

# Defining Values Through Collaboration

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## Abstract

As the service sector within the global economy is growing at a rapid pace, design is called upon by the economy, society and culture to help address complex problems and build bridges between previously separate disciplines. Large organisations struggle to deliver new services that address complex problems, but do not fit into their organisational models. Designers are asked to expand their traditional roles, and also address complex organisational re-structuring. In order to play these more strategic roles, designers however need be involved at the start of an innovation process and not – as is now the often the case – only towards the end. Using a ‘thinking through making’ approach the CRISP PSS 101 project introduces tools that facilitate the alignment of expectations and address the importance of trust and meaning within networks producing Product Service Systems.

**KEYWORDS:** Wicked Problems, Thinking through making, Intuitive explorations, Service innovations, Service design, Co-Design, Value Creation, Product Service Systems

## Introduction

Design professionals today are operating in an increasingly complex field as the need for innovation within services continues to grow. Previously considered as a trade activity, the design profession is evolving by designers adding their value through design thinking to firms trying to innovate and to societies that are trying to create change (Kimbell, 2011). Kimbell specifically refers to the fact that design has been implemented in managerial discourse (Kimbell, 2011, p. 3). The field of service science has emerged, an area of study addressing the need for more systematic service innovations accelerating the co-creation of value, leading researchers to also question how systems thinking theory is co-evolving with the current world we live in (Ing, 2013). With this in mind, how can practitioners from different fields find a common language and common ground? What can designers bring to management thinking? And in turn, how can designers make use of and further develop tools and methodologies from business thinking?

Buchanan's paper 'Wicked Problems in Design Thinking' (1992), shifted design theory towards a more generalised 'Design Thinking' which he believed could be applied to everything from a tangible object to an intangible system. Buchanan's version of design thinking is less concerned with individual designers and how they design, but seeks instead to define designers' roles in the world, which often shift as our society continues to evolve. Taking this definition we think designers have a lot to offer organisations that increasingly need to align with other fields of expertise in order to tackle complex societal demands. In order to design successful Product Service Systems, all the independent connections in the chain need to also be designed and maintained, including the expectations, values and demands of the people working in it. This requires new strategic roles and tools for designers.

## Exchanging values in networks

The transitional phase that organisations endure when shifting from products to services, requires their networks to expand to include professionals in fields that are different from their own. In practice, this means working together with individuals who have a completely different professional background and agenda from their own. Healthcare organisations like ZuidZorg (a home care organization in the South of the Netherlands) for instance, are working with stakeholders like telecommunication experts and software developers to make services more accessible to patients, improving not only healthcare, but also increasing general well-being. The more complex a service is, the more multidisciplinary the network becomes, increasing the challenges for those who must collaborate to deliver these services.

The CRISP (Creative Industries Scientific Program) PSS (product service systems) 101 project aims to develop a framework of methods, techniques and tools that improves conceptualisation and communication between all those involved in design and development, across industries. In the development of this research, Design Academy Eindhoven works together with Delft University of Technology and the industry partners Canon Océ, Exact, ZuidZorg, Connect Innovate and STBY. One question the PSS 101 project addresses is how trust can be built and maintained through (the visualization of) value maps and how this will effect the exchange of values within networks producing PSS.

Every stakeholder of a PSS brings value into the specific PSS network in the form of experience and knowledge regarding development and rollout of new service concepts. These networks are in theory a reservoir of expertise from different professional disciplines openly available to all network partners. Unfortunately, due to a lack of common language and understanding of each other's goals and interests, organizations often remain in their independent 'silos', cooperating but not collaborating by sharing their independent values. To build a thriving network and to develop more innovative PSS it is necessary for organizations to work together and incorporate other network partners' expertise in the early development stages of their independent solutions.

'Value' and common goals can have different meanings for different stakeholders. One organisation might be seeking examples of similar rollouts of new concepts, another might be in need of products that solve a specific problem within their service, or individuals within an organisation may wish to learn other methodologies and ways of doing business immediately applicable to their daily work. Through collaborating in a network, individual

stakeholders represent a resource and therefore a ‘value’ for other networked partners. The PSS 101 project research is introducing tools that will facilitate the exchange of such ‘values’.

