SPEED POLITICS OF DANMU 弹幕的速度政治 [09]

TOP: "Time is Money, Efficiency is Life" (Chinese: "时间就是金钱，效率就是生命") is a widespread slogan of China's economic reform. It was initially a quote from Yuan Geng made in 1981.

BOTTOM: Picture taken by the author in a factory ruin during the "2014 Bi-City Shenzhen-Hong Kong Biennale of Urbanism/Architecture: Value Factory."

SPEED POLITICS OF DANMU

弹幕的速度政治 | Dino Ge Zhang

时间就是金钱，效率就是生命
Time is Money, Efficiency is Life.

Shenzhen speed is the epitome of what Paul Virilio calls "*dromological progress.*"[1] Since the 19th century, the West has long relied on dromological progress to dominate, first through a period of naval superiority during the Opium Wars then a second period of technological growth after the Second World War. For China, Shenzhen was the first dromological experiment of the Reform era after the traumatising stagnation of the Cultural Revolution.

The term "*Shenzhen speed*" was first coined to describe the speed of construction on the famous Guomao Building—"*three floors in a day.*" However, the Shenzhen of Deng Xiaoping is by no means a delayed replication of Mao's "*catching up with the West*" but a mutated compound of both the technological vitalism of large factories, start–ups and *shanzhai* incubators, and the natural vitalism of a huge reserve army of migrant labor from the inland provinces. Academics, artists and journalists alike became entrenched in investigating labor exploitation, *shanzhai* workshops, unconditional acceleration of production and even the aesthetic rendition of outmoded and gentrified factory ruins. Mary O'Donnell (2013) reflects on Shenzhen speed through an uncanny association between speed's pharmaceutical (speed is the street name for amphetamine) and economic meta–phors: "to the extent that profit under global capitalism is a function of time, we are all on speed." Speedy economic development brings efficiency, prosperity, consumerism and therefore happiness; amphetamine brings an adrenaline rush, mental concentration, efficiency and therefore happiness. The dromological obsession applies to both pathological and pragmatic temporality: acceleration is both an addiction and necessity for the Shenzhen model.

The missing link in explicating Shenzhen speed is crowd/traffic management which has always occupied a crucial place in China's politics of speed. The 300,000–strong army of workers at Foxconn during its heyday remains an incomprehensible scale to even the fiercest critique of manufacturing capitalism (thus it remains a fascination). It is also a constant administrative horror for the authorities (thus the absolute necessity of supervision by a military barracks

1 From the Greek *gromos* (to race). In *Speed and Politics* (2006), Virilio proposes the term "*dromological progress*" to consider how speed has become the main driving force for new societies built around the need for technological advances to face a constant state of war.

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    massive wholesale of sanitary pads, please contact 5564878

                                    assassin for hire, contact 84523

COFFIN SALE, CONTACT 484854

      Fake ID, contact 7823121

                        Painless Abortion, contact 1222334

            change your fate, contact 741165
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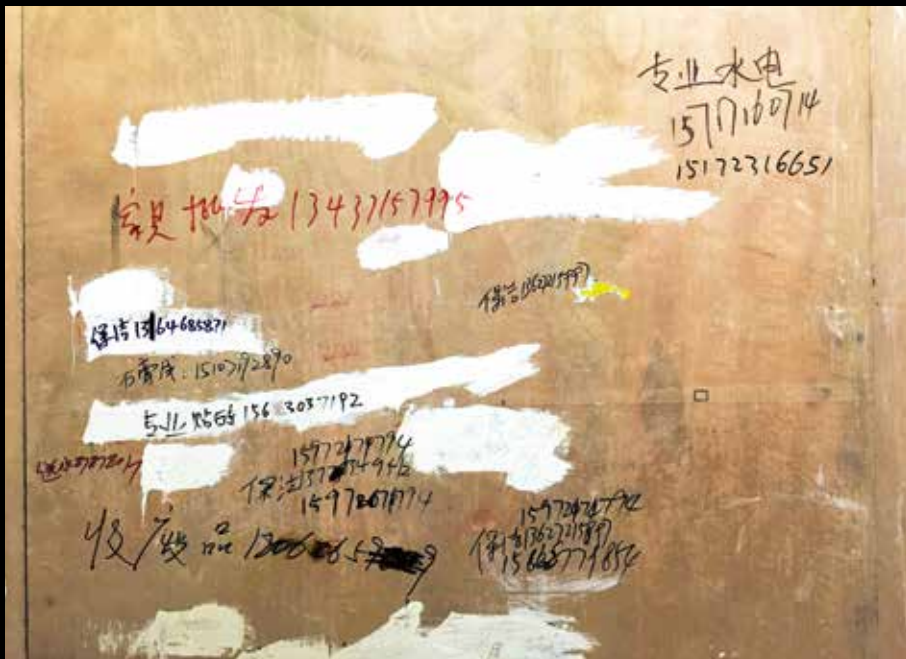

