

Contents

128 Part I People-Centered Service Systems

130 Linking Business and Technology for Future Customer Creation 3
 131 Yuriko Sawatani

132 User-Centered Arrangement of Public Services 11
 134 Robert Rusek and Joan Colomer-Llinas

136 What Makes a System Smart? Wise? 23
 137 Jim Spohrer, Clara Bassano, Paolo Piciocchi
 138 and Md. Abul Kalam Siddike

139 Physiological Evaluation and Quantification of Physician’s
 140 Cognitive Workload During Interaction with Computer
 142 Based Clinical System 35
 143 Prithima Reddy Mosaly, Lukasz Mazur and Lawrence Marks

144 Measuring Cognitive Workload and General Activity
 146 of Controllers in Hazardous Liquids and Gas Control Rooms. 45
 147 Michele Terranova and Charles Alday

148 Assessing the Quality of the A3 Thinking Tool for Problem Solving . . . 49
 150 Alison Amos, Kinley Taylor, Kendra Johnson, Elizabeth Comitz,
 151 Robert Adams, Gregg Tracton, Bhisamjit Chera,
 152 Lawrence Marks and Lukasz Mazur

153 Ethics in Service Design for Children with Autism
 155 and Cognitive Disabilities 63
 156 Debra Satterfield

157 Integrating Health Services Engineering: A Multidimensional
 159 Approach 73
 160 Carolyn Hamasaki Brown

161 Use of Smart Phones to Improve the Human Factors Engineering
162 of People Suffering from Chronic Diseases 81
164 Salah A.M. Elshourbagy

165 3DPro—Development of Low-Cost Prosthetics Using 3D Printing
166 Technologies 93
168 Christian Zigel, Sebastian Huber, Jochen Süßmuth, Markus Obermeier
169 and Freimut Bodendorf

170 Virtual Rehabilitation Use for Paretic Upper Limb for Individuals
172 with Chronic Hemiparetic Stroke 101
173 Renata Cristina Magalhães Lima, Ana Paula Dias de Menezes,
174 Maria Carolina Gomes Inácio, Silvia Moreira Amaral
175 and Regiane Relva Romano

176 Part II Cognitive Workload to Performance During
178 Human-Computer Interactions

179 Classification of EEG Features for Prediction of Working
180 Memory Load. 115
182 Anthony Abrantes, Elizabeth Comitz, Prithima Mosaly
183 and Lukasz Mazur

184 Are Behavioral Measures Useful for Detecting Cognitive Workload
186 During Human-Computer Interaction? 127
187 Seth Elkin-Frankston, Bethany K. Bracken, Scott Irvin
188 and Michael Jenkins

190 Workload Model for Situation Awareness 139
191 Richard Steinberg, Alice Diggs and Dan Donohoo

192 Part III Data-Driven Services in Omni-Channel Customer
198 Relations

195 Using Smartphones for Information Retrieval in Omnichannel
196 Scenarios—Assessing the Effectiveness of Technological Triggers 151
198 Christian Zigel, Adelka Niels and Freimut Bodendorf

200 Computer-Related Attributions: An Intercultural Comparison 161
201 Monique Janneck, Jianqing Xiao and Adelka Niels

202 The Impact of Causal Attributions on the User Experience
203 of Error Messages. 173
205 Adelka Niels, Tobias Lesser and Torben Krüger

206 Part IV Multi-Sided Measurement of Service System

208 Toward a Value Metrics—A Service-Dominant Logic View 187
210 Md Abul Kalam Siddike and Kazuyoshi Hidaka

211 The Relationship Model of Three Benefit Factors in Delayed Benefit
212 Services 199
214 Chihiro Morito and Kazuhiro Fujimura

215 Qualitative Analysis of Hospitality Extended to Patients by Reception
216 Desk Clerks at Japanese Dental Clinics 211
218 Yuko Kamagahara, Tomoya Takeda, Shanshan Jin, Xiaodan Lu,
219 Noriyuki Kida, Tadayuki Hara and Tomoko Ota

220 A Taxonomic Classification for Advertising Design and Development
222 Process Based on Concurrent Engineering 223
223 Dayni Reyes Sanjuán and Rita Peña-Baena Niebles

224 Program Entrepreneurship and Innovation: Education
226 as the Core of Innovation 235
227 Douglas Henrique Garcia, Andreia Damasio Leles
228 and Regiane Relva Romano

229 Study of the Difference in the Movement of Experienced
230 and Inexperienced Persons in Japanese Bowling 245
232 Tomoya Takeda, Yuko Kamagahara, Xiaodan Lu, Noriyuki Kida,
233 Tadayuki Hara and Tomoko Ota

235 Ethical Issues in Online Education. 257
236 Debra Satterfield and Sebastian Kelle

237 Part V Evaluation of Services: Methods, Tools and Approaches
238 to Enhance Quality and Operational Sustainability
249 of Services

242 Describing Service Performances: What Are the Challenges? 269
243 Eunji Lee

244 A Field Evaluation: The Effects of Rear-Camera-On Mode
246 for Texting While Walking 275
247 Xiangzhen Kong, Shengwu Xiong, Shili Xiong, Zhixing Zhu
248 and Guoyang Long

249 A Method to Detect Problems in Information Display Design
250 of Fast Food Restaurants Based on Customers’
252 Eye Movement Data 287
253 Hirotaka Aoki and Satoshi Suzuki

254 An Assessment of the Occupational Noise Exposure of Toll Tellers
256 Along the North Luzon Expressway. 301
257 Maria Josefina Fider, Ma. Andrea Naguit, Mary Jef Rose Orata
258 and Benette Custodio

259 An Integrated Approach for Measuring and Managing Quality
260 of Smart Senior Care Services. 309
262 Jens Neuhuettler, Walter Ganz and Jianbing Liu

263 The Impact of Reviews and Average Rating
265 on Hotel-Booking-Intention: A Qualitative Study 319
266 Line Thomassen Buus, Charlotte Thodberg Jensen,
267 Anne Mette Karnøe Jessen, Lotte Ishøy Jørgensen,
268 Jeanette Kølbræk Laursen and Lars Bo Larsen

269 Part VI Centrality of Human-Side in Services: The Interface
270 of Disruptive Technological Innovations
272 and Consumer Face

273 Reflecting Human Values in Service Design 335
275 Ravi Mahamuni, Shivani Sharma, Pramod Khambete
276 and Ravi Mokashi-Punekar

277 From the University to Smart Cities—How Engineers Can Construct
278 Better Cities in BRIC’s Countries: A Real Case
280 from Smart Campus FACENS 347
281 Luciana Gomes Pereira Pinto, Regiane Relva Romano
282 and Matheus Akira Tomoto

283 How a Fab Lab Can Drive Ordinary People to Become Engineering
285 Enthusiasts and Help to Make a Better Society 355
286 Adriano D. Pila