

The Published Numeracy Network

Len Vacher

Todd Chavez

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(i.e., assistant dean for information science)

**Travels
with Todd,
the guy
behind
*Numeracy***



***Our first
project →***

May 17 2008
Colby-Sawyer College

www.karstportal.org

Launched July 2007

Future project? – A QL Information Portal

KARST INFORMATION PORTAL

SEARCH SIGN IN / REGISTER

Type
Karst information Portal

Keywords

SEARCH

HOME RESOURCES COMMUNITY ABOUT NEWS CONTRIBUTE TO THE COLLECTION

News

SOUTH CHINA KARST WORLD HERITAGE SITE

Three areas of the southern Chinese provinces of Guangxi, Guizhou, and Yunnan were listed as World Heritage Sites in mid-2007. The Libo, Shilin, and Wulong karst areas are considered "unrivaled for the diversity of their features and landscapes."

From the official [World Heritage site](#), considered superlative natural phenomenon, a range of pinnacle shapes than other karst, diversity of shapes and changing of karst, considered the world reference site, beautiful landscape. Wulong Karst (sinkholes), natural bridges and caves.

View the full-size image by [Jim Thorpe](#)

<http://www.karstportal.org/public/index.cfm?Pg=News>

RECENT NEWS...

11th Multidisciplinary Conference on Sinkholes and Karst

Monday, September 22, 2008

This is the 11th in this series of highly successful interdisciplinary conferences which were first organized by the Florida Sinkhole Research Institute in 1984 as a means for geologists and geographers, ... [Read More](#)

19th Symposium of Subterranean Biology

Sunday, September 21, 2008

The 19th International Symposium of Subterranean Biology will convene in Fremantle, Western Australia from 21-26 September 2008 under the auspices of the International Society for Subterranean Biology. These symposia are th... [Read More](#)

XIIIth International Symposium on Vulcanospeleology

Monday, September 1, 2008

Place: Jeju Island, Korea. Date: 2008-09-01 to 05 Field trips: 2008-09-06 to 10 Organisation: Jeju Cave Research Institute. Contact: Dr Kyung Sik Woo Email:

RESEARCH UPDATES...

Fossilized Human Feces Dated to 12,300 BC Discovered in Oregon's Paisley Caves (USA)

Friday, April 4, 2008

The timing of the first human migration into the Americas and its relation to the appearance of the Clovis technological complex in North America ca. 11-10.8 thousand radiocarbon years before present (14C ka B.P.) remains contentious. We establish that humans were present at Paisley 5 Mile Point Caves, south-central Oregon, by 12,300 14C yr. B.P., through recovery of human mtDNA from coprolites, directly dated by accelerator mass spectrometry. The mtDNA corresponds to Native American founding haplogroups A2 and B2. The dates of the coprolites are >1000 14C years earlier than currently accepted dates for the Clovis-complex.

The full article can be found at <http://dx.doi.org/10.1126/science.1154116>

An audio version of the story reported... [Read More](#)

Conversation behind the scene (actually before the scene)

April 2005

Len (introducing himself to Todd): *I'm Len Vacher, from Geology.*

Todd: *I know who you are.*

Len (thinking what now?): *Oh?*

Todd: *You're the guy from the National Numeracy Network.*

Len (thinking Good Grief!): *How did you know?*

Todd (thinking Dummie!): *I Googled you.*

Pause

Todd: *So what is it you NNN people want to accomplish?*

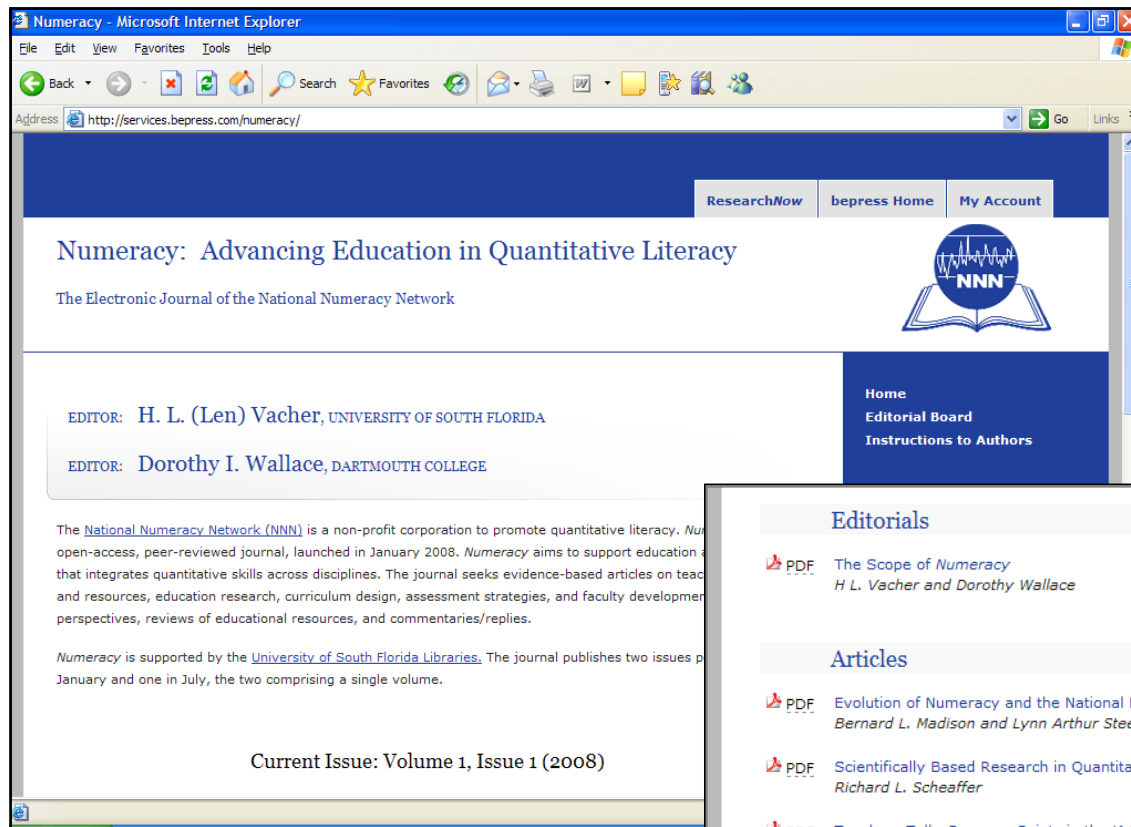
And Len recited the vision and mission statement, perhaps paraphrasing.

