Service design for social innovation: the promotion of active aging in Rio de Janeiro

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Abstract

The article explores the territory of Service design for social innovation. More specifically, it discusses Service Design as a design approach that may facilitate social change, when it creates conditions (enabling systems) that promote social innovation. The theme of aging exemplifies a social issue that can be addressed through the design for services towards active aging. As methodology, this study is based on a literature review of key definitions in Service design for social innovation and active aging, as well as on a case study divided in two parts: a design exploration with undergraduate students under the proposed approach and a description of an actual service model that validates it. As results, the article provides evidences of a social approach to Service Design, based on the creation of socially innovative services towards active aging, designed to rely on older people as active protagonists of their own well-being provision.

KEYWORDS: Service Design, Design for social innovation, Active aging

Introduction

The movement towards an economy of services reflects in new research in areas such as marketing, management, engineering, computing and behavioral science (Meroni & Sangiorgi, 2011). Consequently, the research and practice in industrial design also searches for new directions, expanding its frontiers from the production of tangible products, to the design of services (Morelli, 2009; Secomandi & Snelders, 2011), capable to provide systemic solutions not only to the people, but also to the economy and environment in which they are (Joly & Cipolla, 2013). Through a human-centered design approach, the Service Design discipline focuses on creating models and functionalities for services, in order to ensure that their interfaces meet users' needs, as well as the expected supplier's goals. (Mager, 2009).

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The Service Design approach understands services as co-produced experiences between provider and user, where both work together to co-create value - the client's satisfaction, the benefits for the supplier and the social experience for both (in the case they exist). (Mager, 2009). However, in a wider sense, services can be understood as based on relations among actors (Vargo & Lusch, 2011), where great part of them are established among relational beings (Cipolla, 2009). In this sense, services can improve their innovative capacities by thinking of new forms of social interactions, partnerships and value co-creation.

Within this context, the research and practice in the area of Design for social innovation have been contributing to the discipline of Service Design, because of the possibility of dematerialization of products (Manzini & Vezzoli, 2002), the appreciation of services that are born inside creative communities (Meroni, 2007), and the alternative of designing services that create not only economic benefits, but also social value (as within new articulations among local social actors, that increase conviviality, trust bonds and proactive behavior), promoting a social change within their contexts (Manzini, 2014; Joly, Straioto & Figueiredo, 2014).

The discipline of Service Design is evolving in several directions and exploring new territories. One of this directions is the design for services that enable new patterns of relation among actors, creating not only economic value, but also social benefits in terms of better solutions to face social challenges. This article explores a possible interface between the discipline of Service Design and the approach of Design for social innovation, where services are designed with the aim to enable new interactions and possible relations among actors, using their social capital as a resource, in order to create solutions to face social demands and/or societal challenges. For that, the theme of aging is used as an example of a social issue that may be addressed through the design for services towards active aging. To demonstrate this approach, a design exploration within an undergraduate course at COPPE-UFRJ (Brazil) is reported, describing a service project that promotes the reinsertion of the elderly in the labor market. Besides, the service called Maturijobs is explained as an actual service that put in practice the Service design for social innovation approach towards active aging. Finally, Service design for social innovation focused on promoting active aging is concluded as a visionary Service Design approach, since it redefines the role of elderly in society, creating solutions to face the challenge of an aging population.

Design for Social Innovation

The research about Design for social innovation shows that design is a strategic approach to introduce new techniques and knowledge within communities, in order to empower and replicate social innovation initiatives (Meroni, 2007; Manzini, 2014). The Design for social innovation approach, however, can also stimulate new social innovation processes, that result in new connections among social actors that lead to a local social change (Cantù, Corubolo & Simeone, 2012).

Within this perspective, it is suggested that designing services with the focus of creating new operating models based on actors and their interrelations as social resources can enable social innovations to happen. This design approach is developed through participatory and/or collaborative processes, and focus on enabling solutions to address social demands and/or to create new social structures. (BEPA, 2011; Cajaiba-Santana, 2014; Joly, 2015).

