## Contents – Part I

### Design and Evaluation Methods, Tools and Practices

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing and Evaluating a Thai Website Accessibility Checker</td>
<td>3</td>
</tr>
<tr>
<td><em>Kewalin Angkananon, Mike Wald, and Piyabud Ploadaksorn</em></td>
<td></td>
</tr>
<tr>
<td>Usability Tool to Support the Development Process of e-Commerce Website</td>
<td>11</td>
</tr>
<tr>
<td><em>T.P. Anjos and L.A. Gontijo</em></td>
<td></td>
</tr>
<tr>
<td>Assessing Personality Differences in Human-Technology Interaction: An Overview of Key Self-report Scales to Predict Successful Interaction</td>
<td>19</td>
</tr>
<tr>
<td><em>Christiane Attig, Daniel Wessel, and Thomas Franke</em></td>
<td></td>
</tr>
<tr>
<td>Exploring the Building Blocks of Personas for Children with Autism Spectrum Disorders</td>
<td>30</td>
</tr>
<tr>
<td><em>Ayşe Naciye Çelebi Yılmaz</em></td>
<td></td>
</tr>
<tr>
<td>Mass Customized Knowledge Management: A Project for Adequate and Dynamic Knowledge Transfer for Small and Medium Enterprises</td>
<td>37</td>
</tr>
<tr>
<td><em>Michael Becker, Stephan Klingner, Julia Friedrich, Frederik Kramer, Martin Schneider, and Klaus-Peter Fähnrich</em></td>
<td></td>
</tr>
<tr>
<td>Design for Inclusion. From Teaching Experiences to Social Changes</td>
<td>44</td>
</tr>
<tr>
<td><em>Giuseppe Di Bucchianico</em></td>
<td></td>
</tr>
<tr>
<td>Usability Methods and Evaluation Criteria for Published Clinical Guidelines on the Web: A Systematic Literature Review</td>
<td>50</td>
</tr>
<tr>
<td><em>Soudabeh Khodambashi and Øystein Nytrø</em></td>
<td></td>
</tr>
<tr>
<td>The Assessment Tool for User Perceived Interactivity from ACG Website Interactivity on Imagination</td>
<td>57</td>
</tr>
<tr>
<td><em>Juihsiang Lee</em></td>
<td></td>
</tr>
<tr>
<td>From Spectator to Co-creator for Hybrid Social Space: A New Taxonomy for Participatory Social Interaction and Co-creation</td>
<td>66</td>
</tr>
<tr>
<td><em>Yun Tae Nam and Je-ho Oh</em></td>
<td></td>
</tr>
<tr>
<td>Understanding Game Design for the Development of a Game Environment</td>
<td>73</td>
</tr>
<tr>
<td><em>André Salomão, Flávio Andaló, and Milton Luiz Horn Vieira</em></td>
<td></td>
</tr>
<tr>
<td>Communication Model of Web Accessibility</td>
<td>80</td>
</tr>
<tr>
<td><em>Takayuki Watanabe</em></td>
<td></td>
</tr>
</tbody>
</table>
A Study of the Team Management in Design Organizations . . . . . . . . . . . . . 88
  Shih-Hsi Yang and Wen-Tsung Huang

**Novel Interaction Techniques and Devices**

Japanese Sign Language Recognition Based on Three Elements of Sign Using Kinect v2 Sensor ............................... 95
  Shohei Awata, Shinji Sako, and Tadashi Kitamura

Immersive 3D Environment for Data Centre Monitoring Based on Gesture Based Interaction ............................................. 103
  Giannis Drossis, Chryssi Birliraki, George Margetis, and Constantine Stephanidis

Interactive Evolutionary Computation Using Multiple Users’ Gaze Information ............................................................ 109
  Minatsu Fujisaki, Hiroshi Takenouchi, and Masataka Tokumaru

Effects of Electrode Configuration on Pattern Recognition Based Finger Movement Classification ........................................ 117
  Jiayuan He, Xiangyang Zhu, and Ning Jiang

