

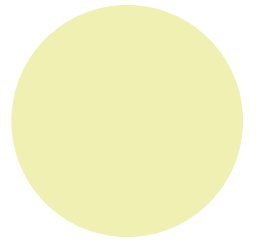
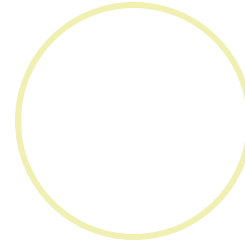
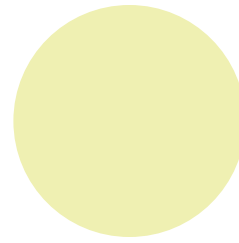
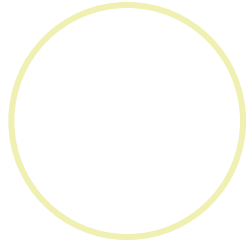
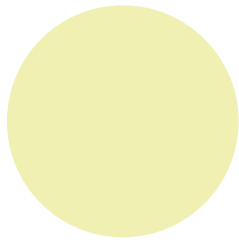


Beyond Google

Catherine Arnott Smith, PhD

School of Library and Information Studies

University of Wisconsin-Madison



- How search engines work
- The Invisible Web
- Information sources: The basics
- Real-life example
- Resources to support you

How Search Engines Work



- Words of document → Index
- Four features:
 - Document processor
 - Query processor
 - Search-and-matching function
 - Ranking
- What makes a match?

How Search Engines Work



- Term frequency
- Term location
- Term proximity
- Link analysis
- Page popularity
- Date of publication
- Length of document

Visible vs. Invisible Web



- Visible or “surface” Web;
 - Submitted by author
 - Crawled or spidered by search engines
 - Static; linked to other static pages
- Invisible or Deep Web:
 - Proprietary
 - Government
 - Password-protected
- 84 billion pages of content!!

The New Environment

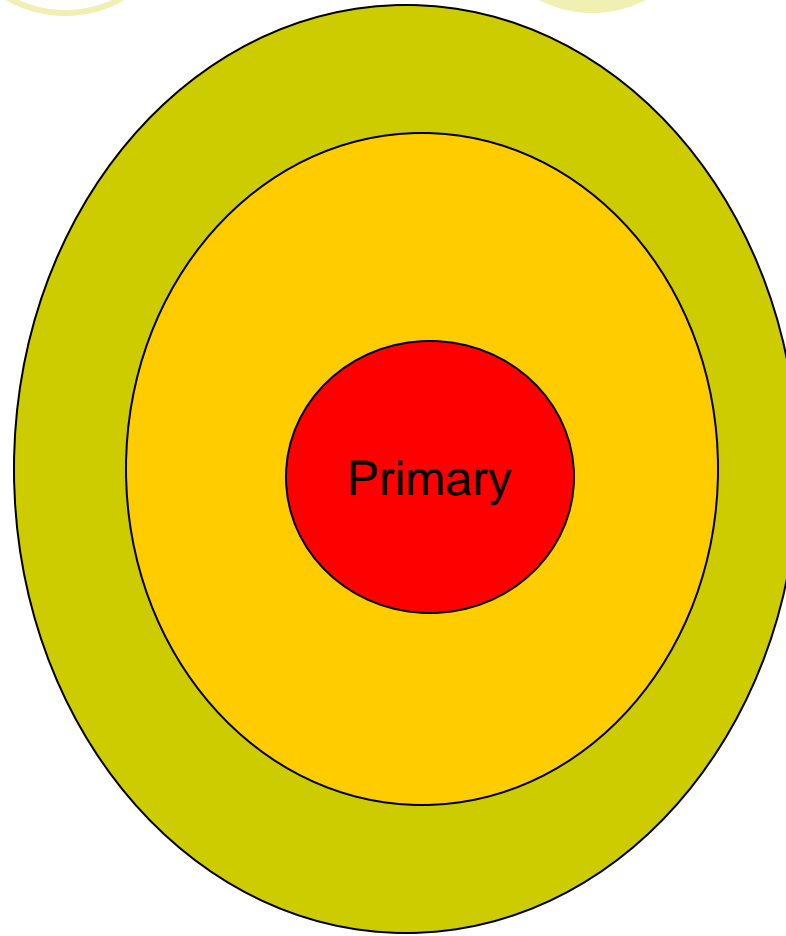


- “Every professional worker has become a searcher .. Without either search training or a roadmap”
- “Most professionals are inundated with too much information ... and have very few tools”

How Much Does This All Cost? (2004)

- Quantified knowledge worker productivity @ \$80K/year (including benefits)
- “The time spent looking for and not finding information”: \$6 million/year
 - Not including opportunity costs, reworking information you can't find!
- “Not locating and retrieving information”: opportunity cost of \$15 million/year

Information Sources: The Basics



Real-Life Example

What is the economic impact on restaurants and bars of ordinances or state laws that prohibit smoking in public places?

The Initial Inquiry





A sign for Smoke Free Milwaukee Project. | Photo: TODAY'S TMJ4

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Smoking Ban Included in Proposed Budget

By Elizabeth Braun

Story Created: Feb 25, 2009

Story Updated: Feb 25, 2009

The push for a statewide smoking ban has re-ignited. Governor Jim Doyle made the ban part of his proposed budget.

The Tavern League strongly opposes the ban. The group says bar owners have a right to run their businesses however they see fit. They also claim it would drive down business.

Bartender Aria Duax disagrees. She says it's a matter of public health.

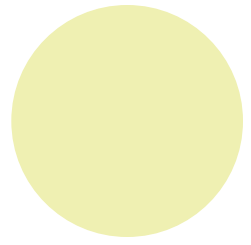
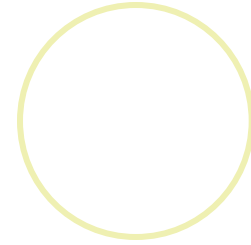
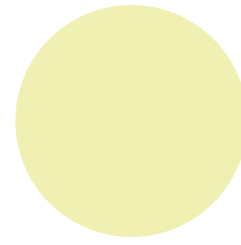
"No one should have to choose between their health and a paycheck."

Duax used to work at a bar in Madison, which is smoke-free. When she moved to Milwaukee, the difference was obvious.

"I started to notice the affects on my health. Immediately I started waking up with headaches from the smoke."

The statewide smoking ban failed last year.

Primary Sources



Wisconsin Legislature

Main Menu

- Statutes Related
- Constitution Related
- 2009-10 Session Related
- Administrative Code Related
- Miscellaneous Documents
- Prior Sessions
- Help

Search

Quick Find Boolean Search Advanced Search Clear Search

LEGISLATIVE LINKS

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Help fast

Main Menu Options Contact

DOCUMENT RESULTS DOC/RESULTS SEARCH FORM

Sync Contents Doc Hit Hit Doc Clear Highlight Toggle Hidden Print

Legislative Documents Search

[Quick Find | Help | WI Legislature Home] Previous Sessions: Archives 95 97 99 01 03 05 07

Current Session Data - 2009-10

1. [Bill and Rule Histories](#)
2. [Text of Introduced Proposals](#)
3. [Amendment Text](#)
4. [Acts](#)
5. [Veto Messages](#)
6. [Enrolled Bills](#)

7. [Clearinghouse Rules](#)
8. [Administrative Code](#)
9. [Administrative Code Table of Contents](#)
10. [Subject Index to Administrative Code](#)
11. [Administrative Code Cross-Reference Manual](#)
12. [Administrative Register](#)
13. [Emergency Rules](#)
14. [Final Rule Orders](#)
15. [Rule Histories](#)

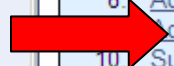
16. [Legislative Rules](#)

19. [Statutes](#)
20. [Statute Cross-References](#)
21. [Subject Index to the Statutes](#)
22. [Sections Affected by Acts](#)
23. [Wisconsin Constitution](#)

24. [Assembly and Senate Floor Calendars](#)
25. [Weekly Hearing Schedule](#)
26. [Assembly and Senate Journals](#)
27. [Committee Records](#)

28. [Subject Index to Acts](#)
29. [Subject Index to Legislation](#)
30. [Subject Index to Journals](#)
31. [Author Index to Legislation](#)
32. [Subject Index to Clearinghouse Rules](#)

