Video-based Recognition Technology for the Financial Industry

The way customers use banking and financial services is changing rapidly and forever. Also, how branches look and how customers interact with them is constantly being revised. Plus, online and mobile banking is on the rise and consequently security aspects become increasingly important.

A deluge of new technologies are all conspiring to meet these changing requirements. They evolve around mobile, big data, location-based services, the Internet of Things (IoT) and machine-to-machine connection. DeepEyes video-based recognition capabilities integrate with all of these technologies and will make banking more secure and customer oriented, while at the same freeing up bank employees.

Mobile and Online Banking – Apps, Tablets, Online Video Interaction

DeepEyes can help re-vamp mobile banking apps and make them more customer friendly, easy to use and versatile tools for users.

- Digital touchpoints – e.g. the use of tablets in branches - help retail banks deliver a more personalised customer experience, provide on the spot assistance and at the same time free their employees. In such environments video-based face recognition enables fast and customised service on branch tablets. The recognition technology provides optimum service as it can easily identify customers and answer their questions.

- The mobile and online login process can become easier and more secure with DeepEyes face recognition. This technology can represent a first security threshold in a two or three step authentication and give access to less sensitive information, e.g. enable quick and convenient access to a customer´s portfolio information.

- Face recognition (mobile and display technologies) in combination with big data analytics and IoT can increase security, enhance customer service and prevent fraud. For examples banks can authenticate their customers through DeepEyes video recognition, when, based on specific criteria, a withdrawal request seems to be fraudulent to the bank.

Contact DeepEyes | www.deepeyes.co | Jan Wansink | jan@deepeyes.co

Fraud Prevention and Increased Customer Safety with ATM Recognition Technologies

Recognition Technology against Skimming
With DeepEyes technology, face authentication as an additional security threshold at the ATM is possible. The DeepEyes face recognition technology can analyse faces on standard surveillance cameras and easily identify card owners by cross checking the person drawing money with a relevant database (authenticated cash transfer). If the owner of the card does not match the stored image, a TAN-like number or QR-code will be sent to the owner´s mobile phone with which the owner can authenticate himself at the ATM.
DeepEyes recognition is very accurate. The technology works with 98 face criteria and can even tell the difference between identical twins.

Recognition technology against Cash Trapping
DeepEyes technology can improve ATM hardware security by instantly detecting manipulations on the ATM via a standard surveillance camera mounted in the ATM location. The DeepEyes recognition technology analyses the data produced by the camera (video streams) and instantly detects anomalies. Alerts to the security or surveillance authorities (e.g. via CCTV) are possible.
DeepEyes body recognition technology can tell normal behaviour (e.g. behaviour of a person who draws money from the ATM) from a-normal behavior (e.g. behavior by a person who manipulates the ATM).
Identifying perpetrators by their body language: The DeepEyes technology can recognize persons by the way they walk and move. The body language data of perpetrators can run against a relevant database of body movements and thus identify culprits (comparable to a face authentication method).

Fraud Prevention with Face Recognition in Online Credit Applications

Minimize the lending risk in an online credit application with DeepEyes individual emotion recognition

It is a vital interest of credit institutes to assess their customer's creditworthiness and the future of his business accurately. In order to minimize their risk of lending, customers have to disclose their financial situation thoroughly to their banks. Also, further sources are being consulted.

The DeepEyes individual emotion recognition technology can make online credit application even safer for banks, thus representing an additional security aspect for the lending institution: In an online credit application process the credit applicant will be checked on the truthfulness of his/her statements. The technology will show the degree of truthfulness in a percentage numbers.
The DeepEyes individual emotion recognition technology is currently being used in criminal investigation and can easily be adjusted to the requirements of financial institutions. Currently we are experimenting with analysing video interactions between customers and bank employees.

Advantages

Simple:

The DeepEyes technology works on simple IP cameras (e.g. cameras on standard PC´s and mobile devices). Results are generated in real-time and are available immediately after the analysis.

Secure:

The technology can also work stand alone, internet access is not required. This guarantees that the stored data and processed results are secure. Also, captured data is stored in non-convertible groups of pixels, not as whole pictures. This procedure makes sure that pictures are secure and not traceable. Thus, data privacy and compliance regulations are met.

Efficient:

In terms of accuracy and speed, our algorithms and solutions consistently beat human experts by far. Our smart storing process accelerates the search process enormously; indexing faces against a database is very quick: For instance, a face can be identified within 1 second in a database of 10 million faces.

Mature:

We use standard HD video cameras in any configuration. The system is easily scalable and reduces the need for human involvement thus saving cost and eliminating human error.

Flexible:

Data from other vendors´ data capturing devices/sensors can be integrated easily.

Deep Analysis:

Existing or historic video material can be leveraged for more accurate and in-depth analysis.