Prompting – A Feature of General Relevance in HCI-Supported Task Workflows .......................................................... 123
  Thomas Herrmann and Jan Nierhoff

Interaction with Three Dimensional Objects on Diverse Input and Output Devices: A Survey ........................................... 130
  Adrian Heinrich Hoppe, Florian van de Camp, and Rainer Stiefelhagen

Use of Vibration for Touch Pen to Provide the Feel of Writing on Paper ................................................................. 140
  Makio Ishihara, Ayaka Imato, and Yukio Ishihara

Enhancement of ANN-Based Offline Hand Written Character Recognition Using Gradient and Geometric Feature Extraction Techniques .......................................................... 145
  Y.A. Joarder, Paresh Chandra Barman, and Md Zahidul Islam

Shortening Selection Time Using Plural Cursor in Multi-display Environment and Its Preliminary Evaluation ............. 152
  Yuki Mako and Makio Ishihara

Creating a Playful Digital Catalogue System Using Technology-Enhanced Physical Objects ............................................ 158
  George Margetis, Dimitris Grammenos, George Paparoulis, and Constantine Stephanidis
Automatic Classification of Eye Blinks and Eye Movements for an Input Interface Using Eye Motion

Shogo Matsuno, Masatoshi Tanaka, Keisuke Yoshida, Kota Akehi, Naoaki Itakura, Tota Mizuno, and Kazuyuki Mito


Shuhei Matsuyama and Mitsuhiko Karashima

A Pen Gesture-Based Editing System for Online Handwritten Objects on a Pen Computer

Hidetoshi Miyao, Keisuke Nakamura, Shinya Nakazawa, and Minoru Maruyama

AnywhereTouch: Finger Tracking Method on Arbitrary Surface Using Nailed-Mounted IMU for Mobile HMD

Ju Young Oh, Jun Lee, Joong Ho Lee, and Ji Hyung Park

Vibration Ring Device Which Supports Deaf Students to Learn How to Use Illustrator: SZCAT: Synchronized Click Action Transmitter

Takuya Suzuki, Makoto Kobayashi, and Yuji Nagashima

Creating a Gesture-Speech Dataset for Speech-Based Automatic Gesture Generation

Kenta Takeuchi, Souichirou Kubota, Ketsuke Suzuki, Dai Hasegawa, and Hiroshi Sakuta

Psychophysiological Measuring and Monitoring

Driver’s Modeling with System Identification Algorithm to Aim Reducing Drowsiness

Hirotoshi Asano, Kiwamu Goto, and Tota Mizuno

Wearables and User Interface Design: Impacts on Belief in Free Will

D.A. Baker

Stress Measurement and Inducement in Experiments with Low Cost Flight Simulator for Testing of General Aviation Pilots

Ondřej Bruna, Tomáš Levora, and Jan Holub

A Portable and User Friendly REM Sleep Detection System Based on Differential Movement of Eyeball Using Optical Sensors

Chi Yeon Hwang, Geun do Park, Hyang Jun Jeong, In Gyu Park, Yun Joong Kim, Hyeo-Il Ma, and Unjoo Lee
Psychophysiological and Intraoperative AEPs and SEPs Monitoring for Perception, Attention and Cognition

Sergey Lytaev, Mikhail Aleksandrov, and Aleksei Ulitin

Development of Device for Measurement of Skin Potential by Grasping of the Device

Tota Mizuno, Shogo Matsuno, Kota Akehi, Kazuyuki Mito, Naoaki Itakura, and Hirotoshi Asano

Evaluating NeuroSky’s Single-Channel EEG Sensor for Drowsiness Detection

Kishan Patel, Harit Shah, Malcolm Dcosta, and Dvijesh Shastri

Neurophysiological Indices of Human Social Interactions Between Humans and Robots

S.J. Smith, B.T. Stone, T. Ranatunga, K. Nel, T.Z. Ramsoy, and C. Berka

Study on the Influence of Drivers’ Physiological Characteristics of Urban Bus Stop

