

MUSEUMS AND THE PANDEMIC - HOW COVID-19 IMPACTED MUSEUMS AS SEEN THROUGH THE LENS OF THE WORLDS' MOST VISITED ART MUSEUMS

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Abstract

COVID-19 (C19) was first recognized and described in November 2019 in Wuhan. In January 2020, WHO declared a public health emergency of international concern as a result of the spreading epidemic. By March of the same year, C19 was declared a pandemic. In connection with the pandemic, individual countries around the world enacted a variety of policies designed to slow the spread of C19; policies which dramatically impacted visits to museums of all kinds. Lockdowns selected institutional closures and restrictions and declines in tourism all contributed to precipitous declines in the use of museums. In response, museum significantly increased their digital presence, attempting to replace in-person experiences with virtual experiences of all kinds. However, the inherent limitations of the digital realm, including and particularly financial limitations, suggest an uncertain future for museums. We use data from visitations to the worlds' ten largest art museums over the period 2007-2020 as a vehicle for tangibly describing and discussing these issues.

Keywords: COVID-19; Art; Museums; Visitors; Pandemic

Introduction

Societies living in affluent economies created a world where mobility was limited only by individual financial resources. International tourism grew continuously until 2020. In 2019, the last pre-pandemic year for which data exists, tourism accounted for over 10% of all global GDP and nearly 11% of all jobs worldwide [1], with tourist arrivals reaching an all-time high of 1.5 billion [2]. Cultural tourism in particular represented a key part of this pre-COVID-19 tourism industry, being the fastest growing tourism sector and in 2019, accounting for roughly 40% of all international tourism [3]. However, along with the benefits – economic, social, political and personal – afforded by increased global travel and tourism also came increased risks. As recent events have highlighted, one significant risk associated with this increased global mobility has been the rapid spread of disease-causing organisms and viruses across national and continental borders [4].

Over the past 75 years, there has been no event more disruptive to global populations than the world-wide COVID-19 (C19) pandemic caused by SARS-CoV-2 virus. The only comparable event in modern history was the worldwide “Spanish flu” pandemic of 1918-1919, which like C19, totally disrupted not only international commerce but the daily lives of millions of people worldwide. It is estimated, that the Spanish flu pandemic killed on the order 50-100 million

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individuals, with the equivalent of every fourth inhabitant of the world falling ill [5]. With numbers still rising and the virus still spreading, as of this writing, C19 has already killed 6,3 million and infected roughly 500 million individuals worldwide [6].

In 2020, the C19 pandemic impacted societies around the world. In response to the global pandemic, many governments have enacted laws and regulations restricting economic, social, and cultural rights which previously would have been unacceptable to the societies of most countries. The consequence of protection from the spread of the virus is often a temporary loss of the right to personal mobility (both locally and for further distances). Countries like Australia, New Zealand, Canada, Singapore and China have closed their borders to non-citizens and non-residents. Many countries in the European Union have reinstated borders, restricted or completely prevented the movement of travellers for tourism or business purposes. The airlines, railways, and bus companies have also suspended or significantly reduced their passenger transport services as a result of governmental restrictions and the declining demand [7]. The lack of tourism, as well as government-imposed policies designed to slow the spread of C19 resulted in the shuttering of virtually all tourist outlets, including museums and art galleries, historical sites, archaeological parks, entertainment venues, theatres, cinemas, stores, and food outlets to be closed in virtually all communities across the globe.

Museums, which the International Council of Museums defines as a permanent, non-profit institution open to the public, acting for the educational, scientific, and entertainment benefit and development of a society through the acquisition, conservation, research, and exhibition of tangible and intangible heritage of humankind and its environment purposes, were amongst the institutions most significantly impacted by these C19 closures. For at least parts of 2020 and 2021, virtually every museum in the world (nearly 90%) were shuttered [8, 9].

Museums are very unevenly distributed around the world, but their total number has grown rapidly in the last couple of decades, with much of that growth occurring in the developing world. Once, considered just the province of the elite, museums are increasingly seen as critical cultural infrastructure. At the beginning of the C19 pandemic, it was estimated that there nearly 100,000 museums worldwide [9], but that number has already decreased and is likely to continue to decline as the pandemic continues to impact the sector. Of course, not every museum has been equally affected. This article specifically focuses on how the C19 pandemic impacted the functioning of the largest art museums in the world.

