# NOVEL APPROACHES IN TOURISM DIGITALIZATION – STRATEGIES FOR A POST COVID - 19 WORLD

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## Abstract

*The SARS-CoV-2 pandemic has caused major damage to the tourism industry globally, many tour operators and agencies being forced to close down their businesses. It is no secret that the restrictions and fear of getting ill have been a deterrent when it comes to traveling abroad. However, in spite of all the damage it has caused, the COVID-19 crisis has also pushed the industry to digitalize more than ever been before. In this sense, one must regard technological advancements with a keen eye and observe the factors that can ease the access of travelers, as well as how these advancements facilitate the further development of the tourism industry. The digital transformation of tourism will not only help those that want to travel during a pandemic and are afraid to do so, but also those that are less mobile; this is an area that has not been explored up to this point. The digitalization of tourism can create a revolution when it comes to the mobility of the less mobile, offering travel opportunities for individuals with certain disabilities, or people that are unable to physically travel, because of a variety of reasons. In the given context, the present paper aims to observe the technological advancements and create a comparison between them in order to explore the best alternatives that will further develop the tourism industry in the following years, making travel, under different shapes or forms, accessible to all people, regardless of their degree of mobility.*

## Keywords

## I. INTRODUCTION

One year ago, the World Health Organization has declared the SarsCov-2 as a pandemic. Ever since then, strict measures have been taken, in order to contain the spread of the highly-contagious virus. Unfortunately, the situation got worse within a few months from the initial outburst of the virus in Hubei, China. Whilst most industries collapsed, or were very close to collapsing, there were very few that were actually thriving, such as companies supplying cleaning products and mask manufacturers. According to statistics and global data, the hospitality industry has been one of the hardest hit industries, because of its reliance of human interaction.

Since the beginning of the pandemic, statistics indicate that tourism has registered a dramatic drop: 43% decrease hotels bookings, 35% losses for airline companies and 53% losses for online tourism agencies. In total, it has been estimated that tourism suffered a total drop of anywhere between 50% to 70% (comscore.com, 2020). At the beginning of the pandemic, due to fear regarding an unknown situation, consumers reacted mostly on an emotional level (Kahneman 2011). Thus, if one was to pay close attention to the market at the beginning of the pandemic it would be easy to observe irrational behaviors shown by the population. One of the first decisions that was taken, either due to personal reasons or forced by government regulations was that of cancelling any unnecessary travels. It is for this reason that in the first half of 2020 it seemed that the travel industry was going to collapse completely.

The physical and psychological impact that the pandemic has had on individuals has been serious and cannot be ignored – studies have shown that the shock caused by the pandemic will have long-term effects, including anxiety, depression, panic disorders, PSD and various other behavioral disorders (Sood, 2020). As a result, when looking at the issue, a double perspective needs to be embraced, and equal importance needs to be given to discussing both the industry perspective and the consumer perspective.

The study considers the fact that different distractions and sources of entertainment that can remind individuals of real-life experiences could alleviate internal torment. It is for this reason that the main alternatives that are given in the current article are the use of AR and VR Technologies.

In May 2020, Computer Economics magazine launched an article that analyzed which industries were most affected by the pandemic. Figure 1 below is a visual representation of the results of the study, which clearly indicates that the most affected industries have been travel and transportation.
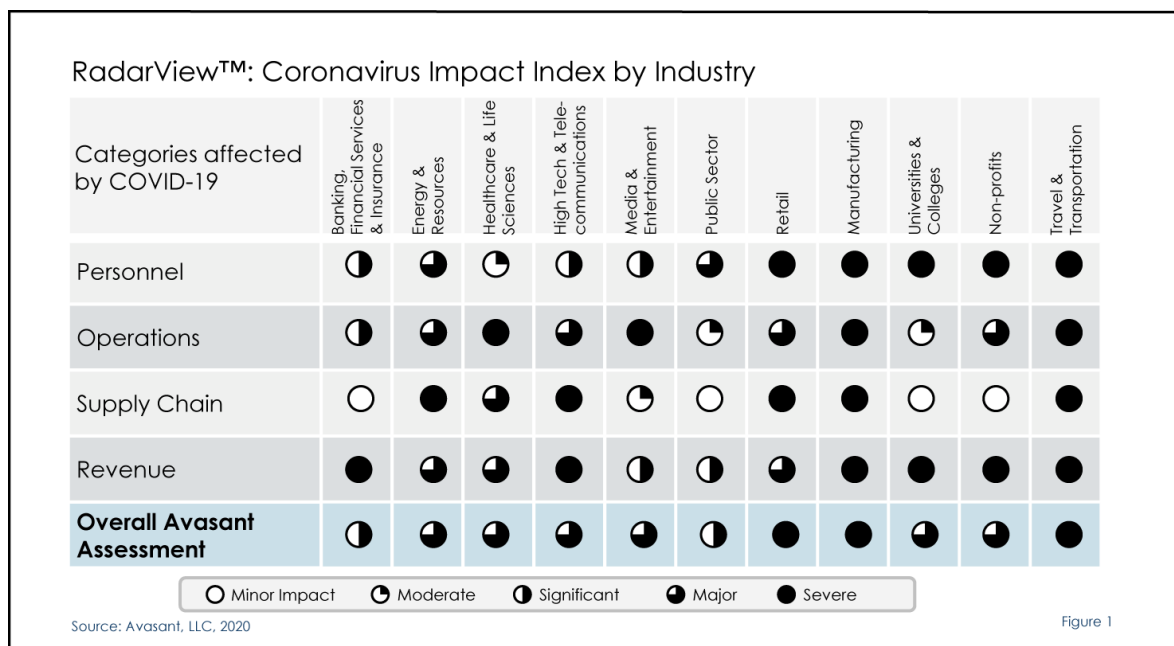


Fig. 1 – Coronavirus impact on the industrial sector
*Source: (Computereconomics.com, 2020)*

However, as safety norms became clearer and COVID-19 tests became available, a lot of the panic from the beginning of the pandemic had been diminished to a more rational point. The moral panic has also been diminished when it has officially been announced that the COVID-19 vaccine had almost been completed, and was going to be released by the end of 2020. This enabled consumers to control their decisions on a cognitive level and be more open in their decision-making process. It is for this reason that

in a period where the tourism industry was "burning down" worldwide there were places that, in spite of all these difficulties, managed to have a faster recovery. A good example is the Asia – Pacific region, which managed to have an increase of incoming tourists, during times when the global economy was collapsing. Another good example of a comeback is the area of Levante that has recorded a growth of +58% in the beginning of 2021, compared to 2020 (Eisen, 2021).

## March 2021 YOY Performance Data

| Region | RevPAR | TRevPAR | Labor PAR | GOPPAR |
|---|---|---|---|---|
| U.S. | -4% to $69.71 | -11% to $100.45 | -54.9% to $35.03 | +328.9% to $30.63 |
| Europe | -58.1% to €14.62 | -58.1% to €25.56 | -53.3% to €16.95 | -14.3% to -€8.45 |
| APAC | +115.1% to $53.54 | +118.9% to $97.02 | +13.0% to $34.06 | +296.8% to $23.77 |
| Middle East | +58.3% to $72.65 | +44.3% to $119.74 | -10.3% $37.21 | +5526.9% to $37.70 |

Source: HotStats · Created with Datawrapper

Fig. 2 – March 2021 Year-over-Year Performance
*Source: (https://www.hospitalitynet.org/)*

On the other hand, it is important to take into consideration the fact that these statistics only present data from the first quarter of 2021, in comparison with 2020. The statistics do not deny the fact that these destinations have also experienced a decline in the number of tourists, but they managed to recover faster and create a safe and welcoming environment.

In the following pages, the current article aims to set a list of good practices and technical innovations that will support the tourism industry to overcome the difficult times of the pandemic.

## II.    CONTENT

The present study aims to create a set of digital solutions that can be used to bring industry 4.0 in the tourism sector. Historically speaking, tourism has been relying on traditional travel agencies. However, with the spread of the Internet, travel portals and online booking have become mainstream among generation Z and Millennials. With the pandemic preventing people from physically travelling, it became crucial for businesses to come up with creative and innovative ways of making use of technology to ensure their survival.

A classic example of digital transformation can be seen in the form of livestreams. The first ones to adapt to the pandemic scenario and creatively use digital tools were the Met Opera of New York, as well as other museums. A more evolved way of presentation, which can also be used in a touristic scenario are the VR and AR Technologies. One of the first travels of this kind was available ever since 2018. This is when Microsoft Hololens launched a model program, along with a pair of Augmented Reality goggles, which enabled the user to "travel" the Galaxy (L-Garrett, 2019). Other examples include virtual reality tours of museums and cities and even roller coasters or Carnival rides. All of these can be accessed through Google Arts and Culture. Cities have their own designated websites, whilst others can even be seen on YouTube.

All of these examples are proof that technology can be a useful tool, enabling businesses to present various destinations, as well as tourists to experience these destinations virtually, from the comfort of their homes. Figure 3 below is an example of various VR travel experiences offered by Oculus and Figure 4 is an example of a VR tour of the Colloseum, offered by Google Arta and Culture.

spectrum of experiences needed for a traveler to be fulfilled. Still, such solutions can work very well in periods of prolonged restrictions. Therefore, it is useful to consider this form of virtual travelling as a viable option for the mental wellbeing of those who cannot travel, not only during a pandemic, but also in a "normal" scenario, for the benefit of people with reduced mobility.

## III. CONCLUSIONS AND RECOMMENDATIONS

The digital era has improved the lives of many, by facilitating communication and easing access. The current article has managed to provide different alternatives that can help individuals manage prolonged periods of self-isolation. by taking them on virtual holidays to different destinations around the world. Whilst it is true that a completely digital way of travelling cannot create a full experience of a given destination, such an alternative can prove of great value during long periods of isolation.

The only question that remains is what would be the use of digital travel outside periods of isolation – will it still be a popular alternative when people will be able to physically travel again? For an accurate answer, one must take into consideration the categories of the population that have a certain disadvantage when it comes to travelling, such as people with reduced mobility. The examples of digital travel given in this paper could benefit this last category on a permanent basis, providing comfortable, yet exquisite travel experiences for those who wish to travel, but for various reasons are not able to do so.



Fig. 3 – Example of VR travel experiences offered by Oculus
*Source: (Oculus, 2021)*



Fig. 4 – Example of VR travel experiences inside the Colloseum, offored by Google Arta and Culture
*Source: (Google Arts & Culture, 2011)*

Arguably, with tourism being a complex experience, imagery re-created through VR and AR alone is not enough to contain the full

## Acknowledgements

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