

Digitalization of Art Exhibitions in Times of COVID-19

Three Case Studies in China

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The “digital” paradigm shift in Chinese museums

In 2004, Yang Jing, one of the authors of this essay, was enrolled in the Department of Cultural Heritage and Museology in Fudan University, Shanghai. The program is one of the few of such departments in China. The courses available to undergraduates were quite diversified, covering archaeology, cultural heritage, Chinese art history, anthropology, ethnology, restoration and, of course, museological research itself. Such a variety of courses reflected the different fields in which Chinese museums in the 1990s and early 2000s were operating: antiquities, technology, academic research, business management and cultural heritage. There were two required courses for the museological research branch, one in Museum Management and the other one in Museum Exhibition Design, both dealing, among other things, with the concept of digitization. In the former course, we learned to use a content management database to sort and edit information about artifacts, collected by the Fudan Museum, of Taiwan’s indigenous culture. In the latter course, we were introduced to two-dimensional digital drawing tools such as AutoCad to create exhibition/collection floor plans.

This was in the pre-social media era. Today, terms like “digital museum,” “digital art museum,” or “digitalization of museums” have been in use for a long time, and they have undergone a paradigm shift over the past two decades. Since digitization of museums is a very large field itself, this paper will focus on digitization of museum exhibitions solely.

“Digital practice” has extended from databases and websites as their domains to online exhibitions, social media and online interfaces for reproduction, research and communication. Digital technology has evolved from a facilitative tool into a complex ecosystem. More and more digitalization works (digital archiving, 360 panorama online exhibition, museum apps) are carried out not by museum professionals alone but in collaboration with actors from IT, digital media, digital marketing and design industries. In our recent interview with the founder of “artexb,” an online 360° VR exhibition platform, we were told that such external digital service providers are crucial for the museum industry since most museums still don’t have budget for their own in-house production team for digital exhibitions.

At the same time, museums in China are far more diversified, commercialized and branded than before, ranging from traditional ancient art museums to contemporary art museums to local history museums to private collector museums. By 2020, there were 5535 museums registered in the country, including 1710 private ones. For state-owned museums, local governments are their generous funders and supporters. Such museums are often criticized for being built as political vanity projects and lacking basic museum management systems and exhibition services. Private museums, on the other hand, do not enjoy such fiscal privileges, and hence need to constantly explore ways to sustain themselves financially. Therefore, they rely more and more on ticketing, memberships, commercial use of space, etc. Their business models and internal management also underwent tremendous changes driven by the 2008 financial crisis and by the current pandemic crisis.

In *The Museum in Transition*, Hilde S. Hein observes that formal definitions of museums, such as ICOM’s “a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches,

communicates, and exhibits, for purposes of study, education and enjoyment, material evidence of man and his environment" (Hein 2000, 35), can no longer accurately reflect those institutions in reality. These concepts fail not only to express what a museum is but also to clarify what can and cannot be considered a museum in reality. The ways to deal with art exhibitions has undergone huge transformations. Meanwhile the borders between art and entertainment as well as between designated art institutions and spaces primarily intended for mass consumption are blurring. Today, visitors can attend exhibitions in galleries, in malls and sometimes even in zoos. This observation is echoed very well in today's Chinese art-entertainment scene; many important exhibitions are not held in, or by, museums and art spaces but by theme parks and commercial malls instead. Moreover, with social media's pervasive popularity in China, museums now have another competitor – social media networks that deliver art, culture and entertainment information as content.

Most museums in China today have social media accounts. For the art museums among them, a WeChat¹ public account and a Douyin² live broadcast are the standard frontend of exhibition news, exhibit content, review articles and related multimedia derivatives. However, technology conglomerates such as Tencent and ByteDance have been able to produce and disseminate cultural and art contents with much better production quality and at lower cost than, e.g., museum communication departments. These are the veterans who may not have a good résumé in the art industry but who definitely have more experience in running social networks and building online communities. Meanwhile, thanks to the regulatory difficulties of copyright control for arts and cultural entertainment works in China as well as

1 WeChat (微信) is a so-called "super app" that contains multiple-purpose functions including messaging, social media and mobile payment. It is developed by Tencent. WeChat public account (公众号) serves as self-public media account for registered WeChat users, on which the owner can push feeds to subscribers, interact with subscribers and provide them with services. WeChat friend circle or Moment (朋友圈) is an interactive platform that allows users to share images, text, and short videos. This is similar to the Facebook timeline. WeChat mini-app, or WeChat mini-program (小程序), are apps within WeChat. Business owners can create mini apps in the WeChat system and other users may install those in their WeChat app.

2 Douyin (抖音) is a video-sharing social networking service owned by ByteDance, the owner of TikTok. Douyin's servers are based in China and the majority of its users are also based in mainland China. It is one of the most popular apps of its kind.

the huge traffic of the digital highlands,³ social media accounts avoid the burden which comes with producing, refining and presenting content for the distribution of art. Many content farms use digital properties of museums without permission and don't even provide hyperlinks to the original context of the information. Toutiao, a core business owned by ByteDance, labels itself as a content platform based on machine learning. The company has been in numerous lawsuits regarding content plagiarism since its beginning. Nevertheless, Toutiao not only survived but has become the number one content distribution platform in mainland China. Museums, like other content providers, now find themselves pledging to Toutiao so that their exhibition press release could make the front page on the Toutiao app. Toutiao is just one of the social media hubs that hijacks the content and traffic from museums. The power of these hubs, usually translated from traffic, as well as algorithm-based curatorial practices, put museums in a strange place in terms of how to make themselves visible in the digital realm.

When Haidy Geismar reviewed the research literature on digital museums in 2012, most scholars and practitioners agreed that digitalization could democratize the distribution of artworks, reduce the costs of running a venue, break free from the constraints of space and time and reconnect with visitors and communities. In retrospect, such an optimism is deeply challenged today. One of the major reasons might be that these scholars neglected to include the cost of utilizing digital technology into their prediction of art exhibition.

Haidy Geismar suggests applying actor-network theory (ANT) to understand the challenges of digital museums, placing them within a complex network of changing relationships, such as Web technologies, hardware and software technologies, multimedia platforms and entertainment systems, as well as deconstructing the functions of the art museum itself, its staff and the art system as a whole.

In 2004, when digital museums were in their infancy in China, practitioners were still scattered among digital software realms, like collection management systems and museum website design.

3 "Information Highland" is a term coined by the Chinese artist aaajiao. He defines it as the public space that can hold the most traffic of information exchange, which is often monopolized by the state or tech conglomerates as they possess the most powerful computational capacities.

By 2020, when online representation of art has become a central aspect of museums in China, museums were already caught up in the ever-changing digital matrix of culture, capital, politics and public opinion; therefore, it is no longer feasible to discuss “museum” as an entity of its own.

To better understand this challenge and the ways different museums are dealing with it, I interviewed three groups of practitioners in digitization of museum content and digital exhibition practice: Tencent’s Cultural Creation Platform in collaboration with the Dunhuang Academy; CEF Experimental Images, an online video art cinema using WeChat’s in-app mini-program; and Screenroom, an art group dedicated to the digitalization of art systems in China, also via social networks such as WeChat groups and mini-apps. The practitioners in these cases are at different places in the art world, exploring the possibilities of digital museum exhibitions from their own professional perspectives and visions of the future. I am also including in this article a reflection on my own exploration of making artwork into a video-game narrative with artist Alan Kwan and collector Syvail Levy, to provide an inside account of the daily challenges we have to tackle while making art accessible online.

