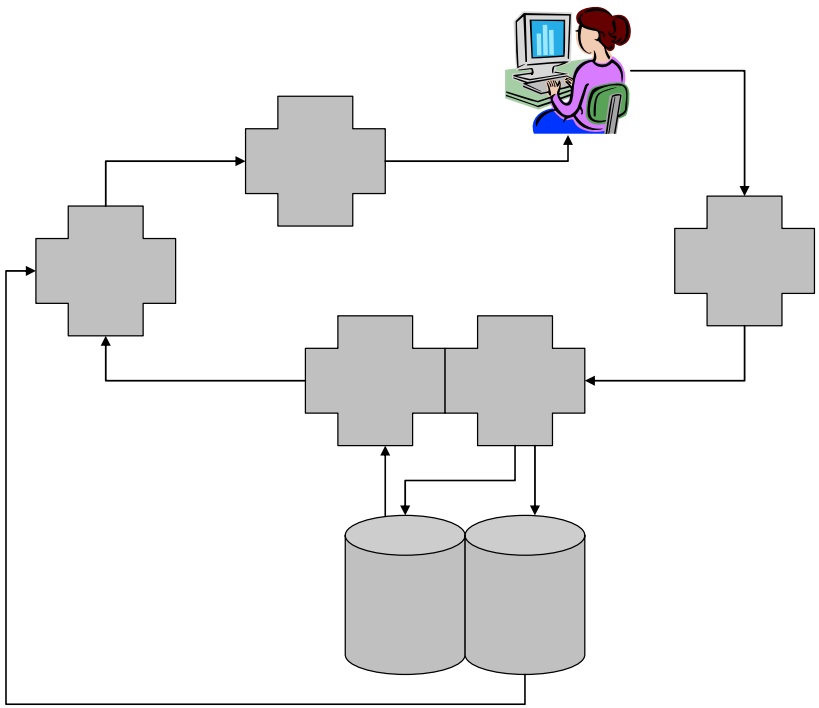
OCLC Online Computer Library Center

OCLC Research

WikiD (Wiki/Data)



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Introduction

- WikiD Overview
- OAI Ancestry
  - Using the OAI-PMH… Differently
  - ERRoLs
- Ancestral Limitations
- Synthesis of Available Solutions
- A Quick Glimpse at OpenURL 1.0
- Sample Applications
- Walkthrough

WikiD Overview

- Ward Cunningham describes a wiki as "the simplest online database that could possibly work".
- The cost of this simplicity is that wikis are generally limited to a single collection containing a single kind of record (viz. Wiki Markup Language records).
- WikiD (Wiki/Data) extends the wiki model to support *multiple* collections containing *arbitrary* schemas of XML records with minimal additional complexity.

Using the OAI-PMH… Differently

- OAI + XSL + content + “extension verbs”
- Used OAI-PMH as an interactive web service
- The addition of an XSL Stylesheet reference in OAI responses provided a human interface without disrupting its intended purpose of automated harvesting
- Dare to store XML *content* in the OAI record’s <metadata> element
- Sharp criticism for daring to add OAI “extension verbs”
  - Extract <metadata> content from OAI GetRecord
  - Perform HTTP redirect to dc:identifier in oai_dc record
- OpenURL Spec Registry: http://www.openurl.info/registry/
- “info” URI Registry: http://info-uri.info/

Extensible Repository Resource Locators (ERRoLs)

- Decouple “extension verbs” from the OAI mechanism
- Extend principles to any repository registered at UIUC
- One way to think about ERRoLs is as a resolver for OAI repository and item identifiers, with various resolution targets (using rule-based URL construction)
  - HTML renderings of OAI verbs
  - Raw <metadata> extraction and crosswalks
  - Content dereferencing
- Extensible services, protocols, and XSL Stylesheets
  - RSS
  - OpenURL 0.1
- Customized via OAI Identify <description> elements
  - SRW/U

