4 C's

Computers
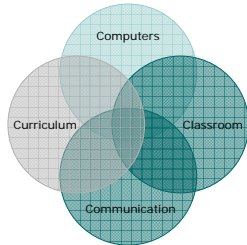**C**urriculum
Communication
and the
Classroom

Presented by Kathy Schrock

You will…

- identify and locate technology resources and evaluate them for accuracy and suitability
- continually evaluate and reflect on professional practice to make informed decisions regarding the use of technology in support of student learning
- identify and use technology resources that affirm diversity
- use technology to communicate and collaborate with peers, parents, and the larger community in order to nurture student learning

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You will…

- Learn effective evaluation skills
- Understand the components of critical evaluation of Web information
- Identify online tools to support instruction
- Become familiar with online professional collaboration
- Create an online communication tool

Online support page…

http://kathyschrock.net/4cs/

Overview

- Critical evaluation skills
- Subject directory investigation
- Online search strategies
- Online tool use
- Creation of an online communication area

Critical Evaluation Skills

5 W's of Web Site Evaluation

Who wrote the pages and are they an expert?

What does the author say is the purpose of the site?

When was the site created and last updated?

Where does the information come from?

Why is the information useful for my purpose?

Who wrote the pages and are they an expert?

- Who is providing the information?
- What information do they offer about themselves?
- How can you determine if others think the information is credible?
- How can you find out more about them?

What does the author say is the purpose of the site?

- Is the rationale for inclusion/exclusion included?
- Is there a statement of purpose?
- Are there obvious information gaps compared to other sources?

When was the site created and last updated?

- Is the date of creation included?
- Is the date of last update included?
- Does date make a difference for your information need?

Where does the information come from?

- Is a bibliography of sources used provided?
- Is a bibliography of related sources included?
- Are full citations given?

Why is the information useful for my purpose?

- Does the new information change what you know about the topic?
- Is the information pertinent to your stated needs?
- Can the information be verified?

Critical Evaluation Assignment

- Go to http://kathyschrock.net/4cs/
- Using the evaluation handout in your packet, critically evaluate
  - Feline Reactions
  - Dihydrogen Monoxide
  - Velcro Crop Under Challenge
- Be prepared to discuss the process

Experts Share Assignment

- Break into 6 groups
- Number your groups (1-6)
- Visit http://kathyschrock.net/4cs/
- Read the article for your group #
- Choose a reporter to summarize all group members' thoughts
- *Important Book Summarizer* presentation to the large group

Wrap up of evaluation

- Internalize the criteria
- Learn the things to watch out that may impact the credibility of the information

Subject Directory Investigation

How does a directory work?

Facets of a subject directory

- Created by humans
- Provide a classification scheme
- Intended to be browsed
- May have a search tool to itself
- Smaller than search engine indices

Subject Directory Assignment

- Visit http://kathyschrock.net/4cs/
- Take a look at the educational subject directories listed
- Using your subject directory worksheet, compare and contrast the directories

Subject Directories: Wrap-Up

- Subject-specific ones are useful
- Small number of relevant sites
- Browseable
- Start here when unsure of what might be available

Online Searching Strategies

Overview

- Problems with searching
- Three main types of search tools
- The top search engines
- What to do before you start
- Advanced search strategies
- The future of search
- The Invisible Web

The Problems

- Too many hits for my query
- Can't find what I am looking for
- How do formulate words to get what I want?
- Which search engine do I use?
- How do I avoid "bird walks"?

Three types of search tools

- Search engines
  - Google
  - AltaVista
- Meta-search engines
  - Vivisimo
- Directories
  - MSN
  - LookSmart

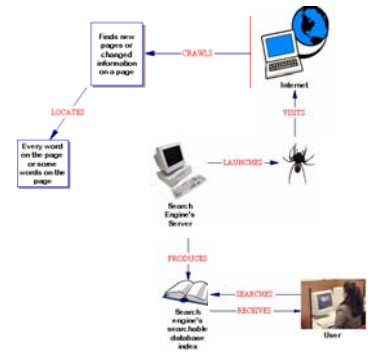## What *is* a search engine?

- Software (robots, spiders, or crawlers) that indexes and catalogs the Internet into a database of keywords
- Active 24 hours per day
- Systematic approach to indexing sites
- Creates a database that *you* search

How does a search engine work?

What *is* a meta-search engine?

- Doesn't crawl the Web itself to build listings
- Allow searches to be sent to several search engines/directories all at once
- Results are blended together onto one page

Example of meta-search engine

What *is* a directory?

