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Mixed cultural visits or what COVID 19 taught us

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Article

Mixed Cultural Visits or what COVID 19 Taught Us †

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† This is an extension of a paper previously published in workshop proceedings, CEUR: Approaching Mixed Cultural Visits: Scenarios of use from COVID 19 and beyond.

Abstract: When the majority of museums and other cultural institutions were shut down due to the pandemic, mixed museum visits became a hot issue. After the epidemic, mixed visits, in the opinion of many experts, would become the new norm for experiencing cultural content. Diverse types of merging online and onsite visits are already being investigated by researchers, not only to avoid the spread of a disease but also to enable visits of people who were previously excluded, such as persons in remote geographic areas or people with mobility challenges. The current work takes into account the Contextual Model of Museum Learning to define potential use scenarios for visits from people of different cultural backgrounds and offers an evaluation of current practices.

Keywords: mixed museum visits; hybrid cultural visits contextual model

1. COVID 19 and Beyond

With the outbreak of COVID 19, human life around the world has changed dramatically in all its aspects. From the beginning of 2020 and for several months after, most museums and cultural institutions were largely affected, and many had to remain closed for fear of the pandemic spreading further. Soon after the initial global shock, people began to look for solutions to the problem of social distancing and the necessary human isolation. Museums also responded to these new conditions and sought new ways to engage audiences from afar. Against this backdrop, many museums improved their digital presence, updating their websites, polishing their social media accounts, and designing imaginative new advertising campaigns. One such campaign that attracted a lot of attention was the Getty Challenge, which asked people to recreate Getty artworks with household objects [1]. The Getty campaign was launched as early as March 2020, just days after the pandemic outbreak, showing that museums responded quickly. During the pandemic, the Louvre Museum in Paris also increased its social media presence, dynamically using Instagram and Facebook while also improving its website [2]. Many museums almost doubled their online presence and became very active on their websites and social media accounts [3]. It seems that social media has become a fast and effective way to connect people with museums and cultural content [4]. The changes have been so rapid and significant that many wonder what the future of museums will look like [5] and whether we are moving toward museums without walls [6].

The pandemic seemed to accelerate processes, enabled museums and researchers to imagine new ways of engaging with cultural content, and provided an opportunity to rethink future forms of cultural visitation and visitor engagement. Among researchers and museums, the concept of hybrid visitation became a hot topic and new solutions were proposed. Although there was research addressing hybrid museum visitation issues before the pandemic [7], this work seems to have increased significantly from 2020 onwards in response to the new conditions created by the pandemic. The deprioritization of physicality and materiality became the new condition for cultural visits [8]. The pandemic allowed us not only to define hybrid visitation (as a form of visitation that takes place both online and on-site) [9], but also to deepen the field with studies that began collecting data on the effectiveness of hybrid museum visits [10]. The main question in this new form of museology, then, was how technology can support people in their cultural experience independent of their physical presence in a cultural space. Researchers such as Løvlie et al [11,12] explored how different types of technology such as games and virtual reality could be used for this purpose.

But now, after three years of studying practices of mixing physical and digital visitor presence, it could be observed that many terms were used interchangeably and misunderstandings arose from their use. The terms "hybrid," "mixed," "online," etc., do not always refer to the same concepts, and for this reason further clarification is needed. Many of these terms were introduced from the field of e-learning, which is older and more established, but there are differences in the way the terms are used in the field of education and in the field of cultural heritage. For example, the term hybrid in education implies that during a course some people participate online and some physically [13], while in museum literature the same term has been used to refer to the blending of physical and digital experiences [14]. To complicate matters further, in a paper by Passebois Ducros & Euzéby [15], the term hybrid refers to spaces that incorporate elements of both museums and amusement parks, without considering aspects of technology. It is hoped that this paper will help clarify the terminology and also provide concrete examples of how cultural institutions can use them. Technology-enabled visits (whether on-site, online, or both) are expected to increase, as they could provide access to populations previously excluded from cultural experiences (e.g., due to mobility issues, geographic factors, etc.). The pandemic seemed to spur a field that was poised to expand.

