



Robosoft Technologies®
EMOTION ENGINEERING & DESIGN

Helping travel & tourism elevate digital experiences for new-age travelers



The time to travel is on its way forward



The travel and tourism sector is witnessing an unprecedented shift—it is no longer just about destinations but about delivering seamless, connected, personalized experiences for new-age travelers. The industry is poised for exponential growth annually at a rate of 3.90%, with [global tourism revenues projected to surpass \\$1 trillion by 2029](#).

With technological advancements like recommendation systems and AI travel assistants, alongside the use of Data Analytics to offer elevated travel experiences, the industry is ripe for innovation and expansion.

Beyond the airlines, airports, and hotel chains, local businesses and artisans—integral to the tourism ecosystem—also have opportunities to thrive as the industry grows. Notably, hotel chains are the largest market within the travel and tourism sector, with forecasts estimating a market volume of [US \\$511.90bn by 2029](#).

This momentum highlights an increasing appetite of new-age travelers for connected and meaningful travel experiences that combine technology-driven value, creating new opportunities across the value chain.



Travel & tourism revenues predictions for 2025



Hotel industry
(the largest segment)
USD 443.10 billion



Vacation rental
(emerging segment)
USD 105.70 billion



Cruise industry (badly
impacted after pandemic)
USD 44.39 billion



Package holiday
segment
USD 313.90 billion

Source: Statista

User base in 2025



Hotels -
1.81 billion
users worldwide



Vacation package -
66.73 million
users



Cruise travelers –
37 million

The new age tourist and how they travel

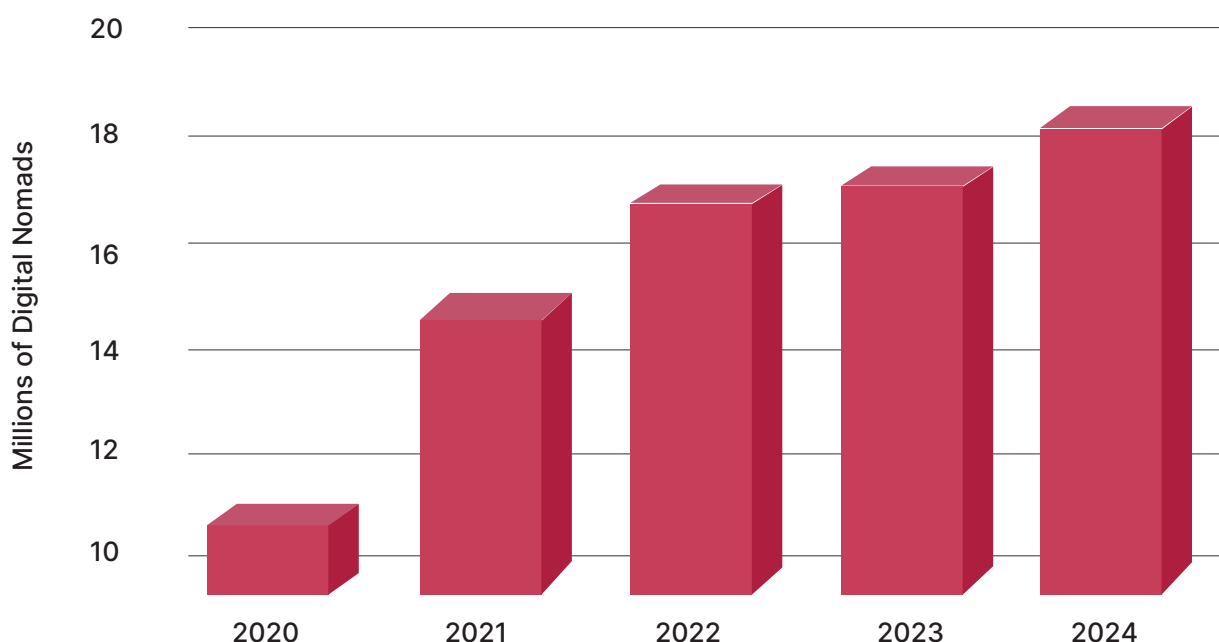


New-age travelers have recalibrated their travel expectations and priorities, leaning more towards enhanced experiences and connected ecosystems. IATA's 2024 Global Passenger Survey revealed that travelers valued speed and convenience at every stage, showing increasing openness to biometrics and pre-departure tasks. They have embraced the convenience and freedom of digital, and around [71% of passengers prefer booking online through the airline's website or app.](#)

Millennial and Gen Z travelers research their trips and plan them entirely online. Even older generations who are less familiar with technology are finding vast amounts of information online and better deals. The experience economy is also gaining prominence in travel. Social media heavily influences new-age travelers, who rely on experiences shared by other travelers through reviews on social media, etc., as part of their research.

