

Project Action for Age 2: Design process in service design

Projeto *Action for Age 2*: o processo do Design no design de serviços

Teresa Franqueira

teresa.franqueira@ua.pt

University of Aveiro. Campus Universitário de Santiago, 3810-193 Aveiro, Portugal

Gonçalo Gomes

goncalo@ua.pt

University of Aveiro. Campus Universitário de Santiago, 3810-193 Aveiro, Portugal

Rui Costa

ruicosta@ua.pt

University of Aveiro. Campus Universitário de Santiago, 3810-193 Aveiro, Portugal

Abstract

This paper aims to show the design process of a project developed by the Design students of the Universidade de Aveiro. The project is part of a wide challenge launched to all Portuguese Design Universities called "Action for Age". This initiative intends to raise awareness amongst young designers to the problematic of population ageing and its consequent social transformations. It is intended to showcase new approaches to the design process, focusing in Service Design, contributing towards the consolidation of an emerging field in the Design area. The students were asked to identify a place and design a solution that would stimulate intergenerational relationships. Students were prompted to define their own brief, which led them to develop flexible solutions: a service, a network, an object, a shop, an initiative. The purpose was to conceive an integrated solution that could respond to the identified need of enhancing intergenerational relationships, resulting in better integration of the elderly, as well as other individuals, in the community. For the project kick off, students had to pinpoint a place and its ongoing activities. Those activities were regarded as social innovations, and as their goal was to analyse them thoroughly and propose ways to strengthen and connect them. On a second phase, students were engaged in scenarios' building, which worked as a tool to facilitate strategic discussion amongst the different stakeholders involved, and later designed the toolkits that would enable the implementation of those scenarios. The results of these projects will be presented, although the focus of this paper is more the process and tools used for their development.

Key words: Service Design, social innovations, ageing and intergenerational relationships.

Resumo

Este trabalho tem como objetivo mostrar o processo de elaboração de um projeto desenvolvido por alunos da Universidade de Aveiro. O projeto chamado *Action for Age* é parte de um desafio lançado a todas as Universidades portuguesas que leccionam o curso de Design. Esta iniciativa pretende sensibilizar os jovens designers para a problemática do envelhecimento da população e suas consequentes transformações sociais. Destina-se a mostrar novas abordagens para o processo de design, concentrando-se em Design de Serviços, contribuindo para a consolidação de um campo emergente na área de Design. Os alunos foram convidados a identificar um local e projetar uma solução que pudesse estimular relações intergeracionais. Os alunos foram solicitados a definir seu próprio *briefing*, que os levou a desenvolver soluções flexíveis: um serviço, uma rede, um objeto, uma loja, uma iniciativa. O objetivo foi conceber uma solução integrada que pudesse responder à necessidade identificada de melhorar as relações intergeracionais, resultando em uma melhor integração dos idosos, bem como outras pessoas, na comunidade. Para dar início ao projeto, os alunos tiveram de identificar um lugar e as suas atividades. Essas atividades foram consideradas como inovações sociais, e como tal a sua meta era analisá-las cuidadosamente e propor formas para fortalecer e conectá-las. Numa segunda fase, os alunos envolveram-se na construção de cenários, que funcionavam como uma ferramenta para facilitar uma discussão estratégica entre as diferentes partes interessadas, e posteriormente projetar os kits de ferramentas que permitam a implementação desses cenários. Os resultados destes projetos serão apresentados, embora o foco deste trabalho seja o processo e as ferramentas utilizadas para o seu desenvolvimento.

Palavras-chave: Design de serviços, inovações sociais, envelhecimento e relações intergeracionais.

Context

Ageing society

Global population ageing is a well-documented fact. The success of the health policies implemented in the last decades will be reflected in a world's population that in 2050, will comprise around two thousand million senior citizens (Pinto *et al.*, 2009), that is, a number equal to that of the entire world's population about 50 years ago¹. That alone raises a number of pertinent social issues, namely the emerging signs of tension between generations, which undoubtedly implies rethinking the way modern societies are organised. Even the welfare state is under threat, precisely due to the critical unbalance between the retired and the active populations.

