Smart students building their campus:
A LARGE-SCALE PARTICIPATORY DESIGN

Antonella De Angeli
Department of Computer Science and Engineering
Thanks to THE LAB..

..& all the STUDENTS:
• HCI FALL 2011
• HCI FALL 2012
• CSCW SPRING 2012
AGENDA

• Smart campus: An introduction
• Design in the wild!
• List of services
• Iterative interaction design
• Field study
• A model of mobile adoption
• Future work
SMART CAMPUS:
AN INTRODUCTION
WHAT IS SMART CAMPUS?

Community creating services they need and like

Territorial lab for experimenting with innovative ICT solutions

Socio-technical platform for the creation and delivery of campus services
TERRITORIAL LABS

Key business model enabler: territorial data and apps allow for new kinds of services

Territorial labs apply to all three dimensions:

• **Research:** results tested in realistic settings

• **Education:** hands-on experience for students in Masters and PhD courses and/or during summer/winter schools

• **Business:** market tests, comparison among alternative business models, assessment of the impact on organizations
METHODOLOGY
DESIGN

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ENVISIONING NEW SERVICES
USER RESEARCH

Methodology
  Participatory design with 6 groups of students
  Questionnaire study: perspective students
  Focus groups
  Design workshops
  Diary study

Results
  List of services
  Personas
  Scenarios
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STUDENTS

Variations due to Careers
  Perspective, Triennale, Specialistica, PhD
  Newcomers, second/third year, planning and writing the thesis

Gender

Curriculum

Country of origin
BENCHMARKING

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FIRST LIST OF SERVICES

3 Design Trajectories
   Learning
   Daily Life
   Recreation / spirituality

List of 25 Services (PACT style)

Discover Trento. A geographical service for students who wish to share their interests while moving around Trento.

It emphasizes the social context (leisure, sport and culture). It would provide foreigners with a means for exploring the territory (implications for tourism).
SERVICES: MIX OF USER, UNI & TECH REQUIREMENTS

- Virtual Parking Lot
- Bike & Green
- Car Pooling
- Bus Finder
- Event Buster
- Communicator
- Time Manager
- Portfolio
- Discover Trento
- Where are My Friends
- Interactive Map

MY Social Networks

Moving Around

Social life

Practical life

For Me

Accademic life
BUILDING THE SERVICES
SCENARIOS

Carlo received his MSc degree in Computer Science from the University of Trento in November and is now looking for a position as programmer in Torino.

He was invited to submit a CV and some examples of his work to an important software company but he is having a difficult time to find the right material among the many course-works, programs and sketches produced in the last years.

He searches his hard disk, memory sticks and old laptop for documents about which he has forgotten names and location. When he found them, he often cannot open them because the applications with which they were created are old. He finds himself after two days of work with little materials and still needs to write a CV.
Certified Portfolio
University of Trento

Identity Information

Reviews
References: 2
Peer Reviews: 1

Courses and Grades
Average mark: 97
Program completed: 70%
More

Professional and Extracurricular Experience
Job 1
Internship

Portfolio
Paper 1
Work 2

Mouse over

More information about this document
Smart students building their campus
Plan your trips in Trento and monitor your recurrent trips

Discover interesting events, places and itineraries in Trento

Manage your communities, share and follow relevant topics

Organize the messages form the campus, the city, and the other apps

Capture your experiences and share them with friends

Present yourself by combining certified info from Uni with your own content
SERVICE DESIGN

1. Desktop application “Funnel” functionality for sorting the notifications and messages.

2. Mobile application. Set the priority of messages by time and date.

3. Enhanced navigation that permits to switch through the “funnels” with the swipe gesture.

Present

Android optimized navigation. Redesigned order to better serve the smart campus community notifications.

Smart students building their campus

12 marzo 2013
SERVICE DESIGN

MyPeople

1. List of shared contents as the first view of the app with the possibility to filter by a specific group.
2. List of people and communities present in the campus as the first view. Plus laterally sliding main menu.
3. List of shared content as the first view with augmented possibilities to filter the content.

Present
Android optimized navigation.
More efficient cross application functionalities.

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12 marzo 2013
GOING LIVE!!

