



D3.3.1.2

Demonstration of profile updating features

Author(s): Magnus Melin, Sari Vainikainen

Confidentiality: Public

Date and status: 21.12.2011 Version 1.0

This work was supported by TEKES as part of the next Media programme of TIVIT (Finnish Strategic Centre for Science, Technology and Innovation in the field of ICT)

Participants	Name	Email
VTT	Melin Magnus	magnus.melin@vtt.fi
VTT	Sari Vainikainen	sari.vainikainen@vtt.fi

next Media
www.nextmedia.fi
www.tivit.fi

Table of Contents

1 List of Acronyms and Abbreviations	3
2 Introduction.....	4
3 Demonstration of profile updating features.....	4

1 List of Acronyms and Abbreviations

OAuth	Open Authorization
REST	Representational State Transfer
API	Application Programming Interface
URI	Uniform Resource Identifier

2 Introduction

VTT has developed a prototype of a profile service and methods for semantic user profiling and recommendations. The aim is to support the creation and utilisation of semantic portable user profiles that can be used in multiple services with the user in control. The demo of the profile service can be found at <http://profile.vtt.fi> and video at <http://www.youtube.com/watch?v=OKCse-ZKdXk>. Semantic portable profiles have been tested in different cases such as recommending events, magazine articles and services.

One important aspect is how the utilisation and updating of the profile can be integrated into media services. This demonstration is targeting developers who would like to use the profile service as part of their service. It gives an overview of the profile service APIs and shows how they can be used for creating, updating and utilising the profiles. The demonstration shows how a user's interests in a media service can be updated to a user's profile, to the benefit of the user whose profile is then automatically kept up to date.

3 Demonstration of profile updating features

To enable 3rd party sites to focus on their own core business and still get semantically enhanced recommendations, the profile service features a REST API which lets 3rd parties integrate with the profile service. The API is described in detail on <http://profile.vtt.fi/api/doc/profile/>. It supports actions to create, read, update and delete profiles.

There are two ways to use the profile API. If the user already has a profile, the 3rd party can access the user's profile, with the user's consent of course. The approval process follows the OAuth protocol, version 1.0. Once the 3rd party initiates the approval process, the user gets sent to the profile service and presented with a question "The site example.com wants to access your profile, is this ok?" When the user confirms the request, the 3rd party is issued a grant to access the users profile information. The user can later revoke this grant whenever he wants, and can also see logs on when his profile information were accessed by the 3rd party (this is done on the account page in the profile service). The steps of the approval process is visualised in the Figure 1.

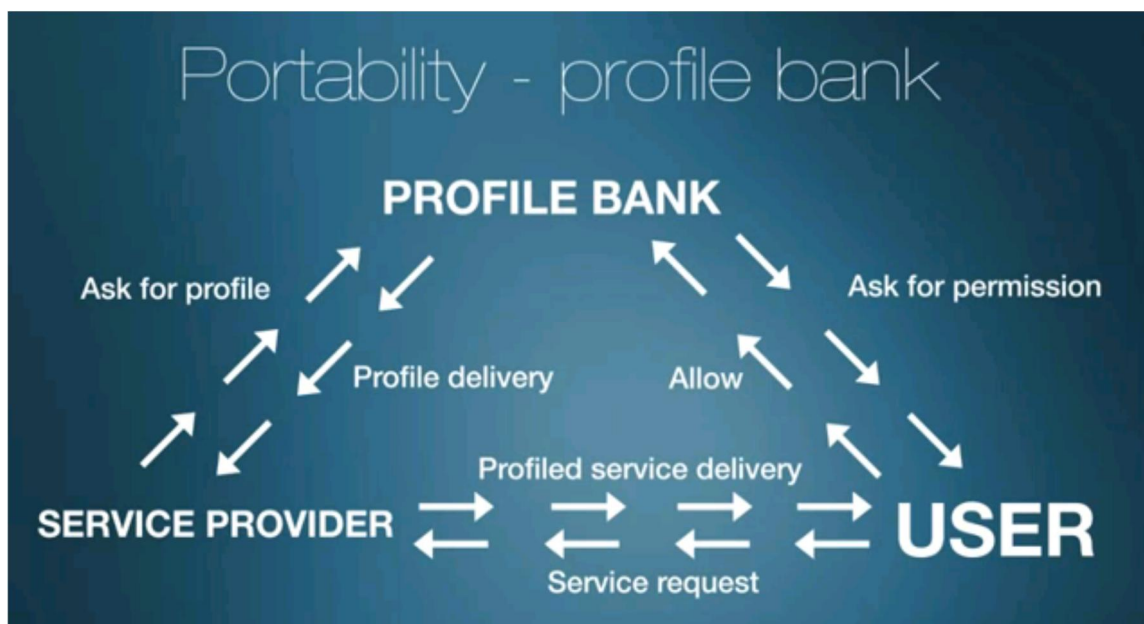


Figure 1 The approval process for a service to be allowed to use a user's profile.

If the user doesn't have a profile set up, the 3rd party service can also create an anonymous one on the user's behalf. This workflow also uses OAuth to read, update and delete profiles - the OAuth consumer credentials are given as return value of the initial create profile call. The user can later choose to actively take control of their user profile if the 3rd party reveals the profile ID to the user.

Tags added through the API can be freeform keywords or semantic tags (with label and URI). If the URI isn't set the tag is put through the semantic analysis process. The tags importance can also be given, as well as concurrent tags to help the semantic analysis.

A small demo can be found on <http://profile.vtt.fi/api/doc/profile/ex/>. In this example a profile is created using calls to the profile API. When links are dragged and dropped into a basket, a JavaScript handler functions calls the API, adding the dragged concept as an interest in the created user profile. When a concept has been added, one can hit the "Read profile"-button in the page to confirm that the operation was successful. The sample profile is automatically deleted when the user exits the page. In the Figure 2 The example page where you can drag'n'drop tags to a profile created by API calls. Figure 2 you can see the example page where you can drag'n'drop tags to a profile created by API calls. These tags demonstrate a user's interest gathered from a service. By viewing "page source" in the browser you can see how the functionality is implemented in JavaScript.

Profile API example

This example shows basic create profile, read profile, update profile and delete profile [API](#) usage. For real usage, the calls that modify should be server side, otherwise someone else might update the users profile in your (your applications) name.

Drag'N'Drop tags from suggestions to basket to update the profile.

Suggested interests (your service)

The links below can be thought of as tags. They have labels, and sometimes uris (text and href). Drag and drop any of the to the basket to invoke API calls to add them to the sample profile!

[Africa](#) [Mozart](#)

Basket

[Ludwig van Beethoven](#) Richard Gere

Current profile; id=e56eeac2-6235-4238-8258-c8008ab56657

To take control of this profile, click the button above ^^ . After you log in the tags are listed under 3rd party tags.

--

For details on this example, please see the [source code](#) of this page.

Figure 2 The example page where you can drag'n'drop tags to a profile created by API calls.

By clicking the created profile id you can access the profile information by login to the profile service (see Figure 3). Automatic profile updates are visualised to a user in “3rd party tags” –tab in the profile service (See Figure 4). Users are able to modify or remove these interests.

