Development and Planning of Museums in the Post-pandemic Era

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Abstract. Historically, museums have always played an essential role in society's forming of civilization. From private museums to public museums, their form has changed a lot. COVID-19 has primarily affected the regular operation of the museum. This study examines the development and planning of public space-related museums in the post-pandemic world by examining ICOM reports, articles, and observations. The development and planning of museums in the post-pandemic era focused on both online and in-person forms of museums.

Keywords: Post-pandemic era · Museums · online exhibitions · inner museum

1 Introduction

The occurrence of COVID-19 imposed various burdens on various urban systems. As part of the more extensive urban system, museums represent some public spaces that have considerably changed society. What is a museum? The definition of a museum is varied and constantly changing because of the current social situation. According to the International Council of Museums, a museum is a non-profit, permanent institution in the service of society and its development, open to the public, which acquires, conserves, research communicates, and exhibits the tangible and intangible heritage of humanity and its environment for education, study and enjoyment [1]. A museum is connected to people's daily lives. Whether it is online or in-person, they are both considered public spaces.

The study of museum forms and planning in the post-pandemic era gives an overview of the changes and improvements to the museum system after the pandemic. What challenges did the museums face and overcome during the pandemic? What changes do they make to get visitors back? What forms do they have now for exhibits? This study provides a reference for the construction of public spaces such as museums in the future.

2 The Composition of Museum Systems

After many changes and advances throughout history, museum systems in every country are unique and diverse. They focus on different things and depend on the country's political or economic condition, culture, etc. However, the elemental composition of museum systems is the same.

A museum consists of an internal system and an external system, and the internal system consists of the inner and outer museum. The responsibilities of the inner museum are collection management, preservation, research, administration, and curation. The duties of the outer museum are exhibits, visitor services, development, education, public relations, preservation services, and web presence [2]. The outer museum is the part that visitors are familiar with.

3 Challenges During COVID-19

3.1 Lack of Visitors

Although in different countries, the museums are diverse, COVID-19 happened so suddenly that every museum faces the same challenge. Because of the lockdowns, even famous museums could not handle the severe lack of visitors; the Palace of Versailles in France was closed for nearly three months from March 2020. It was the first time that they had closed for such a long time since the end of World War II.

3.2 Shortage of Finances

Quarantine, social distancing, and self-isolation are essential methods to reduce the spread of the virus. These procedures not only contradict the individual's desire for social interaction but also conflict with how public spaces are designed [3]. Most museums were closed in response to the quarantine regulations. The government spent most of the funds that should have been allocated to museums on epidemic prevention, and the double pressure led to a shortage of funds for museums.

4 Museums in the Post-pandemic Era

The COVID-19 pandemic is a chance to optimize cities and every system [3], as do museums. Although they are still facing challenges, it is an opportunity to figure it out for themselves and research new solutions to attract more visitors. A need for (re)socialization is critical in a post-pandemic world [4].

Throughout the history of museums, most museums around the world have shifted their philosophy from "research only" to "collection-based" and then to "audience-centered" [1, 2, 5]. However, art plays an essential role in museums creating new forms of resocialization by reaching out to the public rather than waiting for the public to come to a fixed dedicated space [4]. This chapter will discuss the planning and design direction of the future museum.

4.1 Digital Museum

With advanced technology, staying at home and visiting museums online is possible. They were affected by the pandemic; the actual exhibits are facing challenges. Digital museums are becoming more and more popular. The museums have also started to pay more attention and have many innovations to get more visitors.

COVID-19 has changed museums' perception of the digital world. In the digital world, the development of technology is accelerating. Although the resulting economic crisis will be a significant obstacle in terms of the financial and human resources museums can invest in, more and more institutions are now aware of the fundamental importance of digitization [6].

It can be observed from Fig. 1 that 74.8% of museums will increase the digital content of their fer, and 76.6% will rethink their digital strategy [6]. The influence of digitization is impressive. In the digital world, many forms of digital museums can attract the younger generation besides social media.

