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Interdisciplinary working in service design: case studies for designing touch points

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Interdisciplinary Working in Service Design: Case Studies for Designing Touch Points

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Abstract

The paper argues that interdisciplinary design can be successful in services design. It offers information about 2 case studies in which interdisciplinary teams address design services problems. The paper explains the design method employed in the case studies. It also identifies "user design centred" as the main concept that drove the design approach. It explains the meaning of "user centred design", of "services design" and highlights the importance of "interdisciplinary services design". The paper also offers a framework for interdisciplinary working in service design.

KEYWORDS: Service Design, Touch Points, Interdisciplinary working

Introduction

Service design often involves planning and organising people, infrastructure, and communication and material components of a service, to improve its quality. Service design also takes into account the interaction between the provider and its users and the overall experience that the user has of the service. The contact point (or for this paper touch point) is the key element that generates the main interaction and communication between the user and the system; the interaction between the user and the system is a process that allows sharing information and generates more information. The touch point (TP) (Howard, 2007) is the window which allows the user access to the system and is generally used by the system to get user feedback.

Designing services is not a new thing; the design of services and systems has been applied since the mid twentieth century. What it is different now is the way services are thought about, the various participants in the development of services including designers, and

experts from different disciplines, as well as the users, and that a service can be seen as a product (Khambete 2011). Also different is the way the designers participate in the development process; in the past services providers did not use design thinking techniques as a tool to solve their problems and needs (Howard 2007). Similarly new is the active participation of users in defining and improving these services and products (Sanders 2002).

The work detailed in this paper is based upon interdisciplinary working and supports Klein's (2005) argument that for many interdisciplinary working is synonymous with team work. In this context - interdisciplinary working is an open process aimed at problem solving and with an interest in creating knowledge (Klein 2005). Interdisciplinary working in this context also involves cross fertilisation - meaning that information from different disciplines is exchanged and feeds into the understanding of an individuals own and extended disciplines.

This paper makes use of two case studies to demonstrate that interdisciplinary working can be successful in service design. Both case studies show how different interdisciplinary design consortiums (based on similar principles) developed web tool touch points for different end-users. The Case studies also supports Khambete's (2011) argument that service design cannot happen without interdisciplinary intervention.

The service design for the case studies was based on the concept of user centred design (UCD) (Norman 1986) and was based on the principles of knowledge and empowerment and engagement (Neilson 2002). UCD was the most appropriate approach to use given that for these cases there was no direct access available with participants or potential users of the systems The UCD approach combined with the expertise from different disciplines helps to demonstrate that interdisciplinary working can be successful in design.

Part of the service design in both cases involved the development of TP. For the purpose of this paper we are defining TPS (Hill 2007) as a developed design tool which allows the user to interact with a service. These tools facilitate communication and exchange of information between users and the service provider. In both case studies, the touch points were developed for online interaction and service engagement.

The paper will provide an overview of the case studies, before providing a discussion about user centre design and interdisciplinary working in service design. The paper's conclusion provides a framework which fits the interdisciplinary work for both case study contexts.

Case Studies

The following section provides some background information about the case studies - specifically the context for the client's needs and user needs. It is important to point out that the names of the clients in the case studies have been changed. Anonymity is essential in both cases as work with the client is still ongoing. As a consequence relevant websites cannot be disclosed.

Case Study one: Westwind

Westwind is a health insurer provider in the UK. They are a 'not for profit organisation', and claim that customers have always been at the heart of everything they do. They also declare to continually strive to deliver innovative healthcare plans and ensure that they embrace new technologies to better serve their customers.

In this case the brief required the development of a touch point - to be used within the client's website which helped the users to explore a range of issues associated with health and wellbeing. The service aimed to support users in understanding how to gain the most from their own health and wellbeing package whilst also supporting behavioural change in relation to diet, health and exercise. The experience was defined in terms of motivating users through providing them with a set of options and choices about health and wellbeing (Choy 2008). Users were able to prioritise areas in terms of importance, readiness, and confidence. This was done through making use of a coffee loyalty card design (see figure 1) and a ranking system. The user was presented with three sets of cards: Eat well; Move Well; and Feel well, which they selected through the priorities criteria. The user then assigned a level of importance using a ruler system which was linked to the client's health services and offerings. The Readiness Ruler can be used as a tool for determining the requirements of successful behaviour change including the desire to change and feeling capable of making change (Rollnick 2006). Essentially this touch point service was digital - but based on tangible objects. From the client perspective it was essential that the users were directed to the health services available to them - whilst the user needs centred on choice.

