



PROOF OF CONCEPT

**ServDes.
2018**

**18-20 JUNE
2018**

MILANO

Service Design Proof of Concept. Proceedings of the ServDes.2018 Conference
Editors: Anna Meroni, Ana María Ospina Medina, Beatrice Villari

ServDes.2018

*Service Design Proof of Concept
Proceedings of the ServDes.2018 Conference*

Editors:

Anna Meroni

Ana María Ospina Medina

Beatrice Villari

www.servdes.org

Linköping Electronic Conference Proceedings No. 150

ISSN 1650-3686

eISSN 1650-3740

ISBN: 978-91-7685-237-8

URL: www.ep.liu.se/ecp/contents.asp?issue=150

Linköping University Electronic Press

Linköping, Sweden, 2018

ABOUT SERVDES . 2018

Service Design can no longer be considered an ‘emerging discipline’. Though recent and in continuous evolution, it is now consolidated enough to be assessed and reviewed in terms of effectiveness and impact on economy and society: how far has the logic of services (and of Service Design culture) influenced the different domains of innovation and value creation? How much has this been truly integrated into the innovation process of private and public sectors? How effectively has this been understood, evaluated and discussed? How far have digital technologies and media been influencing service design and delivery?

Initially, Service Design mainly concentrated on the paradigm shift from designing the materiality of objects to focusing on immaterial experiences, interfaces, interactions, and strategies. Thus, for some decades attention has been paid to the changing role and competencies of the designer, and to the establishment of Service Design as a discipline in its own right, despite its multi-disciplinary approach which includes management, ethnography, sociology, and organizational studies, to mention but a few.

The ServDes.2018 conference aimed at validating, discussing and reviewing the models, processes and practices developed and used in the service design ecosystem, from its academic community to practitioners, companies and organizations at large.

CONFERENCE COLOPHON

LOCAL SCIENTIFIC COMMITTEE

CONFERENCE CHAIR

Anna Meroni, *Department of Design, Politecnico di Milano*

CO-CHAIRS

Davide Fassi, *Department of Design, Politecnico di Milano*

Stefano Maffei, *Department of Design, Politecnico di Milano*

Margherita Pillan, *Department of Design, Politecnico di Milano*

Daniela Sangiorgi, *Department of Design, Politecnico di Milano*

TRACK CHAIRS

1. Learning and practicing

Alessandro Deserti, *Department of Design, Politecnico di Milano*

Anna Meroni, *Department of Design, Politecnico di Milano*

Bas Raijmakers, *Design Academy Eindhoven and STBY, The Netherlands*

2. Sharing and collaborating

Marta Corubolo, *Department of Design, Politecnico di Milano*

Daniela Selloni, *Department of Design, Politecnico di Milano*

Anna Seravalli, *The School of Arts & Communication Malmö University, Sweden*

3. Measuring and evaluating

Francesca Foglieni, *Department of Design, Politecnico di Milano*

Beatrice Villari, *Department of Design, Politecnico di Milano*

Froukje Sleeswijk Visser, *TU Delft, The Netherlands*

4. Governing and evidencing

Stefano Maffei, *Department of Design, Politecnico di Milano*

Marzia Mortati, *Department of Design, Politecnico di Milano*

Jesper Christiansen, *Nesta, United Kingdom*

5. Producing, distributing and organising

Venanzio Arquilla, *Department of Design, Politecnico di Milano*

Massimo Bianchini, *Department of Design, Politecnico di Milano*

Peter Gall Krogh, *Department of Engineering-Design, Aarhus University, Denmark*

6. Experiencing and shaping

Davide Fassi, *Department of Design, Politecnico di Milano*

Laura Galluzzo, *Department of Design, Politecnico di Milano*

Oliver Marlow, *Studio TILT, United Kingdom*

7. Community and relationship building

Margherita Pillan, *Department of Design, Politecnico di Milano*

Francesca Piredda, *Department of Design, Politecnico di Milano*

Lisbeth Frølund, *The Department of Communication and Arts, Roskilde University, Denmark*

8. Envisioning and evolving

Daniela Sangiorgi, *Department of Design, Politecnico di Milano*

Francesco Zurlo, *Department of Design, Politecnico di Milano*

Lia Patrício, *School of Engineering, Industrial Engineering and Management, Universidade do Porto, Portugal*

CONFERENCE MANAGEMENT AND ORGANIZATION

Conference Manager

Beatrice Villari, *Department of Design, Politecnico di Milano*

ConferenceManagerAssistant

Ana María Ospina Medina, *Department of Design, Politecnico di Milano*

External Events Coordinator

Martina Rossi, *Department of Design, Politecnico di Milano*

WORKSHOPS

Workshops Chair

Marzia Mortati, *Department of Design, Politecnico di Milano*

PhD SPECIAL SEMINAR

PhD Special Seminar Management and Organization

Annalinda De Rosa, *Department of Design, Politecnico di Milano*

with **Camilo Ayala García**, *Department of Design, Politecnico di Milano*

Stefano Parisi, *Department of Design, Politecnico di Milano*

ADVISORY BOARD

Silvia Piardi, *Head of the Department of Design, Politecnico di Milano*

Luisa Collina, *Dean of the Design School, Politecnico di Milano*

Giuliano Simonelli, *President of POLI.design, Politecnico di Milano*

Matteo Ingaramo, *General Director of POLI.design, Politecnico di Milano*

Paola Bertola, *Coordinator of the PhD in Design, Politecnico di Milano*

Ezio Manzini, *Honorary Professor of Design, Politecnico di Milano*

VISUAL COMMUNICATION DESIGN

Andrea Manciaracina, *Department of Design, Politecnico di Milano*

Cecilia Della Mora, *Politecnico di Milano*

TRANSLATION AND ENGLISH EDITING

Rachel Anne Coad

INTERNATIONAL REVIEW BOARD

A

Agger-Eriksen Mette, The Royal Danish Academy of Fine Arts
Anderson Megan, STBY
Arets Danielle, Design Academy Eindhoven
Aricò Marzia, Copenhagen Business School
Arquilla Venanzio, Politecnico di Milano
Arvola Mattias, Linköping University
Attiwill Suzie, RMIT University
Auricchio Valentina, 6ZERO5

B

Bailey Jocelyn, University of Brighton
Bertolotti Elisa, Uma
Bianchini Massimo, Politecnico di Milano
Bofylatos Spyros, University of the Aegean
Botero Andrea, SUo&
Boulding Harriet, King's College London
Broadbent Stefana, Politecnico di Milano
Brooker Graeme, Royal College of Art
Bucolo Sam, Swinburn University

C

Calabretta Giulia, Delft University of Technology
Calvo Mirian, The Glasgow School of Art
Camocini Barbara, Politecnico di Milano
Capano Giliberto, University of Bologna
Carr Valerie, We are Snook
Cautela Cabirio, Politecnico di Milano
Ceschin Fabrizio, Brunel University
Cho Eun Ji, Hunan university
Ciancia Mariana, Politecnico di Milano
Cipolla Carla, Federal University of Rio de Janeiro
Clatworthy Simon, AHO
Colombo Alessandro, Eupolis Lombardia
Colombo Sara, Politecnico di Milano
Corubolo Marta, Politecnico di Milano
Costa Fiammetta, Politecnico di Milano
Crippa Davide, Politecnico di Milano

D

Daam Heather, Heather Daam
De Göitzen Amalia, Aalborg University
De Pieri Benedetta, Glasgow Caledonian University
De Rosa Annalinda, Politecnico di Milano
Del Gaudio Chiara, Universidade do Vale do Rios dos Sinos
Dell'Era Claudio, Politecnico di Milano
Deserti Alessandro, Politecnico di Milano
Di Prete Barbara, Politecnico di Milano
Di Sabatino Peter, Politecnico di Milano

F

Fassi Davide, Politecnico di Milano
Ferraro Venere, Politecnico di Milano

Foglieni Francesca, Politecnico di Milano
Franqueira Teresa, Universidade de Aveiro
Franzato Carlo, Escola de Design Unisinos
Freire Karine, Universidade do Vale do Rio dos Sinos
Frolunde Lisbeth, Roskilde University

G

Galluzzo Laura, Politecnico di Milano
Gatto Gionata, Studio Gionata Gatto
Gerosa Giulia, Politecnico di Milano
Grenha Teixeira Jorge, University of Porto

