

Virtual Dave Linkes

Presentation

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TITLE: Building DREW

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VENUE: Reference Research Roundtable, ALA Annual Conference, Chicago, IL **ABSTRACT:** The goals of the DREW project are to: create a schema useful in archiving components of a reference transaction in a standardized manner; work with services to turn their archives into the DREW format; collect, clean, and remove personally identifiable information; create an exploration space for library scientists to create new models, measures, reports, and generalizations about the reference process; and create the infrastructure to allow services to directly benefit from the models the researchers create. Both librarians and researchers will learn how they can participate in the collaborative DREW project.

KEYWORDS: Virtual reference, digital reference, libraries, data warehouse, knowledge base, research



Building DREW

A Data Warehouse for Digital Reference



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http://DREW.syr.edu



Overview

Context of DREW: A Broadening View of Digital Reference

Concepts in DREW's Development

Applications of DREW

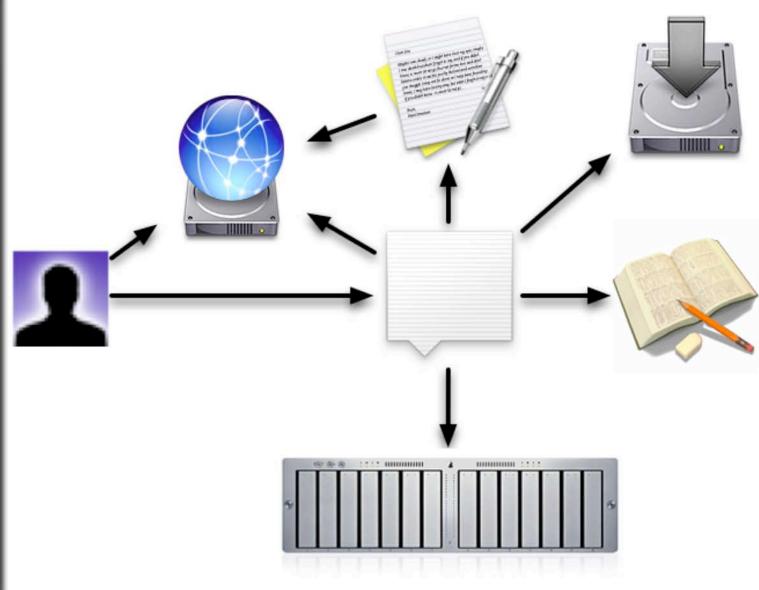


Context

- Digital Reference (Virtual Reference)
 Started with a Necessary Overemphasis on Human Intermediation
- Lead to Near Exclusive Emphasis on Numbers and Process
- Now We Need to Reintegrate Reference



Integrated Model of Dig_Ref





Myth of Useless Knowledge Base

- Many Say Knowledge Bases of Digital Reference Transactions are Useless
 - Too Much Editing Effort
 - Unstable URL Pool and Fact Shifting
 - Context Dependent Nature of Questions
- Truth
 - Too Early to Say
 - Little Research on Utility of Knowledge Bases
 - Imprecise Terminology
 - Ignores the Obvious Utility of Data Stores of Digital Reference Data
 - Statistics, Reporting, Management, Training



What is DREW

- A Large-Scale Repository for:
 - Raw Digital Reference Data
 - Technologies & Policies to Control Access for Research and Practice
 - Shared Repository of Open Tools for Research and Exploration of Digital Reference Data
- Vital Infrastructure for the Advancement of Digital Reference Research in General
 - Question Trends, Citation Patterns, Reference Encounter
- Platform to Examine Reference Authoring and Knowledge Bases in Particular



Levels of Digital Reference Data



Human Editing = Knowledge Base



Automated Cleaning = Archive

Raw = Data Warehouse



Levels of Digital Reference Data

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Human Editing = Knowledge Base

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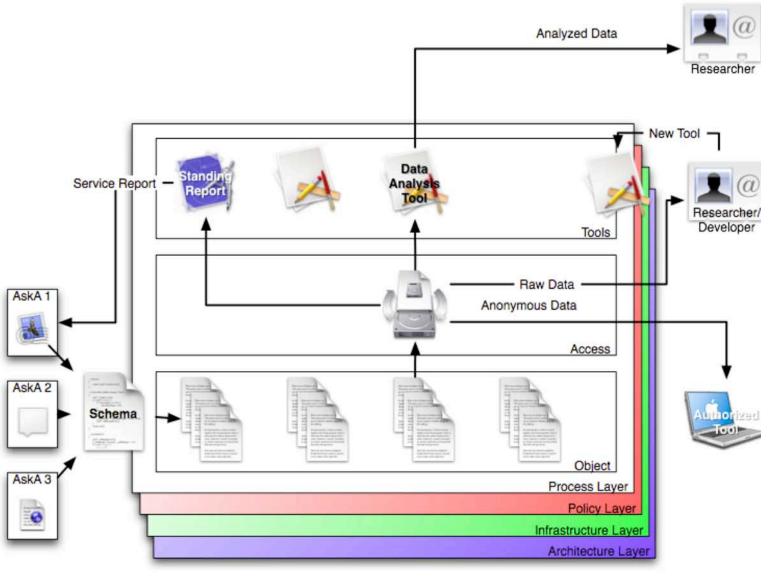
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Automated Cleaning = Archive

