

# APPS4ME: Inclusion of immigrants and digital social platforms

## *APPS4ME: inclusione di immigrati e piattaforme sociali digitali*

Begoña Gros

University of Barcelona, Spain, bgros@ub.edu

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### 1. MOBILE TECHNOLOGY AND SOCIAL INCLUSION

Social inclusion of immigrants is recognized as a significant challenge in many countries for both immigrants and host communities (de Vroome, Verkuyten, & Martinovic, 2014). To reduce the risk of social exclusion, and to support inclusion, newcomers can be supported by easing access to information and by promoting the acquisition of the skills needed for life in the new country they arrive in. Specifically, there is a particular need for recent immigrants to acquire the necessary language skills of the destination country's official language or languages. Derwing and Waugh (2012), who examined the relationship between official language knowledge and the social integration of adult immigrants in Canada, concluded that even those with relatively high language proficiency «*struggle because they do not have a grasp of the soft skills that help with the establishment of social bonds*» (p.26). It is very difficult to acquire the ability to use a language suitably without the proper social and cultural contexts.

Since many immigrants use mobile phones to stay in touch with friends and family abroad and to obtain information, these can also be used to support learning and facilitate social integration. However, we lack sufficient knowledge about the ways in which mobile technologies can assist immigrants. According to Bäck, Friedrich, Ropponen, Harju and Hintikka (2013), any service intended for a certain community needs management and ownership by the user community and this is not easy if that community is difficult to reach or speaks a foreign language. The sustainability of these tools depends on how the community appropriates them during the initial phases of the design process.

Bobeth, Schreitter, Schmehl, Deutsch, and Tscheligi (2013) have made a series of recommendations for designers working with immigrants. These include the need to collaborate with Non Governmental Organizations (NGOs), foster openness and creativity with playful methods, and involve researchers with an immigration background. The adoption of playful design techniques within a participatory approach is regarded as a key element for enabling participation and collaboration between design researchers and end-user communities.

### 2. APPS4ME PROJECT

Apps4me is a Spanish national project<sup>1</sup> (2016-2019) that aims to study how immigrant citizens at risk of

<sup>1</sup> Proyecto I+D. Ministerio de Economía y Competitividad. EDU2015-67332-P. 2016-2018, A. Ayuste , A. Escofet, O. González, M.Llobet-Estany, M. Payà, J. Sancho , & C. Zhang-Yu.

exclusion can be empowered using digital technologies. Our starting point is that the use of social networks and mobile technologies offers great potential to this end. There is a wealth of learning resources and activities associated with specific local contexts that could be highly beneficial. The project focuses on studying the design and implementation of ecosystems that eventually allow the immigrant community to be empowered through geo-localized, open and participative activities.

The *Apps4me Project*<sup>2</sup> is framed in the participatory design tradition. It builds on the methods and techniques of participatory design to create awareness about the challenges facing migrant citizens at risk of social exclusion and about how those challenges might be tackled sustainably. The project does not define solutions because it is through the process of collaborating with social workers, educators and end-users that design takes shape. At the outset of the design process, a special collaboration between the research group and organized migrant communities was established in order to ensure that the tools created throughout the project will serve, empower and be used by those communities.

The main goals of the project are:

- to study the perceived challenges that immigrants face in adopting digital technology;
- to develop participatory design strategies in order to actively involve end users in the process of identifying, selecting, analysing and adapting technological applications to ensure that their needs are met and that the technological solutions are available to them;
- to develop and implement a technological platform to gather and provide access to users with different digital profiles;
- to analyse and evaluate the social and educational usefulness of the digital platform from the perspective of immigrants and community professionals.

The project is based in Barcelona (Spain) and involves five social non-profit organizations<sup>3</sup>. All of these are members of the local Language Coordinator network promoted by the Barcelona City Council. While these organizations work with immigrants in different areas of the city, a substantial part of their efforts is focused on the district of Ciutat Vella. This district, located in the historical center of the city, has the highest concentration of residents registered as foreign, reaching 43% of the area's population according to the Instituto de Estadística de Cataluña (IDESCAT, 2014).

The main factor that binds the five organizations is their work in the social inclusion of broad sectors of the immigrant population. The projects and actions they carry out are aimed at improving the welfare, employment, social and cultural conditions of immigrants at risk of social exclusion through processes of reception, training and citizenship participation.

### 3. METHODOLOGY

Participatory design is an approach based on the involvement of end users in the design process so as to ensure that results best meet their needs. This approach has been rooted in design endeavors since the 1960s and 70s, when it was considered important that workers had a voice in the design of the tools that would define their working practices and conditions. The movement started in Scandinavian countries and sub-

<sup>2</sup> <https://apps4meblog.wordpress.com/>

<sup>3</sup> Espacio de Inclusión y Formación Casc Antic (EICA), PROBENS, Asociación para el Estudio y la Promoción del Bienestar Social, Apropem-nos, Plan de Desarrollo Comunitario, Fundación Servicio Solidario para Inclusión Social, Fundación Migra-Studium.

sequently spread worldwide. Over the years, it has been implemented in a variety of fields such as urban design and architecture, product design and graphic design. Although it has been used in many settings and at various scales, focus on the processes and procedures of design has remained a key component.

