Open geospatial data and technologies for eliciting Slow and Smart Tourism: the Via Regina case

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Via Regina

- Via Regina defines a cross-border area between Italy and Switzerland
  - trade and cultural route since Roman times
  - transalpine system of soft mobility links
Via Regina

- Via Regina defines a **cross-border area** between Italy and Switzerland.
A special case of **sustainable tourism** focused on:

- environmental friendliness
- rediscovery of **local traditions and cultural knowledge**

**Slow tourism at a glance**

- **sustainability**
- **movement** (no car/plane)
- **gastronomy** (local)
- **leisure** (peaceful)
- **services** (provided in a relaxing atmosphere)
- **simple accommodation**
Mobile data collection

- Allows everyone to report interesting elements using an Android device

- historical and cultural elements
- morphological elements
- tourist elements
- critical elements
- warnings
Mobile data collection

- Based on the suite of tools
  - management of mobile data collection through a set of related applications

We are now implementing a crossplatform App.
Mobile data collection

Form download

ODK Collect > Main Menu

ODK Collect 1.4.3 (1041)
Data collection made easier...

- Fill Blank Form
- Edit Saved Form
- Send Finalized Form
- Get Blank Form
- Delete Saved Form

ODK Collect > Get Blank Form

Server Requires Authentication

Please enter username and password for server:
http://georep.como.polimi.it/ODKAgregate/formList

- Username
demo
- Password
••••

Cancel OK

ODK Collect > Get Blank Form

I Cammini della Regina
ID: regina_v9

Get Selected

INSTRUCTIONS
Mobile data collection

**Form compilation**

- ODK Collect > Main Menu
  - ODK Collect 1.4.3 (1041)
    - Data collection made easier...
    - Fill Blank Form
    - Edit Saved Form
    - Send Finalized Form
    - Get Blank Form
    - Delete Saved Form

- ODK Collect > Fill Blank Form
  - Architectural Barriers
    - Added on Fri, Mar 07, 2014 at 10:25
  - Arredo_urbano
    - Added on Wed, Mar 05, 2014 at 13:14
  - I Cammini della Regina
    - Added on Sun, Apr 06, 2014 at 16:13
  - Point Of Interest
    - Added on mer, gen 22, 2014 at 16:29
  - sample
    - Added on Thu, Apr 03, 2014 at 15:33

You are at the start of I Cammini della Regina. Swipe the screen as shown below to go backward and forward.

- backward to previous prompt
- forward to next prompt
Mobile data collection

Form compilation

**Date of report**

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| 4    | 5    |
| 5    | 6    |
| 6    | 7    |
| 7    | 8    |
| 8    | 9    |
| 9    | 10   |

**Type of user:**

Specify which kind of user you are by choosing one of the following options.

- tourist from Italy
- tourist from abroad
- citizen of Como province
- citizen of Ticino Canton

**Type of element:**

Specify which kind of element you wish to report by choosing one of the following options.

- historical and cultural element
- morphological element
Mobile data collection

- Historical and cultural elements
  - Museum
  - ethnographic
  - thematic
  - gallery
  - collections
  - Religious building
    - church
    - oratory
    - sanctuary
    - chapel
    - via crucis
    - fresco
    - abbey
  - Civil building
    - historical building
    - contemporary building
    - traditional building
    - monument
  - Civil building
    - pasture/shed
    - snow deposit
    - graa/metato (chestnuts drier building)
    - roccolo (system designed to catch birds)
    - casello/turbino (buildings for the storage of perishable foods)
    - hydraulic structures
    - masseria (farm)
Mobile data collection

- Historical and cultural elements
  - Archaeological element
    - archaeological element
    - archaeological site
    - element inside a building
    - single element
  - Military building
    - castle
    - tower
    - defensive wall
    - fort
    - trench
    - redoubt (secondary fort)
    - bunker
  - Factory
    - furnace
    - trip hammer
    - mill
    - sawmill
    - quarry
    - mine
    - rural factory
Mobile data collection

