Service Design Ways to Value-in-Use

Mattias Arvola, Stefan Holmlid

mattias.arvola@liu.se

Linköping University, Department of Computer and Information Science, 581 83 Linköping, Sweden

Abstract

What do we mean if we say that a service design work is an example of good design? This paper presents a provisional typology for the ways in which a service design proposal can contribute to value-in-use. The typology covers instrumentality, technical excellence, usefulness, social significance, mutual advantage, collective welfare, and aesthetic values. Moral implications related to norms, power structures and tensions between stakeholders are also considered. It is argued that the typology can facilitate service designers and researchers in framing and re-framing a design effort and conceptualise a value proposition.

KEYWORDS: service design, value creation, use quality, user experience, value-in-use

Introduction

This paper offers a provisional typology for the ways in which a service design proposal can contribute to value, i.e. to something considered good. It makes a contribution to the on-going conceptual development in the field; e.g. design for service and the effort of bridging the gap between design and service (dominant) logic. What are the different ways in which a service design proposal can contribute to something valuable or good? The present work indicates that the answer is manifold, and thus supports earlier work on the subject (Holmlid, 2014). Service design is here framed pragmatically as the application of design practices and principles to service development and management, with a focus on the experiences people have with the service (Holmlid, 2007).

It is often said that service design is about designing for the co-creation of value in the contexts of use (Wetter-Edman, et al., 2014). The idea of value-in-use, or value-in-social-context, differs from other conceptions of value (Edvardsson, Tronvoll, & Gruber, 2011). Value can in design be seen as exchange, signs or experiences (Boztepe, 2007). If value is seen as created in an exchange, then it means, in this sense, that it is realized at the moment of purchase. If value is conceived as signs, then it signifies something personally or culturally important. If value is seen as experiences, it means that it is created in the delivery of the service, and thus that it is part of value-in-use. In a service-dominant rather than goods-

dominant logic, value is co-created by customers and providers during the joint delivery and usage of the service (Vargo & Lusch, 2008). This means that the customer defines the value, and the provider can only offer a value proposition to the customer. The service helps the customer to achieve some goal, and value can be assessed once that goal is reached. Service quality is defined on the customers' terms as a difference between the expected and the realized service delivery. The customer then take an active role in the delivery of the service and hence in the co-creation of it and the realization of its value. The provider, and hence also the service designer, can only prepare the conditions and prerequisites for the service delivery, including preparing the customer for a service encounter. Service design, then, becomes a matter of offering perspectives on the interaction space where providers and customers co-create the value and realize the offered value proposition (Arvola, 2014).

This paper presents a translation of a typology from user experience, into the many ways in which a service design proposal can contribute to value. It is a conceptual investigation that may bridge service logic and service design by facilitating framing and re-framing of conceptual service design efforts.

Multifaceted Value-in-Use

Previous work has proposed that there are a variety of ways in which the user experience (UX) can be said to be good. An example of that is the latest version of the UX qualities framework with its practical, communicational, aesthetic, organisational, technical, and ethical aspects (Arvola & Holmlid, 2015). The framework presented here is a repurposing of that framework to the area of service design. The base framework was built on a set of perspectives with roots in systems design, participatory design, and interaction design (Beyer & Holtzblatt, 1998; Whiteside, Bennet & Holtzbatt, 1988; Dahlbom & Mathiassen, 1995; Ehn & Löwgren, 1997; Löwgren & Stolterman, 2005). The framework also echoes aspects familiar in fields like service quality (Brady & Cronin, 2001), and product semantics (Krippendorff, 2006). It has also been influenced by von Wright's (1963) metaethical treatise of the concept of 'goodness'.

For product design, Boztepe (2007) identifies utility, social significance, emotional and spiritual user values. The kinds of values she identified can be positioned on three dimensions: intrinsic – extrinsic, self-oriented – other-oriented, and active – reactive. These kinds of dichotomies are however not very helpful in characterizing the diversity of ways in which service design can contribute to value. Desmet and Hekkert (2007) have developed a framework for product experience where they highlight three levels of experience: aesthetic experience at the level of sensory modalities; experience of meaning at the level of character, symbolism and meaningfulness; and emotional experience that includes feelings like anger, attraction, discontent or despise that a product may give rise to. In architecture, there are different ways in which a building can be said to be good. According to Vitruvius a good building in characterised by firmitas, utilitas and venustas, or build quality, function and impact as they are called in the Design Quality Indicator (DQI) (Gann, Salter & Whyte, 2003).

We share aim with Lim, Lee and Kim (2011) and wish to develop an approach to judging the value of design, not primarily based on rationalistic methods, but rather based on a sense of quality from a designer's perspective. There are however different perspectives that designers may impose on the design situation, and those perspectives will affect what aspects they will pay attention to (Hult, Irestig & Lundberg, 2006). The typology of values-in-use presented in

this paper represents a pluralistic view of value-in-use, where the different perspectives of the framework function as reflexive and analytic lenses to use when interpreting, understanding and judging the value-in-use of a service design.