Fengyuan Wang, Xiaoting Chen, Gang Sun, and Xing Liang

A Functional Near-Infrared Spectroscopy Study of Auditory Working Memory Load

Shih-Min Wu, Hsien-Ming Ding, and Yi-Li Tseng

Perception, Cognition and Emotion in HCI

Analysis of Paradoxical Phenomenon Caused by Presenting Thermal Stimulation on Three Spots

Keisuke Arai, Satoshi Hashiguchi, Fumihisa Shibata, and Asako Kimura

Gaze Behavior and Emotion of Crane Operators for Different Visual Support System

Jouh Yeong Chew, Koichi Ohtomi, and Hiromasa Suzuki

A Study on the Differences Among M3D, S3D and HMD for Students with Different Degrees of Spatial Ability in Design Education

Po-Ying Chu, Li-Chieh Chen, Hsiao-Wen Kung, and Shih-Jen Su

Mirrored Perception Cognition Action Model in an Interactive Surgery Assist System

Jiachun Du, Thomas van Rooij, and Jean-Bernard Martens

Research on Human Acceptability of Household Environment Temperature Fluctuation

Huimin Hu, Rui Wang, Chaoyi Zhao, Hong Luo, Aixian Li, Li Ding, and Yifen Qiu
Experimental Research on the Armored Crew’s Depth Perception ........................ 402
Qianxiang Zhou, Jintao Wu, and Zhongqi Liu

Data Analysis and Data Mining in Social Media and Communication

Instructional Information System for the Introduction of Data Journalism Techniques Based on User Centered Design Methodology ......................................................... 411
Belén Alazañez-Cortés, Zayra Montserrat Miranda-Aguirre, Jocelyn Lizbeth Molina-Barradas, Erick Monroy-Cuevas, Rocio Abascal-Mena, Rodrigo Gómez-García, and Román Esqueda-Atayde

Implicit Evaluation of User’s Expertise in Scientific Domains .......................... 420
Alessandro Bonifacio, Claudio Biancalana, Fabio Gasparetti, Alessandro Micarelli, and Giuseppe Sansonetti

Breaking News Commentary: Users’ Reactions to Terrorist Attacks in English-Speaking Twittersphere ................................................................. 428
Kaja J. Fietkiewicz and Aylin Ilhan

Does Negative News Travel Fast? Exploring the Effect of News Sentiment on Interactive Spiral ................................................................. 435
Jie Gu, Jing Tian, Xiaolun Wang, and Hong Ling

Analyzing Users’ Search Patterns to Explore Topic Knowledge from Aggregated Search Results ................................................................. 443
Yen-Chun Huang, Yu-Ping Ho, and I-Chin Wu

Chat Support System to Recall Past Conversational Topics Using Tags ............ 450
Junko Itou, Rina Tanaka, and Jun Munemori

Collection of Example Sentences for Non-task-Oriented Dialog Using a Spoken Dialog System and Comparison with Hand-Crafted DB .............. 458
Yukiko Kageyama, Yuya Chiba, Takashi Nose, and Akinori Ito

Combining Sentimental and Content Analysis for Recognizing and Interpreting Human Affects ................................................................. 465
Stefanie Niklander and Gustavo Niklander

Emotional Computing and Discourse Analysis: A Case Study About Brexit in Twitter ................................................................. 469
Stefanie Niklander

Automatic Quantification of the Veracity of Suicidal Ideation in Counseling Transcripts ................................................................. 473
Omar Oseguera, Alex Rinaldi, Joann Tuazon, and Albert C. Cruz
XXII  Contents – Part I

Hearing Finds and Posture in Workers of the Improvement of the Manioc in Sergipe State, Brazil ................................................................. 562
  Tereza Raquel Ribeiro de Sena, Maria Goretti Fernandes,
  Marcos André Santos Guedes, and Ángelo Roberto Antoniolli

Single Trial Analysis of Body Sway Caused by Several Matrix-Shaped Tactile Stimuli on Body Trunk ................................................................. 566
  Masaki Terada and Masafumi Uchida