Another interesting trend is the growing digital nomad population that reached [18.1 million in mid-2024.](#) These individuals travel around the globe while working in some professional capacity online.

American Digital Nomad Annual Growth



"Travelers expectations have changed, from how they get information about where they want to go, to how they make their travel plans, and even how they experience the tourist destination itself."

"Technology is bridging the gaps in many ways for the industry, poised to grow exponentially locally and globally. More than ever, technology is bringing every stage of travel alive. New-age travelers rely heavily on their smartphones for researching, planning, booking, reservations, exploration, and various other aspects."



Good-to-haves

- ✓ Personalized information and offers
- ✓ Experiential travel
- ✓ Flexible choices
- ✓ Value-adds



Must-haves

- ✓ Safe and hygienic conditions
- ✓ Well-planned travel experiences from start to finish
- ✓ Convenience
- ✓ An omni-channel experience across apps



Delightful

- ✓ Digital enhancements from research to destination experience
- ✓ Unexpected luxuries and thoughtful gestures as add ons

Technology trends set to influence the travel & tourism industry



These changing expectations and trends offer opportunities for airlines, airports, governments, and other stakeholders in the travel and tourism ecosystem to accelerate the industry's transformation. Even as the digitalization of bookings, airlines, hotels, cabs, and even tourist events has become the norm, digital holds much promise to enhance the traveler's experience entirely. With a mobile phone in every tourist's hand, this is the chance for the tourism industry to speak directly to them and create new experiences.

Here, we have listed prominent technology trends infusing new energy into the industry to deliver delightful, memorable experiences for new-age travelers.





1. Artificial Intelligence (AI) for personalized travel assistance

AI and bots are gradually taking over the most burdensome tasks of administration and customer service in the travel industry. The biggest advantage with AI is that it keeps learning and improving with every interaction. They're helping drive down costs and time and enhance service efficiencies and reliability for hotels, travel agents, tour operators etc. Especially in the hospitality space, staff shortage can be filled in by bots and AI to focus on customer service aspects like personalized recommendations and high levels of responsiveness. Chatbots are taking over interactions with customers in the absence of customer service staff and able to handle volumes and speed of response that are beyond human capacity.

Chatbots in travel

- ✓ Using [bot-building platform-as-a-service such as SnatchBot](#), travel companies with minimal coding skills can set up a booking platform and use chatbots to interact with customers, ask them questions and respond intelligently to capture preferences and specifications.
- ✓ [Travel Professor, a virtual travel assistant](#) chats with prospective travelers, interprets preferences, and notifies them of flight hacks – cheap flight deals and travel destination recommendations.
- ✓ [Sam is an intelligent business travel bot](#) assisting busy travelers on their mobile devices – weather alerts, scheduling local commute, and more relevant updates throughout a business trip.

Airline apps can engage and enhance customer experiences through innovative and intelligent AI-based solutions like:



Personalized itinerary planning: Say an airline app offers a social community experience with travel-related feeds, which are destination/interest specific with reviews by friends/travel influencers on experiences, photos, tips, recommended places etc. Based on the user's preferred dates of travel and interests, the back-end AI engine generates a personalized itinerary ideal for that user – flights to take, places to visit, hotels, time required etc. This saves the traveler a lot of headache and time in doing it themselves. At the same time, the airlines operator can look to forge stronger partnerships and expand their ecosystem to increase their wallet share. They can also upsell or cross-sell the inventories of their group companies and find ways to flourish while offering a seamless experience to their travel customers. They can also look to incentivize and reward travelers for using this wider range of services and sharing reviews etc. when they're simply browsing and not necessarily on the app itself.



Omni-channel presence: Say, a user is searching for fares on the phone while on a bus or train and then that gets disrupted. An omni-channel presence will ensure they can resume from the point they left and complete all the transactions without losing any data or time.



Automated push notifications: On air fare drops for those destinations that a traveler may have shown interest in the past, even when they're simply browsing and not necessarily on the app itself.



Value-adds: A facility for users to measure and check whether their bag size (not weight) is compatible with the airline restrictions as this can be a big concern for the traveler. Through the camera feature on the app, the user can utilize the QR code and automatically populate their passport information and save a lot of time in the bargain.