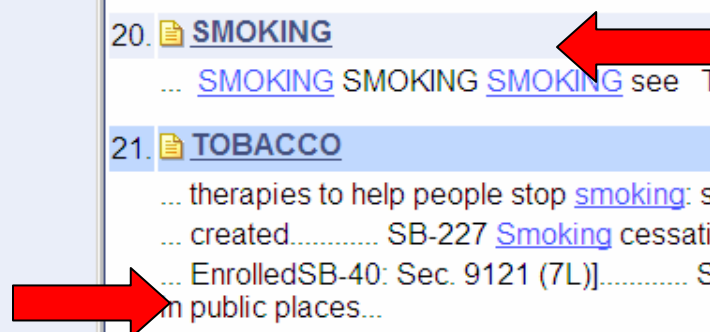
33. [Miscellaneous Budget Documents](#)





Main Menu
(22) Prior Sessions

- DOCUMENT RESULTS DOC/RESULTS SEARCH FORM
- ... therapies to help people stop [smoking](#): sales and use tax exemption...
19. **SCHOOL - BUILDING** 2007 Subject Index to Legislation
... the school; penalty provisions..... AB-326 [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...
... charge of place required..... SB-150 [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...
20. **SMOKING** 2007 Subject Index to Legislation
... [SMOKING](#) [SMOKING](#) [SMOKING](#) see Tobacco...
21. **TOBACCO** 2007 Subject Index to Legislation
... therapies to help people stop [smoking](#): sales and use tax exemption...
... created..... SB-227 [Smoking](#) cessation program for MA recipients...
... EnrolledSB-40: Sec. 9121 (7L)]..... SB-40 [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...
... charge of place required..... SB-150 [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...
22. **UNIVERSITY OF WISCONSIN - BUILDING** 2007 Subject Index to Legislation
... of Wisconsin - specific campus name [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...
... charge of place required..... SB-150 [Smoking](#) prohibitions: designated [smoking](#) area prohibited in public places...

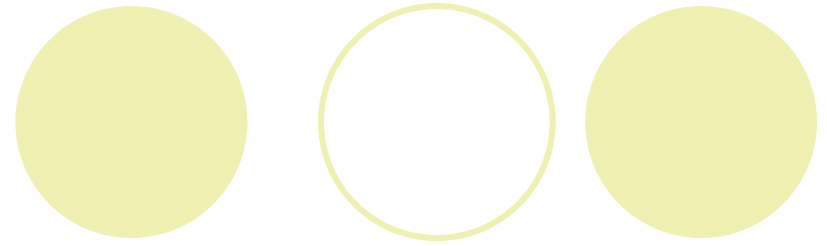


Secondary Sources



- Place the primary data in context
 - What has the national experience been with similar legislation?
- Subject-specific databases
 - Medline (healthcare)
 - PAIS (public affairs)
 - EconLit (economics)
 - Business Source Elite (general business)
 - ABIInform (general business)

Tertiary Sources



- Google
- Google Scholar

What's the Difference?