As expressed by one of the partners during a PSS 101 project workshop, experience has shown that crucial success factors for creating PSS in networks, whether inside or between organisations, depends on three factors:

- » Every stakeholder involved having an understanding of the value s/he gets out of the networked collaboration;
- » The ability of all stakeholders to express their needs clearly;
- » An understanding of other stakeholder’s expectations.

A current tool adopted by service design that relates to these factors is stakeholder mapping (e.g. Stickdorn & Schneider, 2010), which gives an overview of network relations. These maps however do not convey which relations are of actual value neither do they supply the necessary fundament for indicating where new connections can be made. As networked organisations communicate through email, there is nothing on their screens that indicate how they are benefitting from a network nor what others are bringing into it, for instance. Lacking this information prevents development of greater service experiences for the end user and increased economic value for the stakeholders involved.

It is important to realise that networks providing PSS are more ‘social networks’ in regards to how the relations of value within these networks are created by individual people as extensions of their companies. The outcome of a network producing PSS is only as good as its person-to-person exchange of resources. The day-to-day actions of individuals within such networks depend on trust, motivation and an understanding of shared goals and expectations. A misalignment between organisational structures and new service goals of the organisation affects behaviour. Trust within a network affects a person’s ability to convey experience and to communicate how this expertise can be used. This in turn, directly impacts how resources are shared within a network.

## Defining Values through Value Pursuit

One approach to building trust in networks is through expanding stakeholders’ overview and understanding what all individual efforts contribute to the success of a PSS. Through her research on the importance of visualising value maps within a network in order to build and maintain trust, the first author has (together with PSS 101 project partners), created the tool ‘Value Pursuit’ (Rygh, 2013). This tool is a game board to be used in workshops aimed at clarifying how stakeholders in a specific PSS can be of value to each other, thus identifying shared goals. On the game board of Value Pursuit, every participant must write down the value they contribute and what challenges they face. Their (potential) value is then connected to other partners’ challenges. These connections are counted and represented by playing pieces on a second game board (or radar as it might resemble), visualising how much each partner is both gaining and contributing to the network. For a network to thrive and trust to be maintained between network partners, these playing pieces should be aligned as much as possible. What people gain from a network should be balanced against their contributions.

The aim of ‘Value Pursuit’ is to be further developed into a dynamic, real-time ‘radar’ of what exchanges are actually occurring within a network, visible to every person operating within it. Equally important to understanding where value creation lies within a network, is the understanding that shifts may occur as people and projects develop. As human nodes in

a dynamic network, we can maintain trust between partners by providing them with a common language through visualisations of how their value is paying off and how this value can be implemented in new areas. Capturing the dynamics of these relations in order to better understand the role of each individual, is the key to keeping a network 'alive' and productive, increasing the end value of a product service system.

## The roles of designers in defining values

It takes people to create meaning within complex PSS creation contexts. Learning how one can contribute to this as a designer is a lifelong effort because the skills and knowledge needed to do so change over time. The CRISP team at Design Academy Eindhoven takes a 'thinking through making' approach to creating knowledge about such designer contributions. The intuitive making and the reflective thinking are strongly interrelated, and uncover opportunities for knowledge to be expressed not only through text, but also through designed artifacts, activities, events, services, spaces, narratives, systems, futures or any combination of these. Value Pursuit is an example of a result of such a 'thinking through making' approach, which also allowed several roles of designers to become visible in networked collaborations for PSS creation. Together with the industry partners in CRISP we have defined three main roles for designers: making ideas tangible and understandable, facilitating the connections between people or parties, and instigating change.

Making ideas tangible and understandable often includes some kind of visualization, but analysis and synthesis are always an integral part of and underpinning this designer role (Kimbell, 2011). This role moves well beyond illustrating diagrams. Rather, it researches underlying issues and pinpoints what needs to be analysed and emphasized to create proper understanding or convincing arguments through visualisations. The making of these visualisations are also part of the conversation between the stakeholders. Visualisations that are almost too perfect, may hinder this. A rough sketch can offer great room for discussion and may be very useful as a first step towards developing a greater understanding of values by stakeholders and also clarifying the designers' role (Raijmakers et al., 2009)

The goal of the designer as connector is to get people connected beyond their own disciplines and organisational silos, and broker collaborations between them. Once such connections are established, designers have the ability to instigate change through making new insights, opportunities and ideas tangible, creatively and positively disrupting traditional methods of presentation and communication. By knowing where to intervene and what element to concretise, it is possible to assist companies in adopting new approaches that do not immediately fit into their pre-defined models, as new services rarely do. But in order to be able to intervene, designers need the assistance of the client/company to be able to properly research and understand the internal processes, behaviors and mindsets of the people working there.

