Table of Contents – Part III

Part I: Universal Access in the Mobile Context Results of the Technical Validation of an Accessible Contact Manager 3 Jon Azpiroz, Juan Bautista Montalvá Colomer, María Fernanda Cabrera-Umpiérrez, María Teresa Arredondo, and Julio Gutiérrez Developing Accessible Mobile Phone Applications: The Case of a Contact Manager and Real Time Text Applications 12 María Fernanda Cabrera-Umpiérrez, Adrián Rodríguez Castro, Jon Azpiroz, Juan Bautista Montalvá Colomer, María Teresa Arredondo, and Javier Cano-Moreno BrailleTouch: Mobile Texting for the Visually Impaired 19 Brian Frey, Caleb Southern, and Mario Romero Supporting Universal Usability of Mobile Software: Touchscreen 26 Vlado Glavinic, Sandi Ljubic, and Mihael Kukec Mobile Technologies for Promoting Health and Wellness among African American Youth 36 Donovan Hill, Jasmine Blunt, Terrence Pugh, Monika Monk, Ji-Sun Kim, Woodrow W. Winchester III, D. Scott McCrickard, Paul Estabrooks, and Felicia Doswell Privacy, Security and Interoperability of Mobile Health Applications.... 46 Josette F. Jones, Sara A. Hook, Seong C. Park, and LaSha M. Scott GeoDrinking: How to Extract Value from an Extended Social Wine Drinking Experience..... 56 Alessandro Marcengo and Amon Rapp 66 W. Narzt and H. Schmitzberger Tracking Observations of Everyday Living with Smart Phones 76 Michelle Rogers Effect of Protective Coating on the Performance of Wearable 84 Minyoung Suh, Kate Carroll, and William Oxenham

The Effects of Font Size and Page Presentation Method of E-Book Reading on Small Screens for Older Adults	94
Product Form Feature Selection for Mobile Phone Design Using LS-SVR and ARD	102
Mobile Wikipedia: A Case Study of Information Service Design for Chinese Teenagers	112
Part II: Ambient Assisted Living and Smart Environments	
A Method with Triaxial Acceleration Sensor for Fall Detection of the Elderly in Daily Activities	121
The REMOTE AAL Project: Remote Health and Social Care for Independent Living of Isolated Elderly with Chronic Conditions Angelos Bekiaris, Alexandros Mourouzis, and Nicos Maglaveras	131
Observe the User Interactive Behavior with a Large Multi-touch Display in Public Space	141
Detection of Wheelchair User Activities Using Wearable Sensors Dan Ding, Shivayogi Hiremath, Younghyun Chung, and Rory Cooper	145
Universal Access in Ambient Intelligent Environments: A Research Agenda	153
Mobile Interfaces for Better Living: Supporting Awareness in a Smart Home Environment	163

Design and Development of Four Prototype Interactive Edutainment Exhibits for Museums	173
Informatics as Semiotics Engineering: Lessons learned from Design, Development and Evaluation of Ambient Assisted Living Applications for Elderly People	183
iAWN: Designing Smart Artifacts for Sustainable Awareness	193
A System for Enhanced Situation Awareness with Outdoor Augmented Reality Jan A. Neuhöfer and Thomas Alexander	203
Implementation of the ISO/IEC 24756 for the Interaction Modeling of an AAL Space	210
Virtual Reality for AAL Services Interaction Design and Evaluation Pilar Sala, Felix Kamieth, Juan Bautista Mocholí, and Juan Carlos Naranjo	220
Young by Design: Supporting Older Adults' Mobility and Home Technology Use through Universal Design and Instruction	230
Towards an Evidence-Based and Context-Aware Elderly Caring System Using Persuasive Engagement	240
Part III: Driving and Interaction	
Towards an Integrated Adaptive Automotive HMI for the Future Angelos Amditis, Katia Pagle, Gustav Markkula, and Luisa Andreone	253
Lessons Learned Regarding Simulator Sickness in Older Adult	969
Drivers	263
Design of Human Computer Interfaces for Highly Automated Vehicles in the EU-Project HAVEit	270
Frank Flemisch, Anna Schieben, Nadja Schoemig, Matthias Strauss, Stefan Lueke, and Anna Heyden	210

Towards User-Centred Development of Integrated Information, Warning, and Intervention Strategies for Multiple ADAS in the EU Project intercet IV.	900
Project interactIVe	280
The Comparison of Different Sensory Outputs on the Driving Overtake Alarm System	290
I Can't Hear You? Drivers Interacting with Male or Female Voices in Native or Non-native Language	298
Monitoring User Distraction in a Car by Segmentation of Experimental Data	306
On-Road Pilot Study on the Need for Integrated Interfaces of In-Vehicle Driver Support Systems	316
Part IV: Interactive Technologies in the Physical and Built Environment	
New Design – Integration of Art and Technology	329
Chetoe.com: An Integrated Web 2.0 Service for Automatically Travel Planning	338
Evolution of Domestic Kitchen	348
Perception and Illusion in Interior Design	358
Spaces of Mutable Shape and the Human Ability to Adapt	365
Using a Visual Assistant to Travel Alone within the City Yves Lachapelle, Dany Lussier-Desrochers, Martin Caouette, and Martin Therrien-Bélec	372

Table of Contents – Part III	XXI
The Computer – A Tool That Makes Human Environment: Technosphere	378
Machinery Design for Construction Safety in Practice Beata Mrugalska and Aleksandra Kawecka-Endler	388
The Design and Manufacture of Functional Micro-stationary PCR Chip	398
Thermal Preparation of Food and Its Influence on Shaping the Old and Modern Kitchen	405
mGuides, Design and Usability of a Mobile System to Assist Learning in Critical Situations	415
Smart Cities, Ambient Intelligence and Universal Access	425
A subbasis Too Jases	499