- Created by "expert" human beings
- Sites identified and classified
- Browseable and searchable

Example of a subject directory

The Most Popular Search Tools

US Digital Media Universe Audience Reach
Home & Work Users
October 2002

GG	29.2%
YH	28.5%
MSN	28.1%
AOL	19.7%
AJ	10.3%
NS	5.5%
OVR	5.4%
IS	5.1%
AV	4.4%
LY	4.4%
LS	3.0%
ELINK	1.8%

Source: NielsenNetRatings for SearchEngineWatch.com

Key:

GG=Google
YH=Yahoo
MSN=MSN
AOL=AOL
AJ=Ask Jeeves
NS=Netscape
OVR=Overture
IS=InfoSeek
AV=AltaVista
LY=Lycos
LS=LookSmart
ELINK=Earthlink

c2003-5. Kathy Schrock. kathy@kathyschrock.net

What to do before you start…

Taken from:
Bernie Dodge
"What to do before searching"
http://webquest.sdsu.edu/searching/stepzero.html

c2003-5. Kathy Schrock. kathy@kathyschrock.net

Think about your topic

What is the question you're trying to answer?

Think about the…
- people
- terms
- organizations
- places
- objects, etc.

…that will most probably be on the Web page that will contain your answer

c2003-5. Kathy Schrock. kathy@kathyschrock.net

Assignment #1

Write down a reference question on your worksheet.

Don't make it extremely narrow, but do not make it too broad. For example:

"Where would I find research dealing with the impact of technology on student achievement?"

c2003-5. Kathy Schrock. kathy@kathyschrock.net

Create a 3M list of search terms

- Must: surely appear
- Might: synonyms
- Mustn't: not interested

Must	Might	Mustn't

c2003-5. Kathy Schrock. kathy@kathyschrock.net

Assignment #2

- On the 3M chart on the worksheet, list key words that must, might, and mustn't be on the page that will answer your question.

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AltaVista Advanced Search

Advanced Search Page

○ Most comprehensive search engines have an advanced search page
○ May or may not allow Boolean
○ May be fill-in-the-blank

Basic Boolean

AND results must contain all words joined by AND (Saturn AND planet) = **Fewer hits**

OR results must contain at least one of the words (elevator OR lift) = **More hits**

NOT results will not contain word after the term NOT (nirvana AND Buddhism NOT rock NOT music) = **Fewer hits**

Boolean Search Machine

○ Visit http://kathyschrock.net/4cs/
○ Visit Rockwell Schrock's Boolean Machine
○ Brainstorm ways to use this with students

Assignment #3

1. On the worksheet, write two Boolean queries using true Boolean operators
2. Go to http://kathyschrock.net/4cs/
3. Click on AltaVista Advanced Page link
4. Conduct your two searches and note both the number of hits and the relevancy of the results

Google Advanced Search

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Google Advanced Search

Find results
- with **all** of the words — AND
- with the **exact phrase** — PHRASE SEARCH
- with **at least one** of the words — OR
- **without** the words — NOT

Assignment #4

1. Create your queries in the Google boxes on the worksheet, without using phrases
2. Go to http://kathyschrock.net/4cs/
3. Click on Google Advanced Page link
4. Conduct your two searches (again) and note both the number of hits and the relevancy of the results
5. Try a phrase search and note relevancy

Strategies for Using Google

Taken from:
Bernie Dodge
"Four NETS for better searching"
http://webquest.sdsu.edu/searching/fournets.htm

Start Narrow

- Think of all the words that would always appear on the perfect page.

   *Put in the **WITH ALL THE WORDS** field*

- Think of words that might help you eliminate distracting pages.
  *Put in the **WITHOUT** field.*

- If there's a term with synonyms, either of which might appear on the page you're after, *put them in the **WITH ANY OF THE WORDS** field.*

Phrase searching

- Helpful for finding names of places, people and books
- Useful if you remember a distinctive phrase
- Can see if work is "borrowed"
- Can stamp out "urban legends"

Assignment #5

On your worksheet, fill in the Google search boxes with the terms you might/might not use for a search looking for information literacy skills for grades K-8.

Go to Google Advanced search, conduct the search, and note the number of hits.

One answer to assignment #5

Find results	with **all** of the words	
	with the **exact phrase**	information literacy skills
	with **at least one** of the words	
	without the words	college university

Number of hits: 8470

Google Advanced Search Extras

Language	Return pages written in	any language
File Format	Only ▾ return results of the file format	any format
Date	Return web pages updated in the	anytime
Occurrences	Return results where my terms occur	anywhere in the page ▾
Domain	Only ▾ return results from the site or domain	e.g. google.com, .org _More info_
SafeSearch	◉ No filtering ○ Filter using _SafeSearch_	

Google Page-Specific Search

Page-Specific Search

| Similar | Find pages similar to the page | | Search |
| Links | Find pages that link to the page | e.g. www.google.com/help.html | Search |

- Use to find pages with like vocabulary and links
- Use to find pages that link to a page you like
- Use to "ego" surf

Things to ask yourself

- Can I do wildcard searches with this search engine?
  - educat* to get education, educator, etc.
- Does capitalization make a difference?
- Does the order of names make a difference?

Assignment #6

- Go to http://kathyschrock.net/4cs/
- Visit the help files for AltaVista and Google
- Fill in the chart on your worksheet

Answers to Assignment #6

Search Engine	Wildcard searching allowed?	Capitalization make a difference?	Name order make a difference?
AltaVista	Y		
Google	N		

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Boolean Stop Words

- Most web search engines will not search certain words: a, an, the, is, or, www
- Different search engines treat the information differently

Relevancy Rankings

- Search term frequency
- Positioning of key words in the document
  - Appear in title tag
  - Appear near the top of the page
  - Appear in meta-tags
  - Appear in hyperlinks on the page
- "Link popularity"

The Future of Search

Assignment #7

- Go to http://kathyschrock.net/4cs/
- Click on Kartoo and WebBrain on the list
- Conduct your search and try limiting and broadening as well as visiting the sites returned

The Invisible Web

- Not reached by the search engines
- Database information
- Dynamically-created information
- Directories of searchable databases

Assignment #8

- Go to http://kathyschrock.net/4cs/
- Click on the Invisible Web link
- Take a look at the invisible Web subject directories available
- Conduct your search in one of the databases you choose

General Search Strategies

Taken from:
Joyce Valenza
"Expanding the searching toolkit"
Classroom Connect, December 2000/January 2001

General searching tips 1

- Do some thinking before going online
- Choose the most unique terms you can
- Avoid common words unless in a phrase
- Use words that you want to see in results
- Type the most important words first
- Use at least 3 keywords

General searching tips 2

- Constantly refine your search
- Examine the results, looking for words
- Read the tips page of the search tool
- Start at the advanced search page
- Check your spelling

Google "fun" stuff

- Calishain, Tara, et.al. *Google Pocket Guide.* O'Reilly Press, 2003.
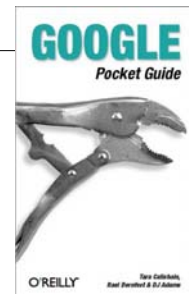
Google Image Search

- Archive of over 425 million images
- Everything from icon-sized images to portrait-sized pictures
- Start with advanced search page to choose options

Google Groups

- Archive of 20 years of Usenet
- Over 200 million messages
- Browesable and searchable
- Helpful when determining authority
  - Groups main page: Kathy Schrock
  - Advanced page: author Kathy Schrock

Google Group Posting

- Click on
  BROWSE COMPLETE LIST OF GROUPS
- Drop down INTERLOG-LEXNEWS
- Choose K12
- Choose k12.library
- Choose to POST TO…
- Have to register for a Google account

Google News

- Mines over 4500 news sources
- Headlines are clustered by subject
- Continuously updated

Google Directory

- Multi-subject directory
- Smaller than the search indices
  - 1.5 million pages vs. 3 billion
- Based on the Open Directory Project

Froogle

- Locates stores that sell the item you want to find
- Points you directly to the place where you can make a purchase

Google Catalogs

- Search over 6000 print catalogs
- Scanned in pages from catalogs
- Searchable by keyword

Google "Hacks"

- Cookin' with Google

Cookin' With Google

Cookin' With Google

Gimme a couple of ingredients:

Please tell me what kind of recipe you want: General

Grab A Recipe   Start Over

Google "Hacks"

- Googlefight
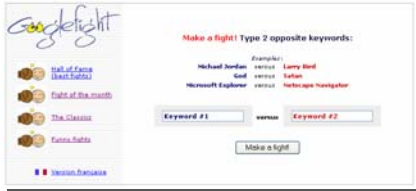
Assignment #9

- Go to http://kathyschrock.net/4cs/
- Visit 2 of the specialized Google pages
- On the worksheet, jot down something neat and something you learned about them
- Be prepared to share

Searching for Information

- I need a few good hits **fast**.
  - Google: general purpose search engine
  - Ixquick: meta-search engine

- I need **quality, evaluated pathfinders** prepared by a **subject expert.**
  - Pinakes: a launchpad to academic directories
  - About.com: subject expert-created pages

Assignment #10

- Go to http://kathyschrock.net/4cs/
- Click on "Best tool for the job" link
- Visit 4 sites you have never visited and conduct searches
- Be prepared to share results and discoveries. Take notes on your worksheet.