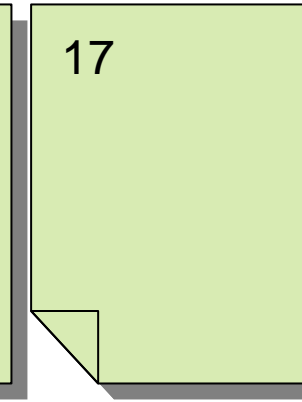
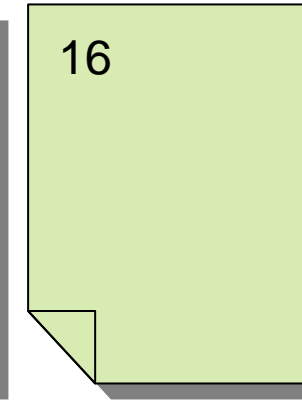
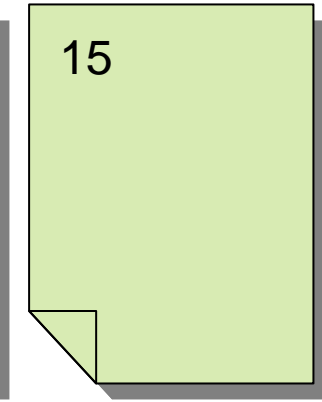
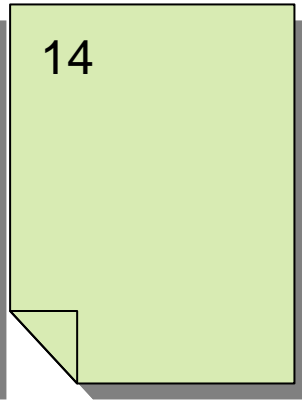
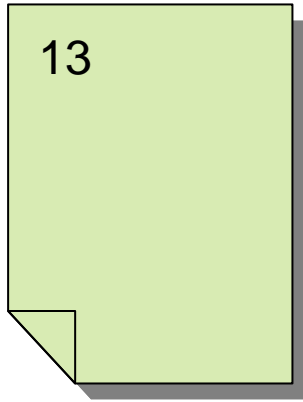
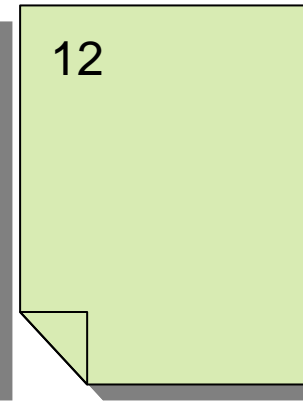
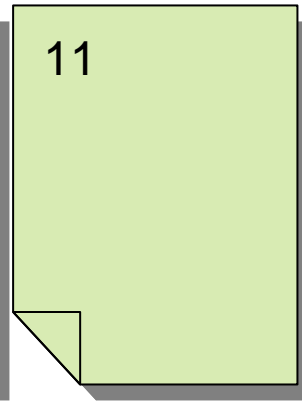
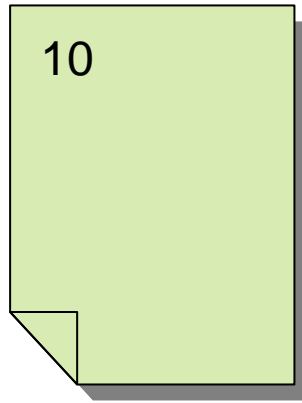
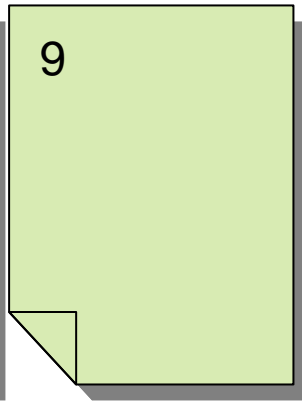
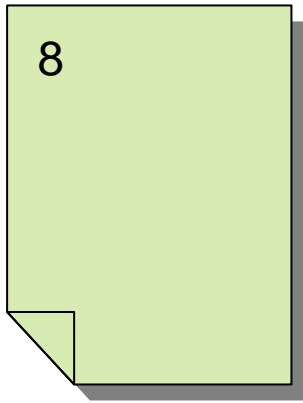
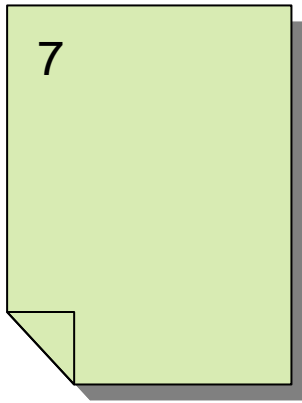
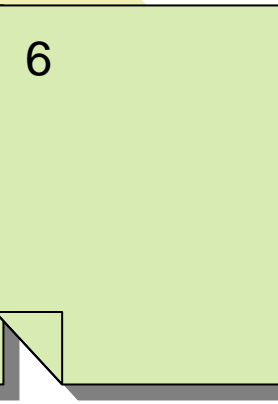
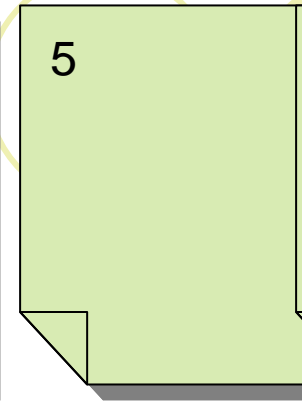
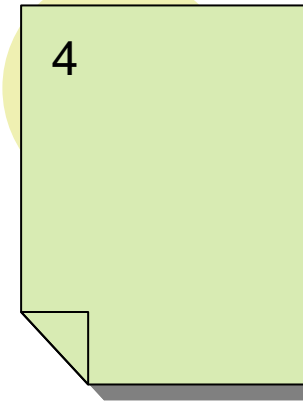
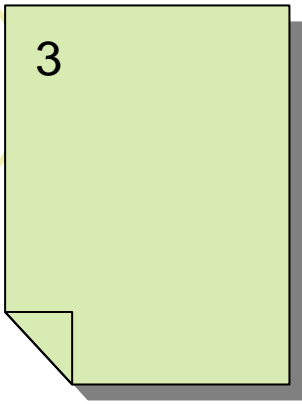
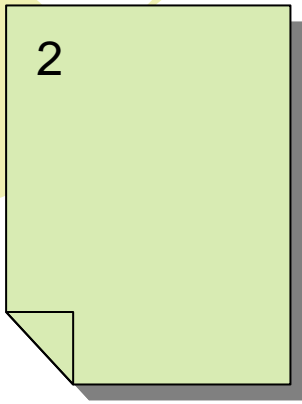
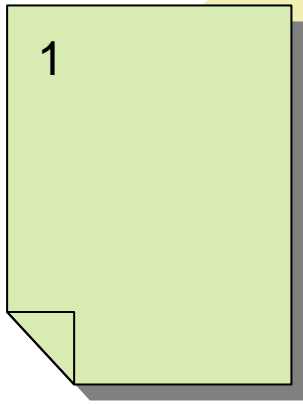
- 17 “gold standard” articles
 - 7 from Business (Business Source Elite, ABIInform)
 - 6 from Healthcare (MEDLINE)
 - 3 from Economics (EconLit)
 - 1 from Public Affairs (PAIS)

