Contents

The Psychophysiological Effect of a Vibro-Kinetic Movie Experience: The Case of the D-BOX Movie Seat .......................................................... 1
Horea Pauna, Pierre-Majorique Léger, Sylvain Sénécal, Marc Fredette, François Courtemanche, Shang-Lin Chen, Élise Labonté-Lemoyne and Jean-François Ménard

Reinforcement Sensitivity and Engagement in Proactive Recommendations: Experimental Evidence .............................. 9
Laurens Rook, Adem Sabic and Markus Zanker

The Choice Is Yours: The Role of Cognitive Processes for IT-Supported Idea Selection ....................................................... 17
Isabella Seeber, Barbara Weber, Ronald Maier and Gert-Jan de Vreede

Thomas Fischer, Gerhard Halmerbauer, Eva Meyr and René Riedl

On the Role of Users’ Cognitive-Affective States for User Assistance Invocation ......................................................... 37
Celina Friemel, Stefan Morana, Jella Pfeiffer and Alexander Maedche

Measuring and Explaining Cognitive Load During Design Activities: A Fine-Grained Approach .............................................. 47
Barbara Weber, Manuel Neurauter, Andrea Burattin, Jakob Pinggera and Christopher Davis

How Product Decision Characteristics Interact to Influence Cognitive Load: An Exploratory Study ............................................. 55
Sylvain Sénécal, Pierre-Majorique Léger, René Riedl and Fred D. Davis
Why and How to Design Complementary NeuroIS and Behavioral Experiments .......................................................... 65
Anthony Vance, Jeffrey L. Jenkins, Bonnie Brinton Anderson, C. Brock Kirwan and Daniel Björn

The Impact of Age and Cognitive Style on E-Commerce Decisions: The Role of Cognitive Bias Susceptibility .................. 73
Nour El Shamy and Khaled Hassanein

Expertise as a Mediating Factor in Conceptual Modeling ............... 85
Christopher J. Davis, Alan R. Hevner, Élise Labonte-LeMoyne and Pierre-Majorique Léger

A Neuro-Cognitive Explanation for the Prevalence of Folder Navigation and Web Browsing ........................................ 93
Ofer Bergman and Yael Benn

Physiological, Psychological, and Behavioral Measures in the Study of IS Phenomena: A Theoretical Analysis of Triangulation Strategies .... 101
Kevin Hill and Stefan Tams

The Psychophysiology of Flow: A Systematic Review of Peripheral Nervous System Features ........................................ 109
Michael T. Knierim, Raphael Rissler, Verena Dorner, Alexander Maedche and Christof Weinhardt

Predicting Properties of Cognitive Pupillometry in Human–Computer Interaction: A Preliminary Investigation ......................... 121
Pierre-Majorique Léger, Patrick Charland, Sylvain Sénécal and Stéphane Cyr

Human Versus Machine: Contingency Factors of Anthropomorphism as a Trust-Inducing Design Strategy for Conversational Agents ...... 129
Anna-Maria Seeger and Armin Heinzl

Affective Processing Guides Behavior and Emotions Communicate Feelings: Towards a Guideline for the NeuroIS Community ........ 141
Peter Walla

Beyond Traditional Neuroimaging: Can Mobile fNIRS Add to NeuroIS? ................................................................. 151
Caspar Krampe, Nadine Gier and Peter Kenning

Decision Inertia and Arousal: Using NeuroIS to Analyze Bio-Physiological Correlates of Decision Inertia in a Dual-Choice Paradigm .......................................................... 159
Dominik Jung and Verena Dorner
Contents

IAT Measurement Method to Evaluate Emotional Aspects of Brand Perception—A Pilot Study ........................................ 167
Harald Kindermann and Melanie Schreiner

Inferring Web Page Relevance Using Pupillometry and Single Channel EEG ...................................................... 175
Jacek Gwizdka

Measuring Biosignals of Overweight and Obese Children for Real-Time Feedback and Predicting Performance ............. 185
Nurten Öksüz, Russa Biswas, Iaroslav Shcherbatyi and Wolfgang Maass

Stationarity of a User’s Pupil Size Signal as a Precondition of Pupillary-Based Mental Workload Evaluation .................. 195
Ricardo Buettner, Ingo F. Scheuermann, Christian Koot, Manfred Rössle and Ingo J. Timm

Towards Reconceptualizing the Core of the IS Field from a Neurobiological Perspective ...................................... 201
Lars Taxén

Using EEG Signal to Analyze IS Decision Making Cognitive Processes ............................................................. 211
Nabila Salma, Bin Mai, Kamesh Namuduri, Rasel Mamun, Yassir Hashem, Hassan Takabi, Natalie Parde and Rodney Nielsen
Information Systems and Neuroscience
Gmunden Retreat on NeuroIS 2017
Davis, F.; Riedl, R.; vom Brocke, J.; Léger, P.-M.;
Randolph, A. (Eds.)
2018, XII, 218 p. 29 illus., 4 illus. in color., Softcover
ISBN: 978-3-319-67430-8