Understanding the Influence of the Co-Design Process on Well-Being

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Abstract

The aim of this paper is to explicitly link co-design to well-being and expand the conversation about the influence of the co-design process on well-being. This paper highlights considerations for co-design researchers and practitioners interested in enhancing the value created through co-design. The authors draw from discussions in transformative service research (TSR) to better understand how co-design influences well-being. Co-design is defined as a process of joint inquiry and imagination where diverse actors share and combine their knowledge. Based on the broad definition of service set out in service-dominant logic (SDL), the authors take the position that co-design is a form of service and therefore stress the relevance of TSR to co-design. The paper identifies six dimensions of well-being discussed in TSR that extend and highlight gaps in co-design literature related to the influence of the co-design process on well-being. The authors suggest that these dimensions become a component of future evaluations of the co-design process and point to opportunities for further research related to how co-design influences well-being and supports transformation.

KEY WORDS: co-design, well-being, transformation, transformative service research, service design, service-dominant logic
Introduction

The purpose of this paper is to highlight the link between co-design and well-being and expand the discussion about how co-design influences well-being. This paper draws from the emerging area of transformative service research (TSR) to better understand the relationship between co-design and well-being. Service-dominant logic (SDL) is used to bridge these two areas of research. By integrating these disconnected research areas, this paper makes a contribution to co-design research and practice, suggesting an expanded role for the co-design process.

This paper will help design researchers and designers optimize the total value created through co-design by considering influences on well-being not previously discussed in design literature. Through an examination of the documented impacts of co-design on well-being, this paper opens up a host of new opportunities for co-design practice and research.

In the field of design, growing attention has been paid to participatory design processes, especially co-design (Steen, Manschot & De Koning, 2011; Saunders & Stappers, 2008). Co-design involves stakeholder participation throughout the design process and has been linked to transformative aims (Saunders & Stappers, 2008). However, there are many concerns in design literature about the readiness of co-design to realize transformation (Carr, Sangiorgi, Büschker, Cooper & Junginger, 2009; Donetto, Pierri, Tsianakas & Robert, 2014; Freire & Sangiorgi, 2010).

Recently, TSR, which explores the relationship between service and well-being, has received increasing interest and has been highlighted as the top priority in service research (Anderson & Ostrom, 2015; Kuppelwieser & Finsterwalder, 2016). Because of the overlapping intentions of co-design and TSR to catalyse transformation, TSR may be able to aid in the analysis and development of co-design’s transformative capacities.

To help make the link between these fields, the authors use service-dominant logic (SDL) to position co-design and understand how and why TSR is relevant. For the purpose of this paper, the authors take the position that co-design is a form of service, based on findings from previous research applying service-dominant logic to design for service research (Wetter-Edman, Sangiorgi, Edvardsson, Holmild, Grönroos, & Mattelmäki, 2014).

The authors of this paper focus exclusively on the process of co-design and its influence on well-being, bringing in insights from TSR & SDL. The paper does not offer a comprehensive analysis of how current literature on co-design, TSR & SDL, align and diverge, but does point to some promising possibilities at their intersection.

This paper begins by grounding the process of co-design in the conceptual foundation of SDL. The authors then develop how SDL reconfigures co-design as service, based on an understanding that service is a process of applying skills and knowledge for the benefit of another actor (Vargo & Lush, 2008). Next, the authors introduce TSR and describe how it aligns with co-design research using this alternative conceptualization of co-design. Key dimensions of well-being are identified from TSR and compared to discussions in existing co-design research. The authors of this paper highlight how TSR can expand the conversation in co-design research about how co-design influences well-being. Finally, the authors reflect on the contributions that TSR makes to co-design research and suggest future research directions.
Grounding Co-Design in SDL

While co-design has been gaining in popularity, there are differing usages and interpretations of its meaning in the literature (Mattelmäki & Visser, 2011). One common definition of co-design is “collective creativity as it is applied across the whole span of a design process” proposed by Sanders & Stappers (2008). This definition has been further developed, describing co-design as a process of joint inquiry and imagination where diverse actors share and combine their knowledge (Steen et al., 2011; Steen, 2013).

Co-design has a close relationship with service design. Co-design is seen as a practical approach for engaging service users, service providers, and other stakeholders in the design of a service (Freire & Sangiorgi, 2010; Trischler & Sinnewe, 2012). Further, it is argued that co-design is central to service design research and practice because of the collaborative nature of services (Sangior
gi, Prendiville & Ricketts, 2014).