A TRANSLATION AND A LESS DENSE SIMULATION OF *LOVE DEBT'S DANMU* COMMENTS.

stationed nearby). The traffic of swelling crowds is used to symbolize how the Communists took power. Gradually, it became an agoraphobic image of disorder. Shenzhen speed relied upon the crowd and *liuliang* (流量, traffic), which refers to both the dense traffic of vehicles/people (the yardstick of urbanization) and Internet traffic (the basic measurement of platform capitalism). However, the marching crowds must be contained and dispersed—unapproved loitering and gathering on a square (regardless of purpose) is thus stigmatized as low *suzhi* (quality) behavior.

The Chinese obsession with *danmaku* or *danmu*[2] is both a literal demonstration of the dromological obsession and a digital remediation of agoraphobia. A digital interface simulating traffic and crowd, *danmu* is a "*comments–over–the–video*" (Li 2017) system that has profoundly influenced China's video cultures over the past decade by enforcing a specific politics of speed and real–time. According to the Wikipedia entry (2017) on Bilibili.com,[3] it is "a real–time commentary subtitle system that displays user comments as streams of moving subtitles overlaid on the video playback screen." Popularized in Japan on video platforms like Niconico Douga, it has been largely appropriated by China's video portal sites and even in cinemas.[4] The term itself literally means "bullet curtain" and was originally used to describe a video game genre in which the player controls an aircraft maneuvring through barrages of massed artillery fire (e.g., Raiden). In more technical terms, it is a comment system that utilises a video stream overlay to display textual comments, which can come in a variety of pixels, shapes, colors, fonts and sizes—also known as "advanced subtitles".[5]

THE MARCHING CROWD

Danmu should not be understood solely as comments. To treat it as an intelligible conversation or a "linguistic network" would be a mistake as its ingenuity stands not in the textual, but as an interface of performativity for speed and density. In order to understand this performativity, I will start by revisiting the roots of Chinese *danmu* videos on once popular video site Acfun.

MC Shitou's now enshrined video *Love Debt* on Acfun is an archaeological ruin of early *danmu* carnivals, and perhaps the best demonstration of a subcultural principle that could be summed up as: "*danmu* is the actual main body (as opposed to the video itself)." The core aesthetics of MC Shitou's video was its "vintage" aesthetic—rather than the inherent quality of his music. Despite being regularly deleted by Acfun's administrators, the comments gradually accumulated over time—therefore becoming "vintage." Users repeated the

2 *Danmaku* in Japanese or *danmu* in Chinese refer to the same Chinese/kanji characters (弹幕) that are pronounced differently. This essay concerns mostly the Chinese context.
3 Bilibli.com is one of the leading *danmu* video platforms in China.
4 *Danmu* was implemented in Beijing cinema, where audiences could send comments via their smartphones during the movie to entertain each other (Liao 2014).
5 Different video platforms use different protocols: Bilibili uses ECMAScript (JavaScript based) and other unspecified digital infrastructures; livestreaming platform Douyu uses Flash sockets as it has three separate servers—*danmu* servers, *danmu* verification servers, and RTMP (Real–Time Messaging Protocol) servers.

