

Wahrheit's

Tech watch is dedicated to keep an eye on the latest happenings in the technical markets. to let new information surface that the general public does not read.

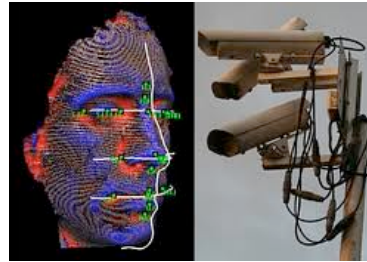
A Quarterly Newsletter

Issue 1 aug. 2010

The applications: Automatic facial recognition is a form of biometrics. It is used for authentication (checking that a

person really is who they say they are) and identification (finding out who someone is from a group of known persons). Like most biometric

techniques, facial recognition has applications in the policing and civil fields and for access control. Facial recognition is special due to



widely available and easy to acquire. Their use is acceptable to the general public.

the portraits themselves, which are

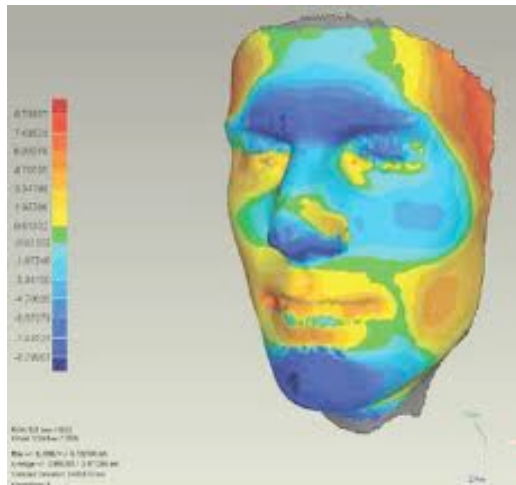
Special features of video processing

A person's face appears several times in a video. It can be viewed from one video frame* to the next. These multiple views are useful for facial recognition purposes, because they can be used to obtain more information about the face than a single view. A range of tracking techniques has therefore been developed. The most robust techniques use movement statistics models. At each step, they generate probabilized detection and tracking hypotheses, which are consolidated in order to make a decision. The actual comparison process uses a series of images of the same person that are sorted according to the quality of the views and the different positions that they represent. Using these different views rather than a single view – even if its quality is superior – will always improve the precision of the search.

Implementing a facial recognition system

The deployment of a facial recognition system must take both

technical and human factors into consideration. Some of these factors, which are specific to facial recognition, are quite important.



Managing the expectations of customers and operators... In order to conduct these tests, Morpho has developed a very simple pilot system containing the most recent advances in algorithms that can be

installed and programmed in less than one day. In this way, it is possible to test facial recognition usage scenarios, check the results that may be obtained for a given target application and measure the workload required to obtain these results. Morpho can provide support to its potential customers in this assessment process.

Helping the end users

End users react very differently to biometric systems. Reactions range from total hostility (against a society that some people feel is obsessed with security) to a certain amusement at being a pioneer in the use of new technology. Whether they be cooperative or hostile, they are all novices, and it is essential to give them clear and concise instructions on the behavior to be adopted. In applications for the general public, such as passport controls, it is impossible to support the users one by one. This is the reason why close attention must be paid to the ease of use of biometric tools for end users; they must be as enjoyable to operate as possible. The SmartGate* passport control system deployed in Australia meets this need. The end users are happy with the system and prefer automatic passport controls using facial recognition to conventional control gates.