Simultaneously, there is a trend towards the urbanisation of the world's population. The consistent movement of people from rural to urban areas means that in today's Europe, for instance, 75% of its total population lives in urban areas, and it is estimated that in 2050 that number will reach 83%².

This social change becomes particularly worrying among senior age groups, mostly on the level of families' cohesion and the ability to maintain the remaining social networks consolidated throughout life. The organization of the urban space, the new professional paradigms and high mobility, all have been contributing for the disappearance of the extended family's concept, the interdependency between family members is by and large what guarantees to its older members the necessary support in the last phase of their lives.

If, besides this aspect, we consider other elements, such as the significant life expectancy difference between men and women, the abrupt breakup in social relations after retirement, feelings of insecurity, inadequacy or fear due to the loss of psychological and motor skills, we realize that the tendency for isolation increases and that when this estrangement between the individual and its community becomes established, the very perception of their level of social interaction also decreases, driving them, in extreme cases, to loneliness.

It is therefore essential to intervene to maintain and reinforce solid social ties, typical of communities where relationship dependencies are clearly established and where the support between members is established, in other words, wealthy in what is presently known as social capital. In order to do so it is important to invest in the promotion of intergenerational practices, authentic and honest, based on dynamic and sustainable social networks, allowing the elderly to maintain an active role in society for longer, thus potentiating a rich human capital that nowadays is widely wasted (Experimentadesign, 2009).

Building on these premises, if we can also act on the promotion of intergenerational relations, through the development of solid and entrepreneurial social networks, we can aspire to convert this phase of life into a richer experience for all.

Designers' role in today's world

In an interview filmed for his 1969 Paris exhibition, "What is Design?" at the *Musée des Arts Décoratifs*, Charles Eames was asked: "What are the boundaries of design?" His response was: "What are the boundaries of problems?"

The world we are living in is complex (Thackara, 2005) and everybody in it designs (Papanek, 1972). This apparently simple proposition locks the elements articulating the debate on design's and designers' role in contemporaneity. If we consider that everybody designs and that issues are ever more complex and ambiguous, calling for holistic and all-embracing strategies for their tackling, this means that designers need to update their practices to actively participate in the mesh of designing networks that characterise contemporary society, feeding them with their specific design knowledge: design skills, capabilities and sensitivities (Jégou and Manzini, 2008).

In this context, a new idea of design activity is emerging. For instance, RED (Burns *et al.*, 2006) is applying design in new contexts, using designers' core skills and the design process to transform the ways in which the public interacts with systems, services, organisations and policies. Manzini (Jégou and Manzini, 2008) believes that a new design activity is emerging and to participate designers have to positively accept that they can no longer aspire to a monopoly on design, and if appropriately harnessed this change in the designer's place in society is not reducing their role but, on the contrary, it is increasing it, endowing it with the responsibility of being a key driver of social innovation. And Thackara (2005) argues that designers have to enhance the ability of all citizens to engage in meaningful dialogue about their environment and context, and foster new relationships between the people who make things and the people who use them, as design should be about delivering value to people.

What we see in this approach is that it places the individual at the core of new solutions, and builds the capacity to innovate into organizations and institutions. This new approach could be key to solving many of society's most complex problems, but its emergence is not without controversy. There are those who argue that it is not design because it does not look or feel much like design in the familiar sense of the word - its outputs are not always tangible, and may be adapted and altered by people as they use them (Burns *et al.*, 2006).

Nevertheless, and even if controversial, there are several projects developed by diverse institutions, companies and designers. Cases such as the RCA Helen Hamlyn Centre that works with a range of academic and business partners, whose core research focus is the study and application of *Inclusive Design* through a more socially inclusive approach to design, and *Design Age*, that explores design for ageing populations.