H

He Shushu, Politecnico di Milano
Hermida-Rodríguez Belén, University CEU San Pablo
Holmlid Stefan, Linköping University

J

Jahnke Marcus, RISE Research Institute of Sweden
Junginger Sabine, Lucerne University of Applied Sciences and Arts

K

Kim Yong-Se, Sungkyunkwan University
Koskinen Ilpo, PolyU
Krogh Peter G., Aarhus University

L

Lega Elisa, University of Brighton
Longo Antonio, Politecnico di Milano

M

Maffei Stefano, Politecnico di Milano
Mahr Dominik, Maastricht University
Malmberg Lisa, FoU i Sörmland
Mariani Ilaria, Politecnico di Milano
Marlow Oliver, Studio TILT
Marttila Sanna, IT University of Copenhagen
Mattana Walter, Politecnico di Milano
Mazzarella Francesco, Loughborough University
Mazzeo Arianna, Elisava Barcelona School of Design and Engineering
Menichinelli Massimo, Aalto University
Meroni Anna, Politecnico di Milano
Merritt Timothy, Aalborg University
Miettinen Satu, University of Lapland
Mieyeville Fabien, University Claude Bernard Lyon 1
Morelli Nicola, Aalborg University
Mortati Marzia, Politecnico di Milano
Mulder Ingrid, Delft University of Technology
Murialdo Francesca, Politecnico di Milano

N

Ni Mingqing, Tongji University

O

Overkamp Tim, Linköping University

P

Pacchi Carolina, Politecnico di Milano

Patrício Lia, University of Porto

Pavlovic Milica, Politecnico di Milano

Pawar Aditya, Umeå Institute of Design

Penin Lara, Parsons, The New School

Pereira Catia, University of Aveiro

Piccinno Giovanna, Politecnico di Milano

Q

Quaggiotto Giulio, Nesta

R

Raijmakers Bas, STBY and Design Academy Eindhoven

Rebaglio Agnese, Politecnico di Milano

Reid Iain, The Glasgow School of Art

Rizzo Francesca, Politecnico di Milano

Roldan Juan, American University of Sharjah

Rygh Karianne, Creative Industries Scientific Program (CRISP)

S

Sangiorgi Daniela, Politecnico di Milano

Selloni Daniela, Politecnico di Milano

Seravalli Anna, Malmö University

Simeone Luca, Malmö University

Sleeswijk Visser Froukje, Delft University of Technology

Smedberg Alicia, Malmö University

Staszowski Eduardo, Parsons The New School

Sun Qian, RCA

Suteu Irina, Independent designer

T

Tassi Roberta, Politecnico di Milano

Tassinari Virginia, MAD faculty

Telalbasic Ida, Politecnico di Milano

Teli Maurizio, Madeira Interactive Technologies Institute

Thorpe Adam, University of the Arts London

Tooze James, Royal College of Art

Trapani Paola, Politecnico di Milano

V

Van Dijk Geke, STBY

Varisco Laura, SRLabs

Vecchi Giancarlo, Politecnico di Milano

Villari Beatrice, Politecnico di Milano

W

Wetter-Edman Katarina, Orebro Universitet

Whicher Anna, Pdr

X

Xiaocun Zhu, Tongji University

Y

Yee Joyce, Northumbria University

Z

Zurlo Francesco, Politecnico di Milano

ORGANISERS



**POLITECNICO
MILANO 1863**

SCUOLA DEL DESIGN
DIPARTIMENTO DI DESIGN

POLI.DESIGN

FOUNDED BY
POLITECNICO DI MILANO

**POLIMI
DESIGN
SYSTEM**

WITH THE PATRONAGE OF

International



cumulus
creative linking

**DESIS
NETWORK**
Design for
Social Innovation
and Sustainability

National



**Regione
Lombardia**

Milano



Comune
di Milano

ADI

ADI ASSOCIAZIONE
PER IL DISEGNO
INDUSTRIALE



**Triennale
Design
Museum**

MAIN PARTNER

Deloitte.
Digital

CHAMPIONS

**Digital
Entity**

an NTT DATA
design studio

TWIG®

STRATEGISTS



ANTREEM

attoma

Logotel

making together

ZEHUS

TECHNICAL PARTNERS

openKNOWLEDGE
innovation
through
collaboration

SDD
Milan

LAGO

SPECIAL THANKS

Andrea Manciaracina and Cecilia Della Mora for the quality of the graphics; Mariano Chernicoff and the Lab Allestimenti staff for the set-up of the campus; Matteo Bergamini and the Lab Immagine for the great pictures; Roberta Gorno, Sara Pellanda, Matteo Ingaramo, Giuliano Simonelli for managing all the administrative issues and sustaining the conference activities; our volunteers (Erika Cortese, Federico De Luca, Nicoletta De Pace, Georgia Gkini, Akanksha Gupta, Octavian Husoschi, Maddalena Mazzocchi, Sruthy Padannappurath, Francesca Porricolo Matilde Rosini, Gea Sasso, Xinmiao Shen, Gregorio Stano, Diana Pamela Villa) for their priceless support; Anne Schoonbrodt for the help in reinforcing the international community; Luisa Collina for the hospitality at the School of Design; Silvia Piardi for the support of the Design Department of Politecnico di Milano; all the ServDes 2018 Sponsors and Supporters; all the conference participants for their enthusiasm.

TABLE OF CONTENTS

Pg.

Track 1: Learning and practicing

Learning and practicing in service design Alessandro Deserti, Anna Meroni, and Bas Raijmakers	1
The briefing process: Examining the client-consultant relationship through a case Begüm Becermen, Esben Grøndal and Amalia De Götzen	13
Desis Network: Strategies to advancing systemic social innovation through service design Carla Cipolla	25
Learning to design in public sector organisations: A critique towards effectiveness of design integration Stefan Holmlid and Lisa Malmberg	37
Fostering a sustained design capability in non-design-intensive organizations: a knowledge transfer perspective Filipe Lima and Daniela Sangiorgi.	49
Service design for behavioural change - current state of the discipline and practice in India Ravi Mahamuni, Pramod Khambete and Ravi Mokashi-Punekar	62
The designer as agent of community Thomas Østergaard	76
From user-centred to stakeholder oriented service design: Implications for the role of service designers and their education based on an example from the public sector Lorenz Herfurth and Kirsty Sinclair	91
Working with complexity: A contemporary skill framework for service designers Tamami Komatsu Cipriani and Martina Rossi.	105
The satellite applications catapult: Design's contribution to science and technology innovation services Alison Prendiville.	117
Navigating the sociocultural landscape in service design Laura Santamaria, Carolina Escobar-Tello and Tracy Ross.	131
Exploring the future of consumer retail Jim Budd, Paul Della Maggiora and Florian Vollmer.	152
A designerly-way of conducting qualitative research in design studies Nina Costa, Lia Patrício and Nicola Morelli.	164
Making sense of data in a service design education Amalia de Götzen, Péter Kun, Luca Simeone and Nicola Morelli.	177
Put on your oxygen mask before helping others: Mental well-being in service design Anne Dhir.	189
The future of visual communication design is almost invisible or why skills in visual aesthetics are important to service design Mark Roxburgh and Jemima Irvin.	199
Bodystorming: Lessons learnt from its use on the classroom Aguiinaldo Santos, Aline Muller Garcia, Milena Carneiro Alves and Emanuela Lima Silveira.	216

Service design in companies Linda Covino and Alessandro Piana Bianco	227
A service design experiment in the Municipality of Turin to overcome organisational silos	230
The Designers Italia project - building the community of public services designers Alessandro Deserti, Francesca Rizzo	234

