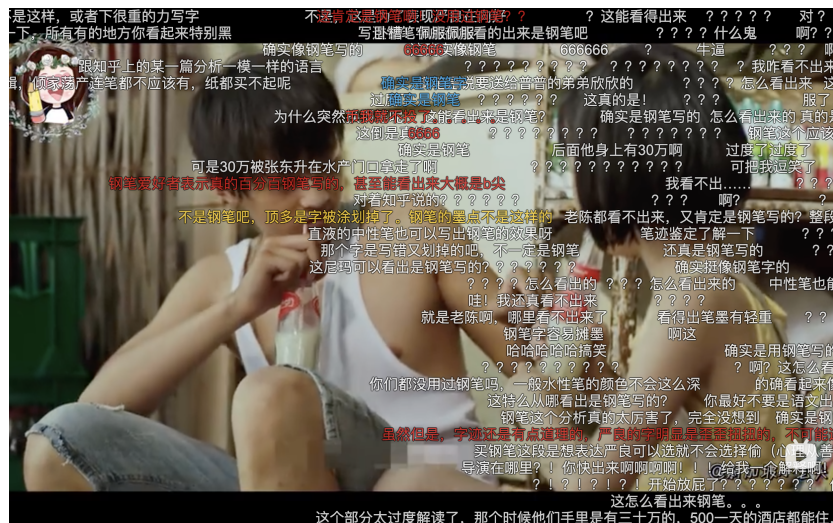


Figure 2. 新加坡小笔尖. (2020, June 24). [Screenshot of Danmaku Comments on a Film Review Video on Bilibili]. <https://www.bilibili.com/>.
https://www.bilibili.com/video/BV1BK4y147CL/?spm_id_from=333.788.video-card.4

Another special property of Danmaku is its synchronicity with the video. When comments are posted, they are adjusted to fit the video timeline, and move across the screen in a fixed time frame at a uniform speed. This synchronicity means that viewers will post similar or identical comments during a certain part of a video if they all find it interesting. This can lead to extremely concentrated synchronous comments at some points in a video, and create a myriad of conventions and slang. For example, backchannel activities such as laughter are done through onomatopoeic phrases (“Haha” “hhh”), and colloquialisms like “23333”, a common substitute for the former (Ma & Cao, 2017, p.777). Another example is when, a few moments before something exciting is going to happen in a video, a barrage of Danmaku would appear, exclaiming, “High energy warning ahead!” (“高能预警!”) alerting the viewer that a shocking

scene is coming up (Chen, Gao & Rau, 2015, p.158). Similarly, as can be seen in Figure 1, the phrase “恭迎首席” which means “we humbly greet the top ranker” is highly repeated in the Danmaku; the video had just gained significant traffic on the Bilibili website, obtaining the top rank among videos on the platform, and these comments express the viewers’ admiration and encouragement for whoever created that video.

Therefore, as a new mode of communication, Danmaku possesses can adequately meet the social interactive needs of video viewers, due to its shared features with both speech and text. Moreover, it stands out from traditional video comment systems, because it provides a new kind of power to the audience, affords rich sentimental content through repetition and synchronicity, allows and ultimately creates a unique collective co-viewing experience. In posting similar comments, many of which are trendy colloquialisms, users evoke a “shared linguistic repertoire that emulates an in-group identity” (Hsiao, 2015, p.119, 128).

Effects of Danmaku

The first question to ask about the effect of danmaku would probably be a psychological one. How does it affect our mind and behaviour if we habitually view Danmaku videos, which are saturated with images, sounds and texts?

People who do not use the Danmaku function tend to have a negative attitude toward the excessive information in Danmaku videos, as they find the comments distracting and disruptive to the viewing experience (Chen et al., 2015); dealing with both the video and audio contents, and the simultaneous comments can also be a heavy cognitive demand (Liu et al., 2016). However, Danmaku users claim that while such multitasking had initially been a problem to them, it became manageable, even preferable, after some years of usage (Wan et al., 2020). According to some studies, heavy media multitasking leads to better performance of switching between tasks (Elbe et al., 2019), which suggests that our viewing habits and multitasking abilities can change with media usage. So, in the light of increasing adoption of Danmaku on many video platforms, at least in China, changes related to cognitive functions such as attention may be expected in frequent users.

