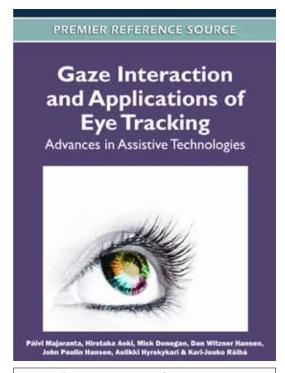
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Released: October 2011

# Gaze Interaction and Applications of Eye Tracking: Advances in Assistive Technologies



 Päivi Majaranta (University of Tampere, Finland), Hirotaka Aoki (Tokyo Institute of Technology, Japan), Mick Donegan (The ACE Centre, UK), Dan Witzner Hansen (IT University of Copenhagen, Denmark), John Paulin Hansen (IT University of Copenhagen, Denmark), Aulikki Hyrskykari (University of Tampere, Finland) and Kari-Jouko Räihä (University of Tampere, Finland)

Recent advances in eye tracking technology will allow for a proliferation of new applications. Improvements in interactive methods using eye movement and gaze control could result in faster and more efficient human computer interfaces, benefitting users with and without disabilities.

Gaze Interaction and Applications of Eye Tracking: Advances in Assistive Technologies focuses on interactive communication and control tools based on gaze tracking, including eye typing, computer control, and gaming, with special attention to assistive technologies. For researchers and practitioners interested in the applied use of gaze tracking, the book offers instructions for building a basic eye tracker from off-the-shelf components, gives practical hints on building interactive applications, presents smooth and efficient interaction techniques, and summarizes the results of effective research on cutting edge gaze interaction applications.

# **Topics Covered:**

- Applications for People with Disabilities
- Assistive Technologies
- Eye Tracking
- Gaze Control
- Gaze Interaction

- Gaze Tracking
- Gaze-Aware Systems
- Human Computer Interfaces
- User Interfaces

**Market:** This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal for classroom use.

Päivi Majaranta is a researcher at the University of Tampere, where she also received her PhD in Interactive Technology in 2009. She has worked on several research projects related to eye tracking. She is especially interested in the application of eye tracking in gaze-controlled and gaze-aware interfaces.



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