Bridging Mass Customization & Open Innovation

Proceedings of the 2011 World Conference on Mass Customization, Personalization, and Co-Creation (MCPC 2011)
San Francisco on November 16-19, 2011
Published with Lulu, Inc. Publishers, Raleigh, NC, 2012
978-1-4716-3086-6 (eBook)

Full Documentation of the Conference, including access to:
- 81 full text articles on case studies and latest research on mass customization and open innovation (download via secured website)
- 124 slide sets of the presentations given at the conference (download via secured website)
- 28 full videos of all presentations and keynotes given during the business seminar (streaming via secured website)
Welcome to the MCPC 2011

Welcome to the 2011 World Conference on Mass Customization, Personalization and Co-Creation. The MCPC 2011 event is an experiment: Can we advance our knowledge of innovation effectively by linking mass customization and personalization with open innovation? While developed separately and built on different theoretical and conceptual backgrounds, we believe that mass customization and open innovation are closely linked and can benefit from a broader exchange between both schools of thought:

- Open innovation and mass customization are both paradigms that motivate people to participate, to create, to learn, and to recover in order to effectively provide innovative goods and services for satisfying heterogeneous customer needs.

- Open innovation and mass customization thinking are leading organizations that practice these approaches into innovative business models. Consider the success of MC platforms like Zazzle, Spreadshirt, or Cafepress. These companies have established open business models that enable anyone to co-create their own business, share design and developments for a fee, and benefit from the experiences of others.

- Open or permissive intellectual property policies are often at the heart of these new business models. How do organizations share what they can, protect what they must, and stimulate the widest participation possible in their communities? What can Creative Commons licenses and similar approaches contribute to mass customization and open innovation.

- Mass customization is a service business. Much of the academic research in the field, especially in marketing and configuration experience design, is rooted in the service marketing domain. Open innovation is also focusing new attention on innovation in services, examining how to scale up mass customization in cases where economies of scale are powerful.

The Garwood Center for Corporate Innovation at the Haas School of Business at UC Berkeley is pleased to join MIT to co-host and co-sponsor the MCPC 2011 conference event. We hope you find this a stimulating experience, and that our experiment will prove to be a success.

Yours, Henry Chesbrough

Faculty Director, Garwood Center for Corporate Innovation.
Haas School of Business, UC Berkeley
Content Overview

Part I: Keynote and Plenary Presentations

More than 30 practice-focused presentations on case studies, success factors, and implementation challenges of mass customization and open innovation

Note: The Proceedings booklet (http://bit.ly/mcpc-book) contains an abstract and overview of each of the following presentations, and a code to access the full PPT slide set (pdf) of each presentation and to watch the full-length video of the talk, when available.

MCPC 2011 Conference Keynotes

MCPC2011 Opening Keynotes This session will provide the latest thinking on mass customization and open innovation, exploring the relationships between both fields.

- Henry Chesbrough, Professor, UC Berkeley: Open Service Innovation (slides + video available)
- Jeff Beaver, Co-founder and Chief Product Officer, and Bobby Beaver, Co-founder and Chief Technical Officer, Zazzle: The Future of Mass Customization (slides + video)

What is the State of the Art of Research & Practice in Mass Customization & Open Innovation?
Two talks providing a review of these fields to create a common understanding of the latest research and insights for practice.

- Joel West, KGI: Profiting from External Innovation: A Review of Research on Open Innovation (slides)

Finding the Next Opportunities in Mass Customization
Learn from B. Joseph Pine's latest thoughts on the Virtual Multiverse and how it creates the next generation of experiences and customization, followed by a talk by an entrepreneur who puts Joe's thoughts into real life.

- B. Joseph Pine, Strategic Horizons: The Multiverse: Finding the Next Opportunities in Mass Customization (slides)
- André Wolper, Founder and CEO, embodee: Visualization as an Enabler of Mass Customization: An Apparel story (slides)

Setting an Agenda for Research & Innovation
Discuss with your fellow participants your insights from the MCPC 2011 and close the conference with three forward-looking keynotes and a review by the conference chairs that will set the agenda until the next MCPC.

Kent Larson, MIT Media Lab: Urbanization from a Perspective of Mass Customization and Open Innovation (slides)

Mitchell Tseng, Hong Kong University of Science and Technology: Embodying Innovation for Customer Value — Building Bridges Between Mass Customization and Open Innovation (slides)

MCPC 2011 Business Seminar (I): Focus on Mass Customization and Customer Co-Creation

Bridging Mass Customization and Open Innovation
The MCPC 2011 Business Seminar kicks-off with an introduction by the conference chairs and two corporate leaders that have pushed mass customization to a new level.

- Henry Chesbrough, UC Berkeley and Frank Piller, RWTH/MIT: Bridging Mass Customization & Open Innovation: A framework (slides + video)
- Cathy Benko, Vice Chairman, Deloitte U.S. Firms: Mass Career Customization: From Corporate Ladder to Corporate Lattice (slides + video)
- Matt Lauzon, Foudner & CEO, Gemvara: Establishing Mass Customization in a High-End Luxury Market (slides + video)

Panel Session: Building & Growing a Mass Customization Business
In this panel, three experienced entrepreneurs in mass customization will share their best practices on what did work and what not.

- Mark Dwight, Founder & CEO, Rickshaw Bagworks: Design for Mass Customization: Real World Approaches for Design and Manufacturing (slides + video)
- Anthony Flynn, Founder & CEO, You Bars: Profiting from the Mega-Trend of Food Customization (slides + video)
- Josh Elman, Principal, Greylock Partners: Investing in the Customization Trend (slides + video)

Plenary Presentations: Setting Up a Mass Customization System
This session will focus on the different business models that are behind the mass customization trend.

- Brennan Mulligan, Founder, Skyou: What I Learned from Setting Up Five Successful MC Companies (slides + video)
- Karl Berger, VP Engineering, Bene AG: Developing Solution Spaces for MC (slides + video)
- Claudia Kieserling, CEO, Selve, and Illissa Howard, Founder, Milk and Honey Shoes: Establishing a Mass Customization Factory in China (slides + video)

Panel: Mass Customization from the Customers' Perspective: Designing Interaction Systems
Three rapid panel presentations will provide a lot of inspiration and food for thought for small group discussions with your peers.

- Andrew Guldman, VP of Engineering, Fluid, and Rob Jellesed, Director of Internet Sales, JELD-WEN Windows: Implementing Mass Customization in an Established Company (slides + video)
- Paul Blazek, CEO, cyLEDGE: Crucial Design Elements for Successful Configuration and Interaction (slides + video)

Additive Manufacturing and the opportunity for every consumer to turn any idea into a product will
change not just mass customization, but our dominant perspective of design and manufacturing. Learn the key facts from visionaries and business leaders in this field.

- **Wim Michiels**, Executive Vice President, **Materialise**: *The Industrial Revolution 2.0: Personalization through Additive Manufacturing* (slides + video)
- **David ten Have**, CEO, **Ponoko**: *Building the World’s Easiest Making System* (slides + video)
- **Reinhard Poprawe**, Director, **Fraunhofer ILT and RWTH Aachen University**: *Laser Additive Manufacturing – The Key to the Next Generation of Economic Custom Production* (slides + video)

### MCPC 2011 Business Seminar (II): Focus on Open Innovation and Open Business Models

**Plenary Presentations:** **Winning with Open Innovation**

The business seminar today will focus on open innovation. We will start the day by two inspirational keynotes on companies that really "got it" in open innovation and co-creation.

- **Ashish Chatterjee**, Director Connect+Develop, **Procter & Gamble**: *Celebrating a Decade of Open Innovation at P&G - Key Lessons* (slides + video)
- **Suzan Briganti**, Eyeka / Totem Brand Strategy, and **Edward Rinker**, Clorox: *Co-Creation at the Top of the Fortune 500* (slides + video)

**Plenary Session:** **Using Social Media for Customer Co-Creation**

Social media is becoming a core platform for new product & new service development. Learn from the pioneers in this field and discuss how these approaches could work in your company.

- **John Jacobsen**, Head of Engineering, **Quirky**: *Social Product Development: Launching a Great New Product Every Few Days* (slides + video)
- **Johann Füller**, **Hyve**: *Facilitating Social Innovation by Co-Creation* (slides + video)

**Plenary Presentations:** **The Tools for Open Innovation**

Implementing open innovation is not always easy. This session will provide a focused few on approaches and tools to utilize the benefits of open innovation.

- **Mark Hatch**, CEO, **TechShop**: *BOOM! An Innovation Explosion: How to Change the World Through Open Access to the Tools of Invention* (slides + video)
- **TJ Giuliani**, Ford Research and Advanced Engineering, **Ford Motor Company**: *Leveraging Open Innovation to Create a Customized Driving Experience* (slides + video)
- **Leah Hunter**, Global Head of Insights and Innovation, **Idea Couture**: *Making Co-Creation Strategic* (slides + video)

**Closing presentation:** **Profiting from Open Innovation and Co-Creation**

A opportunity to discuss with your peers how to put the ideas from this day into practice, kicked-off by a presentation of one of the key enablers of open innovation.

- **Andy Zynga**, CEO, **Nine Sigma**: *Making Open Innovation Work* (slides + video)
Part II: Case Studies, Best Practices and Latest Research

More than 120 presentations and full text articles

Note: The Proceedings booklet (http://bit.ly/mcpc-book) contains an abstract and overview of each of the following presentations, and a code to access the full PPT slide set (pdf) and full-text paper of each presentation, when available.

| Session 1-1: Best Practices in MC in the Media Industries – CEO Presentations |
| Chair: Frank Piller |
| (SHOWCASE SESSION) |
| Session 1-2: Bridging MC and OI |
| Chair: Paul Blazek |
| Session 1-3: Customer Co-Creation and Co-Design I |
| Chair: Charles Weber |
| Session 1-4: Open Innovation Strategy and Capabilities I |
| Chair: Joel West |
| Session 1-5: Design for MC and Personalization I |
| Chair: Mitchel Tseng |
| Session 1-6: MC and OI in Architecture and Construction |
| Chair: Poorang Piroozfar |

Mobile Personalization Business-Story of vukee.com - The Feeling, Secrets and Strategy to get Millions of Downloads over iTunes |
Meik Lindberg

PersonalNOVEL: Personalized Books Reloaded |
Jan-Christoph Goetze

Tikatok- Bringing MC to the children’s book market. From launch to Barnes & Noble’s online children’s publishing platform |
Neal Grigsby

Customization for kids starring their lovey / soft-toy |
Aymeric Malherbe

Fostering Mass Customization adoption through a suitable specialized OI platform |
Luca Canetta, Frank Steiner, Frank Piller, Claudio Boer

Motives and barriers for bridging mass customization and open innovation |
Laurent Scaringella

Towards Creative Open Innovation Software as Facilitators of Successful Mass Customization |
Jenny Lundström, Stefan Hrástinski

