Mobile Application for asylum seekers[*]

Antonios MAKRIS[†], Eleni PETRAKI[‡], Xronis DIMITROPOULOS[§], Styliani LIBEROPOULOU[**], Konstantinos TSERPES[††] and Christos MICHALAKELIS[‡‡]

Abstract

The Greek Asylum Service has been operational for four years, in an environment characterized by rapid developments. The movement of refugees and migrants to Europe, was probably the defining development for our continent in the last two years. In 2015, the great unforeseen refugee influx led to the expansion of the Asylum Service. Our country is legally and morally obliged to inform and offer protection to refugees, irrespective of their numbers and whether they have entered Greece in a regular or irregular fashion.

Towards this direction, the Asylum Service, together with the Harokopio University of Athens worked for a jointly funded action of the Asylum, Migration and Integration Fund (AMIF) 2014-2020. The purpose of this action is the design, development and maintenance of a mobile application and the target group would be the asylum seekers who move or are transferred from the country's external borders, and especially the individuals with a refugee profile.

Keywords: Greek Asylum Service, Asylum mobile application, asylum seekers, refugees

Introduction

The Asylum Service ("Asylum Service | Ministry of Migration Policy," n.d.) has been operational for four years, characterised by the movement of refugees and migrants to Europe on a scale unprecedented in recent European history (Eurostat, 2016) ("Asylum in the EU Member States First time asylum applicants registered in the EU Member States," 2016). The great unforeseen refugee influx of 2015 led to the rapid expansion of the Asylum Service ("Asylum Applications -Gender and Age ranges," 2013). The Service's human capital increased significantly, partly thanks to European funds.

The Asylum Service understands fully the importance of the timeliness, authoritativeness and reliability of the information provided to asylum seekers, especially in an environment characterized by rapid developments in asylum law and practice. At the beginning of 2016, the Asylum Service signed with the Harokopio University of Athens, Department of Informatics and Telematics, the agreement for a jointly funded action of the Asylum, Migration and Integration Fund (AMIF) 2014-2020. The purpose of this action is the design, creation and maintenance of a mobile application and the target group would be asylum seekers who are in Greece.

The application draws on already existing material, its updating and its projection in a new user-friendly environment. Additional information on available services has been added. The visitor

will be able to see information, activities and procedures concerning the Asylum Service, all analytically displayed so that he/she can be updated on everything he/she needs to know to navigate the asylum procedures in Greece easily. The projected material is multi-lingual. The application is compatible with the most popular mobile operating systems. Into this context, the production of 10 short videos films with instructions and guidance concerning the asylum procedure in Greece have been designed to be uploaded on the mobile application.

The installation and use of the application is free. The downloading of the application and the data updates require an active internet connection, but the application can operate even in an off-line mode. On 9 May 2016, in the course of a one-day conference organized by the Asylum Service, the initiative concerning the mobile application was publicly presented.

Application requirements

According to the requirements of the application the user should have access to information, activities and procedures concerning the Asylum Service, all analytically displayed so that he/she acquires the ability to be updated on everything he/she needs to know in order to "function" as an asylum seeker. The application would ensure easy and quick navigation, as well as the flow of the necessary information so that the user understands the meaning of "asylum" and "international protection". The application should also support multi-lingual material and it should be compatible with the most popular mobile operating systems. Application downloading and data updates require an active internet connection, but the application must operate even in an off-line mode.

In a volatile environment, affected by uncertain factors such as war, foreign policy of many countries and mainly the people, it is obvious that data are very dynamic, changing on a continuous basis and therefore procedures must adapt to each time's conditions. Thus, these data should be offered in a reliable and timely way, since their main purpose concerns refugee survival and their everyday life.
The continuously emerging technology and mobile devices give an excellent opportunity to achieve this objective: users can install the application in any available device and operating system (Android, iOS, Windows) and gain access to information about the procedures and other crucial topics.