Track 2: Sharing and collaborating

Sharing and collaborating in service design Marta Corubolo, Daniela Selloni, and Anna Seravalli	237
Service co-design for the shared mobility sector: A free-floating bike sharing model Silvia Cacciamatta, Francesca Foglieni and Beatrice Villari.	252
Adapting the design process for different learning styles and abilities Valerie Carr.	266
Analysis on the utilization of co-design practices for developing consumer-oriented public service and policy focusing on the comparison with western countries and south korea Yoori Koo and Hyeonseo Ahn	281
Tools for collaborating and interacting in living labs Maximilian Perez Mengual, Julia M. Jonas, Stephanie Schmitt-Rueth and Frank Danzinger.	298
Civic engagement as participation in designing for services Lara Salinas, Adam Thorpe, Alison Prendiville and Sarah Rhodes.	311
Co-creation with vulnerable consumers – an action research case study of designing a pictorial language for logistics Stephanie Schmitt-Rüth, Martina Simon, Andreas Demuth, Alexandra Kornacher, Marjan Isakovic, Michael Krupp and Michael Stoll.	323
The act of giving – sur. A service for sharing and co-producing gifts Giulia Bencini, Kuno Prey and Alvis Mattozzi.	338
Building trust in relational services: The analysis of a sharing service between neighbours Mariana Freitas and Carla Cipolla.	357
Understanding generalisability from network-conscious service design projects Tim Overkamp, Martina Čaić, Stefan Holmlid, Dominik Mahr and Gaby Odekerken-Schröder.	368
Maps as participatory platform: towards to open data and transport service Hyunyim Park.	386
Service design and human resource consulting: An integrated vision Valentina Auricchio, Martina Rossi, Giovanna Dezza and Pierpaolo Peretti Griva.	401
Developing recovery oriented services and co-production in mental healthcare: Building-up on existing promising organisational practices Marta Carrera, Daniela Sangiorgi, Francesca Foglieni and Fabio Lucchi.	414
User perceptions of design games as settings for organizational learning: Case Topaasia Otso Hannula and J. Tuomas Harviainen	427

Quasi-participatory service design in organizational context: A case study Ravi Mahamuni, Shivani Sharma, Sylvan Lobo, Ulemba Hirom and Pramod Khambete.	440
Designing tangible tools to support collaboration in the co-design of healthcare services Karianne Rygh.	455
Integrating empathy and lived experience through co-creation in service design Josina Vink and Anna-Sophie Oertzen.	471
Collaborative services in the Italian city of Reggio Emilia. The case study of “Il quartiere bene comune - The neighbourhood as commons” Francesco Berni	484

Track 3: Measuring and evaluating

About evaluation in service design: As it is and how it could evolve Francesca Foglieni, Beatrice Villari, Froukje Sleeswijk Visser	489
Measuring the impact of design, service design and design thinking in organizations on different maturity levels Tua Björklund, Pia Hannukainen and Tuomas Manninen.	500
Using the net promoter score to support service design: Digging for gold in customer free-text reports Asbjørn Følstad and Knut Kvale.	512
ServDeWS: The service design workshop on utilizing multi-viewpoint and diversity of participants based-on human centered approach for R&D specialists Koki Kusano, Atsunobu Kimura and Masayuki Ihara	523
Mapping design capability of public service organisations: A tool for collaborative reflection Yvonne Yeo and Jung-Joo Lee	534
A service evaluation in the shared mobility sector: Bitride bike sharing project Silvia Cacciamatta and Virginia Allevi	550
A service to measure overall adequacy across a banking environment Fabio Poli and Alessandro Zorzi	555

Track 4: Governing and evidencing

Design craft in Government Marzia Mortati, Jesper Christiansen and Stefano Maffei	561
The role of service design consultancy in public sector: Inferences from KIBS and service innovation perspectives Adedapo Adebajo.	572
The stakeholder map: A conversation tool for designing people-led public services Fanny Giordano, Nicola Morelli, Amalia De Gotzen and Judith Hunziker.	582
Different journeys towards embedding design in local government in England Inbo Kang and Alison Prendiville.	598

Guiding the welfare state towards a co-creative and explorative mindset: When a crisis is an opportunity Matilda Legeby, Pia McAleenan, Hanna Andersson and Stefan Holmlid.	612
Co-designing public services with vulnerable and disadvantaged populations: Insights from an international collaboration Gillian Mulvale, Sandra Moll, Ashleigh Miatello, Glenn Robert, Michael Larkin, Victoria Palmer, Chelsea Gable and Alicia Powell.	629
Service design and the co-production of public policies: The case of RedActiva Cristobal Tello, Carola Zurob, Sol Pacheco and Sebastian Negrete.	631
Civic Imagination Office as a platform to design a collaborative city Michele d'Alena, Simona Beolchi and Stefania Paolazzi	645
Includi.MI: Local government and social entrepreneurship for an inclusive city Denise Di Dio	649

Track 5: Producing, distributing and organising

Service design in open production, distribution and organisation as a discipline facilitating democratic critique? Massimo Bianchini, Venanzio Arquilla, Peter Gall Krogh	654
Service design in the later project phases: Exploring the service design handover and introducing a service design roadmap Frida Almqvist.	666
Weaving the threads: Service innovation with textile artisan communities Francesco Mazzarella, Val Mitchell, Andrew May and Carolina Escobar-Tello.	679
The Coconut Innovation framework: An innovation framework focusing on resources Satoru Tokuhisa.	696
Municipality as a platform: the case of Manifattura Milano Annibale D'Elia	713

Track 6: Experiencing and shaping

"Experiencing and shaping": The relations between spatial and service design Davide Fassi, Laura Galluzzo, Oliver Marlow	717
Service design methods and tools as support to the participatory definition of the meta-design brief of a contemporary integrated campus Barbara Camocini, Luisa Collina, Laura Daglio, Martina Mazzarello and Paola Trapani	726
Service design principles for organizational well-being: Improving the employee experience through design thinking Marco Di Norcia, Fabiola Bertolotti and Matteo Vignoli	736
Designing spaces and services. An experimental project for student dormitories: Collective experiences, connected lives and linked places Claudia Mastrantoni, Luisa Collina, Peter Di Sabatino and Laura Galluzzo	751
Can coworking spaces be built bottom-up? Vanessa Monna, Giuliano Simonelli, Francesco Scullica and Elena Elgani	761

Design thinking for interior and spatial design: A case study within Politecnico di Milano Ngoc Pham and Davide Fassi	772
Engagement strategies within co-making environments bridging spatial and organisational design Ricardo Saint-Clair	785
Dance of designing: Rethinking position, relation and movement in service design Shana Agid and Yoko Akama	800
Facilitating in service design using desktop walkthroughs Johan Blomkvist and Fredrik Wahlman	812
Traces as service evidence Spyros Bofylatos	822
VR service walkthrough: A virtual reality-based method for service prototyping Costas Boletsis	834
Service+Spatial design: Introducing the fundamentals of a transdisciplinary approach Davide Fassi, Laura Galluzzo and Annalinda De Rosa	847
Space and service design into educational practice Nansi van Geetsom	863
Refugees Welcome Italia ONLUS, shaping the new hospitality system Lucia Oggioni,	876
Starting up communities in housing spaces Giordana Ferri	880

Track 7: Community and relationship building

New paradigms related to community building and identity in service design: Exploring global and local design initiatives Lisbeth Frølund, Margherita Pillan, Francesca Piredda	885
We are brand: Brand co-creation as an engine for new forms of welfare services Matteo Colombo, Elena Enrica Giunta and Paola Papetti.	896
Service design tools to engage marginalised youth in San Communities of Southern Africa Fabrizio Pierandrei, Silvia Remotti, Tang Tang, Shilumbe Chivuno Kuria and Stefano Anfossi.	911
Research by design and collaboration in the perspective of post-soviet 'nuclear' town Visaginas –RDCPP-SNTV Alla Pihalskaya.	924
Service design for community based tourism - The Brazilian case study Priscilla Ramalho Lepre.	940
Empowering community volunteers through matchmaking services Geertje Slingerland, Ingrid Mulder and Tomasz Jaskiewicz.	954
Service as a system of participation: A case study of a participatory economy Miso Kim.	966

A CRX framework and tools to design for relationships in service settings
Jan Koenders, Dirk Snelders, Maaïke Kleinsmann and Jürgen Tanghe. 976

Service design and activity theory for the meta-design of collaborative design processes
Massimo Menichinelli 994

Funding service design: Growing service design practice through a grants programme
Laura Warwick, Paola Pierri, Claire Bradnam and Emma Field. 1009

Track 8: Envisioning and evolving

Envisioning and evolving: Future evolution of the concept and the practice of service design
Daniela Sangiorgi, Lia Patricio and Francesco Zurlo 1019

Designing Convivial Food Systems in Everyday Life
Emily Ballantyne-Brodie. 1032

Trendslation – an experiential method for semantic translation in service design
Claire Dennington. 1049

Service design for artificial intelligence
Andrea Gasparini, Ahmed Abdi Mohammed and Gabriele Oropallo. 1064