Results

There are of course many ways of defining both the size and functioning of a museum, including as suggested by the ICOM definition cited above, the size of collections, size of facilities and buildings, size of professional staff, the number of exhibitions, and as indicator of educational and entertainment value, the size of the audience served. From a tourism perspective, the last criteria – the size of the audience served – is the most relevant. Virtually all museums keep statistics on the number of visitors served, and thus, although not truly the best indicator of either the cultural value or even educational quality of an institution [10, 11], it is a readily available statistic; one long used as a proxy for these outcomes. Accordingly, we used the number of visitors served as a way to both define which art museums should be considered the “largest” in the world, as well as a proxy for understanding how these largest art museums were impact by the C19 pandemic.

Step one, then, was creating a baseline understanding of who the largest art museums were, pre-C19 pandemic. To do this, we collected and summarized 14 years of art museum visitor numbers of data. Figure 2 shows the 10 museums with the highest mean, annual number of

visitors in the world between 2007 and 2020 [11–23]. Analysing this graph for years 2007-2019 shows a very clear stabilization with a slight upward trend for all museums, except the Louvre at 3-6 million visitors per year. In the case of the Louvre, there is clearly an upward trend (2007-2012) and a downward trend (2012-2016). In contrast, a significant decline is clearly visible for each site in 2020, reaching over 70% in the case of the Louvre (from 9.6 million visitors in 2019 to 2.7 million in 2020).

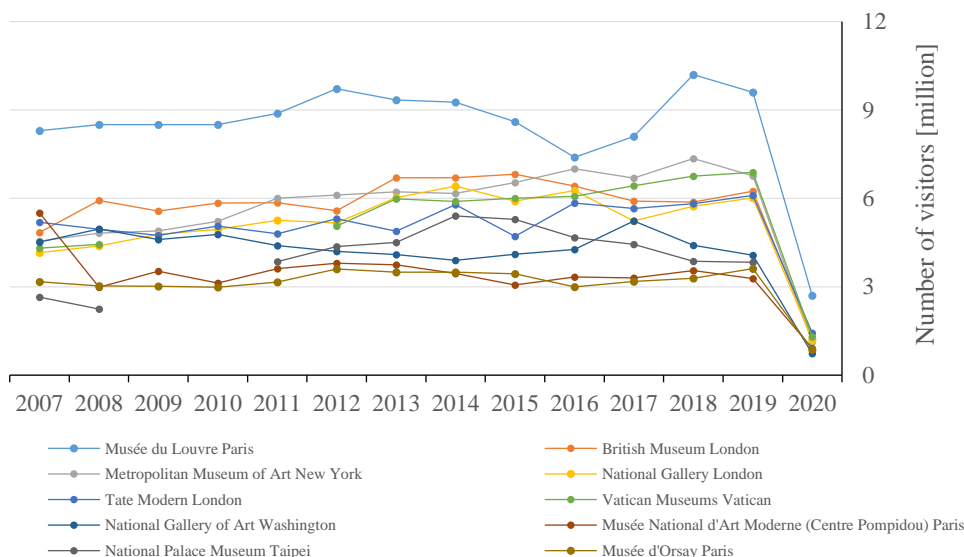


Fig 1. Top 10 art museums as a function of yearly attendance, 2007-2020

Figure 2 shows yearly attendance of the 10 most visited art museum internationally in the year 2020, the first affected by the C19 global pandemic. As a comparison of the results in Figures 1 and 2 shows, although many of the most popular museums prior to the pandemic remain the same, not all do. With the exception of the continued primacy of the Louvre, albeit with much reduced visitation, there is a significant reshuffling of this list of most popular art museums. In particular, the top ranks, i.e., places 2, 3 and 4, are now occupied by museums that never even made it to the top 10 list prior to the pandemic. These include the National Folk Museum of Korea (Seoul), Kelvingrove Art Gallery and Museum (Glasgow) and National Portrait Gallery (London). In fact, more than half of world's most consistently visited museums prior to 2020, no longer made the top ten list in 2020. These declines were reflective of both the severity of the pandemic in different regions of the world as well as due to the highly individualized approaches taken by different countries to the pandemic. Some countries imposed strict limitations on the number of visitors permitted at any one time, others were more lenient, merely requiring strict sanitary requirements. The net effect, though, was both a dramatic decline in overall museum visitation and a complete re-ordering of the world order in terms of art museum visitation.

A more detailed analysis of visitor number at each of the most visited art museums of 2020 is shown in Figure 3. [NOTE: Included are those museums for which sufficient data was available]. Shown is the average percentage decrease in visitation between 2020 and 2019 and the percentage of days in 2020 in which the museum was effectively operating under lockdown. The correlation between these two curves is inescapable – the higher percentage of lockdown days the greater is the decline in visitor numbers. The fact that this correlation is not perfect

reflects the varying impacts of not only national and local regulations but also the impact of management decisions made by each museum as exactly how to respond to the crisis.