Using Generative Design Technology for Open Innovation |
Jian You Li

The Future of Crowdsourcing - From Idea Contests to MASSive Ideation |
Johann Füller, Katja Hutter, Julia Hautz

Cooperation in virtual communities |
Vera Blazevic, Sophie Einwächter, Alexandra Gatzweiler, Evalotte Lindgens

I Did It Your Way – Drivers of Creativity and Commercialization in User Customization for Others |
Christoph Ihl

The Relevance of Customer Co-Creation of Value for Service Companies |
Ursula Grissemann, Nicola Stokburger-Sauer

Open Innovation as a Strategy for New Knowledge Intensive Ventures |
Astrid Lassen, Maureen Mckelvey

What Drives Collective Innovation? - Exploring the system of drivers for motivations in open innovation web-based platforms |
Cinzia Battistella, Fabio Nonino

Patients as Innovators: An Open Innovation Perspective on Health 2.0 |
Christoph Kuenne, Matthias Rass, Sabrina Adamczyk, Angelika Bullinger, Kathrin Moeslein

Value in Co-Created Content Production in Magazine Publishing: |
Tanja Aitamurto, Saara Könkkölä

Design for Mass Customization and Personalization: A Review |
Roger Jiao

Understanding Socio Technical Modularity - reinterpreting modularity from Actor Network Theory |
Christian Thuesen, Anders Kudsk, Lars Hvam

Using Blogs for Product Design in Mass Customization |
Anders Haug

Opening Innovation in the Built Environment – Initial Lessons from Denmark |
Mikkel Thomassen, Rune Westergaard

Capturing a $76bn niche in architectural mass customization: Robotically manufactured tile mosaic |
Ted Acworth

Open Innovation and the 'Patent Right' in Design: Striking a Balance Using the Game Theory |
Poorang Piroozfar, Ghashang Piroozfar
<table>
<thead>
<tr>
<th>Session 2-1: MC and OI for Business-to-Business Environments</th>
<th>Session 2-2: Environmental Sustainability and MC I</th>
<th>Session 2-3: Open Innovation Accelerators – CEO presentations I</th>
<th>Session 2-4: Overcoming Barriers for Open Innovation</th>
<th>Session 2-5: Design for MC and Personalization II</th>
<th>Session 2-6: MC and OI in Architecture and Construction II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair: Robert Freund</td>
<td>Chair: Ryan Chin</td>
<td>Chair: Catharina van Delden (SHOWCASE SESSION)</td>
<td>Chair: Pamela Morrison</td>
<td>Chair: Roger Jiao</td>
<td>Chair: Jarmo Suominen</td>
</tr>
<tr>
<td>The Bright Side and Dark Side of Embedded Ties In Business-To-Business Innovation</td>
<td>Mass Customization and Sustainability – an Introduction Frank Steiner</td>
<td>9 Ways To Get Your Team Ready For Co-Creation Martijn Pater, Marieke Streefkerk</td>
<td>The Not-Invented-Here-Syndrome: an investigation of an important barrier hampering open innovation projects David Antons, Mathieu Declerck, Kathleen Diener</td>
<td>Product Complexity Impact on Quality and Delivery Performance Jeppe Nielsen</td>
<td>Expanding the Market for Custom Homes through Mass Customization Tim Russell</td>
</tr>
<tr>
<td>Design Configurators in a Project Business Pasi Paunu, Marko Mäkipää</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 3-1: Open Service Innovation and Customization Chair: Christiane Hipp</td>
<td>Session 3-2: Environmental Sustainability and MC II Chair: Frank Steiner</td>
<td>Session 3-3: Open Innovation Accelerators – CEO presentations II Chair: Sabine Brunswicker (SHOWCASE SESSION)</td>
<td>Session 3-4: Smart Transportation Chair: Louise Guay (SHOWCASE SYMPOSIUM)</td>
<td>Session 3-5: Mass Customization, Open Innovation &amp; Leadership I Chair: Ralf Reichwald (SHOWCASE SYMPOSIUM)</td>
<td>Session 3-6: MC and OI in Architecture and Construction (III) Chair: Poorang Piroozfar</td>
</tr>
<tr>
<td>User Involvement in Service Innovations - Four Case Studies Mari Ainasoja, Eija Kaasinen, Elina Vulli, Minna Kulju, Esa Reunanen, Riina Hautala, Sanna Rytövuori</td>
<td>Supporting Sustainability and Personalization with Product Architecture Kjeld Nielsen, Kaj Joergensen, Stig Taps, Thomas Petersen</td>
<td>The Creative Consumer Anna Peters, Nick Coates</td>
<td></td>
<td></td>
<td>Parametric Assistive-Universal Furniture: Crossing the divide between universal and assistive design by developing systems of furniture accommodating users of various abilities and specific physical characteristics in a pre-</td>
</tr>
<tr>
<td>Session 4-1: Service Innovation and Services for Open Innovation &amp; Customer Co-Creation</td>
<td>Session 4-2: Environmental Sustainability and MC III</td>
<td>Session 4-3: Customer Co-Creation and Co-Design II</td>
<td>Session 4-4: Open Innovation Strategy and Capabilities II</td>
<td>Session 4-5: Mass Customization, Open Innovation &amp; Leadership II</td>
<td>Session 4-6: Consumer Behavior and Managing Choice in MC Co-Design Toolkits</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Chair: Solomon Darwin (SHOWCASE PANEL)</td>
<td>Chair: Fazleena Badurdeen</td>
<td>Chair: Catharina Maracke</td>
<td>Chair: Terry Mughan</td>
<td>Chair: Ralf Reichwald (SHOWCASE SYMPOSIUM)</td>
<td>Chair: Kate Herd</td>
</tr>
<tr>
<td>Kathleen Diener</td>
<td>Yasuyuki Cho</td>
<td>Cinzia Battistella, Fabio Nonino</td>
<td>Marcel Weber, Mathieu Weggeman, Joan van Aken</td>
<td>Dennis Hilgers, Michael Steinbusch</td>
<td>Amy Lanigan, Dana Yobst</td>
</tr>
<tr>
<td>Geert Rietbergen</td>
<td>Dimitri Schuurman, Peter Mechant, Lieven De Marez</td>
<td>Erkin Tunca</td>
<td>Angelika Bullinger-Hoffmann, Holger Hoffmann</td>
<td>Moritz Wellige</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Session 5-1: Advancing Health Care by MC and OI</td>
<td>Session 5-2: A Special Focus on Fashion and Sports I</td>
<td>Session 5-3: Customer Co-Creation and Configuration Toolkits</td>
<td>Session 5-4: Open Innovation Strategy and Capabilities III</td>
<td>Session 5-5: The Promise and Reality of Additive Manufacturing</td>
<td>Session 5-6: Value of Mass Customization and Managing Choice</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Chair: Stefan Thallmaier</td>
<td>Chair: Sergio Dulio</td>
<td>Chair: Kjeld Nielsen</td>
<td>Chair: Dennis Hilgers</td>
<td>Chair: Frank Piller</td>
<td>Chair: Benedict Dellaert</td>
</tr>
<tr>
<td><strong>The market for innovation in healthcare in Europe: Can open innovation help overcome embedded inefficiencies?</strong></td>
<td><strong>Why customization of footwear is not fit for masses</strong></td>
<td><strong>Customizing Complexity - Lessons learned from Configurator Projects</strong></td>
<td><strong>Microtasks for Open Innovation: The Influence of Task Formulation</strong></td>
<td><strong>Additive Manufacturing: Making Better Design Happen</strong></td>
<td><strong>How to Assess and Increase the Value of a Co-Design Experience: A Synthesis of the Extant Literature</strong></td>
</tr>
<tr>
<td>Terry Mughan</td>
<td>Sergio Dulio</td>
<td>Paul Blazek, Klaus Pils</td>
<td>Frank Danzinger, Karl Rabes, Kathrin Möslin</td>
<td>Wim Michiels</td>
<td>Aurélie Merle, Pauline Fatien Dicochon, Frances Turner</td>
</tr>
<tr>
<td><strong>Implementing Additive Manufacturing in the Custom Orthotic industry: Productivity and design implications</strong></td>
<td><strong>Customization in apparel design</strong></td>
<td><strong>Definition of a Framework for Configuration</strong></td>
<td><strong>A Novel Approach to Analyzing Online Open Innovation Networks</strong></td>
<td><strong>We should own less but with more value - things we own need to perform better for us: Introducing the Digital Forming technology</strong></td>
<td><strong>Value of Personalized Products: Modeling the Customer Perception</strong></td>
</tr>
<tr>
<td><strong>Variety Management of Personalized Braided Stents</strong></td>
<td><strong>ErtlRenz Sport Shoes World - adapted to improve the customer’s performance</strong></td>
<td><strong>Collaborative Technology in Online Value Co-Creation: The Emergent Practice of Electronic Mass Customization</strong></td>
<td><strong>Efficient Use of Open Innovation - Relevance of Intraorganizational Trust between R&amp;D and Marketing: An Experimental Approach</strong></td>
<td><strong>Latest Developments in Additive Manufacturing Technologies</strong></td>
<td><strong>Decision Making Processes Between the Integrated Shopping System and the Exclusive Shopping System</strong></td>
</tr>
<tr>
<td><strong>Individual Nutrition - Development and application of a classification system</strong></td>
<td><strong>Customization for Kids - the example of children footwear</strong></td>
<td><strong>Cost and pricing principles for service configurators</strong></td>
<td><strong>Applying Lean Principles to the Crowdsourcing Process</strong></td>
<td><strong>Mass Customization: What Are We Designing?</strong></td>
<td><strong>Mass Customization: What Are We Designing?</strong></td>
</tr>
<tr>
<td>Dominik Walcher, Benedikt Goellner</td>
<td>Dominik Walcher, Josipa Dodig</td>
<td>Matti Sievänen, Mikko Heiskala, Juha Tihonen</td>
<td>Lorraine Morgan</td>
<td>Kate Herd, Mehmet Karanamoglu, Andy Bardill</td>
<td>Kate Herd, Mehmet Karanamoglu, Andy Bardill</td>
</tr>
<tr>
<td><strong>Rapid Turnaround of Custom Apparel Utilizing Low Cost KINECT Body Scanning &amp; 2D/3D CAD</strong></td>
<td><strong>Rapid Response Manufacturing in RIO South Texas Region</strong></td>
<td><strong>Experiences in Disburse Engineering Design Education Targeted on Rapid Innovation &amp; Technology</strong></td>
<td><strong>How 3D Printing Influences Customization and User Innovation – the Example of i.Materialise</strong></td>
<td><strong>On-demand digital commercial print services: a mass customization innovation</strong></td>
<td><strong>On-demand digital commercial print services: a mass customization innovation</strong></td>
</tr>
<tr>
<td>Ray Sareen</td>
<td>Miguel Gonzalez, Jianzhi Li, Douglas Timmer</td>
<td>Astrid Lassen, Alexia Jacobsen, Sören Mieg</td>
<td>Martijn Joris</td>
<td>Rick Bellamy, Jun Zeng, Susan Jackson, Robert Mitchell, Sam</td>
<td>Minu Kumar, San Francisco State University: Think global, act</td>
</tr>
</tbody>
</table>
| Session 7-1: Strategic Capabilities for Mass Customization  
Chair: Fabrizio Salvador  
**SHOWCASE SESSION** | Session 7-2: MC Manufacturing and Supply Chain Management  
Chair: Dave Gardner | Session 7-3: Rapid Innovation and Manufacturing in an International Production Environment II  
Chair: Fazleena Badurdeen | Session 7-4: Open Innovation Capabilities II  
Chair: Dirk Lüttgens | Session 7-5: The Promise and Reality of Additive Manufacturing III  
Chair: Roger Jiao |
| --- | --- | --- | --- | --- |
| Why MC Organizations Fail  
Dominik Walcher | Modeling & Simulation of MP-MC Apparel Manufacturing  
Muditha Senanayake, Trevor Little | Reconfigurable Strategies to Hammer Open Innovation Concepts into the Mass Customized Automobile Manufacturing  
Sarfraz Minhas, Ulrich Berger, Christiane Hipp | Implementing Open Innovation: Groundwork on a Strategic Transformation Model for Multinational Companies  
Norman Mueller | Design for DIY: Beyond the fixed solution space  
Jan Willem Hofstijzer |
| Value Creation by Mass Customization: An analysis of the three core capabilities of mass customization  
Thorsten Harzer, Frank Piller, Fabrizio Salvador | Using a Simulation-Based Framework to Design Supply Chains Offering Mass Customization in the UAE  
Marc Poulin | Innovations in Mechatronic Products and Mass Customization  
Tufail Habib, Kaj Jörgensen, Kjeld Nielsen | On becoming a user-driven firm: slow-cooked for extra goodness?  
Mika Westerlund, Seppo Leminen | graspieper.org - Developing a standardized legal mechanism for user innovation  
Catharina Maracke |
| Comparing Four Personalization Approaches to Understand Value of Personalization  
Chenjie Wang, Mitchell Tseng | Methodology for implementing the right supply chain for Mass Customization  
Luigi Battezzati | Utilising Mass Customization Methods for Modular Manufacturing System Design  
Steffen Joergensen, Alexia Jacobsen, Kjeld Nielsen, Ole Madsen, Kaj Joergensen | Trust Is Good, Control Is Better An Open Innovation-Controlling for SME  
Jessica Koch, Eckart Hauck, Ingrid Isenhardt | Open Production - Framework for Co-creative Product Realization  
Tobias Redlich |