Constructing an approach to identify service design narratives: Findings of an automated text analysis
Mauricio Manhaes. 1074

Resident autonomy in assisted living facilities: a conceptual framework for transformative service research
Valeria Ramdin, Miso Kim, Rachel Pozzar, Xing Zhou, Yixuan Zhang and Paul Fombelle. 1088

Digital methods for service design experimenting with data-driven frameworks
Roberta Tassi, Agata Brilli and Donato Ricci. 1100

Bridging design-driven and service innovation: Consonance and dissonance of meaning and value
Ana Kustrak Korper, Stefan Holmlid and Lia Patrício. 1130

Service designers, unite! Identifying shared concerns among multidisciplinary perspectives on service design
Maíra Prestes Joly, Jorge Grenha Teixeira, Lia Patrício and Daniela Sangiorgi. 1144

Perceived Action Potential: A strong concept in development
Vanessa Rodrigues, Johan Blomkvist and Stefan Holmlid. 1162

Design the impact
Cristina Favini 1175

Enhancing industrial processes in the industry sector by the means of service design
Giuseppe Attoma Pepe and Peter Livaudais 1179

PhD Special Seminar

The PhD Special Seminar on service design: unfolding a proof of concept 1186
Annalinda De Rosa, Stefano Parisi and Camilo Ayala García

Workshops

From A to BE. Designing the mobility of the future 1205
Antonio Grillo, Antonella Paparella, Giselle Chajin, Giulia Di Gregorio, Michele Armellini, Alessandro and Gomiero, Maria Prina

Data challenges and opportunities in designing for service 1206
Amalia de Gó'tzen, Nicola Morelli, Luca Simeone, Lorenzo Ruggieri, Ilaria Vitellio

Between servitude and collaboration: A service design choice? 1207
Carla Cipolla, Ezio Manzini, Mattelmä'ki Tuuli, Arianna Mazzeo, Lara Penin, Adam Thorpe

The latest words on service design: Talking about books 1208
Lorenzo Imbesi, Francesca Foglieni, Markus Edgar Hormess, Adam Lawrence, Stefano Maffei, Lara Penin, Alison Prendiville, Daniela Sangiorgi, Jakob Schneider, Daniela Selloni, Mark Stickdorn, Beatrice Villari

How service design can drive the digital transformation of the retail revolution 1209
Alessandro Piana Bianco, Linda Covino

Digital transformation through community and relationship building 1210
Francesca Piredda, Caterina Petroni, Simona Venditti, Emiliano Verga

Service design for autonomous driving 1211
Valerio Cometti, Marco Generali, Giacomo Biraghi

Gamification for service design and innovation workshop 1212
Rui Patrício and Rei Morozumi

Humanizing organizations - the pathway to growth 1229
Andrea Augsten, Titta Jylkä's, Rachel Hollowgrass, Marjukka Makela Klippi

Track 1: Learning and practicing

Today's organisations are increasingly taking advantage of approaches from the design field to nurture, re-frame and manage their innovation strategies. Design "thinking", in the broader sense, is adopted by public and private organizations with the aim of transforming both the processes and the outputs of a variety of human-centred activities, including the management of human resources. Service design, in particular, is increasingly used to build internal competencies and/or collaborate with service design agencies. This is largely due to its intrinsic focus on interaction and user experience, its transformative perspective on people's behaviours and its problem solving approach.

As a consequence, a number of business consultancies are expanding their skills into the service design field. In a situation where design competencies are diffused and everybody can access the 'tools for designing', the need to redefine the role of service designers naturally emerges. Their professional value and competencies require resetting as against other practitioners working within services and innovation.

This track aims to explore the evolution of the skills a service designer must acquire and which education is expected to provide. It will reflect on:

- The role of service designers in different sectors and organizations and the related challenges, in particular with regard to their relationship with other design experts and the broader ambit of application of design thinking.
- The new skills that need to be taught in order to tackle the challenges of the service design practitioner and expert.

ServDes2018 - Service Design Proof of Concept
Politecnico di Milano
18th-19th-20th, June 2018

Service co-design for the shared mobility sector

Silvia Cacciamatta, Francesca Foglieni, Beatrice Villari
silvia.cacciamatta@polimi.it
Politecnico di Milano, Italy

Abstract

In this paper, we present an action-research process within an Horizon 2020 project conducted through a co-design approach with the SME Zehus. In order to define a new model of free-floating bike sharing service to be implemented in the city of Milan, co-design activities were conducted with different project stakeholders and structured in the form of an explorative workshop, creative sessions, and user tests. This approach allowed envisioning and validating solutions, sharing competencies, and make decisions through collaboration in a iterative process.

The adoption of co-design had relevant influence on the design of the final solution, going beyond the users' perspective, but rather focusing on those of the service provider and the municipality of Milan, which is going to host the service. The active involvement of Zehus in co-design activities also had an educational value, given by the transfer of service design competencies and tools, which can empower the company in approaching future businesses able to answer to the evolution of shared mobility.

KEYWORDS: service design, co-design, organizational changes, free floating bike sharing, shared mobility

Introduction

Among different methods that have been developed and applied over recent years in order to involve end users and other stakeholders in the design of new products, services, or public policies, co-design have been highly adopted as a way to generate innovation in a more efficient and inclusive manner (Dubois et al, 2016). It is, in fact, one of the most studied issues in design research (Brown, 2008) and it is possible to observe a big amount of literature dealing with co-design in terms of general definition and proliferation (Sanders, 2006). Co-design (Sanders and Stappers, 2008; Binder and Brandt, 2008) can have different connotations depending on the level of collaboration among the actors involved - who can vary from users, providers, employees, decision makers, design experts (Steen et al., 2011) - the scale of application - e.g. the company level or the wider urban level - and tools adopted. Moreover, co-design activities can be introduced at different steps of the design process:

- during the explorative research phase, in order to identify possible future scenarios and to deepen knowledge on users or the context at hand;
- during the ideation or development phase, in order to generate, prototype and test ideas with end users and stakeholders involved;
- and eventually during the evaluation phase of the service, in order to set up an evaluation strategy aimed at assessing values shared by the different actors of the service system (Foglieni et al., 2017).

Through co-design workshops and creative sessions, it is possible to imagine new ways of interaction, to design new products or service solutions as well as new business models, or to improve or validate existing ones (Steen et al., 2011).

The analysis of literature (Deserti and Rizzo, 2001; Dubois et al., 2016; Pirinen, 2016; Sander and Stappers, 2008; Reason et. al, 2016) highlights that co-designing with end users seems to increasingly diverge from co-designing with companies, especially in relation with tools adopted and the role of designers. According to Deserti and Rizzo (2011), one of the main difference among the two approaches lies in the goals pursued by the companies involved, which are usually focused on designing new business models and envisioning innovation as a dynamic and systemic change at each level of the organizations. Accordingly, co-designing with companies differs in the way the project is managed, since interactions occur among experts rather than final users. Co-design projects with companies, in fact, involve specialists and employees, with specific knowledge on the sector, the market, the company production processes as well as its mission and vision.

An additional aspect that differentiate co-design with a company from co-design with end users consists of the level of impact on the final solution and on the company itself. Over the past years, numerous design professionals operating in the field of service design had the opportunity to conduct projects able to stimulate and introduce changes within organizational systems. Accordingly, many researchers have been focusing on the topic and the transformative role of design has been largely investigated (Bate and Robert, 2007a, 2007b; Buchanan, 2004; Junginger, 2008; Junginger and Sangiorgi, 2009; Sangiorgi 2011; Somerville and Nino, 2007).

Literature about the topic shows that service design practitioners have been moving from providing solutions to specific problems, to providing organisations with the tools and capacities for human-centred service innovation (Junginger and Sangiorgi, 2009). According to Burns et al. (2006), there are 6 different key characteristics of service design's transformational power, that go, for example, from the formulation of the right problem and the definition of the brief, to applying participatory design techniques in order to bring together all stakeholders' ideas, expertise and knowledge, to finally creating fundamental change, as projects can initiate a lasting transformation process within a company. The transformational strength of service design constituted an important cause of reflection during the Bitride project, helping us to frame the results, even though we did not specifically direct our work towards transformational aims.

This paper focuses on a Horizon 2020 project where co-design activities with the company acquired a distinctive role.

The first part of the paper introduces the topic of shared mobility and it describes the project, called Bitride Bike Sharing, which aimed at defining a new bike sharing service model to be implemented by Zehus, a SME based in Milan. Then, the action-research methodology applied to the project is described.

The second part of the paper illustrates the co-design activities that have characterized the three phases of the project. Service design activities, in fact, were organized involving all the project stakeholders, and leveraging co-design as a facilitator of collaboration (Sanders and Stappers, 2008) between the project partners rather than with final users (Pirinen, 2016). This allowed researchers exploiting the knowledge and expertise of professionals involved, building up a collaborative setting in which they could come together and play an active role in all the phases of the process (Dubois et al., 2016). Accordingly, we present some of the first results emerging from the different phases, in particular focusing on the role of co-design in:

1. The design of the bike sharing service solution as a result of collective creativity based on the collaboration between design researchers, Zehus, project partners, and potential users selected from the stakeholders internal teams;
2. The educational value given by the transfer of design thinking competencies and tools to the company, fostering, on the one hand, collaboration within different departments of the company and facilitating, on the other hand, the shift of Zehus from being a manufacturing company to becoming a service provider.

To conclude, we formulate some considerations related to the main results of the Bitride project, describing how co-design impacted on the design of final solution and on the organizational changes related to the company's internal processes.

Bitride Bike Sharing: an action-research approach to design a free-floating bike sharing service

In recent years, fostering sustainable urban mobility has become one of the most important challenges for big cities (Cohen and Kietzmann, 2014). In the field of shared mobility, various innovative initiatives and best practices are emerging all around the world, tailoring and scaling services according to emerging user needs, behaviours, and preferences. Zehus Srl is an Italian SME operating in the field of human-electric propelled transport vehicles that addresses the B2B market, while its marketing division FlyKly Srl is in charge of the B2C sector. The company created the brand Bitride, which aims at creating a community of urban commuters, whose mobility experiences are improved by the use of hybrid vehicles. For this reason, the bike sharing project is conducted under the Bitride brand. Prior to the starting of the Bitride project, Zehus business model focused exclusively on developing and selling the patented hybrid technology to bikes and e-bikes manufacturers, but the dynamic nature of the company allowed the shift from a product-based to a service-based model. The intuition was to exploit the potential of the hybrid technology to introduce a new bike sharing model into the urban context.

To turn this intuition into reality, Zehus participated to the Horizon 2020 program of the European Commission, including service design competencies into the project and involving the Department of Design of Politecnico di Milano. Other project partners are Labor, a research and engineering laboratory, and AMAT, the Milanese Agency for Mobility, Environment and Territory, in charge of providing strategic planning and technical studies for urban mobility.

As experts in service design and design-driven innovation, the researchers of the Design Department of Politecnico di Milano collaborated with Zehus in order to design an innovative and effective bike sharing model that takes into considerations both business and users needs, and supported them in the design of the main touchpoint of the service, the Bitride App. Among the others, the role of design researchers revolved around the organization and management of co-design activities conducted during all the phases of the project.

The methodology adopted by design researchers can be described as an action-research (Stringer, 1999) in which researchers, Zehus managers and employees, and mobility experts of the Milan municipality were involved throughout the whole process, in order to frame research questions and validate them step-by-step through experiments, prototypes, and tests.

The action-research process was structured according to the traditional phases of the service design process (Meroni and Sangiorgi, 2011; Polaine et al., 2013; Stickdorn and Schneider, 2010; Foglieni et al., 2017; Moritz, 2005; Villari, 2014), including:

- The analysis and exploration of the shared mobility context, with a particular focus on the Milanese one (research phase);

- The interpretation of the research insights and the generation of ideas useful to define the final bike sharing service concept (concept generation phase);
- Design and implementation of the service solution and the Bitride App (service development phase).

As mentioned before, co-design played a crucial role in the project. Co-design activities have been structured in the form of collaborative creative sessions (such as workshops, meetings and user tests) aimed at generating and testing solutions, sharing ideas and taking decisions through collaboration.

Going into deep, they consisted of:

- During the research phase, some co-design sessions with Zehus and AMAT were organized in order to frame the research questions and better define the focus of the research. In addition, we conducted some interviews to external experts in the field of sustainable mobility;
- During the concept generation phase, a co-design workshop and several co-design sessions were used to actively involve all the stakeholders in the project. Workshop activities were designed ad-hoc for the project and documented with pictures and reports;
- During the service development phase, some co-design sessions and user tests were run with the aim of designing and testing the first mock-up of the Bitride App. User feedbacks were registered and integrated with pre- and post-session questionnaires.

To better support the process, a design researcher daily collaborated with Zehus, in order to structure and support all the activities on spot, informally talking with employees, directly observing their daily activities and procedures, and facilitating the information exchange with key actors.

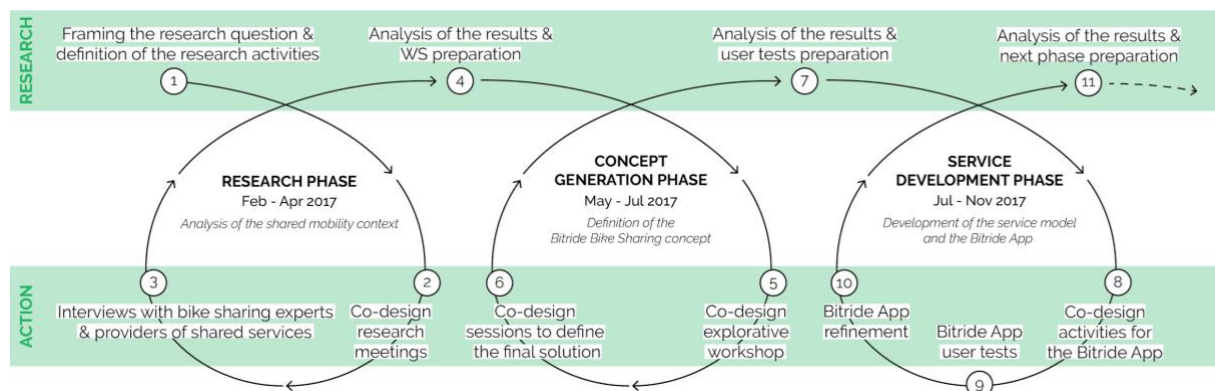


Figure 1 - The Bitride Bike Sharing action-research process

As follows, the first three steps of the action-research (Figure 1) are described, highlighting how the strong collaboration between design researchers and other project stakeholders brought to a co-designed solution and helped Zehus to start adopting the service design approach within the organization.

Research phase

The analysis of literature on shared mobility (Li and Voegelé, 2017; Ikeda et al., 2015) conducted during the first stage of the project, helped design researchers framing the context of operation and triggered a reflection on the innovation drivers that will characterize future mobility services.

The research phase was mainly qualitative, since the purpose was to understand people, contexts, and relationships, exploring behavioural patterns of users and, at a higher scale, market and society transformations. To frame the shared mobility context in which this project is embedded, we opted for a qualitative desk analysis on mobility trends

(Osservatorio nazionale sulla sharing mobility, 2016), academic papers on mobility services (Cohen and Kietzmann, 2014; Shaheen et al., 2010), informative articles, and best practices at the national and international level.

The collaborative design activities conducted during this phase mainly consisted of some co-design meetings with the project stakeholders, in particular with Zehus employees from different internal departments (such as the management team, sales specialists and engineers) and members of AMAT. Their purpose was to share specific knowledge and expertise regarding the shared mobility sector and its emerging trends, to better define the framework of the research in the wide current panorama, and to comprehend possible opportunities and barriers for the service implementation within the Milanese context. For this purpose, the design research team opted for an explorative map, where the different research areas of investigation were identified, clustered and finally selected in collaboration with Zehus and according to the company's interests and directions. This kind of approach was fundamental to benchmark existing solutions and understand the socio-economic drivers that will characterize the field of mobility in the next future. The benchmark analysis was also supported by interviews to some worldwide providers and experts of shared services in order to comprehend the peculiar elements of contemporary models, the most challenging and critical aspects, and the most diffuse user behaviours according to the different solutions. AMAT was involved in some of the co-design sessions with the aim of providing data about mobility and vehicles sharing services in Milan and to help in understanding the sudden evolution that the city was going through, due to the introduction of two new free-floating bike sharing services in September 2017. The contribution of AMAT was key in order direct the research towards some emerging issues, such as wild parking, vandalisms phenomenon, and the lack of regulation regarding these topics, both by the municipality and the service providers.