The main challenges and problems that had to be overcome during the design of the application can be summarized as follows:
- Adaptation to user specific features (language, cultural background etc) since it is a multi-ethnic mosaic of people from different cultural, educational, national and social background.
- Usability (maps, transport, multimedia etc) and what it implies in the light of the above challenge. For example, content direction in the Arabic language follows a "right to left" direction and important issues are expected to be found on the upper right corner of the screen, which is not applicable in the case of the English or French language.
- Adapting to current conditions and data (operation without Internet access, dynamic content update). The purpose is to keep the functionality transparent to any changes.
- Improving of service quality driven by the real needs of these people

To meet these challenges the application was suitably designed in order to adapt to the user specific features and provide reliable and on-time information. The application supports multilingualism and the supported languages are English, Greek, French, Arabic, Farsi/Dari, Tigrinya, Amharic

and Urdu/Punjabi. All information provided in Arabic, Farsi/Dari, Urdu/Punjabi are provided on a "right to left: direction. An example is shown in Figure 1 as well as the same example in English.
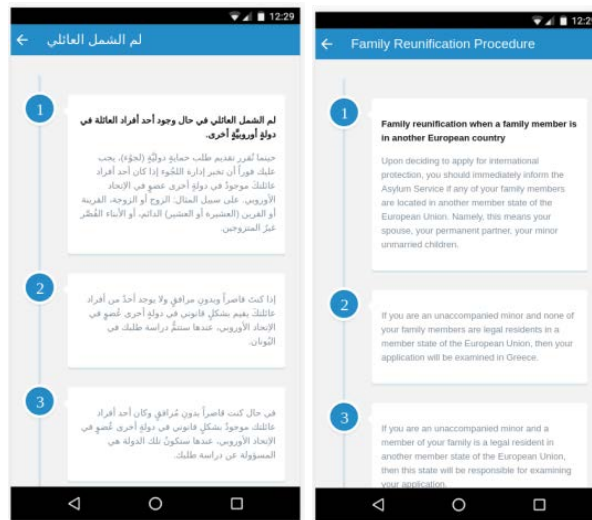

Figure 1. Example of content direction in Arabic and English

The incorporated maps are supplied with points of interest (POIs) and facilities, as well as flow charts about beneficiaries of international protection, links of international organizations and agencies, transport maps and videos with the asylum procedure. In terms of adaptability, the application's design was based on the assumption that users may not have a constant internet access. Additionally, the completion of the asylum process is a moving target because of the ever-changing high level policies the Asylum Agencies are meant to implement. Despite their remarkable effort, the interfacing and interaction with refugees is suffering from constant changes in the political agenda of large number of involved parties, including states, political parties, societies and individuals. The asylum seekers definitely need a smoother and direct way to keep track of the procedure changes and a more familiar interfacing with the Agencies.

The content relies on a dynamic database maintained by a web-based administration system (portal). The information is locally stored into the device, thus minimizing the need for a continuous internet connection. An internet connection is required during the first time the user downloads, installs and launches the application, in order to cache the contents from the database. All information and most of the services are then cached locally into user's device and can be displayed even when the user is offline. Every time the user enters the application the application automatically seeks and downloads all updates. If there no connection the application operates based on the last visited information until the user gains access to the internet and then updated again. This approach ensures the reliability and the on-time provision of the information provided to the end users. The architecture described above is shown in Figure 2.
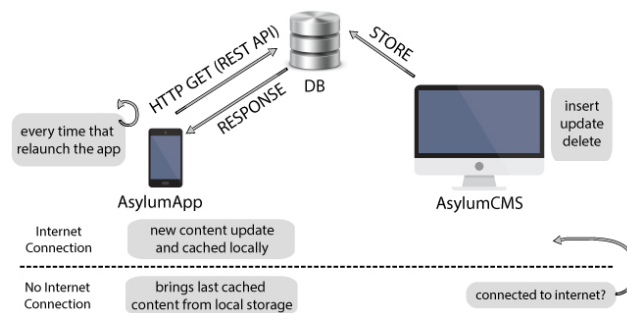

Figure 2. System architecture

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It is important to mention that the application does not keep, or otherwise edit sensitive or personal data. The only information that is anonymously stored, only for statistical reasons, is the preferred language and the device last known location.