Reskin Dunhuang Mural, Tencent + Dunhuang Academy

In April 2020, the “Dunhuang Animated Series,” a collaboration between Tencent Pictures, Tencent Animation and the Dunhuang Research Academy⁴ (hereafter DRA) was featured on the “Dunhuang on the Cloud,” a WeChat app. In this app, users can watch five episodes of an animated series which makes use of enhanced digital copies of the famous murals found in the Dunhuang caves covering 46,000 square meters and dated from the 5th to the 14th centuries, as well as participate in dubbing the series. In addition to the vastly popular WeChat platform, Tencent’s multiple outlets can also be used to watch related videos.

According to the project manager of Tencent Dunhuang Research Institute project (hereafter TDRI), the project started in 2017

4 Dunhuang Research Academy is a complex academic institution based in Dunhuang, Gan Su, China. It preserves, excavates and investigates Dunhuang art, as well as curates and exhibits Dunhuang art artifacts. It is one of the first-rank national museums in China.

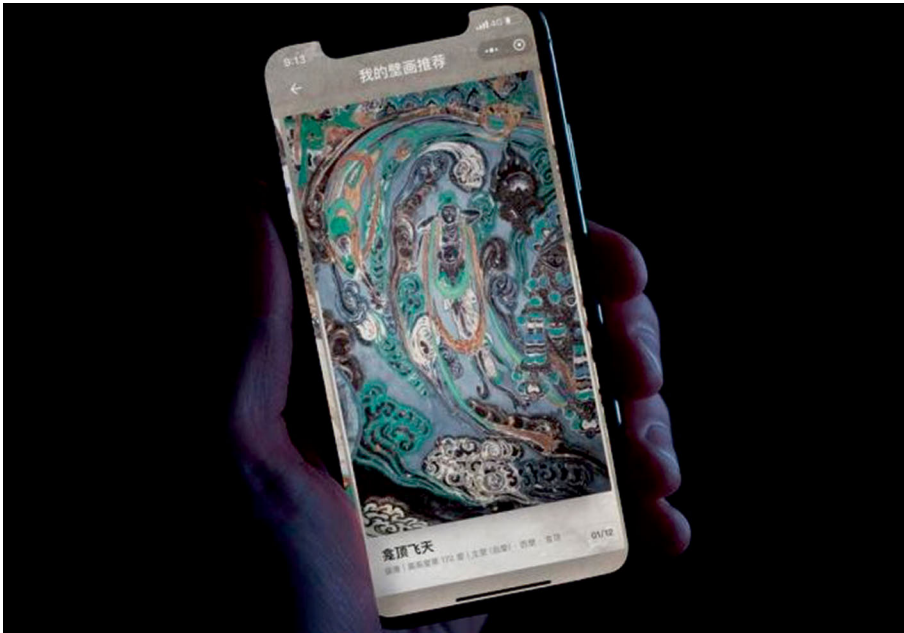


Fig. 1 "Dunhuang on the Cloud," Wechat app.

after the Dunhuang Research Institute and Tencent signed a strategic cooperation plan. Tencent's team carries out its own creative interpretation of the DRA archaeological excavation archive. In the animated series, for example, researchers from the DRA ensured the accuracy of the content, while Tencent's team took responsibility for restoring digital versions of selected murals and then "revitalizing" the cultural heritage in story scripts, plot settings and dynamic representation, adding anecdotes and vocabulary derived from contemporary culture and entertainment.

Dunhuang animated drama is the team's latest product. Before this, the team had also implemented various campaigns inside the WeChat app "Dunhuang on the Cloud", featuring digital mural exhibitions, Dunhuang beast-guardian blessings, Dunhuang wet wipes products sales and Dunhuang digital supporters.⁵ The specific design works in these campaigns made use of familiar museum

⁵ Dunhuang beast guardian blessings, Dunhuang wet wipes products sales, and Dunhuang digital supporter are all campaigns that feature graphic and religious elements of Dunhuang art in a commercialised manner.

expertise, such as data archiving and classification, provided by DRA. Additionally, Tencent's team contributed their expertise in user research, interaction design, branding and distribution matrix.