Formalization Modeling of Maintenance Based on Agent ................................. 575
  Shu-jie Tian, Bo Wang, Li Wang, and Dan Xu

Outside the Virtual Screen: A Tangible Character for Computer Break ............... 583
  Sy-Chyi Wang, Jin-Yuan Chern, Chung-Ping Young, Wei-Hsin Teng,
  and Xiao-Yi Xiong

Ambidexterity in Mobile Collaboration: Balancing Task- and Socialization-Oriented Communication in Team Member Interaction ...................... 588
  Xiaolun Wang, Jie Gu, Jing Tian, and Yunjie Xu

Author Index .................................................................................................. 597
Contents – Part II

Interaction in Virtual and Augmented Reality

Factors of Cybersickness ................................................................. 3
  Patricia Bockelman and Deanna Lingum

Effects of Short Exposure to a Simulation in a Head-Mounted Device
and the Individual Differences Issue .............................................. 9
  David Hartnagel, Marine Taffou, and Patrick M.B. Sandor

Projection Simulator to Support Design Development of Spherical
Immersive Display ................................................................. 17
  Wataru Hashimoto, Yasuharu Mizutani, and Satoshi Nishiguchi

Immersive Virtual Experience: An Effort to Increase the Interest
for Reading on First-Time Readers .............................................. 25
  Luis Hernández-Zavaleta, Jaime Espinoza-Martínez,
  Diana Morón-González, Alba Núñez-Reyes, Carlos Rivero- Moreno,
  Octavio Mercado-González, and Alejandra Osorio-Olave

Correcting Distortion of Views into Spherical Tank in Aquarium .......... 32
  Yukio Ishihara and Makio Ishihara

A Study on VR Sickness Prediction of HMD Contents
Using Machine Learning Technique .............................................. 38
  Jae Beom Kim and Changhoon Park

Physically-Based Clay Art Rendering with HMD VR ....................... 42
  Donghwee Lee, Hyunmin Choi, and Seongah Chin

Feasibility of Integrated GNSS/OBD-II/IMU as a Prerequisite
for Virtual Reality ........................................................................ 48
  J.H. Lim, K.H. Choi, W. Yoo, L. Kim, Y. Lee, and Hyung Keun Lee

Presence and Usability Do Not Directly Predict Procedural Recall
in Virtual Reality ...................................................................... 54
  Bradford L. Schroeder, Shannon K.T. Bailey, Cheryl I. Johnson,
  and Emily Gonzalez-Holland

Webizing Interactive CAD Review System Using Super Multiview
Autostereoscopic Displays ...................................................... 62
  Daeil Seo, Yongjae Lee, and Byounghyun Yoo
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Webizing Virtual Reality-Based Interactive Interior Design System</td>
<td>68</td>
</tr>
<tr>
<td>Daeil Seo, Jongho Lee, and Byounghyun Yoo</td>
<td></td>
</tr>
<tr>
<td>Error Monitoring and Correction Related to the Sense of Presence in Virtual Environments</td>
<td>73</td>
</tr>
<tr>
<td>Boris B. Velichkovsky, Alexey N. Gusev, Alexander E. Kremlev, and Sergey S. Grigorovich</td>
<td></td>
</tr>
<tr>
<td>3D Route Planning Within a Stereoscopic Environment Based on 2D Mouse Interaction</td>
<td>81</td>
</tr>
<tr>
<td>Leonhard Vogelmeier, Christoph Vernaleken, and Peter Sandl</td>
<td></td>
</tr>
<tr>
<td>The Implementation of Instructional Strategies for Training in a Virtual Environment: An Exploratory Investigation of Workload and Performance</td>
<td>88</td>
</tr>
<tr>
<td>Elizabeth Wolfe, John Granger, Natalie Alessi, Lauren Farrell, and Crystal Maraj</td>
<td></td>
</tr>
<tr>
<td>Service Design of Intergeneration Home-Sharing System Using VR-Based Simulation Technology and Optimal Matching Algorithms</td>
<td>95</td>
</tr>
<tr>
<td>Taeha Yi, Jimin Rhim, Injung Lee, Amartuvshin Narangerel, and Ji-Hyun Lee</td>
<td></td>
</tr>
</tbody>
</table>