The application

The application development was based on AngularJS (Google, 2015), AJAX ("jQuery Learning Center," n.d.) and Javascript ("JavaScript," n.d.) using the Ionic framework (Drifty Co., 2016), phpMyAdmin ("phpMyAdmin," 2017) and the CodeIgniter php framework (British Columbia Institute of Technology, 2016).

Information and views of the application

Application users can access information regarding the asylum procedures and especially those related to the necessary steps for asylum registration (international protection), pre-registration, relocation and family reunification. Reliable and timely information is provided to third-country nationals, who are currently in Greece and wish to submit a claim for international protection. Information about the weather conditions, public transportation and general information for Greece are also provided. In addition, there is a short dictionary of Greek words for refugees, aiming at helping them for their interaction with local populations, a translation tool, contact details, useful links and notifications from the Asylum Service. There are also several images that help the user to point about food, facilities, health etc. Subsequently, users are able to see on a map the points of open accommodation facilities (Refugee hosting centre and Hotspots) as well as the points of interest in Greece (NGO's, medical centers, hospitals, local authorities, asylum units and regional asylum offices).

Finally, the user can be informed about the asylum Skype schedule and make a direct call to the relevant asylum service office. The application allows "dynamic" Skype calls, into the sense that the user is able to contact through Skype if the asylum Skype service is able to serve on this day, for the preferred language and within the servicing hours, according to the timetable, which is also stored into the application. If a Skype call is not available at this time, the application informs the user about the next available time slot.

A representative set of the application's views, regarding the functionality and services that provided to the users, are shown below:

Figure 3 illustrates the main view of the application. The user can access the following information: "Asylum: step by step", "Preregistration", "Relocation" and "Family Reunification". Users are also able to see, on an interactive map, the points of "Open Accommodation Facilities" (Refugee hosting centers and Hotspots) as well as "Points of Interest" in Greece (NGO's, hospitals, local authorities, asylum units, regional asylum offices and the international organization of migration). There is also a short Greek dictionary - "Mini Lexicon", a translation tool - "Translation", information about public transport – "Transport", weather information - "Weather" and general info about Greece. Finally, there is a view - "Point it" which helps the users to point at something they need to access, e.g. food, milk, shelter, medical help etc.
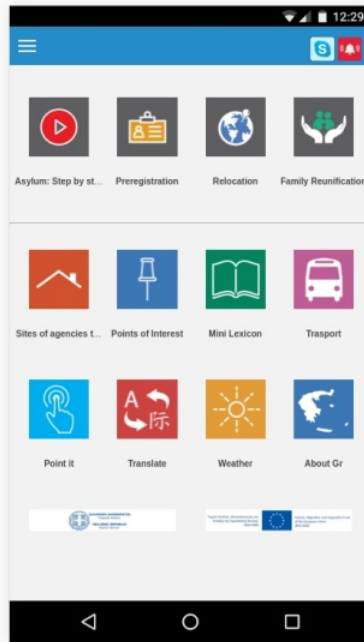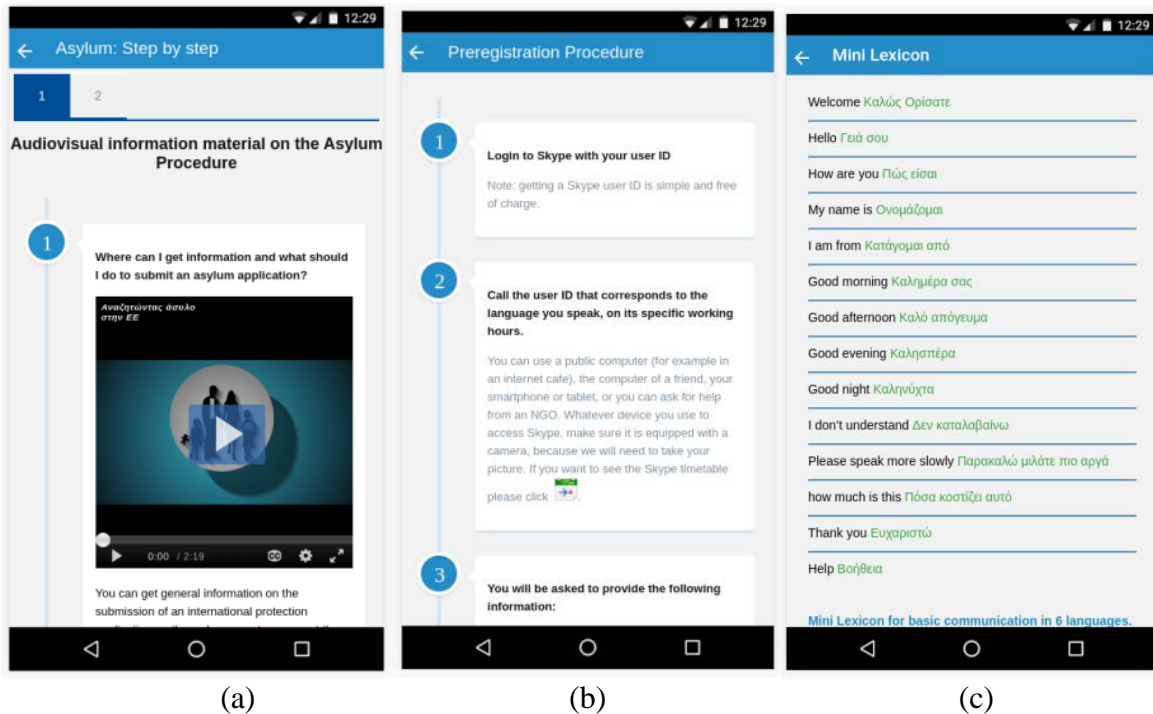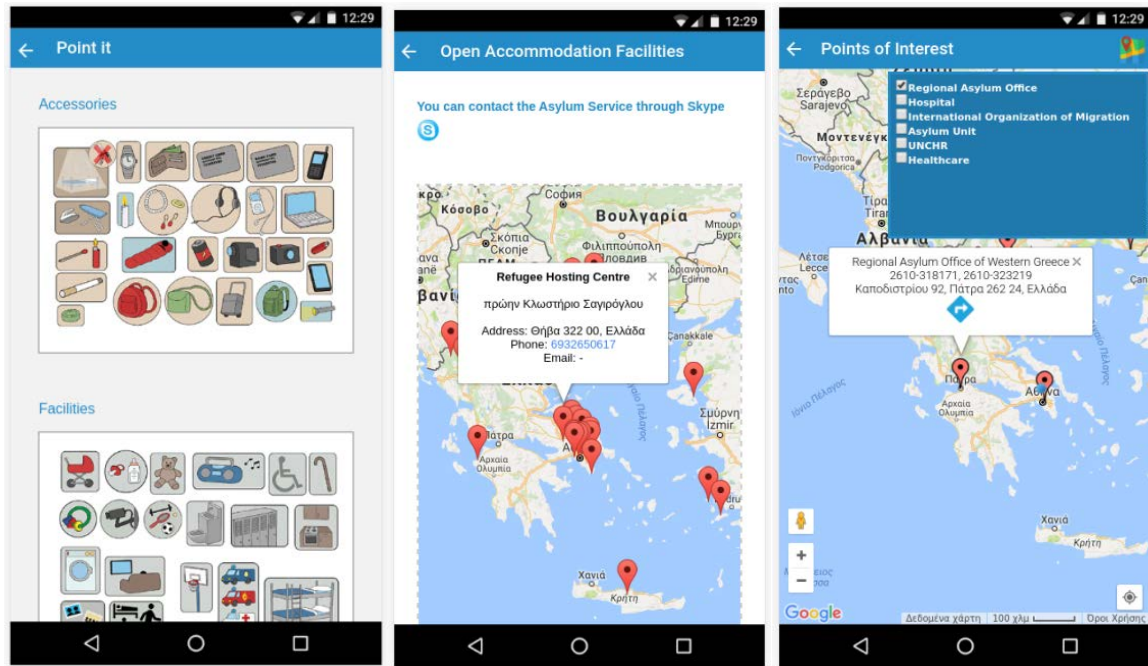
Figure 3. Main view of the application