The results of this analysis allowed identifying a design guidance and potential target users, useful to address the following steps of the process.

Concept generation phase

The second step of the process aimed at transforming research insights and interpretations into ideas and it revolved around the organization of a co-design workshop, involving all the project stakeholders, regardless of their specific design knowledge, in an intense process of co-creation. The workshop itself has been fully co-designed, in its contents, purposes, adopted tools and structure in collaboration with Zehus, during some dedicated meetings. The workshop involved Zehus, AMAT, Labor, and few members of the Milan Municipality and ATM (Azienda Trasporti Milanesi), for a total of 17 participants (Figure 2 and 3). The purpose of this activity was to generate ideas and share opinions and competencies useful to the definition of the service concept. At this stage, the involvement of all the project actors was crucial to identify solutions that were coherent at various levels of the service system (i.e. back-office processes, customer experience, system of touchpoints).



Figure 2 - Workshop service co-design activities with the project stakeholders (1)



Figure 3 - Workshop service co-design activities with the project stakeholders (2)

To reach this objective and stimulate participation, the design research team, in agreement with Zehus, selected a list of topics on which to focus the discussion, based on the analysis of case studies previously analysed. Each topic was presented and addressed individually thanks to the use of some topics canvases and some facilitation cards reporting inspirational

questions, useful to foster the discussion and cover some of the most crucial aspects of the service. We also adopted some specific tools typically used in service design practice, elaborated on the insights emerging from the research phase, such as personas, describing behaviours and attitudes of target users, and storyboards, visualizing the service experience of these users while accessing and using the service (Figure 4).



Figure 4 - Workshop material: personas, storyboards, topics canvases and facilitation cards

The workshop lasted approximately 4 hours, during which the topics were deeply investigated and analysed by all participants, according to their specific expertise and experience regarding technical solutions, the shared mobility sector and the context of operation. Each group of partners was assigned with coloured post-its on which participants could report their comments and considerations. During the discussion, the design research team started clustering the comments according to their contents: some ideas suggested new possible solutions, while some comments were aiming at discarding or criticizing possible solutions.

Concepts emerging from each topic of discussion were later analyzed and clustered during a dedicated co-design meeting with Zehus management team, in order to identify key features to be embedded in the final solution and start defining the final bike sharing service concept to be further detailed in the next phase.

This allowed designing a first version of the Customer Journey Map of the overall free-floating bike sharing service, in order to visualize and detail the user experience, highlighting step-by-step all the options available to the user and the touchpoints (physical and digital) necessary to interact with the service.

The service development phase

The third phase of the project was dedicated to the service development, and focused in particular on the design of the Bitride App as the main touchpoint for accessing and using the service. The service development activity also included detailing the service solution, in terms of back-office and front-office processes, relations occurring among stakeholders

inside and outside the provider organization, resources, competencies, and technologies required to perform the service.

Also in this phase of the project, the adoption of a collaborative approach had relevant influence on the design of the final version of the App. Several co-design meetings (Figure 5) were organized by the design research team involving two UX and UI designers, the project manager, back-end and front-end developers, and software engineers from Zehus. In this case also, the purpose was to embed the specific knowledge of different experts in designing an effective and valuable solution. Starting from a draft version of the Customer Journey Map emerged during the co-design workshop, experts began defining the information architecture and the app wireframe, in agreement with the characteristics of the service concept previously detailed.

Thanks to this approach, it was possible to share step-by-step progresses with the project stakeholders, up to the fine tuning of the proposal.



Figure 5 - Co-design activities of the Bitride App involving service designers and UX/UI experts

Once the wireframe was developed, the App needed to be validated before being effectively implemented. For this reason, the design research team, in collaboration with the UX experts, set up two rounds of user testing (Figure 6). The tests focused on the service conceptual model on the one hand, and the app usability (in terms of navigation system, main features flow, button labelling, and error and feedback messages) on the other hand. The two rounds involved 10 potential service users, selected according to the clusters emerging from the research, among Zehus employees and design researchers of Polimi not directly involved in the Bitride project. Based on tests' results, UX experts and design researchers integrated users' feedback in a new version of the App wireframe, ready to be implemented.



Figure 6 - User test activities of the Bitride App

Main results of the co-design activities

Co-design activities conducted during the three phases of the Bitride project influenced in a strong way the design of the service solution and the company's internal processes.

During the research phase, one of the most relevant outcome achieved thanks to the co-design approach and the involvement of key stakeholders, was the definition of the research framework and the decision to focus on some emerging issues, generated by free-floating bike sharing services, that are currently concerning local authorities around the world: wild parking, vandalisms issues, and the impact of such services on the urban environment. The research activity, in fact, focused on the rapid growth of bike sharing services around the world, where cities' infrastructure and regulations were not prepared to handle such an overwhelming phenomenon. The constant exchange with the project partners, in particular with AMAT and the Municipality of Milan, drew attention towards the lack of regulations regarding these topics and the lack of control over where users park and how they use shared vehicles.

Accordingly, the adoption of a co-design approach favored the generation of service ideas that already embedded some critical thinking from the different perspectives of the service provider, the project stakeholders and the municipality of Milan. During the concept generation phase, and in particular during the co-design workshop, the core of the discussion revolved around how the provider could promote and encourage responsible behaviors and actions, informing users about the parking rules. The broad participation and the high engagement of the members of AMAT, the Milan Municipality and ATM, allowed the researchers to design a coherent and consistent service solution able to address this important topic. Two of the distinctive features of the Bitride Bike Sharing service are, in fact:

1. The multi-polar service area composed by several geo-fenced "virtual parking areas" where users are encouraged to park;

2. The adoption of a peer relocation approach that, thanks to a scoring system that rewards users for their active contribution to the service, is able to promote responsible and conscious behaviors.

During the service development phase, the user tests of the application represented another key moment for the co-design process. Also in this case, the iterative approach of prototyping, testing, and reviewing was experimented by Zehus for the first time. At first, this activity was not perceived by the company as strictly necessary for the overall purpose of the project, since it could have slowed down the development phase. However, the direct experience and involvement of Zehus employees during the activity, convinced the company of its value. The test, in fact, highlighted some critical aspects of the digital experience and some issues regarding the user interface, while, at the same time, it validated some of the most crucial aspects of the service conceptual model before being effectively implemented. Thus, the process helped reducing the risk of errors from both the user interface and back-end development perspectives. Thanks to the company's active involvement, prototyping the solutions at different stages of the design process was finally perceived as a strong value, not only for the Bitride project but as an internal approach from which employees will benefit in the future.

Discussion

Reflecting on the overall design process and the adoption of co-design within the context of shared mobility, lead us to formulate some considerations about the benefits of co-designing with companies.

Co-design with companies allows designers to play an extended role

During the project phases described above, design researchers played an extended role, from facilitators to triggers of innovation.

1. Facilitators of the design process (Senge, 1994; Tan, 2012), with the essential purpose of sharing common goals, building a common language among the various participants, bringing out their tacit knowledge, and promoting dialogue through the visualization of ideas and concepts (Segelström, 2013).
2. Enablers of a deep learning process for the company (Argyris, 1977; Senge, 1990). Zehus experienced co-design sessions for the first time, actively contributing in the service ideas generation on the one hand, and acquiring new design capabilities and tools to be embedded in order to tackle ideational processes, on the other.
3. Triggers of innovation (Deserti and Rizzo, 2011), since they were a source of inspiration for the company, experts able to bring in new visions, analyze the market trends, empathize with the stakeholders, describe future scenarios, boost innovation at the levels of strategic choices and business models.

Build trust relationships and a close collaboration for high valuable results

In the case of Bitride project, co-design played a crucial role as driver of change (Meroni and Sangiorgi, 2011): the collaborative approach facilitated the process of knowledge sharing among the project stakeholders, which were able to build a common language and to reach, guided by designers, a coherent and innovative service solution. We valued the importance to generate genuine interest among all the stakeholders, a strong commitment, and to build trust in the process (Junginger and Sangiorgi, 2009). Involving the project stakeholders since the first steps of the research phase, the constant exchange of information among all of them, the close collaboration with the company thanks to the full involvement of a service design researcher, and the organization of various iterative co-design sessions, proved to be the key to achieve the aforementioned goals, enabling a strong learning process for the company.