Researchers have begun applying the conceptual foundation of service-dominant logic (SDL) to service design and design more broadly (Cautela, Rizzo, & Zurlo, 2009; Eneberg, 2011; Sangiorgi & Prendiville, 2014; Wetter-Edman, 2009; Wetter-Edman et al., 2014). This research suggests that SDL can help to re-position and better understand the design process (Wetter-Edman et al., 2014). Co-design is noted as an important area of mutual relevance for design and SDL (Wetter-Edman et al., 2014; Wetter-Edman, 2009).

SDL is a rapidly growing and evolving body of literature that provides a conceptual foundation for thinking about service (Vargo & Lusch, 2008; 2015). SDL can be contrasted with traditional goods-dominant logic, which focuses on producing units of output through a value chain (Lusch, Vargo & Wessels, 2008). SDL shifts the thinking from services as a “category of market offerings”, as is often discussed in goods-dominant logic, to service as a “perspective on value creation” (Edvardsson, Gustafsson & Roos, 2005). In SDL, service is defined broadly as a process of applying skills and knowledge for the benefit of another actor (Vargo & Lusch, 2008).

An important tenet of SDL is the process of value creation, generally called co-creation (Vargo & Lusch, 2008). Vargo and Lusch (2004; 2008) state that value is collaboratively created and the beneficiary is always a co-creator of value. Further, it is noted in SDL that value is uniquely and phenomenologically determined by the beneficiary in use and in context, including the social context (Edvardsson, Tronvoll & Gruber, 2011; Vargo & Lusch, 2004; 2008). It is also important to highlight that value co-creation relies on the integration of resources by all actors involved, and that value is co-created within dynamic system of actors and resources referred to as a service ecosystems (Vargo & Lusch, 2008).

Understanding of co-creation in SDL has challenged service researchers to re-think the terms “producer” and “consumer”, which has contributed to the adoption of the term “actor” (Vargo & Lusch, 2008). The shift away from these binary roles is also mirrored in co-design research, where researchers have chosen the term “partner” or “co-creator”.

This theoretical understanding of co-creation in SDL is well aligned with the practice of co-design. Co-design recognizes the role of diverse actors and the benefit of integrating their unique knowledge and skills (Steen et al, 2011). It offers an approach and set of tools for collaboratively creating value (Wetter-Edman et al., 2014). Co-design involves creative, participatory methods, such as design games (Brandt, 2006), context mapping (Visser, Stappers, & Van der Lugt, 2005) and tangible objects (Clatworthy, Oorschot & Lindquist, 2005).
2014), that help actors to creatively and effectively integrate resources. Ultimately, co-design offers a practical means to co-creation described in SDL.

While co-creation and co-design are significantly aligned it is important to highlight the ways in which they are distinct. Co-creation is a broad term in SDL, referring to interactions between actors that generate value. Co-design, on the other hand, is specifically referring to an involvement of actors that is sustained throughout the design process. While co-creation tends to refer to the value creation in use, co-design generally refers to value creation prior to use. SDL provides a valuable foundation for positioning co-design within the value creation process and can help to re-frame the role of co-design in relation to service.

**Seeing Co-Design as Service**

Previous research exploring the connection between ‘design for service’ and SDL has begun to sketch out a variety of implications for service design (Wetter-Edman et al., 2014; Sangiorgi & Prendiville, 2014). Recent ‘design for service’ literature highlights how co-design processes enable the co-creation of value as part of the total value creation process in service, as described in SDL (Wetter-Edman et al., 2014). Wetter-Edman et al. (2014) expand on SDL’s notions of value being determined in-use and in-context highlighting that value is also created in designing, if the process is participatory. Supporting this thinking, co-design literature highlights a variety of benefits or reflections of value created through the co-design process for the different actors involved (Steen et al., 2011).

SDL sees service as a process of applying skills and knowledge for the benefit of another actor (Vargo & Lusch, 2008). This understanding of service is strikingly similar to the definition of co-design as a process of joint inquiry and imagination where diverse actors share and combine their knowledge (Steen et al., 2011; Steen, 2013).