Todd: *So what is it you really want to accomplish?*

Len: *I guess I'd like to see QL become its own academic discipline (transcending disciplines)*

Todd: ***What you all need is a scholarly journal!***

If it's open access, we'll help. (!!)



**Launched
Jan 2008**

<http://services.bepress.com/numeracy>

Editorials

- PDF [The Scope of Numeracy](#)
H. L. Vacher and Dorothy Wallace

Articles

- PDF [Evolution of Numeracy and the National Numeracy Network](#)
Bernard L. Madison and Lynn Arthur Steen
- PDF [Scientifically Based Research in Quantitative Literacy: Guidelines for Building a Knowledge Base](#)
Richard L. Scheaffer
- PDF [Teachers Talk: Pressure Points in the K-8 Mathematics Curriculum](#)
Kim Rheinlander, Dorothy Wallace, Wells Morrison, Daniel Ansari, Donna Coch, and B. Venus Williams
- PDF [Development of Case Stories by Interviewing Students about their Critical Moments in Science, Math, and Engineering Classes](#)
Vicki V. May, Thomas H. Luxon, Kathy Weaver, Rachel Esselstein, and Cynthia Char

Perspectives

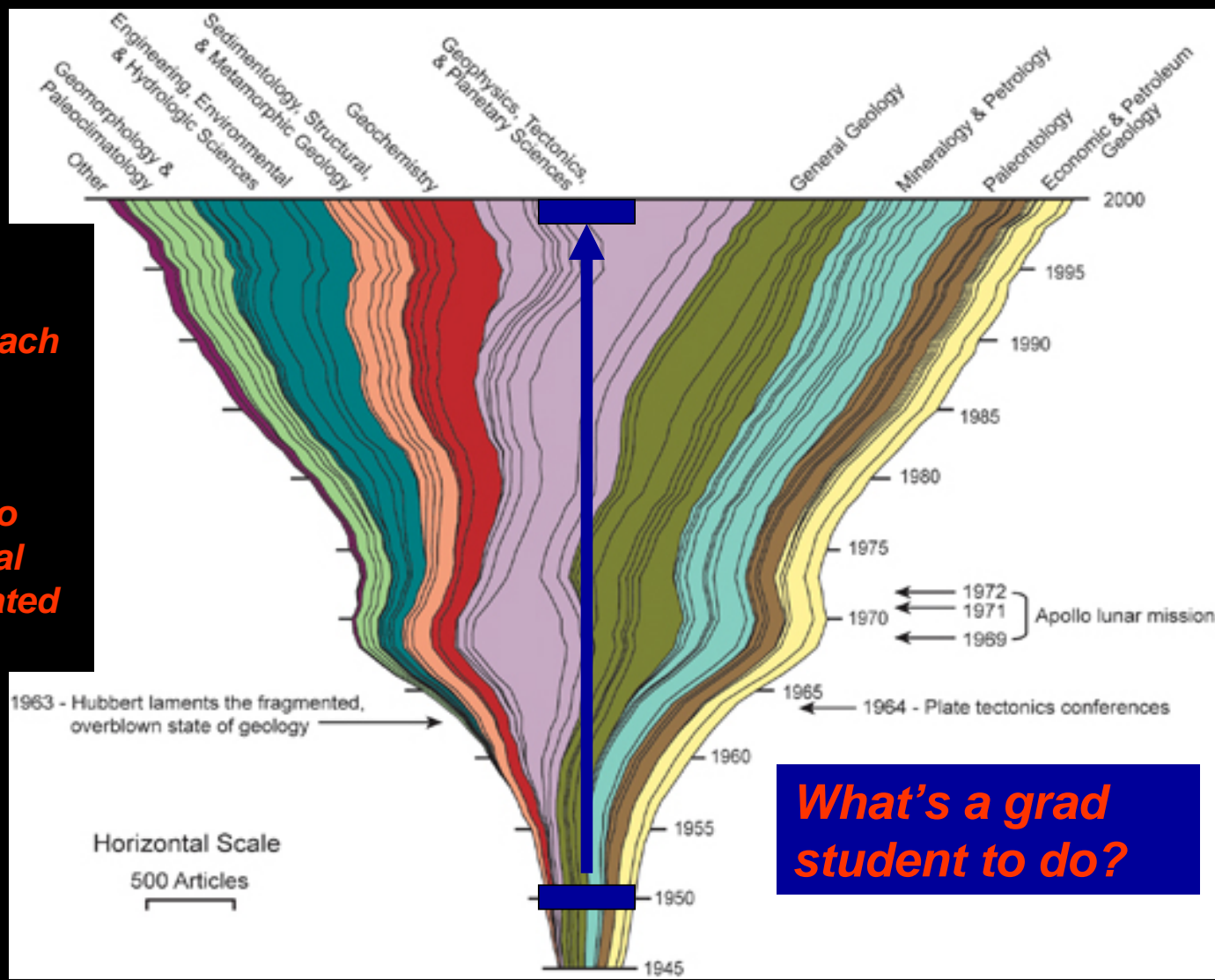
- PDF [Birds-Dead and Deadly: Why Numeracy Needs to Address Social Construction](#)
Joel Best

Book Reviews

- PDF [Review of *The Triumph of Numbers* by I. B. Cohen](#)
H. L. Vacher

On new journals: Exponential Growth and Twigging

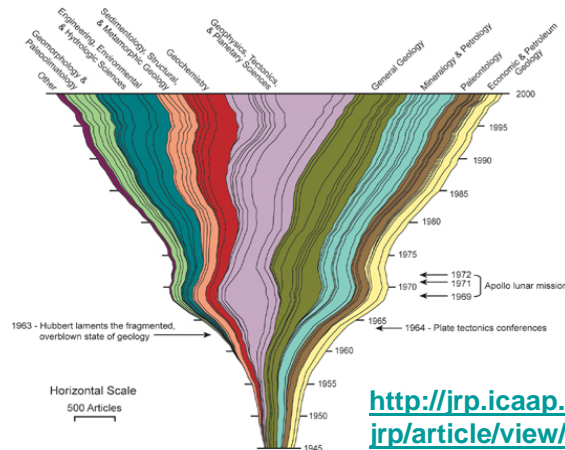
Number of articles published each year in 68 geology journals grouped into broad topical areas indicated by color.