Traditional Methods. The first way to a digital museum is through the official website. It is a traditional way compared to the others. The museum posts pictures of collections, videos, information, and so forth on the website and social media. Some also post art-making activities and workshops people can easily make and enjoy from home.

As shown, in Fig. 1, online collections, learning programs, newsletters, and social media are more traditional than others. Many museums state that these forms are the same as in the pre-pandemic era [6].

Virtual Reality and Online Exhibitions. The second way is virtual reality, shortened as VR. In a similar concept to the VR games, if visitors have VR headsets, they can "walk around" and see the exhibitions just like in the museums. However, without VR headsets, they can still use their electronic devices to go online for a 360-degree virtual tour. Visitors can still look around by clicking and moving the mouse around.

There are also applications that some museums have created for more online exhibitions or audio downloads. Some prominent museums continue to grow in attendance. Still, with location, venue, and exhibit conservation limiting accessibility, online digital content helps people achieve an alternative to physical museum visits [7]. Mona Lisa: Beyond the Glass is an application designed by the Louvre. As we all know, Mona Lisa is very famous, and it is always crowded to see the fantastic artwork by Leonardo da Vinci.
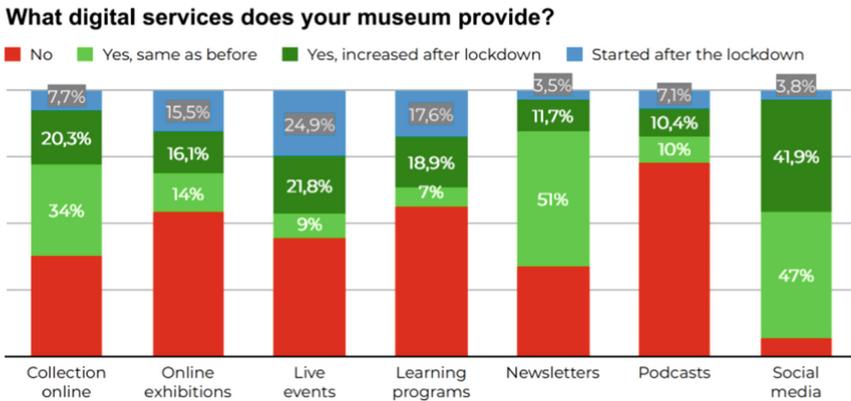

Fig. 1. Digital Services in Museums [6].

However, the size of the Mona Lisa is tiny. Throughout the application, visitors can go for a virtual tour to see it clearly, and there is a detailed background of the collection.

The Trans-disciplinary Development. People view going to a museum as a more traditional way of seeing collections. However, the cooperation between technology and museums presents a win-win situation. More forms of communication have emerged online, and museums have achieved breakthroughs in attracting more young people.

Museums and games seem inconsistent, but they are connected and create beneficial chemical reactions during and after the pandemic. Museums and games cooperate to launch a new way of play-collecting objects. In Nintendo's game, Animal Crossing, the museum needs to rely on the collection and donations of players to develop [8]. Players can collect and donate artwork, insects, fish, and fossils to the museum. Players can also walk around as museum visitors to see the donated collections. The scenes and artifacts draw heavily on the architecture and exhibitions of the world's famous museums, and the game is increasingly linked to museums. The game got the support of many prominent museums, and the Metropolitan Museum of Art has provided players with 406,000 virtual collections [8].

The game's new way of bringing solace to the players during the difficult time and the concept of museums in the game made more people interested in real-life museums. In the post-epidemic era, museums adopt a more open and forward-looking attitude, giving visitors the most exciting content and services in a way they are familiar with and willing to accept [8].

4.2 More Public Facilities

In museums, more public facilities can be provided for visitors and staff to avoid the virus. There are hand sanitizer stands set up in museums for people to use. At every entrance, there are masks provided for visitors to grab and wear. Some museums also have exhibitions in more spacious areas that reduce the number of visitors, which helps stop the virus from spreading.

5 Traditional Museum in the Post-pandemic Era

Although they faced challenges, everything started returning to normal in the post-pandemic era. The museum of Modern Art in New York City stated on their website that COVID-19 vaccination and mask are no longer required but strongly recommended. However, many in-person events and workshops are still suspended.

