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L.U.N.A. Ads

Sustaining Wireless Access for Mobile Users

L.U.N.A. Project

The LUNA Project is a research project instituted by the Province of Trento

What?

- The objective is to realize a wide wireless network (Trento, Rovereto, Riva del Garda)
 - The network is totally wireless (through mesh networking)
 - The coverage is continuous within the cities

Why ?

- We want to achieve an “e-society” in the territory of Trentino Alto Adige

How?

- The connection services should be strategically provided to the users for free or at a cheap cost
- Target users are:
 - Students
 - Professional category
 - Occasional users
 - Senior citizens

A project for mobile users

Starting questions:

- Is it possible to cover a large area with wireless technologies?
- The context aware and mobile services that will be offered to users, can replace the traditional revenues methods?
- Can advertising feed financial resources in the wireless telecommunication sector?

These are some of the questions that L.U.N.A. Project tries to respond.

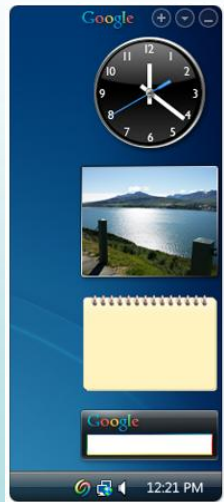
In this work we have focused on a client application, L.U.N.A. Ads, able to provide the network's services in exchange for tailored contents and advertising.

Comparative Analysis

- We studied some applications similar to LUNA Ads.
- In each of them we have evaluated:
 - Simplicity of installation
 - Portability on many operative systems
 - Interface pleasant and easy to understand
- We refer to the following applications:
 - Google Desktop (by Google Inc.)
 - Jing (by TechSmith)
 - Finetune

Comparative Analysis

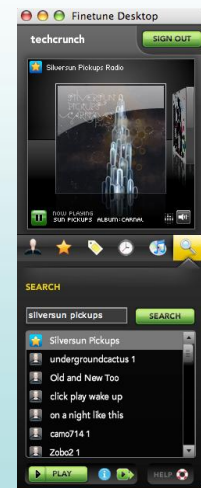
Google Desktop



Jing



Finetune



Portability

Installability

Attractiveness

Google
Desktop

X

X

Jing

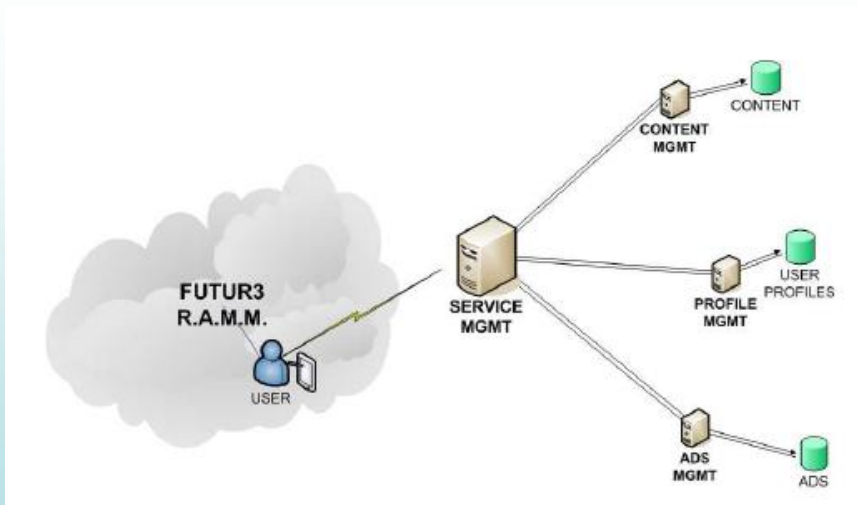
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Finetune

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Service Management Architecture

How the contents are delivered to the users?



- The services will be provided by *Service Management*.
- The three main components of the Service Management Architecture are:
 - User profile: user interests and user context (i.e. her position)
 - Contents: the information requested by users
 - Advertisements: commercial information

L.U.N.A. Ads

L.U.N.A. Ads is a client-side application allowing the authentication to the L.U.N.A. network and managing the services based on the user's profile.