2. Three Years of Rapid Developments (2020-2023)

As also explained above, museums and cultural institutions had to employ creative uses of technology in order to react to the pandemic [16]. It is widely recognized that technology changes the nature of cultural experiences [17]. Visitor studies also revealed the need for change and the subsequent use of technology as a way to increase multileveled equal access to cultural content [18].

Virtual tours became a common way to visit a cultural space from home. These virtual tours lead researchers wonder if and how virtual tours would be used in the future and whether visitors were satisfied with such alternatives [19]. Museums that opened after 2020 incorporated the blending of virtual and physical in their core. For example, the Kleio Museum Commons from its opening in 2021 facilitated both physical and online interactions of students and academic staff [20].

From all the developments of the last three years, researchers like Simone et al. [21] looked for ways to classify the different technologies used in cultural heritage. So technology could have multiple uses in cultural heritage: 1. Behind–the-scenes uses where technology is mainly used for preservation and /or administrative purposes. 2. Technology that assists visitors during their visit in the museum environment, like for example mobile apps. 3. Tools that allow the online presence of a cultural institution and support the preparation and the continuation of visits beyond the museum walls. 4. Technologies that allow hybrid museums experiences where the physical and the digital unite.

COVID 19 revealed that additionally to physical and virtual spaces, a third type was also very important, that of hybrid spaces [22]. Many museums transformed into hybrid spaces, and Atelier des Lumieres in Paris is a good example of a cultural space that looked for new ways to engage its visitors in a hybrid experience [23]. Researchers like Mason [24] used the term post digital to describe the mixing of digital and physical, as an inseparable new way to experience culture. These new post digital spaces allow different levels of interaction with technology. In this light technology could be simply an app that provides extra content to technology that is embedded in the museum environment and even affects the architectural design of the physical space. According to Trunfio et al. [25] the field of hybrid reality is still under investigated, although it seems that this will be the future of cultural visits. Other researchers differentiated between the term Extended Reality – XR (a continuum from physical to virtual reality) and Hybrid Virtual and Augmented Reality – HVAR (which focuses on the way people from different realities interact) [26]. Similarly, Mixed Reality (MR) is also different from Hybrid Reality, despite common elements, since they are perceived as different from the visitors [27,28].

Despite all the differences between researchers and the different ways to use concepts and technologies, one thing is already clear, the fact that new methodologies to engage visitors and new pedagogies are necessary. Museums like he Fitzwilliam explicitly employed creative pedagogies while the museum remained physically closed during lock down, realizing that traditional

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approaches would not be efficient under the new circumstances and the extensive use of technology [29]. For the purposes of our work, the term mixed visits will be used (which is different from Mixed Reality) in order to function as an umbrella term and include all technology assisted cultural visits.

3. Using the Contextual Model for Museum Visits

We will draw on the highly influential work of Falk and Dierking [30,31], which analyzes the processes occurring during a cultural visit, to distinguish between concepts and practices. Due to the validity of the model they suggested, it has been widely adopted and used over time [32]. The model consists of three primary parts, as seen in figure 1. The personal component depicts learning as a subjective experience influenced by the learner's own goals, feelings, and interests, among other factors. The socio-cultural factor highlights the significance of social and cultural components. For instance, what and how people learn during a cultural encounter depends on a variety of factors, including code, assumptions, cultural expectations, and social norms. The physical component stresses the importance of the physical - environmental setting. However, these components also need a fourth dimension to be better understood and this is time. Cultural experiences and museum learning need time. Learning and cultural experiences are dynamic phenomena, always changing. The time element is thus crucial in allowing people to make meaning from cultural experiences.

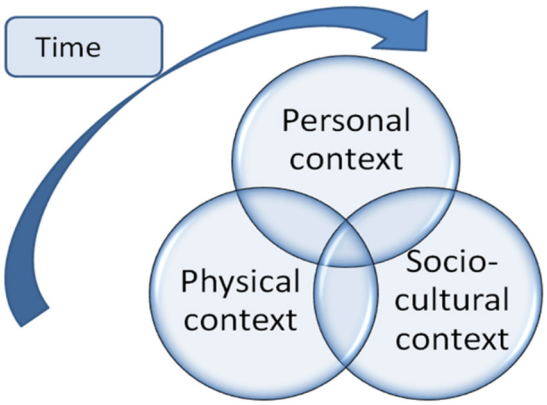

Figure 1. Contextual Model of Learning (Falk & Dierking [30,31]).

