

Gaze based Magnification for People with Low Vision

Background:

At the institute research is going on to develop Assistive Technologies for persons suffering from Nystagmus. Nystagmus correlates with low vision. To support computer work gaze based magnification concepts can be used. The idea behind gaze based magnification is to automatically magnify display information depending on the point of gaze (POG) on the screen. In case of pathological eye-movements this can be a hard task because fixation points are hard to detect.

Goals and tasks:

Based on an existing and modular prototype the following tasks have to be done:

- Analyzing user needs and defining needed UI functionalities (zooming level, size and shape of lens, allowed delay, mouse-keyboard handling...)
- Implementation of the UI
- Finding methods to stabilize the magnified area for pathological eye-movements(e.g. Nystagmus)
- System Evaluation

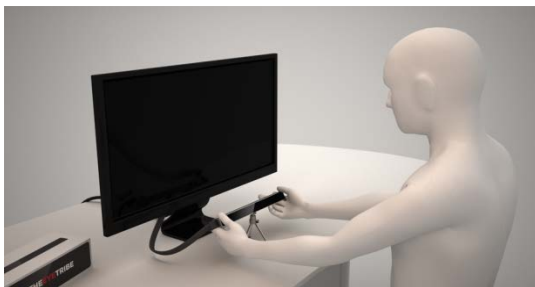


Abbildung 1 <http://dev.theeyetribe.com/start>

Prerequisites and Framework

This topic is open for students in Computer Science or Mechatronics.

Kontaktpersonen

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