ABSTRACT

Design for services can be defined as the act of conceiving, planning, and building an interactive system or service architecture, the goal of which is to provide resources to support interactions between users and suppliers. This paper seeks to discuss the contribution of design to promote organizational change in public services through new meaning for services. Throughout the designing process, designers translate their interpretation of the meanings existing in a socio-cultural context and translate them into the language of designed elements that will give shape to the service offering. The authors propose that the aesthetics of services is a specific contribution that design can make to the service sector to help promote organizational change through new meanings. A case study was conducted to discuss this proposition. We present the design approach taken by a service design consultancy for the NHS Institute in order to change the organization of services provided to Multiple Sclerosis Patients in London Ealing PCT.

Keywords: design for services, service aesthetics, healthcare services.

Introduction

Some researchers have claimed that design can support organizational change in the service sector (Bate, 2007; Saco and Gonçalves, 2008; Junginger and Sangiorgi, 2009; Ostrom et al., 2010). According to Sangiorgi (2010): “design has been recently increasingly investigating the transformative role of services as a way to build a more sustainable and equitable society” as well as “exploring design’s transformative role in both organizations and communities”. Within the design field, there is much debate on the contribution of design to organizational change and for the transformation of service organizations. The perspective of “designing for services”, created by Kimbell (2011, p. 49), points out that “the purpose of the designers’ enquiry is to create and develop proposals for new kinds of value relation within a socio-material world”, and adds that “designing for service is a strategic kind of design activity that operates at the level of socio-material configurations or systems, rather than being framed within pre-existing design”. In the same way, Manzini (2011) points to strategic design as a way for design for services to develop and become an agent of change, so as to nurture strategic exchanges with new views and proposals regarding the planet’s daily problems.

Design for services can be defined as the act of conceiving, planning and building an interactive system or service architecture, the goal of which is to provide resources to support interactions between users and suppliers. As services are a dynamic process, not static products, service designers also need to consider the time dimension, working on rhythm and service aesthetics throughout the service journey. The service journey is concerned with all aspects of the user’s experience, considered from the different points of view of the stakeholders.
In line with this theoretical framework, this paper seeks to discuss the contribution of design to organizational change in public services, bringing new meanings to services. The debate on the contribution of strategic design's processes in the innovation of organizations is supported by the literature on the area of organization studies as to the exploration of organizational life's aesthetic aspects and sensemaking in organizations (Weick, 1995; Strati, 1999; Gagliardi, 2012), and by research on services literature, which is concerned with space configuration and service atmosphere (Bitner, 1992; Lee, 2011). Lastly, regarding Design literature, Manzini (2015, p. 35) asserts: “design collaborates actively and proactively in social construction of meaning. And therefore, also, of quality, values and beauty”. In addition, Verganti (2008, p. 440) highlights that “designers give meaning to products by using a specific design language – that is, the set of signs, symbols and icons that delivers the message”. It can be said that “design as sense maker” contributes to the rearrangement of the significance of systems in such a way that they maintain their identity and persist.

When designers configure the meaning effects, they define the style of the relations that the organization intends to develop, also with impacts on behavior and the motivation of individuals (Zurlo, 2010). As pointed out by Franzato et al. (2015, p. 178) “the ways by which the designer perceives and experiences the world, through their aesthetic and poetic sensitivity or operational and scientific competence, take them to a specific form of designing”. Designers practice a qualitative and interpretative analysis of realities, in order to identify the elements that will be the basis of solutions, which go beyond economic value, aesthetic, cultural and social values. Specifically in the service sector, design embraces elements of the physical environment, equipment and instruments that enable organizations to achieve their purposes (Buchanan, 2001a). Throughout the designing process, designers translate their interpretation of the meanings researched into the language of designed elements that will configure service settings.