According to BEPA (2011), there are three complementary approaches to the understanding of "social" within an innovation, according to the output that it is expected to deliver. The outputs may be related to address: (1) social demands, answering needs of more vulnerable groups in society, whose demands are unmet by the market or government; (2) societal challenges, where social becomes an opportunity, instead of a problem, and includes new forms of relations among social actors to produce a commonly recognized well-being (e.g. new production and consumption systems); (3) systemic changes, where the outcome is reshaping society itself and relates to changes in fundamental attitudes and values, strategies and policies, organizational structures and processes, methods and ways of working, institutions and linkages between them and different types of actors.

In fact, BEPA (2011) describes these approaches as interdependent. Thus, the first is the basis for the second, which creates conditions for the third. As an example, the organization cites an innovation to solve the social demand of elderly care, which contributes to deal with the challenge of an aging society. These solutions, when organized systemically (i.e. when they are not only local, but encompass a territory, create new services within a health system, etc.), can lead to social change. In this sense, they can create new structures (infrastructures, services, etc.) that enable new ways of living and working within society. Within the same example about the elderly, a social change could be an active engagement of seniors, towards a society where elders participate and are empowered to keep contributing to daily social activities (e.g. work, leisure, health, etc.).

Within this context, Design for social innovation is an approach that uses different Design expertise (product and graphic design, strategic design, etc.) to make "social innovation more probable, effective, long-lasting and apt to spread." (Manzini, 2014, p. 65). Design for social innovation, therefore, enables designers to play a central role in solving social challenges, through the involvement and development of collaborative processes for the promotion of new production systems.

Cajaiba-Santana (2014, p. 44) states that "social innovation has been frequently presented as a normative instrument used to resolve social problems through the creation of new services and new products" and underlines that "the path of social innovation is not a social problem to be solved, but the social change it brings about." Here, social innovations are understood as alternative social solutions, based on actors and their interrelations as social resources, that find new ways to meet social demands and/or generate social change in the systemic level (promoting incremental and radical change in production and consumption systems, for example).

It is noteworthy that Design for social innovation is an approach that may be developed at least through two ways: designers identify existing cases of social innovation and give them support; designers create new ways of thinking and doing and start a new movement of social innovation. In the last case, when designers intervene in a community of actors to encourage social innovation, they must be able to articulate different institutions (civil, public, private) to promote lasting changes. So, briefly, Design for social innovation is a design approach that aims not only to create solutions for local problems, but also to envision new life styles and new possibilities for local production and consumption systems (Meroni, Fassi & Simeone, 2013; Joly et al., 2014).

There is, therefore, a possible interface between the discipline of Service Design and the approach of Design for social innovation, where services could enable social innovation processes or be designed from social innovation initiatives.

Service Design for Social Innovation

Under a Service design for social innovation perspective, services can be designed from existing social innovation initiatives (Cipolla & Moura, 2012; Joly & Cipolla, 2013; Joly, Cipolla & Manzini, 2014), where designers identify the operational model of social innovation initiatives, exposing new ways to produce and deliver services already being prototyped in real life. The second possibility is that services can be designed with the view of generating social innovation processes, where new connections among actors are enabled, in order to generate social and/or economic benefits to meet social needs or create alternative production and consumption systems. (Joly, 2015).

As a matter of fact, groups of design researchers and practitioners have already put in practice Service Design projects in order to enable services to promote social innovation processes.

The Design Council was one of the pioneers in applying design thinking to contribute to solving complex social and economic problems. Burns et al. (2006) call this approach as Transformative Design, which applies design thinking to address social and economic issues, putting the individual at the heart of new solutions, and building the capacity for innovation in organizations and institutions. Burns et al. (2006) describe a project of this organization that seeks to help people with diabetes and professionals who work with this profile, focusing on preventive health care and chronic disease management. The Design Council designed services that motivate people to a self-management of their daily lives, encouraging them to have an active role to prevent and deal with health issues. This approach allowed people to define their own agendas and how to make their progress assessment, creating a greater commitment in managing the disease. Strategies as calendar-cards or diabetes blog were used to co-create this service, creating new interactions between patients and professionals, in order to allow patients and their families to share experiences and health management strategies.