What's a grad student to do?

The 68 geology journals

Computational Geology	Journal of Geophysical Research
Mathematical Geology	Bulletin of the Seismological Society of America
Paleoceanography	Geophysics
Marine Geology	Precambrian Research
Palaeogeography, Palaeoclimatology, Palaeoecology	Quaternary Research
Earth Surface Processes and Landforms	Geology
Geoderma	Canadian Journal of Earth Sciences
Environmental and Engineering Geoscience	Geological Magazine
Hydrological Processes	Journal of the Geological Society of London
Quarterly Journal of Engineering Geology	Journal of Geology
Engineering Geology	Geological Society of America Bulletin
Soil Science Society of America Journal	European Journal of Mineralogy
Water Resources Research	Physics and Chemistry of Minerals
Ground Water	Lithos
Journal of Hydrology	Clays and Clay Minerals
Journal of Metamorphic Geology	Contributions to Mineralogy and Petrology
Journal of Structural Geology	Journal of Petrology
Sedimentary Geology	The Canadian Mineralogist
Sedimentology	American Mineralogist
Journal of Sedimentary Research	Mineralogical Magazine
Global Biogeochemical Cycles	Palaeos
Applied Geochemistry	Journal of Vertebrate Paleontology
Organic Geochemistry	Journal of Foraminiferal Research
Chemical Geology	Palaeontology
Geochimica et Cosmochimica Acta	Micropaleontology
Meteoritics and Planetary Science	Journal of Paleontology
Geophysical Journal International	Journal of Geochemical Exploration
Tectonics	International Journal of Coal Geology
Bulletin of Volcanology	Journal of Petroleum Geology
Journal of Volcanology and Geothermal Research	Mineralium Deposita
Physics of the Earth and Planetary Interiors	American Association of Petroleum Geologists Bulletin
Tectonophysics	Economic Geology



<http://jrp.icaap.org/index.php/jrp/article/view/128/0>

More information: Fratesi and Vacher, 2008, Scientific Journals as Fossil Traces of Sweeping Change in the Structure and Practice of Modern Geology. *Journal of Research Practice* (online).

More artwork by Beth Fratesi



What's a grad student to do? →

Todd: **Priority role of our Library is to prepare USF PhD students to write the literature review for their dissertations.**

Len to Todd: **What we (Geology) need is a course! (Sep 2007)**

First major component:

Finding the peer-reviewed research literature in impact journals

Computational Geology	Journal of Geophysical Research
Mathematical Geology	Bulletin of the Seismological Society of America
Paleoceanography	Geophysics
Marine Geology	Pre-Cambrian Research
Palaeogeography, Palaeoclimatology, Palaeoecology	Quaternary Research
Earth Surface Processes and Landforms	Geology
Geoderma	Canadian Journal of Earth Sciences
Environmental and Engineering Geoscience	Geological Magazine
Hydrological Processes	Journal of the Geological Society of London
Quarterly Journal of Engineering Geology	Journal of Geology
Engineering Geology	Geological Society of America Bulletin
Soil Science Society of America Journal	European Journal of Mineralogy
Water Resources Research	Physics and Chemistry of Minerals
Ground Water	Lakes
Journal of Hydrology	Clays and Clay Minerals
Journal of Metamorphic Geology	Contributions to Mineralogy and Petrology
Journal of Structural Geology	Journal of Petrology
Sedimentary Geology	The Canadian Mineralogist
Sedimentology	American Mineralogist
Journal of Sedimentary Research	Mineralogical Magazine
Global Biogeochemical Cycles	Palaeos
Applied Geochemistry	Journal of Vertebrate Paleontology
Organic Geochemistry	Journal of Foraminiferal Research
Chemical Geology	Palaeontology
Geochimica et Cosmochimica Acta	Micropaleontology
Meteoritics and Planetary Science	Journal of Paleontology
Geophysical Journal International	Journal of Geochemical Exploration
Tectonics	International Journal of Coal Geology
Bulletin of Volcanology	Journal of Petroleum Geology
Journal of Volcanology and Geothermal Research	Mineralium Deposita
Physics of the Earth and Planetary Interiors	American Association of Petroleum Geologists Bulletin
Tectonophysics	Economic Geology

Indexed by **Web of Science (Science Citation Index)**
 9300 journals
 256 subject classes (tags)
 source of “impact journal” (IF)

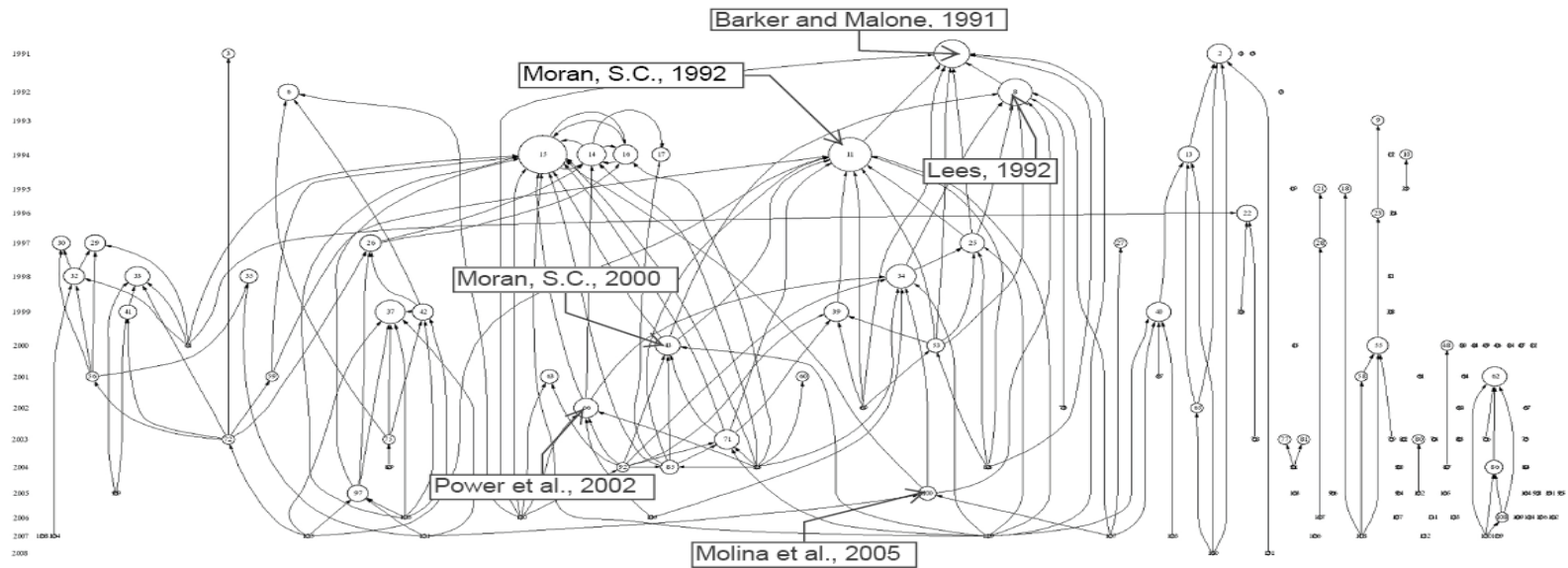
Concepts for graduate students:

- It doesn't count as research until it's published.
- It's not “published” if it's not published in an impact journal.

Caveat: WoS does not include all journals, nor (in general), monographs or books, edited volumes, grey literature, Web sites.

Heather's graph, April 2008

Search Strategy: Imaging AND magma AND seismology

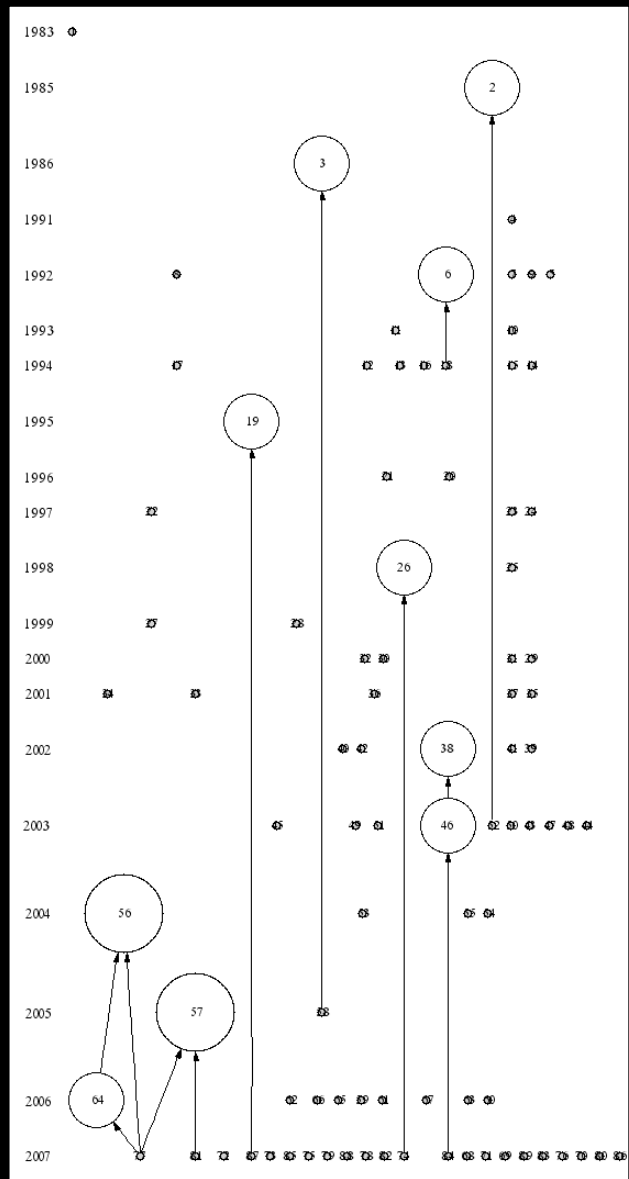


HistCite graph of research aimed at imaging magmatic systems using seismology. Benchmark papers for this search are records number 4, 8, 11, 43, 66, and 100

Len's lecture

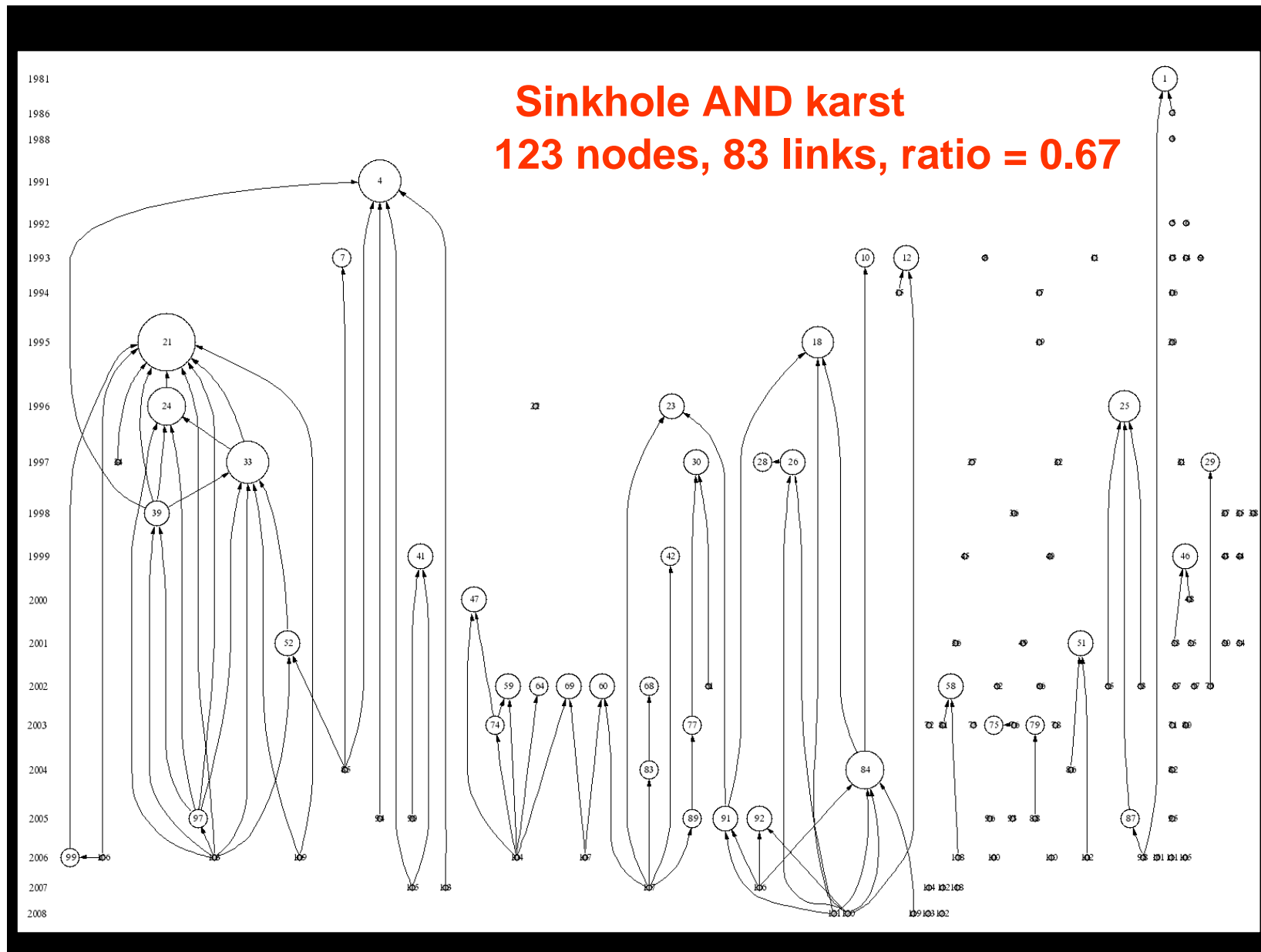
“The social network behind karst literature.”

