

## Table of Contents

Do More Pictures Mean More Effort? Investigating the Effects of Monocular Depth on Target Detection in a 3D WIMP Picture Folder <i>Markos Kyritsis, Stephen Gulliver, Eva Feredoes, and Winai Nadee</i>	1
Towards a Service-based Architecture for Web Accessibility Federated Evaluation <i>Jose Ramon Hilera Gonzalez, Salvador Oton Tortosa, Carlos Ivan Martin-Amor, and Cristian Fernando Timbi-Sisalima</i>	6
Enhancing User Experience of Users with Disabilities: Application to Open Educational Resources Websites <i>Rosa Navarrete, Sergio Lujan-Mora, and Myriam Penafiel</i>	11
Interactive Gesture Chair <i>Muhammad Muhaiminul Islam, Shamsul Arefin, Hasan Mahmud, and Md. Kamrul Hasan</i>	17
Is Aging the New Disease? <i>Anita Woll</i>	21
Probing Privacy in Practice: Privacy Regulation and Instant Sharing of Video in Social Media when Running <i>Joakim Karlsen, Susanne Koch Stigberg, and Jo Herstad</i>	29
“Personality-Friendly” Objects: A New Paradigm For Human-Machine Interaction. <i>Niccolo Rosini, Lorenzo Cominelli, Michael Pieroni, Filippo Chiarello, Daniele Mazzei, and Gualtiero Fantoni</i>	37
Young and Creative - A Designerly Approach to Enhance Interventions in the Public Space <i>Andrea Gasparini</i>	44
‘Pop-up’ Maker-spaces: Catalysts for Creative Participatory Culture <i>Sumit Pandey and Swati Srivastava</i>	50
Visualizing Quantified Self Data Using Avatars <i>Isabella Nake, Aris Alissandrakis, and Janosch Zbick</i>	57
Human Activity Recognition using Smartphone Sensors with Context Filtering <i>Shah Md. Shihab Hasan, Mohshi Masnad, Md. Mohiuddin Khan, Hasan Mahmud, and Md. Kamrul Hasan</i>	67
Text Input System Using Hand Shape Recognition <i>Yang Keun Ahn and Kwang-Mo Jung</i>	74
A Passive Stewart Platform Based Joystick To Control Spatially Moving Objects <i>Ibrahim Yildiz</i>	79

Results of a 3 Year Study of a BCI-Based Communicator for Patients with Severe Disabilities <i>Pasquale Fedele, Myriam Gioia, Fabio Giannini, and Alessandra Rufa</i>	84
JoGuide: A Mobile Augmented Reality Application for Locating and Describing <i>Fadi Wedyan, Ibrahim Aloqily, Reema Freihat, and Suzan Wedyan</i>	88
A New Definition of Competence Developing Games <i>Johannes Alexander Konig and Martin R. Wolf</i>	95
Moodle as a Support Tool in Higher Education. Academic Authorities Opinion <i>Myriam Penafiel, Rosa Navarrete, Stefanie Vasquez, and Sergio Lujan-Mora</i>	98
Video Game Story Analysis Using Layered Graphs and Eye Tracking System <i>Iwona Grabska-Gradzinska</i>	105
Focus Group Study on Student Perception of Electronic Textbooks <i>Kimberly Sheen and Yan Luximon</i>	110
A Training-assistance System using Mobile Augmented Reality for Outdoor-facility Inspection <i>Yoshiki Yumbe, Osamu Segawa, and Makoto Yamakita</i>	116
Cross-Platform Web Framework for Gaze Tracking <i>Nicolai Harich, Simon Gebauer, Holger Schmidt, and Gottfried Zimmermann</i>	123
CalliSmart: An Adaptive Informed Environment for Intelligent Calligraphy Training <i>Remy Frenoy, Indira Thouvenin, Yann Soullard, and Olivier Gapenne</i>	132
Towards Web Accessibility Guidelines of Interaction and Interface Design for People with Autism Spectrum Disorder <i>Talita Britto and Edinaldo Pizzolato</i>	138
Webpage Accessibility and Usability for Autistic Users: a Case Study on a Tourism Website <i>Antonina Dattolo, Flaminia L. Luccio, and Elisa Pirone</i>	145
EYE POINTER: A Real Time Cost Effective Computer Controlling System Using Eye and Head Movement <i>Shahed Anzarus Sabab Sabab, Sayed Rizban Hussain Digonto, Hasan Mahmud Mahmud, Md. Hasanul Kabir Kabir, and Md. Kamrul Hasan Hasan</i>	153
A Process Approach to Ensuring Universally Designed Web Content: A preliminary case study of the Norwegian Broadcasting Corporation <i>Lars Henrik Nordli and G. Anthony Giannoumis</i>	160
Designing and Evaluating Interfaces for the CAPTAIN MEMO Memory Prosthesis	164