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DREW Overview





Practical DREW Applications

<u>Operational</u>

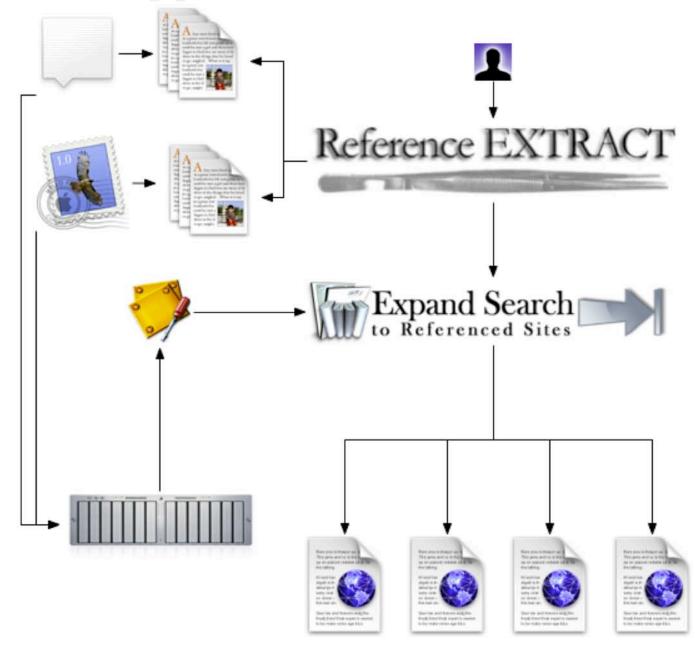
- Basic Reporting
 - Questions, Interactions, Time, Cited Resources
- Cited Resources and Collection Utilization
- Cross-Service Benchmarking

Research

- Random Sample of Transcripts
 - By library type, by service mode, longitudinally
- "Anonymizing" Through Natural Language Processing and Machine Learning
- Classification Tools
- Aggregation Statistics Cross-Service



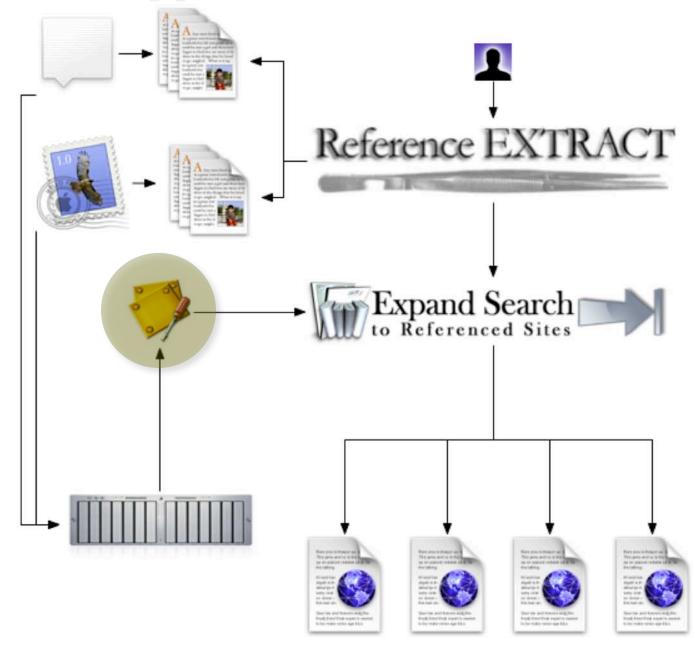
DREW Application







DREW Application







Conclusions

- Vital Infrastructure for Research and Management in Digital Reference
 - Useful Data, Easy to Use
- Model of Integration of Research and Practice
 - Building a Community of Data, Tool Building and Exploration
- Part of an Integrated View of Digital Reference
- Beginning an Exploration of Reference Authoring



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Slides and More Information