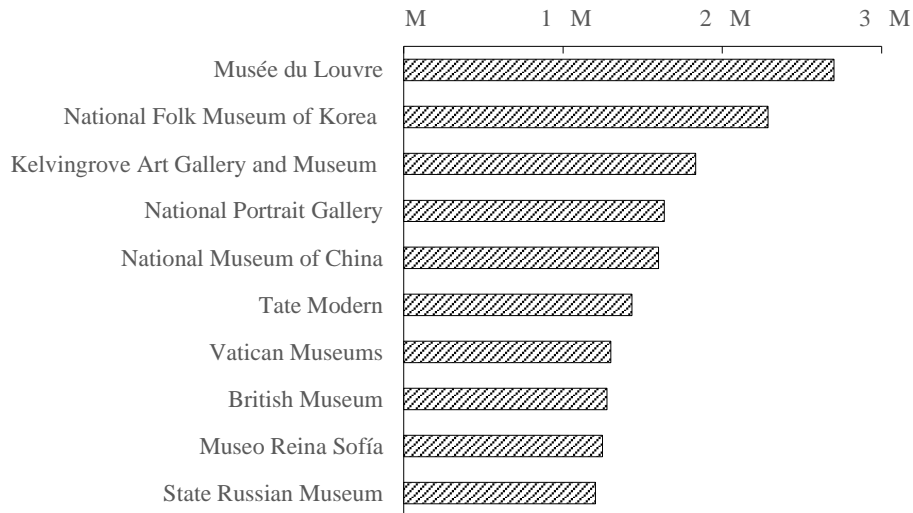


Fig. 2. Yearly attendance (in millions) of the 10 most visited art museums in the world, 2020

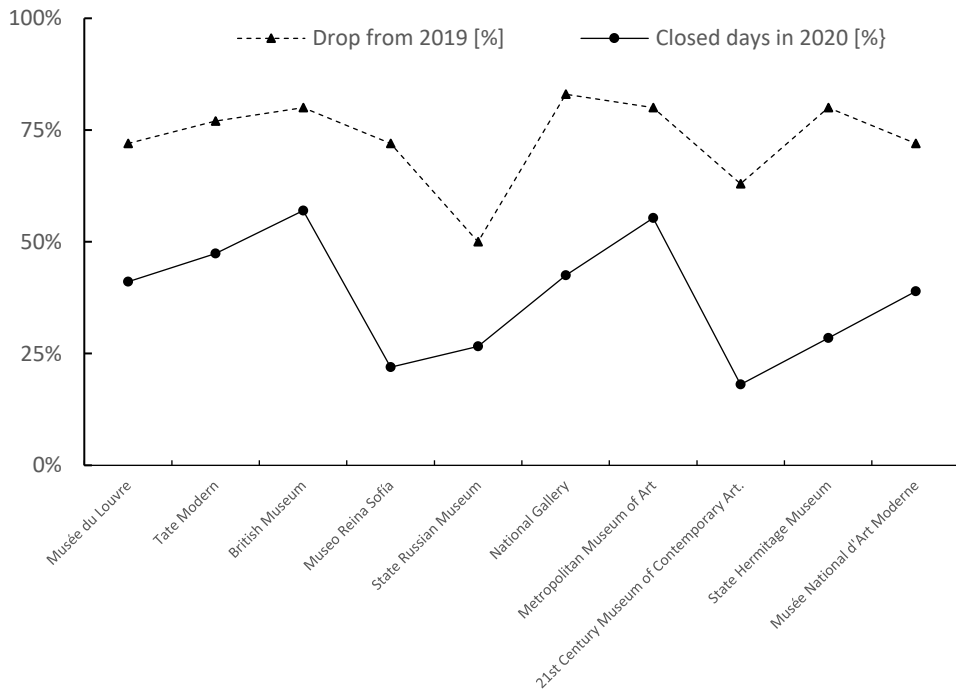


Fig. 3. Summary of the decrease in the number of museum visitors in 2020 compared to 2019 (dashed line) and the number of days (as % of year) in 2020 when the museum was closed due to a pandemic [11]

The above analyses very clearly show the very real impact the C19 pandemic has had, and continues to have, on the functioning of art museums. It also reveals how variations in national and local restrictions (the length of lockdowns, different visitor limits, etc.), as well as individual management decisions/responses to events combined to affect the use of these museums by the visiting public; effects that may or may not persist when the current pandemic recedes.