Figure 1 Westwind Coffee Loyality Card Design

Case Study two: Answer 2

Answer2 is one of the UK's independent suppliers of broadband Internet services to multiple tenanted residential developments. Answer2 were intrigued to discover how a technology led approach could be applied to solve some of the biggest problems facing owners of large, multi-tenanted units (MTU's).

One of the biggest issues that MTU's face is to reduce energy consumption. Answer2 developed a system of monitoring energy consumption at each distribution board within their buildings that could be fitted with minimal work or cost. However Answer2 then needed to develop an effective method for presenting this information to their users (students) in order to encourage them to reduce their energy consumption.

The online touch point in this case allows the user to acquire enough knowledge to take conscious and informed decisions of how to interact intelligently with energy sources within their living space. This tool was less about making interactive choices within the service and more about making choices based on the knowledge they acquired through the service.

In this case the TP is located within the student intranet (known as a student portal). An initial banner on the home page needed to attract the user's attention, and appeal to the users on an emotional level in order to engage them.

After clicking on the banner, users were directed to the energy monitoring panel (the TP). This was divided into three main sections: the conceptual design; the data (and history of energy usage for the building) and the intelligent knowledge, which was personalised according to their own energy consumption. Each section held the same information but illustrated it in different ways re-enforcing the message (see figure 2).
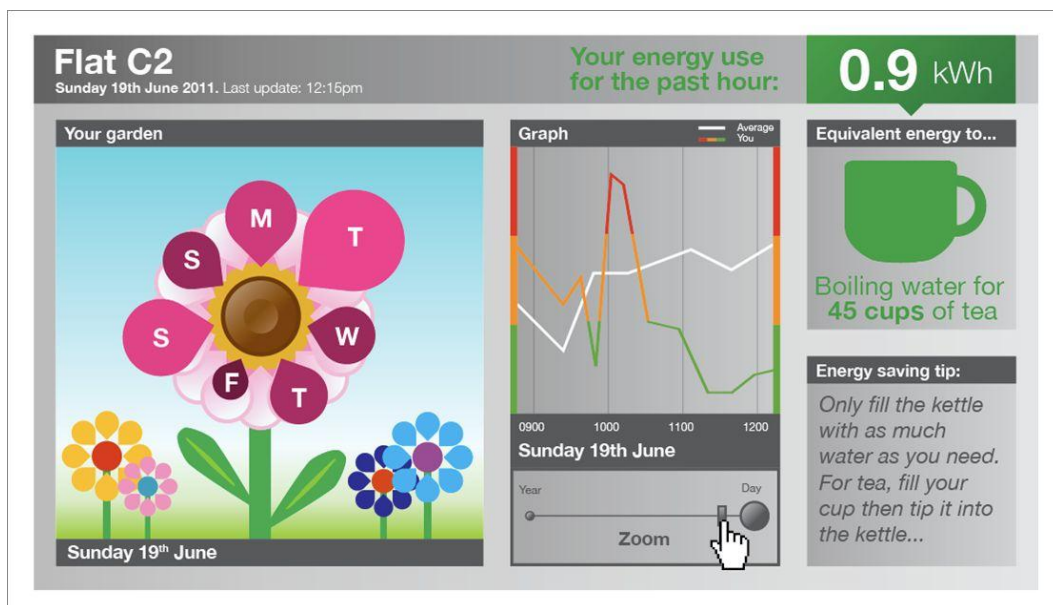
Figure 2 Answer 2 Touch Point Display

User at the Centre

It was particularly important to define the client's requirements as well as the user needs before developing the design concepts.

