

# Promoting Social Networks in a large Enterprise

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## ABSTRACT

In this paper we describe a Web 2.0 showcase that has been developed and exhibited at a large company exhibition. Aim of this showcase was the interactive demonstration of Web 2.0 tools as well as raising the awareness of existing social networks within the company. We describe the technology developed, the setting of the exhibition as well as user feedback.

## Author Keywords

Web 2.0, social networks, RFID, visualization, mash-ups

## SYSTEM OVERVIEW

To promote awareness about the applicability of Web 2.0 concepts and applications within the enterprise, a large German company decided to develop a Web 2.0 showcase for its innovation exhibition. Aim of the showcase was the identification and interactive presentation of social networks between the visitors of the exhibition. After an analysis of different approaches and systems that have been developed within the CSCW and HCI community [1-6] to the company representatives, several approaches were selected and developed

The showcase consisted of several components that were used before and during the exhibition. The following figure illustrates the components and their interplay. We will describe each in more detail in the following sections.

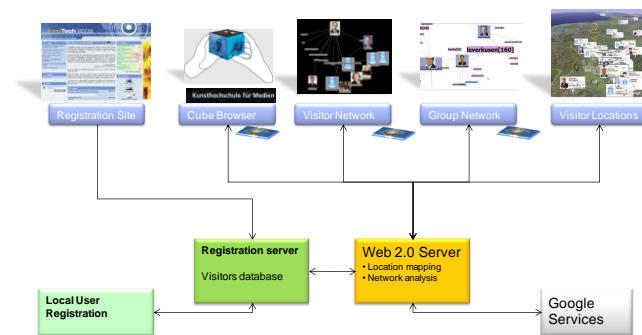


Fig. 1: System Overview

## Registration Site

Participation to the innovation exhibition required the registration at a web-based registration site. In addition to the standard address information, people were also asked to upload a portrait photo and to provide some keywords about the following properties:

- Locality
  - Place of work
  - Place of birth
  - Favorite holiday location
- Favorites
  - Favorite football/soccer club
  - Sports
  - Drinks
  - Books
  - Music
- Work topics

The registration site provided also up-to-date information about the exhibition program, a poll to vote for favorite topics as well as a blog that was used by presenters and exhibitors to report about their exhibition. The registration site has been developed as an MS-Sharepoint site.

## Onsite registration and RFID badges

At the welcome desk of the exhibition users were provided with a name tag that was actually an RFID tag. The ID of this RFID tag was mapped to the corresponding user entry in the registration database. This enabled users to interact with showcases as describe below.

Furthermore users had the opportunity to make a portrait photo at a web-cam station in case they did not upload a portrait beforehand.

## Web 2.0 Server

The so called web 2.0 server retrieved the registration information through a web service from the MS-Sharepoint database. Its main task was the analysis of the user information for the development of user networks based on the identification of similarities of the provided user information. The server itself used Google services to map the location information to geo-coordinates.

The server provided the access to this network information to the different showcases by web-services. In the following we describe each showcase in detail.

## Visitor locations

This showcase demonstrated the use of mash-ups to present visitors birth places and favorite holiday locations using Google Earth. For each user/location a small flag was created that contains the user name, portrait, and location name. This information was represented in a .kml file and

the Google flight feature was used to constantly animate the presentation by visiting one user/location flag after the other.

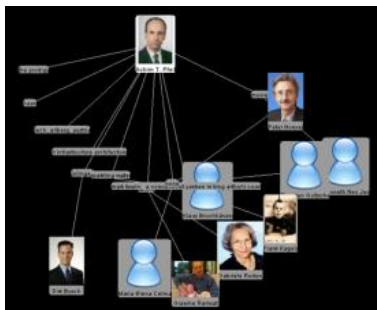


**Fig. 2: The visitors location showcase**

Figure 2 illustrates this application as well as the presentation environment.

**The user network**

This showcase required user interaction by positioning the visitors name tag (actually the RFID tag) at an RFID reader. This resulted in the presentation of the users network on a touch sensitive plasma screen. The network presented the user as a central node as well as all connections of the visitor to other visitors based in the visitors provision of identical and similar keywords (Fig. 3).

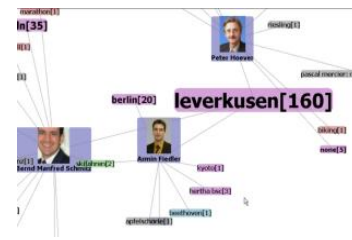


**Fig. 3: The user network visualization**

Visitors could interact with the display by selecting either arcs or other visitors portraits. In this case the corresponding links were highlighted to present the sub-network that spans around that topic or user.

**The group network**

This showcase required the interaction of a group of visitors. Again visitors had to identify themselves by their RFID name tag. But instead of presenting the complete network of a single user only, the network of the last 3 visitors who visited that showcase was shown. That enabled users to explore the particular network of a group of visitors.



**Fig. 4: A group network**

Figure 4 presents the similarity network of 3 visitors.

**EXPERIENCES**

The show case was demonstrated for during 2 days. About 500 people visited the innovation exhibition who were both employees as well as customers. The Web 2.0 showcase was situated in the entrance areas just after the registration desk and in front of a coffee bar (Fig. 5).



**Fig. 5: The Web 2.0 showcase presentation**

In the following we list experiences and user feedback collected during the exhibition.

The Google Earth based location map received most interest. Often crowds of people (15-25 visitors) gathered in front of the display watching the flight over the different user flags. The usual time visitors spend in front of the display ranged from 3-10 minutes. This lead to reactions such as:

- “Oh, I didn’t know that other colleagues are also born at my birthplace”
- “Next time I meet Mr. XYZ I need to talk to him about his birthplace”.
- “Look the secretary of Mr. XYZ, is making holidays in that exotic place!”

But often visitors were also interested in the mash-up technology that was used to develop that use-case. Visitors of sales departments developed ideas to map customer information onto Google Earth.

The user network visualization was used by visitors to explore colleagues and other visitors with similar interests.

Often visitors selected a particular keyword to identify those colleagues who share that interest. Most often that was done for sports interests leading to reactions such as “I didn’t know that he plays tennis. Next time I meet him we should talk about a match”. The user network presented only the network of a single user, i.e. was not possible to browse through the network from user to user in order to follow up relationships. We did not implement this feature for privacy reasons. However this feature was demanded by many visitors as they were curious to explore the network of people they are connected to.

The group network was mainly used by groups of visitors who were curious to explore their similarities. In cases where several similarities existed this was often commented in an amusing way and as a follow up other colleagues were called in to explore the relationships between different group settings.

In general the whole Web 2.0 showcase was received very well and it led to a number of positive comments. Many users who did not provide their portrait at the web-site registration went back to the registration to take a portrait photo after they have seen the showcases.

Discussions with visitors led to a number of ideas for the application of the show case within the enterprise:

- Sales people were interested to use the network analysis for customer relationship management
- HR managers developed ideas to use the concept for competence and experience visualization and exploration
- Employees suggested the installation of the showcase in the canteen as a peripheral display.

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