same rituals by posting the same comments on the same video to prevent them from being wiped — the act of spamming comments to bump it to the frontpage is referred as *wafen* (literally "grave digging").
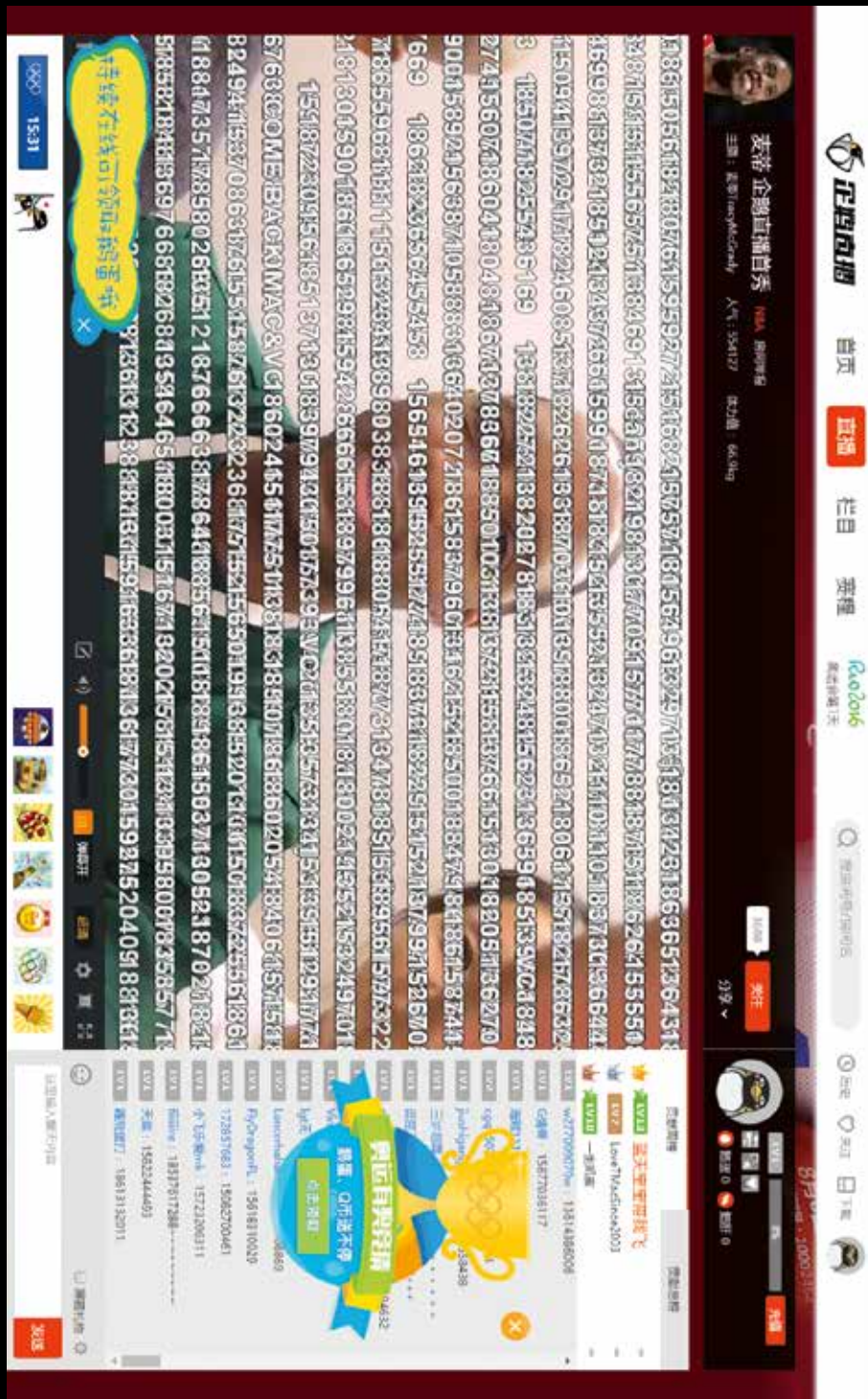
Appropriating the aesthetic of the rural and the grotesque, MC Shitou fans utilised the comments to simulate the fly-posting of illegal advertisements (often referred to as *liupixian* or psoriasis) that are omnipresent on the poles, doors and stairs in suburban and rural China. Most of the time, these words were not posted for their literal meaning but as a visual effect via its simulation of the illegal posting of handbills and graffiti—not as static texts but as *moving traffic*. If traditional comments below the online video (such as YouTube) are the "habitation" of the masses, *danmu* simulates the flow of traffic—the marching crowd. Both density and speed are crucial measurements of how iconic a video is. There must be a large quantity of comments and they must flow.