In both cases the user needs were defined primarily through the client. Both clients had their own agenda about what the touch point should do for the user. For instances, in case study one's case (Westwind) – the users should be able to access their services information, whereas in case study two (Answer Two) users should have access to clear information about their energy use.

Another point to highlight is that traditional UCD techniques (Bùdker 2000) were used on both case studies. Part of the interdisciplinary process also involved all parties understanding analysis tools used in UCD. In case study one (Westwind) - personas were developed and used and directly informed the design process of a though point. Whilst in case study two (Answer 2) - a scenario based strategy was used for developing the touch point.

Information based on a previous project within sports and exercise science was employed in Case Study One in order to meet the behavioural change element of the TP. The previous project produced a guidance CD about behavioural change. The project based on a user centred approach facilitated the user journey through a series of choice whilst offering supportive advice with information. Coupled with this was the fact that the client required their customers to understand what services they could access and how to use the services available. So for the client the touch point acted as marketing tool.

In Case Study Two the users (students) held no direct ownership for their energy use as they paid a flat rate tenancy fee. This flat rate for unlimited use of power (all inclusive) may have resulted - for some - in a 'don't know / don't care' attitude - particularly because they were not managing their own bills. Furthermore the tenants had no information to explain about the consequences of their own energy use. The lack of ownership about usage, coupled with the lack of knowledge about the amount of use, made this a complex issue requiring persuasive, motivational and knowledgeable techniques (He et al 2010). Tenants needed to be empowered (Duane et al, 2003) through information and by using a knowledgeable approach, but also be persuaded to engage in energy reduction and become 'energy conscious'.

One approach involved potentially making use of a competitive approach (individual flats competing for lowest energy consumption). However a key concern was that the students may not compete for positive energy usage reduction - but increased usage! This was highly problematic when considering motivational techniques to raise awareness whilst also being persuasive.

It's important to point out that whilst UCD is not central to the individual disciplines, people are often at the centre of their research. Therefore there was an overarching presumption from the beginning that the touch points were being developed with the user at the focus of the design.

Towards Interdisciplinary Service Design

The design consortium set up for case study one (Westwind) consisted of experts in human-computer interaction, sports and exercise science, interaction and experience design. Whilst the design consortium for case study two (Answer2) consisted of human computer interaction, interaction and experience design, and product design experts. In each case the Interdisciplinary Team drew upon different skills and disciplines providing a dynamic process to service design concepts. The design consortium based ideas upon and extended existing knowledge / typologies available - e.g. literature / work flow charts from previous

successful projects and concepts within projects. Therefore developing an understanding of what each discipline could contribute to the process was essential.

Working on an interdisciplinary basis focused the design team in understanding multifaceted users and how they individually relate to new products. The concept of UCD has been at the centre of the design process for both of the case studies. This has helped the team members from different disciplines to develop their experience of UCD practise. As part of the interdisciplinary working, the team had to adopt and import methods and models from other areas such as social science, ethnographic research, qualitative research methods and business models for service development. Through collaborative working, it was important for the team to communicate their ideas as clearly as possible - especially when making use of concepts and phrasing specific to their discipline. The team had to develop a more universal language to allow:

- Shared thoughts with other disciplines,

- To express their views, and contribute to interdisciplinary teams

- Communicate clearly with their "new" customers

- Avoid design jargon.

Through working on the case studies it has become apparent that Interdisciplinary working requires careful planning and clear communication from all concerned. From the beginning of any interdisciplinary project it is advisable that all parties have a clear understanding of the client's needs, user needs, and the possible outcomes and have a shared understanding about their own contribution to the project.

As well as openly sharing designs, thoughts, concepts and ideas, interdisciplinary teams delivering for service design should try to compromise on timescales, availability and their commitment to contribution. Furthermore team members should make information accessible for members working in other disciplines - for instance by producing graphics, or design boards to relay communication and concepts, or by evaluating the relevant literature so that it is succinct.

Conclusion

This paper has presented two individual case studies which make use of interdisciplinary working to develop touch points using UCD. The case studies demonstrate that interdisciplinary working can be successful in service design.