4. Mixed Visits in the Personal Context

In terms of the personal learning context, the cultural heritage field can draw on knowledge from the education field, where extensive research has been conducted over the years to support the various ways learners learn and engage with technology. For example, in education, there are different types of learning modes such as distance learning, online learning, hybrid learning, blended learning, and mixed learning that incorporate technology.

In distance learning, learners participate mostly asynchronously and can access learning materials at their own time. They can interact with instructors both synchronously and asynchronously [33]. During the pandemic, many museums seemed to follow the remote access paradigm by making cultural content available online for the public to access from home. Many museums provided free access to digitized artifacts, online collections, and guided tours. For example, the MET (https://www.metmuseum.org/), one of the largest and very popular museums globally, offered its digitized collections online and free of charge. People could browse through the collections and the art works and access more than 490,000 objects. For each object, online visitors could see a photo of the item, its description and metadata, access further material like videos and see related artworks.

In education, online learning allows students and faculty to communicate and participate synchronously from multiple locations. During the pandemic, if museums wished to communicate

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with the public this was often done asynchronously via email and synchronous communication (e.g. over chat) did not seem to be a priority. However, there are some that use channels such as YouTube to connect live with their audiences, such as the Corning Museum of Glass (https://www.youtube.com/watch?v=KUcLVVAnoeo). Another interesting example is St. Catharines Museum in Canada, (https://stcatharinesmuseumblog.com/). Realizing the need for distance learning, the museum created a special section in its website, called *History from Here.* This section allowed people to explore the history of the region from home. However, the museum moved a step forward and also wished to support distant but also synchronous interaction during the pandemic. For this reason they organized a series of live podcasts that started in July 2020 and continue today. Thus, museums could support online synchronous and asynchronous interaction with their audience. In a hypothetical scenario, for example, museums could provide live online access to conservation and other work on their premises, while visitors could watch from home and discuss with museum staff via a platform.

In hybrid learning, the instructor is present in class with some students while other students participate online [13]. Now, let us imagine a scenario where some people are present in the museum and others follow their visit from home, e.g., grandparents, people with mobility problems, etc. This could easily be done using the cameras on the visitors' cell phones. However, there is a question about the quality of the experience for the remote visitors. In the last two years, there have been research attempts to connect the physical space of the museum with the online space and allow remote visitors to play an active role [e.g. 11, 12]. The cultural sector has also experimented with forms of cultural experiences, such as a theatre performance in which some actors are present in the theatre and others act online from a prison. Despite the technical difficulties, the result was at least impressive and broke down barriers to cultural participation. Museums could consider other scenarios in which visitors actively engage with cultural content online and on-site. Over 20 years ago, Trahanias et al. [34] experimented with a robot that was physically present at the museum and received commands over the internet from distant users. In a scenario, such a robot could be controlled by people from home and it could accompany/interact with visitors at the museum. Another example comes from the Asian Art Museum (https://asianart.org/) that offers livestreamed guided tours on regular basis that allows people from home to enjoy the museum tour although there are not physically there, and also ask the guide questions at the end of the tour.

In blended learning, all students are physically present in class, but also use technology to access learning content [35]. Blended visit practices are used in many museums around the world as different types of technologies are used to deliver additional cultural content. From mobile museum guides [36] to augmented [37] and virtual reality [38] to games [39] and the internet of things [40], museums are using different types of technologies to engage their visitors with their content and improve the quality of their experience. For example, the National Gallery in London offers the Smartify app that visitor can download on their mobile phones and use it during their physical visit (https://www.nationalgallery.org.uk/visiting/apps) .

Finally, blended learning is a generic term that describes different ways that online and on-site instruction can be blended [41], forming a continuum from minimal to maximal technology use (Figure 2). Figure 2 is intended to summarize the different types of blended visits and is not an exhaustive representation of the field. Thus, other combinations are conceivable when technology and cultural visits are mixed. In museum reality, then, we might speak of mixed modes of visitation, where technology can support people in varying degrees and at different levels to visit either online or on-site.