**Learning, Games and Gamification**

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of Human Computer Interaction Interface in Game Design</td>
<td>103</td>
</tr>
<tr>
<td>Jing Cao and Ying Cao</td>
<td></td>
</tr>
<tr>
<td>Creating an Environment for Millennials</td>
<td>109</td>
</tr>
<tr>
<td>Bruce Gooch, Nicolas Bain, and Taylor Day</td>
<td></td>
</tr>
<tr>
<td>Flexible Virtual Environments: Gamifying Immersive Learning</td>
<td>115</td>
</tr>
<tr>
<td>Neil Gordon and Mike Brayshaw</td>
<td></td>
</tr>
<tr>
<td>The Effect of Emotion in an Ultimatum Game:</td>
<td>122</td>
</tr>
<tr>
<td>The Bio-Feedback Evidence</td>
<td></td>
</tr>
<tr>
<td>Yifan He and Tiffany Y. Tang</td>
<td></td>
</tr>
<tr>
<td>Motion Recognition Interactive Game Activity for Early Childhood</td>
<td>130</td>
</tr>
<tr>
<td>Hyung-Sook Kim and Seong-Hee Chung</td>
<td></td>
</tr>
<tr>
<td>Development of Gesture Recognition-Based Educational Dance Game for Children with Intellectual Disability</td>
<td>136</td>
</tr>
<tr>
<td>Hyung Sook Kim, Yonghyun Park, Sunghee Hong, and Junghwan Hwang</td>
<td></td>
</tr>
</tbody>
</table>
Development of Educational Application Using Standard Movement Code-Based on Human Behavior

Hyung Sook Kim, Chan-Ik Park, David O’Sullivan, and Jeessun Lee

A Serious Game to Teach Computing Concepts

Devorah Kletenik, Florencia Salinas, Chava Shulman, Claudia Bergeron, and Deborah Sturm

An Analysis of Students’ Learning Behaviors Using Variable-Speed Playback Functionality on Online Educational Platforms

Toru Nagahama and Yusuke Morita

Collaborative Learning Support System for Programming Education Using Gamification

Kohei Otake and Tomofumi Uetake

Personalizing Game by Using Social Network

Jaebum Park, Huitae Ryu, and Changhoon Park

Learning to Code in a Community of Practice in Mozambique: The Case of MozDevz

Ivan Ruby and Salomão David

“Free Will”: A Serious Game to Study the Organization of the Human Brain

Deborah Sturm, Jonathan Zomick, Ian Loch, and Dan McCloskey

Purposive Game Production in Educational Setup: Investigating Team Collaboration in Virtual Reality

Olga Timcenko, Lise Busk Koføed, Henrik Schoenau-Fog, and Lars Reng

Frustrating Interaction Design of AS IF, an Embodied Interaction Game for Perspective Taking Towards Physical Limitations

Servet Ulas, Weina Jin, Xin Tong, Diane Gromala, and Chris Shaw

The Influence of Toy Design Factors on Children’s Problem-Solving Skills

Tien-Ling Yeh and Jo-Han Chang

Understanding Reading Comprehension in Multi-display Presenting System: Visual Distribution and Cognitive Effect

Xueqing Zhang and Sanya Liu
Health, Well-Being and Comfort

Improving Patient Satisfaction Using a Video-Based Patient Education Platform .............................................. 217
  Katharine T. Adams, Alexander D. Walker, Eileen Searson, John Yosaitis, Rita Owens, and Lowell Satler

Developing a Health-Enabling Service System Combining Wearable Device and Personal Health Records for Older Adults ........................................ 225
  Kuei-Ling Belinda Chen and Peisan Lee

