

Table of Contents

Designing Healthcare Information System in Non-urban Area Using Neuroscientific Approach <i>Karim Fraoua and Christian Bourret</i>	1
Selecting the Right Task Model for Model-Based User Interface Development <i>Gerrit Meixner and Marc Seissler</i>	5
Discourse-based Interaction Models for Recommendation Processes <i>Dominik Ertl, Hermann Kaindl, Edin Arnautovic, Jurgen Falb, and Roman Popp</i>	12
Combining agile methods and user-centered design to create a unique user experience: An empirical inquiry <i>Cynthia Y. Lester</i>	16
Personality and Mental Health Assessment: A Sensor-Based Behavior Analysis <i>Javier Eguez Guevara, Ryohei Onishi, Hiroyuki Umemuro, Kazuo Yano, and Koji Ara</i>	22
Unpacking the Contents - A Conceptual Model for Understanding User Experience in User Psychology <i>Rebekah Rousi, Pertti Saariluoma, and Jaana Leikas</i>	28
Query Cluster: A Method for Web Search Behavior <i>Jinyoung Kim, Moonsung Kim, and Joongseek Lee</i>	35
Temporal Aspects of Human-machine Interaction in the Perception of Visual Information <i>Igor Petukhov</i>	43
Application of User Involvement and Quality Function Deployment to Design Intelligent Service Systems <i>Victor Acinas Garzon</i>	48
Usability Heuristics for Grid Computing Applications <i>Cristian Rusu, Silvana Roncagliolo, Gonzalo Tapia, Danae Hayvar, Virginica Rusu, and Dorian Gorgan</i>	53
A Methodology to Establish Usability Heuristics <i>Cristian Rusu, Silvana Roncagliolo, Virginica Rusu, and Cesar Collazos</i>	59
Exploring a Map Survey Task's Sensitivity to Cognitive Ability <i>Kofi Whitney, Georgi Batinov, Les Miller, Sarah Nusser, and Kathleen Ashenfelter</i>	63
A Graphical Interface for User Authentication on Mobile Phones <i>Sarosh Umar and Qasim Rafiq</i>	69
PuppetAnimator: A Performative Interface for Experiencing Shadow Play	75

<i>Yue Shi, Yue Suo, Shang Ma, and Yuanchun Shi</i>	
Exploring temporal ego networks using small multiples and tree-ring layouts <i>Michael Farrugia, Neil Hurley, and Aaron Quigley</i>	79
A Case Study of Prototyping a Multimodal User Interface for a Media Annotation Tool <i>Dominik Ertl, Marie Kavallar, and David Raneburger</i>	89
Interaction Patterns for Designing Visual Feedback in Secure Websites <i>Jaime Munoz-Arteaga, Eduardo B. Fernandez, and Rene Santaolaya-Salgado</i>	95
Back-to-Back: A Novel Approach for Real Time 3D Hand Gesture Interaction <i>Mingming Fan and Yuanchun Shi</i>	101
Learning Displacement Experts from Multi-band Images for Face Model Fitting <i>Christoph Mayer and Bernd Radig</i>	106
An Interface for Visual Information-Gathering During Web Browsing Sessions: BrainDump - A Versatile Visual Workspace for Memorizing and Organizing Information <i>Marius Brade, Joerg Heseler, and Rainer Groh</i>	112
Navigation and Interaction in the Virtual Reconstruction of the Town of Otranto in the Middle Ages <i>Lucio Tommaso De Paolis, Giovanni Aloisio, and Massimo Manco</i>	120
Using Different Gestural-Input Methods for Personal and Public Touchscreen Devices <i>Jiyoung Kang and Jung-hee Ryu</i>	125
From Individual Personas to Collective Personas <i>Alain Giboin</i>	132
Enhanced Stability of Three-Users Multirate Distributed Haptic Cooperation via Coordination to Average Peer Position <i>Ramtin Rakhsha and Daniela Constantinescu</i>	136
Design of a Wearable Direct-driven Optimized Hand Exoskeleton Device <i>Jamshed Iqbal, Nikos Tsagarakis, and Darwin Caldwell</i>	142
Road-based Adaptation of In-Car-Infotainment Systems <i>Sandro Rodriguez Garzon and Kristof Schutt</i>	147
Virtual Reality Technologies: a Way to Verify Dismantling Operations <i>Caroline Chabal, Alexandre Proietti, Jean-Francois Mante, and Jean-Marc Idasiak</i>	153