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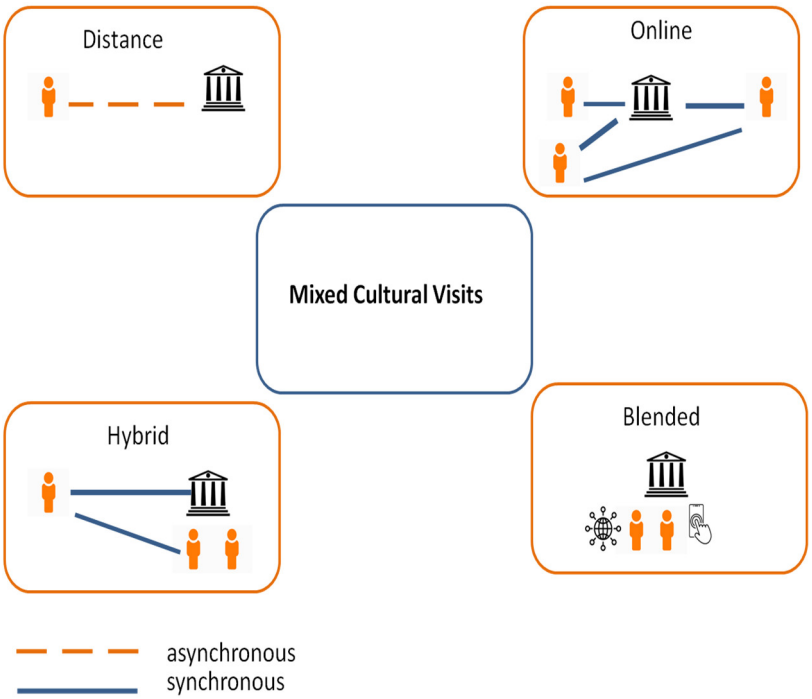

Figure 2. Types of mixed cultural visits.

In recent literature, the term phygital is found often and is used to describe these blended situations where physicality and digitality meet [42]. Debono [43], describes 5 possible scenarios that the phygital museum could be realized, which seem to form a continuum from situations that physicality is central to situations where digitality is the main aspect (figure 3):

1. Physical with a token of digital: these are primarily physical spaces that use online tools to promote the physical visit, like websites with visit information, social media campaigns to increase physical visits, etc.
2. Physical with digital as an extension: Again these are physical spaces that use technology to duplicate aspects of the visit, like virtual tours. The content of the technology is the same as in the physical environment but only as a subordinate substitute.
3. Digital as a pointer to the physical: the physical space is again the central in the cultural experience and although the digital content is different from the physical one, is only complementary to the physical visit.
4. Parallel and cross-referenced existence of physical and digital: There are two distinct experiences in the digital and the physical world that function independently, although they both refer to each other.
5. Digital with a token of physical: The experience is primarily digital and there are only a few references to the physical world. For example, there are museums and collections that only exist in the digital world and they do not have a physical condition, like the Digital Art Museum (https://dam.org/museum/dam/about/).

Examples of museums that apply different degrees of phygitality are the Lighthouse of Digital Art in Berlin (https://lighthouse.berlin/en/home-eng/), the Tech Art Museum in Tokyo (https://planets.teamlab.art/tokyo/), the New Media Arts Festival in Shanghai, etc.

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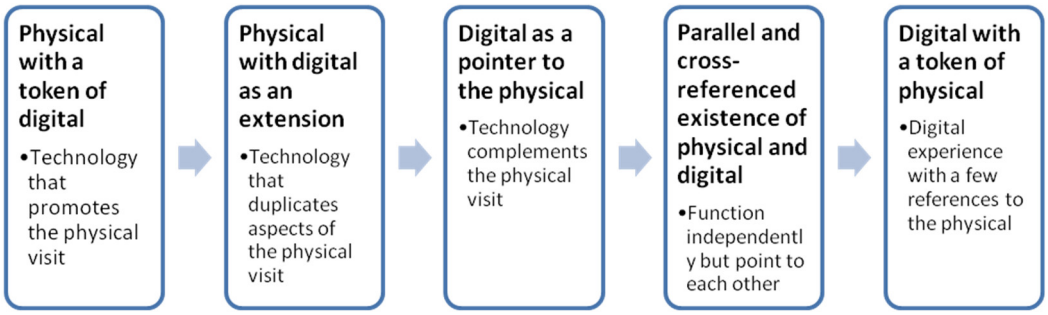

Figure 3. Continuum of phygital visits based on [43].