- Visible on the screen in a strategic position.
- Show to user tailor made advertising or information.
- Interact with context where the user is currently immersed in.
- Easy customization for the user:
 - It is possible to add or remove functionalities and services through plug-in.

Accessibility and usability of L.U.N.A. Ads

There are two very important features in the L.U.N.A. Ads quality plan.

Accessibility

- The main reference is Stanca's Law
 - It is a constitutional right access to information and services also for people with reduced sense or motion capacity.
- Implementation of accessibility guidelines suggested by CNIPA*

* National Centre for Information Technology in the Public Administration

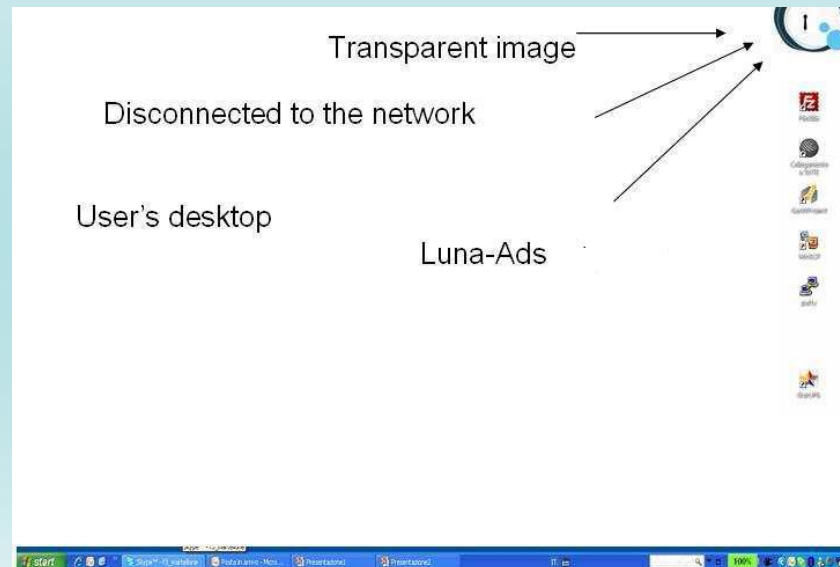
Usability

- We have referred to:
 - ISO standard 13407 (Human-centred design process).
 - *"Hallway and storefront"* IBM methodology.

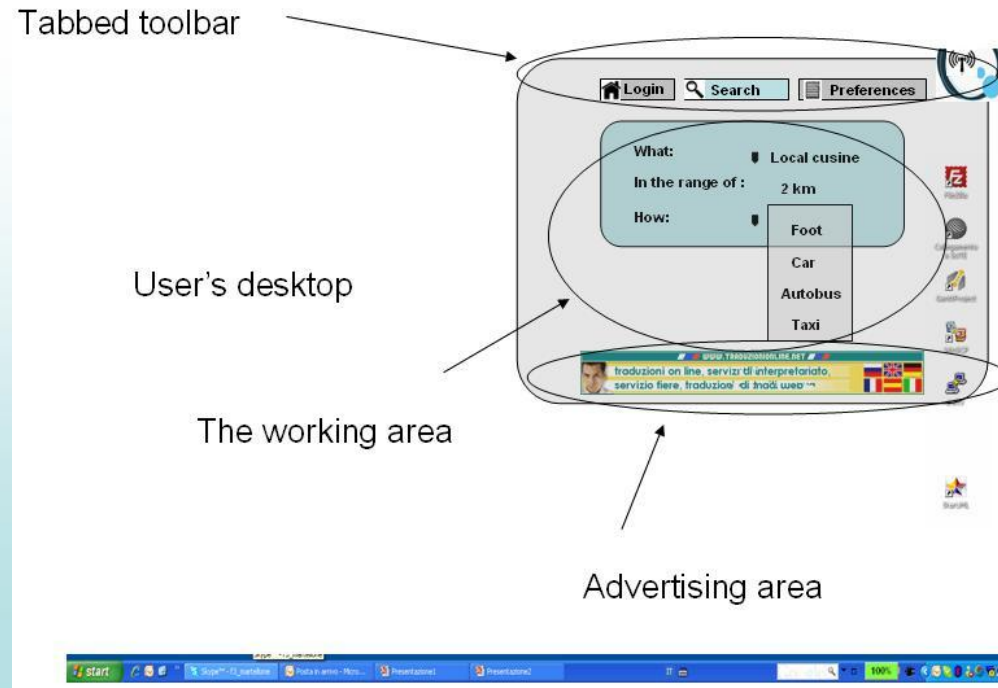
The first prototype (1/3)

We present here a first prototype we have designed

- We have used the L.U.N.A. project logo, a stylized moon, at the base of application development.
- The interface is showed in the upper right corner of the desktop (default mode).
- When the cursor is moved on the moon, a transparent window is shown.
- To close the window the user moves the cursor out the area of application.

