

From Design to Service Design, and Co-production

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ABSTRACT

This paper focuses on interdisciplinary approach to finding similarity of problems and their solutions, how both governmental institutions and designers can deal with service and social design, co-creation and co-production. The paper provides an empirical analysis of several case studies, one of which was a co-production session held by CITADEL Team and students of the Computing Faculty, University of Latvia. The Conclusion part marks a possible future scenario, involving in co-production the students from design, as well as other relevant departments, thus helping to engage young citizens, and at the same time future professionals in a better delivery of public services.

Keywords: *design, co-production, design thinking, user experience*

INTRODUCTION

In the 21st century, a paradigm shift of design curriculum involves massive changes towards design for social well-being instead of design for mass consumption. It encompasses the involvement of the general public as end users and encourages changes in the design process, as well as transforms the way design students should receive their professional training. Nowadays sustainable design solutions require cooperation and open design process, using design thinking methodology.

HISTORICAL ASPECTS OF DESIGN FOR SOCIAL WELL-BEING

Design as a term became more widely used at the beginning of the 20th century, and then it was mainly applied for product and graphic design. At the same time, from the very beginning designers had also dealt with topical needs of people trying to help them overcome social vulnerability in one or another way. The ideas of co-creation as a method to achieve the best possible result have long been observed in the field of design.

Buckminster Fuller and Victor Papanek are supposed to be the early well-known designers and design thinkers who started shaping the whole domain of this field. In *Operating Manual for Spaceship Earth* (1969) Fuller relates the planet Earth to a spaceship, a technological wander all people responsible to maintain.

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Spaceship Earth was so extraordinarily well invented and designed that to our knowledge humans have been on board it for two million years without knowing that they were on board a ship. [...] I think it's very significant that there is no instruction book for successfully operating our ship. [...] Thus, because the instruction manual was missing, we are learning how we safely can anticipate the consequences of an increasing number of alternative ways of extending our satisfactory survival and growth – both physical and metaphysical. [1]

In his collection of essays *Design for the Real World. Human Ecology and Social Change* (1971) Victor Papanek wrote that *design is basic to all human activities – the placing and patterning of any act towards a desired goal constitutes a design process. [...] Design has become the most powerful tool with which man shapes his environments, society and himself.* He also asked:

Is it not strange that so few design products really are linked to the needs of humanity? [...] I am defining the social and moral responsibilities in design. For by repeating his mistakes a millionfold or more through designs affecting all our environments, tools, machines, shelters, and transportation devices, the designer-planner has finally put murder onto a mass production basis. [2]

In the late 1970s, Dieter Rams, an outstanding German production designer (he worked more than 40 years for *Brown and Vitsoe*) defined *10 Good design principles*, part of which directly dealt with sustainable and responsible design concepts. Among innovative, aesthetic and elaborative aspects, he supposed that *good design has to make a product useful, be understandable and long-lasting, honest, unobtrusive, and environmentally friendly.* He also admitted that *good design is as little design as possible.* [3]

Roughly at the same time (in the 1970s and early 1980s), the concept of co-production emerged. Citizen involvement was recognized as an important part of designing the public service. [4] Gordon Whitaker was one of first to use the so-called *Coproduction concept* [5] in 1980.

Co-production model emphasizes the conjoint responsibility of lay citizens and professional government agents for the delivery of public services. This coproduction model expands the citizen role from one consuming and passing judgement upon public services to one that also involves responsibility for creation of public services. [6]

The *IDEO Company* was founded in 1991, and by 2001, *IDEO* began to focus more on consumer experiences, and later the company became increasingly involved in social and service design. To deal with the user involvement, promotion of cooperation, they applied the design thinking, using co-designing and co-creation as the methods.



Design thinking is a human-centered approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success. [...] Thinking like a designer can transform the way organizations develop products, services, processes, and strategy. This approach, which is known as design thinking, brings together what is desirable from a human point of view with what is technologically feasible and economically viable. It also allows people who aren't trained as designers to use creative tools to address a vast range of challenges. [7]

Service design concept gained its popularity in the early 1990s. Besides being user-centered, co-creative, and evidencing (visualizing service experiences) with key moments (sequences) in a user's journey, and forming holistic experience, it also uses a wider set of tools than before. It includes *Personas* (imagined typical group of users), *User (customer) service maps*, etc.

In service design, a wide range of disciplines come together, such as ethnography, consumer research, interaction design, product design, industrial design, service marketing and corporate strategy. [8]

GRAPHICAL USER INTERFACE DEVELOPMENT TOWARDS USER CENTERED DESIGN

Evolution of Graphical user interface (GUI) marks a historic turning point where Information and communications technology (ICT) professionals and designers together developed their first concepts of the human-centered design approach, and later design thinking. The dynamics of contemporary digital world require rapid ideation, agile execution process, and multidisciplinary approach. Agile and scrum has become the leading methodologies for the most of designers.