5. Mixed Visits in the Socio-Cultural Context

In terms of cultural experiences, what we missed most during the pandemic was probably the social aspect of the visits. Whether visiting museums and cultural spaces alone or in groups, the presence of other people is an important element of sociability that shapes the experience. Without it, the experience feels incomplete. From the beginning of the pandemic, there were concerns about how technology might (not) support the sociality of cultural experiences and how it might support people experiencing cultural content exclusively online [44]. Museums became increasingly aware of the lack of social sharing in the experiences they offered online, and many used social media to compensate. Certain social media campaigns were very creative and had a large social media impact. The aforementioned Getty Museum Challenge (https://twitter.com/gettymuseum/status/1242845952974544896?lang=en) asked people to recreate works of art and post their photos on social media. There were other influential efforts, such as a famous DJ being invited to the archaeological site of ancient Messene, while people used the YouTube channel to discuss and have fun together in a large online party (https://www.onassis.org/news/charlotte-de-witte-at-ancientmessene). Aspects of humor were also used in social media campaigns. For example, famous people and historical events were portrayed as Playmobil characters to entertain the public and increase their interaction with the museum's social media (https://www.nhmuseum.gr/ektheseis/periodikes/item/17376-to21-allios-i-elliniki-epanastasi-me-figoyres-kai-dioramataplaymobil-sto-mouseio-plinthokeramopoiias-n-s-tsalapata-stonvolo).

Recent research had shown that hybridity and sociality can be efficiently combined when a careful design is applied. Daif et al. [45], designed, implemented and tested a game that connected 4 archaeological sites and their visitors, who could play in groups with or against each other in order to find object and concept associations. Participants could play individually or in groups from the 4 different locations, connecting synchronously over the internet. Thus, people in Lugo (Spain), (Chaves) Portugal, (Epidaurus) Greece and (Montegrotto Terme) Italy could form groups and simultaneously play the game in a mixed visit social activity.

The social aspects of visits and how they can be linked to technology are now being explored by researchers [46], although the popularity of such approaches is not yet great, probably because of the design challenges that must be faced when supporting a group of people at the same time. Nonetheless, efforts are currently underway to create symbiotic environments for museum staff such as human guides, visitors, and technologies [47].

6. Mixed Visits in the Physical Context

Traditionally the physicality of experience is central to cultural experience. It makes a big difference whether people are physically present or in different places. The importance of the physical aspects of visitation is well established, and there are many studies that show how technologies can be adapted to provide location-specific content [48].

During the lockdown, a new trend emerged, that of tracking a person who was in a particular location via their device. One could pay a fee to watch a person walk through an archaeological site

(e.g., the famous online walks through Petra in Jordan or Pompeii in Italy) or a city. The need to go beyond informational materials and have a strong sense of physical space was evident. Some museums responded to the need for physical content by offering 3D online tours to the public. However, their effectiveness in providing a sufficient cultural experience is still questioned [49], and various elements are being studied to understand why some 3D tours are better than others [50]. As VR systems improve and become more affordable for home use, museums could invest in virtual tours to support physical context needs for mixed-use visits.

In addition, there are cultural institutions that solely base their services on virtual experiences, either of spaces that are long lost, or spaces that cannot be reached. For example, planetaria have successfully explored the way 3D technology can allow an immersive experience of a physical space that cannot be explored otherwise. The Foundation of the Hellenic World is another type of museum that does not house physical objects, but allows visitors to explore through interactive Virtual Reality ancient cities, (http://www.ime.gr/fhw/index.php?lg=2). Therefore, technology allows visitors to digitally explore the physicality of a place that no longer exists.