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EVALUATION
Smart students building their campus
ORGANISING THE STUDY

Smart students building their campus
# METHODOLOGY

<table>
<thead>
<tr>
<th>DESIGNERS</th>
<th>USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heuristics Evaluation</td>
<td>Questionnaire Attrak-Diff2</td>
</tr>
<tr>
<td>User-based Evaluation</td>
<td>(Pragmatic-Hedonic -</td>
</tr>
<tr>
<td>Field Study</td>
<td>Aesthetics)</td>
</tr>
<tr>
<td>Design</td>
<td>7-point semantic</td>
</tr>
<tr>
<td>Forum</td>
<td>differential</td>
</tr>
<tr>
<td></td>
<td>Diary Study</td>
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<tr>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td></td>
<td>Forum</td>
</tr>
</tbody>
</table>
SOME RESULTS

90 (participants)

Number of smartphone delivered: 88

Gender: M = 85

Average Age: 22 from 21 to 31

Number of student with a smartphone before the study: 58/86 (67%)

Number of questionnaires: 4 about the evaluation, 1 about the SmartCampus App

Number of questions on Smart Campus app: 34 (date: 29th October)

Time between questionnaires: 2/3 weeks, date: 16/10; 29/10; 21/11; 18/12
SOME RESULTS

Total number of diaries contributions until 13/02: 1020

Data from the Forum until 13/02:
Total posts: 405
Total topics: 107
Total members: 91
Top Contributor: fox with 58 contributions
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La schermata orizzontale non è ottimizzata per contenere tutte le opzioni.

Sempre nella schermata orizzontale la barra di scorrimento si sovrappone con gli indicatori sottostanti.

In Discover Trento la visibilità del focus sui tab è eliminata nel caso di visualizzazione orizzontale.
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Potrebbe essere utile avere la possibilità di creare eventi della durata maggiore di un giorno.
https://maps.google.it/maps/ms?
ie=UTF8&hl=it&oe=UTF8&msa=0&msid=214070488627675002781.0004d003b3fcdc
bf0d608
SMART CAMPUS CONTEST

A PARTICIPATORY DESIGN CONTEST: WITH, FOR AND FROM STUDENTS –

4th appointment with Smart City seminar series
March 14 at 10:30am

Presentations in italian

Sala Stringa – FBK-CIT, Via Sommarive, 18 – Povo-Trento
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Evolving Opinions

(...) I never thought 3G internet could be so useful. Having emails, skype etc always with you is amazing!

Student 26, 28 October 2012 (week 2)

I'm happy as a child: it's my first smartphone!

Student 25, 16th October 2012 (day 1)
I’m not very happy with the fact that the smartphone is very bulky and uncomfortable to carry around (...) (*)
Student 64, 23 October 2012 (week 2)
EMPOWERING THE COMMUNITY
Smart Campus Lab presso Smart Campus Lab.

Smart Campus Lab ha condiviso un link.

Smart Campus Lab

1 febbraio

180 likes! Our community is growing fast :)
Visualizza traduzione

Mi piace - Commenta

A Gabriele Zacco, Giovanni Artusi, Mattia Benedetti e altri 2 piace questo elemento.

Smart Campus Lab ha condiviso un link.

23 gennaio

Find us also on Google +
Visualizza traduzione

Smart Campus - Google+
plus.google.com
Smart Campus - Services WITH and FOR people - SmartCampus is a lab and a community. The lab builds a social and technical environment for collaborative

Mi piace - Commenta - Condividi

A Martina Margoni e Gabriele Zacco piace questo elemento.

Smart Campus Lab

28 gennaio

We thank Paolo Traverso, speaker of 1st Smart City seminar! He made a very interesting lecture and we will soon upload a selection of the main points of his talk!

Visualizza traduzione

FBK - Fondazione Bruno Kessler
cit.fbk.eu
His main research interests are in Software and Services, Artificial Intelligence, and the Automated Verification and Synthesis of software

In Ideas Contest presentation_28 january 2013 (8 foto)
Follow Smart Campus Lab

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Tweets

Smart Campus Lab @smartcampus_lab
Don’t miss tomorrow’s Smart City seminar on participatory design - 11:00 sala Stringa, FBK buildings - Povo (TN)
trentorise.eu/news/smart-stu...
Expand

Smart Campus Lab @smartcampus_lab
Pic from the lab! pic.twitter.com/apTAn8gn
View photo