**Proceedings of the 2011 World Conference on Mass Customization, Personalization, and Co-Creation**  
Edited by Henry Chesbrough and Frank Piller. Published with Lulu, Inc. Publishers, Raleigh, NC, 2012  
ISBN: 978-1-4716-3023-1 (Paperback) and 978-1-4716-3086-6 (eBook)  
The following pages contain a preview of the proceedings -- but remember: When you order the proceedings, you also get an access code to all fulltext papers, PDF slides of the presentations, and to the videos of 28 keynote talks.
The MCPC 2011 Conference Co-Chairs

Henry Chesbrough, University of California, Berkeley, United States

Henry Chesbrough is the originator of the term open innovation, which has grown to become one of the most influential theories of modern business. He first coined the term in his award-winning book, Open Innovation: The New Imperative for Creating and Profiting from Technology (2003), and has extended it in Open Business Models: How to Thrive in the New Innovation Landscape (2006) and Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era (2011). He is Faculty Director of the Garwood Center for Corporate Innovation at the University of California – Berkeley, and previously was Assistant Professor at Harvard Business School.

Frank Piller, RWTH Aachen University / MIT Smart Customization Group, United States

Frank Piller is a professor of management at RWTH Aachen University, where he directs RWTH's Technology & Innovation management Group. He is also the co-director of the MIT Smart Customization Group at the Massachusetts Institute of Technology. Before, he worked at the MIT Sloan School of Management (2004-2007) and TUM Business School (1999-2004). Frank's current research focuses on innovation and customer interfaces. This includes topics like value co-creation between businesses and customers/users, mass customization thinking, strategies to increase the productivity of technical problem solving by broadcast search, and models to cope with contingencies of the innovation process.

Solomon Darwin, University of California, Berkeley, United States

Solomon Darwin has broad Leadership Experience in Corporate Management & Academia. He has been recognized by his peers and students with numerous awards for his innovative leadership, curriculum development and teaching. At UC Berkeley, he teaches courses in Business Models, Financial Reporting, Forensic Accounting and Managerial Accounting. He also chairs the quarterly Dean’s CFO Round Tables and directs/moderates several key Annual International Conferences and Forums. He founded Schools and a Hospital for the poor in India. Professor Darwin received his B.A. degree from San Francisco State University, his MBA from Golden Gate University, his MCCP from Harvard University, and Doctor of Humane Letters from CapStone University. He is the President and Chairman of Project India since 1986 and President of Hope for People International since 2005. He is happily married to Amy Darwin and father of 3 children.

Mitchell Tseng, Hong Kong University of Science and Technology, Hong Kong

Mitchell Tseng is a Chair Professor of Industrial Engineering and Engineering Management at Hong Kong University of Science and Technology (HKUST). He also serves as the Associate Vice President of Research and Innovation driving Innovation Management, knowledge Transfer and Entrepreneurship issues in HKUST. He is internationally known for his research, publication and speeches on product design and global manufacturing. He has developed several novel production processes, customization and other systems that have been implemented and utilized in industry. He is a fellow of International Academy of Production Research (CIRP) and American Society of Mechanical Engineers (ASME).
Premium Sponsors of the MCPC 2011

Zazzle is the world's leading platform for quality custom products. Zazzle's proprietary technology enables individuals, professional artists, and major brands, including Disney and Hallmark, to create and offer billions of unique products for customers worldwide. Zazzle's rapidly expanding product base covers every topic imaginable and includes t-shirts, business cards, invitations, in addition to a variety of custom gifts. Upon creation, products are instantly and accurately visualized on the site and offered in the Zazzle marketplace. When ordered, each product is made on-demand, typically within 24 hours. Launched in 2005 and based in Redwood City, California, Zazzle's vision is to redefine commerce, powered by the world's imagination. www.zazzle.com

NineSigma helps innovation-driven organizations and companies from small cap to the Global 1000 to engage with the global innovation community and to enable their organizations to more effectively adopt external knowledge and resources. Companies such as Kraft, Philips, L'Oreal, Unilever, Denso and Suntory utilize NineSigma's innovation services to solve immediate challenges, fill product pipelines and expand internal innovation capabilities. NineSigma has the largest open global network of solution providers and an extensive database of existing solutions that spans all industries and technical disciplines. www.ninesigma.com

Fluid creates engaging customer experiences that drive conversion, satisfaction and brand loyalty. Fluid delivers these results by leveraging nearly a decade of mass customization product development experience through custom agency engagements and the Fluid Retail merchandising platform, including Fluid Configure. Founded in 1998 and with offices in San Francisco, Chicago, and New York, Fluid’s customers range from mass-market retailers to luxury goods manufacturers, and include top brands such as: Coach, Diapers.com, Nine West, Reebok, Sears, The North Face, and Vans. For more information, visit www.fluid.com, and follow us on Twitter @Fluid or Facebook FluidInc. www.fluid.com

With its headquarters in Leuven, Belgium, and branches worldwide, Materialise has been playing an active role in the field of additive manufacturing since 1990. In addition to having the largest capacity of additive manufacturing equipment in Europe, Materialise also enjoys a stellar reputation as a provider of innovative software solutions. The advantages of additive manufacturing have been used by Materialise to develop unique solutions that make a world of difference for its many customers with their prototyping, production, and medical needs. Customers range from large companies to famous hospitals, research institutes, and clinicians; to individual consumers interested in bringing their own unique creations to life through i.materialise or who want to purchase a celebrated .MGX design. www.materialise.com
MCPC 2011 Business Seminar (Day I):
Focus on Mass Customization and Customer Co-Creation

Conference Opening

Wednesday, 16 November 2011, 9:45 – 10:00

Bridging Mass Customization & Open Innovation: A Framework

Henry Chesbrough, Haas School of Business, University of California, Berkeley, United States
Frank Piller, RWTH Aachen University / MIT Smart Customization Group, United States

The MCPC 2011 event is an experiment: Can we advance our knowledge of innovation effectively by linking mass customization and personalization with open innovation? While developed separately and built on different theoretical and conceptual backgrounds, we believe that mass customization and open innovation are closely linked and can benefit from a broader exchange between both schools of thought. In this brief opening comment, the two conference co-chairs will provide an overview and introduction into the themes of the conference.

Henry Chesbrough is the originator of the term open innovation, which has grown to become one of the most influential theories of modern business. He first coined the term in his award-winning book, Open Innovation: The New Imperative for Creating and Profiting from Technology (2003), and has extended it in Open Business Models: How to Thrive in the New Innovation Landscape (2006) and Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era (2011). He is Faculty Director of the Garwood Center for Corporate Innovation at the University of California – Berkeley, and previously was Assistant Professor at Harvard Business School.

Frank Piller is a professor of management at RWTH Aachen University, where he directs RWTH's Technology & Innovation management Group. He is also the co-director of the MIT Smart Customization Group at the Massachusetts Institute of Technology. Before, he worked at the MIT Sloan School of Management (2004-2007) and TUM Business School (1999-2004). Frank's current research focuses on innovation and customer interfaces. This includes topics like value co-creation between businesses and customers/users, mass customization thinking, strategies to increase the productivity of technical problem solving by broadcast search, and models to cope with contingencies of the innovation process.
Opening Presentations: Advanced Mass Customization Thinking

Session Chair: Mitchell Tseng, Hong Kong University of Science and Technology
Wednesday, 16 November 2011, 10:00 – 11:15

Mass Career Customization: From Corporate Ladder to Corporate Lattice
Cathy Benko, Vice Chairman, Deloitte U.S. Firms, United States

Centered on the insight that today’s career is no longer a straight climb up the corporate ladder, but rather a combination journey of climbs, lateral moves, and planned descents, Mass Career Customization (MCC) provides a new model for how careers are built and talent is developed. Borrowing from consumer products trend away from one-size-fits-all to mass product customization, this new approach builds employee loyalty and provides for dynamic alignment between individual and corporate needs. The MCC framework has four dimensions: (1) Pace; (2) Workload; (3) Location/Schedule; and (4) Role. Employees and their managers collaborate to find the right fit across those dimensions at any point in time and over time, as long as the choices work for both the individual and the business.