i.e., publishing behavior of karst researchers

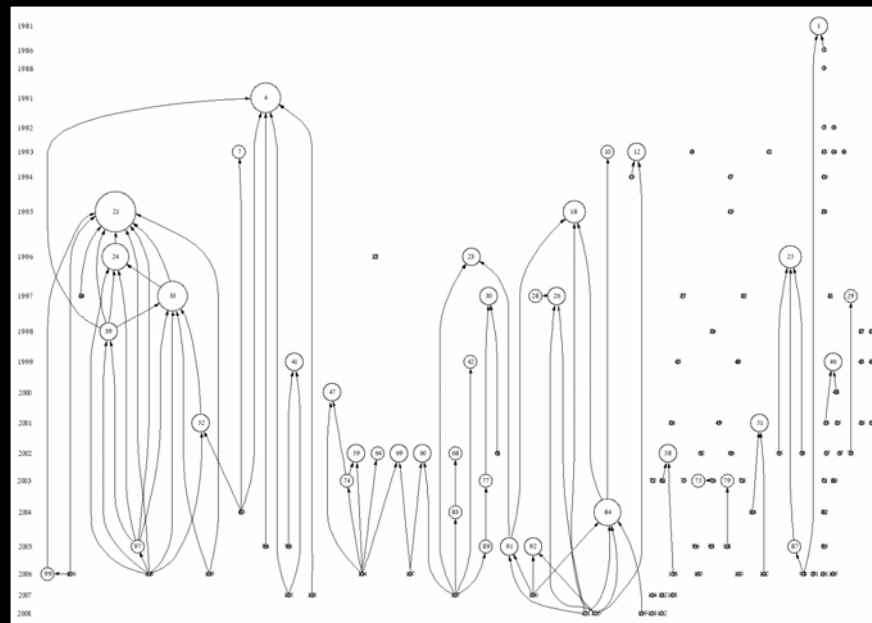
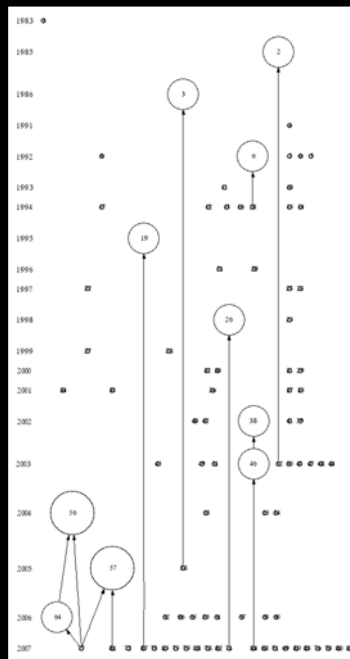
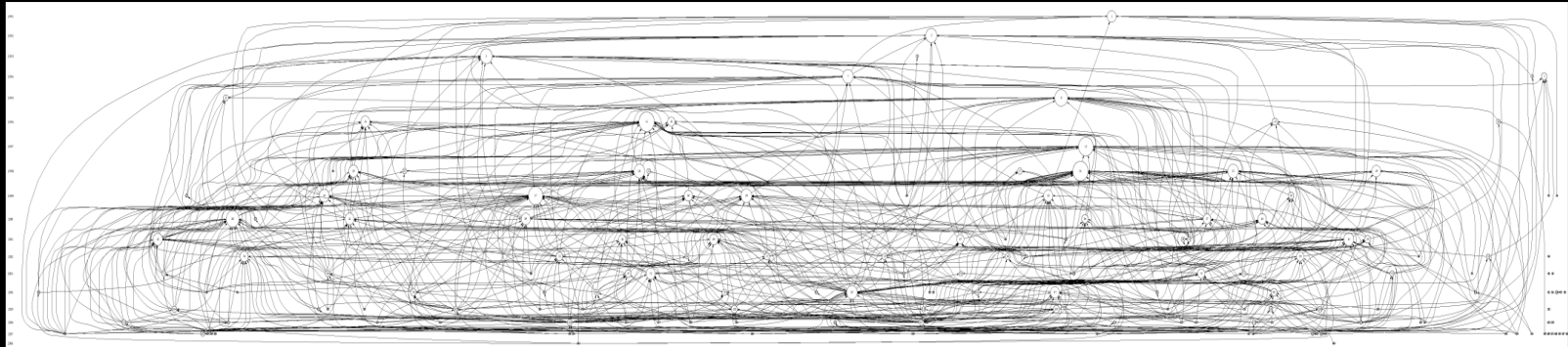


