

The Frictionless Future of Face Recognition

THE NEW WAY FOR TRAVELERS TO GET FROM THEIR GATE TO DESTINATION BY USING THEIR FACE

A Day in the Busy Life of One Traveler in 2020

At 5:30 that morning, her smartphone alarm drags Elise from a deep sleep and into another busy day. The device unlocks when she looks at it with eyes barely open. At a shake of her head, the phone goes to “snooze.” Two snooze cycles later, Elise stumbles to the kitchen, where the coffee maker lights up with recognition to brew her favorite coffee. The radio, following suit, tunes to her favorite news program.

Grabbing her briefcase, Elise heads out the door and into her car, where recognition software adjusts the driver’s seat position, switches on the radio and adjusts the volume.

After a quick visit to the gym, she heads to work. A kiosk recognizes Elise and opens the gate with no fob or key card. Just like the gym earlier, another camera at the entrance identifies Elise and opens the door. Once inside, she takes an elevator that automatically whisks her to her seventh-floor office, which unlocks at her approach.

At lunch, she moves rapidly through the automated cafeteria checkout. Food and beverages are scanned, and Elise uses facial payment to pay the tab with just a glance. Soon after, she’s on her way to the airport for a flight that will take her to meet clients in Tokyo the next day.

The Eyes Have It – Creating an Easy and Personalized Airport Experience

Today’s airports have become a painful experience for travelers. In 2020, that’s no longer the case.



Once at the airport, Elise checks in at the kiosk that identifies her through a face scan. Besides checking her in and giving her flight information, the kiosk also ensures Elise is not on a security watch list. She moves to the bag drop site, where another scan matches her bag with her ticket. Next, thanks to face recognition, she easily passes through the security checkpoint, what years earlier had been the most frustrating step in a system of “chokepoints.”

Now entering the main terminal, a nearby kiosk recognizes her and displays personalized gate and boarding information. Elise smiles, knowing she has time to relax, grab dinner and shop before the long flight.



While shopping for the sweater she forgot at home, a store associate informs her of current promotions that might interest her based on her purchase history and opt-in loyalty program.

The Case for Face Recognition Technology

Elise's story takes place in 2020, but the advanced face recognition solutions enabling that future are here today. They create a seamless, frictionless experience for everyday citizens like Elise as they make their way through their day—especially for travelers navigating increasingly busy airports.

For businesses undergoing a digital transformation, face recognition technologies can drive increased revenues, simplify transactions, improve operational efficiency and create a paperless environment—all of which, again, improves the customer experience. At the same time, solutions combining surveillance cameras with face recognition software can elevate the level of public safety and security, not just in airports, but throughout society. Enterprises and government agencies can ensure only authorized personnel have access to their facilities, while retailers and entertainment venues can secure their facilities and protect customers.

Airports are the melting pot where all these benefits come into play. In 2017, airlines world-wide carried more than 4 billion passengers, and demand for air travel is expected to double over the next 20 years.

This will be a challenge for airports, which have to efficiently move people from one point to another, quickly and seamlessly.

At the same time, 46 percent of passengers in 2017 still used the main ticket counters when they check in – and had their IDs checked manually – even though self-service options were available. Another 15 percent checked in through kiosks, most of which scan the ID, not the traveler.



Queue management is a nightmare. In Europe's busiest airports, wait times are often disrupted by staff shortages, time of year, or threat levels. At times, they are measured in hours rather than minutes, adding the stress of missed flights, rebooking and long layovers for travelers.

Face recognition technology can sharply reduce those wait times, creating a frictionless experience for travelers from home to their final destination.

It's not just an issue of the travelers' convenience and comfort, but also their safety. Airports are beset by threats, from terrorism to weapons being hidden in baggage. To keep passengers safe, security personnel require accurate verification of the identity of the person picking up the ticket, checking the bag, moving through the security checkpoint and boarding the plane.

Face recognition technology is also used to take the accurate identifications and compare them to worldwide watch lists, even alerting security personnel

to ensure the safety of passengers. In addition, it ensures accurate and fast verification for biometric air entry and air exit programs, speeding not only airplane boarding but also the customs and immigration processes. In this way, it not only ensures the security of every country and its citizens, it makes these processes fast and hassle-free for travelers.



Touching Down After a Stress-Free, Relaxing Flight

As the plane nears its destination, Elise wakes up and stretches. She orders a beverage and pays—naturally—using the on-board facial payment system.

Relaxed, she deplanes in Tokyo and once again finds a frictionless process through the airport. Elise moves into the queue for immigration and customs, where her identity is quickly and accurately verified, enabling her to speed through the line.

She now moves to the baggage claim carousel to get her luggage. Despite best efforts by the airlines, bags can be mishandled or stolen. In 2017, 22.7 million bags were mishandled worldwide, and 22 percent of all those were damaged or stolen.



Spotting her bag, Elise feels assured it hasn't been tampered with. Face recognition solutions can match travelers with their bags. The solutions can also monitor baggage claim areas to identify people damaging or stealing luggage, reducing thefts and increasing safety and security.

Once at her hotel, Elise checks in via a system that, once again, quickly verifies her identity and provides her room number. A quick face scan unlocks the door and, along with voice recognition, provides her control of everything in the room, from the lights and temperature to the television and radio. As Elise prepares to end her day, she reflects on how effortless her travel was that day. And, once again, sets the alarm on her smartphone with only a glance and a "good night."

Foresight is 20-20

The world is a busy place that moves quickly and often dares those in it to keep up. Daily life can become a series of obstacles – doors, lines, checkpoints – that conspire to force travelers and everyday citizens to waste precious time standing in queues or punching numbers into keypads. Advanced face recognition solutions like NEC's NeoFace® Express and other face-based solutions can create frictionless, secure and personalized experiences in the workplace, at retailers, in restaurants and in crowded, public places like airports or entertainment venues.

About NEC Corporation

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