Bridging Service and Experience Design with Value Co-creation

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Abstract

This paper discusses how the value co-creation concept from service dominant logic (SDL) can bridge the gap between service and experience design. According to SDL, services aims for successful value co-creation through combined efforts of companies, customers, users and other relevant stakeholders needed in the service delivery. Value is however always determined by individual beneficiaries and therefore determined through the beneficiaries experience and self-perception of value. To design meaningful conditions for value co-creation, the designer must therefore attend to the experience of value – how the individuals involved in service delivery perceive the service, and what is their experience of its value. Both the designer and service user must also understand and take into consideration that the experience and perceived value of a service is dynamic and changes over time.

Author Keywords

Service dominant logic, SDL, value co-creation, experience design.

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI):.

Introduction

This paper provides insights and reflections that emerged from teaching a university-based course on Service Design. Service Design is an emergent design field that focus on the particularities of analyzing and designing for the intangible nature of services [6]. In the course, the students worked with a real case for public healthcare provider, suggesting Service Design solutions to improve Head and Neck cancer rehabilitation. Based on three of the authors' experiences teaching this course, the students' project work, the paper focuses on how the concept of value co-creation [3] may support service designers in combining aspects of service and experience design.

Service-dominant logic (SDL) suggests that all economic activity is based on service [8]. SDL challenges the dominant logic based on understanding economic activity through exchange of goods, where value is embedded into goods and transferred to customer through (usually monetary) exchange. The related notion of value co-creation proposes that goods alone do not carry value, value may depend on context, and that there exist non-monetary values as well. A service may be stand-alone or incorporate goods and other services to create value through combining competences, knowledge, culture and other resources of stakeholders. Value can, a part from being a mere monetized entity, for example be related to sign (e.g. the value a community attribute to a specific brand) or experience (e.g. how a person value eating a specific dish at a specific restaurant) [1]. Value, extended beyond the idea of exchange, may emerge through the combined workings of the above resources and through contextualized use of goods and services [8].

In HCI, the focus of design is typically on the interaction between technology and a human actor, often called "the user". However, as the information technology has become more ubiquitous in our lives, there is more and more research on designing multi-device experiences or interaction, where the designers specifically address information and design ecologies, multi-device interaction and multi-device use [5]. This line of thought may even be strengthen by moving away from designing objects, to designing services, that may, or may not rely on artifacts for its delivery and value creation. Cockton [2] argues that focus on value(s) moves the focus of HCI from "use" to "impact", and proposes to use the more neutral word "worth" instead of "value" to allow more morally and politically neutral discussions.

In the service-dominant logic approach, one of the cornerstones is value co-creation. The notion of value co-creation denotes that in service delivery the stakeholders all aim at creating value in a service ecosystem. Wetter-Edman et al. [9] outline how design for service can be used for designing new opportunities for value co-creation. When designing a service, the designer identifies and maps the ecosystem of relevant stakeholders required for a successful service delivery. Value co-creation concept can be used as a conceptual tool for seeing service as an collaborative activity, where the objective is to create value for *all* stakeholders, not only for one specific group. The concept of value co-creation provides means for specifically addressing all stakeholders taking part in service delivery, and recognizing their active role in creation of value. If one stakeholder does not feel satisfied with the outcome of the value co-creation process, perhaps this stakeholder is no longer

motivated to take part in service delivery and future co-creation of value. Therefore, it is critical that the *experience* of value becomes a driving factor in design of services – the service designer needs to have a more nuanced understanding on what values the stakeholders are expecting, what value they potentially could get from the service, and how to design a service that could be successful in creating a satisfactory experience of value for various different stakeholders. We acknowledge that that a given experience can never be designed [4], but we argue that service designers should aim with their design to create opportunities for collaborative activity which can create value.

Example Service Design Case
To illustrate how experience design can be an integral part of a service design process, we discuss a design case conducted at as part of a Service Design course at the IT University of Copenhagen, Denmark in fall 2017.

Teaching Case
The teaching case was conducted in the context of a 15 ECTS specialization course for Master's students in the Digital Design and Communication program. ECTS stands for European Credit Transfer System and a full-time student is expected earn 30 ECTS per semester. In the overall study program and prior to our course, the students study a wide set of interaction design, media and communication science courses. The students are on their last year of studies when they take the Service Design course, and are already familiar with basic service design methods and techniques. To complement the theoretical content and lectures, the students develop a larger service design project in groups. This year, the students were working on a service design case on rehabilitation of head and neck cancer patients (see details on condition, for example, in https://www.cancer.gov/types/head-and-neck/head-neck-fact-sheet). As a client, the students had Sundhed.dk (http://www.sundhed.dk) and a cancer rehabilitation center (http://www.kraeftcenter-kbh.dk/en). Sundhed.dk is a national and publically funded health data and information portal. In their brief to the students, the two clients especially addressed the challenges of accessibility of rehabilitation in all parts of Denmark, taking into account that this form of cancer is relatively rare, and in small towns, the care personnel might not have extensive experience in treatment of this particular cancer type. The clients gave the initial brief, arranged meetings with cancer patients and care professionals etc. They also gave feedback to the students on their work halfway through the semester and at a final event where the student groups showcased and pitched their work to both the teachers and the clients. During the semester, the students developed service concepts that addressed the needs of both the care personnel in acquiring and sharing knowledge about how to choose the optimal rehabilitation pathway, and for the patients to act in their situation, be aware and informed about rehabilitation opportunities available in their area of residence and online.

