Augmented Reality in the Field of
Travel & Tourism during Covid-19 Pandemic

POOJA GUPTA[1], NEEL RATHOD[2]

[1](MCA, VIVA INSTITUTE OF TECHNOLOGY/ MUMBAI UNIVERSITY, INDIA)
[2](MCA, VIVA INSTITUTE OF TECHNOLOGY/ MUMBAI UNIVERSITY, INDIA)

Abstract : *The pandemic outbreak of COVID-19 in 2020 has affected the tourism industry, with international travel bans affecting the world populations. It is impact spread across all spheres of life, be it health or society or economy. With self-centered expanded reality (AR) use expanding lately, the usage of this innovation has a potential intending to wellbeing correspondence and conduct intercessions challenges. One innovation empowering self-centered AR is video channels, which superimpose PC created content onto a client utilizing their web or cell phone camera (eg, Snap chat Lenses and AR impacts on Instagram). For instance, Snapchat's Time Machine AR focal point transforms a client's appearance to show what the client may resemble at various ages.*

Keywords **-** *Augmented Reality, Covid-19, Pandemic, Tourism, Stimulated*

I.   INTRODUCTION

Travel and tourism is expected to be the hardest-hit industry in this pandemic – hurting both the demand and supply of tourism products the travel industry is probably the greatest supporter of the worldwide economy and business numerous nations on the planet rely exclusively upon the travel industry for their financial development and foods. Thus, in this present reality where COVID-19 will remain for quite a while, the travel industry needs to learn to adapt to these new real factors and restart with a supportability centered methodology. The crisis is changing how we interact with and experience the world. With physical distance and lockdown measure still in place across much of the globe, it will be a while before we see a return to travel and explore as we were used to. But even a global pandemic cannot quite stamp out the natural human instinct to seek and discover. rather than venturing out into the world we are logging onto the World Wide Web to visit places like the British Museum, where virtual gallery tours have increased tenfold. It has been focused that human relationship with nature has been "wildly out of balance" – first through film photography, then digital photography and other mediums. AR has opened up a new and compelling way to raise awareness about humans relationship with nature that cannot be accomplished in a single print or movie. Augmented Reality offer an excellent selling experience and augmented environment, which can be enhanced in diverse ways in the tourism sectors. AR can be used as a beneficial tool in the COVID-19 pandemic due to its features, such as the visualization of invisible concept, annotation by navigations in the virtual world, and storytelling for training purpose Snap's AR lens was designed to indicate how monetary donations can help during the COVID-19 pandemic. In this way, this lens teaches peoples how they can plays a useful role by donating resources, while it also highlights the WHO messages about the role of donations against pandemics [1]

II.   The Bright Future of Augmented Reality in Travel Industry

The travel industry is all about generating exclusive experience and AR has the prospectives to back this business sectors. The technology can supports tourism with new styles of customer servicing. It is assumed that in the

coming time, Augmented Reality will drastically changes the business models of the tourism sectors. Along with the virtual tours and navigation system, advertising agencies are trying their luck in this field. AR has opened various earning streams for Tourism industry like AR based Ads on airports. Just by scanning code by their smartphones people can also experience advertisement in the augmented reality. Virtual billboards are also used by many companies for attracting customers. You will find many billboards installation at malls, stations, and airports. As per research conducted by a marketing firm it has been revealed that ads have better conversion rates as compared to traditional multi-channel ads. AR travel and tourism sector are benefited because of various factors like a comprehensive experience of the destination place, cost-effective, real-time information available for tourists. With the help of this platform, a user can also check the travelling experience, climate, main highlighted places to visit in just a single click. People can virtually choose which restaurant to go just by checking it on their phones. Take virtual tours of many restaurant and then decide where to go and never regret because of the fake reviews. Never wait in a queue for your number and directly book your table after having a quick tour. Hotels are using this AR technology on their booking applications so that the customer can have a virtual tour of the room and book it with satisfaction. Here is a current list of how Augmented Reality is delivering values for both end customers and the tourism business.[2]

1. Augmented Reality Trimming Down Language Differences

It is both difficult and appealing to travels to a foreign destination without having a translator to guide you. However, with AR technology, smartphones can be utilized to translate foreign languages for different types of users.

2. AR Apps Ensuring No Travelers Are Being Lost

Discovering your way in a foreign town can be challenging. However, AR turn navigation apps smarter by adding digital components like arrow and other applicable details. By integrating and combining smartphone cameras to Google Maps, AR can improve travel experiences of navigating a new place.

3. Improving Travel Conveniences with AR Mobile Apps

Travels can turns chaotic with lack of correct and well timed information. With AR, travel brand are enlarging mobile application for tourists, to improve their travel experience.

4. Innovative Ways to Detect Hotels through AR

Today tourists won't pay consideration to straight forward pamphlet. AR makes it possible to find out informations on a novel level by having 3D animations from printed brochure. Hotel collaborates with content based companies and marketing agency to create and publish AR based advertisements in magazine. Further, hotel mobile app users can also scan the ads to open a presentation video.

5. Communication and Interactions with Hotels Using AR

Pokemon Go has stimulated many other business to use AR technology, including the travel and hospitality industries. Augmented Reality app assist in envisioning how such Gamification can persuade and interest people to stay in a picky hotel, especially the youngest. Check-out how some of the hotels provide its guests with a mobile app, which showcases every corner of their hotel with supplementary AR objects.

6. AR in Restaurants, Bar and Cafes

Keeping it concise restaurant and bars can utilize AR solutions for their advantage in quite a few way. Restaurant can have menus with an engaging and interactive 360 degree view of every food dish and it is ingredients through AR application. AR game at several restaurant use Pokemon Go to attract clients with the assistance of mobile applications using AR to offer details about restaurant, cafes, and nearby bars.[3]

III. METHODOLOGY

3.1 The pandemics of major infectious diseases often cause public health, economic, and social problems. Virtual Reality and augmented reality, as two novel technologies, have been used in many fields for emergency management of disaster. The COVID-19 episode has turned into a solid power repressing every one of the elements that made global travel simple and supported working on the spread of the travel industry (Niewiadomski, 2020). Be that as it may, the relaunching process should be cultivated by keeping the UNWTO (2020f) rules as a top priority. One of the features of the rules is to upgrade the utilization of innovation for consistent, safe furthermore, touchless travel. All things considered, ICT-driven components, for example, AR end up giving such travel encounters. A portion of the possibilities for more extensive reception are examined below. AS noted before, AR can give answer for obliges the changing real factor post COVID-19. To start, one might examine the force of AR and VR to give a virtual experience of a spot without truly going there. AR can advance unsustainable setup of the travel industry after the pandemic that will expect vacationers to leave all pointless unnecessary developments given their adverse consequences and experience them essentially (Loureiro et al., 2020). AR has been most especially utilized in the showcasing of the travel industry items and administrations for better perception and centered data sharing (Cranmer et al., 2020). Following the COVID-19 pandemic, there will be an extraordinary need to assemble mindfulness, advance, support marking and acquire client certainty through engaged and pervasive showcasing. Subsequently, AR will significantly affect the showcasing of the travel industry and manageability furthermore, on the post-pandemic time frame. Most of the travel industry items depend on multisensory encounters – be it experience the travel industry or untamed life the travel industry – sightseers go all over to encounter the live impression of nearness to natural life. After the pandemic, AR-based frameworks are relied upon to give these tangible encounters without genuinely completing the movement or going to that spot (Buhalis and Matloka, 2013). Likewise, customized AR apparatuses can take into account the need of vacationers with uncommon necessities, in this way further developing justification for available the travel industry (Yovcheva et al., 2013). AR a have various ramifications in the food and drink (F&B) area. In the setting of COVID-19, one of the main parts of AR in the F&B area has been talked about by Georgeakopoulos (2008) who portrayed the advantages of further developed intelligence and submersion through AR and VR for sanitation preparing in F&B foundations. Instructive visits are not relied upon to restart even after the pandemic, as it would be unsafe to prepare understudies in a world that has recently recuperated from a pandemic. Instructive establishments will investigate the potential outcomes of these virtual outings as a substitute for genuine outings. Further, as long as the school and instructive establishment giving the travel industry schooling don't open, AR-based framework would give first hand data viewing objections as well as further develop information development (Yung also, Khoo-Lattimore, 2019). MICE (Meetings, motivations, conferencing and shows) are vital parts of the travel industry. The COVID-19 pandemic has display the incomparability of ICT-based stage in sorting out gatherings in the computerized spaces. AR-based applications can give reality encounters of MICE the travel industry while setting aside cash and time.[4]

Purpose of this paper aims to understands the various facets of augmented reality and to explore its prospects for supporting the relaunch the tourisms sector post-COVID-19 in accordance with the guideline set out by WHO and UNWTO. Methodology/approach this study fall into the category of exploratory research. It is based on a systematic review of secondary the data. Thematic content analysis has been adopted to trace out the various way in which AR can be an aid in overcoming challenges in the relaunch of tourism after the pandemic lower mobility are going to be followed even after the COVID-19. [5]

Clinical aspects

In China, AR was used to provide high-resolution audio and video communication so that when doctors wore HMD in isolation areas, they could do patients round and communicate or consulta with many doctors at the same time. This system provided an automatic recording of the patient's details by sending patient data to the medical system without any contact or paperwork.