Establishing Mass Customization in a High-End Luxury Market
Matt Lauzon, Founder & CEO, Gemvara, United States

Realizing a niche in the jewelry industry at the intersection of e-commerce and mass customization, Matt Lauzon, co-founder of online custom jewelry site Gemvara.com, and one of the youngest execs under age 30 to raise multi-millions in funding (over $25M), will discuss his “me-Commerce” vision for the future of online shopping and share insight as to why over 40% of his customers have never bought a piece of jewelry online before buying on Gemvara.com. Taking notes from how Dell transformed PC customization, Zappos revolutionized online customer service and Netflix used targeted data to meet customer needs, Matt will explain the key findings when it comes to launching an online shopping experience, discuss how virtual inventory could benefit all e-tailers and share his thoughts on achieving success within the “emotional web.”

Matt Lauzon founded Gemvara as a student at Babson College when he discovered a niche in the jewelry industry between eCommerce and mass customization. His “meCommerce” vision is to provide everyone with a seamless online shopping experience to discover the perfect piece of jewelry. This vision is leading Gemvara towards becoming the world’s fastest growing online jeweler. He’s secured $25M in funding from Highland Capital Partners, Canaan Partners, and Balderton Capital, and is one of the only New England founders under 30 to obtain VC funding in the past five years. Matt recently was named one of America’s “Top Entrepreneurs Under 25” by BusinessWeek, Babson College’s “Distinguished Alumni Award”, and has been featured in Inc. Magazine’s 2011 “30 Under 30.”
Panel Session: Building & Growing a Mass Customization Business

Session Chair: Jarmo Suominen, Aalto University, Finland, and MIT Media Lab, United States
Wednesday, 16 November 2011, 11:15 – 12:15

Design for Mass Customization: Real World Approaches for Design and Manufacturing

Mark Dwight, Founder & CEO, Rickshaw Bagworks, United States

Mass customization comes in many shapes and sizes. Mark Dwight employs mass customization techniques in his small messenger bag manufacturing company, Rickshaw Bagworks, based in San Francisco. Dwight founded Rickshaw specifically to pursue a strict build-to-order operational model, as opposed to the traditional build-to-stock practice common in the fashion industry. At Rickshaw, mass customization is the foundation of the product design and development process. All product platforms are based upon four key design principles: (1) Decouple function and fashion; (2) Isolate complex core functional elements in a common, mass-producible "chassis"; (3) Save product "personality" for the final assembly step; (4) Add optional functional upgrades and fashion elements from a collection of "bolt-on" accessories. Based upon this design methodology, Rickshaw produces a family of full-featured, customizable computer carrying briefcases and backpacks at very competitive prices in its San Francisco headquarters. The benefits of this strategy include: zero finished goods inventory, zero inventory risk, minimum SKU count, vastly reduced forecasting complexity, ability to outsource most of the labor intensive work while insourcing all of the customization, price/performance flexibility, and fast turnaround of highly custom orders.

Mark Dwight is the founder and CEO of Rickshaw Bagworks, a San Francisco-based designer and manufacturer of messenger bags, computer carrying cases, bicycle packs and urban lifestyle luggage and accessories. Rickshaw operates its own sewing factory in the historic Dogpatch neighborhood of San Francisco. Mark is also the founder and Chairman of SFMade.org, an organization supporting San Francisco-based manufacturers. Prior to founding Rickshaw in 2007, Mark was the CEO of Timbuk2 Designs (2002-2006). Before he started designing and making bags, Mark worked at several technology companies in Silicon Valley, including Cisco Systems (1997-2001). Mark has a B.S. in Mechanical Engineering and an MBA, both from Stanford University.

You Bars: Profiting from the Mega-Trend of Food Customization

Anthony Flynn, Founder & CEO You Bar, United States

Detailing You Bar's journey from my mother's kitchen to an 8,200 square foot commercial warehouse, this presentation focuses on how the customer and company have become less polarized. Customization obliges the customer to become co-creator and innovator, necessitating a dialogue between customer and company which allows each to better satisfy the evolving needs of the other.

Anthony Flynn is the founder and CEO of YouBar, a company that sells customized nutrition bars, protein shakes, trail mix and cereal. Since launching in 2006, YouBar's website, www.youbars.com, has had over one million unique visitors. In addition to running the thriving Los Angeles-based business, Anthony regularly lectures on how customization is changing the food industry, and consults privately to companies launching customized food products. Among his talks, he has been a guest speaker at the University of Southern California and UCLA. Anthony has a business degree from the University of Southern California. As a measure of their growth, in August, YouBar moved from a 1,000 sq. ft. commercial kitchen to an 8,000 sq. ft. facility in downtown Los Angeles.
**Investing in the Customization Trend**

**Josh Elman, Principal, Greylock Partners, United States**

Mass customization start-ups have become subject to some major interest of Venture Capital firms. In this presentation, a member of the VC communities share some insights on the market for mass customization from this perspective and why mass customization and co-creation are important drivers of successful future business models.

Josh Elman joined Greylock Partners as a Principal in 2011. In his career, Josh has been integral in working on products used by hundreds of millions of people around the world. Josh most recently spent two years with Twitter, where he founded and led the micro-messaging company's "onboarding and growth" team. Before that he was product manager for Facebook Platforms, where he helped launch Facebook Connect. Before Facebook, he managed product development for LinkedIn Jobs. Josh Elman also served in product development roles with Zazzle and Homestead. Josh began his career at RealNetworks, where he led the development team through three versions of RealPlayer. Josh holds a bachelor's degree in symbolic systems from Stanford University.

---

**Plenary Presentations: Setting Up a Mass Customization System**

**Session Chair: Sergio Dulio, Dulio Consultants, Italy**

**Wednesday, 16 November 2011, 1:15 – 2:30**

**What I Learned from Setting Up Five Successful MC Companies**

**Brennan Mulligan, Founder & CEO, Skyou, United States & Hong Kong**

While mass customization can be seen as an established business model we still often see little scale in its execution. At the same time, many new ventures and established businesses alike face the challenge to establish a supply chain fitted for mass customization – and everyone seems to go through the same learning cycle again. In his talk, Brennan Mulligan will propose a solution, reflecting on his experiences in leading many successful mass customization businesses since 1993.

Brennan Mulligan is the founder and CEO of Skyou, Ltd. (pronounced S.K.U.), a Hong Kong-based start-up providing solutions for mass customization businesses. Since 2005, Brennan concurrently manages Reebok’s (YourReebok.com) supply chain for customizable products. Prior to re-locating to Asia, Brennan was VP of product technology at Zazzle.com. Brennan was the CEO and co-founder of Confego, Inc. (2002-2007), a company Zazzle acquired in 2007. Brennan was the president, CEO and principle owner of Timbuk2 Designs, Inc. (1993 – 2002), a San Francisco-based manufacturer and early pioneer in mass customization and lean manufacturing. In 2002, Timbuk2 was successfully acquired by an investment group. Brennan graduated from UC Berkeley's Haas School of Business (BS) in 1993.
Developing Solution Spaces for Mass Customization

Karl Berger, Vice President Engineering, Bene AG, Austria

Solution Space Development is one of the core activities of a successful mass customizer, clearly defining what it is going to offer and what it is not. The presentation will explain how Bene, a leading European office furniture provider, has developed a special approach to understand and serve the idiosyncratic needs of its customers, to develop the solution space. Karl Berger will show how different constraints work with each other, and how differentiating organizational layers helps to execute different solution spaces in the organization.

Karl Berger is VP Engineering at Bene AG. He leads all engineering activities with a strong focus on the new product development process. He has a ten year tenure at Bene, one of Europe's leading manufacturers of office furniture. At Bene, he was responsible for the implementation of a holistic mass customization program that today is considered best-in-class in this industry. With his team, he is responsible for all functions of Bene’s product innovation process, starting from requirement analysis, design and development, PDM, and production ramp-up. Karl Berger has a master's degree in engineering from Montanuniversität Leoben, Austria. He is a frequent speaker at conferences and a guest lecturer at various universities.

Establishing a Mass Customization Factory in China

Claudia Kieserling, CEO, Selve, Germany
Ilissa Howard, Founder, Milk & Honey Shoes, Hong Kong

This joint presentation is delivered by two experienced entrepreneurs in mass customization footwear, representing Selve, the Germany-based category leader in the field, and Milk & Honey, a recent Hong Kong based startup. Claudia and Ilissa will first share insights into the market for customization in this field, discussing the women’s fashion footwear market size and growth areas, global reach via online configurator, and the challenges and opportunities associated with that. Then, Claudia will share her experiences in setting up a manufacturing plant in China, after seven years of manufacturing of high-quality custom women’s shoes in Italy. She will discuss the pros and cons, the do’s and don'ts and her experiences of setting up and running a custom shoe factory in China.

Claudia Kieserling is the founder and CEO of Munich based selve AG, the pioneer and leader in mass customization of women's shoes. Claudia earned her MBA in St. Gallen, Switzerland. Her background is shoe design. In various research projects, e.g. with the Technical University of Munich, she focuses on the customer driven aspects of the business. She continues academic/practical innovation transfer with research projects with RWTH University Aachen, Fraunhofer Institute Magdeburg and HKUST, Hong Kong. With selve, she received the prestigious “Red Dot Design Award” in Germany and has been named “Retail Innovation of the Year” in the UK.

Ilissa Howard is a director and co-founder of milk & honey – an online, custom designed women’s shoe company. She runs the Hong Kong office, which involves operations, logistics, sourcing, production, design and marketing. Prior to launching milk & honey, Ilissa worked in marketing and product development at companies including Mattel, Disney and Toys ‘R Us.
Panel and Roundtable Interaction: Mass Customization from the Customers' Perspective: Designing Interaction Systems

Session Chair: Alexander Rulkens, studio:ludens, The Netherlands
Wednesday, 16 November 2011, 2.45 - 3.45

Implementing Mass Customization in an Established Company

Andrew Guldman, VP of Engineering, Fluid, United States
Rob Jellesed, Director of Internet Sales, JELD-WEN Windows, United States

Fluid Inc. and JELD-WEN Doors & Windows have collaborated to create a compelling and richly interactive window and door customization experience online utilizing the latest in mass customization technology. During this presentation, you'll hear how JELD-WEN leverages technologies to inform consumer purchase decisions and provide pass through lead generation to the sales funnel. With the use of immersive customization capabilities, potential customers can now interact with photo-realistic products, zoom, multiple views, and color changes. Further, you will learn how mass customization has gone social, with JELD-WEN’s unique implementation of social shopping tools that allow consumers to customize complex products with friends online and share their designs with others. And, last you’ll understand how mass customization has proven to augment JELD-WEN’s in-store door and window displays and offered the company a non-traditional return on investment.

