

# Chapter 19

## Open Personal Identity as a Service

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**Abstract.** The mobile technologies establish communication environment where mash able solutions are more than convenient. Open personal identity is independent service which is gathering available identity resources and provides unified person identities. The service enables to resolve current mobile device problematic around multiplicities, backup or change management of person identification where multiple devices replication is an option.

### 19.1 Introduction

Do you remember the situation when you have changed your phone number and you had to tell this change to all of your friends, relatives even workmates? That time is over with the Open Person Identity as a Service. Imagine worldwide Internet service which provides on-line personal information such as mobile numbers, current living address or current friend's cross different social media. There are many advantages of usage of such a kind of service. We would like to introduce some of them in more details.

The modern knowledge society produces much more information than we are able to consume and therefore the utilization or clarity of information is more than convenient. Only those kinds of services which are not complicated or confusing would be accepted by many and the strength of intuitive factors for applications or services behavior will increase in time. That's why social media have such power of influence because they are gathering information from many sources in easy and comprehensive personal way. The problem is when you have more social media then the amount of time spent by scanning or posting into the different sources would not be efficient. The case is about to find an open solution which consolidates all media in one place and basically provide personal social connector as a convenient user-friendly solution with an easy and comprehensive user interface.

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## 19.2 Problem Definitions

The amount of social media networks, multiplicity of personal identity[2] and the inconvenient way of handling the important personal information lead us to think that there some better ways how to make our lives a little bit easier. That's why we start to think about the problem in terms of usability in current available on-line social technologies [8, 9].

We started to ask how to solve our daily life common problems and we summarized them in following questions. What if we have more than one mobile device but each one of them has a different content? Or if we have just one mobile device but we lost it? Could we exchange mobile device platforms without any inconveniences? Do we have to notify everyone when we change our mobile number or even when we do not use it anymore as an identity? When we answered positively to some of those questions, we considered us in correct problem definition [10, 11].

That was just a brief overview of a complex task to solve. In this article we are focusing on personal identity service which is used for virtual personal identification and enables communication between people over modern technologies; nevertheless we consider that kind of service as open and as an independent concept where commercial influences are minimized. At first we describe communication process between two or more sides where communication could be established if there is an existing compatible informational data flow exchange between mobile device clients. To start process at first we need to know the identity of persons with whom we would like to communicate. The identification of personal identity consists of our tacit knowledge where the identity is located in available informational resources and how is the identity knowledge externalized by visualization in comprehensive form. After correct identification of required person the communication process can start.

As current personal identification mainly used in mobile devices we assume a phone contact list where identities are expressed by names, personal pictures or associated phone numbers. That kind of establishment was made by mobile providers over the world. Another personal identity used in mobile device communication that we recognize are the instant messaging systems where identities are commonly defined by user name coded by sequence of characters. We consider these types of identification as obsolete and we propose a new concept in chapter New Design.

Also we define the environment as an on-line with unlimited access to the Internet according to the fact that the increasing mobile device on-line connectivity is arising. We announce the off-line mode of Internet connectivity as temporary state which is identified by status of not connected client and which would be changed by user interaction or predefined settings device behavior to on-line mode and proceeds in delayed tasks. We considered on-line Internet access to mobile device in terms of synchronization of contact list with the Open Person Identity Service (OPIS) over message based client-server where changes are only made by authorized identity owner. In those terms of change management we defined following concept of Front-End and Back-End where: