

**MOBILE APPLICATIONS AND INTERNET OF  
SERVICES FOR THE EMPOWERMENT OF  
DISPLACED PEOPLE AND MIGRANTS**

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Due to the technological development we faced problem of not implementing new technologies in order to help displaced people and refugees or sometimes we only introduce some basic services. It is necessary to remind about disasters which we unfortunately can't predict and which usually completely change citizens' life. People have to move from their neighborhood to other places (usually) to other countries where they do not know local cultural specification and traditions, local laws and they are not able to assimilate easily.

Technological development already introduced to us global networks – like Internet and GSM, and mobile technologies and devices – like cellphones, tablets and laptops.

The most common and popular solution is our cell phone. For the last 10 years manufacturers brought

cell phones to the new level of development – with cell phone hardware and software called mobile applications which resulted to the fast growth of mobile devices and applications popularity. Mobile devices give us mobility and it is one of the key factors made them popular.

Traditionally, mobility has been divided into four different categories [1]. The first mobility type is terminal mobility, encompassing portable devices that can communicate regardless of location. Personal mobility (or user mobility) is when a user can switch between devices and/or networks and keep her user identity. The third mobility type is session mobility (or continuous user mobility), achieved when keeping media streams or other types of session alive although changing location, device and/or network. Lastly we have service mobility, defined as making services available to a user regardless of terminal, network or other context parameters. Four components are needed to achieve service mobility: a mobile device; network connectivity, supporting mobility; an application providing an interface for user interaction; and a service. Regarding mobile devices, common examples are smartphones and tablets. Developers of mobile applications are focused on spread service-oriented approach all around the world. It tends to the algorithm when applications send data from the mobile devices to the remote server which leads to the big amount of data stored there. Now companies first

think about mobile application and service it would bring than about traditional PC-software and only after that extend software on mobile platforms. Many chief information officers and analysts now bundle mobility with other recent developments like social, cloud and analytics. These four trends are together called SMAC, a term that describes the close association between social, mobile, analytics and cloud [2].

In terms of business opportunities there are already many “e-” services which available through the Internet and via mobile devices (e.g. e-health, e-agriculture, e-commerce, etc.). But the most important from them in our opinion and not from business prospective are services focused on education, law, health and socialization. Mobility brought us within mobile devices and remote servers opened new wide range for the applications and services they provide in these areas. Modern smartphones are able to provide information about you location, frequencies of your text messages you send, average length of your talks etc. All this data helps to personalize applications installed on the smartphone and make service it provides more efficient. Personalization approach within mobility opens wide range for improvement efficiency of applications providing different services. It is also support citizen(consumer)-centricity approach which is commonly used nowadays in different governance areas.

Internet of services and mobile applications for displaced people, migrants and refugees cover the following areas:

- employment;
- skills recognition;
- housing;
- health care;
- finance;
- education;
- youth services;
- vocational training;
- aged care;
- family support.

And there is a group of information services which should provide access to the full range of services mentioned above.

In spite of the fact that services for different groups of migrants have considerable commonality, their effectiveness depends on the ability to adapt them to specific groups and even personalize them. Models for providing information to migrants can become more centered on their problems. Such services may be based on the citizen(consumer)-centricity approach.

This approach today is the basis for business development. Customer-centricity takes customer focus to the new level – and improves loyalty and profit, First



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of all it takes into account three aspects: customer lifecycle, customer experience, customer value. The obvious problem for the implementation of this approach is the lack of reliable information on migrants, often due to language problems when filling out questionnaires.

Active use and integration of information from different sources, such as social networks and public data is possible by obtaining the missing information in order to make information services for displaced people more personalized. It is also important to store information about previous calls for displaced people services.

Establishment of standards for the collection and use of information on migrants and displaced people, as well as the principles of the collaborative use of this information would receive and collect information about the life cycle of migrants and displaced people on the basis of which it is possible to improve services and delivery methods. In particular, this can be done on the basis of a single standard for identity of the migrant and displaced person.

Another important aspect is the involvement of e-consultancy for introducing new services. Successful e-consultancy implementation must present the migrant and displaced people consultancy portal as a single enter to its users. Much emphasis should be given to the usability of the services. Qualified advice should cover

all areas, mentioned above and be provided with all available information.

There are few service already introduced for the displaced people. One of them is developed to help displaced people to stay in touch with their relatives and remain being a family even if all the family members are not able to meet each other for some time [3].

There should be multi stakeholder approach introduced in order to define particular set of services and mobile applications which should be developed and provided for free to displaced people and migrants to help them assimilate. There should be discussion about benefits for business being involved in development process – advertisements in applications for free for business to cover expenditures for the development. Or there might be governments introduced as main subsidizers of the development process.

Key considerations for integration/information strategies [4]:

- maximising the potential for joint working and collaboration between state and NGO providers
- different strategies of information provision may be needed for different categories of migrants
- inclusion of a user perspective on information and service provision
- need to prioritise groups who are disadvantaged and to tackle issues and problems of access migrants

information needs differ in some respects from national population – compliance with complex legal requirements

The main conclusion is that both state and business in all the countries should be involved as well as public society and NGOs into the development and implementation process of the Internet of Services and mobile applications for displace people and migrants.

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