In the process of strategic service design, structural changes that affect the way in which the organization offers value to its clients and stakeholders are proposed. With this goal, the design process starts from the ability to read the context concerning all the dimensions of interaction with the service organization, therefore its ecosystem. As they interpret the structures of meaning in the (biological, cultural, social, natural) context, designers propose the aesthetic dimension of the service that will change the relationship to be established between service providers and users. The service aesthetics may evoke positive emotions in the user and stimulate them to use the service as well (Kimbell, 2011; Tonkinwise, 2011; Norman, 2004). The users’ aesthetic experience with the designed service is connected to the sensations provoked by service settings design like form, texture, color, smell, and sound, among other aspects. Aesthetic dimension is defined as part of the service concept, which describes the value proposition, the characteristics of physical environment and the interfaces by which they are expressed. From this perspective, the elements of designed services include more than the form and aesthetic quality of the object or the environment. They include the form and the aesthetics of the relations provided by the service platform. Designing the form and aesthetics of service relations means dealing with one of the greatest paradoxes in the design of services – that is, they are essentially based on human relations, which cannot be designed. However, it is possible to provide support for them to take place (Manzini, 2011). This means that design must establish the guiding principles of these relations, the principles of conduct expected from the actors involved, the profile of the hired employees (their personal values), the information necessary to guide the people involved in the delivery process (clear information and signaling), and required equipment to give support to them. In this regard, design for services involves the development of a platform that supports the system of interactions that makes up the service journey.

How can services be read with design lenses? In this paper, we propose that services are forms of interactions or relations that helps users to get the benefits they need, mediated by artifacts and people. As such, the role of design is to set the scene to allow for these interactions to emerge. Thus, the aesthetics of services is a specific contribution by design to the service sector that can help to promote organizational change through new meanings. To illustrate this proposition, below we present a case study in which a service design consultancy develops a service concept for the NHS2 Institute for Innovation and Improvement in order to change the organization of services delivered to Multiple Sclerosis Patients. The data was collected through primary sources (interviews) and secondary sources (reports, news and website). The results show the methods and the resulting service proposition that brings new meaning to the healthcare service delivered: from problem-solver to enabler of life with the MS condition. The next section presents the theoretical basis in support of the analysis.

Service rhetoric and aesthetics upon concept definition

Buchanan (2001b) asserts that design can be a form of contemporary rhetoric. This understanding of design, from the perspective of rhetoric, leads him to hypothesize that all products – digital, analogical, tangible, intangible – are living arguments about how we should conduct our lives. To validate the hypothesis of design as a contemporary form of rhetoric, the author argues that it is possible to analyze the characteristics of the products (formal aspects) from their internal perspective. This means that the elements that make them persuasive and influential are: logos, pathos and ethos. Initially, the author proposes that form is a synthesis of what is useful, usable and desirable. In essence, form becomes a temporal phenomenon of persuasion and communication when users engage with the

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2 The National Health Service (NHS) is the name used for each of the four public health services in the United Kingdom – the National Health Service in England, NHS Scotland, NHS Wales, and Health and Social Care in Northern Ireland – as well as a term to describe them collectively and one of the world’s largest publicly funded health services (https://www.nhs.uk/NHSEngland/themenu/about/Pages/overview.aspx).
product. We can conclude that when a designer manages to balance convincingly what is perceived as useful, usable and desirable for the user, the product becomes a persuasive argument about how (s)he should conduct his/her life. And if the product is chosen as an option, it is because (s)he realized its value in relation to other alternatives.

Therefore, to create new products that are useful, usable and desirable, designers need to research why things exist, why they are the way they are, and also need to imagine how they can be different. We assume that the key issues of the thinking/doing/acting in design are those that distinguish it from other forms of anticipating the future and proposing viable alternatives to face the future. Thus, we can consider that a distinctive view of design is to 'humanize' technologies to foster interaction between people and the cultural system surrounding them (Buchanan, 2001b). This perspective differs from that of engineers and computer scientists, because it considers the suitability of technologies to the human experience and their built environment. Design as a mediator of our culture can play a role by intermediating the expectations of a community of use and the intentions of those who produce the technologies. It is essential for the designer to understand both the needs of the user and the context of the production of artifacts. The results of design actions come from negotiations between these different agents.