Discussion

Museums in general and art museums in particular represent significant tourism assets around the world, with the ten most visited museums each historically attracting at least 3 million visitors every year during the period 2007-2019. Amongst these highly visited museums, the Musée du Louvre consistently ranked as the most visited such attraction in the world, with numbers rising each year except in the wake of terrorism threats in 2016. Across the more than a decade preceding the C19 pandemic, despite minor fluctuations, most museums saw year-on-year growth in visitor numbers. The observed decline in visitation to the Musée du Louvre beginning in around 2015 and bottoming out in 2016 was due to declining tourism due to terrorism threats in Paris [24], the effects of these threats had nearly completely disappeared by 2018 with more than 10 million people visiting the museum that year. In 2020, the museum was closed to the public for 150 days. Along with other health restrictions, it contributed to a decline in visitor numbers to 2.7 million. The example of this most visited art museum shows how drastic the consequences of the C19 pandemic were for all museums (Fig. 1).

The average number of visitors to the 10 most visited art museums of 2020 decreased by 73.6% as compared to 2019. In 2020, the ten most visited museums recorded 14.05 million visits, while a year earlier, in 2019, the ten most visited museums had nearly 62.5 million visitors. In 2020, the State Russian Museum (Saint Petersburg) appeared on the Top10 list for the second time and the 21st Century Museum of Contemporary Art (Kanazawa, Tokyo) for the first time (Fig. 2). Both museums had relatively short periods of closure due to the C19 pandemic (97 and 66 days respectively) and did not lose as many visitors as the other museums on the Top10 list (compared to 2019: 50 and 63% less visitors respectively). Depending on the pandemic restrictions imposed by individual governments, the ten most visited art museums stayed closed to visitors from 66 days (21st Century Museum of Contemporary Art, Kanazawa, Tokyo) to 208 days (British Museum, London). The average period of closure was 141 days [11]. According to UNESCO, only 11 of the 182 analysed countries have introduced none or minor restriction measures for museums [9]. For the first time museums were temporarily closed in the spring of 2020 at the beginning of the C19 pandemic. During the second wave of the pandemic in 2020, more than 70% of museums were closed again without a definite reopening date [25]. Temporary closure of museums to visitors during lockdown had the most significant impact on visitors numbers. Additionally, museums had to comply with many other health and safety regulations further reducing the number of visitors.

Arranging sanitizing stations, temperature scans, or online reservations in and of themselves, do not directly affect the number of visitors, but these procedures do require additional staff and funding. However, government mandates requiring social distancing did result in significantly limiting the number of visitors able to visit each of these museums. Some museums have employed timed tickets as a device for limiting and spacing out visitors, but these “innovations” too have reduced visitor numbers. Beyond the specific requirements at each museum, the C19 restrictions on the public’s mobility, including closure of borders and restrictions on international passenger transport created major declines in overall tourism, which

further exasperated declines in visitor numbers [26]. International tourists account for up to 75% of visitors to these largest of museums [9]. Thus, decline in visitor numbers needs to be seen as confluence of factors rather than just a single factor.

Even after C19 restrictions were lifted and museums reopened to the public, the majority of museums (over 90%), and not just those dependent upon tourists, have reported a decrease in visitor numbers ranging anywhere from 10% to over 75% [25]. These decreases in visitor numbers have serious implications for the museum sector. In many museums, revenues from ticket sales, gift shops and cafes represent a significant proportion of their budget. In some cases, it is the institution's only source of revenue [9]. Private museums in tourist areas, are particularly vulnerable as their income is almost exclusively visitor driven. Declining visitor numbers have created the spectre of wide-scale bankruptcy and closure within this particular segment of the museum community [27]. Even those institutions who managed to stave off financial disaster during the initial wave of the pandemic now face dire financial realities as pandemic persists.

Clearly, the progress made by SARS-CoV-2 researchers, resulting in the development and implementation of new vaccines and treatments, has created grounds for hope that the worst might be behind us. However, the continuing emergence of new variants and outbreaks appears likely to remain a constant reality with most experts now predicting that it is no longer a question of whether or not the C19 virus will become endemic, only just a matter of when [28]. As this reality has begun to infiltrate policy decisions, restrictions and outright closures are likely to taper off. What remains unclear though, is whether some of these restrictions will become permanent, and if so, how they will impact museum practice and the public's attitudes towards visiting museums.

During the first lockdown, more than half of all museum professionals indicated that they were concerned about the long-term future of their organizations [29]. Organizational managers were more optimistic, but still a significant percentage, 12.8%, believed that there was a real possibility these institutions might be forced to close forever [10]. By the time of the second wave of the pandemic, these concerns had fallen by half, but still many remained seriously fearful of the demise of their institutions [25]. These fears were not idle concerns, as visitor numbers continued to significantly lag behind pre-pandemic levels as the C19 continued into its second full year.

