What Makes a Wiki Semantic?

Mark Wallace
Principal Engineer, Semantic Applications
Modus Operandi, Inc.
mwallace@modusoperandi.com
SemTechBiz 2013, San Francisco
What's a Wiki?

• collaborative web site
• allows non-webmasters to add content
  • easily create/edit pages
  • easily link to other pages
• keeps edit history (allows roll-back)
• usually supports self-registration

The term was coined by [[Tim Berners-Lee]]

Link format (when editing)
Wiki Issue

• how to handle these goals?
  • list the 10 most populous cities in Germany
  • list of books by U.S. authors
  • list members of "Organization X" that are also leaders of other organizations

• answer: hand-edit and manually maintain

• or… use a **semantic wiki**
What's a Semantic Wiki?

• semantics = meaning
• a *semantic* wiki has at least these features:
  • *pages* can be *assigned a type*
  • *page links* can be *assigned a meaning*
  • *data values* (in a page) can be *assigned a meaning*

  (which enables…)
  • *dynamic page content* via queries
How are Features Achieved?

- pages assigned a type
  - via markup, e.g.: [[Category:City]]
  - via user interface

- page links assigned a meaning
  - via markup, e.g.: [[located_in::Germany]]
  - via user interface / forms

- data values (in a page) assigned a meaning
  - via markup e.g.: [[population::3,000,000]]
  - via user interface / forms

- dynamic page content via queries
  - e.g.:
    ```
    {{#ask: [[Category:City]]
    [[located_in::Germany]]
    | ?population }}
    ```
Demonstration

- two examples of semantic wikis:
  - Semantic MediaWiki
  - Semantic XWiki
Take-aways

• wikis are great for information collaboration
• semantic wikis go farther, creating a collaborative, query-able, semantic knowledge model

• Questions?