

Evaluative metadata in educational digital libraries: how users use evaluative metadata in the process of predictive judgment



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Beyond the descriptive metadata

- “...some of the decision-making information required by users is evaluative rather than merely descriptive” (Lynch, 1995, p.1512).
 - e.g., in print-world (book review or circulation and sales figures)
 - e.g., in networked environment (user ratings, comments, experts’ review, usage information)

- Literatures say...
 - **Annotation-** Additional information created by users (Gilliland)
 - **Evaluation** – narrative and subjective, such as a book or movie review, or may be more formally expressed by content ratings, which utilize rating schemas maintained by some authority (Caplan)
 - **Non-authoritative metadata** - embeds the context of usage. (Recker & Wiley)
 - **Annotation metadata** - any additional information which is separate from the resource metadata (Arko at el)
 - **Third-party label** - enables people to distribute electronic descriptions or ratings of digital works across the internet in a computer readable form (Eysenback & Diepgen)
 - **Evaluative metadata** – a cumulative nature, meaning that annotation from different users accumulate by time, as opposed to having one single authoritative evaluation (Vuorikari, Manouselis,& Duval)

What is evaluative metadata?

- Evaluative metadata is **quality and contextual information explicitly or implicitly contributed by users, experts, organization or others.**

- Types of Evaluative metadata
 - **Presentation in search results:** Qualitative (text) vs. Quantitative (numeric)
 - **By whom:** previous users, experts (peer-reviews), organizations
 - **Method:** Explicitly (e.g., user's comment, rating, peer review, organization's choice) vs. Implicitly contributed (e.g., previous users' usage (the number of download or save))

e.g., MERLOT: Evaluative Metadata

Learning Materials - Windows Internet Explorer
http://www.merlot.org/merlot/materials.htm?category=2267&

MERLOT
Multimedia Educational Resource for Learning and Online Teaching

Search Materials: **GO**
advanced search | search more digital libraries

Home Communities Learning Materials Member Directory My Profile About Us

Learning Materials [Become a Member](#) | [Log In](#)

Browse Path: [All](#) > [Education](#)

Education
[Educational Leadership \(88\)](#)
[Faculty Development \(1080\)](#)
[General \(392\)](#)
[Institutional Initiatives \(148\)](#)
[Library and Information Services \(287\)](#)
[TeacherEd \(1339\)](#)
[Virtual Environments \(26\)](#)
[ePortfolios \(70\)](#)

Contribute a Material
* Title:
* URL:
Next

New Search: **GO**

Items 1-10 shown of 3938 results

Sort by: Overall Rating

WebQuest Page
Author: Bernie Dodge
Bernie Dodge of San Diego State University developed the idea of WebQuests to teach students how to...
Type: Reference Material
Date Added: Aug 25, 2000
Date Modified: Jun 04, 2008

Ojala que llueva cafe
Author: Barbara Kuczun Nelson
A guided-reading selection in Spanish based on a song by Dominican artist Juan Luis Guerra, optional...
Type: Tutorial
Date Added: Mar 02, 2001
Date Modified: May 28, 2001

Neuroscience for Kids
Author: Eric Chudler
The entry point to an extensive site concerning the

Peer Review ★★★★★
Comments (10) avg: ★★★★★

Personal Collections (117)
Assignments (2)

Peer Review ★★★★★
Comments (7) avg: ★★★★★

Personal Collections (68)
Assignments (none)

Peer Review ★★★★★
Comments (18) avg: ★★★★★

User's Comments

Peer Review

Assignments

Editor's Choice

Personal Collection

Start | G:\WResearch\W2008 | Microsoft PowerPoint - [...] | JCDL_Soeun_NEW2.doc [...] | First_Soeun_m.doc - Mic... | Learning Materials - ... | Internet | 150% | << 12:12 AM

e.g., MERLOT: peer review

The screenshot shows a web browser window displaying a peer review page for 'WebQuest Page' by Bernie Dodge. The page includes a ratings section, an overview, learning goals, target student population, prerequisite knowledge, type of material, recommended use, and technical requirements. Three callout boxes on the right side of the page highlight specific strengths:

- Content Quality:** This site provides a variety of instructional resources for learning how to use and/or construct your own WebQuest. These resources include text descriptions and PowerPoint presentations. The site also provides templates and concrete examples of WebQuests for K to 12 students and adult learners. In addition, there are numerous links to other resources that can help when developing WebQuests. The materials are clearly written and provide excellent detail about the development and use of WebQuests. There are appropriate references supporting the development and use of WebQuests. In addition, the materials provide concrete examples.
- Potential Effectiveness as a Teaching Tool:** WebQuests are a very powerful inquiry-oriented activity. The variety of materials is excellent. Also the flexibility of use is inherent in what is available. Instructors can use the materials to develop their own WebQuests, teach students how to design WebQuests, and for other purposes. For example, the explanations and links to Rubric development could be used separately in a Classroom Assessment Course.
- Ease of Use for Both Students and Faculty:** The initial navigation within this site is very straight forward, as the opening (home) page for The WebQuest Page, is actually a site map with clear links to the following major sections: Overview and FAQs, Fan Mail & Awards, Community, Training Materials, Search, What's New?, and Examples. There are also links back to the home page (site map) from each of these major sections.