Andrew Guldman is the Vice President of Product Engineering at Fluid Inc. Andrew has worked at Fluid for over twelve years, and currently oversees Fluid’s product engineering organization. His career features over 20 years of coding and technical design leadership. Andrew thrives on conceiving innovative solutions to interesting problems while managing the product development team at Fluid. Andrew architected and oversaw the development of Fluid Configure, and has helped build online configurators for clients such as Fine Stationary, Reebok, and Vans. Andrew holds a BA in Computer Science from Brown University.

Rob Jellesed is the Director of Internet Sales and Marketing for JELD-WEN, Inc. JELD-WEN is the largest door and window manufacturer in the world. Mr. Jellesed leads a team of digital specialist that redesigned and launched a customer-centric website with a richly inter-active and visually stunning mass customization user experience. It incorporates a social shopping strategy unique to this market segment.

Crucial Design Elements for Successful MC Configuration and Interaction

Paul Blazek, CEO, cyLEDGE, Austria

Successful mass customization of products and services requires interaction interfaces and tools that are shaped according to the customers' heterogeneous needs. The interface design of these configuration systems becomes a decisive criterion for customer satisfaction. Besides offering a good approach to the specific customization possibilities it should help to reduce customer doubts encountered during the design process, support emotional mechanisms and persuade to make a purchase. But how are relevant customer requirements identified? What are crucial design elements that trigger an efficient interaction between the customer and the manufacturer. Paul will answer these questions in the form of some guidelines resulting from his analysis of customer structures and configurator approaches in various industries.
Paul Blazek is founder and CEO of cyLEDGE Media, a Vienna based company that is focusing on the development of digital interaction tools. cyLEDGE created and constantly updates the world's largest collection of configurators and uses it to generate knowledge about upcoming standards and success factors of innovative customer approaches. Paul is regarded as one of Austria's leading experts on digital interface and community know-how and was responsible for more than 150 communication projects for national and international clients. He is Founding Member of the International Institute on Mass Customization and Personalization (IIMCP).

Presentations are followed by a round table discussion.


Session Chairs: Nik Pinkston, Founder, Cloudfab.com, and Frank Piller, RWTH/MIT
Wednesday, 16 November 2011, 4.15 - 5.45

The Industrial Revolution 2.0: Personalization through Additive Manufacturing

Wim Michiels, Executive Vice President, Materialise, Belgium and United States

Every year, consumers’ interest in customization increases and market demand for personalization is creating new opportunities for entrepreneurs as well as entrepreneurs who have an existing offering that they now wish to tailor. With the technological advancements in Additive Manufacturing (AM), commonly known as 3D Printing, individuals have the ability to add a personal touch to the things they use and love most from cell phone cases, to shoes, to accessories for their cars and more. Profiting from this Industrial Revolution 2.0 requires new business models for B-to-B and B-to-C approaches. It also requires the ability to take a critical and innovative look at existing processes that are candidates for a revolutionary improvement through the unique capabilities of AM. Once you realize the unprecedented design freedom that’s possible with 3D Printing, as well as the opportunity to make production of unique products economically possible, you can bring to life pieces with exceptional beauty and functionality. Learn from existing case studies on how you can incorporate a personal touch to your existing products thereby creating series of unique products, use AM to revolutionize your production process, create an entirely new product/market with the capabilities of 3D Printing and be part of the Industrial Revolution 2.0!

Wim Michiels is the Executive Vice President at Materialise, the world’s leading operator of additive manufacturing equipment. Wim graduated as a M.Sc. in Mechanical Engineering from the Catholic University of Leuven in 1992. After finishing a research project at the university, he traveled for a while throughout South-East Asia and went on to live in Surinam and Thailand, where he pursued his ideals to contribute to development collaboration. Wim now works with Materialise since 1999, first as international sales manager, then as the General Manager Asia Pacific, operating out of the Materialise Malaysia branch office. In 2006 Wim returned to the headquarters to start a new assignment as Division Manager for Materialise’s Software division. Since 2011 he became Executive Vice President to the company, focusing on business development. He is passionate about Additive Manufacturing technology and sees it as a company mission and a personal target to bring game changing technology to as wide an audience as possible for a better and healthier world.
Building the World's Easiest Making System

David ten Have, CEO, Ponoko, Australia / United States

The future of products - using software to connect consumers, designers and making devices. Ponoko Inc is the creator of Personal Factory — the world’s most advanced platform for the mass creation of custom goods. Creative consumers can turn their design ideas into custom goods on demand using Ponoko’s global network of making devices. This local production reduces the environmental impact of manufacturing. So far, more than 100,000 customer designed products have been made in 15 locations throughout the USA, Europe and Australasia - everything from 3D printed jewelry to laser-cut Clocks to CNC routed furniture. Just as the Internet revolutionized the exchange of digital photos, music and movies, Ponoko pioneered the exchange of digital designs, reinventing the way consumer goods are designed, made and distributed. In a future when there is a making device in every home, school and business, Personal Factory is the software that makes it easy for everyone to create custom goods.

David ten Have leads Ponoko’s vision and the development of the Personal Factory platform. Prior to founding Ponoko, David was co-founder of New Zealand’s #1 design-led Microsoft web development firm, Provoke. He is also the co-founder of Celsias, a web 2.0 solution to the climate change crisis.

Laser Additive Manufacturing - The Key to the Next Generation of Economic Custom Production

Reinhard Poprawe, Director of Fraunhofer ILT, RWTH Aachen University, Germany

The resolution of the dichotomy between scale and scope, i.e. manufacturing individual products at mass production costs with a maximum fit to customer needs or functional requirements, is an everlasting vision in industrial production. Additive Manufacturing (AM) technologies provide great potentials for solving this dilemma. Due to advantages like lot-size-one capability and almost infinite freedom of design, AM was recently described as “the manufacturing technology that will change the world”. AM technologies are characterized by a fundamentally different relation of cost, lot size and product complexity compared to conventional manufacturing processes. There is no increase of costs for small lot sizes and no increase of costs for shape complexity. Due to the complex nature of industrial production systems, only the holistic development of AM provides the full economic, ecologic and social benefits in the future. However, all relevant interdependencies along the product creation chain from production technology to product design and business model have to be taken into account. Note: The presentation has been co-developed by Reinhard Poprawe, Christian Hinke, and Ingomar Kelbassa.

Reinhard Poprawe is the head of the Fraunhofer Institute for Laser Technology (ILT) and holds the University Chair for Laser Technology at the RWTH Aachen. With 330 employees, the ILT is one of the world’s leading institutes in the field. The research directed by Prof. Poprawe covers a wide range of areas such as the development of new laser beam sources and components, precise laser based metrology, testing technology and industrial laser processes. Reinhard Poprawe holds a Master's degree in Physics from the California State University in Fresno. After completion of his PhD in physics (Darmstadt, 1984) he joined the Fraunhofer Institute for Laser Technology in Aachen. From 1989 to 1996 he has been the managing director of Thyssen Laser Technik GmbH. Prof. Poprawe serves on many national and international boards as advisor, referee or consultant. Currently he is the president elect of the Laser Institute of America (LIA). From 2005 to 2008, he served as Vice President for Structure & Research of RWTH Aachen.
MCPC 2011 Business Seminar (Day II): Focus on Open Innovation and Open Business Models

Plenary Presentations: Winning with Open Innovation

Session Chair: Henry Chesbrough, University of California, Berkeley, United States
Thursday, 17 November 2011, 8.45 - 10.15

Celebrating a Decade of Open Innovation at P&G - Key Lessons
Ashish Chatterjee, Director Connect+Develop, Procter & Gamble, United States

With every celebration comes reflection. What's worked, what hasn't? What can be better moving forward? Such is the case for Procter & Gamble, now marking 10 years of Connect+Develop℠, the Company's branded approach to open innovation. In the true spirit of collaboration, P&G shares both the good and the bad they've experienced along the way. From the first deal, to some of the biggest, to some that simply never were, or never should have been, P&G also will discuss new open innovation frontiers and challenges on the road ahead.

Ashish Chatterjee leads global outreach and network development for P&G’s Open Innovation program, Connect+DevelopSM. He is responsible for helping deliver on P&G’s new goals that call for C+D to deliver $3 billion in incremental sales annually through external innovation collaboration, and for P&G to be recognized as the Partner of Choice for external innovators. A 21-year Company veteran, Ashish oversees a network of global C+D experts working in strategic regions around the world, and with them develops the pathway and the process to flow innovation into the Company and share it outside through external partnerships, networks and collaboration.

Co-Creation Among the Fortune 500
Suzan Briganti, US Representative Eyeka S.A., & CEO Totem Brand Strategy, United States
Edward Rinker, Research Fellow, Clorox, United States

In many ways, co-creation has been more of a European phenomenon. The top three (according to Forrester Research) co-creation platforms (Eyeka, Jovoto and Hyve) are based in Europe and until fairly recently, many US companies have hesitated to adopt the methodology. In this presentation, Eyeka’s US Representative and their first Bay Area client, Clorox, will discuss their views on the state of co-creation among the US Fortune 500. They will reveal why companies are turning to co-creation, the internal resistance they sometimes face, and how they overcome it to use this unconventional new methodology. Their remarks will touch on some ways in which co-creation differs from traditional market research and customer insights.

Suzan Briganti spent half of her childhood attending leading-edge schools in the foothills of Stanford University sitting on beanbag chairs singing “Kumbaya.” The other half was spent in well-ordered Canadian schools singing “God Save the Queen.” This might explain her penchant for deeply creative strategy pursued with discipline and rigor. Suzan earned her chops over two decades in marketing strategy at top US agencies leading clients from Bank of America to Procter & Gamble. She acquired general management experience as GM of a mid-size creative agency in San Francisco, and start-up experience as head of her own fashion accessories business. She holds a design degree from Italy, several patents for her design inventions, and an MBA from Boston University. In 2004

Proceedings of the MCPC 2011 Conference | Page 25
she formed Totem enabling clients to apply her powerful strategic approach to brand strategy and innovation. Totem serves Fortune 500 clients such as Kraft, Microsoft, P&G, and Heineken, and is the US Representative for Eyeka.

Edward Rinker is a Research Fellow in the Corporate Innovation group at Clorox. He has worked in the area of innovation for the past twelve years in various capacities including product development, technology planning, competitive intelligence, intellectual property strategy, business development, and most recently in open innovation networks. Ed earned a BS in Chemical Engineering from UC Davis and a PhD in Chemical Engineering from UC Santa Barbara.