Another example is Dott 07 (Design of the Time, 2007), a year of community projects, events and exhibitions based in North East England, which explores how

¹ Available at: <http://esa.un.org/unpd/wpp2008/index.htm>

² Available at: <http://esa.un.org/unpd/wup/index.htm>

life in a sustainable region could be like – and how design could help us get there.

Several projects were delivered in partnership with Culture10, based at Newcastle Gateshead Initiative, and ThinkPublic, a social design agency that helps tackle big social challenges working with the public sector, third sector and communities. Dott 07 projects aimed to improve five aspects of daily life: movement, health, food, school and energy.

In Portugal, for instance, the Calouste Gulbenkian Foundation sponsors intergenerational projects, involving different organisations and institutions, highlighting the cooperation with Design professionals.

Action for Age Project

Along with these projects, the *Action for Age* (AfA) initiative was created in 2009 by the Royal Society for the Encouragement of Arts, Manufactures and Commerce in the United Kingdom, and subsequently implemented in Portugal in partnership with the ExperimentaDesign, supported by the Calouste Gulbenkian Foundation and the public charitable organisation Santa Casa da Misericórdia de Lisboa.

The work proposal presented, adapted from the original brief so as to adjust it to the Portuguese reality and now named *Action For Age 2*, had as departing point the identification of a place where to intervene (district, association, company,...) and, in that specific context, the design of a proposal that would stimulate intergenerational relations translated in clear improvements to the quality of life of the elderly. Topics such as loneliness and social isolation were signalled as central, as well as the concern that the whole intervention, sustainable and sustained in reality, was translated in clear benefits, transverse to the whole society. On the other hand, the involvement of users in the final design of flexible solutions was highlighted, be it products, communication plans, scenarios, networks, services or occasional and ephemeral initiatives.

What is the role of design in view of the “complex challenges brought about by the phenomenon of the generalized ageing of the population”? (ExperimentaDesign, 2009). This was the central question of the challenge proposed to the schools of design.

AfA Project at the University of Aveiro

The teachers of the subject Project InDesign IV (Teresa Franqueira, Gonçalo Gomes and Rui Costa) regarded the ExperimentaDesign challenge as an opportunity to explore new approaches to the project praxis. The different professional backgrounds (Industrial Design, Service Design and Graphic Design) have allowed for the synergies created in the Project Design class of the University of Aveiro to be strengthened and enhanced with new methodological approaches. In fact, Design at the University of Aveiro has the peculiarity of merging all design fields in one.

Design at the University of Aveiro

Education in Design at the University of Aveiro is organized “around a structure that recognizes in the trilogy author, technology and programme, the three main points of view of project in design. It promotes “knowing how to think” as a basic requirement of “knowing how to do”, and emphasises the dual aspect of this relationship in the cognitive construction” (Franqueira, 2009, p. 24).

In order to attain a progressive autonomy of students, the axis of projects proposed during the three years of the degree course progresses from the semantics to the syntax, and from syntax to pragmatics. It is in the scope of pragmatics, during the third and final year, that the pertinence of the AfA initiative becomes apparent.

In fact, a close proximity between the objectives of the discipline³ and the goals set by AfA is noticeable. Firstly because students themselves are asked to define their scope of action, following the idea that the programme is the “project’s authorial partner”. The answer to specific and already identified problems in the context of senior citizens’ inclusion would be a very good challenge for a student finalist in design. Some of the examples mentioned before (HHC, Dott, etc.) allow understanding the role of the designer in a society that resolves problems raising new ones in the process. The focus of the project in intergenerationality identifies a question, without predefining the programme. This is regarded as the main difficulty of this project, and perhaps the characteristic that brings it closer to the conception of design postulated in the University of Aveiro – a supra functional artefact of communication.

The Design Process

Starting with around 50 students, and having as main objective the development of a project that should mirror the projectual practices of a design atelier, the class was divided in groups of seven students, and a specific area of the city of Aveiro was assigned to each group, following a previous geographical division of the city in seven different areas.

