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BEING DOCTOR IN CULTURAL STUDIES

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This paper explores the field of investigations and interests of a doctor in cultural studies in a period of profound transformation of research, conservation, fruition and engagement in culture. It collects and summarizes some of the key topics discussed in the last decades on the occasion of conferences, seminars and brainstorming held in Sankt Petersburg. Professor Alexander Drikker, doctor in cultural studies, was the key partner in such studies providing different cultural perspectives and critical thinking.

Key words: cultural studies, research, conservation, museum, cultural heritage.

Setting the scene

Cultural studies in a broad sense can involve any kind of human artefact both physical and immaterial, sculpture or paintings, music or poetry. There is for sure a common denominator in approaching different cultural expression gaining the ability to apply a holistic approach. Unifying art, music, literature, architecture and more under the same "umbrella". In this paper we do not aim to extend the discussion to other human "artistical achievements", as an example, in the field of math or physics where theorems or theories and more can generate feelings very similar to painters' masterpieces. Let us focus on the specific field of heritage and specifically on cultural heritage, the one due to humans.

Cultural heritage has always been an interdisciplinary sector, a wide range of applications involved from investigation to restoration, conservation, exploitation, education and communication each of them enjoying a different mix of expertise: art history, anthropology, social science, philosophy, science of materials, chemistry, art, structural engineering, etc. and, more recently, economy and marketing plus more and more high technology, from multispectral images, to ICTs and bio-tech.

Such an articulated scenario with intrinsic richness of links and relations is potentially generating new skills and professional profiles, often as a result of a "crossover" of already existing professional profiles. As a follow-up of such a scenario both basic and applied research and educational strategies have to be duly tuned.

European Cultural Heritage

The state of art of cultural heritage in the European continent is very well known and evident; the wealth of artworks and goods express every kind of art from graffiti to frescos and architecture, created through the centuries care of different people that inhabited the continent, from Ancient Greece to the Renaissance and beyond; they characterize uniquely the European cultural heritage. It sounds strange but it is this cultural wealth that causes the problems that trouble European Art.

Our diverse and rich cultural heritage is one of Europe's greatest assets in the emerging "global" society. Europe has over 5000 major museums and art galleries: They attract over 500 million visits every year.

Nevertheless, Europe's Cultural Heritage is currently very poorly exploited, in terms of its accessibility to the public, schools/universities and the media/publishing industry. Most museums

and galleries are only open about 30 of the 168 hours each week and only about 20 % of collections are on display. Up to now Cultural Heritage has not contributed effectively either to creating new jobs or in economic activity. These aspects have been outlined on the occasion of the recent pandemic, long term lockdowns imposed to find the way to reconnect with researchers, passionate visitors and, why not, attract newcomers. Technological advances have provided ever-improving information processing and communication infrastructures. Cultural Institutions discovered the power of digital media especially on the occasion this unexpected event. Museums reacted to the lockdown creating virtual[1] guided tours[2], thematic on-line lectures[3], webinars and more.

Apart from these extreme circumstances one of the aspects to be carefully considered is an affordable and easy access to the network infrastructures both wired or wireless. Strictly connected to this we find, in general, a significant market penetration of ICT due to smart phones, tablets, and laptops. Of course, a good network infrastructure and diffuse computational resources are not enough, a key role is played by human factors, curators' literacy in digital media as well as digital awareness of visitors.

We must not forget the key role played by social media even in cultural heritage promotion, they were already a powerful tool among students both as information providers and social life active means, but on the occasion of the lockdown they became much more relevant to empower cooperative learning and suggest added value experiences.

Anyway, as a positive follow-up of the present crisis we can envisage different benefits: first of all, the acceleration of the switch to distant fruition of cultural heritage on the way to an improved resilience of the cultural ecosystem but even an empowered knowledge transmission and acquisition from the end of the crisis onward.

Research and development are needed to ensure that future technologies and tools enable content, together with its creation and use, to properly reflect the European continent cultural diversity and many languages, in order that the full potential of European creativity be realised in both social and industrial contexts. All these technologies and services are not aimed to surrogate the direct fruition and enjoyment of cultural heritage but will improve its knowledge and understanding securing its access.

Now is the time to think about the future organization of cultural institution system by taking advantage from the experience gained and adopting the best solutions to achieve a resilient infrastructure.

Cultural diversity, technology and formats

There is a close link between "content"[4] and technology as well as between technology and communication. Mankind through the centuries has produced an even increasing amount of "content" in different formats, with different techniques and technologies. Some portions of such "content" must survive and reach future generation as our legacy, major part of content, if kept alive, is addressed to natural obsolescence and will disappear. This life cycle is many times applicable to physical objects as sculptures, monuments, artefacts[5]. Formats, techniques

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[1] https://rusmuseumvrm.ru/?lang=en (last visit 11.12.2020).
[2] http://www.museivaticani.va/content/museivaticani/it/collezioni/musei/tour-virtuali-elenco.html (last visit 11.12.2020).
[3] https://www.youtube.com/watch?v=U9UUIkr0l2U&feature=emb_imp_woyt (last visit 11.12.2020).
[4] As "content" we refer to a broad set of items: artworks, music, craftmanship, etc.
[5] Connected to this we face some of the problems approaching cultural heritage, artefacts must "speak/interact with visitors".

and technologies differs very much both from culture to culture and from time to time. Oral tradition is still alive as major tool in order to preserve and communicate content in several different areas of the world. Performing arts and rituals are the backbone of many different cultures as well as signs, symbols, ideograms and alphabets are common tools for writing and printing in major part of the world.