**Morphological elements**

- Surface
  - pavement
  - natural material
  - gravel
  - asphalt
  - steps
  - ford

- Bounding escarpment
  - rock
  - ground escarpments
  - rock escarpments
  - support walls
  - boundary walls and railings
  - tree-lined aven

- Traffic support and manufactured products
  - fence/barrier
  - vertical plate
  - kilometric stone
  - border stone
  - stone marker
  - isolated tree
  - inscription
  - fountain
  - ancient laundry
  - bridge
  - rest of bridge
  - tomb
  - underpass
  - tunnel
  - panoramic viewpoint
Mobile data collection

**Tourist elements**

- Accommodation
  - hotel
  - hostel
  - B&B
  - hut/shelter
  - camping
  - private accommodation
  - free accommodation
  - agritourism
  - apartment

- Transport
  - bus stop
  - dock/ferry
  - train station
  - funicular and ski lift

**Services**

- pharmacy
- parking
- school
- public safety
- spring
- city hall
- post office
- wc
- bank
- park area
- ATM
- info point
- wifi hotspot
- bike sharing
- electric car charging point
- hospitals/emergency room
- hiking signs

**Products**

- wine shop
- craft
- food/typical products
- clothing shop
Mobile data collection

- **Food Service** 🍽️
  - restaurant
  - crotto (cellar inside a natural curve)
  - bar
  - food shop

- **Critical elements** 🏚️
  - **Morphological** 🏗️
    - ford
    - landslide
  - **Structural** 🚶
    - crossing with traffic light
    - crossing without crossing stripes
    - crossing with crossing stripes

- **Warning** 💥
  - [whatever kind of warning the user specifies]
Mobile data collection

Form compilation

Classification of the element:
Classify the element you wish to report by choosing one of the following options.

- museum

Subclassification of the element:
Classify the element you wish to report by choosing one of the following options (optional).

- etnography
- thematic
- gallery
- collections

Name of the element:
Type the name of the element you wish to report (optional).

Museum of Villa Erba
Mobile data collection

Form compilation

ODK Collect

Position of the element:
Be sure to be outdoors and check that the device GPS is on. Alternatively, you can also determine the position by connecting to a wi-fi network.

Replace Location

Latitude: N 45°50'16"
Longitude: E 9°4'39"
Altitude: 0m
Accuracy: 5.5m

Picture showing the element:
Take a picture of the element using the device camera or upload a picture available on the device.

Take Picture

Choose Image
Mobile data collection

Form compilation

- Record audio:
  Record or upload an audio using your device (optional).
  - Record Sound
  - Choose Sound
  - Play Sound

- Capture video:
  Capture or upload a video using your device (optional).
  - Record Video
  - Choose Video
  - Play Video

You are at the end of I Cammini della Regina.

Name this form:
I Cammini della Regina

Mark form as finalized

Save Form and Exit
Mobile data collection

- Form compilation

**ODK Collect > Main Menu**

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**Upload Results**

I Cammini della Regina - Success

OK
Mapping parties

SABATO 3 MAGGIO 2014

MapParty!

CAMMINARE, OSSERVARE, DISEGNARE, MAPPAIRE
LUNGO I CAMMINI DELLA REGINA PER UN’ESPERIENZA
CULTURALE, SENSORIALE E GIOCOUSA
Mapping parties

- Cernobbio-Piazzola – May 3, 2014

http://viaregina.como.polimi.it/mapparty
A 3D social platform: architecture
3D viewer

- Connection to WMSs (among them those of the project)
3D viewer

- Connection to ODK servers (among them those of the project)
3D viewer

- Query of the ODK data & point enrichment with multimedia contents
Accessing it with Java Webstart

http://viaregina2.como.polimi.it/ViaRegina20/
Acknowledgments

- This research has been funded by the INTERREG “I Cammini della Regina – Percorsi transfrontalieri legati alla Via Regina (The paths of Regina – Crossborder paths departing from Via Regina)” 2007-2013 project.

http://www.viaregina.eu
https://www.facebook.com/viaregina2.0
https://twitter.com/viaregina20

Thanks for your attention!

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