USER-CENTERED SERVICE INNOVATION: ARE COMMERCIAL INTERESTS PREVENTING CLIENTS FROM MAXIMISING THE VALUE THEY GET FROM SERVICE DESIGN RESEARCH?

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Abstract

Effective service design and innovation requires a user centred approach is accepted within the design industry. Further, it is largely accepted that the benefits that service design can bring are based on a wide understanding of user needs that incorporates considerations of user value and experience. However, knowing this does not make the accomplishment of effective service design any easier.

The authors propose that companies have a range of choices in how they undertake user research for service development, and, that by understanding the different choices, companies can make more informed decisions on how to best use their financial, staff and capital resources.

Companies employ numerous options to gain knowledge of their customers, from reacting to reports of customer needs conveyed by the sales people at one end of the scale (Cooper, 1998), to employing anthropologists to document the lives of prospective customers at the other (Suchman, 2007). Whatever strategy a firm utilises, it is likely to be driven by a combination of knowledge, expertise and resources (Larsen & Lewis, 2006).

Industrial anthropology is limited by project scope, budget and time

Industrial ethnography, as practiced by service designers, has attracted criticism for both its disruptive nature and the limitations of the resultant research output (e.g. Grudin & Grinter, 1995). However, the proponents of such commercial research indicate that valuable insights that can lead to competitive advantages can be leveraged from such activities. Perhaps commercial outfits would benefit from describing their research approaches as ethnography-inspired in order to distinguish their offering from academic anthropology. However described, any research that relies on professional observation in the field for an extended period is likely to be costly, and therein lays the barrier to many firms’ engagement with user research (Walters & Evans, 2011). In order to control the costs of such research, knowledgeable firms can deploy a portfolio of user-research tools to gain a broad understanding of user needs. Such understanding can then be used to focus observational work into discrete, controlled and manageable events.

However, the issue of agency costs in the provision of user-research for design projects is rarely discussed. Here, agency costs relate to the research providers’ incentive to deliver solutions based on their own, or readily available expertise, rather than the providing the best approach for the client (Von Hippel, 2005). That is, for a service designer, if the requirements for a potential project are outside of their skill-set or knowledge-base, then it may not be in their interest to highlight this to the potential client; hence the lack of discussion in this field from commercial organisations.

Recently released technology-based products (e.g. Ethnio and Field Notes) have provided companies with easier access to efficient research tools. Indeed, in the field of software development, the reliance on such solutions to enable remote and distributed testing is commonplace. However, whilst tools for researchers are numerous, tools for organisations to plan investment in design research are limited. Figure 1 presents a conceptual diagram to illustrate that while the available resources for a particular project are generally largely fixed, and as such the amount that can be invested in activities are fixed, the components of activity can be flexible depending on project need.

The following three case studies are examples of the interactions of the National Centre for Product Design & Development Research (PDR) with first time service design user. The cases examine how different companies/organisations have approached user-research for product and service development. The different approaches that they have taken represent an attempt to maximise the insights derived from the research based on their differing levels of available resources.
Case Study 1: Bespoke Wheelchairs and fitting service

PERFORMANCE HEALTHCARE Products (PHP), following an assessment of changes in the market, believed that if they were to develop a competitive advantage in products for the private healthcare market, then they needed to provide objects of real value. The healthcare market in the UK is undergoing a significant shift away from state sponsored products, and in many cases consumers are finding they are dissatisfied with both the product and services available. PHP wanted to capitalise on this dissatisfaction and engage with their users to find out what they really wanted from a bespoke wheelchair service and related products.

The strategy for their user investigation was based on both observational research and interviews to build up a picture of users’ everyday lives. The observation was an important aspect of this research, as the company suspected that much of the interaction between user and wheelchair would be unconscious. The observational part of the research was conducted in a user observation laboratory; however, it was kitted out to resemble a waiting room. Four participants (each an active wheelchair user) used the room while waiting to be called for interview. Within the room, participants were encouraged to interact with each other, visitors to the room, furniture, and technology in carefully planned events to mimic the kinds of interactions they might encounter in daily life.

