CAP4Access and VGI

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CAP4Access

- EU FP7 funded project

- “Collective Awareness Platforms for Improving Accessibility in European Cities and Regions”

- Addresses the problem of accessibility through engagement with community and the development of tools
CAP4Access

- Four pilot cities: Heidelberg, Vienna, Elche, London
- Number of project partners
Use of VGI in CAP4Access

- CAP4Access develops tools and methods for:
  - Contributing VGI
  - Assessing VGI
  - Using VGI
Contributing VGI

- Collective tagging
- Integration of PSI data
- Participatory sensing
- Public engagement

- Wheelmap.org
Wheelmap.org

- Highly successful VGI tool for enriching VGI with accessibility information
- Allows tagging of POIs with an accessibility tag: accessible, partially accessible, not accessible (& unknown)
Collective Tagging

- Allowing users to contribute information important for accessibility of outdoor spaces:
  - Sidewalk incline
  - Presence of drop-curbs
  - Surface materials
  - Location (and size/number) of steps
Collective Tagging

- Development of an Android app that allows:
  - Template based editing
  - Recommendations of tags
Integration of PSI

- Integrating (open public) data into OSM
  - Drop curbs (Vienna)
  - Sidewalk presence (Heidelberg)
Assessing VGI

- Visualisation
- Data quality assessment
Data quality assessment

- Addressing the completeness of data needed for accessibility tools
  - Presence of attributes
  - Presence of features

- Tools used:
  - OSMatrix
  - Quality Assurance Editor
Quality Tools Used
Using VGI

- Routing & navigation
- (Wheelmap)
Routing & Navigation

- **Routing** – routes using wheelchair parameters as weightings:
  - Surface, slope, steps etc.

- **Navigation** – providing landmark based navigational instructions (using only OSM data and tags)
Wheelchair Routing
Summary

- CAP4Access is contributing, enriching and using VGI data (OSM)
  - Various tools and methods under development
  - Aiming at enriching OSM with relevant information to allow better understanding of accessibility of the environment
Questions, Comments, Suggestions...

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