Smart Campus Lab @smartcampus_lab
Next week we’re having prof. Antonella De Angelis talking about participatory design at 2nd smartcity seminar
facebook.com/events/150179...
Expand

Smart Campus Lab @smartcampus_lab
Time for answers in our photo contest! #facebook
facebook.com/smartcampuslab...
Expand

Smart Campus Lab @smartcampus_lab
Have a look at our #facebook photo challenge last post!
facebook.com/smartcampuslab...
Smart Campus

Don't miss tomorrow's Smart City seminar on participatory design that will be held in FBK buildings. Speaker will be Antonella de Angeli, Associate Professor of Human-Computer Interaction at the University of Trento, Italy. http://www.trentodse.eu/news/smart-students-building-their-campus-large-participatory-design

Smart Students building their Campus: a large Participatory Design

In this talk, we will present the user research which has informed the design of the first set of Smart Campus Apps. This process started at the beginning of 2012 involving a large number of students...
SERVICES WITH & FOR PEOPLE

Smart Campus Lab New Smart Campus website is online!

Smart Campus
smartcampuslab.it - Services WITH and FOR...
Shared with all followers
25 impressions
2 shares
16.00% engagement
Like (1) · Comment · Share · Feature this update · 12 days ago

You like this

Add a comment...

Smart Campus Lab Our services are now open source: enjoy and contribute!
http://trac.smartcampuslab.it

Smart Campus
trac.smartcampuslab.it ·
Shared with all followers
61 impressions
2 clicks
2 shares
6.56% engagement
Like · Comment · Share · Feature this update · 16 days ago
Cliccando sul simbolo + presente nella schermata l'applicazione non risponde e dopo qualche secondo lo schermo diventa nero e l'applicazione viene terminata dal sistema operativo. Finché il sistema operativo non avverte l'utente che ha terminato "community manager" il telefono è bloccato.

Ho verificato: si tratta di un baco. Grazie per la segnalazione. Apro immediatamente un ticket presso i nostri sviluppatori per risolverlo al più presto. Grazie ancora!
GOING OPEN SOURCES

Welcome!
Welcome into the SmartCampus open source TRAC wiki.

Important announcement: APP NEW NAMES!
SmartCampus services have been recently renamed. This change has been applied only to the Graphical User Interface of the services. The names of the Subversion repositories and other development and infrastructural resources have maintained the old names. In order to help our readers retrieving the information they need we summarize in the following table the mapping between the new names of the apps and the legacy names still used for some of the relevant development resources.

<table>
<thead>
<tr>
<th>NEW name</th>
<th>OLD name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewer</td>
<td>DiscoverMyWeb</td>
</tr>
<tr>
<td>Yepple</td>
<td>JourneyPlanner</td>
</tr>
<tr>
<td>MyBox</td>
<td>Communicator</td>
</tr>
<tr>
<td>MyPeople</td>
<td>CommunityManager</td>
</tr>
<tr>
<td>MyLog</td>
<td>ExperienceBuster</td>
</tr>
<tr>
<td>MyCVs</td>
<td>Portfolio</td>
</tr>
</tbody>
</table>

Documents & Resources
From this TRAC instance you can browse the source code of the SmartCampus project and track the open tickets related to bugs and enhancements. Besides, a few other documental resources are available:

- an overview of SmartCampus Open Source approach
- a document describing the architecture of the SmartCampus platform and how to develop with it
- an introduction to the development of Android apps based on SmartCampus
- credits

About TRAC

Download in other formats:
Plain Text
NEXT STEPS
MORE TESTING & DESIGN

Today: Diversify the community!
Participatory Design Seminar –
Faculty of Sociology: snowball approach

Next week: Let’s play!
CSCW course – MSc Computer Science –
Gamification

In 15 days: Moving to the city!
Vivi Trento & Viaggia Trento released to Trento Municipality:
500 users

From now on: BUILD, RESEARCH, BUILD, RESEARCH!
Enlarging the Lab: Interns, Thesis – setting the ground for
EUD
Elaborate a model/process for designing SUCCESSFUL services
CONCLUSION

RESEARCH:
One of the first real design in the WILD project – True Interdisciplinarity – Impact on the territory

EDUCATION:
Best ever course-works, and lots of 30!
4 theses

BUSINESS:
We are moving into town ;-), bidding for new projects – understanding what is a territorial lab!!
Thank you!

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