Wrap-Up of searching

- Search engines are a-changin'
- Visit *searchenginewatch.com*
- Boolean searching has been refined
- Visual search engines are a-comin'
- Invisible Web access via directories

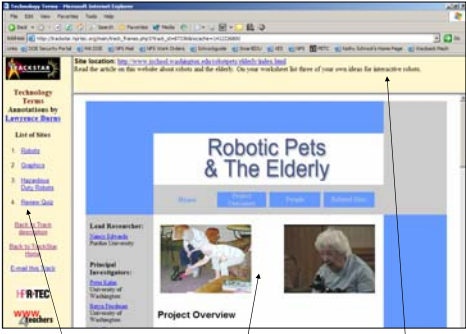## Online Tools Investigation

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Online Tool definition

o An Internet-accessible site allowing the creation of an interactive Web page for student use, or one which allows the use of the Internet to create an offline product

TrackStar

o TrackStar is a Web page creation tool that provides the creator with the ability to add links, activities, and see a Web page all in a neat little window

Links to sites   Web site   Instructions

TrackStar Assignment

o Visit http://kathyschrock.net/4cs/

o Click on the TrackStar link

o Do some searching and browsing

o Be prepared to explore ways to use this with students

o Can the information on this site be useful in other ways?

Puzzlemaker

o Online tool for word searches, crossword puzzles, and much more

o Visit http://kathyschrock.net/4cs/

o Create a puzzle based on information you have learned today

o Print it out

BibBuilder

o MLA-style bibliography builder
o Visit http://kathyschrock.net/4cs/
o Try the tool out

3-D Text Maker

- Create "cool" text pictures for use on Web pages
- Visit http://kathyschrock.net/4cs/
- Create 3-D text images using the words and save them to the desktop
  - NEW
  - E-MAIL ME
  - WOW

Other online tools

- Visit http://kathyschrock.net/4cs/
- Click on *Online Tools for Teaching and Learning*
- Visit 5 sites
- Be prepared to share the ways you would use one with students

Online Tools Wrap-up

- There are many free online tools for creating both online and offline content for students
- Some provide parts for free and parts for a fee

Blog Overview

Web Logs in Education

- Easily created, easily updated Web pages or Web sites that can be accessed and edited from the Web browser of any Internet-connected computer.

http://www.weblogg-ed.com/

What are some different uses?

- Online student portfolios or filing cabinets where assignments and projects are stored
- Class portals where teachers keep homework assignments, links, handouts, syllabi, etc.
- collaborative writing spaces where students read and give feedback to one another.
- Reader's guides for literature study, newspapers, and project sites where students create and contribute all content

http://www.weblogg-ed.com/

Impact on teaching and learning

- Easy-to-use web publishing tools like Web logs has effectively lowered the technology barrier
- Features provide ideal spaces for the presentation and discussion of knowledge and information
- Open, flexible nature of Weblogs encourages dialogues among all participants

http://www.weblogg-ed.com/

Tech Blog: kathyschrock.blogspot.com

Post comment

Creating your first blog

- Let's work through the registration and template-choosing process
- Go to http://www.blogger.com/

Create a new blog

Create a new account

Create a new blog
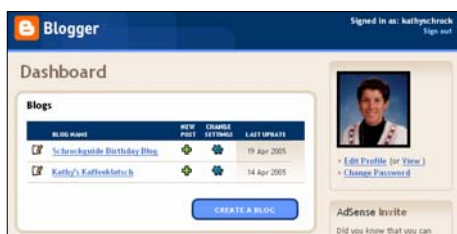
Name your blog

Name of blog

URL of blog

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Choose your template

Start posting

Title of post →

Post text →

Allow comments? →
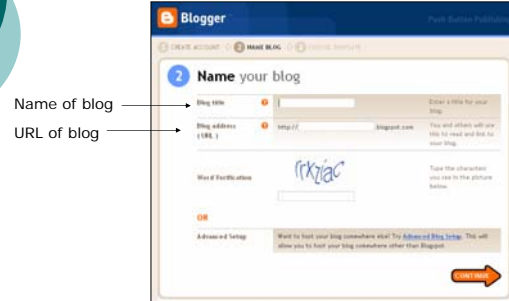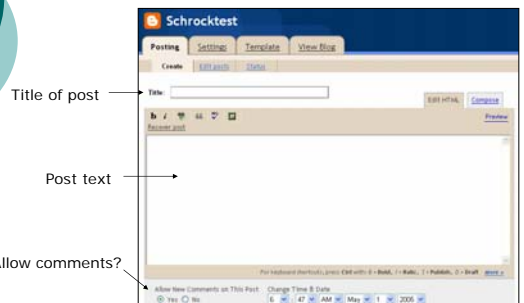
3 postings to create on your blog

- Introduction to the blog
- List of 3 curriculum-related links
- Probing question you want students to answer

Objectives met…

- Learn effective evaluation skills
- Understand the components of critical evaluation of Web information
- Identify online tools to support instruction
- Become familiar with online professional collaboration
- Create an online communication area

The End

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