Print was one of the last true revolutions in content management, a true milestone. Nowadays we are facing a potential new revolution thanks to the "digital age". Digital communication is the most recent ring in a long chain, starting from non-verbal communication and gesture, over languages, signs and writing, through print, broadcasting and other media and formats.

The extension of the concept of cultural heritage of various nature, including "intangible" heritage, the relationship between their conservation and the relative fruition issues new challenges for technology such as the combined utilisation of various resources online, the creation of supranational and multilingual dictionaries and thesauri, the creation and tuning of a new generation of communication objects and tools designed in order to better fit with different cultural models and content. The rapid obsolescence of technologies furthermore imposes the attention to data storage. However, the aspects, which most involve the online user, are both the interface and easy access to different subjects and contents.

Young generations

Before the outbreak of the coronavirus pandemic, the world was already dealing with a crisis in communication between cultural institutions and young generations, traditional methodologies were already outdated. A cultural and communication divide was already on stage between millennials (generation Y) and the educational and cultural system. It is a common understanding that recent generations represent a discontinuity if compared with the past ones. Such discontinuity or, if preferred, singularity is recognized both by adults complaining because their children do not pay attention or are getting bored by learning and, by adults, that discovered new skills and capabilities in young generations. People that grown up playing video games, browsing the Internet, chatting and looking for help online in communities, they use technology seamlessly. A new model for communication processes is required. To conclude the global lockdown represents a unique opportunity to bridge a number of gaps and reshape our future, thinking out of the box, identifying what is useless, deleting biases due to customs, rethinking processes and protocols. Cultural system can take this opportunity to develop a new approach to improve its resilience and "generate deep knowledge" and critical thinking in millennials. Young are used to receiving information really fast. Their brain seems to be able to process information in parallel and multi-task. So, they prefer direct/random access to information and content. Graphic and Video content are longer preferred than text. They use to look for support and buy things on line, and use to belong to one or more communities. This is a side effect of their special skills acquired in hours and hours of digital tasks. Social psychology offers compelling proof that thinking patterns change depending on an individual's experiences. A sufficiently long training may activate this phenomenon. In fact, some researchers believe multi-sensory input helps kids learn, retain and use information better. So, the Apple motto "think different!" is much more than a motto. Having the evidence that traditional "communication" does not match with young's expectations we need to take advantage from the additional need to make educational activities more resilient to start reshaping the system in order to fit with both requirements: resilience and generation Y compliance. This is the time for action, the question is "Leading the change or missing the opportunity?"

Tourism and cultural heritage

The state of art of cultural heritage in Europe, from Lisbon, Rome, London to Saint-Petersburg and Moscow, is very well known, Europe has over 5,000 major museums and art galleries: they attract over 500 million visits every year. Often the cultural heritage is perceived by most as something obsolete, cryptic, with no appeal to the audience, unable to provide real added value to citizens and ultimately a pure "cost" in terms of conservation, maintenance, custody, etc. Cultural heritage represents one of the key attractors for tourists, the promotion of heritage addresses two issues: cultural enrichment and economic sustainability of the sites. The exploitation of such values will not, necessarily, jeopardize our heritage; cultural assets are not rivalling and a wise exploitation will not "consume" them. "Wise" means not damaging the artefacts or sites, as a consequence a limited number of visitors may be admitted at a specific time, online booking of visits managed by optimization algorithms will harmonize the flow of visitors. The "standardization" of visitors' numbers and timing are often based on a briefing that introduces the cultural asset and outlines its most relevant features. Other approaches aiming to reduce the "pressure" of visitors are based on the promotion of alternative locations offering similar an appeal.

The upgrade of tourism consumption is the driving force behind the globalization of tourist towns. With the increase of economic income, the development of information exchange and the change and upgrade of national concepts, the personalized experience needs of tourists have been fully released. The in-depth experience of consumers from sightseeing to vacation and leisure, and the continuous improvement of consumption levels are conducive to optimizing the transformation and reform of the supply structure.

The consumer's travel concept is not limited to simple sightseeing tours. According to global tourism experience, characteristic towns and tourist towns are the targets of tourists' choice. The increase in tourism demand leads to an increase in the supply of tourism and related industries, which will change the production structure of tourist towns and promote the sustainable development of tourist towns. The boundaries of the tourism industry are gradually blurring and shrinking, and the tourism industry continues to merge. In tourist towns, the superposition of cultural experience, entertainment, service provision, holiday lifestyle and other tourist functions is a necessary supplement to traditional tourist products, and has become the focus of market development through cultural transition. For towns with insufficient tourist resources, the tourist market is restricted; in such a case to expand the tourism resource market is a must, both from the perspective of leisure and vacation, this could be achieved through innovation and improvement of tourism product functions. Some middle-ages towns rediscover ancient tournament with horses and knights, other locations offer cultural festivals and happenings. We will come back on these aspects in the Undertourism paragraph.

