Contents – Part III

Mobile DUXU

Comparison of Mobile Input Methods .................................................. 3
  Gencay Deniz and Pinar Onay Durdu

Where-How-What Am I Feeling: User Context Logging in Automated
Usability Tests for Mobile Software .................................................... 14
  Jackson Feijó Filho, Wilson Prata, and Juan Oliveira

QAZ Keyboard: QWERTY Based Portrait Soft Keyboard ......................... 24
  Hiroyuki Hakoda, Buntarou Shizuki, and Jiro Tanaka

Service Modeling for Situation-Aware Communication Method Decision ... 36
  Jungkih Hong, Scott Song, Minseok Kim, and Wonseok Lee

Aspect-Oriented Approach for User Interaction Logging of iOS
Applications ......................................................................................... 45
  Ilka Kokemor and Hans-Peter Hutter

Comparing Android App Permissions ..................................................... 57
  Jason K. MacDuffie and Patricia A. Morreale

Touch Zone Sizing for Mobile Devices in Military Applications ............. 65
  Jerry Ray, Stuart Michelson, Chandler Price, and Cara Fausset

Applying Flow Theory to Predict User-Perceived Performance of Tablets ... 77
  James Scovell and Rina Doherty

“One Doesn’t Fit All”: A Comparative Study of Various Finger Gesture
Interaction Methods .............................................................................. 88
  Tiffany Y. Tang, Maldini Yifan He, and Vince Lineng Cao

Study of Smart Watch Interface Usability Evaluation Based
on Eye-Tracking .................................................................................... 98
  Yixiang Wu, Jianxin Cheng, and Xinhui Kang

DUXU in Information Design and Visualization

Balancing Tradeoffs in the Design of an Interactive Art Installation on
Surveillance and Big Data ................................................................. 113
  Simone Ashby, Julian Hanna, Katie Ramp, and Jennifer Baranoff
Learning from the Users for Spatio-Temporal Data Visualization
Explorations on Social Events ............................... 124
   Damla Çay and Asım Evren Yantaç

Data-Intensive Analytics for Cat Bonds by Considering Supply Chain Risks . . . 136
   Linda Eggert, Yingjie Fan, and Stefan Voß

A Framework to Evaluate User Empowerment in Decision-Making
Experiences with Participatory GIS .............................. 148
   Elizabeth Sucupira Furtado, Lara Furtado, and Vasco Furtado

Robust Design: An Image Analysis Tool for Analyzing Information Loss
Caused by Viewers and Environments ............................. 159
   Sung Soo Hwang

Systematic Application of Circle-Similar Shapes to Visualize Database-
Homogeneity in a Big Data Environment ............................. 167
   Verena Lechner, Karl-Heinz Weidmann, and Isabella Hämmerle

The Exploration of User Knowledge Architecture Based on Mining User
Generated Contents – An Application Case of Photo-Sharing Website . . . . 180
   Nan Liang, Jiaming Zhong, Di Wang, and Liqun Zhang

Open Data Evolution in Information Systems Research: Considering Cases
of Data-Intensive Transportation and Grid Systems ............................. 193
   Frederik Schulte, Hashim Iqbal Chunpir, and Stefan Voß

Multisensory Physical Environments for Data Representation ................. 202
   Patricia Search

Creative Interaction for Plasma Physics ............................ 214
   Han Sol Shin, Jee Ho Song, Tae Jun Yu, and Kun Lee

Mining and Construction of User Experience Content: An Approach of
Feature Analysis Based on Image ................................. 223
   Di Wang, Nan Liang, Jiaming Zhong, and Liqun Zhang

**DUXU in Virtual and Augmented Reality**

Authoring Tools for Augmented Reality: An Analysis and Classification of
Content Design Tools .................................................. 237
   Rafael Alves Roberto, João Paulo Lima, Roberta Cabral Mota,
   and Veronica Teichrieb