One essential characteristic of design knowledge is its ability to visualize possible solutions concretely. Visual language helps in the communication of vague and abstract ideas, thereby reducing complexity. When these ideas take a concrete form, different stakeholders can imagine together, socially and interactively, how it they can evolve (Poggenpohl, 2002). And when ideas are strong and consistent enough to represent a desired future state, they are called concepts. Concepts incorporate the ideas and intentions of the designer, and their forms and functions are not completely defined (Modermott, 2007). They have a specific value statement, as well as the characteristics and principles that will guide the development of the solution (Tollestrup, 2009).

A new service concept configuration includes a general description of the offer and the elements, which communicate it (identity, tone of voice, brand). These elements must be translated into specific aesthetics for interaction between users and services touchpoints such as: tools, environments, or interaction script for service actors (Maffei et al., 2005). The service concept covers both qualitative aspects and service aesthetics (Maffei et al., 2011). It should express: (1) the strategic intention of the offering, i.e. the benefits and results expected from the service; (2) the service operation, that is, the manner in which benefits are delivered; (3) the value of the service to the user, or the benefits that the user perceives as inherent to the service in relation to its costs; (4) and the service experience, i.e., how the interaction between the user and the interface should take place (Blomkvist and Holmblad, 2009).

One way to express the service concept is to specify the service offer, which defines its content and presents the benefits that make them useful to users. It describes only the performance potential that the service can achieve, since it is only with user action that performance happens. According to Lovelock and Wirtz (2010), when configuring an offering, designers must consider three components: the core product (the benefit that the user seeks in order to solve his/her problem), supplementary services (aspects that facilitate the use of the main product and enhance its value) and the delivery interfaces (it addresses it broadly so it includes all components needed to deliver the service to the user, whether persons or physical evidence). One tool used to visually represent this configuration is an offering map.

An important characteristic that designers’ knowledge brings to service concept configuration is the aesthetic dimension. This is one of the key aspects that distinguishes design from other professions: in order to create artifacts that facilitate users’ activities, service designers go through a stage of “aesthetic literacy”. This involves interpreting users’ aesthetic choices to gather insights into different types of interactions they will have with the new service. It is through the aesthetic dimension that designers incorporate cultural meanings into services. Aesthetics of services include: rhythm, harmony, sequence, form, patterns, among other aspects. Therefore, services can also refer to users’ lifestyle, thereby becoming an instrument of expression in their personal values. Users’ aesthetic experience with the designed service is connected to the sensations caused by the design activity results, such as its form, texture, color, smell, sound, etc. The aesthetics of the service can evoke positive emotions in users, and can also encourage them to use the service (Kimbell, 2011; Tonkinwise, 2011). Norman (2004) suggests that aesthetics plays an important role in the usability of a product as it considers that attractive objects make people feel good, which in turn makes them think more creatively and seek alternative approaches to solve a problem related to the use of the product. The author states that “happy people are more efficient in finding alternatives, and as a result, are tolerant of minor difficulties” (Norman, 2004, p. 40).

Another important aspect in creating a new service is the specification of the service concept that will be offered. It should summarize the findings from knowledge generated about the design problem, including the synthesis and sensemaking regarding the solution that will be proposed, bringing the different ideas into a strong and coherent meaning (pathos) for the future service. It represents the essence and nature of the service, presenting the service value proposition (logos), as well as its principles and characteristics (ethos). Therefore, the service concept describes the meaning, value, form (the structure and interactions needed for service provision), and function (the benefits that will be delivered in service provision) of the service, as well as the actors present upon delivery (by whom and for whom the service is delivered). It should present the principles underlying the service, the future developments of which it must respect. From the point of view of the new rhetoric, as proposed by Buchanan (2001a), the service concept would be the basis of the argument that the designer shows to users on how they must behave in the services relationships.

According to Margolin and Buchanan (1995, p. 8), “the designer’s success relies on their ability to understand the hidden governances of collective shared archetypes and of mythologies, whose meanings need to be respected,
learnt and spread’. As such, we can say that designers place in products their interpretation of the existing meanings in psychological, cultural and social contexts, which will shape the meaning and value of offers. However, the authors highlight that designers cannot control the meaning of products: meaning is reshaped by the interaction between human beings and artifacts.