FitViz: A Personal Informatics Tool for Self-management of Rheumatoid Arthritis ........................................ 232
  Ankit Gupta, Xin Tong, Chris Shaw, Linda Li, and Lynne Feehan

A Crowdsourcing-Based Social Platform to Increase a Community’s Sustainability and Well-Being ........................................ 241
  Kota Gushima, Mizuki Sakamoto, and Tatsuo Nakajima

Estimation of Floor Reaction Force During Walking Using Physical Inertial Force by Wireless Motion Sensor ........................................ 249
  Atsushi Isshiki, Yoshio Inoue, Kyoko Shibata, and Motomichi Sonobe

Development of Content for an ICT Screening Program Based on the Emotional and Behavioral Disorder Questionnaire ........................................ 255
  Hyung Sook Kim, Chan-Ik Park, David O’Sullivan, and Jeessun Lee

Development of a Human-Seat Cushion Finite Element Model for Sitting Comfort Analysis ........................................ 261
  Xianxue Li, Li Ding, Xianchao Ma, Baofeng Li, and Haiyan Liu

Study on the Interactivity of Medication Behavior in Children’s Group Environment ........................................ 267
  Miao Liu, Zhaoyang Sun, and Tao Xiong

Framework of Health Monitoring Service for the Elderly Drivers Community ........................................ 275
  Se Jin Park, Murali Subramaniyam, Seunghee Hong, and Damee Kim

Adaptation Monitoring System Preventing Fall Down from a Bed for Individual Difference of Behavior ........................................ 280
  Hironobu Satoh and Kyoko Shibata

Development of an Interactive Social Tool for Mexican Young Adults to Lower and Prevent Overweight and Obesity ........................................ 285
  Diana M. Sepúlveda, César Delgado, Luis Alvarado, and Sergio Zepeda
Wellness Programs: Wearable Technologies Supporting Healthy Habits and Corporate Costs Reduction

Marcos Souza, Taynah Miyagawa, Paulo Melo, and Francimar Maciel

Participatory Design of Vaccination Services with Less-Literate Users

Shyama V.S., Ulemba Hirom, Sylvan Lobo, Sujit Devkar, Pankaj Doke, and Nikita Pandey

Affordance of Real-Time Personalization and Adaptation of Hearing Aid Settings

Qi Yang, Shira Hahn, Bill Chang, Almer van den Berg, and Greg Olsen

Design and Implementation of Smartphone Application for Measurement and Management of Depressive Emotions in Adolescents Using Cognitive Behavioral Therapy

Jung-Sun Yoo, In-Sook Kim, and Jung-A Gwon

Smart Environments

Rist: An Interface Design Project for Indoor Navigation

Meeshu Agnihotri, Reema Upadhyaya, Katherine Kenna, and Chen-Dah Chiang

Mobile App for a GPS-Based Location-Specific Communication System: “Ninja Messenger”

Riya Banerjee and Yugo Takeuchi

Design for Indoor Navigation: CROSSFLOW for Multiple Simultaneous Pedestrians in Public Spaces

Han Cao

Human-House Interaction Model Based on Artificial Intelligence for Residential Functions

Brendel Francisco Lima Santos, Iury Batista de Andrade Santos, Mauricio José Miranda Guimarães, and Alcides Xavier Benicasa

A Proposal for the “Cariño Index”: A New Coordination Index Based on Weather Conditions

Akari Fujiwara and Katsuhiko Ogawa

Proposal of Internet Radio Walking Around Street While Listening to Voice of Virtual Idols

Shiori Furuta and Katsuhiko Ogawa

Classification of Synchronous Non-parallel Shuffling Walk for Humanoid Robot

Masanao Koeda, Daiki Sugimoto, and Etsuko Ueda
Case Representation of Daily Routine Data Through the Function Behavior Structure (FBS) Framework ......................................................... 382
  Injung Lee, Taeha Yi, Jimin Rhim, Amartuvshin Narangerel, Danial Shafiei Karaji, and Ji-Hyun Lee