Panel Session: Using Social Media for Customer Co-Creation

Session Chair: Andrew W. Torrance, Professor of Law, University of Washington, United States
Thursday, 17 November 2011, 10.45 - 12.00

Social Product Development- Launching a Great New Product Every Few Days

John Jacobsen, Head of Engineering, Quirky, United States

Quirky is a social product development company that brings two brand new consumer products to market each week through its online collaborative platform. Quirky’s community of almost 90,000 members weigh in on every aspect of product development from research to industrial design to branding; quirky shares its revenue with the influencers who help bring each product to life. Since its launch in 2009, Quirky has collaboratively developed more than 120 new products. Top influencers are making tens of thousands of dollars. National retail partnerships include Bed, Bath & Beyond and HSN, with its own show on the HSN Channel each month. Quirky will also have its own show premiering on The Sundance Channel on August 30th. The show, called Quirky, is about the powerful process of making invention accessible. Each one-hour episode will demonstrate how Quirky has successfully re-engineered and democratized the business of innovation.

A pioneer in 3D design and engineering, John Jacobsen has been applying his craftsman-like qualities to the domain of product development for almost two decades. He has worked for world renowned firms such as Smart Design and Design Partners helping to create iconic, award-winning, patented products for brands like OXO Good Grips, Shell Black Magic, Flip Video, Logitech, Zune, Corningware and Pyrex. As a strategic consultant, he has worked to bridge the gap between design and engineering for clients such as Airbus, Ford, General Motors, Vespa, Pininfarina, Ferrari, Canon and Seiko. Currently as Head of Engineering for Quirky John is responsible for making invention accessible—perfecting product designs and bringing ideas to life. With a mindset at the intersection of design, engineering and art, his work is exemplified by relentless passion, creativity and precision.
Social Innovation: How to overcome societal problems by using the power of communities?

Johann Füller, *University of Innsbruck, Austria / Hyve AG, Germany*

Web 2.0 and Social Media technologies enabled the paradigm shift from the rather passive role of consumers to the active role consumers and citizens take on in value creation processes. Nowadays consumers encountered in online communities and social networks generate their own content and come up with their own solutions. The idea to tap into the creative potential of communities and leverage it for a company’s innovation process became quite popular. Multiple firms such as Beiersdorf, BMW, Siemens, and Swarovski have implemented or plan to integrate open innovation and crowdsourcing tools to expand their sources of product innovation. In the political context, governments also open up their processes, asking citizens to actively engage in the political discourse, agenda setting, and decision making about available budgets. Is it also possible to use the creative potential of the crowd to overcome severe societal problems such as overpopulation, poverty, resources scarcity, obesity, and ageing of the population? This presentation demonstrates how the wisdom of the crowd and the collective intelligence of communities may be used to tackle the most severe problems of our society. Social innovation platforms like the X-Prize Foundation, Your Idea for Japan, Travel2Change, or "Gemeinsam für die Seltenen" were able to mobilize the collective creativity to think of breakthrough social ideas for the good cause. The principles of social innovation are illustrated along the ScrapLab community, a design contest designated to find innovative and sustainable designs made of scrap. The objective of this community is to recycle waste materials in the form of new products such as furniture, accessories or artwork and to bring them back into the economic circle. Designers worldwide are asked to submit a design whether prototype or draft, made of waste materials and to take part in an active and ecology-minded community.

Johann Füller is assistant professor at the Department of Strategic Management, Marketing and Tourism and the CEO of the HYVE AG. In line with his research focus, he regularly gives guest lectures about open innovation, the utilization of online communities and virtual integration of customers in new product development. Johann made himself a name as visiting lecturer at universities and management training institutions in the field of product development and product management. Before, he was engaged three years as corporate consultant in the field of strategic change at PriceWaterhouseCoopers. He further gained experience at McKinsey & Comp., Siemens and Allied Signal.
**Plenary Presentations: The Tools for Open Innovation**

**Session Chair: Sabine Brunswicker, Fraunhofer Institute IAO, Germany**

Thursday, 17 November 2011, 1.00 - 2.15

**BOOM! An Innovation Explosion: How to Change the World Through Open Access to the Tools of Invention**

**Mark Hatch, CEO, TechShop, United States**

The presentation will share how TechShop changed the world through open access to the tools of invention... and provide a guide on practical ways to leverage this platform for your organization. Open source, the cloud, ubiquitous connectivity, search and find efficiencies, and powerful cheap processing have been driving the rapid acceleration of innovation in any field touched by computers and communication media. Now, with the advance of inexpensive access to extremely cheap, powerful and easy to use tools, the invention of physical products has never been easier, cheaper, or speedier... particularly if you have a $100 a month membership to TechShop. Mark presents five technologies prototyped and built at TechShop that have already started to change our world. He reviews the drivers of this new capability and then explores how you can leverage this new service.

**Mark Hatch** is the Chief Executive Officer of TechShop. During Mark's first two years on the management team, TechShop tripled revenue and memberships and became a leading brand in the emergent "Maker-Space" business. Before coming to TechShop in October of 2007, Mark was the president of GL Services, a Business Process Outsourcing company, where he doubled the number of companies served by strategically launching new service offerings. Mark also served in management roles at Avery Dennison and Kinko's. He has his BA in economics from UC Irvine, an MBA from the Drucker School at Claremont, and is a former Green Beret.

**Leveraging Open Innovation to Create a Customized Driving Experience**

**TJ Giuli, Technical Expert Ford Research and Advanced Engineering, Ford Motor Company, United States**

Ford Motor Company, a global automotive industry leader based in Dearborn, Mich., manufactures or distributes automobiles across six continents. With about 176,000 employees and about 80 plants worldwide, the company's automotive brands include Ford, Lincoln, and Mercury. Recently, Ford opens its research doors to external contributors, tapping into minds at universities and other organizations outside the automotive industry for the next best idea for, e.g., in-vehicle connectivity and infotronics. One of Dr. Giuli's latest open innovation projects is American Journey 2.0, which paired up Ford and University of Michigan students who were challenged to build a new class of social networking apps for the vehicle during a 12-week course. The winning app made its way into a Ford Fiesta for the ultimate test drive to California for the 2010 Maker Faire, the largest do-it-yourself event of its kind. In his presentation, Dr. Giuli will share this and other experiences in open innovation at Ford.

**TJ Giuli** is a technical expert with Ford's Research & Advanced Engineering team and one of the masterminds behind Ford's American Journey 2.0 in-car connectivity project with students from the University of Michigan in Ann Arbor. Giuli has inspired many Ford open innovation discussions related to in-vehicle connectivity, wireless communications and open architectures with academic powerhouses such as MIT and the University of Washington as well as the University of Michigan. Giuli earned his Ph.D. in Computer Science from Stanford University in 2005.
Making Co-Creation Strategic

Leah Hunter, Global Head of Insights and Innovation, Idea Couture, The Netherlands

The concepts of open innovation, mass customization and co-creation are often used interchangeably and raise new questions and challenges that highlight the need to understand the variables in their design of mechanisms, business processes and the economic implications for organizations. Leah Hunter will introduce the consumer co-creation value chain, a model that is used to analyze and understand the mechanics of co-creation. She will further illustrate its value by sharing Idea Couture’s experiences in designing co-creation strategies. What are the differences between crowd wisdom versus collective intelligence; crowdsourcing ecosystems and market co-creation; motivations and creative incentive design; task characteristics and task design? Leah’s presentation will align the strategic intent of the business to a co-creation strategy.

Leah Hunter is the Global Head of Innovation and Insights for Idea Couture. She has over 14 years of experience leading and running large-scale innovation projects. Leah is a Professor at CEDIM in Mexico teaching a Masters Innovation graduate course on Consumer Relevance. She also serves as a contributing editor for M/I/S/C/ Magazine, a quarterly that explores the intersection of innovation, design thinking and business. Former ideation lead for Cheskin Added Value, Leah specializes in early-stage brand and communications strategies. Her expertise spans the retail, fashion, consumer electronics, travel, healthcare and packaged goods sectors. Her previous clients include P&G, Labatt, Red Bull, Hershey’s, Heinz, Electrolux, Banana Republic, Nokia and Apple. A graduate of Miami University, Leah heads up Idea Couture’s San Francisco office.
Roundtable Interaction: Profiting from Open Innovation and Co-Creation

Session Chair: Solomon Darwin, University of California, Berkeley, United States
Thursday, 17 November 2011, 2.15 - 3.15

Making Open Innovation Work
Andy Zynga, CEO, Nine Sigma, United States

In his presentation, Andy Zynga will share his experiences from more than 2000 projects in open innovation at Nine Sigma. He will comment on the obstacles, tools & opportunities of open innovation, presenting recent results from a comprehensive survey on open innovation practices in global firms. He will then discuss some of the measures executives can take to tackle the challenges of profiting from open innovation. His presentation will close with a few observations to stimulate the dialog at the following round table discussion with your peers.

Andy Zynga joined NineSigma in February 2008 with the directive of expanding NineSigma’s presence in the European market and building on the existing client base of industry-leading European companies. During his 25-year career, Andy has built 4 high tech and service businesses successfully in both Europe and the USA. He also spent 6 years at KPMG Consulting (now Bearingpoint) in Germany and London where he successfully grew a division of the Information, Communication, and Entertainment (ICE) Consulting Practice into a major international player. Prior to joining NineSigma, Andy spent 4 years as a member of the Executive Committee of Telindus, a global network integrator and outsourcing company with more than $1B in revenues and 3,000 employees in 14 countries. Andy earned a dual Master degree in Business Administration and Mechanical Engineering from the Technical University of Berlin, Germany.

Followed by a round table discussions among your peers.
MCPC2011 Keynote Session

Session Chair: Frank Piller, RWTH Aachen & MIT Smart Customization Group
Thursday, 17 November 2011, 4:00- 5.30

Open Service Innovation

Henry Chesbrough, Garwood Center for Corporate Innovation, University of California, Berkeley, United States

The goal of “Open Services and Innovation” is to demonstrate how the open innovation approach applies to companies in service businesses. Many companies today grapple with the commodity trap, as product lives shorten and differentiation becomes increasingly difficult. Using open innovation, companies can transform their product and technology based businesses into more customer-focused, more differentiated, and more sustainable service and solution businesses. This requires two concomitant shifts: one from products to services; and the other from closed to open. The role of the user is quite different in services innovation, and innovating firms must find ways to co-create with customers in order to succeed. Professor Chesbrough will illustrate these points with illustrations from a variety of industries.

Henry Chesbrough is the originator of the term open innovation, which has grown to become one of the most influential theories of modern business. He first coined the term in his award-winning book, Open Innovation: The New Imperative for Creating and Profiting from Technology (2003), and has extended it in Open Business Models: How to Thrive in the New Innovation Landscape (2006) and Open Services Innovation: Rethinking Your Business to Grow and Compete in a New Era (2011). He is Faculty Director of the Garwood Center for Corporate Innovation at the Haas School of Business, University of California, Berkeley, and previously was Assistant Professor at Harvard Business School.