Furthermore, it has been stated in SDL that any interaction can be thought of as service as long as it creates value for an actor (Skålen, Aal, & Edvardsson, 2015). Based on this understanding, co-design not only contributes to the development of services, but it is, in and of itself, a form of service. This understanding of design as service builds easily from recent design for service research, but lies in contrast to traditional understandings of service design that were rooted in goods-dominant logic referring to the designing of services (see figure 1).
Based on SDL, the value co-created in the process of co-design through the integration of resources by diverse actors is not just a by-product, but a fundamental and largely untapped component of total value creation. Within design research and practice emphasis has been placed on optimizing value realized in the service experience or in use. The value co-created in the process of designing has not been fully discussed or leveraged. For example, service designers in health care have traditionally been focusing on designing services that improve the patient experience. What is not being fully acknowledged is the value that is co-created during the design process for patients and other actors involved in co-design and how the design process influences their well-being.

As the participatory process of co-design contributes to value co-creation, it is a form of service. It is important to recognize that the authors are not arguing that co-design is a service, as in a type of offering in the marketplace, although it could be. Rather the authors argue that co-design is a form of service, as understood in SDL, to be a process where actors integrate resources to co-create value.

Aligning Co-Design and TSR

Understanding co-design as a form of service reinforces the relevance of applying insights from transformative service research (TSR) to the co-design process. TSR has emerged in the last few years as a prominent research area focused broadly on any service research with...
the goal of creating improvements in the well-being of individuals and collectives (Rosenbaum et al., 2011, Kuppelwieser & Fins terwalder, 2016). TSR might help to address some important gaps and critiques of co-design related to its transformative aims.

While there are growing hopes and expectations of co-design to catalyse transformation (Sangiorgi, 2010), there are several concerns within the literature about its ability to realize this goal. Some researchers suggest that design processes closely connected to end users can only ever lead to incremental change (Norman & Verganti, 2014). Others have noted a difficulty shifting from traditional hierarchical roles in services to partnership within the co-design process (Carr et al., 2009; Donetto et al., 2014; Sanders, 2008; Wetter-Edman, 2012). Further, there are suggestions that co-design supports empowerment of participants in the process. However, there is need to evaluate whether co-design is indeed realizing these goals (Wetter-Edman, 2012). Empirical studies of co-design practice have also highlighted the need to better address the political dimensions, power relations, and ethics involved in the co-design process (Donetto et al., 2014; Freire & Sangiorgi, 2010; Sangiorgi, 2010; Steen, 2013). In general, while there are discussions about co-design's transformational aims in the literature, research suggests that there is a need for a systematic evaluation of results related to this goal and the outcomes of the co-design process (Donetto et al., 2014; Freire & Sangiorgi, 2010; Steen et al., 2013; Sangiorgi, 2010).

TSR may shed light on some of these concerns. TSR proponents call for more attention on how service enhances or harms consumer well-being, treating outcomes related to well-being as important, managerially relevant, and worthy of study (Rosenbaum et al., 2011). TSR researchers argue that service fundamentally affects well-being and well-being is not possible without service (Ostrom et al., 2010), underlying the importance considering the impacts of service on well-being.

TSR seeks transformation in service and service systems with an explicit focus on well-being, such as health care, as well as those where that is not the intended focus, such as coffee shops (Rosenbaum et al., 2011). Certainly, service impacts well-being, but it is also proposed that the majority of services have transformative potential (Rosenbaum et al., 2011). In addition, it is noted that enhancing well-being is likely to enhance productivity, create a competitive advantage for organizations, and increase customer loyalty to a service (Rosenbaum et al., 2011). Developing new measures of the effects of service on individuals and societies is a key priority within this area of research so that impacts on well-being can be better understood and enhanced.

While there is clear alignment between the goals laid out in co-design and TSR, to date there has been no research explicitly connecting these two research areas. Using an SDL lens helps make this connection more explicit. If we understand co-design as service, then the body of literature related to TSR is extremely relevant and applicable, not just for co-design processes in health care, but for all of co-design practice. One key consideration that comes from the re-conceptualization of co-design as service in the context of TSR is the need to understand the influence of the co-design process on well-being.