To strengthen the work dynamics, each group was asked to choose on a team leader on a weekly basis, whose job would be to set and monitor the strategies and priorities during the week he was in charge. This function would be assigned in a rotation scheme, and each week a new leader was to be designated.

First step

In a first phase, the groups were asked to conduct an exhaustive research of their area, followed by a description, representation and analysis of the data obtained. In this specific task, all groups opted for the use of ethnographic approaches to collect information, conducting detailed audiovisual and photographic inventories, as well as a series of interviews to the resident population and small businesses.

³ Available at: <http://www.ca.ua.pt/PageDisc.aspx?id=2786&b=1>

These data collection allowed them to understand the singularities of each particular area and its unique potential within the scope of the proposal.

The data collected, besides being recorded and stored as potentially relevant information, were also entered in the *GoogleMaps*⁴ (Figures 1, 2 and 3) platform, so as to originate a map of activities available to the whole class. This enabled the crossing of information between groups, and thus, the cross-fertilization between different projects' ideas and useful information. Since geographic delimitations are "blind", these information exchanges enabled all groups to understand the network of associations or entities transversal to, and affecting, the whole city. This tool also helped in the definition of a more detailed research strategy, in the identification of problems and opportunities, allowing them to constantly refine the interactive map.

Second step

In a second phase, the groups had to define the scripts for their projects' development. The identification of needs and opportunities specific to each area of the city led them to propose different fields of action, always

with the design's scope and vision. In fact, the centre role designer's should play in these initiatives was clearly the main challenge that the teams experienced in this phase.

The first proposals opened a lively debate between students and teachers, extended also to professionals coming from different areas, so as to guarantee a multidisciplinary approach. To reinforce the project's transverseness, experts in gerontology, children's education and health researchers from the University of Aveiro were involved. The importance of this external collaboration was key to support the scripts' soundness, especially thanks to the confrontation with external and specialized opinions on the analysed topics.

The initial drafts were prepared and worked as a pre-definition of the whole product-service system presented, and as a way of identifying the different stakeholders involved and their specific roles. As a test to the soundness of these first solutions, an intermediate evaluation was a role-playing session (Figures 4 and 5). Starting with the identification of the stakeholders and their inherent roles, this role playing session intended to identify the weaknesses of the service proposed, and at the same time, to develop a more realistic approach to the very project.

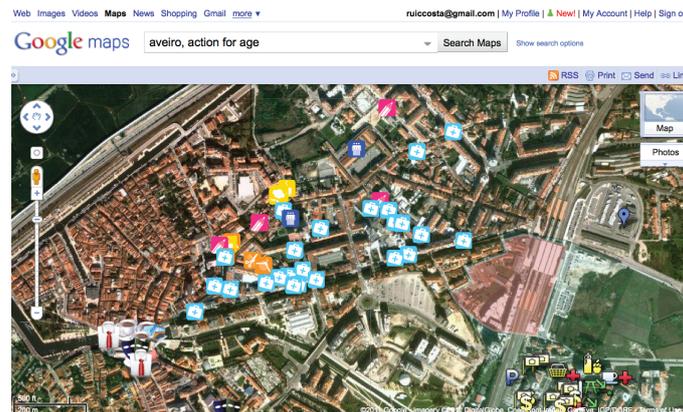


Figure 1. Google Maps.



Figure 2. Activities' mapping.

⁴Project's map: <http://maps.google.com/maps/ms?hl=en&ie=UTF8&msa=0&msid=210658577879891953679.00049289006c1e8d90185&t=h&z=14>



Figure 3. Detail of activities mapping.



Figure 4. Role playing.



Figure 5. Role playing.

This phase turned out to be crucial for the development of the project. It was from this point forward that the students fully realised that their decisions as designers are the result of interactions, whose complexity is difficult to apprehend from the analysis of bidimensional schemes only. New discussions arose around the briefs, concurring for their enhancement and fine-tuning, which ultimately helped each team to present the proposal of the virtual and physical elements, events or strategies they regarded as essential for the pertinent and sustainable implementation of their projects.