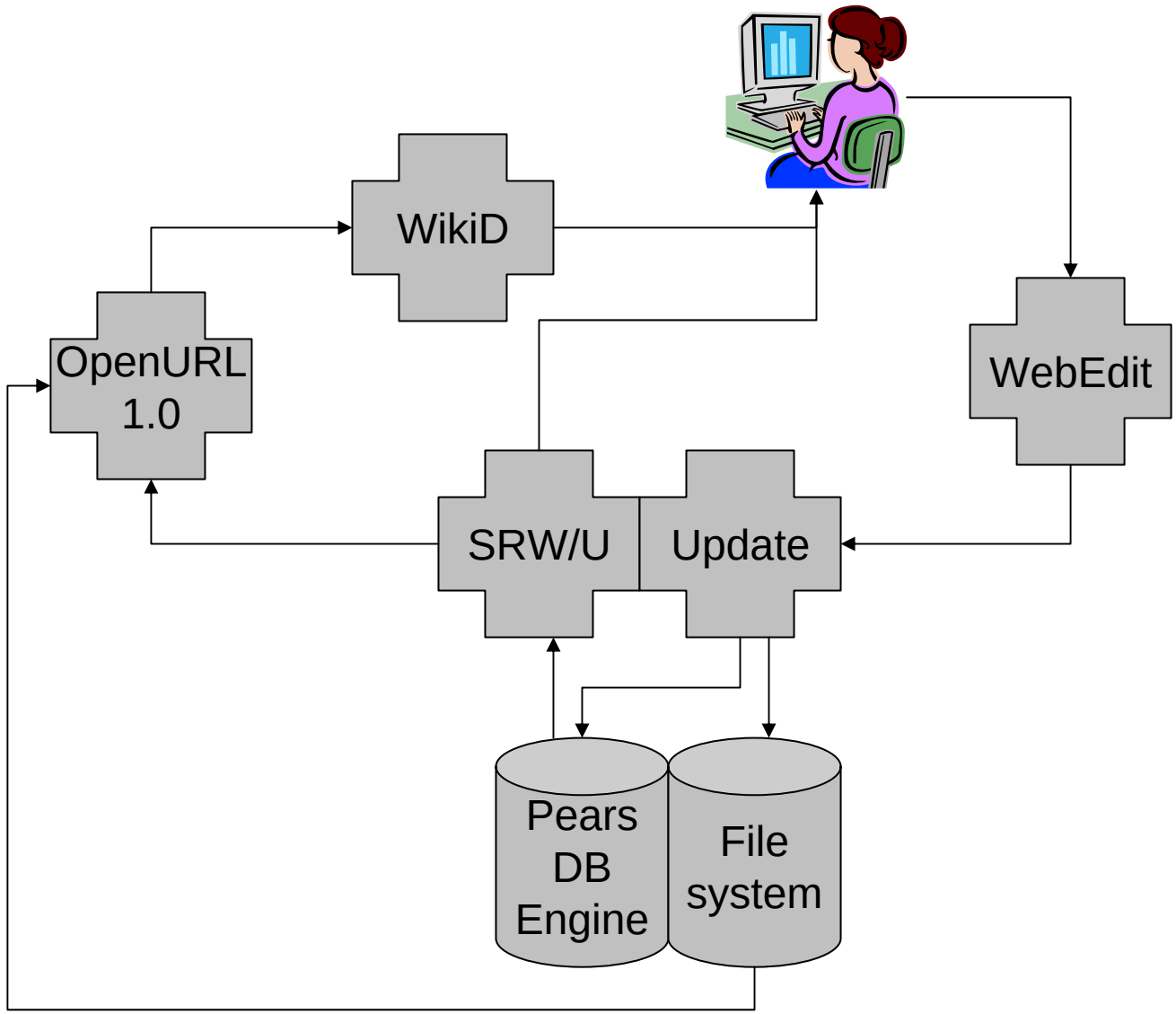
Limitations of ERRoLs

- ERRoL pushed the boundaries of OAI's harvesting mandate
- The ERRoL URL encoding rules were non-standard
  - http://errol.oclc.org/**orpubs.oclc.org**.*rss*
- Many OAI repositories were too slow and/or unreliable
- I was the only one exploiting ERRoL to its full potential
- I was requested to update from OpenURL 0.1 to 1.0
- Every OAI repository I operated was configured differently
- I needed a way to update my repositories online
- Coincidentally, I was playing with a wiki around this time and was disappointed with its performance and features

Synthesis of Available Solutions

- Instead of transforming OpenURL requests into ERRoL requests, I could flip it and use OpenURL as my core infrastructure.
- I could merge my OAI repositories into a single version-controlled database divided into “Collections”
  - Each collection can have its own native metadataFormat
  - XSL Stylesheets provide the user interfaces and crosswalks
- Use SRW/U as the database API
- The SRW community developed an Update web service protocol
  - I developed WebEdit to bridge the gap between HTML forms and the XML-based Update service
- This gave me everything I needed to create a wiki-style application to manage multiple collections of structured datasets
  - Conventional wiki capabilities could be contained in a single collection within the general model
  - The conventional wiki collection could serve as a user interface for the creation and maintenance of the various collections

Servlets & Data Flows



OpenURL 1.0

- Most people continue to think in terms of OpenURL 0.1:
  - Deliver the “appropriate copy” of a “journal article”
- OpenURL 1.0 abstracts the 0.1 function:
  - Supply the “appropriate service” related to an “identifiable resource”
  - The words “appropriate”, “service”, “identifiable” and “resource” are left to the imagination of developers
- OpenURL 0.1 is thus an “application” of OpenURL 1.0
- WikiD is another example of an OpenURL 1.0 application:
  - “identifiable resource” can be anything (but typically refers to internal collection items) and “appropriate service” can mean anything (but typically refers to wiki-style functions)

Overview

Ward Cunningham describes a wiki as "the simplest online database that could possibly work". The cost of this simplicity is that wikis are generally limited to a single collection containing a single kind of record (viz. WikiMarkupLanguage records). WikiD extends the Wiki model to support multiple WikiCollections containing arbitrary schemas of XML records with minimal additional complexity.

- Here are the standard TextFormattingRules in case you are new to wikis in general
- Here are some details about the WikiDEngine architecture
- Learn about WikiD's distinctive WikiCollection feature
- Learn about WikiD's distinctive OpenUriResolverFeature
- Check out the latest developments in the VersionFile

Here is a WikiDSandbox. You can use it to create and edit your own collections and wiki pages. Once you are comfortable there, feel free to contribute to any page on this site. All changes are archived, and can be viewed or recovered by selecting 'History' from the item's pulldown menu.

You can leave comments, suggestions, and problems on the WikiDFeedback page.

Dewey Record

History & geography / Geography & travel / Geography of & travel in Europe

Class: 914

Caption: Geography of and travel in Europe

Index Terms | Mapped Terms | Suggested Terms

travels in Spain

Down The Chianti Road: Tuscany

The world is flat a brief history of the twenty-first century

by Thomas L Friedman; Oliver Wyman

Your Review

Tell us what you think. Write a review of this item and share your opinions with others. Please be sure to focus your comments on the item. Read our content guidelines for more information.

1. How do you rate this item?

Very Good

2. Please enter a title for your review:

A bit long but definitely worth a read

3. Type your review in the space below:

The author does a good job explaining why the world is becoming a flat place where anyone can compete effectively on a global scale by taking advantage of the technologies that now exist. Mr. Friedman gets a little political in some places and somewhat repetitive (15 CD's for the audio version) in making his points, but overall I found the book to be informative and challenging to the traditional business models that have guided successful organizations in the past.

Submit Review Cancel and go back to reviews

Please note: Your Find in a Library session expires after 15 minutes of browser inactivity. (Composing or editing text within this form is not recognized as browser activity.) Your work may not be accepted if it is not submitted within 15 minutes of loading this page.

If you feel your work may take longer than 15 minutes, it is recommended that you log off Find in a Library, perform your work offline in a text editor or word processor, then log back on to Find in a Library and cut and paste your completed work into the form.

Support for Multiple Collections

- CollectionWikiPages is the **primary bootstrap collection** and gives WikiD its out-of-the-box Wiki functionality
  - Consider that many conventional wiki implementations treat certain types of WikiNames as special (e.g. WikiNames that begin with the word “Category”)
  - In the same spirit, CollectionWikiPages treats WikiNames that start with the word “Collection” as special
  - This special class of WikiNames allows users to create, reference, and manipulate collections in much the same way they would create and reference wiki pages.

To the FrontPage

RSS Collection: Wiki Pages (config)

Item: CollectionWikiPages:WikiDSandbox Edit xhtml

Wiki Markup (Rules)

```
= WikiD Sandbox =

* NormalWikiName : Refers to a conventional wiki page
* CollectionCuisineTypes : Refers to a WikiD collection
* CollectionRestaurants : Refers to a WikiD collection
```

Update Preview Delete Cancel

WikiD Sandbox

- NormalWikiName : Refers to a conventional wiki page
- CollectionCuisineTypes : Refers to a WikiD collection
- ?CollectionRestaurants : Refers to a WikiD collection

This collection doesn't exist yet.