The traffic must be controlled in order to flow. First, you must impose a speed limit. Instructions sent to the browser control the speed and other properties of each comment as it is "shot through" the video from right to left. By default, shorter comments move slower and longer comments move faster. The tweaking of options and properties are an explicit metaphor for vehicular mobility: on Bilibili, viewers need to pay premium virtual currencies just to apply for the "privilege" of posting comments in different colors, fonts or movement speeds; even a basic line of white text requires verified membership.

Second, the video platform must set, educate and enforce the traffic rules. The proper operation of *danmu* as a comment culture necessitates a knowledge of what the comments are supposed to perform in specific contexts—a netiquette. For instance, Youku (founded in 2006) was one of the earliest video portals in China, originally modelled after YouTube as a generic public archive of video content. Since 2012, Youku also adopted the interface of *danmu,* introducing the interface to the mainstream audience beyond its subcultural origin. In the context of both Video-on-Demand (VoD) video platforms (e.g., Bilibili) and live-streaming video platforms (e.g., Douyu), *danmu* gradually became synonymous with the word "comment" or *pinglun.*

However, veteran participants in this subcultural scene—active on early platforms like Acfun and Bilibili—often lamented its introduction to mainstream video portals like Youku. For them, the "quality" of comments was declining drastically as the new participants no longer understood the netiquette of the pioneers. As an anonymous informant—and avid user of Acfun since 2006—said in an interview (2016):

"*Danmu* are not simply comments. As a collective performance, it requires sufficient knowledge of the memes, back stories, and video aesthetics purported by [remix] videos [that originated on Acfun]."

SCREENSHOT CAPTURED DURING A LIVESTREAM SPONSORED BY TENCENT SPORTS OF LIVESTREAMER TRACY MCGRADY.

VIDEO OF A PIRATE STREAM OF JAPANESE DRAMA *PLEASE LOVE ME.*
In these sort of streams, viewers collectively commentate on and express
admiration to the protagonists, the most mainstream social function of *danmu*.

Mainstream video portals such as Youku were able to copy the interface format but not the participatory ethics, which depend solely on the core user groups who understand and preach the netiquette. Youku does not educate its users, who are often not dedicated enough to learn and participate in the technical and sociocultural knowledge—a specific netiquette—that proliferated on Acfun and Bilibili.

AESTHETICIZATION OF COMMENT CULTURE

In the language of interface, common perception assumes the discreteness of digital objects as they take shape on the screen. In other words, the video window and the comment window/section are separate spaces. According to video theorist Andreas Treske (2013), this arrangement reflects our historical understanding and usage of the video as a one–way broadcast. The interactivity of the comment system is therefore an "added layer."

Alexander R. Galloway (2006; 2012) uses the game *World of Warcraft* as an example to discuss the separation between diegetic (the "immersive" 3D virtual world) and non–diegetic spaces (the user interface such as the skill bar, inventory, and so forth). If we suppose the video as the center stage or the diegetic space (the coherent narrative), comments are—from the perspective of the viewer—a feedback (the fragmented, inconsistent, instant responses) and therefore the non–diegetic space. The entry of messages into the frame totally obscures the distinction. By layering video and comments, *danmu* rejects the transparency of the conventional interface with its discrete and immutable objects. As An Tairan (2016) writes:

"At any given time, the scene may be overlaid with multiple 'bullets,' or comments, scrolling across the screen. The line between the content of the exhibitionists and comments of spectators is ultimately blurred. The viewer and the actor, the articulable and the visible, the word and the image, the subject and the object, literally become one (53)."

Danmu aims at becoming an integral part of the video, contesting it and possibly reversing the relation between the video and comment as the center and edge. It does not merely facilitate socialization of the online video but enforces an *aestheticization of comment culture.* Commentators are actors and performers in the most literal sense—"in" the video. Comments are not adjuncts, but the essential constituents of the video, its "actual main body" according to the subcultural principle. They are therefore not simply textual, they can be graph–ical, animated and even moving pixelated images (composed or coded as texts) —they convey a unique sense of aesthetic while being social.

