

Tech Trends That Are Changing the Travel Industry in 2025 and Beyond

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In brief

AI personalisation, biometric check-ins, and digital travel credentials are streamlining every step of the journey, while hybrid airships and electric air taxis promise dramatically cleaner flights.

From AI-curated itineraries to zero-emission air taxis, technology is rewriting every stage of travel. Keeping pace isn't just a geeky hobby - it's essential for travellers, tour operators, and investors who don't want to be left at the gate. Read on to uncover the trends shaping 2025's travel industry and beyond.

Artificial Intelligence and Personalisation

Artificial Intelligence (AI) is changing the travel industry in 2025 by delivering personalised recommendations, real-time dynamic pricing, and instinctive customer service. AI-powered tools help airlines and hotels analyse user data to offer tailored suggestions and optimise revenue. Chatbots now handle bookings and FAQs 24/7, enhancing customer satisfaction. Companies like ASD team are leading the way in implementing these innovative solutions, allowing more intuitive and efficient travel planning for both businesses and travellers.

Biometric Technology and Contactless Travel

Biometric technology transforms the travel experience by streamlining identity verification and enhancing security. Airports and hotels increasingly adopt facial recognition and fingerprint scanning systems, allowing travellers to check in swiftly without physical documents. For instance, the U.S. Customs and Border Protection utilises biometric facial comparison technology at numerous airports to expedite entry and exit processes.

The International Civil Aviation Organisation's (ICAO) Digital Travel Credential (DTC) is a significant advancement in this domain. This initiative lets travellers store verified passport data on their smartphones, facilitating seamless airport experiences through facial recognition. The DTC aims to replace traditional passports, automating check-in and boarding procedures without the need for physical documents. Finland's pilot of the DTC-1 revealed significantly faster border processing times, averaging less than 8 seconds, compared to the typical 25-second processing time of automated border kiosks.

Sustainable and Eco-Friendly Innovations

Sustainability no longer stops at carbon offsets; it's being engineered into the vehicles. Google-backed LTA Research, FLYING WHALES, and the UK's Hybrid Air Vehicles are trialling helium-filled hybrid airships that burn up to 90% less fuel than jets. At the same time, Eve Air Mobility's electric vertical take-off and landing (eVTOL) aircraft promises zero-emission hops between airports and city centres. Together, these designs could slash aviation's footprint and open quieter routes.

Immersive Technologies: AR and VR

Augmented and virtual reality are moving from gimmick to go-to travel tools. Hotels now let guests walk through rooms in 3D before booking, while AR overlays offer history bites and restaurant tips as you point your phone at a landmark. These previews boost confidence and help travellers fine-tune itineraries long before they leave home, or even test adventure gear virtually.

Blockchain and Secure Transactions

Blockchain is quietly tightening the industry's nuts and bolts. Immutable ledgers secure flight and hotel bookings, while tokenised loyalty programs let travellers pool points across brands and spend them like cash. Projects from Travala to Emirates' new Skywards ecosystem show how decentralised tech cuts significantly fraud, fees, and check-in friction.

Smart Luggage and IoT Integration

Suitcases have joined the Internet of Things. Brands such as Samsonite and Away embed GPS chips, Bluetooth locks, and weight sensors that ping your phone with location and overweight alerts. Airlines are even testing Apple AirTag integrations, giving both passenger and carrier real-time visibility whenever a bag leaves the carousel.

References

1. asd.team - <https://asd.team/>