Still other example is Feeding Milan, a strategic design project promoted by Politecnico di Milano, University of Gastronomic Sciences and Slow Food Italy, that aimed to create a product-service system to attend a demand for high-quality, fresh food in the Milanese urban area. The idea was to connect local food production in periurban areas with its consumers in town, through a network of services. "The strategic vision of the project focuses on the mutual advantage represented by the proximity of city and park, fostering the relationship between the city and the productive countryside through the de-mediatiation of the agri-food chain." (Manzini, 2014, p. 63). To achieve this scenario, the project stimulated collaboration among groups of citizens, farmers, designers and food experts. The project resulted in the creation of a set of services: "including the Earth Market of Milan, a farmers' market that brings farmers from the park to the city to sell their products; Veggies for the City, a project about the production and distribution of local vegetables; and the Local Bread Chain, which aims to restore a local bread chain, from crops to the final consumer." (Manzini, 2014, p. 64).

These service models are evidences of how the elements for service provision can be designed to enable people to get the most of already existing resources of their contexts, in order to reconnect them to create new value co-creation chains. Service projects, therefore, can be the means for social innovation to happen, since they facilitate new connections among social actors, who can be engaged in the service process as active agents, what may result in social and relational benefits.

This opens up a wide focus of research in the realm of Service Design, here called as Service design for social innovation, as a potential approach to create services that provide social benefits as their main output, and permit the involved actors to have an active role in the service provision. In this sense, social actors are enabled to create new interactions among them and their context, being able to "live as they like." (Manzini, 2007, p. 11). Service design for social innovation, therefore, could be a Service Design perspective to address societal challenges towards social change.

Active aging principles and its relevance for a new generation of services in the Brazilian context

According to Kalache (2013, p.3-4), the world population is aging rapidly. Between 1970 and 2025, it is expected an increase of "223% in the number of the elderly - or around 694 million people." According to World Health Organization (2005), the aging population can be seen as a success of socio-economic development and public health policies. Nevertheless, it also can be seen as a challenge of the contemporary society, regarding its adaptation to this new age group conformation.

Because of that, aging has become a design issue: it is urgent to rethink the role of the elderly in society through design. It is required not only to stimulate preventive behavioral tendencies, but also to identify and explore an immense human capital not used in this age group.

It is worth noting that even though the elderly of the past is not the same elderly of today, they still carry the weight of the negative stereotype of what it is to be old: useless, ill, incompetent, unproductive and dependent. These stereotypes can lead to a rejection of the elders and social marginalization. They can also contribute to a misunderstanding of the concept of 'third age', what may cause confusion in people who are being introduced in this universe.

Within this context, the World Health Organization (2005) has been disseminating a new idea related to the elderly, the **active aging**. Active aging means the "process of optimizing opportunities for health, participation and security, in order to improve the quality of life as people get older." (World Health Organization, 2005, p. 13-18). This term expresses the aging process as a positive experience, in the sense of a longer life with continuous opportunities to participate and have security, in addition to health care.

There are four fundamental principles related to this concept (OMS, 2002 apud Kalache, 2013, p. 34-37):

- **Health:** consists in creating health support environments and encouraging healthier individual choices. The goal is to promote well-being during the whole life cycle of a person and also to maintain the elders above the disability threshold (to keep them living independently);

- **Lifelong Learning:** works as a support to the participation principle. It aims to maintain the elders actively participative and connected to the society, maintaining abilities and knowledge. Not only it refers to academic learning or formal training, but also it includes any form of learning - ranging from daily and simple activities to more complex ones;

- **Participation:** it is based on pursuing opportunities, efforts and stimulus to remain active in society. The goal is to provide a gratifying transition to a new age stage and social life;

- **Security:** it is about trust and protection in so far as people get older. It seeks to maintain dignity and care providing, steady housing, good-quality health, protection against damage and financial security (specially for vulnerable people due to sickness or disability).