Labelling itself as a culture and entertainment creator, Tencent is well experienced in pop culture such as K-pop, C-pop, reality TV shows and most importantly, mobile games. It is therefore not surprising to see that the "revitalization" of the Dunhuang mural is achieved through reskinning the original form (cave mural) into a popular format: animations of high-quality mural elements in contemporary vocabularies. Royal musicians of the Tang dynasty became a girl band and Buddhist goddesses became a playable hero in mobile games. Digitalization is achieved in its highest commercial value and highest audiovisual quality thanks to a large capital investment.

This cooperation belongs to a larger strategy – Tencent's new cultural creation plan formed in 2018. It aims at not only to digitize museum content, which demonstrates the company's goodwill for public interest but also combines museum IP management with Tencent's entertainment conglomerate. Dunhuang, like *Journey to the West*,⁶ is an important cultural and entertainment IP that can be exploited for commercial consumption in a pan-cultural cross-media fashion. The cultural value is directly translated into commercial value. While content in "Dunhuang on the Cloud" is free for all users, derivative works of Dunhuang images in movies or games, however, amount to a lucrative revenue stream for Tencent later on.

DRA, in cooperation with the City University of Hong Kong, co-produced "Pure Land AR" by the artists Sarah Kenderdine and Shao Zhifei. Here, digitization emphasized interaction, immersion and virtualization, using VR technology to simulate the actual experience of visiting the Dunhuang's Mogao Cave, part of a cave network in Gansu Province; Tencent's Cloud Dunhuang on the other hand focuses on translating cultural heritage into commercial platforms and languages (technologically and linguistically). Such translation is much easier to circulate on the Chinese internet, social networks in particular. From the perspective of ANT, this is the result of a collision between Dunhuang art and Tencent networks: the former

6 *Journey to the West* is one of the four great classical novels of Chinese literature.

Stories from this novel have been adapted into modern films, TVs and video games numerous times in and outside of China.

intertwined with museum spaces and VR technology, the latter with social networks and gamified interactive technology.

In terms of visitor numbers, the millions of users of the Cloud Dunhuang series is a huge success for the museum industry. Centre Pompidou's video game *Prisme 7*, launched in the same month, is currently receiving a lukewarm response on Steam in terms of downloads and user reviews. Such reception is actually common for game art or museum gamification in recent years, due to the fact that the developing institutions do not have an advantage in terms of user experience and user penetration. The main publicity for such products still remains the art scene. Tech companies like Tencent could easily fix these problems with highly skilled professionals and a effectively penetrating social network matrix.

Not all art institutions are able or willing to carry out such a "revitalization" attempt. In addition to IP value and institutional responsibility, the "timeliness" of the museum exhibition and collection per se is also one of the criteria for cooperation. Antiquity museums are less restricted in terms of copyright issues. In contrast, museums that collect contemporary art have obstacles as the artworks were created within a contemporary context and hence do not need to be "revitalized" digitally.

Copyright protection and viewer experience enhancement: CEF Experimental Video

In 2019, I visited Hong Kong's Tai Kwun Museum (Hong Kong Centre for Heritage and Arts) for the exhibition "Contagious City, Far Away, Too Close," curated by independent curator Guo Ying. It featured ten artists and art groups exhibiting works that "explore the psychological and emotional dimensions of disease and contagion, particularly in relation to people and their ways of life" (Tai Kwun 2019). The work of artist Chow Yu-Cheng was particularly impressive. He designed an interactive olfactory installation that evokes Hong Kong people's everyday associations with disinfection and personal hygiene measurements. The playful architectural narrative of the UK-based artist group Blast Theory, which was based on accounts of real guests of the hotel where SARS broke out in Hong Kong, also engaged visitors' visual and auditory senses.

In 2020, I saw the title of this exhibition again on a virtual film ticket shared by a friend on WeChat: A QR code led to CEF's WeChat app "Experimental Image Centre," which was offering a film exhibition on the app's main column "Online Cinema." It featured eight video works selected by Guo Ying. In order to watch these videos, one needs to subscribe and pay to become a member. Once one clicks on the works, one is taken to a separate page to view or leave unlimited comments for the duration of the exhibition.