Beyond the cognitive, the feeling of watching a video together with thousands of other like-minded people, also creates an empowering social impact on users. The sense of community and belonging is cited as a major motivation for using Danmaku (Chen et al., 2015), especially for viewers who place importance on social interaction (Wan et al., 2020), and for introverted individuals who seek to socially connect with others through Danmaku comments. More notably, Dwyer (2017) describes the Danmaku system as “subversive”. Typing cheeky commentary over a screen that had traditionally been the territory of only revered filmmakers, reflects a sort of “badness” (Dwyer, 2017, p.583) and defiance against the conventions with which viewers are expected to comply. In addition, the anonymity of comments may appeal to viewers who have been brought up in the relatively less emotionally expressive environment in East Asian cultures. Hence, Danmaku’s ability to forge group identities and instigate rebellious viewership, all the while retaining anonymity of commenters, certainly appeals to the younger audience. The

emergence of a youthful and passionate Danmaku community has led to claims that Danmaku websites have nurtured “alternative grassroots democracy” (Yin and Fung, 2017, p.141).

Ironically, though, the widespread popularity of Danmaku on Chinese platforms has garnered attention from the government and resulted in more stringent regulations on sites such as Bilibili. The system has also been increasingly utilized by advertisers to promote products and encourage purchase. Today, Bilibili is also home to a myriad of promotional videos, mainstream shows, and even official government accounts. Some complain that Bilibili “has lost its special subcultural taste” (Zheng, 2016).

Danmaku Outside East Asia

There have been very few cross-cultural studies investigating the perception and usage of Danmaku outside China and Japan. In an intercultural analysis, Dwyer (2017) manages to draw a comparison between Danmaku in China, and a similar format of live-commenting in America, Hecklevision, which allows cinema goers to post live comments on the movie screen. However, Hecklevision audiences are much more “marginal and subcultural”, engaging mainly in niche films like *The Rocky Horror Picture Show* (Dwyer, 2017, p.584).

Indeed, the flippant and subversive Danmaku is an effective channel to empower viewers, whether it is someone dissatisfied with the content of a video, or a subculture asserting their group identity. In the context of more liberal societies, however, this medium may lose some of its appeal, as people may already have many other channels to freely express their opinions and engage with their community members.

A recent focused-group study by Wan, Moscovitz and Wu (2020) pointed out that culture, too, plays an important role in the different Danmaku usage between Chinese and American netizens: Chinese users, being more collectivist, show greater liking towards the unifying experience of Danmaku than the more individualist American users (Wan et al., 2020).

An article on the Chinese blog site Sina also mentioned the relevance of entropy of a language in its adaptability to Danmaku. The entropy of is 9.56 bits per character, which is much more than the English alphabet of 3.9 bits per letter. This means that, within the same length of a relatively simple Danmaku comment, the Chinese language is able to convey a greater amount of information (Du, 2020). While entropy alone does not determine information density, it is certainly crucial in the context of Danmaku, as each comment must be short enough to be readable, yet meaningful enough to provide information to the viewer, while it moves across the screen at a certain speed.

Therefore, whether Danmaku can be successfully adapted to platforms in other countries such as the US, depends not only on individual user habits and preferences (like the ability to multitask), but also linguistic and cultural factors. The existing gap between Asian and Western countries in their Danmaku usage is a reflection of differences in their societal norms and values, and will not likely be bridged simply by technology.

Conclusion

As a new medium full of communicative potential, Danmaku is quickly embraced by Chinese and Japanese users, and its application is expanding from the subcultural to the mainstream. It is highly similar to both spoken and written media, and also offers unique properties of its own, which has produced a vibrant online community. The absence of Danmaku from video platforms outside Asia is salient, but not inexplicable, due to individual, cultural and linguistic differences between countries that render it difficult to generalize Danmaku use.

I think Danmaku is an interesting counterargument against the prevailing concern that the Internet is creating a homogenous global culture, wiping out the unique characteristics of individual cultures. Although Danmaku is technically easy to incorporate into platforms, as many Chinese websites have already done, it remains relatively niche to the rest of the world today, because it is still susceptible to cultural and political influences. Perhaps, then, we can assume a more optimistic perspective on the future of our cultures mediated by technology and the Internet: even in a globalized online world, cultures can still survive, grow, and retain their unique, irreplaceable qualities.

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