The observational aspect of the research generated sixteen hours of video for analysis (four video feeds of four hours each). Usually research work undertaken in the lab is carefully coded and analysed using sophisticated observational analysis software. However, such analysis is time consuming and reliant on trained experts, thereby introducing prohibitive costs for the company. To counter this cost, members of PHP were able to undertake a level of analysis themselves, based on a standard qualitative framework type assessment of the video. This analysis involved the identification of high level themes, such as positive or negative comments, and then coding the behaviours, observations and comments within each theme. Quite quickly a small set of codes emerged that allowed the researchers to gain a detailed understanding of the events. An example of this was the discovery that when considering products to purchase, participants commented on aesthetics far more often than functionality. However, when describing their needs, participants focussed on functionality.
Case Study 2: Baby Products and Retail Services

A large well known UK retailer of baby products was developing a new design management approach and design process that expanded the discovery phase of development. The purpose of the discovery phase was to undertake pre-brief user research. This research focused on developing detailed information about parent and child interaction with a particular product category in order to inform brief creation. Even in large companies, development budgets are usually fixed, and are often quite limited for exploratory research. As a result, the strategy for gaining information took the form of a focussed and detailed investigation into carefully selected aspects of human-product interaction. The observation period was short, but the analysis was deep and sophisticated, using behavioural analysis software. Such sophisticated analysis tools are helpful to company directors in justifying particular development directions and winning internal support. As a result the control of project cost is managed through the research choices made.

Typically, the research methods are filtered from wide desk based investigation through to a focused observation of a small number of users in a pre-determined scenario. The usefulness of the observations is determined by how carefully the scenario is chosen; usually the focus will be on an aspect of the process that is common to a large proportion of the target market, e.g. focussing on the point of purchase and evaluation of competing products. The observational research undertaken is supplemented by interviews with participants. These interviews focus on both the opinions of users and their previous experience with related products. In this way the results of the observations can be assessed not only regarding what the participant is seen to do, but also against what they say they do and what they have done.

Contextualisation of the results of the primary research was undertaken with reference to online product reviews and other user generated content. That is, the research team made as much use as possible of material that has been made publicly available by others.

Case Study 3: Polish public services

In September 2011 Design Silesia embarked on a project that aimed to connect designers and public institutions through a series of service design projects and training workshops. The organisation is based within the Marshall’s Office in Katowice, and wanted to build on previous design promotion activities to create a service design programme for a range of public services.

The aim of the project was to create a cost-effective and transferable methodology that could be used by local designers, public institutions and civil servants. The delivery consisted of a course of workshops, an intensive three day training programme, and mentoring on live projects in Poland. The intention was to demonstrate to public institutions with limited experience of service design that...
impressive results could be achieved quickly by taking a user-centred approach to service innovation.

As with the two previous examples, issues of limited time, resources and investment required the resulting methodology to deliver maximum return on effort. The careful consideration of the available resources at the outset of this project led the delivery team to consider what skills and techniques could be taught to Design Silesia so that they could use less-expensive internal resources to deliver their programmes. This was then supplemented by mentoring at key points in live projects to ensure appropriate learning for the Design Silesia team, and appropriate outcomes for the collaborating public sector bodies.

**Conclusion**

**These case studies** attempt to demonstrate that companies can derive benefits from various levels of engagement with user-centred service design. The purpose of the interactions between these organisations and Pdr was to explore mechanisms that can make user-centred product and service design more accessible. As part of this investigation, the authors noted that there is limited discussion within the service design community on the balance between results and investment in design research, and that the practice has tended to borrow heavily from previous work in product or software design rather than develop its own methods and processes. As a result, the authors research has engaged with industry, governments and designers in an attempt to change this situation and develop new material that helps organisations better understand the value of user-centered design.

In order to achieve high-quality service design and reduce the risk involved in taking new products and services to market, designers must have the expertise to advise clients on how to maximise their return on investment in design research. For example, how do clients know they are getting the best value from service designers and what outcomes are clients getting if they can’t afford to invest in the more expensive options?

Obviously, the generation of user-research consists of two major components: data gathering and data analysis. Thus, it is logical to determine that the more data gathering you do, the richer the potential insights, and the more analysis you do the greater the potential understanding of the observed phenomenon. However, in creating a research design where investment is fixed, a challenge exists in determining the extent of the resources applied to each phase, that is, does one spend more time and/or money on gathering or analysis? The cases described in this article demonstrate that different companies have approached this quandary in different ways, deploying their knowledge, expertise and resources across the projects.
References