The *Apps4me Project* introduces participants actively during several stages of the design process: initial exploration and problem definition, development of design proposals, and, finally, evaluation of solutions. Initial exploration and problem definition are of special importance. It is vital to fully understand the real needs of immigrant people living in Barcelona in order to design digital tools that will subsequently be embraced and enriched by immigrant communities.

In participatory design, the emphasis on end-users' active involvement during the whole process resonates well with ideas on community building and empowerment. From this perspective, empowerment is regarded as a process and as an outcome. Here, the designers' practice goes beyond adopting a collection of methods that foster participation; rather, it seeks to engage people by inviting them to take a stand and have an influential voice in defining the problem, as well as the devised solutions. Although design solutions are important and have an impact on people's lives, when it comes to empowerment, the key aspect is personal and group experience, as well as recognition of the value of the insights thus generated during the participatory process (Sanoff, 2006). In this regard, the *Apps4me Project* follows the participatory design method by placing special emphasis on two different aspects: the inclusion of all stakeholder views in order to ensure that solutions really meet community needs; and support for active civic participation as well as fostering a sense of user empowerment in tackling issues that affect the users' everyday lives through collaboration with project designers and researchers.

The methods and techniques used in participatory design vary widely depending on three items: the designers involved, the scope of the project and the participants taking part in the development process. So far, the *Apps4me Project* has selected the following methods: Scenario-based Design, Contextual or Future workshops, and Prototyping.

### **3.1. Scenario-Based Design**

Scenarios describe system functioning in terms of user actions, without consideration for how the whole system works overall. Scenarios can be used to negotiate parts of system development, create consensus, set goals, understand interactions and use of a certain product or service, enrich dialogue with users, explore alternatives, avoid researchers' enchantment with the initial idea, and test the idea. The elements comprising any given scenario are: the context, or description of the situation in which the story takes place; the actors; the objectives (What is the goal of the actor involved?); actions performed (What are the actors doing?); events (What happens to the actors?); and the objects or artefacts (What do the actors need to perform certain desired actions?). These stories are shared within the group of participants involved in the design process.

### **3.2. Contextual or Future Workshops**

Future Workshops (FW) are a useful technique for engaging citizens in creating new ideas and solutions for social problems. FW were further refined in the 1990s in the context of participatory information-system design. Regardless of specific type, participatory design workshops always consist of face-to-face sessions held in environments which are familiar to the participants (their school, home, workplace, etc.) or in spaces provided by the design researchers. Workshops can combine individual activities with others geared to small and large groups.

### 3.3. Prototyping

Prototypes are concrete tools to help communicate and evaluate ideas. Quick prototypes - which may be paper or cardboard based - are flexible and can prove effective for users who are intimidated by computers, allowing them to focus on the important things. The advantages of quick prototypes are that they offer realistic functionality, are user-driven and can be used for real testing.

## 4. PHASES OF THE PROJECT

The study started by gaining a better understanding of immigrants' needs and current challenges in participation. We did this by interviewing people working with immigrant issues in NGOs. In the following step, the challenges that immigrants face and possible solutions were discussed and explored in two workshops. The first of these was held with a group with people working with immigrant issues in NGOs. This identified different problems that immigrants face in understanding local services and grasping the potential of social media services that could be used to enhance immigrants' participation. Actual refinement of the ideas started in two workshops with final users and NGO workers. Initial results from the first stage of the project shows that the needs detected by the workers and by the immigrants coincide. However, at this stage, we are still working on the development of possible solutions using mobile phones. A summary of adopted design methods, the role of participants in these and the outcome of each stage in the design process are listed in the Table 1.

Method	Participants	Participant role	Outcomes
Interviews	NGOs	Informants	needs, challenges
Workshop 1	NGOs	Informants	ideas
Workshop 2	Immigrants	Informants	proposals
Core-team workshops (ideation, <i>Future Workshops</i> , prototyping)	designers, NGOs, immigrants, researchers	co-design, decision making	prototype
Development	designers	development	prototype development
Evaluation	open to all participants	evaluator	feedback, suggestions

**Table 1.** Summary of adopted design methods, participants and outcome in each phase.

## 5. CONCLUSIONS

The APPS4ME project faces a complex challenge: to improve the integration of multilingual citizens at risk of exclusion by means of a bottom-up participatory approach. Governments and NGOs have put massive effort into providing support materials, courses and support centers for immigrants. These initiatives have mainly focused on providing online repositories of multimedia resources, such as documents, webinars and videos. Instead, it is necessary to build up local communities through intercultural communication to prevent immigrants from suffering from personal isolation. Immigrants typically face challenges in critical situations that can arise anywhere and anytime. Moreover, local social networks can motivate community building to connect immigrants with native citizens in order to foster communication. For this reason, we believe that the most innovative aspects of the project can be summarized in the relationship between the methodological approach, the technological solutions, and analysis of the impact achieved by end users. Our assumption is that it is necessary to provide support *in situ* during the design of these resources and activities.

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