The Future of Mass Customization

Jeff Beaver, Co-founder and Chief Product Officer, and Bobby Beaver, Co-founder and Chief Technical Officer, Zazzle, United States

There’s little doubt that Mass Customization will eventually disrupt everything. That reality is as simple as recognizing that every consumer is, in fact, a unique person and would rather purchase a product or service that fits their exact preferences (whether size, style, taste or more) versus a generic good. At Zazzle, having innovated in the field for over 10 years, we have a unique perspective on the promise of customization, the technologies required for disruption, the potential of localized and environmentally-friendly manufacturing, and the ecosystem that is already developing to make this dream a reality. Join us for a little adventure into the future of customization and commerce, at large.

Bobby Beaver is the co-founder and chief technology officer of Zazzle, the world’s leading platform for quality custom products. Bobby conceived the idea and model for Zazzle, together with his brother Jeff and his father Robert Beaver, while a student at Stanford University. Working jointly with his brother Jeff, Bobby engineered the entire Zazzle website which launched in 2005. He is responsible for all of Zazzle’s software and hardware architecture, as well as implementation, and has played a key role in developing Zazzle’s manufacturing technologies and fulfillment processes. Bobby continues to guide company vision and direction, while sharing responsibility in day to day operations. Bobby holds a Bachelor of Arts degree in Economics from Stanford University.
Jeff Beaver is co-founder and chief product officer for Zazzle, the world's leading platform for quality custom products. Jeff conceived the idea and model for Zazzle together with his brother, Bobby, and father, Robert, while a student at Stanford University. Jeff worked side-by-side with Bobby to engineer the entire Zazzle website, which first launched in mid-2005. His deep passion for the online consumer directs the website experience and drives feature and product innovation. He has played an integral role in many other aspects of the company, including research and development, manufacturing, and customer service. Jeff helps to guide company direction and vision, while sharing responsibility for day-to-day operations. Jeff holds a Bachelor of Arts degree in Economics from Stanford University.

THE FUTURE: Zazzle Special Event & Conference Dinner

Thursday, 17 November 2011, 7:00 – 10:30 (Ballroom of the Marriot Hotel)

Mass Customization has arrived on the global scene as an emerging industry and a fundamental change in the consumer product experience. So... what's next? Hosted by Bobby & Jeff Beaver from Zazzle, the leading global platform for customization, this event will include captivating presentations and entertainment from innovators in the field, an opportunity to meet many key leaders in the industry, and the official kickoff of the $1Million Zazzle Innovation Challenge. Join us for an entertaining and thought-provoking adventure into THE FUTURE of customization and commerce, at large.

The MCPC 2011 conference dinner is proudly supported by Zazzle®
Profiting from External Innovation: A Review of Research on Open Innovation

Joel West, KGI, Claremont, United States

In this presentation, we review and synthesize the growing open innovation literature by studying the commercialization of external innovations - one of the key open innovation practices. We provide a comprehensive overview and process model of open innovation. We classify prior studies in open innovation according to a four-phase process model for inbound open innovation that includes obtaining, integrating and commercializing external innovation, as well as work on nonreciprocal innovation flows. Finally we identify three opportunities for future research, including greater focus on business models, examination of the later and reciprocal phases of the commercialization process, and research into the limits and moderators of open innovation. Note: This presentation is based on a joint paper with Marcel Bogers, University of Southern Denmark.

Joel West is a professor of innovation & entrepreneurship at KGI, the Keck Graduate Institute of Applied Life Sciences, one of the seven Claremont Colleges. Before that, he was associate professor and professor at San Jose State University (2002-2011), and was president of Palomar Software (1987-2002). His research focuses on the sources and uses of open innovation. He is co-founder of the Open Innovation Community (www.openinnovation.net), author of the Open Innovation Blog (www.oiblog.net), and editor (with Henry Chesbrough and Wim Vanhaverbeke) of Open Innovation: Researching a New Paradigm. His empirical studies have examined emerging industries and technologies, including open source software, the mobile Internet, and renewable energy. He does corporate training on open innovation and consults on software and Internet business models.

A Matter of Balance – Building the Successful Mass Customization Enterprise

Frank Piller, RWTH Aachen & MIT Smart Customization Group, Germany / United States
Fabrizio Salvador, IE Business School, Spain

What makes a successful mass customization enterprise? Previous research has identified three core capabilities that allow companies to profit from mass customization: robust process design, choice navigation and solution space definition. So far, however, we did not have large-sample evidence of the impact of these capabilities on market, operational and financial performance of a company. This presentation will report the latest results of an international study of 130 mass customization consumer companies operating both in Europe and in the U.S. as part of the ongoing MC500 research initiative. We find that these capabilities indeed are important for the performance of the sampled companies. To our surprise, however, focusing on one capability alone does not necessarily lead to superior market, operational and financial performance. Instead, performance differentials are explained in terms of the simultaneous presence of the three capabilities. This means that managers building a mass customization venture have to get a
balanced view of investing in the three capabilities. Using empirical data and case studies, our presentation will identify implications of our study for entrepreneurs, managers in established companies, investors and VCs, and for future research.

Frank Piller is a professor of management at RWTH Aachen University, where he directs RWTH's Technology & Innovation management Group. He is also the co-director of the MIT Smart Customization Group at the Massachusetts Institute of Technology. Before, he worked at the MIT Sloan School of Management (2004-2007) and TUM Business School (1999-2004). Frank's current research focuses on innovation and customer interfaces. This includes topics like value co-creation between businesses and customers/users, mass customization thinking, strategies to increase the productivity of technical problem solving by broadcast search, and models to cope with contingencies of the innovation process. Frank Piller has consulted and delivered executive workshops for many Dax30 and Fortune500 companies. As an investor, member of the Board of Directors or as a scientific adviser of several technology companies he transfers his research into practice.

Fabrizio Salvador is a professor of operations management at the IE Business School, an adjunct professor at the Zaragoza Logistics Center (MIT Scale Network), and a founding member of the MIT Smart Customization Group. He holds a M.S. in Industrial Engineering and Ph.D. in Operations Management from the University of Padova. Dr Salvador's research focuses on how operations and value chain design contribute to the capacity of an organization to cope with environmental uncertainty and has been published in prestigious academic journals. Over his career he assisted numerous organizations and their customers' in innovating their operations to achieve superior flexibility, including AstraZeneca, DHL, IBM, John Deere, Nokia, Xerox, and Tetrapack.
Plenary Keynote Session 2: Next Opportunities in Mass Customization

Session Chair: Frank Piller, RWTH Aachen & MIT Smart Customization Group
Saturday, 19 November 2011, 8:45 -10.15

The Multiverse: Finding the Next Opportunities in Mass Customization

B. Joseph Pine II, Strategic Horizons, United States

The physical world, bounded as it is by matter, space, and time, offers limited opportunities for value creation. With digital technology, however, the opportunities are limitless, for people can create anything they want with immaterial bits, in virtual places, without the constraints of linear time. As consumers increasingly experience the world through their digital gadgets, companies still only scratch the surface of technology-infused experiences. Joseph Pine will show you how to create new value for your customers with personalized offerings that fuse the real and the virtual. Digital technology offers limitless opportunities but real-world experiences have a richness that virtual ones do not. So how can you use the best of both? How do you make sense of such infinite possibility? What kinds of experiences can you create?

B. Joseph Pine II, the author of the book that started the Mass Customization movement, shows how to explore and exploit these opportunities in this provocative and far-sighted session based on his latest book, Infinite Possibility: Creating Customer Value on the Digital Frontier. Its core framework takes us beyond the known universe into the Multiverse, where you can effectively fuse the real and the virtual — something Mass Customization has always done. It will have you thinking anew about your offerings, your customer relationships, and your business to help you determine exactly which technology-enabled experiences are right for you amidst infinite possibility.

Visualization as an Enabler of Mass Customization: An Apparel Story

André Wolper, Founder & CEO, embodee, United States

Apparel shoppers expect to vividly and accurately “see” and even experience what a garment looks like on them. Accurate, lifelike, 360-degree visualizations can provide the means, delivering inspiration and confidence for an online purchase. embodee, a start-up, adapting technologies from movie visual effects, has built the first scalable, easy-to-use platform that delivers such visualization capabilities. Two leading global brands have launched interactive systems built on the embodee platform. Hurley customers have been able to see themselves in a range of denim styles and sizes optimized for them since 2010. And now, the world’s leading sports apparel and equipment brand enables athletes and coaches to see their team uniforms evolve in compellingly realistic 3D as they tweak style elements, text, fonts, stitch patterns and colors. Customer feedback, sales volume and a steep drop in return rates are proof points that compelling visualization can propel customization and online apparel commerce forward.

André Wolper is the CEO and founder of embodee, a company creating visualization technology to spur apparel e-commerce. André was the former CEO of Mental Images Inc., the US arm of the recognized global leader in rendering software for the entertainment, computer-aided design, scientific visualization, architecture industries. Before Mental Images, André was with Intel, where he ran new technology business initiatives as a General Manager and Director of Intel Capital, the company’s venture arm. During his 20 years with Intel, he was the co-architect of Intel’s first superscalar microprocessor; co-founder and leader behind Intel’s MMX & AGP technologies; GM of Intel’s first tablet product, and helped close a $5.2B Intel-Micron JV deal for Apple’s memory supply. André has a B.S.C.S from PSU, is married with two children, and makes his home in Portland, where he spends trains a small herd of Stuttgart ponies.
Plenary Keynote Session 3: Setting an Agenda for Research & Innovation

Session Chair: Jarmo I. Suominen, Aalto University, Finland, and MIT Media Lab, United States
Saturday, 19 November 2011, 4:15 - 5:45

Wither Scientific Publishing? Collaborative Innovation, Open Platforms and Personalized Workflow Solutions Have an Answer

Vishal Gupta, Director Developer Network, Elsevier, United States

With an exponential growth of scientific information and wider distribution of services and data sources; integrated and intelligent search and discovery become crucial to the success of researchers. This is not possible without partnering on a platform that provides the ability to integrate workflow solutions in a seamless way, allowing a more meaningful use of the content. At Elsevier we are trying to bring a paradigm shift in partnering with researcher and developer communities on open platforms to jointly develop innovative workflow tools that are embedded deeply in user’s workflow, personalized to suit the individual needs, and geared towards driving research outcomes.

Vishal Gupta is the Director of Developer Network at Elsevier Inc. where he leads the development of partner ecosystem to drive innovation on Elsevier’s applications platform that enriches and expands the information search and discovery experience for over 15 million worldwide users. In his three years at Elsevier, Vishal has worked in different roles in product development, business development and building strategic partnerships. Prior to Elsevier, Vishal was working in public sector promoting community driven conservation and social entrepreneurship based on sustainable environmental policies. He has nine publications in scientific journals and a book chapter to his credit. Vishal holds an MBA from The Wharton School at the University of Pennsylvania, an MS in Environmental studies and a BS from Delhi University. Vishal is an avid traveler, black and white photography enthusiast and a die-hard cricket fan.