AR-based platform to be used in the current quarantine conditions at home to help many industries, businesses, schools, and governments. Through mobile phone or other immersive device, users can make use of this platforms. [9]

Telecommunication

Snap's AR lens was designed to indicate how monetary donations can help during the COVID-19 pandemic. In this way, this lenses teaches people how they can plays a useful role by donating resource, while it also highlights the WHO messages about the role of donations against pandemics

Educating

Education and preparing assume a significant part in the crisis the executives of calamities, and responders should be broadly educated in different jobs for readiness against catastrophe conditions. Our writing survey uncovered that the vast majority of the past investigations on irresistible infections were intended for instructing and helping anticipation or readiness procedures to oversee debacle conditions. It ought to be noticed that AR abilities assume a significant part before the pandemics as far as diminishing the adverse consequences of irresistible sicknesses. As such, people can encounter a pandemic circumstance in a recreated climate to figure out how they ought to react to irresistible illnesses. Also, the COVID-19 sickness has constrained wellbeing specialists and government authorities to ask individuals into isolation; consequently, the utilization of data advancements, like VR and AR, as computerized arrangements, can help us in numerous spaces, including the medical services framework, sharing data, correspondence, business, schooling, diversion, etc. In this manner, these advances can possibly be utilized in any industry, particularly during the quarantine states of the COVID-19 pandemic. By and large, our outcomes show that AR applications were more widely considered than AR applications for the crisis the executives of irresistible illness pandemics.[6]

3.2 Prospects for an augmented reality-driven relaunch of post-COVID-19 tourism

The COVID-19 episode has turned into a solid power repressing every one of the elements that made global travel simple and supported working on the spread of the travel industry (Niewiadomski, 2020). Be that as it may, the relaunching process should be cultivated by keeping the UNWTO(2020f) rules as a top priority. One of the features of the rules is to upgrade the utilization of innovation for consistent, safe furthermore, touchless travel. All things considered, ICT-driven components, for example, AR end up giving such travel encounters. A portion of the possibilities for more extensive reception are examined below. To start, one might examine the force of AR and VR to give a virtual experience of a spot without truly going there. AR can advance unsustainable setup of the travel industry after the pandemic that will expect vacationers to leave all pointless unnecessary developments given their adverse consequences and experience them essentially (Loureiro et al., 2020). AR has been most especially utilized in the showcasing of the travel industry items and administrations for better perception and centered data sharing (Cranmer et al., 2020). Following the COVID-19 pandemic, there will be an extraordinary need to assemble mindfulness, advance, support marking and acquire client certainty through engaged and pervasive showcasing. Subsequently, AR will significantly affect the showcasing of the travel industry and manageability furthermore, on the post-pandemic time frame. Most of the travel industry items depend on multisensory encounters – be it experience the travel industry or untamed life the travel industry – sightseers go all over to encounter the live impression of nearness to natural life. After the pandemic, AR-based frameworks are relied upon to give these tangible encounters without genuinely completing the movement or going to that spot (Buhalis and Matloka, 2013). Likewise, customized AR apparatuses can take into account the need of vacationers with uncommon necessities, in this way further developing justification for available the travel industry (Yovcheva et al., 2013). AR a have various ramifications in the food and drink (F&B) area. In the setting of COVID-19, one of the main parts of AR in the F&B area has been talked about by Georgeakopoulos (2008) who portrayed the advantages of further developed intelligence and submersion through AR and VR for sanitation preparing in F&B foundations. Instructive visits are not relied upon to restart even after the pandemic, as it would be unsafe to prepare understudies in a world that has recently recuperated from a pandemic. Hence, AR-based virtual field trips have been ascribed as a more feasible and carbon touchy option in contrast to actual field trips given its insignificant nursery emanations (Schott, 2017). Instructive establishments will investigate the potential outcomes of these virtual outings as a substitute for genuine outings. [7]

Purpose this paper aims to understand the various facets of augmented reality (AR) and to explore its prospects for supporting the relaunch of the tourism sector post-COVID-19 in accordance with the guidelines set out by WHO and UNWTO. Design/methodology/approach this study falls into the category of exploratory research. It is based on a systematic review of secondary data. Thematic content analysis has been adopted to trace out the various ways in which AR can be an aid in overcoming challenges in the relaunch of tourism after the pandemic lower mobility are going to be followed even after the COVID-19.[8]

IV.   CONCLUSION

During the COVID-19 episode, these advancements can possibly be utilized in different fields, including clinical setting (e.g., telehealth, drug disclosure, patient evaluation, emotional wellness the executives), amusement (e.g., video call, reflection, gaming), business and industry (e.g. holding gatherings and meetings, advertising), and training (e.g., in schools and colleges, for medical care suppliers, and VR-based substance for working on general wellbeing). These advances can be utilized in the previously mentioned fields by giving their various elements to working with the difficulties of COVID-19. Notwithstanding, to react to COVID-19, all uses of AR ought to be considered as a strong methodology close by other data advancements. We accept that AR have a considerable potential to affect the crisis the executives of COVID-19 or any irresistible sickness pandemics; nonetheless, these possibilities should be contemplated in a more hearty way.

ICT devices, for example, AR have shown to be creative instruments that can give touchless, multisensory encounters, which consequently can guarantee both traveler fulfilment and wellbeing. Subsequently, the eventual fate of the travel industry will be enormously affected by AR frameworks, and the expense of these frameworks is relied upon to go down with more noteworthy solicitations for passage level frameworks. Further, AR-based frameworks can colossally help in parts of the travel industry like F&B, MICE, the travel industry instruction, giving multisensory encounters and keeping away from pointless voyages. This multitude of angles highlight the enhanced utilization of AR in post-pandemic T&T and Health related frameworks.

Acknowledgements

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