From point to line; "point of interest"-based development hinders the development of tourism activities, management and industry. The income of simple tickets is no longer the core of the tourism economy, and the planning of exquisite tourism routes, such as the hiking trails of the Cinque Terre (Liguria, Italy), and the choice of different boat tour in Sankt Petersburg. It breaks the space restriction between the scenic spots and connects the dots into a line to give tourists the best experience. The development of tourism and the continuation of cultural heritage are closely related to two types of people (tourists and local residents). The first category is tourists. Whether it is their contribution to the local economy or exposure to cultural heritage, tourists play a vital role in the tourism industry. The economy of the town will eventually provide a better life for local residents, and the world heritage will be left to future generations. Cultural heritage is generated and evolved based on the architecture, living

environment and production methods of local residents and their ancestors. Therefore, another important significance of developing tourism is to protect the interests of local residents, the second category, who are in fact part of the cultural heritage. Only by enabling local residents to live better on this land can they better protect and continue cultural heritage. This aspect will be explored in the following paragraph devoted to "overtourism" and its impact on citizens.

Tourism generally refers to industries that provide tourists with leisure facilities and services. It is a complex social phenomenon, involving politics, economy, culture, history, geography, law and other social fields. Tourism is also a kind of leisure and entertainment activity, which has the characteristics of remoteness and temporality. According to the latest annual research report of World Travel & Tourism Council[6], the travel and tourism industry grew by 3.5 % in 2019, surpassing the global economic growth of 2.5 % for nine consecutive years. In the past five years, the tourism industry has created a quarter of new jobs, making tourism the government's best partner for job creation, these are good news considering the usual cultural heritage performance in job creation rate.

In 2019, Travel & Tourism's direct, indirect and induced impact accounted for:
• US$8.9 trillion contribution to the world's GDP
• 10.3 % of global GDP
• 330 million jobs, 1 in 10 jobs around the world
• US$1.7 trillion visitor exports (6.8 % of total exports, 28.3 % of global services exports)
• US$948 billion capital investment (4.3 % of total investment)

With the further democratization of travel, this brings great potential to the sector and the global economy. Emerging economies contribute a greater proportion of travelers to this global trend and are increasingly becoming ideal destinations because they show greater competitiveness in travel and tourism.

According to statistics from the World Bank[7], the number of international tourist arrivals increased from less than 500 million in 1996 to 1.44 billion in 2018. In the past two decades, Europe and North America have continued their reputation as popular tourist destinations. The emerging international tourism market represented by the Middle East and East Asia is developing rapidly.

Overtourism

Although tourism and tourists have been the subject of complaints for decades, if not centuries, specific term "overtourism" is relatively recent. According to Google, the word "overtourism" was first used as a search term in 2006. This relatively new term, also sometimes called "loving places to death", "dealing with success" and "tourismphobia"[8], has been defined as "the excessive growth of visitors leading to over-crowding in areas where residents suffer the consequences of temporary and seasonal tourism peaks, which have enforced permanent changes in their lifestyles, access to amenities and general well-being"[9]. Overtourism as a term

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[6] [WTTC 2020] Economic Impact Reports . https://wttc.org/Research/Economic-Impact (last visit 11.12.2020).

[7] [World Bank 2019] International tourism, number of arrivals. https://data.worldbank.org/indicator/ST.INT.ARVL (last visit 11.12.2020).

[8] *Dredge D.* Overtourism. Old wine in new bottles? 2017. Available at: https://www.linkedin.com/pulse/overtourism-old-wine-new-bottles-dianne-dredge/ (last visit 11.12.2020); *Goodwin H.* The Challenge of Overtourism // Responsible Tourism Partnership Working Paper, 4, 2017.

[9] *Milano C., et al.* Overtourism and Tourismphobia: A Journey through four decades of tourism development, planning and local concerns // Tourism Planning and Development Journal, 2017.

has proven very marketable and was trademarked by online travel magazine Skift[10] in 2018 "Overtourism: Will The World Be Able to Handle Two Billion Tourists?". This phenomenon is usually strictly connected with the terms "mass tourism" and "globalisation". More recently even the term "resilience" has been associated with this phenomenon. The concept of resilience, in this domain, outlines the ability of locations to absorb shocks and troubles and recover autonomously as well as the ability to adapt to changing circumstances[11]. According to Goodwin[12], destinations experience overtourism when "hosts or guests, local or visitors, feel that there are too many visitors and that the quality of life in the area or the quality of the experience has deteriorated unacceptably". Researchers created additional terms to identify this phenomenon, namely "carrying capacity", "resilience in environmental, economic and sociocultural terms", as well as health and safety issues. Anyway, the preferred term among tourism scholarship is "overtourism", due to the relevance of the prefix "over" that directly recalls that there is too much tourism; tourism exceeds the ability, limits or capacity of the specific destination. The effects of "overtourism" are overuse of local resources such as shops, mobility, local goods, like for instance bakeries, restaurants, roads, parking and trams or beaches, environmental oasis, mushroom picking and any other local resource subject to competition between locals and visitors. This means that different touristic locations—cities, natural parks, mountains, lakes and seaside, deserts—feel the impact of tourists.