Third step

In this phase the students worked individually in the development of the several supports previously defined as necessary. Although they continued to work as teams, the assignment of individual responsibility in the development of each piece of the final puzzle enabled the assessment of their conceptual and technical proficiency and competence on the part of the teaching team, a goal that was previously signalled by the teachers. It was rewarding to verify that the diversity of proposals was very heterogeneous, partly due to the specificities of the strategies defined upstream and partly to the geographic, social and economic context of each project. In a final moment, the students went back to the field to present the scenarios they had developed to the local populations, and did so through interviews to obtain feedback that would confirm (or invalidate) the solutions they had previously designed.

Results

In an academic context, the results are always more than what is strictly produced, namely in terms of references, methods and techniques applied. Alongside the physical outcomes, these steps become for students the very memory of the project. We will discuss here only what has been produced, material and immaterial.

Each group's different approach was limited by the characteristics of the area studied. In most cases, the first contacts determined the sort of project developed. Besides the "mandatory figures", that are mainly learning exercises (visual identity, printed or digital communication media, etc.), the diversity of proposed solutions and the understanding of the different triggers of those solutions is a very important step to know what "Programme" means in the context of Design graduation.

Age!

The area assigned to group B is the business core of Aveiro. The former building of the Town Hall, Court, Cathedral, Theatre, Highschool, Museum, all these equipments are located here. In this context of businesses, services and cultural offer, intergenerationality is fairly natural. Therefore, the group opted to circumscribe their intervention to a square where the Theatre, the (former) Town Hall, the Highschool and some small businesses converge.

The first difficulty was the argument: What could be done, in terms of intergenerationality, in an area where



Figure 6. AGE Project.



most activities are work related or motivated? The group decided to consider the square as a centre of planned interactions, through the continuous animation of the site. This would imply the creation of synergies between the different entities involved, that could, for instances, offer in a specific day of the week, every week, a different activity. This network of events would certainly attract people to the square and promote interactions.

From a design point of view, besides that possible network of contacts and co-productions, the design of specific outdoors furniture for the square is very interesting. The solutions proposed, namely for resting, were designed regarding the different kinds of posture and age of expected users. Trying to adapt or to induce ways of inhabiting and living a space through its forms is a role that both design and architecture have always played and an issue raised in this project. The design of the forms to live the square, to sit or to lean, to play or to flirt, to read or simply to see other people. These are the expectations that sustain this argument.

“... com amor se paga”

This project established the framework for the creation of a services and trade network between the residents in the neighbourhood (Barrocas). Following the identification of an already existing, but incipient network of friendly exchanges of goods between neighbours – goods produced by themselves, like vegetables, eggs, fruit - this group proposed the creation of a system that would acknowledge and enhance the social significance of these relations as pillars of the community. The upgrading of these incipient and isolated behaviours into constant, acknowledged and dynamic practices, implies that these people would play a major role, as founders of new (old) ways of relating in a urban neighbourhood, regardless of age or profession. As Papanek said: “everybody [...] designs”.

“Megafone”

To this group was assigned an area characterized by the existence of a council housing estate linked with recurring criminality, which taints all its inhabitants with an undeserved notoriety.

This was the guiding principle for the action of this group, to fight the stigma associated to this council housing neighbourhood. Their proposal was based in the idea

of creating a sense of belonging to a community that includes different generations, different professions, different backgrounds, but who, by being afraid of reaching out for other people, become isolated, thus increasing the discontinuities in their neighbourhood.

The project’s principle is that you can look at what surrounds you in a different way. Through the distribution of disposable photo cameras between the residents, it was intended to get an inside look on the neighbourhood’s life, to record the daily life of its residents.

The following step would be to show some of those images in a public space. Images of regular spaces, ordinary people, but with a name, a profession, an origin. It is a sort of amplification of something that already exists and, actually, nearly nothing is designed in this project: the contents are there, ready to be given value through a different look.