In Brazil, the focus on the promotion of active aging values is important, since the country is living a moment of increasingly emerging demands for services for older people. The focus on this issue under an active aging perspective will stimulate the development of new services, that can incorporate new approaches to deal with elderly within society.

Methodology

This study follows a DESIS Network (Design for Social Innovation and Sustainability) approach on which design schools are drivers of change in their local contexts, generating paradigmatic projects able to foster a social conversation aimed at promoting social changes.

In 2011, students were invited to develop services able to promote the principles of the active aging in Rio de Janeiro specifically focused on the following themes: health, leisure, work, communication, housing, transportation and food.

The process followed three phases:

- a theoretical phase, on which students were presented to the key concepts and tools of service design, social innovation and active aging;

- a design phase, which encompass a design exploration and;

- a final presentation and discussion with external actors.

The design exploration methodology was inspired on the HCD (Human-Centered Design) approach. The HCD Toolkit, specifically, helped the students to know how to develop a human-centered design process, since the toolkit supported them to build observation and empathy skills, as well as to use prototyping to implement their ideas. The process is composed by the following phases: a) hear, determining who to talk to, how to gather stories, and how to document observations; b) create, generating opportunities and solutions that are applicable to the whole community; c) deliver, choosing top solutions, making them better, and moving them towards implementation.

Within this context, students were invited to: define the design challenge through interviews, participant observations and establishing a direct contact with the elderly; develop and refine the service idea (expressed on service journeys, personas, blueprint, business model canvas).

Three years later (2015), the authors identify an actual service that follows one of the service models designed by the students, serving as a validation of the visionary approach of Service design for social innovation towards active aging developed since 2011. The following paragraphs report the design exploration with the students, the service model prototype designed by them and the actual service identified as a validation for it.

Design exploration

The design exploration was carried out with the participation of undergraduate students in Industrial Engineering from the Polytechnic School at the Universidade Federal do Rio de Janeiro (COPPE), during the course of Product Design. The idea was to explore the design of services that promote socially innovative scenarios for elderly in the city of Rio de Janeiro.

Context: elderly in Rio de Janeiro

In Brazil, the rate of growth of the elderly population has been systematic and consistent: according to data from the World Health Organization (2005), by 2025 the country will be the sixth in the world in number of older people.

Rio de Janeiro is the state with the highest percentage of elderly population in Brazil, where one in seven people has more than 60 years old. (Pnad, 2009). Therefore, for designers and students in the design field the issue of the growing elderly population is getting importance: a) to identify a market niche and how to meet it; and b) as cultural and social transformation through education, in order to revise a negative stereotype of the elders (associated to outdated, unproductivity or dependence).

Service prototype: Golden Age service

The group that worked with the "work and elderly" theme was here chosen to illustrate how service design is an approach that anticipates social change.

During the Product Design course in 2011, this group based its research on classroom orientations, qualitative research and the students own experience as designers to deal with an elderly working issue. "Golden Age" was the name chosen to the product-service system developed by them.

In the research phase of Golden Age, students interviewed older people ranging from 60 to 85 years old or more. From this, three major insights appeared: (1) old people had problems to deal with new technologies, (2) they were well trained individuals, and (3) their life experience was an advantage when hiring them for a job. Hence, after a better understanding of its analyzed actors and circumstances, the group decided that its challenge would be to enable the return of older people to labor market after unemployment or retirement.

In short, Golden Age aimed to serve as an online platform to bridge two service actors: older people and companies. The service model was based on a head-hunter service specialized in (re)discovering elderly talents and a coaching service to help the ones with difficulties to apply to new jobs.

The innovation was focused on the creation of a connection in the job gap: seniors with professional experience willing to keep working and organizations that would feel interested in hiring them. Besides the economical gains, it was expected an increase of confidence and respect for the seniors.