REALTIMENESS: FROM VOD TO LIVESTREAMING VIDEO

As an interface, *danmu* manifests the politics of real–time on different video platforms. The regime of real–time or real–timeness is not an endless optimi–zation toward immediacy but depends on the sociotechnological specificity of the platform. Real–timeness stands "at the intersection of real–time processing
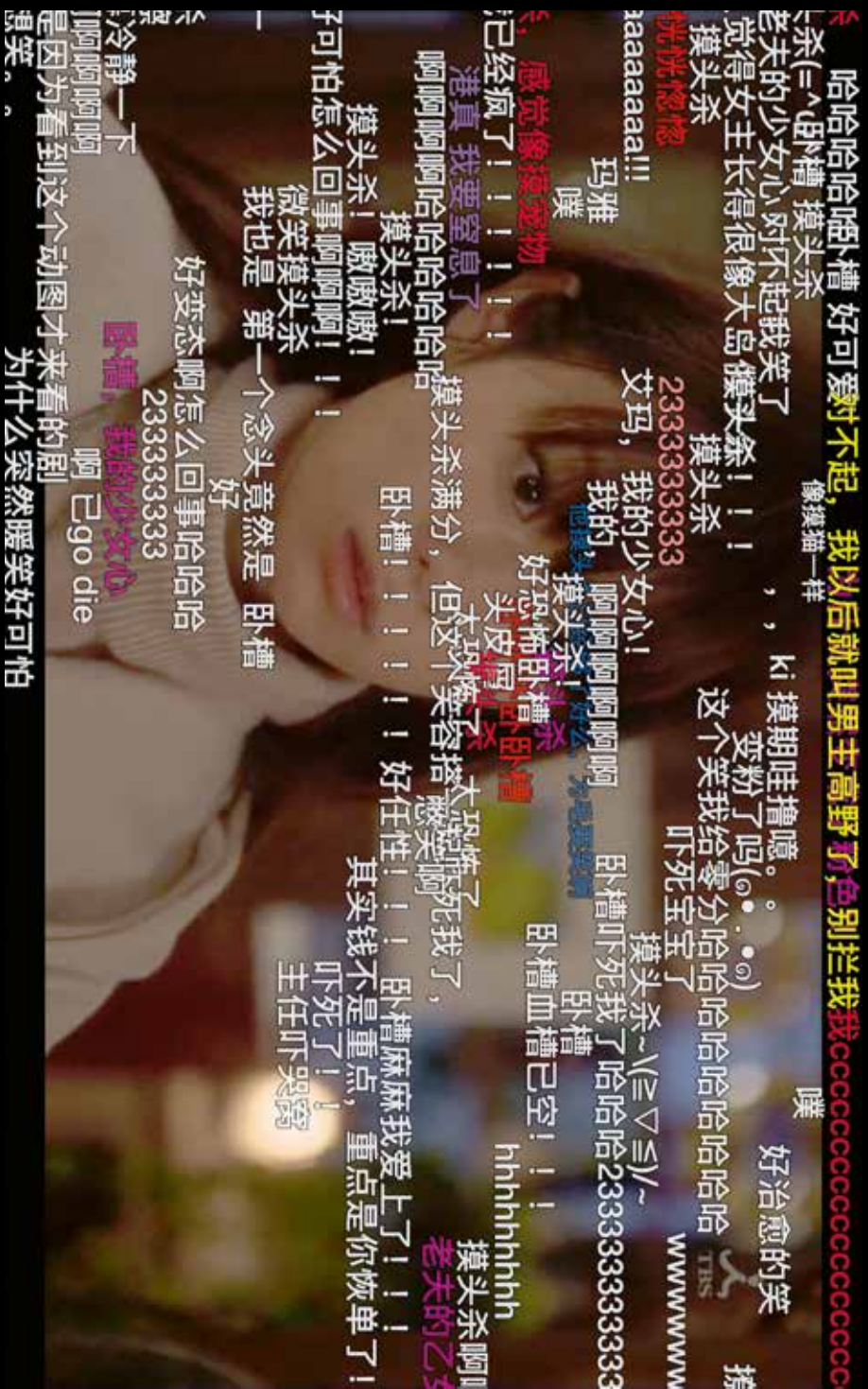
SCREENSHOT CAPTURED ON DOUYU CELEBRITY CHUANGGE'S (串哥) CHANNEL DURING WHICH HE ASKED HIS VIEWERS TO PRESS 1 TO TOAST WITH HIM.
"1111", "6666", "23333" and "hhhhh" are all ways to express a similar meaning to "LOL" or "LMAO".

and experience" (Weltevrede et al. 2014, 129). The operativity of real-timeness needs to be understood within each specific infrastructure. For instance, the social and aesthetic experience of real-timeness is very different in VoD and livestreaming video.