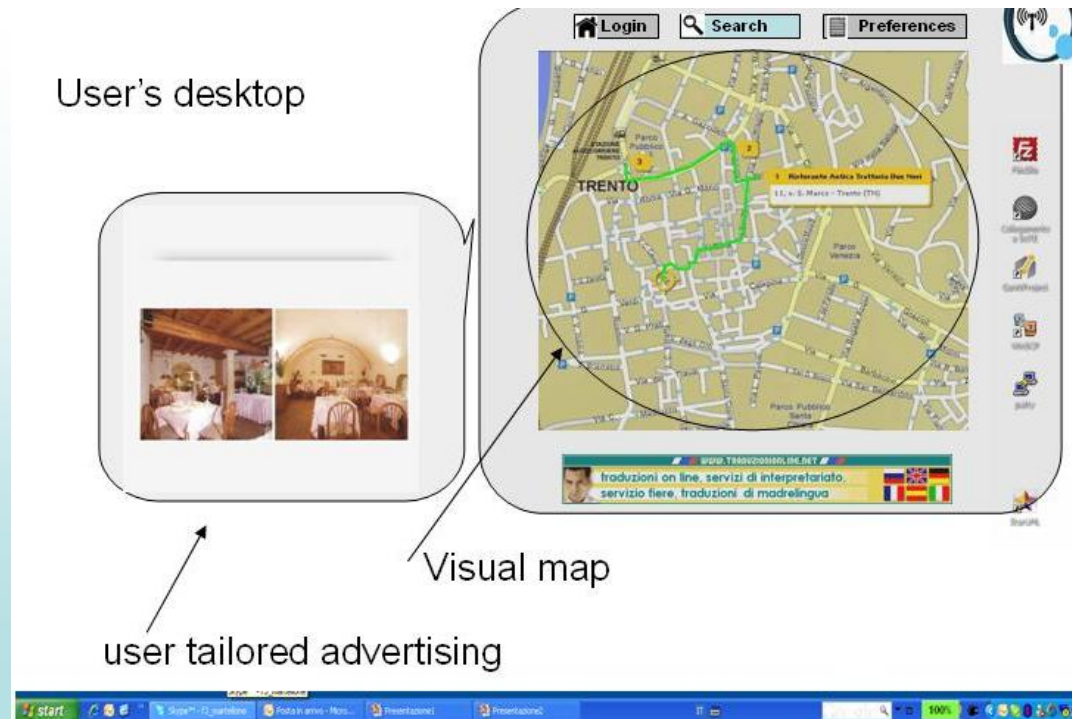


The first prototype (2/3)



- Tabbed list with functionalities
- Working area, based on the running service
- Advertising area, where advertisement contents are shown

The first prototype (3/3)



- A main service is a location-based search.
- A possible scenario: a user searches a restaurant in a range area and he wants to go there by foot.
 - For every restaurants found it gives back information or plays a video advertising.

Conclusions and future work

- We have shown the L.U.N.A. Ads usability study and the design of a first prototype of L.U.N.A. Ads.
- The L.U.N.A. Project is at its first stage:
 - It is currently present and expanding in Rovereto
 - Covering Riva del Garda and Trento in these days
- Actually, the access to the network is provided by a web access.
- Then it will developed a browser toolbar with basic functionalities.
- A first downloadable prototype of L.U.N.A. Ads will be introduced in the first months of 2009.

Questions

- How the privacy management (control, transparency, accountability) can influence the usability design of application?
- Today there are many mobile devices which interact with wireless network : cellular phone, Internet Table (like Nokia N800), little and cheaper laptop (Asus EEEPC). Can we develop new interaction strategies for different devices? How?