

The Future of Travel: Technologies Shaping the Industry This Year and Beyond

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Space travel. Lifelike, interactive virtual reality destinations and attractions. Robots.

These are some of the technological advancements that are even today shaping where, how and even why we travel.

As we continue celebrating National Travel and Tourism Week this week, we recognize all the challenges the industry has had to overcome over these past two years while also looking toward the future.

And what a future it is shaping out to be.

2022 NTTW: The Future of Travel from U.S. Travel on Vimeo.

While consumer trends like sustainability, workations and bringing pets along for the ride during travel are some trends that shape the ways hotels, tour operators, cruise lines, airlines and other travel industry companies approach consumers, there are other trends that are even today shaping how, why and even where they travel.

The pandemic has been a pivotal force in bringing new technology into the travel industry. Virtual tours, contactless amenities, attractions to visit via augmented reality, robots that use UV light to disinfect airports, airplanes and hotel rooms. These are just a few examples of the types of technology the travel industry is expected to utilize in the future.

Facial Recognition for Contactless Security Measures

One emerging technology that is growing in airports across the country is facial recognition technology. Using biometrics, or the unique shape of your face, your eyes or your fingerprints (sometimes all three), companies like CLEAR and Corsight, the latter of which worked on IATA's Travel Pass, can speed up the process at airports and provide a contactless security check for those going through security checkpoints.

CLEAR currently operates in over 55 airports, stadiums and other venues in the U.S. and North America. It's likely that due to the pandemic, more people will want a quicker, contactless method of identity verification, and facial recognition technology can provide just that.

Robots for Cleaning...and for Bartending?

Even as early as 2015, we reported on robots entering the travel industry. But it wasn't in the way that anyone could've expected.

The first robots in the industry were bartenders onboard Royal Caribbean's Quantum-class cruise ships. Like the robotic arms that work in assembly lines in factories across the world, these robots are programmed to do one thing repeatedly: make drinks.

But when the pandemic spread across the world, robots began growing in number and purpose, for more than just entertainment value.

They helped and continue to help disinfect airports, airplanes and even hotel rooms using UV light technology, like those employed in Key West International and Pittsburgh International airports, enhancing sanitization measures while protecting at-risk humans from exposure to COVID-19.

The robots currently employed to enhance cleanliness aren't replacing those who are hired to clean hotel rooms or airports; they work alongside them to destroy the viruses and bacteria that could be left behind even with routine cleaning.

It's expected that the need for these types of robots will grow, and will grow to include robots in more than just bartending and sanitization; last year, a GlobalData poll asked over 475 companies the types of things they would invest in over the course of the next year. Thirty-one percent of those companies named robotics, which was the third most popular answer overall.

Virtual Reality Experiences

With cities and countries on lockdown and travel all but completely stalled, the worst days of the pandemic brought a rise in creative alternatives to traditional tours and travel experiences, effectively jump-starting the rise in virtual reality travel experiences.

From tour operators offering video tours of destinations closed to international tourists, like InsideJapan Tours, to destinations themselves investing in AI or VR experiences, like the German National Tourist Board or Visit Malta, the pandemic informed many different organizations and companies across the travel industry of the importance of investing in unique, creative and often innovative ways for travelers to interact with a destination or attraction, even before they leave on their trip.

New data from Accenture found that about half of consumers expressed interest in buying a virtual or augmented reality travel experience, whether it be a virtual hotel stay or augmented reality tour in the "metaverse," the term now commonly referred to as any virtual reality space that users can interact with in real-time.

“The metaverse is not intended to replace physical travel, rather provide a complementary enhancement to an overarching experience. Giving the option to sit in a virtual first-class seat, experience the lounge or walk around a hotel resort or room, opens up opportunities to truly engage and inspire people before they travel,” said Emily Weiss, senior managing director and global head of Accenture’s travel industry group.

“And, through ‘trying-before-you-travel,’ recreating landmarks in all their past glory or allowing travelers to investigate parts of nature, which they cannot explore within real-life interaction, the metaverse can also help create a more meaningful travel experience that delivers on or even exceeds customer expectations.”