Combining experience design with service design
The students applied standard service design methods, such as service blueprints, user journeys and ecology maps to analyze the existing service offer at the cancer rehabilitation center, and for proposing new service concepts. As IT University students and as students in the "Digital Design and Communication" program, the students were expected to use digital components in their service concept proposal. This resulted in that the

students complemented traditional service design methods with HCI and Interaction design methods, such as interface design and prototyping.

Following value co-creation principles, the students carried out user studies and fieldwork to obtain information about the needs and the experience expectations of the stakeholders. The students did for example interview patients, discussed with care personnel, collected data through probes and visited the rehabilitation center to observe its daily operation. Applying the gathered empirical data together with different service design methods, such as ecology mapping, service blueprinting, experience prototyping and touchpoint optimization, the students developed proposals for new sustainable cancer rehabilitation services. The majority of the proposed services used digital elements such as mobile apps as a service touchpoint and to deliver the service.

Through interviews and discussions with the care personnel, the students observed that the care personnel valued service solutions which are reliable, trustworthy and accurate. As the care personnel were working with patients with very serious health conditions, they wanted to be sure that service they provide use reliable information and can be trusted. With this insight, the students suggest that one of the key requirements for a service supporting cancer rehabilitation work is to deliver an experience that communicates trustworthiness and accuracy. Against this backdrop, the design decisions taken in the service design process were then reflected. For example, some of the students decided to discard service concepts based on discussion forums where patients or care personnel could exchange experiences related to cancer

rehabilitation. Even though peer support was valued by both care personnel and patients, the sharing of information on discussion forums was not perceived to always follow a good care practice or to be supported by medical evidence, and hence not perceived to support the experience of trust, reliability and accountability. Instead, the developed service concepts turned into solutions where trusted authorities were used as sources of information instead of peers, and interface elements were designed to signal trust through evidence, authority and presentation styles.

Another example of value expectation used in guiding the service design work was the objective for providing equal opportunities for rehabilitation for all patients, regardless of their background, social status or location. Especially the care personnel recognized lots of issues that resulted in inequality in access to rehabilitation. For example, referral to rehabilitation from cancer treatment was not always done after the patients had been to cancer treatment, and the knowledge among care personnel of available rehabilitation options for this relatively rare form of cancer was not always very high, especially in remote locations where such cancer cases are diagnosed only occasionally. Most design solutions aimed at providing entry points to knowledge and practical guidelines on rehabilitation opportunities that would be accessible for care personnel in all parts of Denmark. Also, with this type of cancer, the patients have very diverse digital literacy levels. There are patients with very high education and socio-economic status, and then patients who do not have any post-high school education and with very limited economical resources. Therefore, capabilities and resources for adoption of digital resources necessary to access and use digital service

systems limited the opportunities to create digital solutions which could be accessible by all patient groups equally. This was tackled in the service design proposals put forth by the students through for example the use of shared devices (such as iPads) which were used to access digital content and tools by patients without a personal tablet device.

Challenges in combining service and experience design
Throughout the learning process, we encountered several methodological challenges in combining experience design with service design.

As cancer rehabilitation is a complex and often long-term service process, we experienced limitations in methods and tools for addressing the dynamic nature of an experience. For example, in the initial phases of rehabilitation the shock caused by getting the cancer diagnosis may have a strong effect on the overall service experience. For example, the patient might feel overwhelmed with the new information provided, and unable in digesting it. Later in the rehabilitation process, the experience can change into need for learning more about the condition, share experiences with other patients and willingness to achieve proficiency in interpreting medical information available. As stated by McCarthy and Wright, an experience is not a fixed entity and may change over time, based on us interpreting the situation-at-hand and also recounting our own experiences to others [4].

Also, creating traceable justification of how the experience expectations or anticipations affected actual design decisions was challenging in our case. The students lacked tools in, for example, conceptualizing the value expectation and tracing them into design

solutions supporting the desired experience of value, and negotiation of value expectations when they were conflicting.

Discussion and Conclusion

With our service design case, we want to illustrate how the concept of value co-creation supports the service designer in embedding experience design elements into the service design process. Designing for value co-creation creates opportunities for the service designers to consider what value expectations the different stakeholders in service delivery have, and how to, in best possible way.

Our examples from the service design course within the context of cancer rehabilitation service design give examples of how the students, as practicing service designers, integrated experience design into their service design process and how value co-creation thinking supported them in doing that.

Through observing our students and their service design work, we experienced that there is a need for additional methods and conceptual tools supporting the service designers to systematically create design decisions from expected value into experienced, perceived value. In addition, as expected or experienced value is never fixed or static entity, rather relational and co-created by stakeholders, new approached to trace and make visible "value-in-use" and "value-in-context" is warranted [7, 8].

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