Remote HRI and Mixed Reality, an Ontology ........................... 249
   Carolina Cani D.L., Felipe B. Breyer, and Judith Kelner
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Virtual Display of 3D Computational Human Brain Using Oculus Rift</td>
<td>258</td>
</tr>
<tr>
<td>Seung-Wook Kim and Joon-Kyung Seong</td>
<td></td>
</tr>
<tr>
<td>Designing Affordances for Virtual Reality-Based Services with Natural</td>
<td>266</td>
</tr>
<tr>
<td>User Interaction</td>
<td></td>
</tr>
<tr>
<td>Takayuki Miura, Akihito Yoshii, and Tatsuo Nakajima</td>
<td></td>
</tr>
<tr>
<td>Metaphors and Embodiment in Virtual Reality Systems</td>
<td>278</td>
</tr>
<tr>
<td>Ana Carol Pontes de França and Marcelo Márcio Soares</td>
<td></td>
</tr>
<tr>
<td>We Are All Cyborgs: Body-Machine and Body-Information in Virtual</td>
<td>287</td>
</tr>
<tr>
<td>Reality Systems</td>
<td></td>
</tr>
<tr>
<td>Ana Carol Pontes de França, Joaquim de Vasconcelos Pereira Neto,</td>
<td></td>
</tr>
<tr>
<td>and Marcelo Márcio Soares</td>
<td></td>
</tr>
<tr>
<td>Use of Virtual Reality and Human-Computer Interface for Diagnostic</td>
<td>294</td>
</tr>
<tr>
<td>and Treatment Purposes in Human Sexuality Research</td>
<td></td>
</tr>
<tr>
<td>Daniel Říha, Klára Bártová, and Jakub Binter</td>
<td></td>
</tr>
<tr>
<td>DUXU for Smart Objects and Environments</td>
<td>309</td>
</tr>
<tr>
<td>The Interaction Design of Household Intelligent Breathing Training System</td>
<td></td>
</tr>
<tr>
<td>Zhanxun Dong, Lu Liu, and Weiwei Li</td>
<td></td>
</tr>
<tr>
<td>Speech Matters – Psychological Aspects of Artificial versus</td>
<td>319</td>
</tr>
<tr>
<td>Anthropomorphic System Voices in User-Companion Interaction</td>
<td></td>
</tr>
<tr>
<td>Swantje Ferchow, Matthias Haase, Julia Krüger, Matthias Vogel,</td>
<td></td>
</tr>
<tr>
<td>Mathias Wahl, and Jörg Frommer</td>
<td></td>
</tr>
<tr>
<td>Expression of Emotions by a Service Robot: A Pilot Study</td>
<td>328</td>
</tr>
<tr>
<td>Angela Giambattista, Luís Teixeira, Hande Ayanoğlu, Magda Saraiva,</td>
<td></td>
</tr>
<tr>
<td>and Emília Duarte</td>
<td></td>
</tr>
<tr>
<td>An Exploratory Study on Consumer’s Needs on Smart Home in Korea</td>
<td>337</td>
</tr>
<tr>
<td>Sunwoo Kim and Jeonghyuk Yoon</td>
<td></td>
</tr>
<tr>
<td>MUVA: A Multimodal Visceral Design Ambient Device.</td>
<td>346</td>
</tr>
<tr>
<td>Robert Kivac, Sune Ølgaard Klem, Sophus Bénéé Olsen, Amalie Bækgaard Solander, Simon Dyrberg von Spreckelsen, Evangelia Triantafyllou, and Georgios A. Triantafyllidis</td>
<td></td>
</tr>
<tr>
<td>IoT Connectivity Interface in Tizen: Smart TV Scenarios</td>
<td>357</td>
</tr>
<tr>
<td>Gaeun Lee and Minjin Rho</td>
<td></td>
</tr>
</tbody>
</table>
A Framework for Designing UX of Sharing ‘Internet of Things (IoT)’ System and Service: Case Study of UX Development of Community Laundry Machines. ................................................................. 365
   Minjoo Lee, Dasom Jeong, Hayoung Jeong, Enoch Lee, and Moonkyu Song

Evaluation of an Inverse-Kinematics Depth-Sensing Controller for Operation of a Simulated Robotic Arm ........................................ 373
   Akhilesh Kumar Mishra, Lourdes Peña-Castillo, and Oscar Meruvia-Pastor

The Simpler the Better: How the User-Inspired Innovation Process (UIIP) Improved the Development of RelaxedCare – the Entirely New Way of Communicating and Caring ........................................ 382
   Martin Morandell, Sandra Dittenberger, Andrea Koscher, Emanuel Sandner, and Mirsolav Sili

Design Factors for the Location and Arrangement of Control Actuators ........................ 392
   Weiyu Sun, Junmin Du, Huimin Hu, and Xuehuan Hu

Building a Soft Machine: New Modes of Expressive Surfaces .................. 401
   Amy Winters

Study of Usability Evaluation on Display Interface for Intelligent Electric Cooker ................................................................. 414
   Yanlong Yao, Yinxia Li, Hui-min Hu, Yunhong Zhang, and Siyuan Liu

Research on User Experience Driven Product Architecture of Smart Device .... 425
   Jiaming Zhong, Di Wang, Nan Liang, and Liqun Zhang

Author Index .................................................................................. 435
Design, User Experience, and Usability: Technological Contexts
Marcus, A. (Ed.)
2016, XVI, 439 p. 212 illus., Softcover
ISBN: 978-3-319-40405-9