Referring to the typical effects of overtourism is it correct considering overtourism only as a tourist problem, rather than a social and urban one? Numbers without the contexts and effects are meaningless, the focus must be shifted from numbers to the perception of benefits and drawbacks. Both benefits and drawbacks are tightly connected with the responsibilities of political managers, stakeholders and tourists themselves. So, we prefer to speak of visitor pressure or overcrowding typical of the spring months, while in the summer peak the cities empty themselves of the residents. Getting more in detail, looking at stats and data collected by local authorities we discover that "visitor pressure" or overcrowding is not only due to foreign tourists but even to locals and neighbours exceeding the resilience of the location. This phenomenon is favoured by the extension of the tourist season, more flexible work arrangements, the dilution of holidays in shorter and more repeated periods during the whole year, so it makes the inhabitants of some cities perceive the phenomenon throughout the year. Key aspects characterizing "pressure" are concentration, timing, visitor behaviour, location, experience with tourism, local etiquette and more. These aspects are indeed as important as tourist numbers. Analyzing the "pressure" in detail, on the one side, it is relatively easy and reliable to foresee the impact of tourists on the physical environment, while it is much more difficult and less reliable to estimate the impact on the social side, due to different perception of disturbance in different areas and different level of tolerance of the host community. Some case study outlines that the top-down promotion of a touristic point of interest may impact the level of tolerance of the local population, they may suffer because of the "invasion" of their territories and impact on their lifestyle due to others will. To ensure success it is paramount to reach

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[10] URL: https://skift.com/2018/08/14/the-genesis-of-overtourism-why-we-came-up-with-the-term-and-whats-happened-since/ (last visit 11.12.2020).

[11] *Butler R.* Sustainable Tourism in Sensitive Environments: A Wolf in Sheep's Clothing? // Sustainability, 2018, 10 (1789). Available at: www.mdpi.com/journal/sustainability (last visit 11.12.2020), doi:10.3390/su10061789; *Cheer J., Lew A.A.* Understanding tourism resilience: Adapting to social, political, and economic change. London, 2017.

[12] *Goodwin H.* The Challenge of Overtourism // Responsible Tourism Partnership Working Paper, 4, 2017.

the local community consensus. This discourse overlaps with overtourism in that it both describes an exclusion of residents and other local stakeholders and the touristification and museumification of popular tourist areas; this phenomenon is particularly evident in Malastrana (Prague) and Venice. Online platforms such as Airbnb, Amazon or Uber, low-cost carriers or cruises, Instagram and other social media complete the accused bench, but how guilty are they really? Factors that cannot be considered at the same time as something to be hindered in the name of corporate interests or anachronistic ideological battles. Displacement due to Airbnb and similar platforms and excessive pressure on the local environment are separate causes of concern. Airbnb looks like an appealing source of revenues; real estate owners increasingly prefer to rent their properties for a short period of time through Airbnb than to rent it to locals. This trend induced two main effects: a quick increase of real estate value and displacement of locals outside the "hot" areas. If residents are forced to move out of the city due to tourism improvement, this puts further pressure on the city infrastructure: "People are leaving the city [because] rental prices are way too high. There are many people moving to the surroundings and then commute by car every day. It is a circle that never ends". Actually, some local administrations are working on new regulations to manage this problem (e. g. Berlin, Paris) setting limitation on the number of days a property can be rented out, the fact that a house-owner needs to live in the rented place, taxation, registration systems, etc. If we focus on the "pressure" or overcrowding looking at the stats it appears that day visitors, coming both from neighbouring cities and from abroad, constitute up to 50 % of the people that visit the city for leisure purposes, they blend in relatively well and are often not viewed as tourists by residents, they also cause overcrowding and bothers. Drawbacks on local societies are often associated with global platforms as it happens with Uber, Amazon, Expedia, etc. The relevant increase of online shopping further impacts the perceived crowdedness, as an increasing number of different delivery vehicles blocks roads and causes congestion and pollution. Time ago, governments and key stakeholders preferred not to regulate tourism opting to open market a kind of self-regulation. This choice powered a rush to big numbers. In dealing with overtourism issues, recent researches emphasise the need for regulation and government leadership. Before pointing a finger at certain alleged culprits, administrators of cities should think about toilets, waste disposal, electric vehicles, parking lots and green areas, as well as optimise control and surveillance activities.

Undertourism

While there is still a lot of confusion about overtourism, a new keyword is on stage: undertourism. This represents the places still little visited or not performing enough in relation with their beauties. The risk is that the less visited destinations face too many illusions about being able to overturn their tourist fortunes with marketing campaigns and messages such as "come to us, there are fewer people, but the experience is more authentic, etc". The already famous ones boast about the fact that without promotion flows can calm down. Fertile ground and excellent starting points for conferences and academic articles, they are always happy to insist on concepts such as relocation and experiential tourism, but risk diverting attention once again from the real problems of hospitality and tourism. The problems that actually limit the growth of the less visited places are the infrastructural ones, which, together with an often ineffective, if not non-existent, marketing, are the main factors of what we can define as the structural and ancestral sub-tourism. Thinking about overtourism, especially in cases like Venice, is important, but not as much as trying to really solve these critical issues.