Because of the pandemic, museums focused more on improving their systems. Like some problems they left to solve because of the daily exhibits, now it is an excellent opportunity for them to fix these problems. For some, the pandemic has destroyed traditional business models, which may present an opportunity to build new systems rather than bounce back to the status quo.

Museums focus on two points: recovery and evolution. Recovery is how to meet public expectations and increase public confidence in museums after they reopen; evolution means how museums can be sustainable in the post-pandemic era [5].

5.1   Avoiding the Virus

After the pandemic, we realized how we might feel more secure and safe in our space and more comfortable as we visit public buildings. Social distancing is still an important thing to focus on. Even in the post-pandemic era, we must try our best to avoid the pandemic from happening again.

One of the essential factors affecting the spread of an epidemic is the view of population density, in which the greater the population density, the greater the risk of infection [3]. It is why social distancing is such an important thing. In museums, especially indoor museums, there are many ways of keeping people from following social distancing. Use pictograms that show wearing a mask, keeping 6 feet away from each other, etc. Stick arrows on the floor to lead the visitor's route in museums.

5.2   Drawing People's Attention with a Shortage of Funds

Besides avoiding the virus, the other important thing museums are trying to change in the post-pandemic era is a financial matter. Because of the lack of visitors in the past two years, the museum's income has been decimated due to government measures to deal with the pandemic. How do they draw people's attention with a shortage of funds?

Museums have started to focus more on the inner museum instead of the outer museum. The concept of pragmatism focuses on spatial practices, behaviors, and the everyday functioning of museums. The new solution for museum design is adapting existing structures with minimal intervention and no demolition [9]. In the case of art museums, museums should focus on the collection itself to attract visitors rather than building grand interiors to attract audiences. Building less reduces time, labor, and other costs during this specific period.

The flexibility of the space enables performance. Museums began to think more about reusing and adapting builds, with the same build fabric being considered for three or four exhibits at the same time—finding clever ways to repurpose structure, such as by using pivoting walls, moving archways, and pieces of design that can be reordered and reassembled in creative ways, much like a kit of parts [9]. It also saved much money because they did not have to redo the interior for every single short period of limited exhibitions. In museums, curiosity is what keeps people go visiting. Visitors will also be intrigued by the uniqueness of the museum's flexible use of exhibition space.

In addition, using sustainable or reusable materials can save a part of the exhibition's cost.

6   Outdoor Museums in the Post-pandemic Era

Outdoor museums are varied such as zoos, botanical gardens, and so forth. During the pandemic, they also maintained normal operations to care for animals and plants. Since no one was visiting, outdoor museums were stressed about funding, too. The outdoor museums also have online tours. However, most are just simple web pages for information distribution. It is hard for them to do anything creatively, and there are no immersive 360-degree or VR tours. Mostly, they only have pictures and information about animals and plants.

Because of the air circulation, outdoor museums are less restrictive for visitors in the post-pandemic era than indoor museums. They are also more flexible and open to visitors who do not want to wear masks.

After the lockdown of the pandemic, people became physically and mentally exhausted. Hence, access to urban nature is essential when stress levels are high in populations that are suddenly asked to shelter in place and that experience anxiety due to uncertainty and fear of infection [10]. Outdoor museums are similar to urban biophilia in that nature can provide muscle and mental relaxation.

7 Conclusion

Nowadays, fewer and fewer people pay attention to museums. Museums are closely linked to education, culture, the public, and so on in cities and societies. The study of the development and planning of museums in the post-pandemic era gave an overview of changes in museums as public spaces in the urban system. Although the pandemic will not last long, it is essential to take it as an opportunity to learn lessons and make improvements from it. There were few articles about the planning and design of traditional museums in the post-pandemic era. This essay is just an overview of the development of museums during that time. The topic needs to be studied in depth by professional fields. It is hoped that future research will focus on the similarities and differences between museums and other public spaces in the post-pandemic era.

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