Instrumentality

The instrumental value of a service concerns how good it is as a service of its kind. For example, how good is a certain booking service for booking tickets, or how good is a photography service for getting photos taken. The service is in this perspective good for mediating action towards achieving some goal. The service itself remains in the background of attention. Qualities such as effort, load, safety and usability are associated with this perspective, as well as indicative semantics, affordances and comprehensibility.

Technical Excellence

A service can also be delivered with technical excellence. At a restaurant they may, for example, be very good at a particular kind of cooking, and the mechanics at a garage may have the highest of skill and craftsmanship in, for instance, restoring old cars of a certain kind. A question then is to what degree the service makes proper use of that excellence. Technical excellence is also the level and advancement and refinement of tools and technology used. To what degree are technical constraints and opportunities considered? Qualities such as performance, efficiency and reliability are associated with this perspective. It is however, not only the service providers that can possess technical excellence. So can also the customers, and a service aimed at people with the highest level of expertise is probably not for intermediate or low expertise customers. Finally, also the service design process may be executed with high technical excellence and skill. The technical expertise and skilled acts of designers, service providers, and customers is crucial in design, delivery and use.

Usefulness

A service is useful when the object achieved has a utility value for a purpose. The truly useful is for the good of someone or something. In what way does it contribute to the welfare and health of someone? Does it relieve some frustration or pain, is it a good-to-have, or is a convenience for someone? The useful and relevant service is something the users have use for. It is beneficial in some relation to the motives of their activities. A training programme might, for example, be something that some people find useful, if it serves them good health.

Social Significance

A service that is socially significant is for the good of a person in relation to other people. It is a service that contributes to that person's status and identity. The aforementioned training programme may for example only be accessible to the members of a certain exclusive club. The question is also how the service presents its contribution to the customers' status and

identity, and what symbolism that is used. Associated qualities include also face, impression, role and identity fulfilment, belongingness and tradition.

Mutual Advantage

The service is a place for co-creation of value for the stakeholders involved. It is hence of mutual advantage to engage in the service. The mutual advantage is gained in the cooperative achievement that is realised in the interaction and co-experience of the service. This means that the service design needs to support the cooperation and coordination between actors (both frontstage towards customers, and backstage between internal actors). The question is what qualities this cooperative and coordinated interaction is characterized by, and how it is configured to achieve mutual advantage.

Collective Welfare

If the useful is for the welfare and for the good of a person, then the collective welfare is for the good of some social unit. Such a social unit could include the family, the community, the organisation, or the state. This implies also a division of labour into roles, and the rules that govern the social unit, which individuals and services are expected to adhere to. The service may not only co-create for example utility value, but also be good for the family. The photography service may for example help bond a family closer, while also producing value for the photography company, which is another social unit. This perspective includes matters like organizational change and business models.

Aesthetic Values

The aesthetic values refer to matters of the hedonic, i.e. that of pleasure. It can be the passive experience of formal aesthetics in visual and physical design, and the choice of materials and media. It can also be active experience in interaction flow and on-stage performance, and behaviour, spanning from the immediate wow-experience, over short-term mmm-experience at a closer look, and the ahh-experience after living with a service for months. Wow, mmm, and ahh is a terminology borrowed from Einar Hareide, at Hareide Design. The role of expectations, recognition and novelty in the experience should not be underestimated. Matters of sensation, emotion, affection, presence, mindfulness, spirituality, happiness, engagement and fun belong to this kind of value-in-use.

Moral Implications

Design decisions made with regard to all of the forms of value-in-use introduced above come with moral implications. What is beneficial or useful for one person may be harmful for another person. What is harmful for one may be beneficial for the family or good for the state. The question of for whom the design is made is pivotal. This points also to matters of maintaining or disruptive dominance and power structures, and who's voice that is important to listen to. It is a design question of exclusion, punishment, obedience, and the good of a

person over others, as much as it is a question of inclusion, reward, freedom and the good of all. The critique of norms and ideals are also related, just as a duty to maintain well-grounded norms for the benefit of many. What kind of world is it that a designer wants to create? What kind of world do stakeholders and designers want to contribute to? What is OK to do, and what is not OK to do? What habits do we want to encourage and what habits do we want to avoid? For example, do we want to encourage a healthy way of life where you eat a varied diet, or do we want to encourage eating junk food, or is it more important to service something tasty in shortest possible time? This has to do with what the harmful or healthy habits are, and good service design is often about striking a balance or prioritizing between potentially conflicting values for the good of humans as well as the good of the world.

Conclusions

The different kinds of values are summarized in Table 1.

Kind of Value	**In relation to**	**Defined by**
Usefulness	Purpose	Beneficial to and serving the purpose of the activity or welfare in the life of someone
Instrumentality	Goal	Serving the goal well
Technical excellence	Requirements	Excelling in performance in relation to requirements or competition
Social significance	Symbols	Status and identification
Mutual advantage	Stakeholders	Beneficial for several stakeholders in cooperation
Collective welfare	Social unit	Welfare of an organisation or society
Aesthetic values	Individual	Pleasurable experience
Moral implications	Outcomes	Desirable and undesirable outcomes for the happiness and wellbeing of people and other living things

Table 1. Summary of the different kinds of values.