Undertourism aspects can be mitigated or eliminated creating more tourist appealing op-portunities as described above: traditional events, happenings, and more. These are not the only tools to act, sometimes "overtourism flows" can be redirected to similar targets suffering undertourism, other times if the cause of undertourism is due to transportation or relevance not enough to justify a ad hoc travel from the main cultural location to the site the low-cost air fare can help. Very often low-cost flights use to take to a cultural capitol landing in a less-known airport usually 80–100 or more km far from destination, later on a bus will take pas-sengers to destination. During the travel buses use to stop for a break, this is a win/win oppor-tunity to choose a cultural location on the way to stop and have an added value break instead to choose a highway pit-stop station.

Dealing with complexity

Now that we got familiar with the two extreme sides of tourism sustainability, namely overtourism and undertourism, it is necessary to know how to and based on what criteria as-sess the tourism sustainability.

The complexity of overtourism reveals itself again when looking at the effects of policy measures. It is revealed that these have been, at times, different from what was expected. Thus, to plan for sustainability in a tourism context is to plan to operate within the carrying capacity limits of the destination and its resilience capabilities, and avoid a state of overtourism. Posing the focus on the concept of sustainability, the links between the level of tourism and the qual-ity of social and environmental factors in a destination are evident with the logical conclusion that tourism levels should not exceed a point at which immitigable impacts occur and where tourism becomes "unsustainable". The "touristification" of city centres and online accommo-dation platforms also needs further clarification, tourism has strongly impacted city centres and suburban neighbourhoods, but this impact can at least partially be attributed to real-estate developments. This implies the responsibility of "managers" because of the direct impact on the carrying capacity and the resilience to overtourism due to tourism management. It is evi-dent that there are different causes that merged together to create the "overtourism" effect so the solution could not be based on tourism alone. There is a need for a global approach to the problem putting around the table all the stakeholders and authorities involved in the process; single initiatives, such as admission fees, expensive tickets for parking and local transportation, do not solve the problem. In recent times there is an increasing number of decision makers and stakeholders that, driven by the anti-tourism sentiment, curbs the growth of measures to regu-late traffic, creating coach free zones, or to regulate tourist behaviour, for instance, in tourism hotspots at night, taxes for daily visitors, cruise ships restrictions and more. Nevertheless, as it usually happens, policy measures and regulations play often the role of followers, and have, up to now, had difficulty keeping pace with the rapid development seen within this sector.

Debates around how to apply sustainability assessment have existed since the concept of sustainability was developed[13]. Despite the numerous sustainable tourism measurement state-ments, the question of where overtourism begins or in other words where sustainable tourism is violated cannot be easily answered[14]. To come up with a solution for the assessment of the sustainability in general, Ren and Han suggest listing a series of different assessment tools and

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[13] *Ren W., Han F.* Indicators for Assessing the Sustainability of Built Heritage Attractions: An Anglo-Chinese Study, 2018. Available at: https://doi.org/10.3390/su10072504 (last visit 11.12.2020).

[14] *Kuščer K., Mihalič.* Residents' Attitudes towards Overtourism from the Perspective of Tourism Impacts and Cooperation–The Case of Ljubljana. Sustainability, 11 (6), 2019. Available at: https://doi.org/10.3390/su11061823 (last visit 11.12.2020).

then selecting the best assessment tools after comparing the different alternatives. In the case of sustainable tourism evaluation, Kuščer & Mihalič introduce two general perspectives: first one is through benchmarking of corresponding sustainable tourism indicators which is associated with the selection of different sustainability indicators and their weighting, normalization and aggregation, and second is to monitor the social capacity of tourism through stakeholders' perceptions of impacts.

Sustainability indicators provide critical benchmarks against which to measure tourism impacts across the four dimensions (social, economic, environmental, cultural), helping to track progress towards relevant objectives. Since the early 1990s, UNWTO (UN — World Tourism Organisation) has been a pioneer in the development and application of sustainability indicators for tourism and destinations[15].

Although several sets of sustainability indicators have been proposed by different authors, few have been universally accepted, mainly because of the scale and the variability of the contexts of sustainability. Most sustainability indicators are used at international, national and regional destination levels; few sets of indicators are specifically designed for measuring sustainable tourism of an individual attraction. Moreover, according to Ren and Han, the limitation of such indicator sets is that they consider only the current situation and have little consideration of future issues.

The UNWTO developed forty baseline indicators and other sub-indicators in its Indicators of Sustainable Development for Tourism Destinations (World Tourism Organization, 2004 as mentioned by Ren and Han); however, their indicators are mainly used at the broader tourist destination level rather than for specific attractions. Also, there are other tourism indicators by the European Environment Agency (European Environmental Agency, 2012).

Employment in cultural institutions

Employment in the museum/gallery sector declined in the 1990s, as a result of public expenditure cuts. New opportunities are emerging through information and communications developments to offer much easier public access, and for new commercial exploitation of heritage information. Over 50 % of new jobs created in the USA since 1995 have been in the media, IT and Internet-related areas.

Europe has a strong publishing industry, with more newspapers read (considering both paper and digital versions) than anywhere else in the world, together with a great variety of special interest magazines (weekly and monthly) and a dynamic music-publishing sector.