Of course, the museum community did not remain totally passive during this crisis. Museums, like all sectors of the economy, strived to adapt and develop alternative strategies for conducting business and fulfilling their missions. The most significant change was the shift by virtually all museums from in-person experiences to digital experiences. Museums of all sizes, but particularly the large, financially well-endowed institutions featured in this article, began investing in ways to make their collections, exhibitions, and other events virtually accessible to the public [9, 10, 25, 29].

For a number of reasons, digitizing and virtual experiences, however, represent an imperfect solution to the challenges C19 created for the world's museums. To begin with, although virtual experiences in theory make it possible for more people than ever to experience what these major art museums have to offer, such opportunities are still not universal. Nearly half of the world's population, roughly 40%, still does not have access to the Internet, and even those who do, do not all have sufficient bandwidth to download quality images [30]. However, even for that percentage of the world that can access quality images, seeing an image of art is no real substitute for seeing the real art. Museums have long argued that one of the things that makes them unique and valuable is their authenticity; their ability to give people access to the real thing [31, 32]. Finally, despite the significant increase in use and investment in virtual experiences, it is fair to suggest that most museums were not particularly adept at using the medium – in many cases

merely digitizing their collections or exhibitions and putting them online; in essence, much like in the early days of television programming when studios merely live broadcast their radio programs. Over the course of the pandemic, museums did improve in their use of digital technologies, but many remain a far way off from realizing the full potential of the medium, including implementing new technologies such as virtual and augmented reality and “smart” programs capable of recognizing individuals and personalizing experiences.

Without a doubt, the promise of the virtual is the ability to significantly broaden audiences; reach individuals and communities long excluded from museums due to the costs and challenges of international travel. However, even if digitized collections, exhibitions and programs could be significantly improved to the point where they did in fact represent a reasonable substitute for an in-person museum visit, the financial realities of the digital world would make this approach less than optimal for most museums. The simple fact is, digital experiences, at best, are able to generate only a tiny fraction of the revenues that live experiences are capable of generating. Thus, a completely digitized museum would find itself with a significant revenue gap that would need to be made up somehow if they were desirous of maintaining their current staff and collection sizes. Although virtual experiences are likely to increasingly be part of the museum experience repertoire, they are unlikely to represent a complete alternative to the historic museum solution of in-person visits. This creates a significant quandary for museums. Although in-person visitation is almost certain to rebound somewhat, past numbers may take years to achieve. Meanwhile, costs will continue to rise, including the significant capital expenses required to maintain current buildings and collections. The bottom line is that the C19 pandemic created a significant disruption to the business of museums, and all museums, including the largest, will need to reassess and re-invent their approaches and business models if they are to thrive in a rapidly changing world.

Conclusions

This paper sought to provide a perspective on the impact that C19 pandemic had on the museum community, using attendance data from the worlds’ most popular/visited art museums over the past 14 years as an indicator of that impact. For the years 2007 - 2020, visitation data was compiled and compared from each of the ten most visited art museums of that year. In this way, the full impact of events surrounding the C19 pandemic could be readily discerned. Highlighted were the direct effects created by differential governmental policies and policy choices made by individual institutions, as well as the indirect consequences the pandemic had on world-wide tourism. Key findings included:

- Since the end of World War II, no other global event has impacted the operations of the worlds’ largest art museums more significantly than the current global C19 pandemic.
- In the first year of the C19 pandemic (2020), the average decrease in number of visitors to the worlds’ ten most visited art museums relative to the prior, non-pandemic year was 73.6%. Overall, total visits to these most popular attractions fell by nearly 50 million individuals, with total declines highly dependent upon both the severity of the pandemic in specific countries as well as the policies and restrictions imposed by the government in each country.
- Due to varying pandemic restrictions (mainly differences in museum lockdown periods and national travel limitations) the majority of museums comprising the top ten visited museums in 2020 were new to that list compared with those on the list during the previous, more than a decade. These six new members included: The State Russian Museum (Saint Petersburg), National Folk Museum of Korea, Kelvingrove Art Gallery and Museum (Glasgow), National

Museum of China, Museo Reina Sofia and the 21st Century Museum of Contemporary Art (Kanazawa, Tokyo).

▪ Pandemic restrictions forced museums to urgently reconsider ways of reaching and serving their publics, with most institutions significantly ramping up their use of digital tools. Although virtual experiences will undoubtedly continue to be a major way for museums to serve their visitors post-pandemic, digitization has inherent limitations that are likely to prevent it from becoming a complete alternative to traditional, in-person visits.

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