**Case: Ealing Primary Care Trust (PCT) Multiple Sclerosis (MS) team**

**Background**

The National Health System (NHS) began big transformation in order to keep up with the changes in our society. This process was driven by the need to modify the old, hierarchical and paternalistic model to a modern healthcare system taking healthcare to people’s homes, building services around patient’s needs and implementing radically new service offerings. NHS has identified design science as an approach toward this change (Bevan et al., 2007). NHS Institute set up a team to support Ealing PCT in redesigning the service offered to Multiple Sclerosis patients. The Design Team was formed by NHS Institute’s Service Transformation team and the service design consultancy, Live|work. This case was part of a project to understand how design method could help NHS teams to innovate their services.

As Freire and Sangiorgi (2010) presented, in London Borough of Ealing, at the time of design project, there were about 300 people with Multiple Sclerosis (MS) accessing the NHS Services. People who live with MS have compromised mobility, vision and co-ordination and, as consequence, it can also cause pain fatigue and depression. As their conditions vary over the year, from getting worse to better, they have to access a range of specialists to deal with this long-term condition. The symptoms of MS and their severity, however, are different for everyone and the course of the disease is unpredictable. The range of chronic problems and acute episodes and relapses that people with MS experience means that they require timely access to specialist care as well as ongoing support for self-management and changing circumstances. The Ealing PCT staff recognized the difficulties that MS patients had in accessing those different professionals at different stages of disease evolution, but they did not know what might be an ideal solution for the problem. The healthcare system was not developed to deal with long-term conditions (Freire and Sangiorgi, 2010). At the same time, the MS society asked Ealing PCT to offer a specialist nurse service for MS patients. They knew that just offering an MS specialist nurse was not enough to solve this problem in a sustainable way. As such, they asked the NHS Institute to help them in the design of a new sustainable service to help people deal with the multiple sclerosis condition.

**Design approach**

The fundamental assumptions of this approach were the human perspective and co-design with a multidisciplinary team. They established a multi-disciplinary project team – which included healthcare professionals and a development manager from the MS Society and a commissioning lead – to understand the patients’ needs better. The team sought to understand the service experience from different points of view: patients and their family or carers, frontline staff and other stakeholders. Also contributing to the project were service managers and clinicians from the Acute Trust and a group of ‘critical friends’, including the PEC Chair, a non-executive director of the PCT and a leading MS specialist nurse. They used the Design Council Double Diamond process to develop the service solution: discovery (understand and reframe); define (develop concepts); develop (test and learn); deliver (design the delivery).

The design team led the discovery phase, developing research activities to stimulate conversations during the interviews, and some members of the Ealing PCT team also participated in the interview section. The purpose is innovation and inspiration rather than to validate a particular idea or assumption. They also used other research techniques such as: observation, shadowing, service mapping and event timelines. The insight gained from this approach allowed the team to consider deeper issues and future possibilities rather than simply responding to what people were able to articulate as to their immediate desires. As result, they understood that the main the problem was the lack of knowledge of what services were provided, where and how to access them. Patients were also asked to map significant events in their lives since being diagnosed with MS – both personal and health events. They mapped these out over a time line and then plotted out several graphs representing how they felt emotionally during these times, how their health was progressing and how supported they felt by health and social services. This visualization allowed the team to get a quick overview of life with MS and to discuss the implications of gaps in support. For example, they identified a pattern: giving up work due to an/the MS condition was a major factor in provoking depression. As such, they recognized the importance of helping people to stay active, either as a pain distraction or to improve self-confidence. They also noticed that, although many patients attended a monthly clinic, the visit rarely coincided with the occurrence of symptoms they needed to discuss, because, as Live|work team member said:

**Multiple Sclerosis is a neurological disease that affects your brain, affects your whole body, but it comes and goes. So you have these kinds of attacks and you might need to go to the hospital, you might have a period like 3 months where everything falls apart and suddenly you come back, and your body can recover for a period. So you have this kind of moment where everything is chaos, you need to see a doctor, and then your life goes back to normal and you might not see anybody for six months a year. And it happens again. And the next time it happens, because the medical system is made without that ecology perspective, it kicks you out. It says you have been to the doctor, you got better, you are cured, now you are a member of the public again. So you have another crisis, and you go back and they say: “what is your name? what happened?” So the process starts all over again.**
During the Define phase, Live|work structured work sessions to identify key opportunities for service improvement. In these sessions, the design team creates personas to synthesis their understanding of people’s experiences. They merged the ideas that patients had contributed during their interviews with professionals’ visions about the most important things to help people to live with the MS condition. In small groups, the team generated a large number of ideas (making them visible through sketches) and after that summarized them as about 10 ideas to work on. The session resulted in a large number of ideas ranging from new tools, new roles, new systems and structures. They held these sessions in parallel because, as an interviewee said, “it was possible to avoid managing some of the politics of those situations”. Then when the design team “had got an idea in a sense, a draft, they tried to make sense of it for everybody else […] so it became the touchpoints”. After developing these initial ideas into service concepts, the team refined them with patients and their families into concepts through the next stage of the project. They asked people to respond to a storyboard illustrating how different parts of the service might work in practice. Patients explained to the team what needed to happen in each interaction, what they thought the service components should be like and how they should work. They found that some patients’ most pressing needs were not medical, but social: “people with MS can be very young and need to be able to carry on their normal lives as best they can. Keeping active and in work has a positive health benefit and is key to the whole idea of wellbeing” (Reason, 2008, p. 2). As such, the designed service concept has as a main assumption: ensuring that each patient is given access to a specific MS service that is tailored to their individual needs during the different stages of their life, giving to people who have just being diagnosed with MS a clear referral into a community-based service that will help them to live better with their condition and to self-manage, building the capacity to self-manage and plan for the future (Reason, 2008).

In the Develop phase, the design team designed a blueprint (Figure 1) to represent the flow of patient experience they were seeking to create. They prototyped it in order to understand what would work (or not), what could be improved, and, what resources and infrastructure were necessary to deliver the service. The final service proposal was: a ‘telecare’ service to contact an MS expert, post-diagnosis education and support service and a diary (on paper and online) “to record the progression of their condition and enable the MS team to better understand the condition of each patient and their requirements” (Reason, 2008, p. 1).

In the delivery phase, the Live|work team detailed the touchpoints indicated in the blueprint to deliver the service experience that they imagined, like websites and communications. The service was expected both to improve care, quality of life and outcomes for patients and reduce the number of patients resorting to hospital treatment.

**Implementation**

After the end of the project, the Ealing team “developed what they could with the constraints that they had”, as a member of the NHS Institute for Innovation and Im-

**Pennovement team said, using the blueprints developed by Live|work and the business plan developed by the NHS Institute. ENable is a service resulting from this process. It is a new community neurological rehabilitation and enablement team, which integrates the Ealing Primary Care Trust and the Social Services for the London Borough of Ealing. The ENable aims is to support and provide functional assistance and rehabilitation to people with progressive neurological conditions with a multidisciplinary team (Physiotherapist, Occupational Therapist, Speech & Language Therapist, Speech & Language Therapist, Counsellor, MS Nurse Specialist, Clinical Psychologist). ENable has been opened to referrals since June 2008 with a single point of referral and contact for this multi-professional service.

**Service outcomes**

The service was successfully implemented by the Ealing PCT team, and although it is difficult for them measure the real impact of the service in terms of reduction of A&E occurrences. As the ENable team manager said, it is possible to say that the project achieved good results and the service has a good reputation in the local area (Freire and Sangiorgi, 2010). As a result, patients perceive that the Ealing PCT service has changed: “they are more organized” as Yassimana Safinia (service user) said “I don’t have to keep ringing everyone, I just phone Emily (her social worker) […] you feel as if you were protected […] I’m much more happier [sic] now than I was two years ago […] it has improved my quality of life because I don’t have to worry about my health”. After 10 years, the service is still working: the ENable team helps people who are newly diagnosed as well
as those who may have had their condition for some time and who are trying to maintain their independent lifestyles. The team also provides support, advice and information to family and carers (ENableEaling, 2018).