A key issue for the development of the touch points within these case studies is that they are still both works in progress. Whilst the consortiums have successfully met the client's needs and expectations (and their perceptions of their own clients needs), it is not yet clear how successful the touch point tools are from the user perspective as system testing and user evaluation studies have not yet taken place. However it is recommended that evaluation studies of the services are also carried on through an interdisciplinary team.

The collaborative work in the case studies has helped the development of a framework for interdisciplinary working in service design (see figure 3). It is important to note that this is not a static model and will develop as the experience of interdisciplinary working becomes more extensive. This framework helps to provide an illustration of the contexts mentioned in this paper but could also be used as a frame of reference for new interdisciplinary teams.
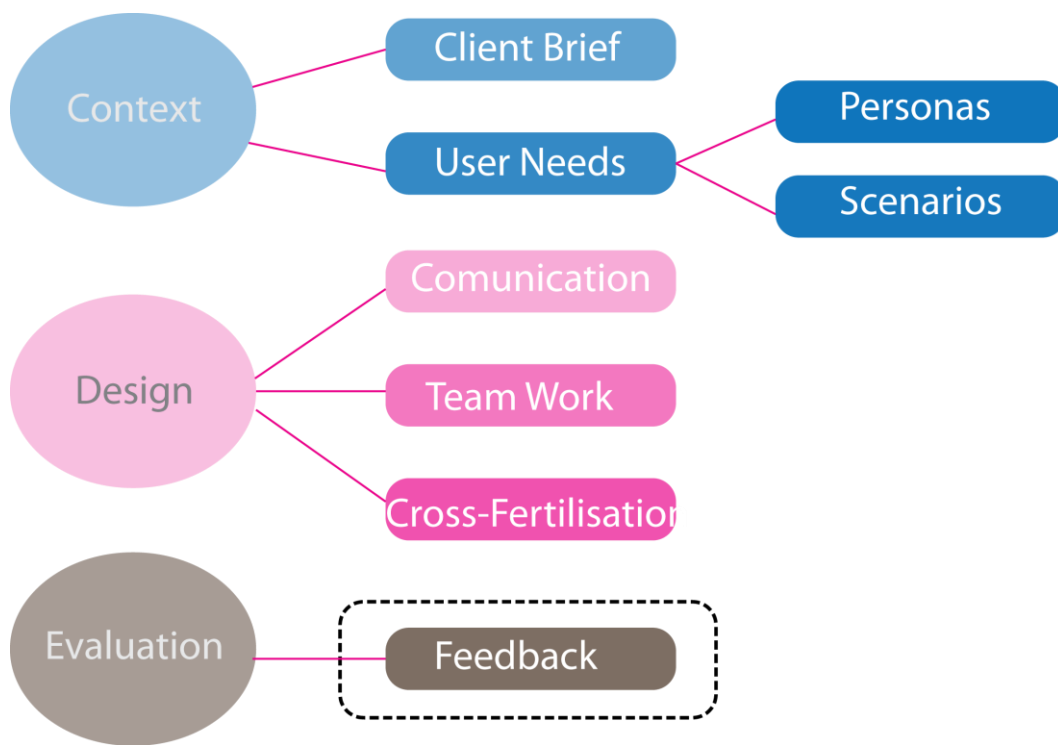
Figure 3 Framework for interdisciplinary working in service design

The framework shows that context (particularly the clients and the user's) is a key element for interdisciplinary working in service design. Designing involves clear communication, team work and cross-fertilisation. Whilst it is also important to conduct feedback via users, clients, and the interdisciplinary team. This framework will develop as the experience of interdisciplinary work expands.

Two separate interdisciplinary teams had to find an agreed method of working and communication to in order to develop the design concepts used within the touch point systems. Part of the interdisciplinary process also involved ensuring that the team members had a shared understanding of the analysis tools used in UCD - showing that openness, and sharing knowledge are essential for successful collaboration. Equally important is that this kind of interdisciplinary team collaboration feeds into cross fertilisation; each discipline gains (adopts) different values and tools from the others and so shared knowledge becomes an enhancement upon existing knowledge of a discipline. Whilst some service design may not require interdisciplinary working, this paper shows that service design can be successful when collaborating with disciplines outside design.

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