Collection Name	Restaurants		
Local Identifier Type	◉ User-assigned ○ System-assigned ○ External (Instructions)		
Administrator's email	mailto:jyoung@oclc.org		
XSL Stylesheet	◉ System-created ○ Manually-created (Instructions)		
Native Record Schema	default ◉	restaurant: Restaurant Metadata Add new	MetadataPre restaurant
Crosswalks	**See the instructions to learn how to configure crosswalks**		
Crosswalk Schema	default ○	None Add new	MetadataPre
Crosswalk Schema	default ○	None Add new	MetadataPre
Crosswalk Schema	default ○	None Add new	MetadataPre

To the FrontPage	RSS Collection: Collection Collection (config)	Item: CollectionCollection:CollectionRestaurants Display config

*record

repositoryName	Restaurants
localIdentifierType	userAssigned
adminEmail	mailto:jyoung@oclc.org
defaultXSL	yes
***schemaURI**	info:sid/localhost:CollectionSimpleSchemas:restaurant
defaultSchemaURI	info:sid/localhost:CollectionSimpleSchemas:restaurant

WikiD Sandbox

- NormalWikiName : Refers to a conventional wiki page
- CollectionCuisineTypes : Refers to a WikiD collection
- CollectionRestaurants : Refers to a WikiD collection

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WikiD

To the FrontPage	RSS Collection: Restaurants (config)	New item identifier: kihachi Create Item

Item identifier	Item label	Edit link	Deposit record link	Record content link
There are no records in this collection				

Import records: (restaurant)	Import

To the FrontPage

RSS Collection: Restaurants (config)

Item: CollectionRestaurants:kihachi Display

restaurant

This record doesn't exist yet.

name	Kihachi
cuisine	Japanese
address	2667 Federated Blvd.
city	Columbus
state	OH
phone	(614) 764-9040
website	

Create

To the FrontPage	RSS Collection: Restaurants (config)	Item: CollectionRestaurants:kihachi Display restaurant

*record

name	Kihachi
cuisine	info:sid/localhost:CollectionCuisineTypes:japanese
address	2667 Federated Blvd.
city	Columbus
state	OH
phone	(614) 764-9040

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WikiD

To the FrontPage	RSS Collection: Restaurants (config)	New item identifier: [ ] Create Item

Item identifier	Item label	Edit link	Deposit record link	Record content link
tajPalace	Taj Palace	Edit item	View deposit	View raw data
sumenos	Sumeno's	Edit item	View deposit	View raw data
kihachi	Kihachi	Edit item	View deposit	View raw data

Import records: (restaurant)	[ ] Import

OpenURL 1.0 Resolver

- A standard for performing context-sensitive “services” on “referents” (e.g. rendering of wiki markup records)
  - http://alcme.oclc.org/openurl/docs/pdf/z39_88_2004.pdf
- WikiD installation is configured to recognize wiki-type services
  - display
  - edit
  - delete
  - etc.
- For this application, the OpenURL resolver is embed in the WikiD code rather than running as a sibling web-app
- http://www.oclc.org/research/projects/openurl/default.htm

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Wiki/OpenURL 1.0 Mapping

OpenURL Entity Type	Identifier	By Value Metadata	By Reference Metadata	Private Data
Referent	info:sid/localhost:CollectionWikiPages:**FrontPage/SubPage**			
Referring Entity	http://localhost/wikid/FrontPage			
Requester	User ID (if authenticated)			
Service Type				action=edit
Resolver				
Referrer	info:sid/oclc.org:WikiD			

Pears

- A record-based database system
- http://www.oclc.org/research/software/pears/default.htm

SRW / U

- Search/Retrieve Web/URL Service
- A SOAP/REST search service standard
  - http://www.loc.gov/z3950/agency/zing/srw/brief.html
- http://www.oclc.org/research/software/srw/default.htm

Update

- Update Web Service
- A database update web service standard created by the SRW/U community
  - http://srw.cheshire3.org/docs/update/
- Enhanced to support file system-based version control of documents

WebEdit

- A lightweight open-source web-based record editor
- Accepts HTML form submittals and transforms them into XML documents that conform to a desired XML Schema
- Forwards the generated XML document to a corresponding Update service

WikiD

- An lightweight wiki front-end to an OpenURL 1.0 resolver
  - This combination supports wiki-enhancements for managing fielded data collections
  - http://outgoing.typepad.com/outgoing/2005/05/metawiki.html
- doGet/doPost processing
  - Transforms a Wiki URL request into an OpenURL 1.0 ContextObject representation
  - Issues the ContextObject to the OpenURL resolver
  - Relays the resolver results back to the client

Reference Links

- WikiD project page
  - http://www.oclc.org/research/projects/wikid/
- WikiD demo
  - http://alcme.oclc.org/wikid/
- Open WorldCat contributed content (example)
  - http://worldcatlibraries.org/wcpa/oclc/58795737&tab=reviews
- OCLC DeweyBrowser
  - http://deweyresearch.oclc.org/ddcbrowser/a14