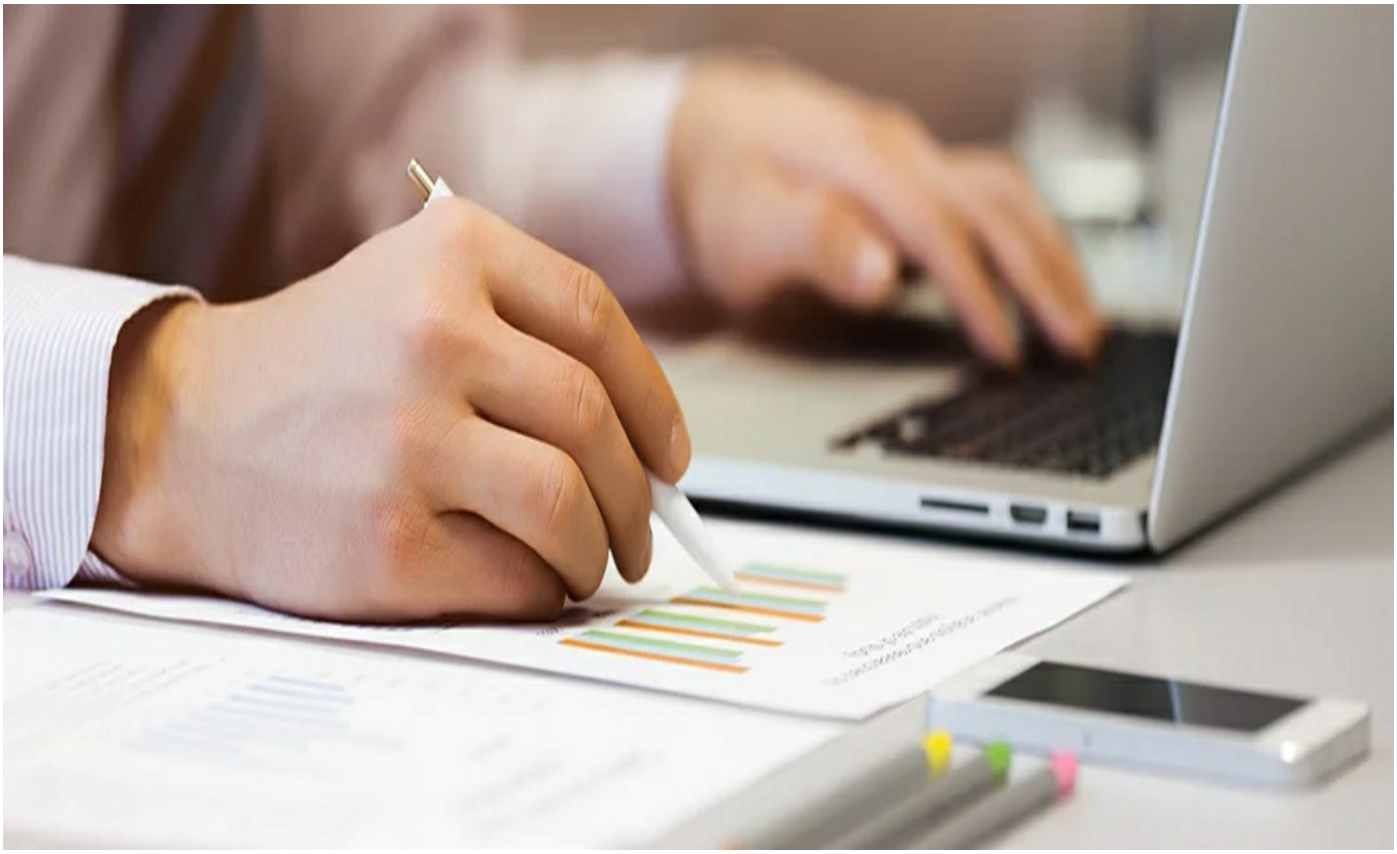

This is how much our ID documents are already digitized

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The onset of the summer vacations offers a good opportunity to take a closer look at our travel documents. Here, too, digitization is making impressive progress thanks to integrated chips, machine learning and the usage of artificial intelligence. Veridos, the world's leading provider of integrated identity solutions, shows the current state of passports and ID cards.

ID cards and passports are still physical documents, but are increasingly supplemented with digital functions or benefit from digitized processes during production and usage. This digital transformation spans the entire lifecycle of documents, from initial quality checks at passport factories to the deployment of digital services accessible via smartphones. As a result, both citizens and authorities can enjoy more secure, faster and smoother experiences with documents. Here, Veridos gives four examples of how digitization paves the way for our identity credentials.

1 Artificial Intelligence for quality checks during production. Documents have their first touch points with modern digital technologies very early in their life cycle. Already in the factory, the manufacturing processes are supported by artificial intelligence (AI) to ensure the production of precise and error-free specimens. This is because some documents consist of more than 50 security features, including minuscule elements that are imperceptible to the eye. Nonetheless, inspection devices, such as those at border checkpoints, can detect them, raising alarms even at the slightest deviation of a mere millimeter. The advantage of AI lies in its ability to continuously enhance its understanding of acceptable deviations by utilizing empirical data from monitoring devices worldwide, thus enabling ongoing learning and improvement.

2. Integration of electronic chips in passports and the like. Many ID documents around the world are now equipped with electronic chips on which the data identifying the ID holder is stored, such as their fingerprints. And

right here, the whole digitalization journey also starts for the end users, because that chip represents the bridge between the physical and digital world. It is embedded in the cover of the passport or directly in the layers of the ID card, and makes it possible to transmit identity data without media disruption to electronic devices like a smartphone or eGates at airports and thus enable digitized verification processes.

3. Use of ID documents via smartphone. One of the services enabled thanks to the embedded chip, is the digital usage of documents via smartphone apps. Such apps, provided by the government to ensure secure and protected data exchange, allow users to transfer personal information from their electronic passport to their device. As soon as that data is safely stored in the app, it can be used to register for travel credentials, to apply for visas or even to provide personal information to healthcare applications. It is not yet a virtual document on par with the physical version, but it is a first step in pushing digitization in the document space even further.

4. AI-based image recognition of documents for faster border crossings. In the near future, additional AI-supported advancements will be commonly used in the ID industry. A remarkable example involves pilot projects focusing on machine reading of passport stamps. These projects leverage a combination of AI-based image recognition and optical character recognition (OCR) technology to analyze travel patterns based on the stamps placed in a passport. The system identifies the stamps, extracts essential information like entry and exit dates, and deduces the travel pattern of the passport holder. Consequently, officials are relieved of the manual task of sorting through and evaluating passport stamps to determine the countries visited, durations of stay, and the sequence of visits.
“Digitization is increasingly making its way into the ID world - even if the end user is not always aware of it," explains Marc-Julian Siewert, CEO at Veridos. "The opportunities that this digital transformation presents for physical documents are significant. They will revolutionize the way we travel and how we use our legal identity. Above all, the possibilities around AI are appealing and will also ensure more convenient processes worldwide, but also more security - always provided that the ethical aspects that this technology brings are properly considered.”

Veridos GmbH

Veridos is a world-leading provider of integrated identity solutions. Governments and public authorities in more than 100 countries trust the company’s uniquely comprehensive product portfolio. The company creates end-to-end solutions and services perfectly tailored to meet every government identity need. These range from paper to security printing, electrical chip components, enrollment, identity management systems, personalization and issuance, mobile ID solutions, and border control solutions including eGates. Governments can acquire best-in-class passports, ID cards, driver’s licenses, and more, or even the facilities to manufacture their own. Learn more about Veridos at www.veridos.com ■.