How Co-Design Influences Well-Being

Understanding and enhancing well-being through service is the overall purpose of TSR. The emerging area of TSR highlights several important dimensions of well-being to be considered when exploring the impact of service on well-being (Anderson et al., 2013,
These dimensions include:

- Micro to macro-levels of well-being
- Impacts on diverse actors and entities (including individuals, families, consumer entities, service entities, communities, etc.)
- Eudaimonic well-being (human flourishing and the realization of potential) and hedonic well-being (happiness and pleasure)
- Positive outcomes (uplifting value creation) and negative outcomes (destruction of value)
- Intended and unintended impacts on well-being

In addition, to the above dimensions, TSR research discusses the potential for systemic transformation as actors use their agency to alter social structures and institutional arrangements (Blocker & Barrios, 2015; Edvardsson, Skålen & Tronvoll, 2012). For the purpose of this paper, transformation is positioned as the sixth dimension of well-being as it is widely discussed and referenced in TSR.

To gain a better understanding of the contributions TSR can make to understanding how co-design influences well-being, it is pertinent to explore the extent to which these dimensions of well-being are already being discussed in co-design literature.

In terms of levels of analysis, existing research on co-design seems to focus mainly on well-being outcomes at the micro or meso-level. While research by Patricio, Fisk, Falcão e Cunha & Constantine (2011) describes the role of service design at multiple, interconnected levels within complex service systems, there is not yet an explicit analysis of how the design process influences well-being across these levels. For example, Steen et al. (2011) identify three categories of benefits from the co-design process: benefits for the project, the service user and the organization. These benefits all lay at the micro or meso-level, and the macro-level or systems-level benefits are not discussed.

Similarly, current co-design literature tends to focus on the implications for only a select number of entities. It highlights a number of benefits related to well-being for end users, including enhanced satisfaction and empowerment, and for service entities, including greater levels of creativity among staff and better relationships (Hussain, Sanders, and Steinert, 2012; Steen et al., 2011; Wetter-Edman, 2012). However, there is an absence of analysis of the impacts on other entities or actors including families, service systems, neighbourhoods, and communities.

In co-design literature there is reference to the notion that co-design enables participant empowerment by engaging people as experts and employing their competencies throughout the process (Taffe, 2015; Wetter-Edman, 2012). While empowerment contributes eudaimonic well-being, described in TSR as human flourishing, the broader impacts on eudaimonic well-being and hedonic well-being, understood as happiness or pleasure, are not sufficiently discussed in co-design literature.

TSR also draws attention to the importance of positive and negative impacts on well-being (Anderson & Ostrom, 2015). To date there has been limited to no discussion in co-design literature of negative impacts of the process on well-being. As result, conversations about how to reduce and mitigate negative impacts of the co-design process are absent.
Additionally, TSR distinguishes between unintended and intended impacts on well-being. Generally, co-design research has not differentiated between these, but tends to focus its attention on intended benefits and impacts.

Design research has outlined the potential of participatory design processes to serve as a means for social transformation, but further analysis is needed to systematically evaluate the ability of co-design to realize this goal (Sangiorgi, 2010).

The following chart summaries the dimensions of well-being discussed in TSR in comparison to current discussions in co-design research.

<table>
<thead>
<tr>
<th>Dimensions of Well-being</th>
<th>Description in TSR</th>
<th>Related Discussion in Co-Design Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels</td>
<td>Micro to macro levels of well-being</td>
<td>Focused on outcomes at the micro- &amp; meso-levels (e.g. individuals and organizations)</td>
</tr>
<tr>
<td>Entities</td>
<td>Impacts on diverse actors and entities including individuals, families, consumer entities, service entities, communities, etc.</td>
<td>Focused on benefits for a small number of entities - mainly consumer and service entities</td>
</tr>
<tr>
<td>Types</td>
<td>Eudaimonic well-being (human flourishing and the realization of potential) and hedonic well-being (happiness)</td>
<td>Does not distinguish between types of well-being, mainly highlights empowerment-related benefits</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Positive outcomes (uplifting value creation) and negative outcomes (destruction of value)</td>
<td>Describes some positive outcomes related to well-being, but ignores real and potential negative outcomes</td>
</tr>
<tr>
<td>Intentions</td>
<td>Intended and untended impacts on well-being</td>
<td>Issue of intention is not explicitly discussed, but seemingly focuses on intended impacts</td>
</tr>
<tr>
<td>Transformation</td>
<td>Actors using their agency to change institutional arrangements</td>
<td>Conversation of transformative potential of co-design has been started, but lacks a systematic evaluation</td>
</tr>
</tbody>
</table>