The potential of mixed visits to support the physicality of the cultural experience is significant because mixed visits can help people who cannot physically participate connect with cultural space. For example, Pisoni [51] used a system that allowed older people in a nursing home to connect with their friends and family in the museum and to experience the museum space. In addition, De Carolis et al [52] investigated how social robots could be used in tourism and cultural experiences. Following their example, social robots could allow visitors to explore the cultural space by remotely controlling their movements. As technology advances, technology could support many senses, like vision, hearing, touch, kinesthesis, smell to provide fully immersive environments further making the boundaries of digital and physical blurred.

7. Mixed Visits over Time

The importance of supporting a cultural experience before, during, and after its implementation is well recognized in the literature. Time is an important element in the contextual model, and various museum technologies appear to address this by designing experiences to support the need for an experience of temporal duration [53]. The temporal aspects of a blended visit are very important (the duration of support as well as the synchronous or asynchronous experience) and seem to determine the level of engagement and the quality of the overall experience [44]. In particular, during the pandemic, when museums were physically closed, aspects of synchronous and asynchronous online experiences were evaluated and their qualitative aspects were highlighted [54].

Temporality in museums goes beyond aspects of visit duration, synchronous and asynchronous visits, but it is also important to study how people perceive time in museums (people seem to lose track of time when they enjoy themselves) [10] and how they understand the temporal aspects of the collection. Older items tend to attract attention because visitors perceive them as very important due to their age. In addition, visitors apply different cognitive strategies in order process how old items are and the context of their use in the time of their creation [55]. Museums seem to apply different ways to show the lapse of time, e.g. timescales, progressive exhibition, room by room, starting from older times to today. Although curators and museum professionals have been focusing on issues of temporality (for example, see [56–60]), mixed museum visits have not yet explicitly and deeply focused on such matters.

8. Contextual Model of Mixed Visits

Based on the above, the contextual model is thus modified to reflect the need for mixed visits (Figure 4). The clearer use of the terms remote, online, hybrid, and mixed visitation allows for better conceptualization and facilitates understanding of the different visitation modalities. Any plans museums have to support mixed visits should also consider issues of physicality, sociality, and temporality of the experience. When designing mixed museum experiences, it is important to consider all elements of the model in order to plan a more comprehensive visitor experience.

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Modality, physicality, sociality, and temporality of mixed visits are all essential elements of a museum experience that allows for a smooth fusion of technologies and cultural experiences.

Mixed visits are expected to expand and COVID 19 was only a beginning for further blending of technology and physical museum visits. Looking at the literature before and after 2020, we can observe a significant increase in the number of works that focus on such matters. The fusion of virtual and physical spaces, phygitality, different uses of technology have and will change the nature of cultural visits. Research should also focus on the administrative issues that emerge, sustainability concerns and ethical implications. As advanced technologies enter the field of cultural heritage, philosophical, political, social and economic elements will continue to emerge which require our further attention.

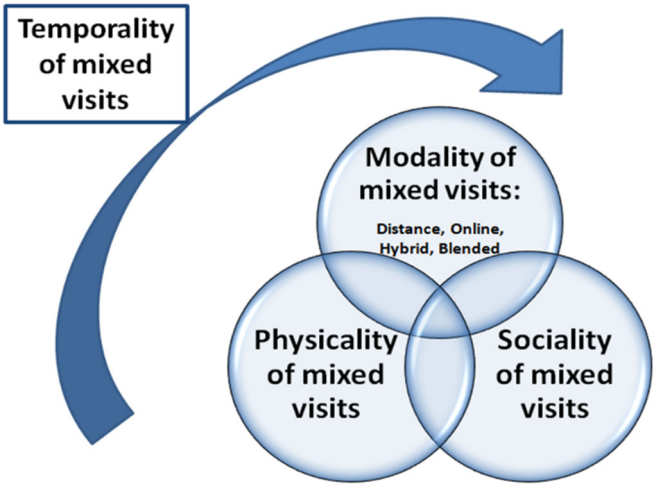

Figure 4. Contextual model of mixed visits.

The present work has attempted to organize the field of mixed cultural visits and provide examples of use. Our future work will focus on testing the various scenarios that arise when different combinations of the categories are tried. For example, we will test different modalities of mixed visits with different combinations in terms of space, social interactions, and time, and explore their effects on the quality of the cultural experience.

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