Automatic synchronization: After a network disconnect or failure – facility of prefill booking applications helps large groups or senior citizens – who might otherwise be disrupted by technical glitches and have to repeat the entire process.



2. Sample what to expect with Virtual Reality (VR)

VR is already popular for gaming, watching interactive videos, and viewing 360-degree images. Now with affordable headsets, it allows the potential traveler to digitally explore and identify destinations, landmarks, places to see, stay options, local attractions and more.

Even a simple 360° image that can be shared on social media easily and offers a VR perspective can be a powerful marketing tool for tour operators. By packaging various elements of an extraordinary travel experience using VR, they allow the traveler to sample the most exotic or dream destinations even before going there and make it a temptation that's hard to resist. Deciding on the right hotel and stay will also become easier with smart hotels offering VR tours of their premises. Travelers can find and book hotel accommodations after a virtual viewing of the rooms and other facilities to ensure there are no rude surprises later. Organizers of corporate events and outings can offer a virtual preview of the venue and facilities to prospective clients who won't then need to do an in-person recce.





3. Travel larger-than-life with Augmented Reality (AR)

The advantage of AR is it can be experienced through any smart device. The connectedness of everyday devices, its affordability and compatibility with GPS tracking, image capture technologies make AR-based features popular among smart travelers. For example, augmented tourist destinations such as museums can incorporate AR into their physical exhibits – their actual appearance can be juxtaposed against an augmented version of the same object. Or tourists get to learn more about a heritage site they are visiting – all they do is point their smart device at the building and all the related info pops up on its screen.

AR is also taking gamification to the next level and opens up opportunities in the hospitality space as well. With the help of novel solutions such as [YU Anywhere](#), guests can design and personalize every aspect of their stay to suit their preferences and live out their travel fantasies to the fullest. This could mean being able to change the décor of their rooms with AR enhancements, see celebrities appearing virtually in the hotel. And a real treat is in store for younger guests who can have virtual manifestations of their favorite Disney characters popping up wherever they are staying.

Tour operators can offer AR-supported highly imaginative viewing experiences to tourists visiting landmark venues and sites wherein digital elements are superimposed on physical structures to give them a touch of the surreal. Tech start-ups like [AR Tour](#) who are innovating with AR glasses etc. are making such experiences possible for today's travelers.





4. Voice control technology: Smart assistance on the move

With increased connectedness of everyday devices, voice control technology is helping life easier for people throughout the stages of their travel – packing for their trip, tracking flights, hotel bookings, enhancing their hotel stay, renting cabs and more.

Those in hospitality can use this technology to make travelers feel ‘at home’ during their stay at the hotel and make it a repeatable experience. They can offer hotel guests value-added customization features using smart speakers or a voice-controlled hub or app.

For example, Alexa for Hospitality is a voice-operated device, which is based on the Amazon Echo home hub can be redesigned for the hotel room environment where guests to speak to it and instruct it to control lights, heating, play music of their choice, get real-time, accurate info and so on. At the same time, they can keep security and privacy concerns at bay by giving guests the flexibility to turn off the device or opting not to use the feature.





5. Value-added travel with the Internet of Things (IoT)

With IoT, everyday devices become smart and help streamline tasks for both travelers and industry professionals. The uses of IoT in travel include:

- ✓ Controls for lighting, temperature etc that can be operated and set to personal preferences by individuals in their hotel room or on flights. This can be a great energy saver too and make travel more sustainable.
- ✓ Sensors to pick up on baggage arrivals and trigger alerts to passengers on their smart devices so that they can locate it quickly.
- ✓ Beacon technology to feed smart airport apps with passenger-specific info such as flight details, shopping options, lounge passes, route maps etc. and guide passengers through the airport. The data generated can also be shared with the stakeholders to ensure they deliver a seamless, personalized experience.
- ✓ Real-time info captured to provide on-the-ground situational and logistical updates to airport staff and travelers to ensure smooth, hassle-free, and secure transit.





6. Metaverse tourism for dream destinations to come alive

Travel and tourism in the metaverse will take the industry into the next generation. It promises exciting, novel ways to capture and engage new-age travelers with destination, accommodation, and tourism ideas. Here are some possibilities of immersive-ness in metaverse tourism:

- ✓ In the form of concerts, entertainment events, or business meetings that can be virtually experienced by people in the comfort of their homes.
- ✓ Online trade shows and exhibitions facilitate social interactions similar to those in the real world but with avatars of others in the same metaverse as the user.
- ✓ Virtual theme parks, museums, and zoos build up the excitement around local and well-known landmarks by giving would-be tourists a taste of what lies ahead.