Some European Regions are developing common projects and initiatives to coordinate their actions all over Europe (both Western and Eastern countries) in an attempt to offer to European "content holders" an open, interoperable management of cultural wealth.

Original & Copy / Real & Virtual

Globalization is one of the key terms used to describe actual trends, but there are many aspects of this concept that should be carefully considered, such as our cultural identity. Museums and more in general cultural Institutions may represent a relevant actor in order to preserve and transfer to future generation people's cultural identity many times jeopardised and blurred by globalization. Cultural diversity as bio diversity means richness, it is an asset that needs to be preserved, and to do so cultural models must be considered. Cultural diversity

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[15] *Farinha S.C., et al.* Sustainability Strategies in Portuguese Higher Education Institutions: Commitments and Practices from Internal Insights. Available at: DOI: 10.3390/su11113227 (last visit 11.12.2020).

is the engine of cultural and economic growth; it provides incredible richness as well as traditions.

An additional phenomenon impacting the role of Museums is the shift from acquisition and preservation toward an increasing educational role of Museums including a relevant role in local and national economy due to tourism and events. This shift encompasses new organizational models, skills and communication and exploitation plans and actions. There are different models, opportunities for, and types of communication: asynchronous or synchronous; mono- or bidirectional; one-to-one, one-to-many, or many-to-many; location-dependent or location-independent; immersive or non-immersive; interactive or non-interactive, with log file and without log file; wired or wireless. The global network and the so-called "digital originals" together with virtual experiences, if wisely adopted, may help in fulfilling the updated mission of Museums. New actors in the panorama of cultural heritage promotion and fruition are coming on stage.

Gamification

Gamification has already been successfully used in marketing, business, health industry, education and tourism sector[16]. A very common use of gamification in education is through applications such as Duolingo which helps the learners follow the language course in a different way compared to the traditional system of learning. Another use of gamification is enterprise gamification, a well-known practical trend in the business world, which refers to the application of game elements to the workplace and within the employees. Also, its influence can be seen in Starbucks, where if you buy 10 cups of coffees, you will get one free as mentioned by Sanmugam[17]. Incorporating Gamification concept into the process of enhancing UX (user experience) in museums is not a simple use of game elements because most Gamification that offering rewards is only suitable for the short-term purpose instead of the long-term change. Edutainment is potentially a field of development for software applications.

In his popular book, *Influence: The psychology of persuasion*, Robert Cialdini puts forward six principles to influence behavioural change: (1) Liking — people tend to agree with people they like; (2) Reciprocity — people like to give and take; (3) Authority/Trust — people like to follow legitimate experts. This principle is less about authority than it is about building and maintaining trust; (4) Commitment and consistency — most people want to look consistent through their words, beliefs, attitudes and deeds, because personal consistency is highly valued by society; (5) Social Proof — in the end, most people are happy to be followers. When it comes to decision-making, or deciding what is important in a given situation or in times of uncertainty, people look to what people similar to them have done; (6) Scarcity — people assign more value to opportunities when they are seen as scarce. In a sustainability context, this principle means that saying what benefits stand to be lost might be more important than saying what stands to be gained[18].

These 6 principles do not just apply to product and service sales and uptake either, but also to efforts in creating engagement and building relationships.

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[16] *Xu F., Buhalis D., Weber J.* Serious games and the gamification of tourism // Tourism Management, 60, 2019, pp. 244–256. Available at: https://doi.org/10.1016/j.tourman.2016.11.020 (last visit 11.12.2020).

[17] *Huotari K., Hamari J.* Defining Gamification — A Service Marketing Perspective // Proceedings Conference: 16th International Academic Mindtrek Conference, 2012. Available at: DOI: 10.1145/2393132.2393137, https://www.academia.edu/27414242/Defining_gamification (last visit 11.12.2020); *Sanmugam M.* Obstacles and Challenges in the Use of Gamification for Virtual Idea Communities. 2017, pp. 65–76. Available at: https://doi.org/10.1007/978–3–319–45557–0_5 (last visit 11.12.2020).

[18] *Cialdini R.B.* Influence: The Psychology of Persuasion. New York, 2006.

One of the first examples of such software were presented at *Imagina INA '97* in Monaco. For example, the application, entitled Versailles 1685: A Game of Intrigue at the Court of Louis XIV, is mainly based on a digital 3-D reconstruction of the Palace of Versailles as it was in the seventeenth century, fitted with original paintings and furniture. The development of this game presented one major challenge: how to reconcile gameplay requirements with the constraints of historical fact—in other words, how to create an attractive game while still communicating historical data, which is, by its very nature, rigid and unwieldy. These two imperatives must be combined without allowing either one to cancel out the other. This game is an incredibly effective means of reconstructing a Versailles that no longer exists. It enables us to explore the chateau exactly as it was in 1685, to infuse the often-staid documentation with new life and to inject the hum and throb of life back into the chateau.

New technology enables us to make Versailles better known to the public by leading them away from the beaten track. Even the chateau that hosted the Roi Soleil is not very well known, with the exception of the State Apartments and the Hall of Mirrors. Given that the game takes place in 1685, its authors recreated different locations exactly as they were at that time, whereas the chateau and the gardens were actually continually being modified. In such a historical reconstruction the documentation (in the form of engravings, paintings, architectural elevations, memoirs, etc.) is sometimes contradictory or incomplete and requires rigorous collation.