Figure 4 shows the views about the procedures (a) "Asylum: step by step", (b) "Preregistration" (c) "Mini lexicon, (d) "Point it ", (e) points of open accommodation facilities map and (f) points of interest in Greece, such as NGO's, hospitals, local authorities, asylum units, regional asylum offices and the international organization of migration.

(a)

(b)

(c)

| (d) | (e) | (f) |

Figure 4. Procedures (a) Asylum: step by step, (b) Preregistration, (c) Mini lexicon, (d) Point it (e) Open accommodation facilities, (f) Points of interest in Greece

Administration system

The administration system "Asylum CMS" was developed seeking to solve two major issues of the mobile application, the support of multilingualism and the need of a daily content updating. Maintenance of the "Asylum" mobile application includes: Charts, Content Items, POIs, Facilities, Notifications, Skype Schedule and Media Manager.
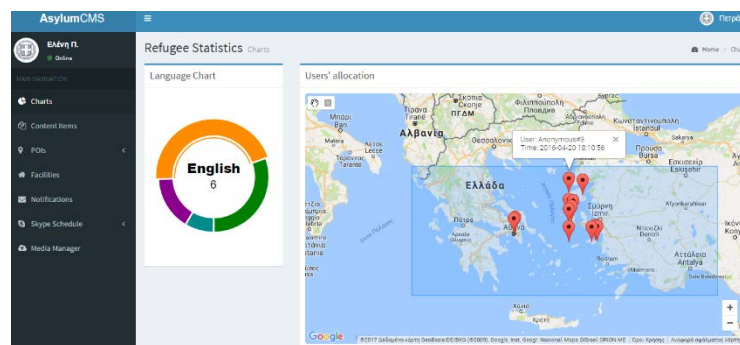

Figure 5. Charts with languages and last known location

As an example, Figure 5 illustrates the refugee statistics of the mobile application users and consists of the language chart diagram.

The dynamic content update is one of the most essential functions and the reason is that gives the ability to manage all the content of the mobile application with simplicity.
As already mentioned, one aim of this project is the development of an application that supports dynamic content management. Skype scheduling is an example of such a kind of functionality,

since it has to be updated almost every day. For that reason, administration system provides a simple and quick way to add a new Skype line either at the schedule of relocation either at the Skype schedule of Asylum/Preregistration.

Conclusions and future work

The paper describes the action regarding the design, development and maintenance of a mobile application for asylum seekers who move or are transferred from the country's external borders, and especially the individuals with a refugee profile. The application is part of a joined action between the Asylum Service and the Harokopio University of Athens, Department of Informatics and Telematic and it is funded by the Asylum, Migration and Integration Fund (AMIF) 2014-2020.
The application provides official and up-to-date information regarding the asylum procedures, including pre-registration, relocation and family reunification, as well as useful information such as weather conditions, public transportation, a short dictionary of Greek words, useful links and notifications from the asylum service. There are also several images that help the user to point about food, facilities, health etc. Subsequently, users are able to see on a map the points of open accommodation facilities (Refugee hosting centre and Hotspots) as well as the points of interest in Greece (NGO's, medical centers, hospitals, local authorities, asylum units and regional asylum offices). Among the important characteristics of the application is that the user can be informed about the asylum Skype schedule and make a direct call to the relevant asylum service office.
Among the directions of the future work is the gathering of usage statistics and their consequent analysis, in order to derive useful information regarding its acceptance and diffusion among the asylum seekers and useful information regarding the asylum seekers themselves. This information can be, among others, a valuable input for the improvement of the offered services and a helpful decision making tool.

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