Relational Modelling of Historical Data: A Technical Perspective

Christof Rauchenberger and Alexander Watzinger
July 5th, 2016
OpenAtlas Requirements

- Compatibility with other systems
- Web interface for data entry
Pen and Paper

✔ Very mature technology
✔ Well known and easy to set up

✗ Difficult to search
✗ Unstructured
Spreadsheet

✔ Well known, very widespread
✔ Structured and searchable

✗ Not well suited to models with more than 2-dimensional relationships
✗ Not compatible with other systems
Database

✔ Supports models with complex relationships
✔ Tools to ensure data integrity

✗ Requires expertise
✗ Compatibility is possible but difficult
Database + Sophisticated Model

✔ Compatible with other systems that use the same model
✔ Easily expandable and adaptable
✗ Steep learning curve
CIDOC CRM

- Developed by ICOM since 1999
- ISO Standard 21127 since 2014
- Formalises exchange of cultural heritage data
- Defines entities that are linked via properties according to defined rules
OpenAtlas Web Interface

• Guarantee CIDOC CRM conformant data integrity
• Ease of use even without knowledge of the underlying model
• Flexibility for different research topics
• Dealing with data fuzziness
"I think you should be more explicit here in step two."
"I think you should be more explicit here in step two."
Flexibility for Different Research Topics

- Extensible Types
- Dynamic Types
Dealing with Data Fuzziness

- Names
- Dates
- Locations

<table>
<thead>
<tr>
<th>Begin</th>
<th>100</th>
<th>1</th>
<th>1</th>
<th>comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>End</td>
<td>143</td>
<td>2</td>
<td>3</td>
<td>been seen at a bonfire</td>
</tr>
<tr>
<td>yyyy</td>
<td>mm</td>
<td>dd</td>
<td></td>
<td>Death</td>
</tr>
</tbody>
</table>
Thank you for listening!

OpenAtlas  http://openatlas.eu
Demo       http://openatlas.craws.net
DPP        http://dpp.arz.oeaw.ac.at
CIDOC CRM  http://www.cidoc-crm.org