## **4<sup>TH</sup> INTERNATIONAL CONFERENCE ON DESIGN CREATIVITY**

November 2-4, 2016, Atlanta, GA, USA



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What is Creative Design Thinking for Innovation? *Toshiharu Taura* 

Brainstorming: For 3D Design *Jeremy Aston* 

Introducing Students to Conceptual Frameworks for Insight-Driven Projects *Richard Fry* 

Developing Metrics to Assess Technology-Enabled Creative Co-Design Sessions Jamie O'Hare, Mendy Mombeshora, Elies Dekoninck and Gaetano Cascini

Assessment of Relatedness to a Given Solution in 3D Fabrication and Prototyping Education Georgi V. Georgiev, Mika Oja, Iván Sánchez, Mikko Pyykkönen, Teemu Leppänen, Jani Ylioja, Niels van Berkel and Jukka Riekki

Graph Complexity Analysis of Function Models Expanded from Partially Completed Models Apurva Patel, Amaninder Gill, William Kramer, Joshua Summers and Marissa Shuffler-Porter

Identification of Sharing Components and Synthesis of Interfaces in Redesign for Functional Adaptability

Genhua Wang, Yimin Deng and Changwu Zou

Surprise as the Inconsistency of FBS Variables in Evaluators' Interpretation? *Niccolò Becattini, Yuri Borgianni, Gaetano Cascini and Federico Rotini* 

Emperical Results from Measuring Design Creativity: Use of an Augmented Coding Scheme in Protocol Analysis

John Gero and Jeff Kan

Understanding Creativity through Play Paul Skaggs and Bryce Twede

Synchronized/Non-Synchronized Situations- A Study of the Chain Reactions of Creative Gears Laboratory

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A New Strategy to Reduce Design Fixation: The Middle Sketching Stage Leyla Alipour and Mohsen Faizi

Ecological and Economic Concepts for a Mixed Initiative Networked Generative Design Framework Sam Joyce and Andre Chaszar

Toward Comfortable Smart Clothing: A Case of Creative Design for Health Monitoring Ding Wei, Jader Zelaya, Yukari Nagai, Guo Xiao and Liu Jing

An Embodied Interaction Framework for Facilitating Audience Experience with Ambient Media Liang Tan and Kenny K. N. Chow

Motion Capture in Supporting Creative Animation Design *Tsai-Yun Mou* 

A Liquid Piston Engine Designette: Creative Learning in Thermodynamics Cassandra Telenko, Shannon Yee, Julie Linsey, Todd Sulchek and Wendy Newstetter

Does the Solution Based Design Process Result in More Multifunctional Designs? *Ashok Goel, William Hancock, Keith Frazer and Christian Tuchez* 

Fluency Results in Design Fixation Experiments: An Additional Explanation Luis Arthur Vasconcelos, Maria Adriana Neroni and Nathan Crilly

Collaborative Fixation in Early Problem Exploration and Ideation Workshops *Miko Laakso, Tua A. Bjorklund and Senni Kirjavainen* 

Exploring How Novel Ideas are Generated in Mind Maps Alex Leeds and Barry Kudrowitz

Interplay Of Sketching & Prototyping In Early Stage Product Design *Qifang Bao, Daniela Faas and Maria Yang* 

Study of the Effectiveness in Design Communication: Comparing 3D Printing Pen vs. Sketching *Noe Vargas Hernandez, Sophia Acevedo and Raisa Chowdhury* 

Creativity in Makerspaces: Applying Learning Theories and Socio-Cognitive Frameworks to Understand Designer's Knowledge and Creativity

Megan Tomko and Julie Linsey

Gesture, Creativity and Design *Beck Davis* 

Space Utilization Patterns and Workshop Furniture – Affordances for New Product Development and Design

Florian Rittiner, Johannes Heck, Mirko Meboldt and Martin Steinert

Inference of Latent Functions in Virtual Field Shoki Fujii, Kaori Yamada and Toshiharu Taura

Design Ideation Through Humour Processes

Gillian Hatcher, William Ion, Ross Maclachlan, Andrew Wodehouse, Barbara Simpson and Marion Sheridan

Observation of a Highly Innovative Group – Directions for Future Research *Julie Linsey, Randii Wessen, and John Ziemer* 