There is a Search Engine for the site which makes it very easy to find specific resources or pages. The content for the site is easy to read and understand as a clear and consistent organizational template has been applied to each page.

e.g., MERLOT : users' comments

Comments - Windows Internet Explorer
http://www.merlot.org/merlot/comments.htm?material=90081&backPage=%2Fmaterials.htm

for DNA from the Beginning

Items 1-10 shown of 16 results

Sort by: Title Go

Comment Title	Author (Status)	Remarks	Rating	Used in classroom	Date added
A comment for DNA from the Beginning	by Michal Kasza (Staff)		Rating: Comment only	Used in classroom: no	May 28, 2008
A comment for DNA from the Beginning	by JACQUELINE SPIVEY (Administrator)	Remarks: Hi to all the other members .My classes and i find it to be helpful in many ways.One thing i have to say if your child or students have trouble with...	Rating: ★★☆☆	Used in classroom: no	May 25, 2008
A comment for DNA from the Beginning	by Ronald Jackson ()	Remarks: I am planning to get this for my up and coming Genetics reference on anything regarding Genetics.	Rating: ★★★★★	Used in classroom: no	Jul 18, 2007
A comment for DNA from the Beginning	by neethu joseph (Student)	Remarks: this is really really useful.I felt genetics very intresting after entering the site.thanks to the submitter.!!	Rating: ★★★★★	Used in classroom: no	May 24, 2007
A comment for DNA from the Beginning	by Katie Farnworth (Student)	Remarks: I've always been interested in genetics and this website is a fun way to review and learn new things related to that topic. The animations and...	Rating: ★★★★★	Used in classroom: no	May 07, 2007

Done

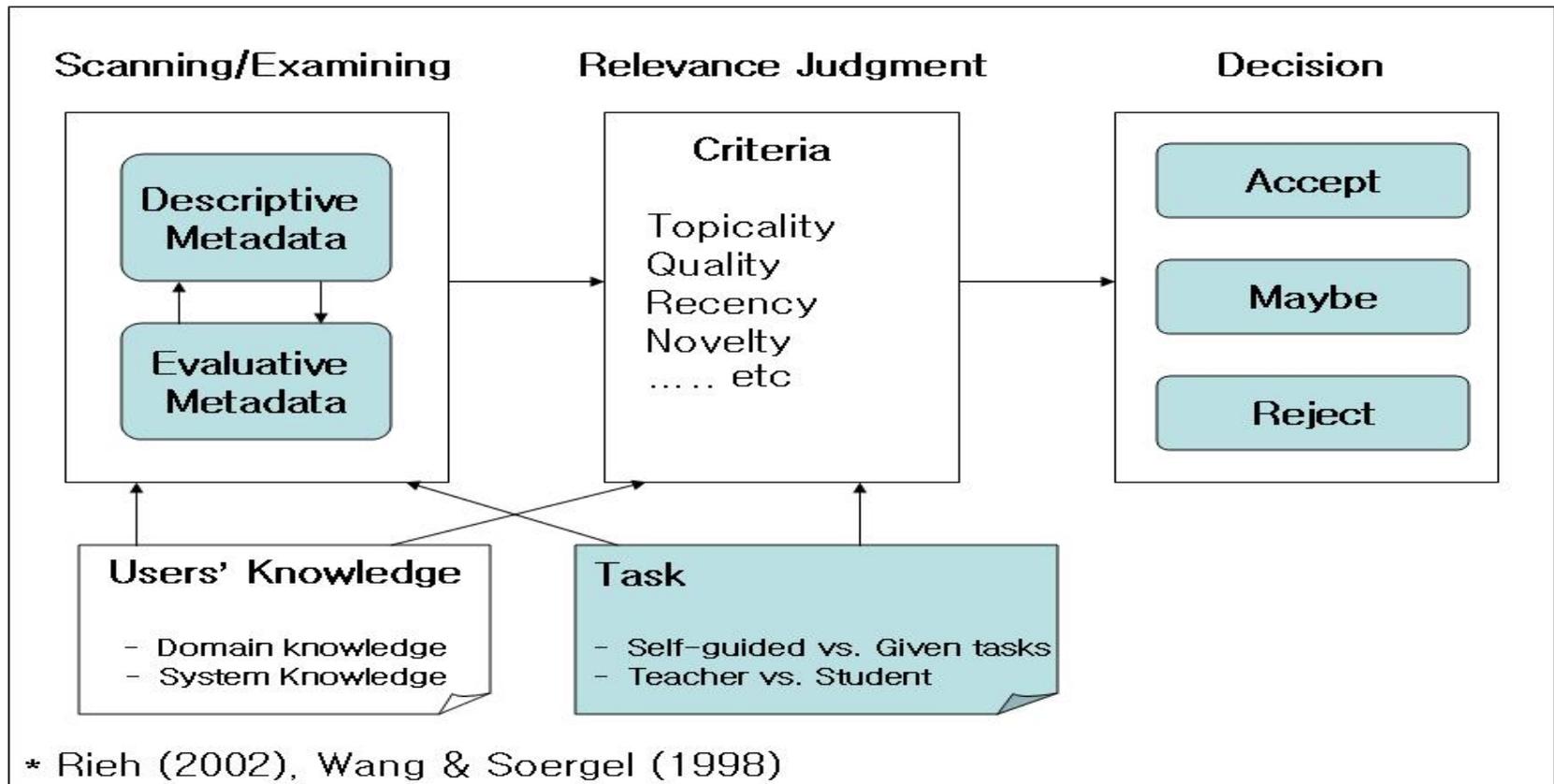
Start SOELIN Comments - Windows... Presentation2.ppt First_Soeun_m.doc - Mic... Internet 150% 2:18 AM