Discussion

The case illustrates one of the main contributions of designers when designing services: creating new meanings for services in order to improve both the users’ experiences while using them and also their wellbeing. The design methods and designers’ sensibility throughout research provided insights that guided the entire project: the need to change the service from an episodic encounter to a close relationship between patients and healthcare system. As MS is a long-term condition, people must learn how to live well with the condition in order to avoid secondary health and social issues like depression and isolation. In this project, Designers understood user needs (patients, carers, healthcare professionals) and created a new service offering using the existing services resources and accessible technologies. The research abilities, sensibility and imagination of the creative team were essential to the new meaning proposed: help people to stay active, thereby improving their wellbeing and maintaining an independent lifestyle.

The proposed service concept included the form and the aesthetics of the relations that should be provided by Ealing PCT team. Based on that meaning, the team developed the new service offering as Maffei et al. (2011) pointed out: covering both qualitative aspects and service aesthetics. For instance, they designed the patient journey considering the main moments over time (service rhythm and sequence): diagnosis, learning about MS, learning to manage MS, living well with MS, managing crisis, dealing with crisis and planning for the future. And through this journey, they designed touchpoints (service form) to help interaction between patients and service staff (Figure 2).

Considering MS patients’ mobility difficulties, they designed touchpoints that could be accessed by email, Internet or phone, giving direct access to a specialist, indicating the manner in which the service must be delivered. As Buchanan (2001b) asserted, the service concept became a persuasive argument about how MS patients could deal with their conditions, thereby improving their wellbeing. It is possible to say that, as Norman (2004) suggests, service aesthetics plays an important role in the usability of the service as it considers that attractive propositions make people feel good, as the patient asserts: “I’m much more [sic] happier now than I was two years ago […] it has improved my quality of life because I don’t have to worry about my health”.

Another important aspect of this design process is the co-design approach with patients and staff at Ealing PCT. The Design team involved those affected by the solution during the design process. It was responsible for collecting, organizing and synthesizing the generated set of ideas into strong and coherent meaning (pathos) for the service offering. The ability of design to give concrete form to collective ideas allowed stakeholders to co-create the solution and, consequently, evolve it. Since the service concept brought tangible form to the underlying principles whose future developments the service must respect (service rhetoric), the Ealing PCT staff were able to implement the service concept with the resources they had, based on the service blueprints developed by Live|work. Even though they did not implement all touchpoints, service aesthetics remained: a single point of contact with a multi-professional team that develops relationships with patients, enabling them to have a good quality of life and supporting them when they really need it.

Conclusion

The case study showed that design process can support organizational change in the public services sector. Design for service is a strategic kind of design activity that reconfigures sociotechnical systems through rhetoric and aesthetics dimensions of offerings. From that perspective, it also changes the process and interfaces that mediate the relationship between users and providers. The new service proposition – ENable – brought a structural change in the way that NHS offered value to people living with the MS condition: they feel protected and their quality of life improved because they do not need to worry about their health. They have a multi-professional team that knows their condition well and has good relations with them. They use the service not to solve problems during crisis, but to learn how to deal with them and live well. As the literature pointed out, the designers interpreted users’ aesthetic choices to gather insights into different types of interactions that the new service could have. The proposed service concept included the form and the aesthetics of the relations that should be provided by Ealing PCT team. For instance, the online support and the self-management diary were new aesthetic propositions for patients to report their condition to healthcare professionals and to ask for advice in non-urgent situations. The case study provides evidence that the aesthetics of services is a specific contribution by design to the service sector that promotes organizational change through new meanings, sustained over time.
References


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Erratum: page 247 and headers - correction on author's last name, Vera Maria Marsicano Damazio.