“Cor”

In the stride of urban revitalization, a project that aimed to promote the reuse of abandoned houses and in-fill the most rundown and aged areas of the city was also presented (Cor Project – Colour Project). For that purpose the students designed a service - a network of contacts - through which the owners of empty houses could get in contact with prospect tenants, mainly young creative professionals trying to kick-start their careers. The central idea was to rent the available spaces for a low cost, or for its simple revitalization, bearing in mind that the social regeneration could emerge from the daily socialization between the old and the new inhabitants.

“Alfresco”

One of the student’s groups - the Alfresco Project-, proposed, for example, the use of one of the city’s park as a hub, where the most diverse events could take place, on a daily basis, and thus, through a series of coordinated actions and specific urban outdoor furniture, promote the interaction between users of different generations in the same space.

“Raízes”

Another proposal within the theme of green spaces and outdoors, the *Raízes* project (Roots Project), pointed



Figure 7. Alfresco Project.

at the “conquering” of the territory by the resident population by planting trees (with a previously planned order and layout) and by doing so, experiencing the space as their own. The aim was to promote a closer and long lasting relationship with the city that would lead, in the long run, to a true “city park” in the literal sense of the words, a park built by its citizens.

“Faiisca”

At last, another group of students – Faiisca project (Spark project) focussed its intervention in getting the most out of “forced leisure”. Having as starting point the ‘citizen’s shop’ of Aveiro, a place where one can find a series of public and private services and where the waiting times are often too long, the main argument of this group was to seize the random meetings that the space generates, igniting and transforming them in dynamic social relationships. For that, a series of interactive situations were

proposed, from games to interactive walls, with which the different users of the place, old or new, could interact. This collaboration between individuals is of central importance for the activities to be carried out.

The selected proposals

The original project, presented by Experimenta-design, has foreseen the existence of a second phase in which the twelve best proposals, submitted by the various schools, would be financed with a grant of 2500 euros in order to prototype the solution. Out of the seven projects developed in the Universidade de Aveiro, five were submitted to the jury and, of these, three were approved, advancing thus for this second stage.

Therefore, students responsible for the proposals: ...Com Amor se Paga (Figure 9), Cor (Figure 10) and Raízas (Figure 11), found themselves involved in a series of workshops where both the weaknesses and strengths of their



Figure 8. Faiisca Project.

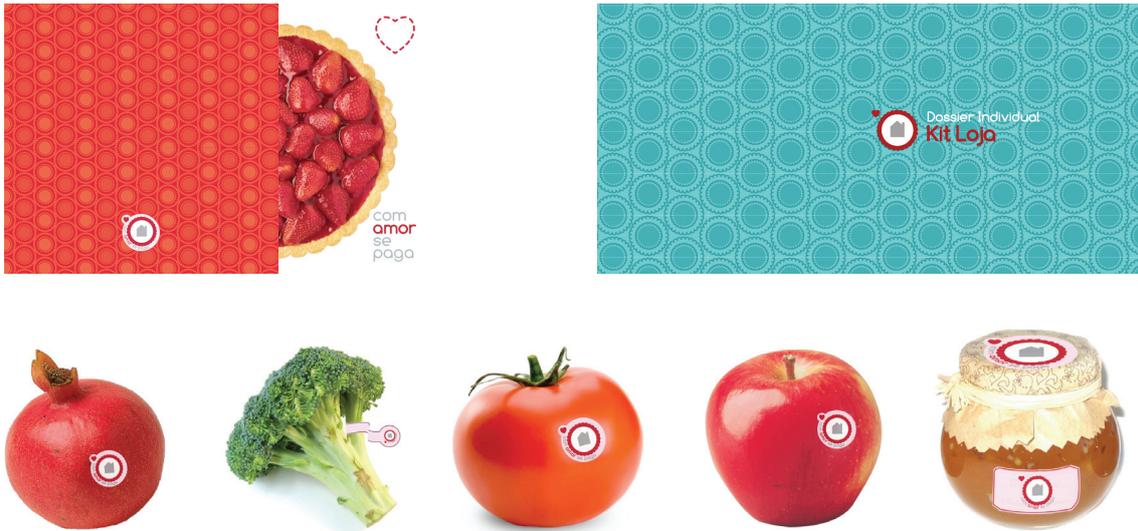


Figure 9. ...com amor se paga Project.