Island AND karst

**89 nodes,
12 links,
ratio = 0.135**



speleothem AND isotope 163 nodes, 702 links; ratio = 4.3



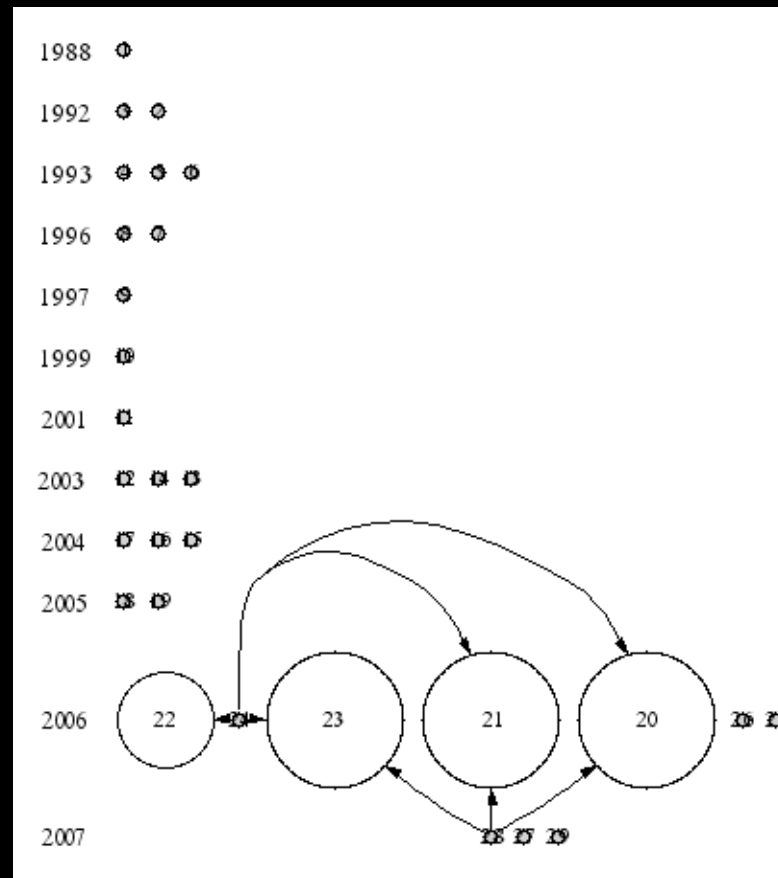
Who do you suppose gets funded?

“Quantitative Literacy”

29 papers
17 journals
754 references
(26 per paper)

103 global citations
(3.6 per paper)

7 local citations
(0.24 per paper)



“Statistical Literacy”

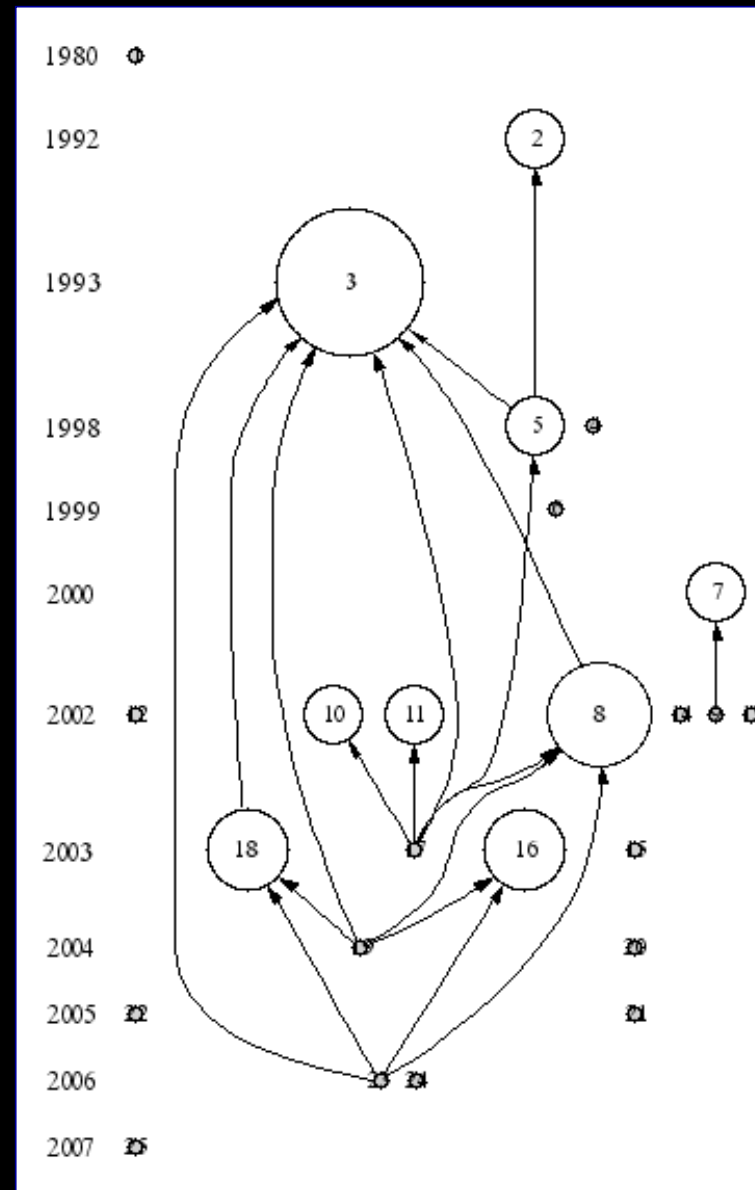
25 papers

13 journals

550 references (22 per paper)

