Design of an App for the Awareness of Active Ageing Linked to Cultural Heritage

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Abstract. The promotion of cultural heritage is an area in which older people can be actively involved, as their experiences and memories are an active and relevant source of information. However, older people are not fully aware of this. Therefore, it is important to promote a campaign of awareness towards them in this aspect, since this would also contribute to favor an active ageing, enhancing certain cognitive capacities. New technologies are an increasingly useful mean for this active ageing, with mobile phones, tablets and computers being used more and more commonly among the older population. The development of mobile applications for use with these devices is on the increase, solving the limitations that the elderly population would have towards the use of these new technologies. The aim of this project is to design an app for the dissemination among the elderly of the awareness of active ageing linked to cultural heritage. Taking into account the requirements associated with the limitations of the elderly for its correct use, a very simple app for Android platform has been designed for Smartphone devices through which they can access content corresponding to different cultural areas, mainly composed of videos in which elderly people promote cultural heritage. This app, which has an interface very simple with few buttons and easy menus, supposes an important means to promote active ageing using cultural heritage, involving them more and more in the use of new technologies.

Keywords: Active ageing · App · Awareness · Cultural heritage

1 Introduction

Mobile applications have become an essential tool in our daily lives. These applications allow the user to access and manage any type of information quickly, directly and practically from anywhere. It is for this reason that together with the mobile device they form an essential union in different sectors [1].

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The number of apps with application in the field of active aging are increasingly been used [2]. There are multiple applications for cognitive stimulation of the elderly, fitness and even many of them for the access to social networks to share their experiences. The AGEment project [3] aims to raise awareness among the population, especially adults and elderly people, towards the concept of active ageing, linking it to cultural heritage. The objective of this work is to design an app for the dissemination of the awareness raising material created in the project.

2 Methods

2.1 Platform

The first question when implementing an app is what the target platform is. The two main platforms are Android and IOS. For this development, the target platform chosen for Smartphone has been Android. The main reason for choosing Android has been the number of users of this platform, superior not only in Europe but also in most of the rest of the world (Fig. 1) [4].

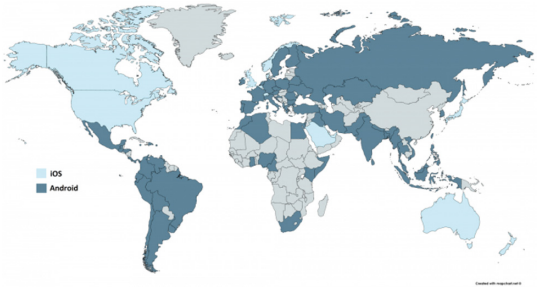

Fig. 1. Distribution of prevalence between Android and IOs operative system worldwide

In addition, regarding the number of downloads of applications, the google market is far higher, as reflected by the data (Fig. 2) [5]. So, we think it can have a greater impact.

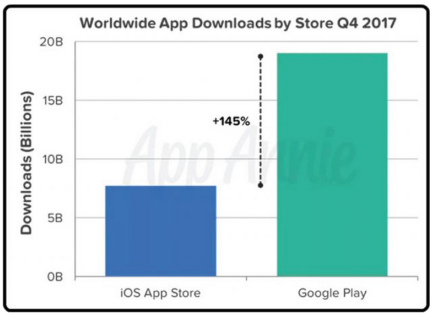

Fig. 2. Number of downloads: IOs vs. Android

2.2 Requirements

Given that the main target audience of this app is the elderly, its design aims to minimize the options for interaction without decreasing the functionality of the app. To achieve this in the design, the following requirements have been taken into account:

- Minimize the number of buttons with which to interact
- Maximize the size of all interaction systems
- Prioritize images and video over text
- No drop-down menus
- All possible links are on screen and not hidden

The development of this type of apps requires the use of a participatory design process with the different end users and stakeholders involved during the problem definition phase [2]. In the AGEment project, some partners work directly with elder people and stakeholders related to health care providers, so they have involved them in the selection process of the above-mentioned design requirements.

According to the objectives of the project and the work carried out to define the generation of content for awareness-raising, these have been organized as follows:

- All contents have been organized in European cultural heritage areas.
- The contents have been multimedia material, mainly videos in which the adults themselves are the protagonists of their experiences and knowledge related to concepts of active aging.
- The contents have been labelled to facilitate their consultation.

