

Course Content Seminar in Pervasive Computing: Attention Management, 2016S

Personal devices (mobile computers, smartphones, smart cars, smart homes) and public ICT systems (digital signage and smart cities) create, share and provide a flood of data, making it difficult for the individual to allocate his or her attention to the right things at the right time. Given this overabundance of information, attention management is of great interest to our community. Understanding how attention is allocated and how information is perceived and shared can lead to more informed decisions and behavioral change.



Mobile SMI Eye Tracker

This year's seminar will focus on measuring attention from data collected with SMI Eye Tracking glasses, e.g. from fixations, saccades, pupil dilation, etc.

Literature:

A. Ferscha, J. Paradiso, R. Whitaker, "Attention Management in Pervasive Computing", IEEE Pervasive Computing, Editors: Maria R. Ebling, IEEE Computer Society, Los Alamitos, CA, USA, Vol. 13, No. 1, pp. 19-21, 3 pages, ISSN: 1536-1268, DOI: 10.1109/MPRV.2014.2, February 2014.

A. Ferscha, "Attention, Please!", IEEE Pervasive Computing, Editors: Maria R. Ebling, IEEE Computer Society, Los Alamitos, CA, USA, Vol. 13, No. 1, pp. 48-54, 7 pages, ISSN: 1536-1268, DOI: 10.1109/MPRV.2014.3, February 2014.

Deliverables

The seminar participants (in groups or alone, depending on the number of participants) will have to accomplish the following deliverables:

- Engage different papers on the topic (Related Work-Study)
- Intermediary Presentation (Goals, Proceedings, Discussion)
- Hardware/Design Prototype
- Design of a small user experiment (Data collection; what to inspect? why? expected outcome?)
- Realize analysis and interpretation (Choose methods)
- Interpretation of results
- Final Presentation (Results; Problems; Achieved goals; Discussion)
- Written Summary (Paper)