Integrating Creativity into Regional Entrepreneurial Practices: Perspectives for Innovation and Growth Laima Gerlitz and Gunnar Prause

Interactions in a World of Intelligent Products - A Case Study of a Smart and Learning Office Chair Matilde Bisballe Jensen, Andreas Wulvik, Carlo Kriesi, Osmund Boe, Phillipp Anders, Even Jors and Martin Steinert

Interdisciplinarity in Product Design Education. Balancing Disciplines to Foster Creativity *Martin Luccarelli* 

Design Problems as Potential Moderators in Creativity Studies *Varun Kumar and Gregory Mocko* 

Design Creativity, Technical Execution & Aesthetic Appeal: A Cat with Caveats (Part 2) *Karl Jeffries, Theodore Zamenopoulos and Alison Green* 

Bad Ideas in Creative Design Space Exploration *Ricardo Sosa and Andre Chaszar* 

Language Ability in Creativity Assessment Xinyi Wang and Barry Kudrowitz

Identification of Personality and Cognitive Indicators of Creative Potential Barry Kudrowitz, Aaron Free and Leaetta Hough

Creative Personalities: How Personality Influences Creativity of Concept Ideation Methods Friederich Berthelsdorf, Ryan Arlitt, Jessica Armstrong, Abigail Wilson and Robert Stone

Influence of Thinking Style on Design Creativity

Hristina Milojevic, Angelica Girardello, Zhinan Zhang and Yan Jin

Using Personas in Ideation Workshops
Florian Rittiner, Johannes Heck, Mirko Meboldt and Martin Steinert

Philosophical Foundations of the Maker Movement *Thomas Ask* 

Analyzing Usage in Creative Spaces in a Non-obtrusive Manner Ricardo Morocz, Bryan Levy, Robert Nagel and Julie Linsey

Consistently Evaluating Sketching Ability in Engineering Curriculum Ethan Hilton, Blake Williford, Wayne Li, Erin McTigue, Tracy Hammond and Julie Linsey

Experimental Study on the Effect of Users' Prior Experience and Product Features on the Usability of a Product

Yusuke Shirai, Kaori Yamada and Toshiharu Taura

Using Watson for Supporting Design Creativity

Ashok Goel, Parul Awasthy, Brian Creeden, Mithun Kumble, Shanu Salunke, Sriya Sarathy, Abhinaya Shetty, Divya Vijayaraghavan and Bryan Wiltgen

Finding the Optimal Design Creativity in Car Design Features Against Brand Styles Sungeun An, Deedee Min and Ji-Hyun Lee Comparing Computational Design Creativity Systems David C Brown

Computational Models and the Graphic Design Process: An Investigation Into Creativity And How Self-Imposed Conceptual Constraints Can Affect Banal Information *Philippe Jean* 

Boundaries of Operationality for Creative Design Douglas Fisher

Design Knowledge and Impact on Simulation Induced Creativity and Empathy Sujithra Raviselvam, Karen Sng and Kristin Wood

Design of Multipurpose Products: A Study on User Expectations Vimal Viswanathan and Shraddha Sangelkar

Design Inspiration During Ideation and Its Effects Blake Perez, Bradley Camburn and Kristin Wood

Entrepreneurship: What Separates Those Who Do from Those Who Don't Matthew Lynch, Martin Steinert and Gunnar Andersson

Smell – Forgotten Yet Critical Dimension in Product Development?

Gina Limseth, Karen Cuesta, Stephanie Balters, Juan Pablo García-Cifuentes and Martin Steinert

Process-Oriented Intervention and Reflection Strategies for Creativity in Student Design Projects Raghuram Pucha, Sunni Newton, Alemdar Meltem and Tris Utschig

Designing the Masters of Engineering in Design Impact Erin MacDonald, Sean Follmer, William Burnett and David Kelley

Discovering Design Methods Online Carmen Castanos, Maria Yang, Alice Agogino, Celeste Roschuni and Julia Kramer

Impact of Underlying Design Motivations upon Design Analogies *Malena Agyemang and Cameron Turner* 

Fostering an Entrepreneurial Mindset Robert Nagel, S. Keith Holland, Kurt Paterson, Kyle Gipson and Justin Henriques

Gamifying Evaluation of Creativity in Early Stages Of Conceptual Design *Mahmoud Dinar and Jami Shah*