Semantic MediaWiki in 15 minutes

Markus Krötzsch

SMW Project
AIFB, Karlsruhe University

Semantic Wiki Mini-Series
Dec 11 2008
Semantic MediaWiki

Content management for

- rich text
- structured data

Based on the «Wiki Way»

- user-governed
- collaborative
- easy
Semantic MediaWiki

Original goal:
Enhance existing wiki applications.

(Non-goal: Research.)
Organizing Data in SMW

Basic idea:
Assign property-value pairs to wiki pages
Organizing Data in SMW

Typical (but not the only) wiki syntax:

`[[property::value]]`
Organizing Data in SMW

Properties in the wiki ...

• ... can be introduced as needed
• ... have their own wiki pages
• ... may be given a datatype

Examples: Capital of, Population, Startdate, Name, Homepage, ...
Organizing Data in SMW

Datatypes in the wiki ...

- affect how data values are displayed
- influence searching and browsing
- are usually not user-defined

Examples: Number, Text, Page, Date, URL, ...
Inline Queries

Basic idea:
Allow dynamic views on wiki data to be embedded into pages.
Inline Queries

Aspects of an inline query:

1) Which pages constitute the result?
2) Values for which properties are displayed per result?
3) How should all this be formatted?
Inline Queries

Example:
1) Show all countries in Africa
2) each with their population and area
3) within a table.
Inline Queries

User input:

1) SMW query language (technically closely related to OWL 2 EL classes)
2) Additional printout statements
3) Formatting parameters
Inline Queries

Example:

```{{#ask: [[Category:Country]]
    [[located in::Africa]]
| ?Population
| ?Area
| format=table
}}```
SMW and the Semantic Web

Content model:
- Based on sublanguage of OWL 2 DL
- Closely related to OWL EL and OWL RL

Data exports:
- OWL/RDF
- RSS, CSV, ...
- JSON (planned)
Selected Applications

Online introduction of some SMW sites:

http://korrekt.org/page/Ontolog
Beyond SMW Core

Active user community
- Some hundreds of sites known using it
- World-wide usage (20-50 languages)
- Public mailing lists, forum, bugtracker

Active developer community
- Various independent extensions
- Halo development team at ontoprise
- Integrated into MediaWiki community
SMW: http://semantic-mediawiki.org
Slides: http://korrekt.org/page/Ontolog
Copyright Markus Krötzsch

Terms of Licensing

Creative Commons Attribution

http://creativecommons.org/licenses/by/3.0/de/deed.en

Image copyrights

Icons by http://everaldo.com, released under the terms of GPL