While the metaverse will never completely replace real travel for most people, it can be used to educate and promote a destination, tour, cruise line or other travel-related experience.

Space Travel & Tourism

Another emerging technology has the opportunity to fundamentally change how we view travel: space travel. Soon, it won’t just be for billionaires and multi-millionaires, thanks to revolutionary companies like Space Perspective and Orbital Assembly Corporation.

Space Perspective will begin bringing travelers into space via SpaceBalloon technology, a more sustainable and carbon-neutral method of reaching Earth’s orbit, as early as 2024. Its Space Lounge will be made from sustainable materials and offer nearly 360-degree views, with prices currently at \$125,000 per ticket, much more reasonable than Elon Musk, Richard Branson or Jeff Bezos’s alternatives.

“Now, more than ever, people are seeking purpose and meaning in their travel experiences and once-in-a-lifetime moments. Space travel offers not only a brand new destination but also the opportunity to have the quintessential astronaut experience and enjoy the phenomenal beauty of Earth and the vastness of space. Space Perspective offers travelers the thrill of space exploration with the world’s most comfortable and gentle voyage to space,” said Jane Poynter, Founder, Co-CEO and Chief Experience Officer of Space Perspective.

Orbital Assembly Corporation, on the other hand, is working on developing gravity ring technologies to install the first orbital space station where people can live, work, play and yes, even visit for tourism purposes, all with gravity the likes of that found on the moon, which should make being in space safer for everyone’s health while also allowing them to eat and sleep as they would on Earth.

OAC is expected to launch its smaller version of what will one day be a space station for up to 400 as early as 2025, called the Pioneer space station. It will be large enough for up to 28 individuals.

Whether companies focus on making it to Mars, to the Moon or just into orbit, it’s expected that in the decades to come, space tourism will become increasingly more possible for less wealthy individuals and that emerging technologies like artificial gravity will help spur safer space travels.

Cybersecurity

With the growth in technology for everything from airport security to hotel sanitization and virtual experiences, issues relating to cybersecurity will become a greater focus for the travel industry in the future.

The World Travel & Tourism Council recently released a new report called “Codes to Resilience,” in partnership with Microsoft, detailing the challenges and threats that the industry’s increased digitization could encounter in the years to come, as well as possible cybersecurity solutions that can be adopted to solve them.

According to the report, 72 percent of all small and medium-sized businesses in the U.K., U.S. and Europe have reported at least one cyberattack in the past; 80 percent of the travel industry are small or medium-sized businesses, proving that cybersecurity is a very real concern for the industry.

“Technology and digitalization play a key role in making the whole travel experience more seamless, from booking a holiday to checking in for a flight or embarking on a cruise,” said Julia Simpson, WTTC President & CEO. “But the impact of cyberattacks carries enormous financial, reputational and regulatory risk.”

The latest security breach TravelPulse covered earlier in February was Scenic Group’s security breach; while it didn’t identify any stolen client information when it was first reported, the website did go offline during the cyber breach.

Issues surrounding cybersecurity, then, should remain a humbling factor and a prioritized concern as we consider the future of the travel industry.

“Automation and self-service has always been something that most industries strive for to make sure processes are as seamless and efficient as possible. You can see that in airports all over the world with examples like self-service kiosks for check-in and apps for check-in and getting your boarding pass. Those two things seem like an obvious part of the travel process these days but thinking back to 15-20 years ago that technology would have blown people’s minds,” said Jordan Bradshaw, Vice President of Northcutt Travel Agency.

“So I like to take that into consideration when thinking about new technologies to come. It seems like technology advances at a slow pace but when you step back and look at decade over decade rather than year over year, it’s amazing how far we’ve come and to think about what the future has for us!”

The travel industry’s future is at a turning point as we celebrate National Travel and Tourism Week in a year in which the world continues to reopen and recover from the pandemic.

Emerging technologies might never fully replace the travel experiences that people love, but they can add extra safety, save time, draw interest and even take travelers beyond the bounds of Earth’s atmosphere, and that’s something to look forward to.

