

Appendix 1

Hardware and software

1. Contactless payments

One of the most important developments, especially in times of the pandemic, is that technology has enabled contactless payments. Additionally, customers might not always be carrying their credit or debit cards on them at all times or don't have immediate access to cash. Enabling cashless transactions makes the whole experience more accessible for clients, as everyone has a smartphone these days, and it also saves time and effort for both customers and employees.

Contactless delivery used to be a convenience earlier, but lately, it was more of a necessity than a convenience because of COVID-19.

2. Voice control

Voice control and voice search options are a massive step towards making the travel industry more accessible for everyone. Most of the apps were not accessible to people with visual impairments, and enabling voice controls will make the apps and websites accessible to a whole new demographic.

Besides the booking experience, voice controls and search options can also help make the customer experience more interactive and exciting by including voice control lighting and heating within hotel rooms and assisting tourists with information about a particular location.

You don't need to have a huge team to help you with tech for your business. You can even hire remote software developers who are highly qualified and can assist you in implementing technology in your operations.

3. Robots

That is probably one of the most exciting advancements in recent times. While voice recognition and cashless transactions have more or less become a norm in our everyday lives, it's not often one gets to see machines doing daily tasks.

Restaurants and hotels can largely benefit from implementing robot technology in their operations. For example, robot support can reduce human effort in food preparation, luggage transport, and other deliveries.

For example, at the Dubai Expo, a food delivery company called Talabat had a marketing campaign advertising the future of food delivery – with GPS-powered robots. This achieved two purposes – it made the brand stand out and therefore made it memorable, making its mark in the customer’s minds.

As a business, you should always strive to make a memorable impression in your customer’s minds, and Talabat successfully did that by using robot technology in their campaigns.

4. Virtual Reality (VR)

Virtual Reality has become a huge thing, with big names like Meta trying to make their mark in VR. VR will definitely be a massive part of our future, and businesses across various sectors and industries are already accommodating VR in their operations. Travel and Tourism is one of the biggest industries that have the potential to use virtual reality.

For example, with the help of VR, tourists will be able to have a glimpse of the place they’re visiting before going there. It’s like a trailer of a vacation to help customers make an informed decision.

Thomas Cook made the most of VR technology when they introduced their ‘Try Before You Fly’ initiative that let people take a virtual tour of the city and its key attractions before deciding if they want to visit. That gave them an edge over their competitors, and as we mentioned before, it made a memorable impression on the consumer’s minds.

6. AI-powered chatbots

We’ve spoken before about how automating processes makes operations convenient for everyone and reduces human effort. Of course, customer service is a big part of that process.

Since most travel-related bookings are made through the internet, there are no fixed timings, and customers often make their reservations at night. Naturally, it’s impossible to have a customer service team working round the clock. With the help of artificial intelligence, chatbots can be programmed to help customers complete search queries and get answers to commonly asked questions in live chat without having to speak to a customer service representative.

However, it’s understandable that machine learning is not yet equipped to replace human effort altogether. For queries beyond AI chatbots’ capabilities, you can hire a virtual assistant to help with customer service.

Emerging technologies

Interactive Maps

Advanced software solutions have become indispensable tools in our interconnected world, reshaping the way we navigate and understand our surroundings. In 2024, mapping

technology has evolved beyond mere directional guidance, offering companies and users a comprehensive and dynamic experience. These interactive [mapping software](#) solutions incorporate real-time data, satellite imagery, and machine learning algorithms to provide accurate and up-to-date maps. Businesses can use these interactive tools to customize their maps to meet the needs of their audiences.

Whether used for urban planning, logistics optimization, or travel navigation, mapping software has transcended traditional boundaries. It not only enables users to find the quickest route from point A to point B but also facilitates a deeper understanding of geographic landscapes. With features like augmented reality overlays and interactive layers, mapping tools continue to redefine our spatial awareness, making them an essential companion in our daily lives.

Augmented Reality (AR) for Enhanced Experiences

For travel and tourism companies aiming to remain competitive, the integration of augmented reality into customer experiences is essential. The AR market is projected to experience a remarkable [CAGR of 38% by the year 2030](#). This growth forecast underscores the increasing importance of AR in the industry, highlighting its pivotal role not only in enhancing customer engagement but also in securing a competitive edge for businesses within the travel and tourism sector.

In 2024, we can expect AR to become an integral part of travel apps, providing users with real-time information and enhancing the experience of their surroundings. Imagine walking through historical landmarks and using AR to witness ancient civilizations coming to life or getting instant translations of street signs. AR will bridge the gap between the physical and digital worlds, offering tourists a more immersive and interactive journey.

Blockchain for Secure and Transparent Transactions

Blockchain technology is gaining traction in the tourism industry, offering secure and transparent transactions. By 2024, blockchain will likely become widely adopted for booking accommodation, flights, and travel services. Its decentralized nature ensures transactions remain tamper-proof while simultaneously lowering fraud risk.

Smart contracts will automate processes, ensuring seamless and secure interactions between travellers and service providers, ultimately fostering trust in the industry.

Artificial Intelligence (AI) for Personalized Travel Experiences

Artificial intelligence is becoming increasingly sophisticated in tailoring travel experiences to individual preferences. In 2024, AI-powered travel assistants will be the norm, providing personalized recommendations for accommodations, activities, and dining based on travellers' preferences and past behaviour.

Machine learning algorithms will continuously refine suggestions, ensuring that each trip becomes a unique and tailored adventure. AI will also play a crucial role in customer service, with chatbots providing instant assistance and support throughout the travel journey.