Urbanization from a Perspective of Mass Customization and Open Innovation

Kent Larson, MIT Media Lab, United States

This talk will provide a thought-provoking outlook by looking on urbanization from a mass customization perspective. It will propose a systems approach to creating new cities at four scales: (1) New Urban Strategies - parametric tools to create urban blocks with the optimal mix of housing, commercial, retail, and services and their related infrastructure. (2) Mobility-on-Demand - modular approach to assembling an ecosystem of mobility modes and new vehicles (like the CityCar). (3) Personalized Places of Living and Work - mass-customization strategies for high-performance urban housing. (4) Proactive Technology - sensors, algorithms, and interfaces to proactively encourage energy conservation, healthy behaviors, and mobility choices.

Kent Larson directs the Changing Places Research Group at the MIT Media Laboratory and the MIT Living Labs initiative in the School of Architecture and Planning. Current research is focused new strategies to create high-performance, mass-customized urban housing; Mobility-on-Demand concepts using shared-use electric vehicles; and Living Lab experiments to study innovation in the context of every-day life. Prior to joining MIT, Larson practiced architecture for 15 years in New York City. His book, Louis I. Kahn: Unbuilt Masterworks was selected as one of the Ten Best Books in Architecture, 2000 by the New York Times Review of Books.
Embodying Innovation for Customer Value – Building Bridges Between Mass Customization and Open Innovation

Mitchell Tseng, Hong Kong University of Science and Technology, Hong Kong

In our knowledge economy, value comes from generating creative ideas and then embodying them in products for transactions. Mass Customization starts from finding out the customer value and then tries to create the best combination of components that shape the physical products for customers to buy. On the one hand, open innovation invites creative ideas from everyone, from partners, suppliers, customers and others to contribute for a defined purpose that is valuable. Either approach involves a critical step of transforming abstract ideas to tangible products, connecting concept to physical world in order to achieve customer value. Although there are products that can be valuable in abstract forms or software, the majority of products still relies on physical embodiment. This presentation will address the interface between electronically moveable and immoveable. Some of the techniques that can be adapted to amplify the synergy between these two essential components will also be reviewed and discussed.

Mitchell Tseng is a Chair Professor of Industrial Engineering and Engineering Management at Hong Kong University of Science and Technology (HKUST). He also serves as the Associate Vice President of Research and Innovation driving Innovation Management, knowledge Transfer and Entrepreneurship issues in HKUST. He is internationally known for his research, publication and speeches on product design and global manufacturing. He has developed several novel production processes, customization and other systems that have been implemented and utilized in industry. He is a fellow of International Academy of Production Research (CIRP) and American Society of Mechanical Engineers (ASME).
Parallel Sessions 1 (Friday, 10.45-12.15)

Session 1-1: Best Practices in Mass Customization & Personalization in the Media Industries – CEO Presentations

Session Chair: Frank Piller, RWTH Aachen University, Germany
Friday, 18 November 2011, 10:45 – 12:15, Salon E (Showcase Session)

Personal Design through Mobile Configurators
Meik Lindberg, d/o/m Deutsche Online Medien, Germany
Can an investment of 100K make shortly a ROI of 500K? The presentation will feature a case study of the development of an iTunes Top10 App, presented by entrepreneur Meik Lindberg. Based on creating a compelling customer experience and a smart youmocracy concept, the App became a market leader in many segments. By the beginning of the conference, the App has already reached over three million users. Its personalization features have been the key differentiator of the application.

PersonalNOVEL: Personalized Books Reloaded
Jan-Christoph Goetze, Founder Personal Novel, Germany
PersonalNOVEL is the world’s leading and by far most innovative purveyor of personalized books. During its existence since 2003 PersonalNOVEL has perfected all different aspects of an online business dealing with mass customization: Gaining the data from the customer, processing the book, distribution, customer service and after sales management. Besides expanding the operation and growing internationally we strive to continuously improve product and ordering experience. Parallel to our new configurator launch I will demonstrate the prerequisites of a great configurator of personalized books and show the result PersonalNOVEL has developed. PersonalNOVEL was founded in 2003 and is headquartered in Munich, Germany with subsidiaries in London and Zürich, followed in 2012 in the US. Munich is also the home of our “Showroom”. We cover a variety of more than 200 titles to choose from in both languages English and German with more to follow.

Tikatok: Mass Customization in the Children’s Book Market from Launch to Becoming Barnes & Noble’s Online Children’s Publishing Platform
Neal Grigsby, Tikatok & Barnes & Noble, United States
Tikatok, a Barnes & Noble company, is the leading children’s publishing platform. Using Tikatok, children can create, share and publish their very own books. This presentation will provide a look back from when Tikatok (www.tikatok.com) first launched in 2007, to present day and how the firm has brought mass customization and personalization to the children’s book market. It will give a timeline of the company’s growth and milestones, from the concept of giving kids an online platform to create and share their original stories, to making this widely available to children all over the globe and to students in classrooms nationwide to inspire creativity and imagination. Neal will discuss Tikatok’s marketing strategies to parents and educators and how the acquisition by Barnes & Noble in 2009 gave the firm a much larger platform to make its technology available to more children not only online, but also in stores and on eReaders.

Customization for Kids Staring their lovey Soft-toy
Aymeric Malherbe, Typlume & Graphine, France
Typlume & Graphine create and sell customized books and products staring a child’s best “fictional” friend: their soft toy like a teddy bear or doll. Customer reviews have shown that this approach encourages the child to learn and participate. The personalization reassures the child but also opens up the whole world for them. All publications have been co-developed with a child psychiatrist for the creation of
Each product is made in the customer's country. This approach enables us to cut our carbon footprint related to shipping and promote local industry.

**Session 1-2: Bridging MC and OI**

**Session Chair: Paul Blazek, cyLEDGE Media GmbH, Austria**

Friday, 18 November 2011, 10:45 – 12:15, Salon A

**Fostering Mass Customization Adoption through a Suitable Specialized Open Innovation Platform**

Luca Canetta and Claudio R. Boër, University of Applied Sciences of Southern Switzerland (SUPSI), Switzerland

Frank Steiner and Frank T. Piller, RWTH Aachen University, Germany

Despite an ever increasing number of successful applications, Mass Customization (MC) is still a challenging task for the great majority of companies that can potentially apply it. Theoretical discussions and improvements steered by academics and big industrial players have to be communicated to the entire industrial tissue and serve as incentive and best practices for any potential MC adopters. An Open Innovation (OI) approach seems promising for disclosing to a wide audience the opportunities brought by MC. The design of this OI is proposed on the basis of: literature review, analysis of already existing OI Accelerators, survey about objectives and motivations of various categories (academic and practitioners) of potential participants. The contents and the services to be provided are identified; the way of structuring the platform according to the various communities is specified. The objective is having a seamless integration and interaction of diverse communities to exploit their unique competences and idea for fostering MC adoption. Finally, the first draft of the deployment strategy and business model is provided.

**Motives and Barriers for Bridging Mass Customization and Open Innovation in High Tech Industry**

Laurent Scaringella, University of California, Berkeley, United States

The article intends to moderate the global spread of mass customization and open-innovation. Motives and barriers of such development need to be fully understood to know and overcome difficulties and to benefit from a greater innovation and customer satisfaction. The article particularly focused on micro / nano technologies and software sector which is very different from the large use of mass customization for consumer goods. The main difference is related to the length of the Knowledge Value Chain from exploration, examination and exploitation. Mass customization is still very limited to a marginal part of the exploitation and would most probably spread up to examination and potentially to early stages of exploration in the next years.

**Towards Creative Open Innovation Software as Facilitators of Successful Mass Customization**

Jenny Eriksson Lundström and Stefan Hrastinski, Uppsala University, Sweden

Creativity is the very heart of innovation, as innovation is characterized by doing things in new and creative ways. Open innovation software (OIS), i.e. technology that aims to support the generation of innovations via networks, is a promising paradigm for implementing mass customization. For the purpose of capturing individual needs of heterogeneous customer groups via web-based applications, while maintaining profitable long tail business models, the support of creativity of individual customers' in such tools is imperative. The purpose of this paper is to explore how existing (OIS) are able to support different types of creativity. We examine to what extent OIS support the following established three schools of creativity:
structuralist, inspirationist and situationalist. We found that most OIS provide systematic and social collaboration functionality, but fail to incorporate support for creative and playful exploration. Existing designs of OIS provide limited support to the large category of users who thrive creatively when breaking away from familiar structures. The paper is the first attempt to explore the role of different types of creativity in OIS, and its implications for turning customer heterogeneities into successful business models.

Using Generative Design Technology for Open Innovation

Jian You Li, Politecnico di Milano, Italy

The possibility of generative design applied on the mass customization has been discussed for years. The methods of related design autonomy could provide mass choice in the design process, and help those participators to execute a design without professional training. The generative ability also causes an issue that consumers/designers confront and puzzled about the great quantity of design options in the operation, and this links to the question about effective navigation in the solution space. This paper discussed about a gradual procedure of providing design possibilities in the customizing/design process depends on the designer’s actions and primary sequence. The operating principles of most on-line searching engines are used to explain the logic of how possible options involve in the design development for the non-designers to focus on the valuable options and connections.

Session 1-3: Customer Co-Creation and Co-Design I

Session Chair: Charles Weber, Portland State University, United States of America
Friday, 18 November 2011, 10:45 – 12:15, Salon B

The Future of Crowdsourcing – From Idea Contests to MASSive Ideation

Johann Füller, Hyve AG, Germany
Katja Hutter and Julia Hautz, University of Innsbruck, Austria

The chapter provides an overview of crowdsourcing practices for the future and introduces the “MASSive Ideation” approach as one possible form of community-based innovation. In contrast to currently popular idea contests, MASSive Ideation not only supports generating and evaluating numerous ideas, it also allows for the further elaboration of top-ranked ideas into a handful of the most promising concepts. This is done in collaboration with a large and geographically scattered crowd. Our software-based approach captures the advantages of both real-life innovation workshops and virtual online interaction to facilitate the generation of elaborated product or service concepts. Based on our findings about the requirements and applicability of idea contests and MASSive Ideation, the chapter provides guidelines that might help many different crowdsourcing and community-based innovation projects.

Coopetition in Virtual Communities: An Interdisciplinary Approach

Vera Blazevic, Radboud University Nijmegen, Netherlands, and RWTH Aachen, Germany
Sophie Einwächter, Ruhr University Bochum, Germany
Alexandra Gatzweiler and Evalotte Lindgens, RWTH Aachen University, Germany

Virtual communities provide an essential outlet for customer co-creation. We use the concept of coopetition to study cooperative and competitive mechanisms in virtual customer communities and their single as well as joint effect on individual and community productivity. In particular, we postulate that coopetition increases productivity and is important for the long-term survival of the community. We employ a qualitative, exploratory research design among a wide variety of virtual customer communities (fan culture, design, and service support communities). Our results will provide a holistic framework on coopetition in virtual communities that captures intercommunity similarities and differences.