Research Questions

- How do users use **evaluative metadata in the process of document selection**?
 - scanning → relevance judgment → decision making
- **Which types** of evaluative metadata elements do users **most commonly used** in the process of document selection?
- How does **each types** of evaluative metadata element **affect differently** the process of document selection?
- How do **users' knowledge and tasks** affect the users' uses of evaluative metadata?

Conceptual Framework

Predictive Judgment



Specific Research Questions

Research Questions	Specific Research Questions for Data Collection
How do users use evaluative metadata in the process of document selection?	What cognitive processes do people use to select information while using an educational digital library? What are the orders in which users review metadata elements? Are there any common routes?
Which types of evaluative metadata elements do users most commonly used in the process of document selection?	Which metadata elements do users most commonly use to determine whether or not to pursue the document?
How does each types of evaluative metadata element affect differently the process of document selection?	What criteria do users employ to determine the usefulness/relevance of a document?
How do a user's characteristics and task affect the user's uses of evaluative metadata?	Does the task/ user's knowledge of the topic affect how users use metadata elements for determining the usefulness of the document?

Qualitative approach

- Explore the usage of evaluative metadata in the course of document selection.
- Document selection process : a subjective, dynamic, situational and affective process
- Lack of existing literature on evaluative metadata in the course of users' document selection behavior
- A setting that will encourage participants to freely describe their thoughts and cognitive processes during document selection.

Methodology

- ❑ Main data collection method: **Verbalization** (think-aloud and Interview)
- ❑ Participants: Graduate students in School Media Specialist and Education department in Florida State University
- ❑ Digital library: MERLOT: Multimedia Educational Resource for Online Learning and Teaching (www.merlot.org)

Data Collection Methods

Research Questions	Data Collection Methods
What cognitive processes do people use to select information while using an educational digital library?	Think-aloud Semi-structured interview
Which metadata elements do users most commonly use to determine whether or not to pursue the document?	Think-aloud Semi-structured interview
What are the orders in which users review metadata elements? Are there any common routes?	Think-aloud Semi-structured interview
What criteria do users employ to determine the usefulness of a document?	Semi-structured interview Think-aloud
Does the task/ user's knowledge of the topic affect how users use metadata elements for determining the usefulness of the document?	Reference Interview Semi-structured interview

Data Collection Procedures

- **Participants gathering**
- **Questionnaires and Reference Interview** (structured)
 - demographic data (gender, profession, status, knowledge & experience of computer, internet, www, and educational digital library) and users' information needs – paper and audio recording
- **Training Merlot's search result interface**
- **Search**
 - based on both user's information needs (keyword from users) and a given task (keyword from researcher).
 - review the search results and make a relevance judgment in order to decide whether or not to read or obtain the full-text document.
 - verbalization (think-aloud) – Video and Audio recording
- **Post Interview** (semi-structured)
 - ask “why” questions and complement the comments of the think-aloud - Audio recording

Data Analysis

Data Collection Methods	Data Analysis
Questionnaire	Descriptive statistics
Reference Interview Think-aloud Post Interview	Qualitative content analysis 1. Coding scheme creation 2. Transcribing 3. Coding



Thank you!

