Integration of Authoritative and Volunteered Cultural Landscape Information

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18 May, 16:00-17:30

Integration of Authoritative and Volunteered Cultural Landscape Information

Topics of Presentation

1. Introduction
2. System Requirements
3. Feature Catalogue
4. System Design
5. Quality Control of Contents
6. Conclusions
Integration of Authoritative and Volunteered Cultural Landscape Information

Cultural Heritage Protection
The Policy Framework

The Global Level
The European Level
The National Level
No uniform legislation in Germany

KuLIS, Cultural Landscape Information System for

- The public administration,
- The general public,
- Members from academia
Integration of Authoritative and Volunteered Cultural Landscape Information

Research question

*Suchith Anand, UK, keynote speech 5 Nov 2014, FIG Commission 3 Workshop, Bologna, Italy*

> How do we combine data from authoritative Ordnance Survey data sets with feature rich, informal Open Street Map data, recognizing the variable coverage of Open Street Map while capturing the best of both worlds?

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**KuLIS Requirements (1)**

- Development of a feature catalogue → cultural assets
- Design of a spatial database → implementation of the catalogue structure
- Evaluation and import of existing data into the database
- Providing OGC conformal web map services → integration into the Spatial Data Infrastructure (SDI)
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KuLIS Requirements (2)

- Visualization and digitization of cultural assets through a web application interface
- Ability to create and update information of new or existing information about cultural assets by citizen participation
- Management and validation of the provided information by scientific and administrative supervisors
- Analysis tools for in depth investigations and definition of important cultural landscapes
The Feature Catalogue of Cultural Assets (2)

<table>
<thead>
<tr>
<th>No.</th>
<th>Functional feature categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Urban Settlements, Health and Social Services</td>
</tr>
<tr>
<td>2</td>
<td>Rural Settlements, Agriculture, Horticulture and Fisheries</td>
</tr>
<tr>
<td>3</td>
<td>Forestry</td>
</tr>
<tr>
<td>4</td>
<td>Production and Processing of Raw Materials</td>
</tr>
<tr>
<td>5</td>
<td>Trade, Industry and Energy Production</td>
</tr>
<tr>
<td>6</td>
<td>Traffic, Transportation and Communication</td>
</tr>
<tr>
<td>7</td>
<td>Government, Administration, Law, Defence and Military</td>
</tr>
<tr>
<td>8</td>
<td>Religion and Worship</td>
</tr>
<tr>
<td>9</td>
<td>Education, Culture and Science</td>
</tr>
<tr>
<td>10</td>
<td>Sports, Tourism and Recreation</td>
</tr>
<tr>
<td>11</td>
<td>Natural Landscapes and Nature Conservation</td>
</tr>
<tr>
<td>12</td>
<td>Intangible Goods and Associative Features</td>
</tr>
</tbody>
</table>

The Feature Catalogue of Cultural Assets (3)

<table>
<thead>
<tr>
<th>Category</th>
<th>Complex</th>
<th>Group Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10.2. Recreation</td>
<td>...</td>
</tr>
</tbody>
</table>

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System Design

Intuitive and widely accepted frontend for information display and management

Initial phase
Import of 59,000 cultural features from authoritative registers

Unique Feature Identifier ID

Gateway to NSDI and EU INSPIRE

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GOVERNMENT DATA → CIVIC PARTICIPATION

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**Pilot Project Upper Middle Rhine Valley**

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Integration of Authoritative and Volunteered Cultural Landscape Information

**RheinlandPfalz**

**MINISTERIUM FÜR WIRTSCHAFT, Klimaschutz, Energie und Landesplanung**

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Quality Management

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Conclusions (1)

- KuLIS provides a modern IT platform for cultural landscape information based upon open source tools
- KuLIS facilitates citizen participation by using the widely accepted wiki approach
- KuLIS supports scientific research work by providing high end spatial analysis functions
- KuLIS provides a framework for feasible quality management of hybrid VGI and governmental information

Conclusions (2)

- Activating cooperation of actors from public institutions and citizens is a challenge
- Integration of available data from public registers with information available in wiki style on the Internet is a challenge
- Connection with Location-Based Services is desirable
- Mobile solutions are desirable
- In future, linked data approaches will provide new opportunities
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THAT'S IT, THAT'S ALL.

Thank you for your attention!

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