3 Results

Based on the identified requirements, the app has been designed for Smartphone devices. Figure 3 shows the app starting screen.

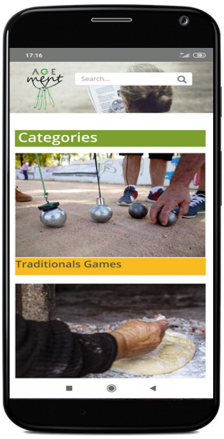

Fig. 3. Starting screen of the app

As can be seen, the interface is very simple and there are no submenus. At the top, in addition to displaying the project logo, it also incorporates a search bar so that users can search the video directly. Then, and according to the contents, the categories corresponding to the cultural areas of the case studies appear. Each category element consists of a representative image and the descriptive title of the category.

When a specific category is accessed, the user will be able to view a list of all the resources in the category (Fig. 4). As in the previous screen, each element shows an image and the title of the video. The user will be able to click on both the frame and the title, being the interaction easier for older people in this way.

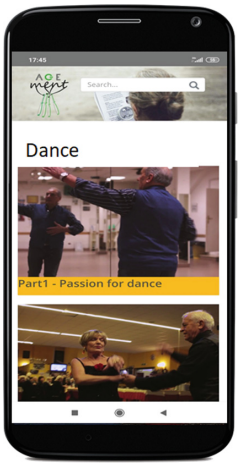

Fig. 4. Example of video list for dance category

Clicking on a specific video, a new window with the video to reproduce and a broader description of the content of the video and related areas of active aging and cultural heritage will be shown to the user (Fig. 5).

When the user wants to play back the video, this will be displayed in full screen. This video will incorporate the playback controls (Fig. 6).

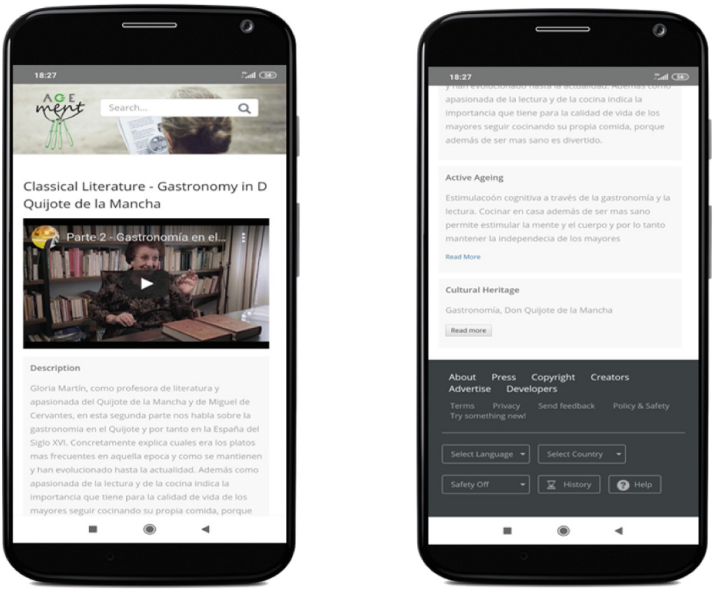

Fig. 5. Screen show the selected video and its description in detail

Fig. 6. Example of full screen video

4 Conclusions

The resulting app is the first one aimed at raise awareness about the importance of active ageing using the cultural heritage for older adults, as well as to incorporate the physical, cognitive and social activities during the daily life contests as a part of ageing well process. Therefore, this result combines current user-centered technologies to provide an innovative tool that allow self-training and delete the existing barriers between the

ICT and the elderly. This developed app will facilitate a progressive learning on ICT skills and will promote digital competences in Adults.

In order to increase the accessibility, acceptance and to facilitate the training communication, the app has been translated from English into the national languages of the consortium partners (Spanish, Italian, Portuguese and Romanian).

This app could serve as basis for include material and content to training another aspect of the active ageing, such as nutrition or security. For this, new practical cases and new videos would have to be created and incorporated in the app.

As future work, a validation of the app has to be performed to evaluate the user-friendliness and the appropriateness of the awareness content.

Due to the barriers of using ICT by very elder people, the app should also be available not only for mobile devices (tablets and smartphones), but also for SmartTV, as older adults can use the technologies with which they are more familiarized using just a remote control.

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