Theme parks

In the nineties the success of theme parks created fertile environment for the creation of different theme parks mainly in the United States, from Disneyworld and Epcot to Animal kingdom, Disney Quest and World of Sports or the Experience Music Project in Seattle. In France a theme park devoted to the universe explored by Jacques Cousteau was created in Paris within the metro station of Les Halles "Parc Oceanique Cousteau", and in Clermond Ferrand the Parc Européen du Vulcanisme. More recently the extension of the theme park concept was materialised near Wuxi thanks to the Oriental Buddha Park is a cultural theme park in Leshan, China.

It can be trickier to use theme park methods to "communicate" artefacts and cultural content rather than traditional methods because much more room is required. In this context there is no relation between a virtual theatre and a glass exhibition case filled with dozens of artefacts.

Some experiments in this area were carried out long time ago, the Scrovegni Chapel in Padua or, in a different cultural context, the Museum of the Future in Linz. In March 2002, the Scrovegni Chapel, was reopened to the public after a long restoration period. In order to better preserve the chapel and particularly Giotto's frescos in it, a maximum of 25 people were allowed inside at a time for no more than 25 minutes. A group of researchers developed a project entitled Musealising: the Virtual Reality Project of the Scrovegni Chapel of Padua[19] that enriches the experience of visiting the chapel. The idea was to boost the learning experiences of visitors by establishing a "virtual loop" between computer-assisted briefing and the frescos. Each time one of the two forms of the chapel (i.e. the real and the virtual chapels) is approached, detailed, in-depth information about it is made available. The Museum of the Future in Linz is another significant example of this type of experience. The Museum is actually another name for the Ars Electronica Center. Ars Electronica[20], the organisation that maintains it, originated more than 20 years ago in Linz (Austria) through a collaboration between

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[19] See http://www.itabc.cnr.it/VHLab (last visit 11.12.2020).

[20] https://ars.electronica.art/news/en/ (last visit 11.12.2020).

governmental bodies, a national television company, a telecommunications company and other partners. Another very active company in the field of virtual museums is ART+ COM[21] located in Berlin.

Simulators, dark rides and other nonlinear formats experimented in the field of heritage. The popularity of virtual reality arcade games (Virtuality SU, Sega, etc.) and later on the low-cost stereo display like smart phones or Oculus Rift[22] has driven this industry. More immersive solutions included mechanical simulators. The mechanical part of a simulator can have different shapes, dimensions and offer different degrees of freedom (DOF). The degrees of freedom indicate the number of directions and angles in which the simulator is able to move, up to a maximum of six (three axes and three angles).

Most simulators offer three degrees of freedom; they can be tilted, rotated and raised using hydraulic or pneumatic actuators. A few of them offer six degrees of freedom. Another difference in terms of performance relates to how much they can move in each direction, even if, in entertainment, acceleration is more relevant than absolute motion. From a perception point of view, we tend to associate displacement with acceleration, as the acceleration grows, so does the feeling of displacement.

Let us now summarise different types of simulator. Mass experience. Such experiences include simulation theatres with panoramic screens or IMAX theatres, sometimes equipped with active groups of seats or active single seats (e.g. Terminator 3D at MGM Studios, Orlando, FL, USA), and 3-D audio (very often following THX specifications).

One slightly different type of simulation theatre is the 360° theatre. In this case, the full panoramic effect may be produced by a special "periscope-like" optic as used in, e.g., Museum of Transportation in Luzern, Switzerland or an alternate sequence of screens and synchronised projectors like the Wonders of China[23] experience in Disney World, Orlando, FL, USA.

In 360° theatres, people attending the show do not have a specific seat with certain orientations because of the omnidirectional view on the scene, so no seats are available. A set of pipes shaped as "back holders" is usually used, however, in order to stop people from losing their balance as they look at things moving quickly across the scene.

A special version of the panoramic theatre is the—"dome" (half-sphere theatre). This type of theatre is a mixture of the previous two. The dome completely fills up the field of vision of each spectator, who is usually seated on an active seat. In this case, active means that it is able to move, vibrate, blow, touch and more (e.g. the Back to the Future ride at Universal Studios, Orlando, FL, USA). One of the first experience of immersive virtual reality in the field of culture was "Time Elevator[24]" back in time to the legend of Romulus and Remus and the founding of the eternal city, victories and defeats, development and decline of the Roman Empire, being a testimonial of the Middle Ages and the Renaissance period. An interesting application of IMAX theatre and "dome" has been activated in China near the city of Dunhuang, the Mogao Caves, also known as the Thousand Buddha Grottoes or Caves of the Thousand Buddhas (5th Century). The overall historical area is accessible from the main touristic facility that includes two steps briefing: an IMAX theatre presenting an immersive movie devoted to the Silk Road with the caravans and their cargo—silk, tea, gold, gems and ceramics

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[21] https://artcom.de (last visit 11.12.2020).
[22] https://www.oculus.com (last visit 11.12.2020).
[23] Wonders of China was first shown on October 1, 1982 and closed on March 25, 2003. It was replaced by an updated film, Reflections of China, which opened on May 23, 2003.
[24] https://www.time-elevator.it/time-elevator/ (last visit 11.12.2020).

heading west to the courts of Persia and the Mediterranean; the second briefing is performed in a "Dome" enabling a high-resolution immersive visit in the most relevant decorated caves and their statues.