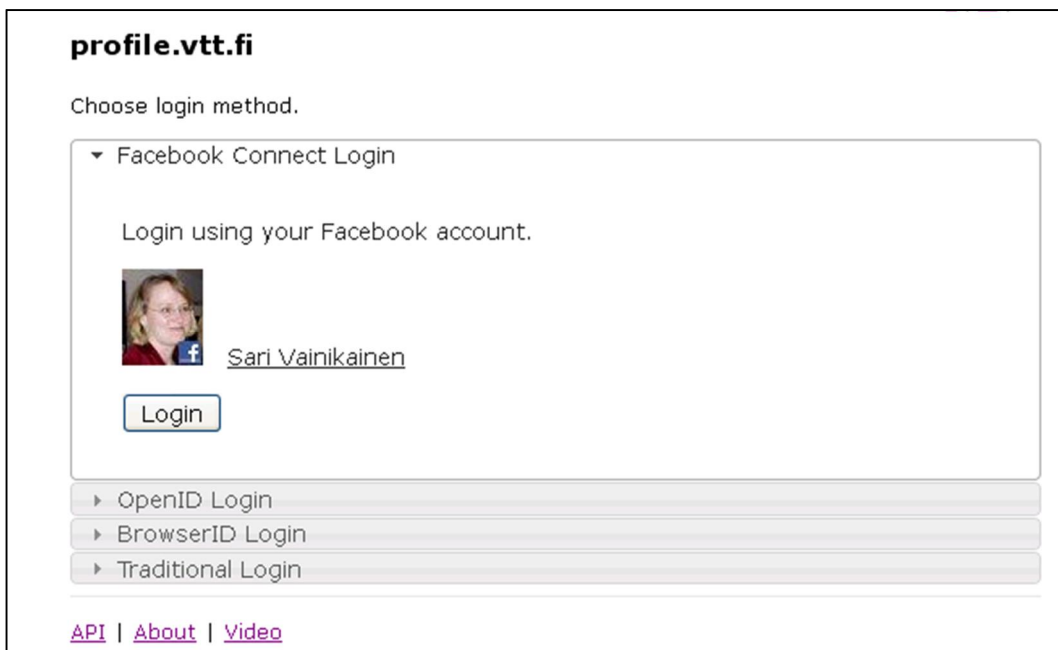


Figure 3 Screen you'll be taken to, to login and take control of the profile created on your behalf. For convenience you can use Facebook/OpenID/BrowserID to log in.

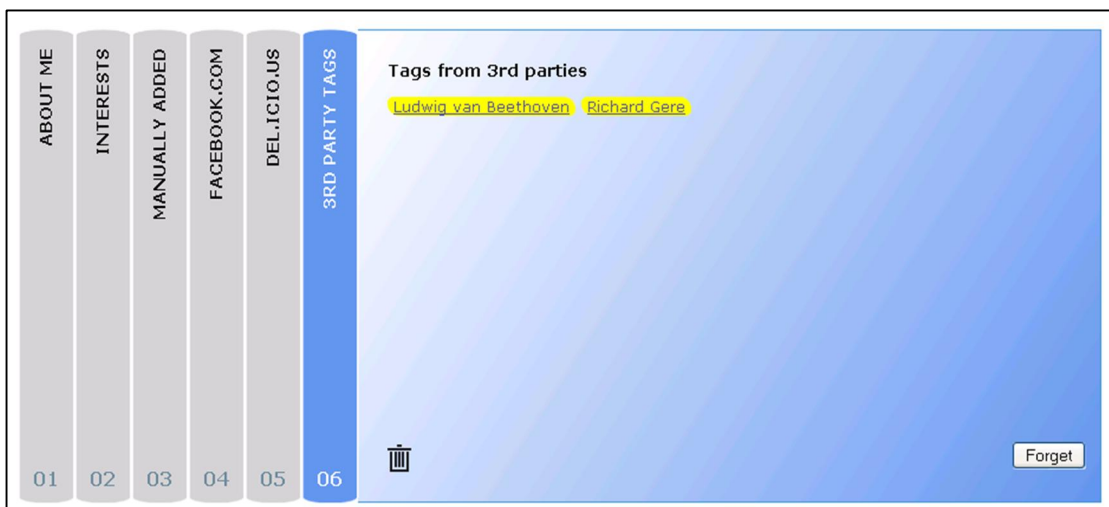


Figure 4 The tags added by 3rd parties, as shown on the profile page.