Guo Ying explains that this is the first time she used online cinema to curate an exhibition. It fulfilled her long-held belief that video works should not be exhibited in an art museum or art exhibition setting. She believes that video art needs a suitable viewing environment, rather than being placed in a white cube for people to stand and watch. However, online cinema also challenges established curatorial practices, apparent in the difficulties in showing split-screen works, for example, or video installations and works like the ones described above that experiment with other forms of architecture and sensory experience in addition to the audio-visual level.



Fig. 2 Chou Yu-Cheng, "Wiping, Perception, Infection, Disinfection, Education, New Habit," 2019, Tai Kwan Museum.



Fig. 3 CEF WeChat app.

Artist Chen Youtong, the founder and director of CEF, also shares these views. CEF uses mobile internet to exhibit artworks while guaranteeing copyright. Artists hence feel secure enough to publish their work on the internet. Like a museum with permanent and special exhibitions, CEF's online content has special exhibitions and permanent databases. The latter are long-standing collaborations with video artists to store and broadcast important video works from their creative careers. CEF provides technical support and maintenance,

copyright representation and copyright protection services, with the goal of developing new ways of broadcasting video art exhibitions rather than replicating the practices of the physical space.

Chen Youton believes that the viewing experience should be created not only by his technological development team but also by audiences. Hence, audiences can make use of screen projection technology when using CEF products. CEF functions as a database of video art content and allows paid subscribers to choose how to present and view content. Their next experiment is to invite users to cast video content from within the WeChat app onto a large interface (wall, projection curtain, etc.) inside an art museum with stable internet connection and to invite friends to watch together. CEF's WeChat app has been in use for several months now and has begun to accumulate high-quality content as well as comments from users. Chen Youtong introduced the use of WeChat in order to attract more users. He recalled that, in recent years, similar art institutions have tried to build apps independent of WeChat, but many were abandoned due to lack of traffic. In fact, he and his team plowed deep into WeChat a few years ago and released apps like "Culture Museum" or an app for the "Inner Ear Festival," a music festival. Such precipitation and continuance helped the team to build a user-friendly and comprehensive mini-app. In fact, CEF has the largest number of staff among the teams that I interviewed. Their employees come from a wide range of industries, and the tech team is their core.

Chen Youtong's frame of reference was not only museums but also mainstream video streaming platforms, including Tudou in the early days and Tencent Video now. He pointed out that in addition to traffic, art institutions face the challenge of digital copyright. Compared to other freely downloadable products such as video games, the scarcity of artworks still needs to be achieved through control of copyright, which may be subverted in the future art scene. The unwillingness to make artworks ready to watch regardless of time and place is an issue CEF deals with on a daily basis.

Community building: The Screenroom

Unlike the above two cases, Screenroom is not interested in transferring offline content into digital code and in putting it on a virtual platform, but rather the goal is to encourage and facilitate artworks and art activities make on the "screen" from their birth. The screen

here is understood as a human-computer interface, which could be a real LED screen in a physical exhibition or the screen of one's mobile phone.

I've worked with Screenroom before and witnessed how one of the founders, Cedar Zhou, induced exhibition visitors to become art creators. Screenroom also based itself on WeChat via mini-app. This app's backstage is a database collecting artworks generated and submitted on its frontstage – users only need to scan a QR code in order to upload their work as an entry onto this mini-app. They can also browse through existing artworks and auction them inside the app. In this way, Screenroom collected original artworks (usually images and videos) and their collectors. Gradually, Screenroom has generated a large number of creators and buyers.

During the COVID-19 pandemic, Screenroom carried out several art events that grew entirely in its WeChat circle of friends. One of them was "Planting Trees on Screen." It was a collaboration with Beijing Times Art Museum. After Women's Day in 2020, several staff members of Screenroom were discussing which holiday coming up next to promote, and interns suggested the Chinese Arbor Day. After searching for the keyword "tree" in Screenroom's art database, they found quite a few tree-related works out of more than 10,000 user artworks. Considering most people now spent their time indoors and were unable to plant trees or to even see trees at all, Screenroom launched a call for participants to plant trees on their screens. They encouraged them to plant them on their phones through photography, drawing, collage and other methods, and upload them to the Screenroom app. Later in the project, the Times Art Museum invited Screenroom to participate in the exhibition "Recovering in Art" and selected several Screenroom users to upload their works for the physical exhibition in the museum, thus transferring online work to an offline environment.

Another activity leans towards community operations. Susana Smith Bautista's study *Museums in the Digital Age* (Bautista 2014) draws on theories of cultural geography to analyze this transformation: On the one hand, digital museum practices detach the visiting experience from the architecture and location of the onsite museum but offer possibilities of resetting the exhibition or artwork in other contexts: native communities, historical cues and everyday life. On the other hand, digitization transforms geographic locations into



Fig. 4 Wang Licheng, "Landscape," still image, published on Screenroom WeChat mini app, 2020.

points of social connection, transforming the definition of place from objects and physicality to events and activities. The Screenroom “card-punching” campaign created just such a communal experience, “uploading a work of art every day in the time of epidemic.” In a WeChat group of 402 people, many resilient participants clock in daily to create various types of artworks, and there are also various group members who frequently share all kinds of online content that touched them during the clocking-in period. In fact, every time Screenroom starts a new project, a WeChat group would be created (sometimes even two or three). Every group is open to interested WeChat users who come in via QR code or friend recommendation. These dynamic group scenes, especially in times of COVID-19, function as communal spaces like museum openings or museum cafes where people could mingle and exchange ideas – and sometimes even result in future collaborations.

According to Zhou, Screenroom has been contacted by quite a few art museums to digitize their exhibition, but some are still limited to the idea of replicating offline artworks for an online environment. For such kinds of digital exhibitions, visitors must consciously visit an online museum before they search for and access relevant content. In addition, due to a lack of technology and manpower, the production level of the online content is unsatisfactory, leading visitors to switch to more mature commercial entertainment accounts. Museums also suffer from traffic anxiety – thousands of daily visitors are actually a good enough achievement to celebrate in physical operations, but on social networks it’s intuitively easy to get discouraged by the 100,000 plus figures that other, popular culture content can easily rack up.

Copyright, flow, platform – A new game

Many museums across China are gradually opening again during the fall of 2020, but the psychological aftermath of the pandemic as well as travel controls and the broader context of economic recession means that, at least for a while, it will be difficult to see big production exhibitions again.

At a time where online content is proliferating in museums everywhere, the negative aspects of closures and layoffs are also reported. The various attempts to digitize museums are undoubtedly the efforts of practitioners and have exposed them more directly to the multiple challenges of copyright, traffic and platforms in general. It is worth



Fig. 5 WeChat group of punching card users from the Screenroom.

noticing that all the interviewees mentioned the use of Tencent's WeChat in their work. Tencent itself also participated directly in the digitalization or revitalization of art and cultural productions. With the omnipresence of WeChat, it is understandable why most practitioners would choose the app as an environment to develop their own products and services. However, choosing Tencent also means choosing a particular burden of censorship: Firstly, all contents uploaded onto Tencent platforms would go through content censorship

that follows the regulations and rules of the CCP government. Secondly, even if content providers manage to make it through the censorship system, whenever a violation of the regulation is reported, the content and sometimes even the account would be deleted. Thirdly, WeChat has its own algorithm which records and presents content provided by individual accounts. This means that if not favored by current trends, even if one uploads content, it is still possible that it might not be seen at all.

The practitioners interviewed for this essay, regardless of their specific position within or outside the system, have already been working in the digital field for years. Many of them understand the commercial difficulties of the exploration phase and are ready to calculate the rewards from a long-term development perspective. This is the tricky part of the seemingly “plug-and-play” digital timeline, which has a long history of its own and which requires serious investment and long-term planning.

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