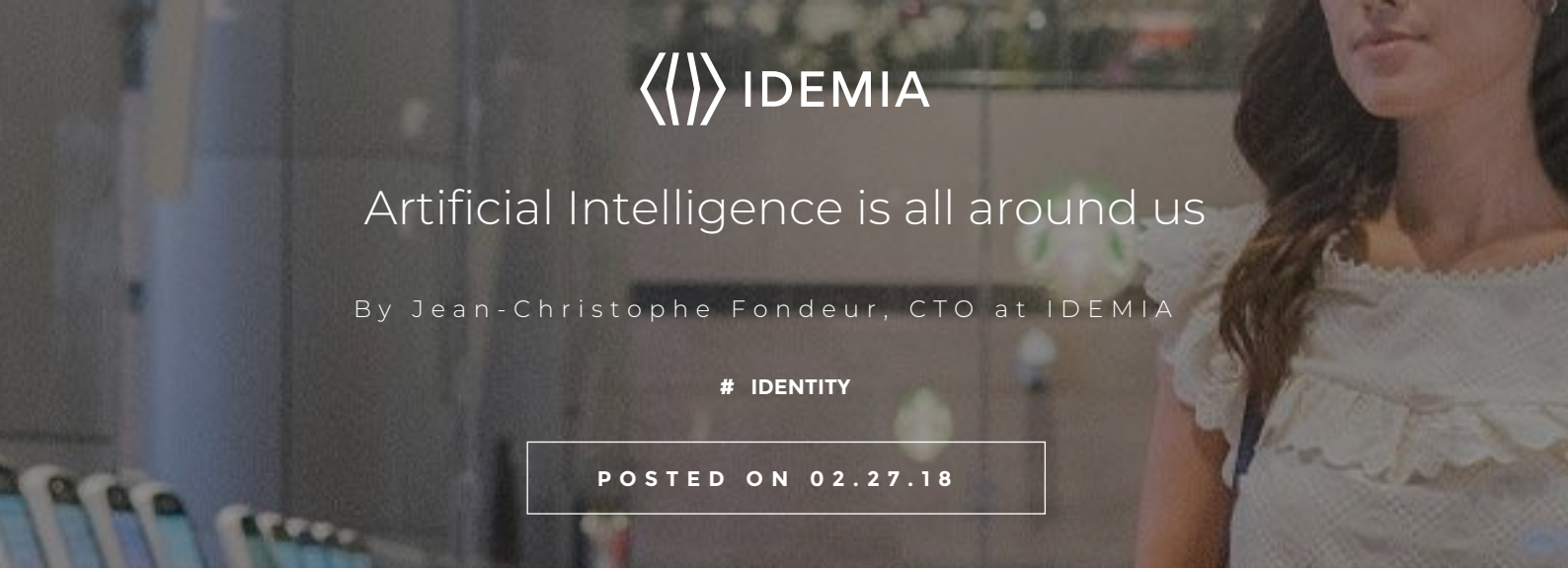

Artificial Intelligence is all around us

By Jean-Christophe Fondeur, CTO at IDEMIA

 # IDENTITY

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- A revival in the field of Artificial Intelligence (AI)
- An invisible intelligence to bring more convenience to our lives
- AI-powered biometric systems to make the world a safer place

Artificial Intelligence is one of the hottest topics in tech today, but how relevant is it in your everyday life? In our hyper-connected and tech-infused world, Artificial Intelligence plays a crucial role in bringing Augmented Identity (an enhanced, adaptable, strengthened and self-sovereign identity that creates a safer world for everyone) to life.

AI, we can't see it, but it's changing our lives & the way we travel

If you were born in the 90s or before, you probably remember a time when air travel was a breeze. Sure, you had to pass through the metal detector, but back then there wasn't a winding line for everything — the check-in line, the bag check line, the first ID checkpoint, the second ID checkpoint... the list goes on and we haven't even gotten anywhere near the airplane. In the post 9-11 world, people are generally willing to jump through hoops for the promise of ironclad security. But what if we didn't have to sacrifice convenience for peace of mind? What if the two could work hand in hand?

Welcome to Singapore Changi Airport, a place where just 10 minutes stand between the entrance of the airport to the duty free area. Since October 2017, IDEMIA has been using AI to power the airport's passenger processing biometric system. IDEMIA is not only a pioneer in biometrics and image processing — with expertise dating back 40 years — but also an early adopter of new generation AI.

Next generation intelligence

Over the past few years, there has been a revival in the field of AI. This new generation of intelligence replaces structured thinking with a very efficient way of learning. The technology studies millions of images of faces, for example, and trains itself to know the difference between a face and something else, the way a human would. This very efficient process gathers photos and studies every detail of a person's face.

With each passing year, AI accuracy improves by 30-50%, meaning that today, the system recognizes individuals with or without makeup, shaven or bearded, tired or rested. So even if you're coming off of a 12-hour international flight and not looking your freshest, the system will still recognize you.

With IDEMIA's solutions, airports can deploy a brand new departure process where a passenger presents his passport one single time. A live image is taken at check-in and the biometric system relies on learned algorithms to compare the captured image with the passenger's passport photo before making the decision to let the passenger through the

checkpoint. Once a person's identity is verified — and it is confirmed that they are not on the no-fly list — their face replaces their passport and boarding card. It is making a major contribution to ensuring passengers travel seamlessly and safely.

Augmented Identity and Artificial Intelligence working together

At IDEMIA our commitment to security extends beyond the walls of the airport; we aim to make our whole world a safer place. And to do so, we have reinvented the concept of identity. We call it Augmented Identity. By relying on biometric data, Augmented Identity seamlessly and effortlessly ensures that only you can be you.

We have taken this concept of identity and paired it with an AI-powered facial recognition technology, to run a state-of-the-art video and image analytics platform. As law enforcement and security agencies find themselves racing against the clock to analyze massive amounts of video data to solve cases, the software platform allows investigators to search for specific people or vehicles involved in crimes or major incidents.

In the same way, AI and face recognition can be integrated to avoid fraud in the banking sector. IDEMIA is already using this technology to secure the opening of bank accounts remotely such as the recent announcement with Société Générale.

Over the years, AI has come a long way — starting out as a highly disruptive innovation that was viewed rather skeptically by the scientific community. Today AI is broadly embraced as a highly efficient and secure deep learning technology with the possibility to change nearly every aspect of our lives.