Figure 10. Cor Project.



Figure 11. Raízes Project.

projects were to be addressed, incorporating insights based on co-design methodologies, defining concrete outputs for their projects and planning the necessary tests for the physical implementation of each proposal. These workshops were directed by the designers Renato Bispo (Experimentadesign), Susana António (Think Public, Portugal) and Vincenzo Di Maria (CommonGround, UK) and also involved the majority of the teachers who accompanied the students on the first phase of the initiative.

A mentor was assigned to each group, responsible for the external monitoring of the projects' implementation on the field. Several collaborative work tools were established, such as Google Calendar and Google Docs, where all groups could have access to the information on all work in progress. Skype was the privileged tool of communication, especially between the mentors and the groups.

In these "distance" mentoring sessions, the impact of the already implemented activities were discussed, as well as the main challenges of the project at that exact moment and the work plan for the weeks to come. The final outputs for each project were also constantly "tuned" and the SWOT (Strengths, Weakness, Opportunities and Threats) matrix readjusted, taking into account the real progress of the project. Mentors have also travelled to the site to closely monitor the implementation of the designed solutions, and to work with the students on the most effective responses, given the specificities of each context.

On the teachers' side there has always been close monitoring, its primary purpose being the validation of the projects' outputs at the local level, but also to support its budget execution, activities' implementation and identification of the local partners that could become the projects' long-term sustainers.

This last aspect proved to be particularly important regarding the last workshop, where Experimentadesign prearranged a presentation of all projects to local, national and international potential partners and investors.

A temporary exhibition, entitled "Action for Age 2 - Intergenerational relations", was also organized. As part of the official program of the EXD'11 Biennale, it took place

from October 2 to November 27, 2011, at the Calouste Gulbenkian Foundation, and all projects were presented displaying the final results publicly.

This second phase of the "Action For Age" project proved to be truly rewarding for the students involved. It offered the possibility to prototype the solution devised by exposing them to the inherent difficulties in implementing an effective project, to a specific reality and with real actors.

This accrued to the work developed within the classroom, adding significant value, in our opinion, by including a fundamental layer of reality that enriches the entire design process, thereby completing it.

Conclusions

In 1995, Morello has raised the question of designer's lack of capability to design services, suggesting that the role of the professional designer should be renewed to embrace the new reality and arguing that renewal would entail a deep revisitation of design's conceptions.

New strategies able to introduce new ways of thinking in Design are needed, in order to promote sustainable solutions in the formulation of possible scenarios. This is one of the statements underlying the Design debate nowadays, and the role of design must be updated to achieve that goal. The truth is that if design fails to follow the changes happening in society and continues to build up on product conception serving a declining economy, it will be hopelessly unable to perform its tasks in the arising model of sustainable development.

On the other hand, it is not desirable that design becomes "hostage" of these changes. We cannot uncritically accept the agenda of politicians, albeit the fact that the key decision makers about what science 'can' investigate has been European funding. Whatever the problem of a given society, the design discipline, in the context of training, should be a vehicle for reflection on the social and economic culture in which it intervenes. Through this project proposal we have tried an approach that we

think is the appropriate one to face a more complex reality, complexity that inevitably also affects design.

One of the conclusions to draw from this project, based solely in product-service systems, was the reinforcement of a design's holistic vision.

Whatever its field or area of intervention, the tools used by designers are still the same: the structure, the networks, the materials, the technology, the authorship, the drawing. Always the drawing.