Chart 1. Comparing dimensions of well-being to existing co-design research

Discussion

The aim of this paper was to connect co-design to well-being and expand the discussion about the influence of co-design on well-being. Using SDL as a conceptual framework re-framed co-design as service, reinforcing its influence on well-being and the relevance of TSR.
By comparing the dimensions of well-being from TSR to discussions in co-design research, one can see the need to expand the analysis of co-design's impacts on well-being in the following ways:

- Enhancing understanding of how co-design does or can influence well-being at multiple levels, including the macro-level (e.g., the influence of co-design on service ecosystems and society);
- Considering how co-design impacts a broader range of actors within service systems, beyond consumer and service entities;
- Deepening exploration of how co-design contributes to different types of well-being, including the extent to which co-design leads to human flourishing and happiness;
- Monitoring co-design's negative outcomes related to well-being and discussing opportunities for mitigating or reducing these outcomes;
- Understanding differences between intended impacts and realized impacts to inform expectations and optimize all impacts on well-being, including those that are unintended;
- Evaluating the ability of co-design to support actors in changing institutional arrangements to enable positive transformation.

By employing the dimensions of well-being to guide future analysis, a more holistic understanding of the influence of the co-design process on well-being can be developed. The authors of this paper suggest the dimensions of well-being could become a useful tool for evaluating the co-design process and an important component of a systematic evaluation of co-design called for in the design literature (Donetto et al., 2014; Freire & Sangorgi, 2010; Steen et al., 2011).

By making explicit the role of co-design in influencing well-being and broadening the conversation about its impacts, the findings point to opportunities for designers to better optimize the total value created through co-design. By considering and managing not only the impacts of what is being designed, but also the impacts of the design process, designers can work to enhance the overall influence of co-design on well-being.

Applying TSR to co-design also illuminates a number of future research opportunities. First, to test these dimensions and further understand the current impacts of co-design on well-being, empirical research is needed. By using the dimensions of well-being as an interpretive framework for the analysis of several co-design case studies, research can better illuminate the full spectrum of influences of co-design on well-being.

The authors of this paper also see an opportunity to more deeply explore the role of co-design in catalysing transformation related to well-being. In future research, the authors plan to apply institutional theory in the analysis of co-design practice in health and social settings. This could help better understand the role of co-design in creating, maintaining and disrupting institutional arrangements, such as rules and norms, related to well-being.

Furthermore, there is an opportunity to not only analyse the process of co-design and its contributions to well-being and transformation, but also co-design's role in realizing service innovations to enhance well-being. Is co-design able to realize radical service innovations to support transformation toward well-being? The authors see that further research is needed specifically on the role of co-design in service innovation as it relates to well-being.
From this future research a more holistic understanding of co-design’s strengths and weakness in enhancing well-being can be developed. Then specific deficits of co-design related to its influence on well-being and transformation can begin to be addressed. Research focused on specific opportunities for improving co-design impacts on well-being could make valuable contributions to co-design theory and practice.

Together, this collection of future research could greatly expand our thinking about the multiple ways co-design influences well-being. This conceptual and empirical research will help to refine the co-design approach to enhance well-being impacts and legitimize further use of co-design in services and by actors interested in health and well-being.

Lastly, further research on contributions that co-design can make to the areas of TSR and SDL is needed. Initial reflections suggest that co-design may be able to offer a practical approach to resource integration, value co-creation and enhancing well-being through service. Perhaps, co-design might even offer an alternative approach to the top-down, consumption-based services criticized for their negative impacts on well-being in TSR (Rosenbaum et al., 2011).

Conclusion

By grounding co-design in SDL and applying insights from TSR, this paper has articulated a link between co-design and well-being and illuminated an expanded role for co-design in enhancing well-being through the design process. It has also shown that TSR can help to guide a more holistic analysis of co-design’s impacts on well-being. By investigating impacts across six dimensions of well-being, design researchers and designers can more comprehensively and systematically evaluate the influence of the co-design process on well-being.

Empirical research to test and refine an approach to evaluation based on these dimensions is needed. The paper also creates a foundation for further research on the multiple ways co-design may influence well-being, including through institutional change and service innovation. Through future research planned by the authors of this paper, the hope is to suggest ways that co-design might optimize positive impacts on well-being and enhance its transformative capacities.

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