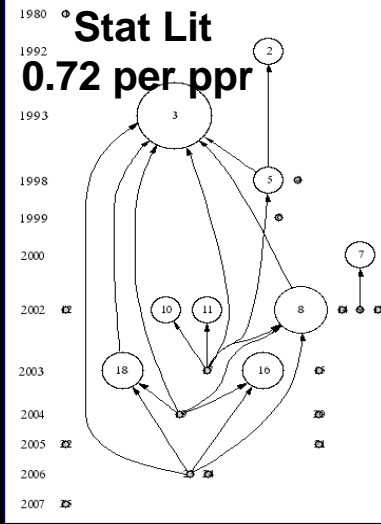
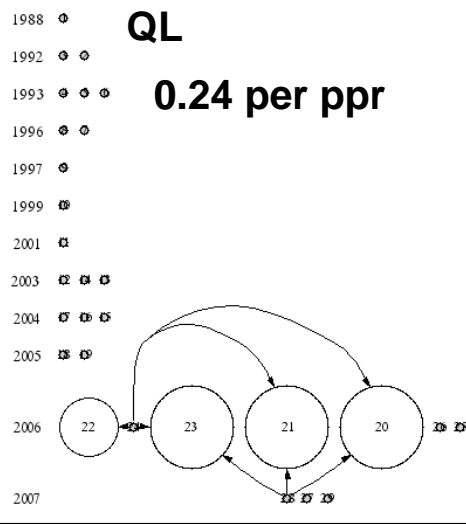
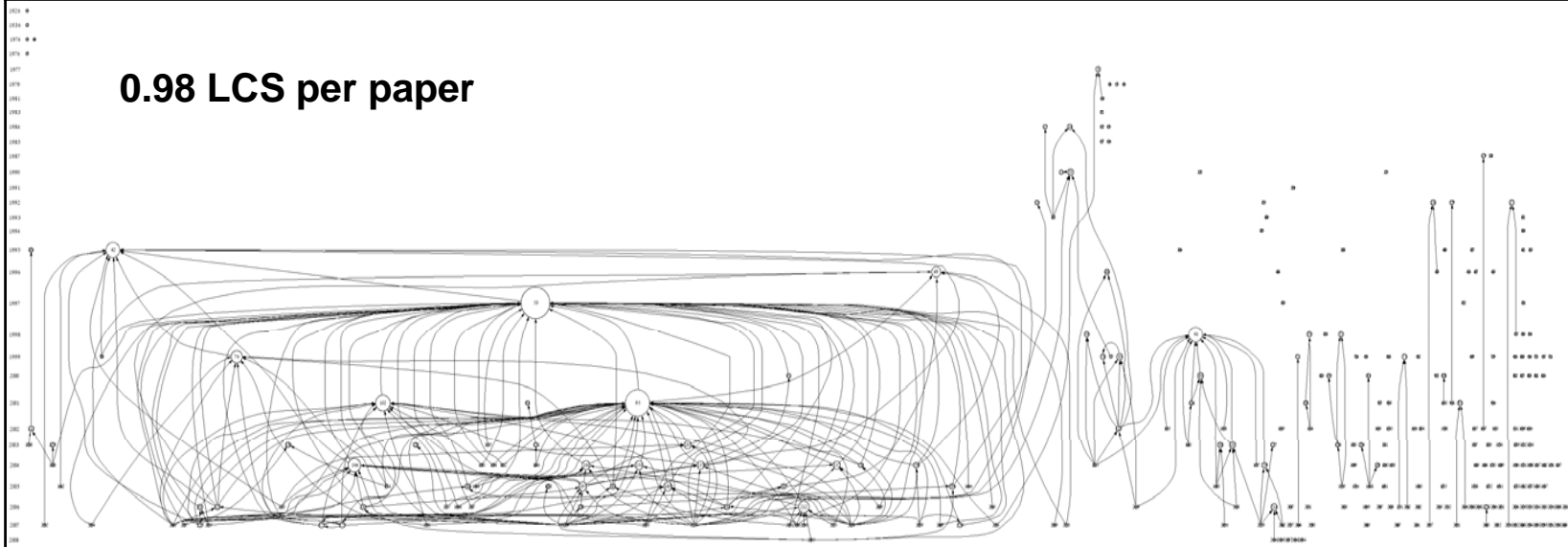
24 global citations (1.8 per ppr)

18 local citations (0.72 per ppr)



Numeracy

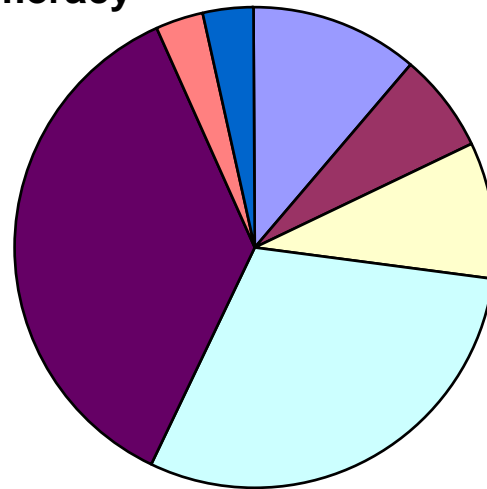
0.98 LCS per paper



289 papers, 190 journals
8900 references (31 ppr)
2062 global cit'ns (7.1 ppr)
284 local cit'ns (0.98 ppr)