Indoor Navigation Aid System Using No Positioning Technique for Visually Impaired People ................................................. 390
  Yeonju Oh, Wei-Liang Kao, and Byung-Cheol Min

SmartResponse: Emergency and Non-emergency Response for Smartphone Based Indoor Localization Applications ......................... 398
  Manoj Penmetcha, Arabinda Samantaray, and Byung-Cheol Min

Human Algorithm: How Personal Reflection of Data Agents Improves Crowdsourcing Data Collection in a Smart City Planning Study ......................... 405
  Jue Ren, Youyang Hou, Tat Lam, and Yang Yang

Face Recognition Based on Adaptive Singular Value Decomposition in the Wavelet Domain ......................................................... 413
  Jing-Wein Wang and Tzu-Hsiung Chen

Biometric Identification Using Video of Body Silhouette Captured from Overhead ................................................................. 419
  Hiro-Fumi Yanai and Shunsuke Kouno

Mobile Interaction

Interaction Modalities for Augmented Reality in Tablets for Older Adults . . . 427
  Ana Georgina Guerrero Huerta, Erika Hernández Rubio, and Amilcar Meneses Viveros

ElectAR, an Augmented Reality App for Diagram Recognition .................. 435
  Abián Hernández Mesa, M. Peña Fabiani Bendicho, and Jorge Martín-Gutiérrez

Explore the Differences Between Iphone7 Camera Interaction and User Habits ................................................................. 441
  Bin Jiang and Tongtong Liu

Design of Tangible Programming Environment for Smartphones ............. 448
  Yasushi Kambayashi, Kenshi Furukawa, and Munehiro Takimoto

An Analysis of Usage and Attitude for Mobile Video Service in Korea ........ 454
  Min-Jeong Kim
The 60 Seconds Guestbook – An Auditory Place Media for Guesthouse Residents

Chia-Lung Lee and Katsuhiko Ogawa

Investigation of Smartphone Use While Walking and Its Influences on One’s Behavior Among Pedestrians in Taiwan

Jun-Ming Lu and Yi-Chin Lo

Understanding Modern Audience in Traditional Settings

Asreen Rostami, Christoffer Cialec, and Gabriel Werlinder

Development of a User Participatory Mobile App to Promote a Local Tourist Attraction: The Okayama Korakuen Navi App

Wangmi Seok and Akihiko Kasw

Evaluation of Information Presentation with Smartphone at History Museum by Eye Tracking

Honami Take and Kiyoko Yokoyama

Wrist Watch Design System with Interactive Evolutionary Computation

Hiroshi Takenouchi and Masataka Tokumaru

Towards Prediction of User Experience from Touch Interactions with Mobile Applications

Carola Trahms, Sebastian Möller, and Jan-Niklas Voigt-Antons

Research on Interactive Design of Mobile Payment Based on Embodied Cognition

Qi Wang and Zhao Hui Huang

Visual Design and Visualization

Exploring of the Barrier-Free Design for Visual Impairment in Graphical User Interface Design

Yilin Chai and Ying Cao

Research on the Experiential Communication of Digital Humanities and Information Visualization: A Case Study of Iconography Measurement