Digital environment even more stimulate them to invent new and better ways of communicating, to name a few contemporary concepts: transition from user experience to user journey, as well as the development of system and service design.

Most of digital services have become complex IT systems, and they all have to be designed in a user-centered manner. Fulfilment of this complex task is possible only through teamwork, using design thinking and service design tools within close co-creation with end users. It requires an additional knowledge set.

FROM DESIGNERS-MAKERS TO DESIGNERS-PROBLEM SOLVERS

Recent transition towards user centered design approach and the emergence of design thinking and service design challenges the role and norms of traditional design. It also introduces some topical questions in design education.



In his essay *Why Design Education Must Change* (2010), Donald Norman challenges a longstanding praxis of the design education:

In the early days of industrial design, the work was primarily focused upon physical products. Today, however, designers work on organizational structure and social problems, on interaction, service, and experience design. Many problems involve complex social and political issues. As a result, designers have become applied behavioral scientists, but they are woefully undereducated for the task. [9]

Not only these changes require a focus on interdisciplinary collaboration, but also the core concept of a designer as maker is about to change. Acquiring necessary technical and artistic skills was one of foundation stones in graphic and industrial design education. On the one hand, with the emergence of strategic and service design, this unshakable concept shifts towards design thinking and problem solving as equally important body of knowledge thus pushing the boundaries of what design can be and do. On the other hand, industrial designers face recent changes in consumers' trends demanding for more socially responsible solutions. Beside design – industry collaboration practice interdisciplinary engagements across the arts, humanities, and social sciences become more and more appreciated and necessary in design education.

BACKGROUND AND RELATED WORK

Today designers feel increasing responsibility for their products, and services address clients' problems in a sustainable way. It has become a trend, and professionals use different methods to communicate with their clients in a different manner. The shift to design thinking and the popularity of socially responsible complex problem solving, rather than only visually amazing product or graphic design, further increase the demand for co-creation and co-production.

In the twenty-first century, social innovation will be interwoven with design as both stimulus and objective. [...] As a matter of fact, design has all the potentialities to play a major role in triggering and supporting social change and therefore becoming design for social innovation. [10]

Hic et Nunc Project (2016) deals with a topical problem, how design can help in emergency situations when time and resources are limited. It was developed as a co-production of Zurich University of Arts (ZHdK), Zurich based Government Agency for Immigrant Integration AOZ, and around 250 asylum seekers from Eritrea, Syria, Afghanistan and Iraq. Thirty-nine Bachelor's degree students at ZHdK under the supervision of Antonio Scarponi, Karin Seiler and Martin Bölsterli were responsible for designing ready to use products and services to improve living conditions for socially vulnerable multinational refugee group of different age.



Interaction among all participants of this project served as a positive collaborative scenario based on mutual respect and equality. Initially surprised about service and social design, and co-production as a problem-solving methodology in a particular situation, refugees came up with their concept: they wanted real improvements accomplished instead of paperwork only, within a limited amount of time of four weeks. According to advisors of the Design faculty, these requirements served as ideal assignment for students from different curriculum (e.g. product designers, interaction designers, etc.).

The project results among others included a women's space and other semi private space development, a simple gym, as well as public space (library) with a visual German language learning system seamlessly incorporated into. Product design, such as benches serving also as charging stations for mobile phones, modular shelves, etc. were made to give more everyday comfort at the asylum center. [11]

Hic et Nunc wants to show that as designers we can work together with the refugees living among us to improve their — and thus our — living conditions directly, in everyday practice, here and now. We want to engage actively with the effects of this global crisis and to see it not as an abstract problem, but as part of our own reality. We confront the theoretical debate in the academic comfort zone directly with a real emergency situation in our immediate surroundings — Hall 9 in Oerlikon, a temporary housing estate for refugees operated by the AOZ Zurich. [12]

This case study provides a complex yet positive answer to designer-maker versus designer-problem solver contradiction, allowing students learn the designing process as holistic experience. It equally demands for problem solving ideation, maker's skills, iterative and agile prototyping phase, as well as it includes co-production with socially meaningful value. All participant groups of *Hic et Nunc Project* have experienced direct benefits from using the co-production method.