Co-design promotes user-centered approaches within the company

The overall benefits of co-design can be identified as improving the creative process and organization of the project, enabling creativity, awareness on the customer's perspective, internal cooperation on innovation, and better matching between offer and needs (Steen et al., 2011).

The active involvement during the research phase, for example, supported the company in better understanding the shared mobility context in which it aims to position and to identify its customer segment through an innovation-driven and user-centered analysis of the current panorama.

Moreover, thanks to the user tests and the numerous sharing sessions with the project stakeholders, the company reinforced its capability of connecting the needs of customers with those of the company, improving the quality of experiences, reducing the delivery gap of its services (Allen et al., 2005) and differentiating from competitors (Moritz, 2005).

Co-design helps to establish new innovation processes within the company

The co-design approach supported a shift in the internal innovation processes of the company towards new collaborative approaches, encouraging employees from different internal divisions to change perspective while working together. During the co-design sessions, they were supported in using creativity to analyze the material obtained from sharing sessions and turn them into meaningful directions for their work.

The co-design approach also implied a learning process for the company as a whole, given by the transfer of service design competencies and tools which can empower the organization in approaching future businesses that better answer to the evolution of the sharing economy. For example, the co-design workshop encouraged Zehus employees to think "out-of-the-box", especially in the situation where the deep knowledge and the familiarity with the technical solutions would have inhibited innovation. Besides, the company began adopting some service design tools, in particular Personas and the Customer Journey Map, and embedding them into daily activities. Since the Bitride project, in fact, these tools have been largely used also in other projects, such as the redesign of the Bitride App for the B2B market or the definition of the online user experience of customers buying the Flykly products.

Co-design helps shaping future steps of projects

The co-design activities also helped shaping the future phases of the Bitride project, such as the definition and implementation of the pilot project.

In light of the sudden transformations occurred within the Milanese bike sharing context, thanks to the involvement of AMAT which provided key data about mobility and vehicles sharing services in Milan, and due to the limited involvement of end users during previous project phases, Zehus opted for reorganizing the pilot project by splitting it into two different phases. Therefore, during a dedicated meeting with Zehus and AMAT, it was decided to set up a pre-pilot with a lower number of bikes, a selected number of users and within a delimited area of the city, in order to specifically validate the technology and the service model.

Moreover, the launch of the Bitride pre-pilot helped to formalize the new innovative approach acquired by the company. Since the first days of implementation, in fact, it played the fundamental role to open up the way to transformative changes (Junginger and Sangiorgi, 2009). It was perceived by Zehus as a seed for change, making the intangible tangible, providing the first valuable insights, actualizing the knowledge gained during the co-design sessions and generating new visions able to guide new organizational changes.

Co-design helps acquiring new competencies within the company

A side-effect the of co-design approach applied to the Bitride project, was the introduction of new competencies within the company, such as UX designers, two graphic designers, one product designer, a marketing and social media manager, one person in charge of the customer care service, and different external consultants. This demonstrates a shift on how Zehus perceives, engages, and incorporates design approaches and competencies, starting the real shift from being a manufacturing company to becoming a service one.

To sum up, the adoption of a service-oriented and user-centred approach required a deep change in the way the company used to develop its business and deal with innovation (Sangiorgi et al., 2016) and it can be analysed as an evolution on how Zehus will engage with end users and stakeholders in future projects.

Conclusions

Shared and sustainable mobility has become a trending topic in the last few years, raising interest from the public opinion and administrations around the world. The emergence of innovative initiatives tailored according to user expectations and behaviours towards mobility, clearly reveals the importance of fulfilling such needs. Based on our experience, and informed by the aforementioned literature, we think the case of Bitride Bike Sharing proved that a constant and close collaboration between service providers, public agencies, and experts working in the mobility sector constitutes a crucial approach for delivering innovative and coherent service solutions.

Similarly, the co-design approach with the company allowed us to reflect on the types of expected or unexpected transformational outcomes that such projects can generate within the organization, and the role that service designers can play in such processes.

In our opinion, a further exploration of the links between co-design activities with companies and the impact of organizational changes that occurs within them, could potentially constitute an interesting topic for further investigations.

To conclude, the case of Bitride discussed in this paper allowed us to highlight the importance of co-design occurring between service designers and a non-service company. Our opinion is that, in these cases, such an approach enables the emphasis on user needs as a driver to achieve business objectives, allowing creating value for both customers and the company. Business and technological requirements and constraints comes to dominate the development process only in a later stage, namely the effective implementation of the service.

In a competitive and constantly evolving sector, such as the shared mobility one, this approach can represent the key factor for distinction and successful replicability into other urban contexts.

References

- Allen, J., Reichheld, F. F., Hamilton, B. and Markey, R. (2005). *Closing the delivery gap: How to achieve true customer-led growth*. Bain Insight.
- Argyris, C. (1977). Double loop learning in organizations. *Harvard Business Review*, 55, 115-125.
- Bate, R. and Robert, G. (2007a). Toward more user-centric OD: Lessons from the field of experience-based design and a case study. *Journal of Applied Behavioral Science*, 43(42), 41-66.
- Bate, S. P. and Robert, G. (2007b). *Bringing user experience to health care improvement: the concepts, methods and practices of experience-based design*. Oxford: Radcliffe Publishing.
- Binder, T. and Brandt, E. (2008). The Design: Lab as platform in participatory design research. *CoDesign, International Journal of CoDesign in Design and the Arts*, 4(2), 115-129.
- Brown, T. (2008). Design thinking. *Harvard business review*, 86(6), 84-92.

Buchanan, R. (2004). Management and design. Interaction pathways in organizational life. In: *Managing as Designing*, Stanford: Stanford University Press.

Burns C., Cottam H., Vanstone C, and Winhall, J. (2006). Transformation design. RED paper 02, London, UK: Design Council.

Cohen, B. and Kietzmann, J. (2014). Ride on! Mobility business models for the sharing economy. *Organization & Environment*, 27(3), 279-296.

Corporate Author (2016). *1° Rapporto nazionale 2016. La sharing mobility in Italia: Numeri, fatti e potenzialità*. Roma: Osservatorio nazionale per la sharing mobility.

Deserti A., Rizzo F. (2011). *Co-designing with companies*. Paper presented at the 4th World Conference on Design Research, Delft. Retrieved from:
<https://www.unibo.it/sitoweb/f.rizzo/publications?tab=altre>

Dubois, L-E., Le Masson, P., Weil, B. and Cohendet, P. (2016). *From organizing for innovation to innovating for organization: how co-design fosters change in organizations*. Paper presented at the 21st International Product Development Management Conference, Limerick, Ireland. Retrieved from: <https://hal-mines-paristech.archives-ouvertes.fr/hal-00981108>

Foglieni, F., Villari, B. and Maffei, S. (2017). *Designing better services: A strategic approach from design to evaluation*. Cham: Springer.

Hoffman, K. D., Bateson, J. E. G. (2010). *Service marketing. Concepts, strategies and cases*. Melbourne: Cengage Learning.

Junginger, S. (2008). Product development as a vehicle for organizational change. *Design issues*, 24(1), 26-35.

Junginger, S. and Sangiorgi, D. (2009). *Service Design and Organisational Change. Bridging the gap between rigour and relevance*. Paper presented at the IASDR09 Conference, Seoul. Retrieved from:
https://www.researchgate.net/publication/262152133_Service_Design_and_Organisational_Change_Bridging_the_gap_between_rigour_and_relevance

Ikeda, T., Fujita, T. and Ben-Akiva, M.E. (2015). Mobility on demand for improving business profit and user satisfaction. *Fujitsu Scientific & Technical Journal*, 51(4), 21-26.

Li, Y. and Voegelé, T. (2017). Mobility as a Service (MaaS): Challenges of implementation and policy required. *Journal of Transportation Technologies*, 7, 95-106.

Meroni, A. and Sangiorgi, D. (2011). *Design for services*. Surrey: Gower Publishing.

Morelli, N. and Tollestrup, C. (2007). *New representation techniques for designing in a systemic perspective*. Paper presented at the Nordic Design Research Conference, Stockholm, Sweden. Retrieved from:
<https://www.designsociety.org/publication/28208/New+Representation+Techniques+For+Designing+In+A+Systemic+Perspective>

Moritz, S. (2005). *Service design. Practical access to an evolving field*. Cologne, Germany: Koeln International School of Design.