In the case of VoD, the social interface of *danmu* helps construct a sense of "virtual liveness" (Li 2017)—virtual because while the video is not live, the comments appear in real-time and in relation to each other. On the VoD platform Bilibili, the interface enables "a sense of live communication" or "pseudosimultaneity"—having an argument with someone on *danmu* is "like quarrelling with a ghost" (Li 2017, 249). The two "quarrelling" comments are sent from different times (hours, days or weeks apart) but they occupy adjacent temporality within the timeline of the video. From the perspective of the third viewer, they are arguing in "real-time"—an illusion created by the synchronization of comments with the online video. In this case, commentators collectively contribute to the performance of video commentary and make the video feel "alive."

In the case of livestreaming video, the interface of *danmu* has different implications. For instance, the livestreaming platform Douyu's interface displays comments at the top of the video. However, the chat messages will "flow" across the screen in full-screen mode, instead of having a separate column. Given the limited screen space of mobile devices, the interface of *danmu* affords both a full screen video and a whole view of the comments. In the case of VoD, *danmu* comments are carefully composed and aligned, both individually and collectively. A strong netiquette turns these online acts into a very elaborate socio-aesthetic interaction, a sometimes almost artistic performance on the video surface. In the case of livestreams, however, full liveness in a way helps *vandalize* this coherent sense of aesthetics. For some of the *danmu* early adopters, full liveness can be undesirable as it banalizes and vulgarizes the flashy displays of *danmu* comments. Previously, comments were accumulated according to a collectively understood netiquette specific to the video platform and celebrated videos. Live reactions to livestreams no longer possess these qualities. The accessibility and popularity of livestreaming video has gradually taken over the technical elitism bestowed by the frequent (re)visitors and "worshippers" of the "enshrined" videos, such as MC mentioned earlier.

AGORAPHOBIA: CROWD AND SQUARE

As livestreamer Xima said in my interview with him (2016), "*danmu* on livestreaming platforms are for the "masses" (群众 *qunzhong*) who are mindless mobs or crowds." This metaphor of crowds become crucial in understanding the effect of *danmu* on livestreaming platforms like Douyu. Apart from their immediacy, livestreaming platforms also accentuate the live performance through the contagious elation of temporal and virtual co-presence (viewers in the chatroom and the broadcaster in the livestreaming video). As Yves Citton (2017) writes, "the joint attention characteristics of live performances brings about "CROWD" EFFECTS, as it encourages unpredictable contagions of mood that spread directly from a spectator to his neighbors (102, emphasis in original)." The thrill

SCREENSHOT TAKEN OF A TEN-HOUR VIDEO OF "EPIC SAX GUY" ON REPEAT, WHICH OVER TIME HAS BECOME A VIRTUAL "SHRINE" FOR VIEWERS TO REVISIT AND POST PRAYERS AND JOKES ON, AMONG OTHER RITUALS.

of participating in a popular channel is comparable to that of the "joyful elation of the Mexican wave" (Ibid, 102). In Christina Xu's words (2019), it is "a viscerally social experience, like an opening night crowd at a movie theatre that you can summon any time." Contrary to VoD, to summon crowds on livestreaming plat-forms, one has to be there on time. There is a qualitative difference between Li's (2017) "virtual liveness" and the full liveness of being there in the shared spatio-temporality of the livestreaming channel.