Ergonomic Criteria for the Evaluation of Context-Aware User Interface <i>Ines Riahi, Faouzi Moussa, and Riadh Dziri</i>	170
Designing for Sustainability: Challenges and Theoretical Considerations <i>Swati Srivastava and Sumit Pandey</i>	177
From Difficult Artifacts to Easy to Use Designs <i>Tone Bratteteig and Guri Verne</i>	185
Augmented Reality as a Tutorial Tool for Construction Tasks <i>Ana Regina M. Cuperschmid, Marina G. Grachet, and Marcio M. Fabricio</i>	192
A Non-commercial Approach to Experience Design Teaching Interactive Systems Developed at Escola Superior de Desenho Industrial <i>Marcos A. F. Martins</i>	198
Eye Gaze Based Dynamic Warnings <i>Mini Zeng, Feng Zhu, and Sandra Carpenter</i>	204
Tangible Technologies for the Development of Play Skills in Autistic Children <i>Patrizia Marti, Luca Giacolini, and Iolanda Iacono</i>	212
Tablet Game Design and Evaluation: A Practice-based Experimentation Approach <i>Uttam Kokil</i>	220
A Model Driven Approach For Adaptive User Interfaces Specification: User, Task And Environment Impact <i>Hajer Taktak, Ines Riahi, and Faouzi Moussa</i>	225
Body Gesture Recognition Framework for 3D Interactive Systems <i>Choonsung Shin, Jisoo Hong, Youngmin Kim, Sung-Hee Hong, and Hoonjong Kang</i>	233
Evaluation of a Driver Assistant Client in the Context of Urban Logistics and Electric Vehicles <i>Christian Stolcis, Johan Buchholz, and Volkmar Schau</i>	235
Towards Model-based Usability Evaluation of Interactive Application: Detecting Unexpected Situations and Validating System Task Model <i>Mouna Jarraya and Faouzi Moussa</i>	240
Complex Emotions Expression and Recognition for Paranoid Personality Disorder <i>Mohamad Saleh</i>	245

A New Scientometric Dimension for User Profile <i>Nedra Ibrahim, Anja Habacha Chaibi, and Henda Ben Ghezala</i>	251
Basic Study of an Evaluation that Uses the Center of Gravity of a Facial Thermal Image for the Estimation of Autonomic Nervous Activity <i>Shogo Matsuno, Shunsuke Kosuge, Shunsuke Kawazura, Hirotohi Asano, Naoaki Itakura, and Tota Mizuno</i>	258
Autonomic Nervous Activity estimation algorithm with Facial Skin Thermal Image <i>Tota Mizuno, Shusuke Kawazura, Kota Akehi, Shogo Matsuno, Hirotohi Asano, Kazuyuki Mito, and Naoaki Itakura</i>	262
Minimalistic Toy Robot Encourages Verbal and Emotional Expressions in Autism <i>Irini Giannopulu, Valerie Montreynaud, and Tomio Watanabe</i>	267
User Acceptance of Social Robots <i>Ibrahim A. Hameed, Zheng-Hua Tan, Nicolai B. Thomsen, and Xiaodong Duan</i>	274
Recognition of Technical Gestures for Human-Robot Collaboration in Factories <i>Eva Coupete, Fabien Moutarde, Sotiris Manitsaris, and Olivier Hugues</i>	280
First Results of Studying Human Robot Interaction in the Wild — The Hobbit Robot Tested by Older Adults at Home <i>Markus Vincze, Daniel Wolf, Markus Bajones, Astrid Weiss, Markus Suchi, David Fischinger, Jurgen Pripfl, and Christoph Gisinger</i>	286
Evaluation of a 3D Human System Interface for Air Traffic Control <i>Andreas Baier and Alf Zimmer</i>	292
Study of Sign Language Expression of Medical Sign Language Words <i>Mina Terauchi and Yuji Nagashima</i>	297
Alphabet Recognition in Air Writing Using Depth Information <i>Robiul Islam, Hasan Mahmud, Md. Kamrul Hasan, and Husne Ara Rubaiyeat</i>	299
Interacting with the Customers through New Technologies <i>Lucia Sanchez de la Guia, Marina Puyuelo Cazorla, and Lola Merino Sanjuan</i>	302
A Case Study of Four IT Companies Developing Usable Public Digital Self-Service Solutions <i>Jane Billestrup, Marta Larusdottir, and Jan Stage</i>	307
Expertise and Behavior of Unix Command Line Users: an Exploratory Study <i>Mohammad Gharehyazie, Bo Zhou, and Iulian Neamtiu</i>	315