Osterwalder, A. and Pigneur, Y. (2010). *Business Model Generation - A Handbook for visionaries, game changers and challengers*. Hoboken, New Jersey: John Wiley and Sons, Inc.

- Pirinen, A. (2016). The barriers and enablers of co-design for services. *International Journal of Design*, 10(3), 27-42.
- Polaine, A., Løvlie, L. and Reason, B. (2013). *Service design: From insight to implementation*. New York: Rosenfeld Media.
- Reason, B., Løvlie, L., Brand Flu, M. (2016). *Service design for business: A practical guide to optimizing the customer experience*. New York: John Wiley & Sons.
- Sanders, E. B. N. (2006). Scaffolds for building everyday creativity. *Design for effective communications: Creating Contexts for Clarity and Meaning*, 65-77.
- Sanders, E. B. N. and Stappers, P. J. (2008). Co-creation and the new landscapes of design. *CoDesign, International Journal of CoDesign in Design and the Arts*, 10(2), 63-77.
- Sangiorgi, D. (2011). Transformative services and transformation design. *International Journal of Design*, 5(2), 29-40.
- Sangiorgi, D., Lee, J.-J., Sayar, D., Allen, D. and Frank, N. (2016). *Moving towards service dominant logic in manufacturing sector: Development of a tool for inquiry*. Paper presented at ServDes.2016. Fifth Service Design and Innovation Conference, Copenhagen, Denmark. Retrieved from: https://www.researchgate.net/publication/320522743_Moving_towards_service_dominant_logic_in_manufacturing_sector_development_of_a_tool_for_inquiry
- Segelström, F. (2013). *Stakeholder engagement for service design: How service designers identify and communicate insights*. Linköping Studies in Arts and Science, Dissertation No. 586. Linköping, Sweden: Linköping University Electronic Press.
- Senge, P. M. (1990). *The Fifth Discipline. The art and practice of the learning organization*. London: Random House.
- Senge, P. M. (1994). *The Fifth discipline fieldbook: Strategies and tools for building a learning organization*. New York: Currency, Doubleday.
- Shaheen, S. A., Guzman, S. and Zhang, H. (2010). Bikesharing in Europe, the Americas, and Asia: Past, present, and future. *Transportation Research Record*, 2143, 159-167.
- Somerville, M.M. and Nino, M. (2007). Collaborative co-design: A user-centric approach for advancement of organizational learning. *Performance Measurement and Metrics*, 8(3), 180-188.
- Steen, M., Manschot, M. and De Koning, N. (2011). Benefits of co-design in service design projects. *International Journal of Design*, 5(2), 53-60.
- Stickdorn, M., Schneider, J. (2010). *This is service design thinking*. Amsterdam: BIS Publishers.
- Stringer, E. T. (1999). *Action Research*. London, England: Sage Publications.
- Tan, L. (2012). *Understanding the different roles of the designer in design for social good. A study of design methodology* Doctoral Dissertation, Northumbria University.
- Villari, B. (2014). Action research approach in design research. In: P. Roger and J. Yee, ed., *The Routledge Companion to Design Research*, Oxford, Uk: Routledge, Taylor & Francis Group, p. 11.

... and here a glimpse of ServDes.2018!



CARLO MORFINI
TRIENNALE
A SPACE FOR DEBATE

SERVICES ARE ABLE TO
SUPPORT & GIVE QUALITY TO OUR LIFE



LUISA COLLINA

LOOKING FORWARD TO SEE A SERVICE WIN THE
COMPASSO D'ORO



FABRIZIO PIERANDREI

PROF. CONCEPT
18 June 2018
SERV.DES
IT'S GONNA BE *interactive*

WE WILL TRY TO BRIDGE
RESEARCH PRACTICE



ANNA MERONI

LET'S ENVISION HOW SD SHOULD EVOLVE in the future



BEATRICE VILLARI
8 TRACKS 75 PAPERS

SD LANDSCAPE



ANA MARIA OSPINA MEDINA
Service design map. polimi.it

1 LEARNING & PRACTICING

SD IN NEW FIELDS (organisations, companies)
NEW SKILLS, MANAGE INTERACTIONS & COMPLEXITY

2 SHARING & COLLABORATING

CITIZENS EMPOWERMENT & DEMOCRACY
CO-DESIGN / CO-CREATION

3 MEASURING & EVALUATING

RELEVANCE FOR THE COMMUNITY
EFFECTIVENESS OF THE RESULT & PROCESS

4 GOVERNING & EVIDENCING

TRANSFORMATION of the PUBLIC SECTOR
COMPLEXITY, NEW RESOURCES
CITIZENS ENGAGEMENT

5 PRODUCING, DISTRIBUTING & ORGANISING

PRODUCING GOODS & SERVICE DESIGN
→ HOW CAN THEY RECONNECT?

6 EXPERIENCING & SHAPING

RELATIONSHIP BETWEEN SERVICE DESIGN & SPACES
FROM INTANGIBLE TO TANGIBLE


7 COMMUNITY & RELATIONSHIP BUILDING

OVERVIEW ON COMMUNITY BUILDING ACROSS COUNTRIES
LOCAL & INTERNATIONAL


8 ENVISIONING & EVOLVING

FUTURE & EVOLUTION OF THE DISCIPLINE
NEW FIELDS, APPLICATIONS & EXPERIMENTATIONS


alicecolombo.xyz




BAS RAJMAKERS



ANNA SERRAVALLI




FRONKJE SLESIJK VISSER




JESPER CHRISTIANSEN


SDD Milan




PETER GALL KROGH



OLIVER MARLOW



FRANCESCA PIREDDA



LIA PATRICIO

investigate **COMPLEX PROBLEMS**

SD IT'S NOT ONLY PRACTICAL, been HIGHLY INFLUENCED by **USERS & CONTEXT**

SD INFLUENCE SERVICES & ALSO **ORGANISATIONS**

BEYOND HUMAN CENTERED → how to achieve **SOCIAL IMPACT**

WHAT DO WE EVALUATE?
the **APPROACH** or the **SERVICES**

Too MANY METRICS

DIFFERENT EXPECTATIONS **ORGANISATIONS — vs. PRACTITIONERS**

important!

MATURITY of SD in DIFFERENT **SECTORS & DEPARTMENTS**

SD HANDOVER WHO IS GONNA IMPLEMENT IT?
(GUARANTEE CONTINUITY)

DIGITAL MANUFACTURING & **NEW TECHNOLOGIES**

HUMAN FACTOR

HOW SD CAN BE ACTIVE? IN THIS NEW LANDSCAPE?

COMMUNITY: COMMON, SHARING an IDENTITY

INTERVENTION of SD in EXISTING COMMUNITIES
→ SHAPING NEW FORM OF ORGANISATION

SD can **FOSTER PROCESSES** (not only tools)

FOUNDAMENTAL TO REFLECT ON the **SOCIAL IMPLICATIONS / the MEANING**

TOOLKIT FOR **CO-DESIGN** (USEFUL but DEMANDING)

CULTURAL DIFFERENCES

SHARING & COLLABORATING REQUIRES **NEW SKILLS/ATTITUDE**
~ Sensibility & Responsibility ~

→ HOW SD CAN CLOSE THE GAP BETWEEN **CITIZENS & the SYSTEM?**

BUILD PUBLIC LEGITIMACY

ENHANCE NEGOTIATION AMONG DIFFERENT **STAKEHOLDERS**

CO-DESIGN SPACES **HEALTHCARE / WORKSPACES**

WE TEND TO **BEAUTIFY** A PROCESS TO **SELL IT**

AESTHETICS — vs. FUNCTIONALITY +

{ I TAKE THE BALL, I PASS THE BALL, TEAMMATE SCORE }

EMERGING TRENDS ENVISION NEW POSSIBLE AREAS of INTERVENTION

MORE COMPLEX SERVICE-SYSTEM

MULTI-DISCIPLINARY DESIGN TEAMS DIFFERENT PERSPECTIVE

alicecolombo.xyz

PROOF OF CONCEPT | ServDes.2018

About ServDes

ServDes, the Service Design and Innovation conference, is the premier research conference for exchanging knowledge within Service Design and service innovation studies. Born as a yearly Nordic conference, ServDes has now become a bi-annual international event with the aim of bringing researchers and practitioners together to discuss, share and evolve the emerging discipline of Service Design, and design-related service innovation.

Proof of concept ServDes.2018 is organized by Polimi Design System of Politecnico di Milano.