Implementing gaze control for peripheral devices

The goal of the project dqGaze Controlled Interaction with Peripheral Devicesdq was to extend the capability of the head based eye tracking system DIKABLIS to detect the gaze allocation to previously defined Areas of Interest (AOI) in real time. This allows initiating various events or commands when a test person is wearing the head unit and the gaze is detected in an AOI. The commands can be used for interaction with different devices. Thus the tool for monitoring and analyzing gaze behavior becomes an interaction medium. With such a gaze control multi-modal interaction concepts could be realized. The projects primary aim was to give people with tetraplegia a mean of controlling devices in their home. The experimental set-up was a TV set that can be controlled by gaze.

ambient assisted living; eye tracking; gaze control; gazed controlled tv; mobile eye-based interaction