

1. Project summary

Project abstract

The work in the MICOLE project aims at developing a system that supports collaboration, data exploration, communication and creativity of visually impaired and sighted children. In addition to the immediate value as a tool the system will have societal implications through improved inclusion of the visually disabled in education, work, and society in general. While the main activity is the construction of the system, several other supporting activities are needed, especially empirical research of collaborative and cross-modal haptic interfaces for visually impaired children.

Empirical experiments are carried out to find out how to use different senses to partially replace missing visual capabilities, especially in tasks that are central in the system being constructed. MICOLE includes two work packages with different empirical foci to feed critical knowledge into the central iterative construction-evaluation cycle of the system development and evaluation work packages.

The project begins with stakeholder involvement and requirements gathering tasks. The intended users are involved throughout the project in participatory design and evaluations. The consortium has been set up with partners that have existing contacts and experience in working with local and national organizations for the visually disabled to facilitate user involvement.

The software architecture and applications will be multimodal, that is, they make use of hearing and touch to complement different levels of visual disability. The project participants include European and world leaders in the area of haptics and multimodal human-computer interaction to ensure that the best possible expertise is used. In addition to the system built in MICOLE, the project produces theoretical and empirical results and guidelines for developers generally improving the conditions for inclusion and participation of the visually disabled in the Information Society.