Service validation: Maturijobs service

In 2015, a start-up named Maturijobs appeared in the Brazilian market. Maturijobs carries the same concept as Golden Age, which is the connection between old people and jobs opportunities. Its service model is also based on an online platform (Figure 1), which seeks to find (new) jobs for individuals with 50 years old or more.

Figure 1: Maturijobs website interface. Source: Maturijobs, 2015.

The business model of the service is based on an outsourcing service offer, which connects elderly and companies, crossing their skills to demands that businesses have. Many times people get retired from specialized professions (e.g. teachers, translators, counters, etc.), from which services can still be useful for other people demands. This service intermediates these retired or unemployed people with specialized skills and companies through a web platform and service contracts. This is also good for seniors, who feel acknowledged by their active participation in their local economy and local community life.

The service is based on a sharing economy perspective, where older people are enabled to offer their services, not only for companies, but also for other interest people. Therefore, the service empowers a new market, where elders are stimulated to be economically active, even after being retired.

Analysis and discussion

The balance between a changing age profile and its consequently emergent demands create design opportunities. As highlighted by the International Longevity Centre Brazil (2015), the age distribution of a population has a major impact on community planning, urban design, resources management, economic productivity and service provision. In the context studied here, this means that society, before composed predominantly by young people, should (re)design products, services and policies that meet the new demographic regime marked by an aging population.

The ability to envision, design and implement the necessary adaptations for efficient and effective management of an aging population is critical for countries like Brazil. In the particular case of this country, demographic transition and the consequent demand for such

adaptation gains visibility at a time of economic deceleration. Within this context, governments and companies have adopted budget cuts, which often compromise the ability to innovate and invest in new products and services. This cut of investments in R&D increases the transformative role of the university.

In the studied academic case, the university acts as a driving force for social innovation, designing products, services and policies that contribute to promote active aging. In this sense, the service designed by the students contributes to create a vision where older workers can have access to opportunities for active aging, especially with regard to the pillars of continuing education and social participation. The Golden Age service expands access of older workers to significant professional occupations. This helps them to maintain their professional social networks and develop new skills and knowledge, besides of having access to financial resources (income), fundamental for the maintenance of physical, mental and social well-being.

The Maturijobs, on the other side, reinforces the possibility of engaging society, companies and the government to a new societal pattern where seniors can still actively collaborate. In this sense, Maturijobs wants to create a culture of valorization of experienced people, shifting the focus from the stereotypes about them to their actual capabilities.

The two presented cases covered the four fundamentals principles of active aging. They value senior participation within society in a perspective where they are not seen as a problem, but as a valuable social and economical resource. In an alternative line to the mainstream perception, both cases appreciate elderly as a work force niche and reinforce the need of a proactive participation of these seniors in society.

Briefly, Golden Age and Maturijobs demonstrated that demands for innovative services models - which can meet a particular social issue - exist. Under a Service Design perspective, both services promote social innovation, because they facilitate new connections among actors, based on their qualities as social resources, creating solutions to the social challenge of an aging society.

Conclusion

The article presented and explored how Service Design can embrace the perspective of active aging to design socially innovative services. Service design for social innovation, therefore, is explained as a way of planning and structuring new forms of relations (how to connect old people and companies) and bringing together different service actors (seniors, companies, society). The active-aging services can increase opportunities for people to get older actively. This is beneficial for the whole society, because it reduces costs and problems which come from a passive aging. It helps to avoid loneliness problems and cognitive deficits, for example, within this age group. As demonstrated, the two cases explore the four pillars for active aging: health, lifelong learning, participation and security.

Service design for social innovation towards active aging is visionary, in order to design services that meet the challenges related to the aging population. In the case of the project Golden Age, the approach enabled students in 2011 to design a service to reinsert elderly in the labor market, valuing their individual qualities. The Maturijobs service is a validation, in 2015, that there is a demand for this type of service and that elderly can not be seen as

economically and socially inactive individuals, since many reach an older age still being able to participate and collaborate within society.

Finally, Service design for social innovation is concluded as a relevant approach to achieve social change through the design for services.

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