DESIGN AND CO-PRODUCTION IN LATVIA

Latvian designers had well developed industrial and graphic design practices in the first half of the 20th century (to mention the *State Electrotechnical Factory (VEF)* with its world famous *Minox* compact camera (1938) and other signature production). After WWII Latvia was incorporated in the Soviet Union, and Latvian designers often had to deal with poor technical quality of final products. It caused a weak design – industry collaboration; despite the good design prototype, it failed to withstand the pressure of users' dissatisfaction with the product. Design theory was restricted by the lack of information due to Soviet Union policies.



Over the course of almost 30 years of an independent state, Latvian design and design education have reached the global level. The service and social design, as well as co-production have recently become increasingly popular in this field. With a view to institutionally supporting design service and social development, the Ministry of Culture of the Republic of Latvia issued a comprehensive design guide *Design of Latvia 2020*:

Design, thus also the designer as a professional, bears a socially responsible task – to serve and improve the quality of life for every member of the society. This process requires an interaction with other fields while following the challenges of environmental, technological, economic and social fields. [...] Alongside the material and product-oriented design there is a growing need for design in immaterial areas – services, strategic planning, information exchange, etc. [13]

The Art Academy of Latvia, a design study leader in Latvia encourages students to take active part in service-oriented design for social well-being. *The selected master projects directly reflected design as a method for strengthening social capital and social well-being and showed the shift of the socialization paradigm in which design is driven by social values and needs for strengthening social capital. [14]* Design that fulfils social values and ensures high-quality life may take the form of a planned system (Elita Freimane, *Sleep and Insomnia*, 2012), materiality (Nauris Cinkovičs, Krišjānis Luste, *Feel the Feeling*, 2013), environment, cooperation, co-creation and togetherness (Jekaterina Stakle, in cooperation with Anna Žabicka, Riga Stradiņš University, *Rooters*, 2013). [14]

CASE STUDY – A CO-PRODUCTION SESSION WITH CF UL STUDENTS

From the year 2011 onwards, the curriculum of Web and GUI design, as well as Visual communication design has been taught in the Computing Faculty, the University of Latvia (CF UL). Interestingly, that the Computer Science study program was supplemented with the design courses in response to the proposal by students.

In 2018, CITADEL project Latvian Team initiated a co-production series with an objective to improve access to the services provided by Latvian State institutions and municipalities through the State portal *latvija.lv*. The Citadel team members engaged with different focus groups, one of whom was students of the Computing Faculty from the University of Latvia. Their task was the usability and user experience (UX) tests of the portal, mainly identifying problems of mobile device user interface in four given priority topics. Students showed a high level of engagement during the session. Later, when voluntary writing analytical essays related to this topic, they were eager giving further analysis of the portal.



During the session and well after it, they showed a dual enrolment as citizens, as well as future ICT professionals, using their knowledge in front-end web development and design basics to improve GUI and UX of State portal *latvija.lv*.

Four priority topics were chosen for analysis during the co-production sessions: 1) *Life situations*; 2) *E-services*; 3) *Catalogue of public services*; 4) *Client work place*. The main criteria for defining the usability of the portal in the context of client satisfaction were:

1. Convenience of portal's design visual perception – *How visually attractive is the portal's home page? How to improve it?*
2. Structure of information, transparency of placement and convenience for use (navigation) – *How easy it is to understand and what and where it is located in the portal? How to improve it?*
3. Speed – *How fast it is possible to make necessary actions in a current information structure? How to improve it?*
4. Clearness of the description of services – *How clear are the descriptions of accessible services? Is it possible to understand if there is information that one is looking for? How to improve it?*
5. Convenience of use of the search function – *How convenient is the search function? Is it working precisely? How to improve it?* [15]

The students proposed a total of 69 improvements for the State service portal *latvija.lv*. The most common was the demand for mobile friendly user interface. They gave their opinion about various topics, such as language, usability in particular places (*Landing page* and *My working place*), as well as they evaluated the usability of digital service delivery in portal. It is important to mention that about one-third of them were keen to provide written comments after the co-production session. Some of these works turned out to be well developed design guidelines for possible future work with the portal. All groups involved had taken their benefits. The students of the Computing Faculty improved their design thinking and service designing skills, while the members of the Project CITADEL and the Ministry of Environmental Protection and Regional Development (responsible for State service portal *latvija.lv*) acquired an extensive insight.

CONCLUDING REMARKS

University students as avid users of all kinds of digital technologies and services, and emerging active citizens, as well as future specialists of computing, design and art, communication, and cognitive sciences, psychology, and other relevant fields, could be a significant focus group in co-production of public services. These young minds could have a capacity to ask uncomfortable questions, and to provide unexpected answers, thus solving problems and helping the government to transform the public administration, as well as contributing greatly to communities and society in general.



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