Making Sense of the World Wide Web

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Making Sense of the Web

Origin of this work

- University of Michigan Digital Library
  - Kathleen Hamel, Tracy Hammerman, Elisabeth Klann, Beth Klein

- Observations of
  - Sixth grade science students
  - High school science students
  - Teachers 5-12
  - New capacities and trends on the Web
This morning’s presentation

- Categorizing the Web by function
  - Different way of thinking about Web resources
  - Approximately thirty minutes

- Interactive session
  - Questions
  - Comments
  - Suggestions
  - Approximately twenty minutes
Preliminary observations

- Learning uppermost
  - Improvement or acquisition of cognitive, social, physical skills
  - Increase of factual, procedural knowledge

- Difficulty of assessment
  - What changed?
  - What are students doing?
  - What do students “own”?
  - What difficulties are students facing?
Preliminary observations 2

- Curriculum integration
  - Students need to connect to regular activities
  - Goals of Web work need to tie in

- Technology problems
  - It ain’t a toaster
  - Scheduling
  - Learning software v. learning subject
Content categorization

- Excellent, useful way to think about the Web
  - Yahoo (www.yahoo.com/)
  - Hotbot (www.hotbot.com/)
  - Argus Clearinghouse (www.clearinghouse.net/)

- Web as encyclopedia
  - Most common use at this time
  - Learning activity?
Function characterization

- What capacity does this resource enhance?
- What kinds of educational activities follow?
- What will the challenges be?
Category structure

- Characteristics of the category?
- Examples
  - Not necessarily “best”
  - Not meant to be hot list
- Where does it fit in?
  - Educational activities
  - Lesson style
    - Grouping
    - Technology
Categories

- Extend collections
- Current information
- Periodicals
- Forum for publications
- Interact with other students/teachers
- Use computer, other technical resources
- Take advantage of unique opportunities
- Curriculum/professional resources
- Motivation
Extend local collections

Characteristics

- It’s not possible for any media center to support every question every student might ask

Examples

- The Argus Clearinghouse
- Medline
- Middle Years Digital Library
See Current Information

Characteristics
- Sites which give up-to-the-minute information
- Data is never “frozen”

Examples
- EarthCam Index
- Earthquake of the Day
- The Weather Channel
Read Periodicals

- Characteristics
  - Data which changes periodically
  - Centered on a topic area

- Examples
  - Annals of Improbable Research (AIR)
  - Outside On-Line
  - Sky & Telescope
  - CNN Interactive
Most material students work with is secondary—Primary is too complex, fragile, expensive, or bulky.

Examples

- American Memory
- California Census Data
- The Hiroshima Archive
Forum for Student Publication

Characteristics
- Provides a place for student voices
- Does not need high-tech equipment to serve

Examples
- Folk Tales From Africa
- Middlezine
Interact with Others

Characteristics
- As with publishing, allow students to be producers of information
- Parent permission is critical

Examples
- FreeZone E-Pals
- Kids as Global Scientists
- Teacher to Teacher Forum
Use Technological Resources

Characteristics

- Computers have always been used to control devices
- Using resources over the Web gives access to costly, high maintenance technology

Examples

- Automatic Translation Service
- Aerodynamics Calculator
- National Budget Simulator
Unique Opportunities

Characteristics

- Some things are too dangerous, too expensive, or too remote for kids to do

Examples

- MayaQuest
- KC-135 Vomit Comet
Distribute Curriculum

Characteristics
- In addition to providing content, the Web can be a curriculum material distribution system

Examples
- Busted!
- Swarthmore’s Math Forum
- Kids as Global Scientists
Motivation

Characteristics

- Sometimes it’s okay to make a cake, just so you can lick the frosting off the beater.

Examples

- Interactive Magic
- Beanie Babies’ Home Page
- Movies.com
Limitations

Of the Web

- Uncritically analyzed tasks for students
- Quality and bias of materials

Of this inquiry

- This was not itself a research study
- Examples cited not “best”, limited in number
Directions

For the Web

- Further development of materials for teacher use
- More student production of knowledge

For us

- Please make this a dialogue
- Be critical of what you see
Website, Contact Information

www-personal.umich.edu/~jmargeru/websense/
  ➤ Links to all website examples
  ➤ On-Line “paper”
  ➤ Feedback form

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