An ecosystem is essential for these technology use cases to be realized fully. For example, recent developments have compelled airlines to pivot to a retail model. While full-service carriers and low-cost carriers exist today, the former model has historically relied more on business travelers for revenues. Airlines must look at expanding ecosystems and building partnerships in which tech can play a huge role.



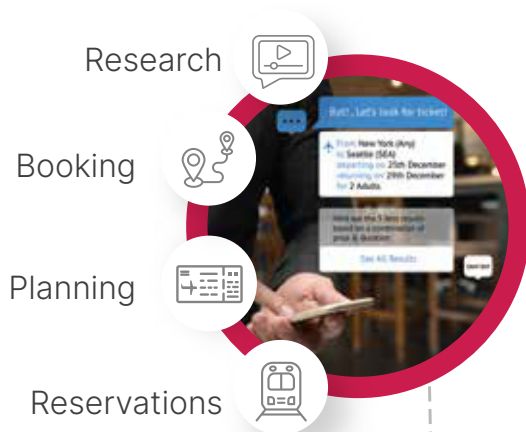
The connected traveler



With the lift-off given to the industry by these technologies, the travel and tourism sector is preparing to adapt to new-age travelers' expectations and industry shifts. The connected traveler couldn't ask for a better reason to resume their holiday bucket lists and plans. Location independence, traveling, and remote working are choices increasingly exercised more and more by people. And all they need to get going is their smartphone.

Typically, travel can be split into:

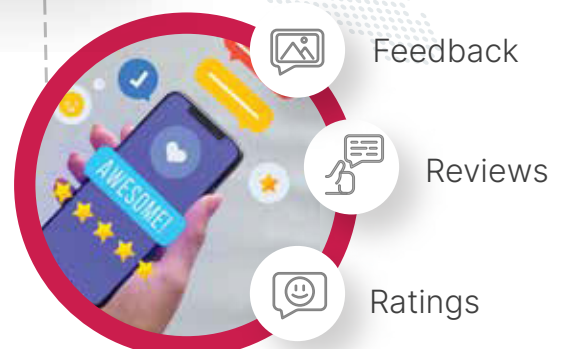
Pre Travel



During Travel



Post Travel



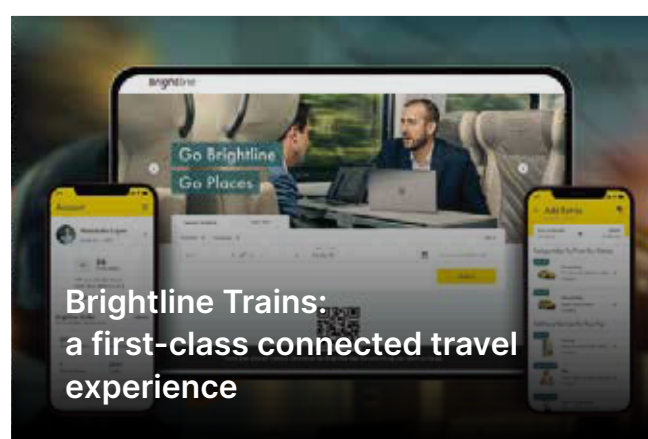
Connected travel integrates different components of travel, such as transport, accommodation, tourism, local shopping, local cuisine tasting, excursions, etc., through modern technologies (big data, AI/ML, IoT, chatbots, and AR/VR).

Conclusion



The technology trends and use cases outlined in this e-book underscore a vibrant spectrum of limitless opportunities and innovation within the travel and tourism industry. Business leaders should look at the future outlook and embrace emerging technologies to expedite digital transformation goals. Connected ecosystems will gain prominence as these enable seamless integration, innovative partnerships, and intelligent systems to realize greater potential collaboratively.

Related reading:



The Robosoft Advantage



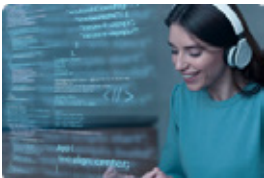
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Engage: exceptional experiences that build engagement & loyalty



Engineer: harness technologies to enhance digital experiences and IT operations



Empower: optimize business operations through data & security solutions

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