Future developments

More than the set of different elements designed to illustrate the proposed projects, which above all played their role as supports of a practice and contents that remains essential to the work of designers – the visual structure, composition, colour, scale, materials, ergonomics, the sensibility to choose one shape instead of another, the mock-up, the drawing once more – it is important to enhance the flexibility of some of the proposed systems. Initially designed for an exact location, but applicable (when well designed) to any place, city or country where the diagnosis is similar, the modularity in the design of these systems also allows specific implementations, appropriate to the scale, time or uses of various contexts.

Therefore it is necessary, in the immediate future, to “move away” from the place that triggered each argument and analyze what was proposed from a designer's perspective (possibly different from the standpoint of a social worker, a physician, a mayor, a gerontologist...). Envisaging design as a fertile ground of experiences, whose implementation can and must ulterior be complemented with other actors. Again, design as a cultural interface with society...

References

- BURNS, C.; COTTAM, H.; VANSTONE, C.; WINHALL, J. 2006. Red Paper 02: Transformation Design. London, Design Council. Available at: <http://www.designcouncil.org.uk/publications/Transformation-Design/>. Access on: July 3, 2011.
- EXPERIMENTADESIGN. 2009. Action for Age: Apresentaao e Briefing. Lisboa, experimentadesign.
- FRANQUEIRA, T. 2009. *O ensino do design na Universidade de Aveiro: do saber pensar para o saber fazer*. Tecnometal n^o 184. Porto, AIMMAP, 48 p.
- JÉGOU, F.; MANZINI, E. 2008. *Collaborative organisations and enabling solutions - Social innovation and design for sustainability. Collaborative Services - Social innovation and design for sustainability*. Milan, POLI.Design, 202 p.
- MORELLO, A. 1995. “Discovering Design” means [re] discovering users and projects. In: R. BUCHANAN; V. MARGOLIN, *Discovering design: explorations in design studies*. Chicago, The University of Chicago Press.
- PAPANEK, V.J. 1972. *Design for the real world; human ecology and social change*. New York, Pantheon Books, 339 p.
- PINTO, T.A.; HATTON-YEO, A.; MARREEL, I. 2009. Guia de Ideias para Planear e Implementar Projectos Intergeracionais. Projecto MATES, Mainstreaming Solidariedade Intergeracional. Available at: http://www.matesproject.eu/GUIDE_21_versions/Portugese.pdf.
- PROJECTO EM DESIGN IV. 2010-2011. Available at: <http://projectoemdesign4.blogs.ua.sapo.pt>.
- THACKARA, J. 2005. *In the bubble: Designing in a complex world*. Cambridge, MIT Press, 321 p.

Submitted on May 15, 2011
Accepted on August 20, 2011

Appendix

Groups of students

Group A, MEGAFONE: Elisa Rosa, Ant3nio Ferreira, Bruno Martins, Ana Fabiola, Gabriel Melo, Rodrigo Quadros, Lu3s Cambra

Group B, AGE: Andr3 Barros, Elsa Marques, Daniel Soares, Lu3s Costa, Marco Costa, Rafael Tom3, Rui Batista

Group C, ALFRESCO: Carlos Santos, Cristina Barreto, Rafael Coelho, Elliot Silva, Jo3o Henriques, Joel Cabral

Group D, RA3IZES: Diogo Louro, In3s Maia, Jo3o Alves, Jo3o Carvalho, Joel Enes, S3rgio Carvalho

Group E, COR: Joana Carvalho, Carolina Gaspar, Joana Ramos, Beatriz Lacerda, Joel Ara3jo, Rui Ramos

Group F, ...COM AMOR SE PAGA: David Santos, Sandra Saraiva, Pedro Santos, Joana Santos, Francisco Bairr3o, Margarida Mouta, Diana Hasse

Group G, FAILSCA: F3bio Maricato, Fausto Fonseca, Lu3s Honrado, Ricardo Martins, Rui Dur3o, Eduardo Miguel Rocha, Marco Eg3dio, Lu3s Silva