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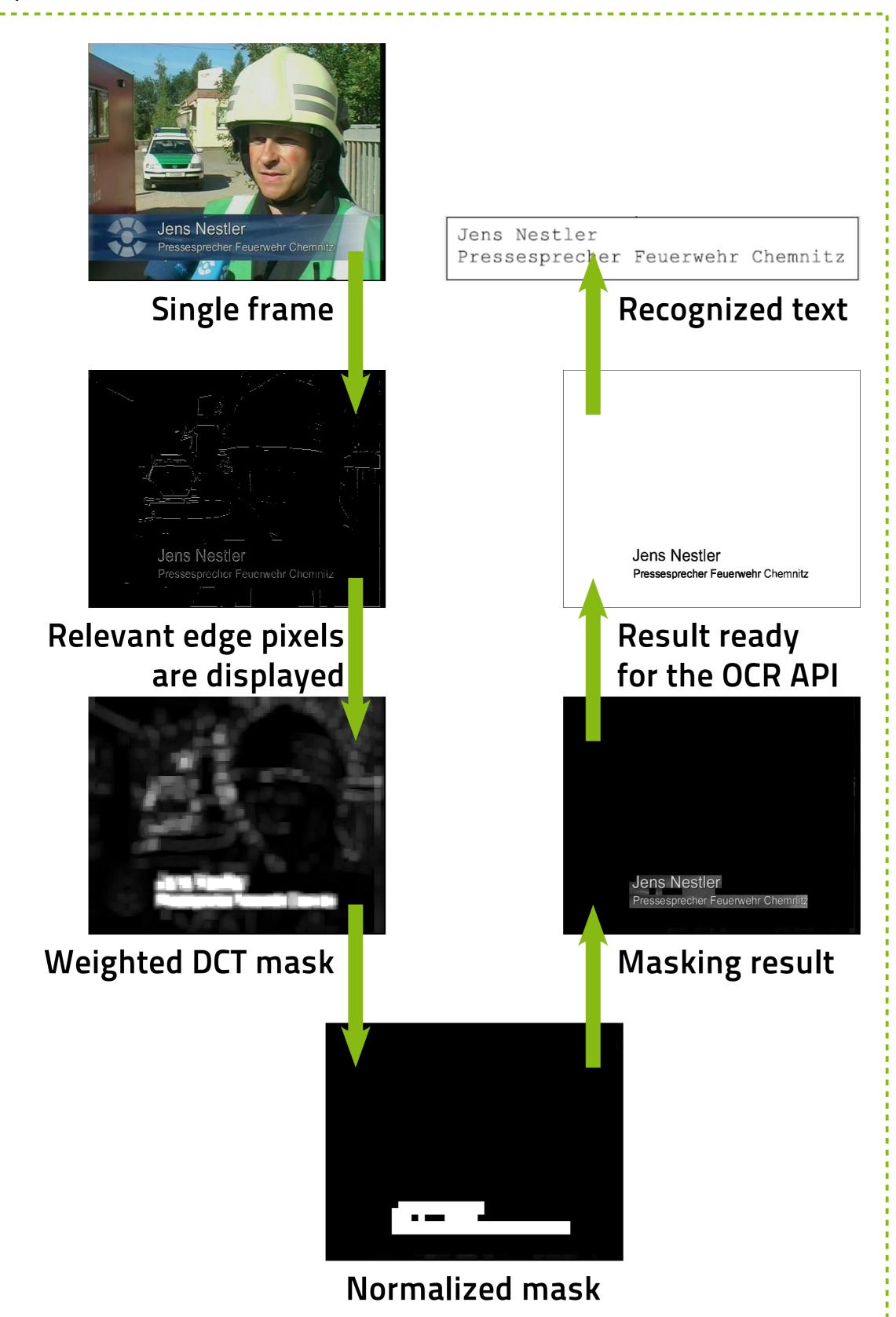
## Face detection and text recognition in the field of automatical video analysis

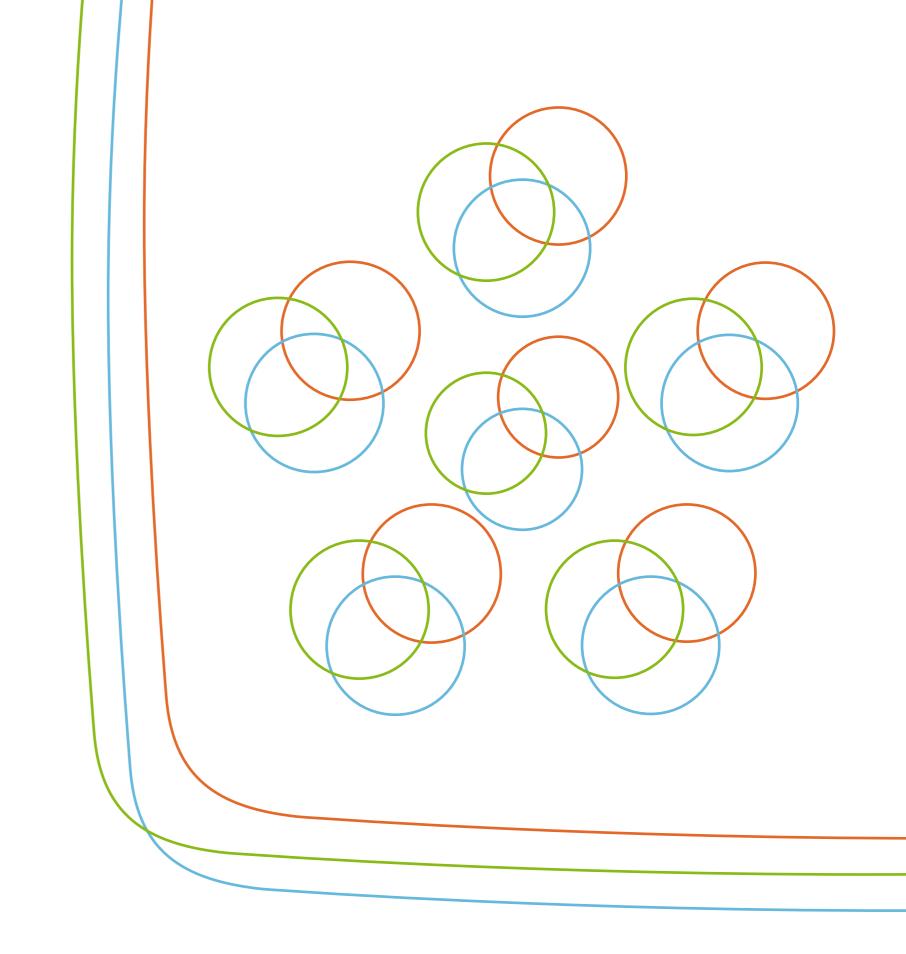
The InnoProfile initiative sachsMedia develops methods for analyzing the content of audiovisual media. Therefore the detection of predefined objects in video content is very important.

**Swarm intelligence** enables a group of individuals to solve complex problems while they are following only a certain amount of basic rules. This method is inspired by nature and allows the real-time capable detection of faces (refer to the right figure) and has won the first price in the federal contest of *Jugend forscht 2010* in the field of Mathematics and Computer Science.

The **recognition of text** in subtitles with the use of graphical extraction and a following OCR (refer to the left figure) is an important application for the automatic analysis of television footage.

Information of both processes will be connected and fed into our retrieval systems.







Input of the original image



Computation of a color distance image



Initialization of the swarm



Applying the swarm intelligence



Visualizing results by showing a virtual hat shape at the top of the detected face

Face recognition with the help of swarm intelligence



Automatic text recognition in videos



