Overview

- Basic Ideas
- Towards Web 2.0
- New Features
- Virtual Presence
- Collaboration Proxies
- Summary
Basic idea

- DotLRN Conference Boston:
  XoWiki = Wiki + Content Management + Dynamic Page Fragments = *Basic Web Application*

- Basic Web Application + Syndication + Social Software Support = *Basic Web 2.0 Application*

What’s new in XoWiki since Boston (1)

- **Improved Video-Support**
  - Podcasts
    - New page type: ::xowiki::PodcastItem
    - More Metadata
    - Customized RSS with iTunes markup
  - Flash Support
    - Easy inclusion of Flash content via
      ```
      [[swf:mymovie.swf|This is a pretty movie...|quality high]]
      ```

- **Import/Export of Files**
  - Export the contents of an XoWiki instance into a text-file that can be imported into another instance
  - Export contains now ::xowiki::File and its subtypes (images, podcasts, flash files, ...)
  - Mirroring possible
What’s new in XoWiki since Boston (2)

- **Page order**
  - Define ordering of pages (like sections in a book)
  - Additional attribute for every page type
  - Implemented with the PostgreSQL Itree module

- **Book-Style**
  - Special page template to browse though a book, page by page
  - Automatic table of contents (YUI Tree TreeView)
  - Page content fades in and out via AJAX (YUI animation)
  - Example: [http://www.openacs.org/test-doc/](http://www.openacs.org/test-doc/)

- **Whole Book as Page**
  - XoWiki prototype page `book.page`
  - Table of contents points to anchors within page
  - Every section can be separately edited
  - Convenient for incremental search (Firefox) or printing

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Page-Order: Page by Page

![Diagram of page order](image)

4.1.4 Typed Links

XoWiki supports as well an experimental feature of typed links, where a user can define any kind of relations to other wiki pages, such as inter or intra-page links. In general, this could for example be used to inter-term relations (e.g. synonym, hypernym, antonym, ...) in a dictionary, or similar other usages. The type of the link is specified before the (optional) language prefix. We use the following syntax.

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### 4.1.4 Typed Links

When a new link type is defined it is possible to define the link resolver and a renderer of this link type by subclassing the class `XWiki.Page/PageLink`. XoWiki 0.04 comes with a sample implementation of link type `glossary`. In this implementation, a glossary is a separate xwiki instance (named `glossary`), which contains the word definitions. Every xwiki instance can refer to this glossary and link to this words. The text shown on the right side contains for example a typed link for PostgreSQL, which is defined as:

```xwiki
type:PKGD
```

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In order to resolve the term, XoWiki uses a link-specific resolver that locates an instance named `glossary`. It looks in the site nodes for side-node of the xwiki instance and then for sibling nodes in its parent node and so on. When the resolver can locate the xwiki instance and the entry for PostgreSQL, it renders the entry with a special symbol (see screenshot). If the resolver finds the xwiki instance, but not the word, it sets the link on the square bracket to add a dictionary definition in the glossary. When this link is activated it displays the xwiki entry in a popup window. The XWiki-page from the glossary is retrieved via an AJAX call in the background (tested on Firefox, Safari and IE).
Page-Order: All Pages in one Document

What’s new in XoWiki since Boston (3)

- **Page States**
  - Distinguish between pages under production and pages which are ready for usage
  - Pages under production are not listed in aggregating includelets (e.g. what’s new, ...), syndication, ...
  - “production” / “ready”

- **Auto-naming of pages**
  - Auto-naming configurable via package parameter
  - Easy means to create a News (or Announcements) application as XoWiki Instance

- **Google Site Map, Syndication Buttons**

- **Virtual Presence and Social Proxies (next slides)**
Virtual Presence

- To “use the system” vs. to “be in the system”

- To “use the system”
  - “Users” outside of the system interact with the system
  - Nobody cares, what the user does with the system
  - System = Appliance
  - Universe of Discourse: 1 user, 1 system

- To “be in the system”
  - “Users” are visible in the system for other users
  - Users are people being watched, leave traces and artifacts
  - System = Room
  - Universe of Discourse: People meet over the system other people
  - Software as a social facilitator
  - Human awareness

- Virtual Presence
  - System shows, who is online, in which room, ...

Human Awareness / Social Intelligence

- Tom Erickson (IBM Research): The Tale of the Two Doors

- Case:
  - Business building, busy hallway, stairway from the Cafeteria,
  - Connecting door
  - Lunchtime: People with Trays bringing Lunch to their offices
  - When door opens quickly at the wrong moment: Messy Accidents

- Solution 1:
  - Sign: “Open Door Slowly”
  - No big effect

- Solution 2:
  - Window in the Door
    - Window makes the Person on the other side visible
    - Effect on the social norms (Don’t slam things into other people)
    - People know that they are seen from the other side and held accountable for their behavior
Watching and Being Watched

- Watching ...
  - draw attention to people
  - enables to be aware of the social context

- ... Being Watched
  - Mutual visibility, reciprocity is important
  - Eye contact

- Face-to-Face behavior
  - ... different from behavior in unobserved situations
  - ... is governed by social norms,
  - which are governed by environmental cues =
    - Physical cues and
    - Behavioral cues

Environmental Cues

- Physical Proxies
  - Identifying Individuals
    - Not a question of strong authentication, but identity
    - Personal Proxies
  - Identifying Things and Places

- Social Proxies
  - Identifying social behavior

- Media Richness of Proxies
  - High Media Richness
    - (3D Worlds with avatars)
  - Low Media Richness:
    - e.g. Tom Erickson’s Babble
    - Social Proxy for Chat
Web 1.0

“Watching the Internet”

Web 2.0

“Being Member of the Internet Community”

- Individuals leaving traces in the Internet
- Blogs
- Google Scholar
- Ohloh
- Ratings
- ...
XoWiki Support for Virtual Presence

- **Strong Reciprocity**
  - People can’t see you, if you don’t see them (virtual “eye contact”)
  - Different presentation depending on the login state of the watching user
  - Anonymous users see just a summary

- **Presence includelet:**
  - Display, which users have visited an XoWiki artifact within a specified time interval
  - Artifacts: XoWiki Instance or XoWiki Page
  - Time Span e.g. “30 minutes” or “14 days”
  - Example: \{presence -interval “1 day” -page “this”\}

XoWiki Collaboration Proxies

- **Collaboration Graphs**
  - Strong Reciprocity
  - Basis: analysis of the revisions of Wiki Pages
  - Everybody, who can see revisions, can see analysis of revisions
  - Assumption: People collaborate, if they edit the same page
  - All graphs are computed on the fly

- **Activity Graph**
  - Visualize, what happened recently (who did last n page revisions)
  - Who is currently working together

- **Personal Collaboration View**
  - Visualize, who edited the same pages a person has edited
  - Different per user

- **Personal Contribution History**
  - Visualize, what a person has contributed to a Wiki instance
  - Items and revisions
XoWiki Activity View

Visualization: Value-added version based of JavaScript graph drawer of Aslak Hellesøy and Dave Hoover (MIT-style license)

XoWiki Personal Collaboration Graph

Me

??
XoWiki Personal Contribution History

Based on timeline.js from SMILE Project
(Semantic Interoperability of Metadata and Information in unLike Environments)

http://simile.mit.edu/ (MIT style license)

Personal Collaboration View and
Contribution History on one Wiki page

- Sample Page with Two includelets

  {{collab-graph}}
  {{user-timeline -interval1 WEEK -interval2 YEAR}}

- Parametrization:

  - {{collab-graph -max_edges 70 -cutoff 0.1
    -show_anonymous message
    -user_id}}

  - {{user-timeline -user_id -data timeline-data
    -interval1 DAY
    -interval2 MONTH}}}
Summary

- XoWiki as a “Swiss Knife” for small Web-Applications
- More than just a Wiki
- High Reuse through Inheritance
  - Search, notifications, categories, tags, RSS, syndication buttons, weblog-style, import/export, virtual presence, collaboration graphs ... for all kind of XoWiki pages and instances
- Various E-Learning scenarios possible
  - Raise awareness of individual and social behavior