Life 2.0: Geographical Positioning Services to Support Independent Living and Social Interaction of Elderly People

Daria Cantù Politecnico di Milano Department of Industrial Design Via Durando 38/a 20158 Milano +390223995871
daria.cantu@polimi.it

Fiammetta Costa Politecnico di Milano Department of Industrial Design Via Durando 38/a 20158 Milano +390223995871
fiametta.costa@polimi.it

Francesca Rizzo Politecnico di Milano Department of Industrial Design Via Durando 38/a 20158 Milano +390223995871
francesca.rizzo@polimi.it

ABSTRACT
The workshop proposed aims at reflecting on the practice of co-designing scenarios to develop digital services. The contents providing the basis to the foreseen activities regards the on-going European project Life 2.0 on the topic of the development of geographical positioning services to support independent living and social interaction of elderly people. Moving from the on field and ethnographic research results and analysis in the four partners countries, the activities of the workshop focus on creating a unique articulated scenario merging the pilots specific contributions. During the first day the participants deal with the theme of creating the project scenario with the project stakeholders participation, moving from the involvement of the users since the first phases of the design process. In the second day the business framework of the scenario is collectively defined and discussed using the business model canvas tool [4]. The workshop will elicit specific results in terms of requirements for the digital platform development and knowledge related to the role of design in processes of co-creation.

General Terms
Elderly people, usability, codesign.

Keywords
Scenario, digital services, co-design, system requirements, business model.

1. INTRODUCTION
Scenarios can have different purposes depending on the stage of the project development and the purpose to be pursuit. Manzini and Jégou [2] make a distinction between two main typologies: Design Orienting Scenarios (DOS) are defined as sets of motivated and articulated visions that help the involved actors to generate common shared goals and to give the same direction to their actions. On the opposite the authors describe the Policy Orienting Scenario (POS), adopted to direct policy choices for long-term actions. The DOS building is the main interest of this workshop and is more specifically described as the collaborative creation of a common vision about a desirable future as well as the strategy to implement it; it is primarily focused on a short-term perspective and its main purpose is to provide direction for on-going projects development. Other authors propose different scenarios, depending on their possible applications, Nielsen for example [3] discusses the following: diary scenario for data gathering; brainstorming to envision new features of the system; scenario for design and prototyping; scenario for heuristic evaluation; stereotypes scenarios for data analysis in exploratory studies; scenarios for task based user evaluation. Thus scenarios can be used throughout all the development process of a system of services and artefacts.

In the last decade the role of designers is moving from designing a product or service to facilitating and leading participatory processes due to the changing social and economic conditions and the emerging of new social needs. This is true for example in projects for territorial development, where a set of very localized experiments need to be conducted with a common objective and coordinating different actors [1]. In this framework the use of tools such as scenarios is becoming the basis for creating consensus and sharing common goals among the actors involved in the development process. Designing scenarios is more and more important as the first step in projects involving a wide span of stakeholders and actors with different competences and skills and requires new methods and strategies in its building phase.

How to merge different contributions into a common scenario? How to define the strategy to achieve it? What steps are needed? How to share a common understanding of the future system requirements?

2. LIFE 2.0 PROJECT
The contents to work on during the workshop come from the previous work carried out within the framework of the European project Life 2.0. The aim of the project is to study and test digital services dedicated to 65+ years old people to improve their social relationships and promote exchange and meeting opportunities. The project partners, who are working on the pilots in their own countries, are universities, third sector organizations, Municipalities and IT firms located in Denmark, Finland and Spain. The three year project consists of four main phases: a first period of ethnographic research and analysis involving potential
users of the services to be developed in order to start orienting the group about the needs and desires of the project target users. A second phase aimed at narrowing the options and defining the project scenario with a participatory approach, bringing together the contributions from all the regions involved. Then a third period to design the prototype of the digital service, moving from the requirements emerged from the scenario-building phase to the design of the platform screens and the architecture. And in the end the testing phase to proceed with the platform customization depending on the feedbacks received from the users and the emerging opportunities for stakeholders involvement.

3. WORKSHOP STRUCTURE

The workshop will bring together designers, third sector organizations, municipalities, business consultants, technicians and ICT experts from the European project partner countries. The idea is to use the case of Life 2.0 and the materials already prepared in the previous months in order to achieve a practice based knowledge regarding the management of participatory scenario building processes, and define tools and methods supporting this process. For this reason the workshop is open to other applicants and interested designers and professionals.

Preparing the workshop

Up to date the ethnographic research lead the partners to elicit important information for the scenario-building phase. Each pilot conducted in the previous months activities and local workshops with potential users and other stakeholders in the different countries with the aim of converging on a common scenario. In the prior months each of them went through a process starting with the creation of personas derived from the information and knowledge on life 2.0 users collected during the ethnographic analysis in Milano, Aalborg, Barcelona and Joensuu. The personas tool was then used to describe a first set of local scenarios that were properly visualized. By using these materials during the local workshops each pilot defined a set of use cases, and used the Unified Modelling Language (UML) as the main tool to describe them and elicit the platform requirements for the technical partners. With these results and selecting 3 use cases, among the most significant ones, each partner will participate to the workshop, providing a rich set of contents and tools for collective discussion.

3.1 Running the workshop

The workshop is planned on two days. The first one starts with the public presentation of the use cases selected among the partners preparatory material. Then single working groups prepare 1 use case assembling all the similar ones presented from each partner. In the end of the morning there will be the use cases public presentation. After lunch, moving from the morning results the technical aspects are discussed. They are: how to integrate technologies for the purpose of the scenario generated and technical requirements and specification. Then discussions on specific topics will follow:

- Services: what are the implementation steps for specialized mobile applications?
- Quality of the service: are the technical aspects good enough? What will be the need QoS?
- Transmission: fixed/wireless standards? How to improve the availability and the QoS of the provided solutions?
- Software, applications and operating systems for mobile and fixed terminals: how we can benefit from the usage of simulation tools in order to optimize the final results? What will be the most convenient software platform for the development and the integration of our solutions?
- Hardware, type of equipment, design, dimensions of fixed and mobile terminals: how to propose to the end users the easiest possible graphical and hardware interface?

In the end of the day an overall performance framework will be designed to synthesize the measures, evaluations and results of the previous works and to provide a complete picture of the reliability and operation of the integrated system. Different scenarios will be implemented and the data gathered will be evaluated using both quantitative and qualitative methods.

The second day will starts with the platform concept presentation related to all the use cases coming from the previous sessions and in the afternoon the platform Business Model will be defined: the key components of business models; the model chosen for this session; description of the single parts (value proposition, target customers, channels, value chain, assets and resources, costs and revenues). Then staging will be used as a tool to define business models and the business model will be formalized and presented.

3.2 Expected outcomes

The results of this workshop will be the agreement and definition of a common scenario to give direction to the Life 2.0 project development, the description of the platform technical requirements emerging from the use cases and the framing of the platform business model. The scenario and technical requirements resulting from this workshop will be the basis for the development of the Life 2.0 platform and, in particular, represent the ground for the technical system specification and integration plan.

4. REFERENCES