What's for free on the Web?

Google Search #1

smoking AND ban AND impact and smoking
AND ban AND businesses

→ **3,990,000 hits**



Google Search #1: Sources

- 1 pro-smoker site (.com)
- 1 feature at the site for the Centers for Disease Control and Prevention
- 6 newspaper stories from Scotland, Boston, Virginia, the New York Times, Cincinnati, and the Quad Cities
- Wikipedia

Google Search #2

"economic impact" "no smoking" bars

→ **6,560 hits**

Google Search #2: Sources

- 2 anti-smoking advocacy group websites – one US, one Canada
- 2 copies of same report from accounting firm
- 3 independent anti-smoking reports
- 1 report from Arizona State University

Resources to Support UW Legislators and Legislative Staff

- UW databases
 - Walk down State Street
 - Ask a librarian
 - www.library.wisc.edu
- Call 266-0341 to speak with a LRB analyst
- Or email LRB.Reference@legis.wisconsin.gov
- Call the LRB circulation desk at 266-7040 to borrow materials from other libraries on Interlibrary Loan

More Resources

- Find even more at the LRB Web site:

www.legis.wi.gov/lrb

- Visit the LRB Library page to search the library catalog, as well as online versions of *Health Affairs* and *Legislative Studies Quarterly*.

<http://lrbcatalog.legis.wisconsin.gov/>

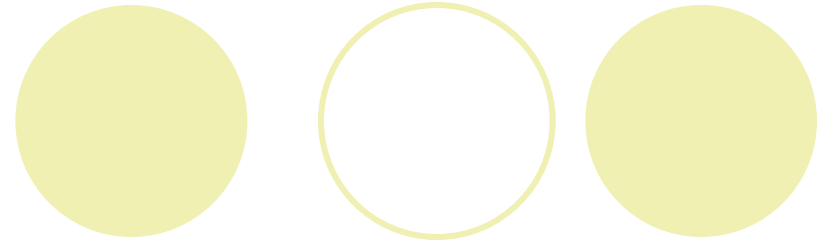
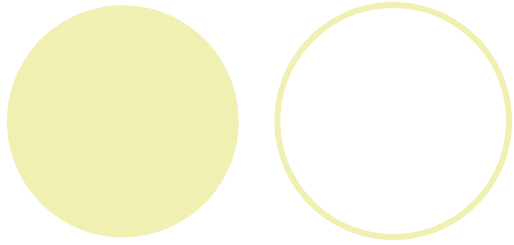
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Thanks to

- Larry Barish and the staff of the Legislative Reference Bureau
- The University of Wisconsin Library System



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