Towards Semantic Analysis of Training-Learning Relationships within Human-Machine Interactions <i>Farshad Badie</i>	323
Reduction of Dental Anxiety and Pain in Children using Robots <i>Mine Yasemin, Yelda Kasimoglu, Simin Kocaoglu, Emine Karsli, Elif Bahar Tuna Ince, and Gokhan Ince</i>	327
Recognizing Hand Gesture for Human-Robot Interaction <i>Zuhair Zafar and Karsten Berns</i>	333
Design of an Interactive System for Immersive Movie Watching Experience <i>Yaochi Liu and Tsai-Yen Li</i>	339
Usability Analysis in the Liquid Galaxy Platform <i>Ismael Arroyo, Francesc Gine, Concepcio Roig, and Toni Granollers</i>	345
Adaptive Smart Environments: Detecting Human Behaviour from Multimodal Observation <i>Rory O. Heffernan, Michael L. Walters, Neil R. Davey, Rene te Boekhorst, Kheng Lee Koay, and Kerstin Dautenhahn</i>	353
Hand Gesture Recognition Using SIFT Features on Depth Image <i>Hasan Mahmud, Md. Kamrul Hasan, Abdullah-Al- Tariq, and Md. Abdul Mottalib</i>	359
Effects of Intervals between Roadside Columns on Speed Perception in Human Walking and Running Speed <i>Yohsuke Yoshioka, Hidetoshi Watanabe, Masaki Takahashi, Atsushi Enta, and Tomonori Sano</i>	366
A Software Design Tool for the Modeling of Emotions in Autonomous Agents <i>Xavier Gonzalez-Olvera, Luis-Felipe Rodriguez, Luis A. Castro, and Ramon Rene Palacio</i>	372
Logical Characterisation of Concept Transformations from Human into Machine Relying on Predicate Logic <i>Farshad Badie</i>	376
The Analysis of the Specific Dictionaries for Compressive Sensing of EEG Signals <i>Monica Fira, Victor-Andrei Maiorescu, and Liviu Goras</i>	380
FIRMA: A Development Framework for Elderly-Friendly Interactive Multimodal Applications for Assistive Robots <i>Nikolaos Kazepis, Margherita Antona, and Constantine Stephanidis</i>	386
The Characteristics and Application of Anthropomorphic Interface: A Design Spectrum <i>Nooralisa Mohd Tuah, Gary B. Wills, and Ashok Ranchhod</i>	398
Change Your Perspective: Exploration of a 3D Network Created from Open Data in an Immersive Virtual Reality Environment	403

*Nico Reski and Aris Alissandrakis*

User-Customizable Web Components for Building One-Page Sites 411  
*Pasquale Lisena, Jetmir Xhembulla, Giovanni Malnati, and Pasquale Morra*

A Natural Language Dialog System Based on Active Ontologies 417  
*Alexander Wachtel, Jonas Klamroth, and Walter F. Tichy*

Comparative Assessment of Mobile Navigation Applications using 2D Maps and Augmented Reality Interfaces 423  
*Mustafa Esengun and Gokhan Ince*

Technology Concepts to Improve Knowledge Sharing During Maintenance 429  
*Susanna Aromaa, Iina Aaltonen, and Antti Vaatanen*

Development of A Finger Mounted Type Haptic Device Using A Plane Approximated to Tangent Plane 436  
*Makoto Yoda and Hiroki Imamura*