Searching the WWW

Locating the right information on the WWW requires effort

Looking In the Right Place

The WWW is not the first place to look

- **Go directly to a site -- www.irs.gov**

  Guessing a site's URL is often very easy, making it a fast way to find information
- **Go to right sight -- dictionary.cambridge.org**
- **Go to the library -- www.lib.washington.edu**
- **Go for the kind of information you want -- www.npr.org**

Ask, "What site provides this information?"

2

Search Engines

No one controls what's published on the WWW ... it is totally decentralized

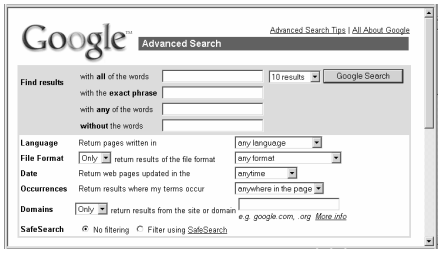
To find out, *search engines crawl* Web

- Two parts
  - *Crawler* visits Web pages building an *index* of the content
  - *Query processor* checks user requests against the index, reports on known pages

Only a fraction of the Web's content is crawled

3

Google Advanced



4

Boolean Queries

Search Engine words are independent

Search for ▶ Mona Lisa

- Words don't have to occur together

- To be explicit about occurrences use Boolean queries and quotes
  - Logical Operators: AND, OR, NOT

    monet AND water AND lilies

    "van gogh" OR gauguin

    vermeer AND girl AND NOT pearl

5

Queries

Searching strategies …

- Limit by top level domains or format
- Find terms most specific to topic
- Look elsewhere for key words, e.g. bio
- Use exact phrase only when universal
- If too many hits, requery
- "Search within results" using "-"
- Once found, ask if site is best source

6

Truth on the Web

- Much Web information is wrong
- Using the Web effectively means recognizing quality information
  - Information from reliable organizations is usually preferred -- check out ownership
  - Look for accuracy, currency, …
  - Follow links to verify that the content supports the original page

Best: Locate independent verification

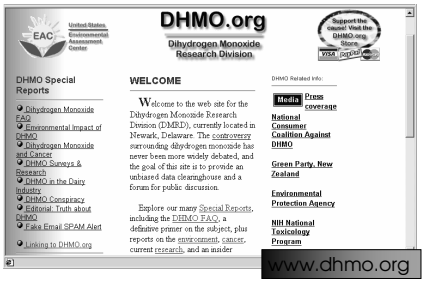
7

A Bogus Site

descy.50megs.com/akcj3/bmd.html

8

True Site, Bogus Implication



www.dhmo.org

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Intellectual Property

Most intellectual property (IP) is protected

- **You can't use it unless you pay the creator**
- **IP: movies, songs, performances, photos, Web pages, sculptures, …**
- **Penalties are severe …**

You can't publish stuff off Web, e.g. photos, w/o authorization – pub domain, allowed, permission

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Copyright

Applies to writings, photos, programs,…

- **No © notice is required**
- **More rights than copying**
- **Noncommercial use is no excuse**
- **Penalties are huge: $100,000 each**
- **Fair use is for worthy uses (education)**
- **See Chapter 12, pp.353-358**

Bottom line: Use your own intellect to create your own intellectual property … that way you're paid

Page Rank

Millions of hits make no difference if the one you want is buried in the list

- **Google solves this using page rank**
- **A page's rank is based on the number of pages that reference it and their rank**
- **Page rank is Google's measure of importance**
- **Pages are listed in decreasing rank**

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Google Whacking

Google Whacking is a game for people with no social life …

- **Find a pair of words which have only one Google hit**
- **Seach googlwhack for lists**
- **If you list your GW on your Web page, guess what …!**

ambidextrous scallywags
illuminatus ombudsman
squirreling dervishes
assonant octosyllable
fetishized armadillo
panfish interrogation

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Google Bomb

Google's page rank can be affected by users … the Google Bomb

- **Many users using a common term to link to a site (term force it to be listed first in a Google search ...**
- **"miserable failure" has George W Bush's biography as the first hit**

Sponsored Links

Biography of President George W. Bush
Biography of the 43rd President of the United States.
www.whitehouse.gov/president/gwbbio.html - 25k - Cached - Similar pages

Why these results?
These results may seem politically slanted. Here's what happened.
www.google.com/googleblog