

Making the Host City Safer

The Important Role of Walkthrough Facial Recognition Technology



Walkthrough Facial Recognition Technology in operation

By Masahiro Doi

The world's most sophisticated facial recognition technology, enabling instant authentication, will ensure the safety of the Olympic and Paralympic Games.

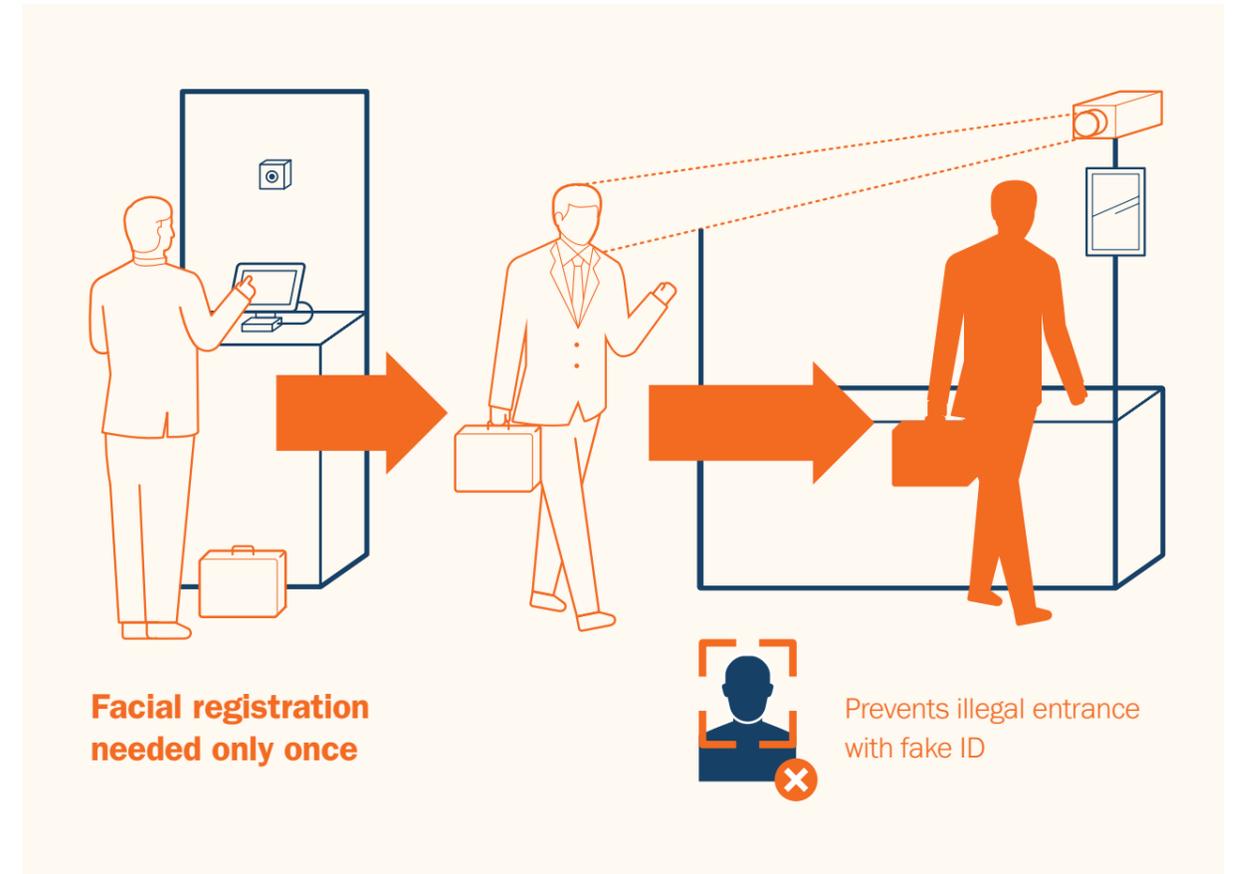
Most security gate systems operate by reading data on chips embedded in identification cards to verify identities. But is that person passing through the gate really the owner of that card?

The access of unauthorized people—to say nothing of terrorists—to crucial facilities presents a huge risk. The use of security gate systems based on ID cards has spread around the world, but other systems are required to authenticate that the person holding the card is actually the person to whom the card was issued. This can be accomplished by using fingerprints, iris scans, or other biometric technologies, but these systems require additional processes that could

be regarded as annoying even if only slightly. Above all, the high level of psychological resistance to them is hard to overcome. This is where facial recognition technology comes in. In this technology, facial images of authorized people are stored in a database. The face caught on camera is matched against the database, and it is immediately determined whether they match.

When facial recognition technology is used, the person being authenticated does not have to do anything special. At the security gate, he or she simply holds the ID card over the reader. The card brings up the facial image in the database to match specific features with those on the face caught on camera. If they match, the door opens. In the latest system, the entire process takes a fraction of a second. Moreover, the error rate is extremely low. The person being scanned does not even need to stop and look straight into the camera.

Tokyo 2020 JAPAN HOUSE, the PR center for Tokyo and Japan at the Rio 2016 Olympic and



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Paralympic Games, utilized the Walkthrough Facial Recognition System developed by a Japanese company. As this facility was used to hold press conferences, the system was employed to control access by the press. No problem arose with security, and there was no congestion at the entrance, proving that smooth operations are possible. It is said that this system can correctly identify people even if they wear clear eyeglasses or different makeup, have their face painted, have false mustaches, or have had minor cosmetic surgery. Of course, this is likely to be difficult if the person's face is entirely covered by a mask, but such cases can probably be handled by security personnel. The technology used in this system won top honors three times in a row in tests conducted by the US government. To say that Japan is the world leader in facial recognition technology would be no exaggeration.

Studies are underway on the possible use of this Walkthrough Facial Recognition Technology during

the Tokyo 2020 Olympic and Paralympic Games. It is expected to play a major role as part of the security measures during the Games.

Reporting assistance provided by NEC Corporation.

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