Dark rides usually begin with a short briefing that immerses the viewers in the story told by the ride as they are queuing up to enter the attraction. At the end of the experience, on the way out, it is common to have to pass through shops with merchandise themed on the ride. If some interaction is needed during the ride, a special briefing session is added to the initial one, together with a specific "safety" briefing.

A complete sequence of briefings would therefore involve a first briefing on general topics related to the experience (given while people are queuing outside the theatre); a second briefing describes what is currently happening in the ride (via live video); last but not least is a briefing on how to use the equipment associated with the ride, interaction methods, and safety and emergency instructions. One of the early European examples of "dark ride" in natural science museums was created in the already mentioned "Parc Oceanique Cousteau" located at the Forum Des Halles in Paris (mid–1980s).

Moving back to the general topic of this paragraph, theme parks, people often say that "you pay the entrance ticket to a theme park in order to start queuing". There is undoubtedly an element of truth, due to the structure of the attraction, with a regular flow of people, the timing of the experience can be accurately estimated and allocated so as to maximize its effects. Therefore, the potential number of visitors is easy to estimate, which is an important aspect sometimes. A similar approach is often applied in museums that lend out digital audio guides with just a single button, play. These guides suggest the best path and timing to use during the museum visit.

All of these attractions are relatively novel and flexible communication formats, and they are capable of communicating in very effective and immersive ways. They are usually immersive experiences with different levels of interaction, enabling nonlinear communication channels. They are widely used today, even for didactic purposes, in theme parks and science centres.

Closing remarks: A rich series of well-focused events

Saint-Petersburg with its University and State Hermitage hosted a number of interesting conferences and events on Culture and its key aspects and issues. All these international conferences and round table have, among the other, a very active "doctor in cultural studies" member of the organizing committee and promoter of such initiatives, Alexander Drikker, Doctor of Cultural Studies, Professor of Saint Petersburg State University.

My friendship with Alexander Drikker dates back more than fifteen years on the occasion of the CIDOC-ADIT Conference 2003 held in Sankt Petersburg. In 2003 Saint-Petersburg marked the 300th anniversary of its founding by Peter the Great and on that occasion was organised the CIDOC-ADIT conference to discuss about the emerging cutting edge technologies devoted to cultural heritage. The following year, 2004, Saint-Petersburg hosted the international conference Digital Divide and Universal Access to Cyberspace: Strategies of UNESCO and the Intergovernmental Council of the Information for All Programme (IFAP/ UNESCO) organised by Ministry of Culture, Russia, Ministry of Foreign Affairs, Russia, Ministry of Communications and Informatisation, Russia, Saint-Petersburg city administration, Information for All UNESCO programme, Russian Committee, National Library of Russia, Saint-Petersburg State University, Centre PIC, Ministry of Culture, Russia.

Following the fil-rouge of the metamorphoses of communication covering main aspects of museums a join initiative of the University of Saint-Petersburg together with the State Hermitage organized a set of well-focused workshops and conferences: "Boundaries of memory: Destiny of a cultural heritage In Armenia and Russia" 2013, "Boundaries of memory: Museum and Heritage of modern culture" 2014 both organized by the Saint-Petersburg State University, The State Hermitage, Institute of Ancient Manuscripts Matenadaran, Library of the Russian Academy of Sciences, The Russian State Historical Archive; "Museum exposition in time and space of culture" 2016 organized by Saint-Petersburg State University, The State Hermitage Museum, The A.S. Popov Central Museum of Communication , The Association for Hungarian-Russian cooperation by the name of Leo Tolstoy, Hungary, The Berlin University of the Arts; "Philosophy of Museum: Phenomenology and Analytics of "Museum's Boom"" 2017 organized by Saint-Petersburg State University, State Hermitage, Central Museum of Communication, "For the Hungarian-Russian Cooperation" Association; "The Philosophy of Museum: from hermeneutics to heuristics of museum object" 2018 organized by Saint-Petersburg State University, together with State Hermitage, The A.S. Popov Central Museum of Communication, Association "For the Hungarian-Russian Cooperation"; "Philosophy of the Museum: Metamorphoses of Communication", 2019 organized by Saint-Petersburg State University and State Hermitage.

Recently on the occasion of the international conference entitled "Philosophy of Museum: Phenomenology and Analytics of "Museum's Boom"" we discussed the theme "The Museum-Temple in the Google Age" analyzing the role of museums in the information age starting from the potential origins of such institutions. The classic term Mouseion (Greek μουσείον) and its original meaning "Temple of the Muses" or "Institution of the Muses", home of the custodians of arts but even philosophical school and library.

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Acronyms

WB: The World Bank
WTTC: World Travel & Tourism Council
UNWTO: The World Tourism Organization
UNESCO: The United Nations Educational, Scientific and Cultural Organization
IFAP: Information for All Program
ICOMOS: The International Council on Monuments and Sites
WEF: The World Economic Forum