Zhigang Chen and Jing Ma

Optimal Design of the Front Face of Minicars Based on Analytic Hierarchy Process

Wenjie Deng, Xinhui Kang, and Congru Zhang

A Visualization System for Traffic Violation Using H2O Random Forests

Chyi-Ren Dow, Zhe-Rong Lin, and Kuan-Chieh Wang
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation CMF Design Strategy Based on Regional Culture</td>
<td>555</td>
</tr>
<tr>
<td>Bin Jiang and Bin Geng</td>
<td></td>
</tr>
<tr>
<td>Development and Evaluation of an E-picture Book System Using Multi-directional Scrolling and Illustrations with Visual Guidance</td>
<td>561</td>
</tr>
<tr>
<td>Negar Kaghazchi, Azusa Yoshii, Sachiko Kodama, and Masakatsu Kaneko</td>
<td></td>
</tr>
<tr>
<td>Humanizing the Machine: Basic Communication for Unskilled Operators</td>
<td>569</td>
</tr>
<tr>
<td>Robert Lightfoot, Bruce Gooch, and Robert Michael Fowler</td>
<td></td>
</tr>
<tr>
<td>An Investigation into the Key Factors to Improve the Attractiveness of Modular Furniture in the Living Environment of China’s Metropolitan Migrants</td>
<td>575</td>
</tr>
<tr>
<td>Miao Liu, Zhaoyang Sun, Xinming Guo, Xue Chen, and Ziwei Liu</td>
<td></td>
</tr>
<tr>
<td>The Interaction of Casual Users with Digital Collections of Visual Art.</td>
<td>583</td>
</tr>
<tr>
<td>An Exploratory Study of the WikiArt Website</td>
<td></td>
</tr>
<tr>
<td>Lucia Marengo, György Fazekas, and Anastasios Tombros</td>
<td></td>
</tr>
<tr>
<td>Interactive Image Search System Based on Multimodal Analogy</td>
<td>591</td>
</tr>
<tr>
<td>Kosuke Ota, Keiichiro Shirai, Hidetoshi Miyao, and Minoru Maruyama</td>
<td></td>
</tr>
<tr>
<td>Preliminary Survey for Multigraph Integration and Visualization Framework</td>
<td>597</td>
</tr>
<tr>
<td>Ryosuke Saga</td>
<td></td>
</tr>
<tr>
<td>A Study on the Relationship Between Form Features and Images of Concept Bicycles Using the Theory of Archetype</td>
<td>602</td>
</tr>
<tr>
<td>Meng-Dar Shieh, Fang-Chen Hsu, and Chi-Wei Huang</td>
<td></td>
</tr>
<tr>
<td>Study of Color Emotion Impact on Leisure Food Package Design</td>
<td>612</td>
</tr>
<tr>
<td>Tian-yu Wu, Ya-jun Li, and Yan Liu</td>
<td></td>
</tr>
<tr>
<td>Social Issues and Security in HCI</td>
<td></td>
</tr>
<tr>
<td>Hacking the Body 2.0: Ethics in Wearable Tech, Etextiles Design and Data Collection in Performance</td>
<td>623</td>
</tr>
<tr>
<td>Camille Baker and Kate Sicchio</td>
<td></td>
</tr>
<tr>
<td>I Am Ok, the Material’s Not: A Transactional Analysis of Information Security Education Material for Swedish Elementary School Students</td>
<td>628</td>
</tr>
<tr>
<td>Stewart Kowalski, Tina Andersson, and Sabina Windahl</td>
<td></td>
</tr>
<tr>
<td>The Rise and Proliferation of Live-Streaming in China: Insights and Lessons</td>
<td>632</td>
</tr>
<tr>
<td>Jinglan Lin and Zhicong Lu</td>
<td></td>
</tr>
</tbody>
</table>
How Are Social Capital and Parental Mediation Associated with Cyberbullying and Cybervictimization Among Youth

Johanna Sam, Pamela Wisniewski, Heng Xu, Mary Beth Rosson, and John M. Carroll

Parental Controls: Oxymoron and Design Opportunity

Diane J. Schiano and Christine Burg

Establish Security Psychology – How to Educate and Training for End Users

Katsuya Uchida

Decision Tree Analysis on Environmental Factors of Insider Threats

Michihiro Yamada, Koichi Niihara, and Hiroaki Kikuchi

Evaluation of Accessibility of University Websites: A Case from Turkey

Zehra Yerlikaya and Pınar Onay Durdu

Author Index
HCI International 2017 – Posters' Extended Abstracts
19th International Conference, HCI International 2017,
Vancouver, BC, Canada, July 9–14, 2017, Proceedings,
Part I
Stephanidis, C. (Ed.)
2017, XXXI, 602 p. 244 illus., Softcover
ISBN: 978-3-319-58749-3