Contextual Spaces with Functional Skins as OpenSocial Extension <i>Evgeny Bogdanov, Christophe Salzmann, and Denis Gillet</i>	158
Gathering Interaction, Interface and Aesthetics Considerations in Product Design. Analyzing devices related to the accessibility of heritage <i>Marina Puyuelo Cazorla, Monica Val Fiel, and Francisco Felip Miralles</i>	164
Digital Reconstruction of a Historical and Cultural Site Using AR Window <i>Jiyoung Kang and Jung-hee Ryu</i>	170
Creating Added Value for Smart Card Applications: the University as a Case Study <i>Hsiao-Chi Wu, Jen Wel Chen, and Ching-Cha Hsieh</i>	176
An Architecture of Adaptive Product Data Communication System for Collaborative Design <i>Bernadetta Kwintiana Ane and Dieter Roller</i>	182
Towards Implicit Enhancement of Security and User Authentication in Mobile Devices Based on Movement and Audio Analysis <i>Hamed Ketabdar, Mehran Roshandel, and Daria Skripko</i>	188
An Augmented Reality Application for the Enhancement of Surgical Decisions <i>Lucio Tommaso De Paolis, Giovanni Aloisio, and Marco Pulimeno</i>	192
Interactive System for Medical Interventions Based on Magnetic Resonance Targeting <i>Sylvain Martel and Manuel Vonthron</i>	197
A Framework for Computer Based Training to In Vitro Fertilization (IVF) Techniques <i>Andrea Abate, Michele Nappi, and Stefano Ricciardi</i>	202
Real Time Drunkness Analysis Through Games Using Artificial Neural Networks <i>Audrey Robinel and Didier Puzenat</i>	206
Tactile Sensing for Safe Physical Human-Robot Interaction <i>Norbert Elkmann, Markus Fritzsche, and Erik Schulenburg</i>	212
A Walking Aid Integrated in a Semi-Autonomous Robot Shopping Cart <i>Hermann Kaindl, Bernhard Putz, Dominik Ertl, Helge Huttenrauch, and Cristian Bogdan</i>	218
Towards Automated Human-Robot Mutual Gaze <i>Frank Broz, Hatice Kose-Bagci, Chrystopher L. Nehaniv, and Kerstin Dautenhahn</i>	222
Towards a General Communication Concept for Human Supervision of Autonomous Robot Teams <i>Karen Petersen and Oskar von Stryk</i>	228

Disentangling the Effects of Robot Affect, Embodiment, and Autonomy on Human Team Members in a Mixed-Initiative Task <i>Paul Schermerhorn and Matthias Scheutz</i>	236
Effects of Automation on Situation Awareness in Controlling Robot Teams <i>Michael Lewis and Katia Sycara</i>	242
An Architectural Model for Designing Multicultural Learning Objects <i>Jaime Munoz-Arteaga, Jean Vanderdonckt, Juan Manuel Gonzalez-Calleros, and Michael Orey</i>	249
Rotoscopy-Handwriting Interface for Children with Dyspraxia <i>Muhammad Fakri Othman and Wendy Keay-Bright</i>	254
An Emotional System for Effective and Collaborative e-Learning <i>Nirmal Kumar Sivaraman, Lakshmisri Lakshmi Narayana Rao, and Kittanakere Lakshminarasimhamurthy Nitin</i>	260
E-book Reader and the Necessity of Divergence from the Legacy of Paper Book <i>Alma Leora Culen and Andrea Gasparini</i>	267
Exploring Trust in Personal Learning Environments <i>Na Li, Maryam Najafian-Razavi, and Denis Gillet</i>	274