On a popular channel on Douyu, comments flow fast across the screen in enormous quantity. It is thus impossible to keep up with every message. The alternative way to spectate, as viewers are already accustomed to, is to "zoom out" (or even "space out" at times) and view the "bullet screen" as a *whole*, instead of attentively reading individual comments. If the livestreaming channel is occupied by thousands of viewers, it is impossible to comprehend all the messages at a glance. It is easy to see this as an information overload that even defeats the original purpose or ideal of the "social" or dialogic experience of online chat rooms. Alternatively, we can focus on its aesthetic quality: *danmu* simulates the density of crowds. This imagery of crowds is quite consistent with how viewers on Douyu refer to each other as *shuiyou* or "water friends," which comes from the meaning of ephemeral and anonymous fellowship between viewers in the literal flow.

Zooming out, instead of focusing on reading individual comments, we can observe crowds coalescing and dispersing in real-time. The sheer amount of comments overwhelms and relegates the online video in the background. Paul Virilio (1977) is particularly wary of the "inorganic mass" of the proletarian horde — the mob. He writes:

"It [the mob] means giving rhythm to the mobile mass's trajectory through vulgar stimulation, a polemical symphony, transmitted far and wide, from one to the other, polyphonic and multicolored like the road signals and traffic directions... Reading implies time for reflection, a slowing down that destroy the mass's *dynamic efficiency* (30–31)."

From the perspective of Chinese censors, *danmu* represents, or perhaps literally embodies, the uncontrolled and unfiltered masses. Livestreaming espe-cially is the perfect embodiment of this "dynamic efficiency." The circulation of the messaging masses must be curtailed just as protesting crowds must be under "traffic control." Coincidentally, Virilio himself quotes Japan—the birth-place of *danmaku*—as an example of "habitable circulation." The kinetic nature of protesting crowds pushed for the ban on loitering and the ban on gathering in Japan during the height of revolutionary fervor in the late 60s and 70s. China has implemented similar bans in the reform era since the 90s. Dai Jinhua's essay (1999) on the shifting meanings of square or "plaza" also confirms the simulta-neous desire and fear of this "dynamic efficiency" in post–Reform China. As Dai explains, the square or plaza was never a neutral term as it used to symbolize "the people, a colossus collective that ablates away class and individual

SCREENSHOT TAKEN OF MC SHITOU'S DOUYU LIVESTREAMING CHANNEL, WHICH FAILED TO REVITALISE THE KIND OF DANMU RITUALS THAT EMERGED FROM HIS EARLY ACFUN VIDEOS — THE COMMENTS NO LONGER SIMULATED THE FLY POSTING BUT WERE INSTEAD DIRECT RESPONSES TO HIS LIVESTREAM. His Douyu channel's popularity dwindled soon after, partly because the original attraction of his videos was no longer present.

differences" but gradually it became synonymous with malls and high rises. Naming high rises and malls "plazas" is a nomenclature imported from the closest "Asian dragons" (Hong Kong and Taiwan). In mainland China, "plaza" became a symbol of consumer capitalism. In conjunction with this shifting meaning of the square, the crowd, which used to gather on squares and march, is now seen as a potential threat. Crowds, unless orderly, organized or approved officially, are thus dismissed negatively as indecent in the post–Reform era. This distrust continues on the Internet. As Geert Lovink (2011) writes:

"This basic rule of how crowds gather, described by mass psychologists, is also operational on the Internet, as if the masses want to celebrate their own presence by demonstrating their sheer quantity… the swelling and density of crowds seems unstoppable (51)."

As *danmu* dominates the majority of video platforms, its regulation is already on the official agenda. Major livestreaming platforms now dedicate hundreds, sometimes thousands, of administrators to monitor livestreaming channels in real–time. The fear is not that comments may contain vocal critiques of the government. Messages are usually filtered on the client side before they are even sent, using frequently updated lists of blacklisted words. The more plausible motivation is the utmost distrust of the swelling crowd inherited from the general policing strategy in post–Reform China.

Danmu is the visual effect of an assembly and affective flow of a marching crowd. During sensitive periods such as anniversaries or important political events, Bilibili simply shuts down its *danmu* interface entirely.[6] It is not that they do not trust their own real–time censorship, but preventing the crowd from entering the "virtual square" of online videos/streams is always the safest bet. Given the huge cost of maintaining an army of real–time administrators and constantly updating monitoring algorithms, the goal of novel technologies is not just surveillance but actively pushing for a "healthy" public space of an orderly flowing highway, as opposed to a crowded public square of "polemical symphony."

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6 In 2019, it was shut down from May 29 to June 6.

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