In order to play one of these above-mentioned more strategic roles; the designer should preferably be involved at the start of an innovation process and not – as is now the often the case – towards the end. In order to connect with the company and its stakeholders, build a relationship of trust and know where change or disruptive innovations might be beneficial, designers in the previously mentioned roles, need to become a key stakeholder taking part in the conversation from the start. This type of conversation, in the context of design, has been called empathic (Raijmakers et al., 2009), because the success of such conversations depends on understanding each other's positions empathically. When working in multi-stakeholder

collaborations, the chosen language should be inclusive and help participants in these ongoing conversations to empathise with each other. It should allow stakeholders to cross the barriers between disciplines, whilst remaining accessible to every person who will ultimately use the PSS to allow co-creation.

## Conclusions

No expertise, theory or single approach alone can solve the 'wicked' problems of today, but the ability to re-invent new methods of creating knowledge through intuitive explorations serves as a vital contribution in the development of innovative service futures. Designers are particularly well positioned to deliver a vital contribution to this effort by making ideas tangible and understandable, facilitating the connections between people or parties, and instigating change. However, in order to do this successfully they need to be involved in the project from the start in order to connect with all stakeholders involved and build a network of trust. By operating on this more strategic level, the Creative Industry Scientific Program, thinks designers have the power to facilitate better collaborations and value creations that will help to serve the creative industry in the future.

## References

- Alexander C. (1971). *Notes on the Synthesis of Form*. Cambridge, MA: Harvard University Press.
- Bechmann, S. (2010). *Servicedesign*. Århus: Academica.
- Buchanan, R. (1992). Wicked Problems in Design Thinking, *Design Issues*, VIII(2) 5-21.
- Holmlid, S., & Evenson, S. (2007). Prototyping and enacting services: Lessons learned from human-centered methods. *Proceedings from the 10th Quality in Services conference, QUIS 10*. Orlando, Florida.
- Howard, J. (2008, 03 19). *Service Recovery*. Retrieved 03 22, 2010 from: <http://designforservice.wordpress.com/2008/03/19/service-recovery/>
- Ing, D. (2013). Rethinking Systems Thinking: Learning and Coevolving with the World. *Systems Research and Behavioral Science* 30 doi:10.1002/sres.2229. [http://onlinelibrary.wiley.com/journal/10.1002/\(ISSN\)1099-1743a/earlyview](http://onlinelibrary.wiley.com/journal/10.1002/(ISSN)1099-1743a/earlyview) .
- Kimbell, L. (2011). Rethinking Design Thinking: Part 1, *Design and Culture*, 3(3), 285-306.
- Participle. (2008). *Beveridge 4.0*. London: Participle
- Raijmakers, B., Van Dijk, G., Lee, Y., & Williams, S. (2009). Designing Empathic Conversations for Inclusive Design Facilitation. Paper presented at *Include Conference 2009*, London.
- Raijmakers, B., Thompson M, & De Garde-Pierink, E. (2012), New goals for design, new roles for designers? In *Proceedings of Cumulus Conference*, Alvar Aalto University, Helsinki.
- Rygh, K. (2013) Concentric Balance, *CRISP magazine*, 1(2) October. Retrieved from: [http://issuu.com/crispnl/docs/csp\\_magazine\\_\\_2\\_14\\_\\_screen\\_\\_issuu\\_1](http://issuu.com/crispnl/docs/csp_magazine__2_14__screen__issuu_1)
- Spoehrer, M. (2010), *The emergence of Service Science: toward systematic service innovations to accelerate co-creation of value*, IBM Almaden Research Center.
- Simon, H.A. (1972), *The Sciences of the Artificial*, 20(4) (Winter, 1972), 459-463.
- Stickdorn, M. & Schneider, J. (Eds.), (2010), *This is Service Design Thinking*, BIS publishers, Amsterdam.