As noted in the section above on moral implications, it is important for a service designer, critic or researcher to ask the questions of why, as well as by whom and for whom, to disclose the motivations behind the design and the values to which the service may contribute. A typology of pluralistic perspectives on values can work as a basis for reflexive argument and can be used to create common ground in a particular design project. The design rationale need to transpose between different levels and kinds of value, at which it becomes a tool for thinking the design through, and for interpreting and exposing tensions between different values and between different stakeholders (Arvola & Holmlid, 2015; Holmlid, 2014). It becomes also a framework for a variety of ways to offer value-in-use that

can facilitate service designers and design researchers in framing and re-framing a design effort and conceptualise a value proposition.

The typology presented here is neither final nor comprehensive. It is a translation of a framework defined within the field of UX, and carries assumptions related to technology, and has an overweight towards experiential values. "Usefulness" appears to cover too many sub-matters and can possibly be divided. What to call the "Aesthetic values" is not clear. "Moral implications" are at a different level than the other kinds of values in the framework. Further developments of a framework of this kind are possible, and how it can be put to use in service design practice as well as in service design research needs further study.

References

Arvola, M. (2014). Interaction and Service Design as Offering Perspectives in a Space of Action. In *Proceedings of DRS 2014: Design's Big Debates* (pp. 7-15). Umeå: Umeå Institute of Design, Umeå University.

Arvola, M. & Holmlid, S. (2015). User experience qualities and the use-quality prism. In *The fuzzy front end of experience design: Workshop proceedings*. Espoo: VTT.

Beyer, H., & Holtzblatt, K. (1998). *Contextual Design: Defining Customer-Centered Systems*. San Francisco: Morgan Kaufmann.

Boztepe, S. (2007). User value: Competing theories and models. *International Journal of Design, 1*(2), 55–63.

Brady, M.K., & Cronin, J. Jr. (2001), Some new thoughts on conceptualizing perceived service quality: A hierarchical approach. *The Journal of Marketing, 65*(3), 34-49.

Dahlbom, B., & Mathiassen, L. (1995). *Computers in Context: The Philosophy and Practice of Systems Design*. Oxford: Blackwell.

Desmet, P. M. A., & Hekkert, P. (2007). Framework of product experience. *International Journal of Design, 1*(1), 57–66.

Edvardsson, B., Tronvoll, B., & Gruber, T. (2011). Expanding understanding of service exchange and value co-creation: A social construction approach. *Journal of the Academy of Marketing Science, 39*(2), 327–339.

Ehn, P., & Löwgren, J. Design for quality-in-use: Human-computer interaction meets informations systems development. In M. Helander, T. Landauer, & P. Prabhu (Eds.), *Handbook of Human-Computer Interaction. Second, Completely Revised Edition* (pp. 299-313). Amsterdam: Elsevier.

Gann, D., Salter, A., & Whyte, J. (2003). Design quality indicator as a tool for thinking. *Building Research and Information, 3*(5), 318-333.

Holmlid, S. (2014). One approach to understand design's value under a service logic. In: Design Management in an Era of Disruption. In *Proceedings from 19th DMI Academic Design Management Conference* (pp. 2633-2640). Boston, MA: Design Management Institute.

Holmlid, S. (2007). Interaction design and service design: Expanding a comparison of design disciplines. In *Proceedings of the 2nd Nordic Design Research Conference, NorDes 07*.

Hult, L., Irestig, M., & Lundberg, J. (2006). Design perspectives. *Human-Computer Interaction, 21*(1), 5-48.

Krippendorff, K. (2006). *The Semantic Turn; A New Foundation for Design*. Boca Ratan, London, New York: Taylor & Francis CRC.

Lim, Y., Lee, S., & Kim, D. (2011). Interactivity attributes for expression-oriented interaction design. *International Journal of Design, 5*(3), 113-128.

Löwgren, J., & Stolterman, E. (2005). *Thoughtful Interaction Design: A Design Perspective on Information Technology*. Cambridge: MIT Press.

Vargo, S. L. & Lusch R. F. (2008). Service-Dominant Logic: Continuing the Evolution. In *Journal of the Academy of Marketing Science 36*, 1–10.

von Wright, G. H. (1963). *The Varieties of Goodness*. Routledge.

Wetter-Edman, K., Sangiorgi, D., Edvardsson, B., Holmlid, S., Grönroos, C., & Mattelmäki, T. (2014). Design for Value Co-Creation: Exploring Synergies Between Design for Service and Service Logic. *Service Science, 6*(2), 106-121.

Whiteside, J., Bennet, J. & Holtzbatt, K. (1988). Usability engineering: Our experience and evolution. In M. Helander (Ed.), *Handbook of Human Computer Interaction* (pp. 791-817). Amsterdam: Elsevier.