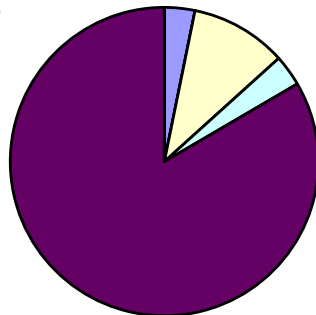
Geography of QL, Numeracy, and Stat Lit

Numeracy

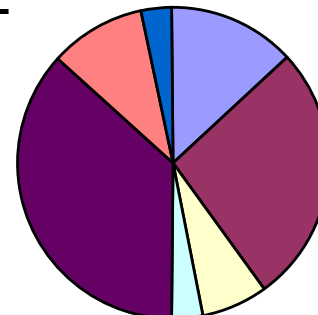


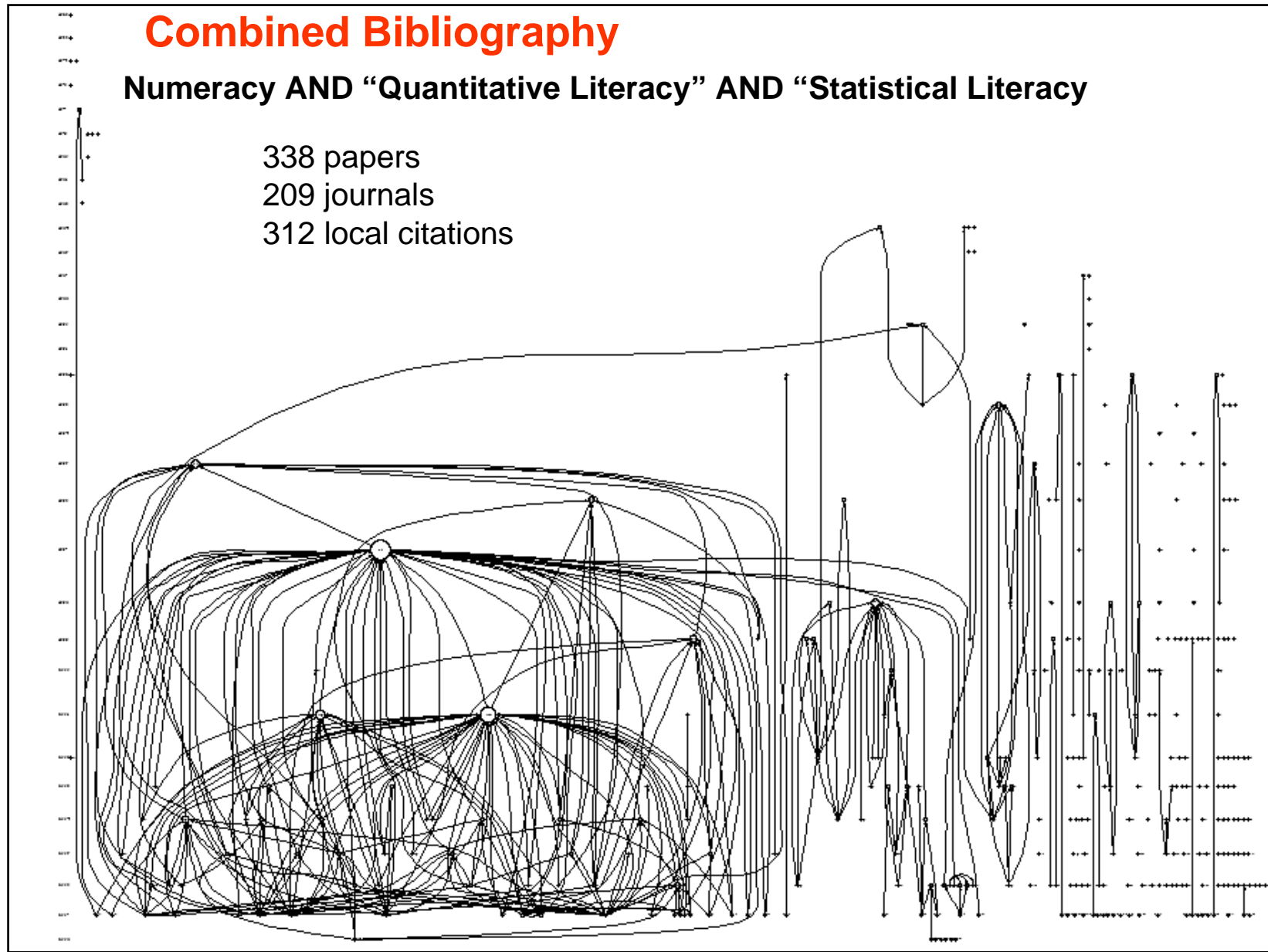
- Australia, New Zealand
- Canada
- Europe exclusive of UK
- UK
- USA
- unspecified
- other

QL



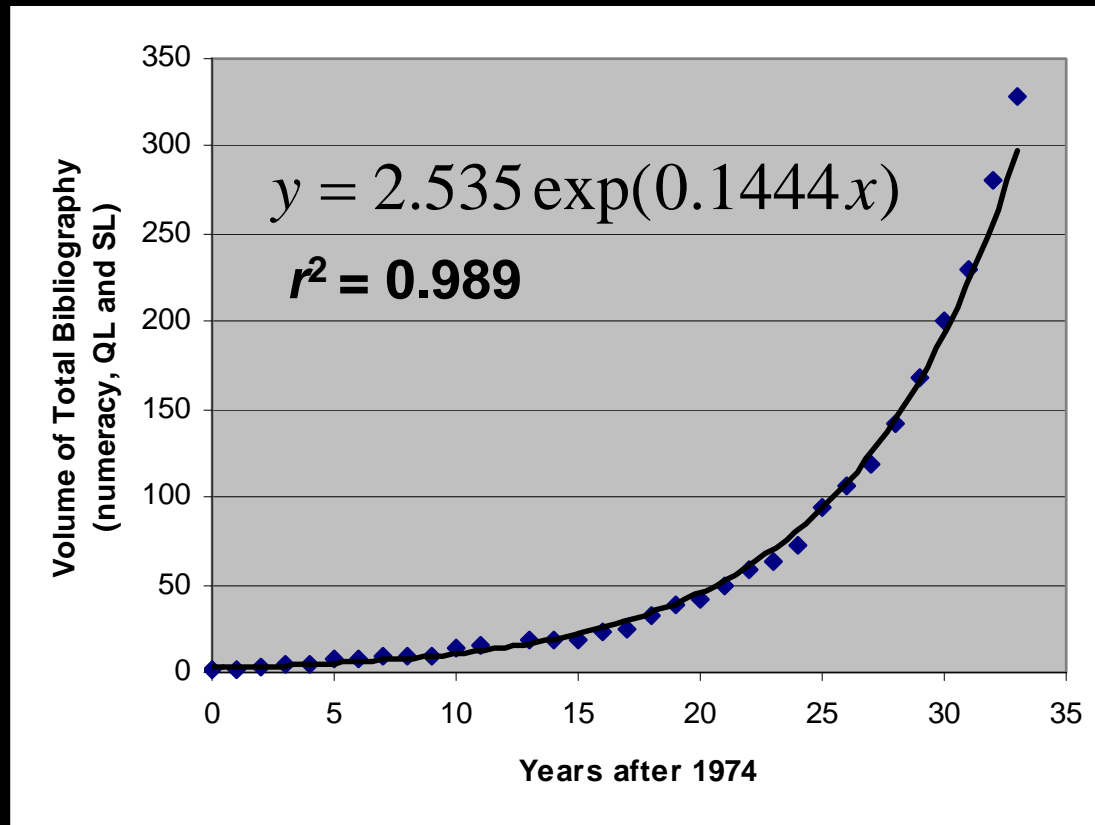
SL

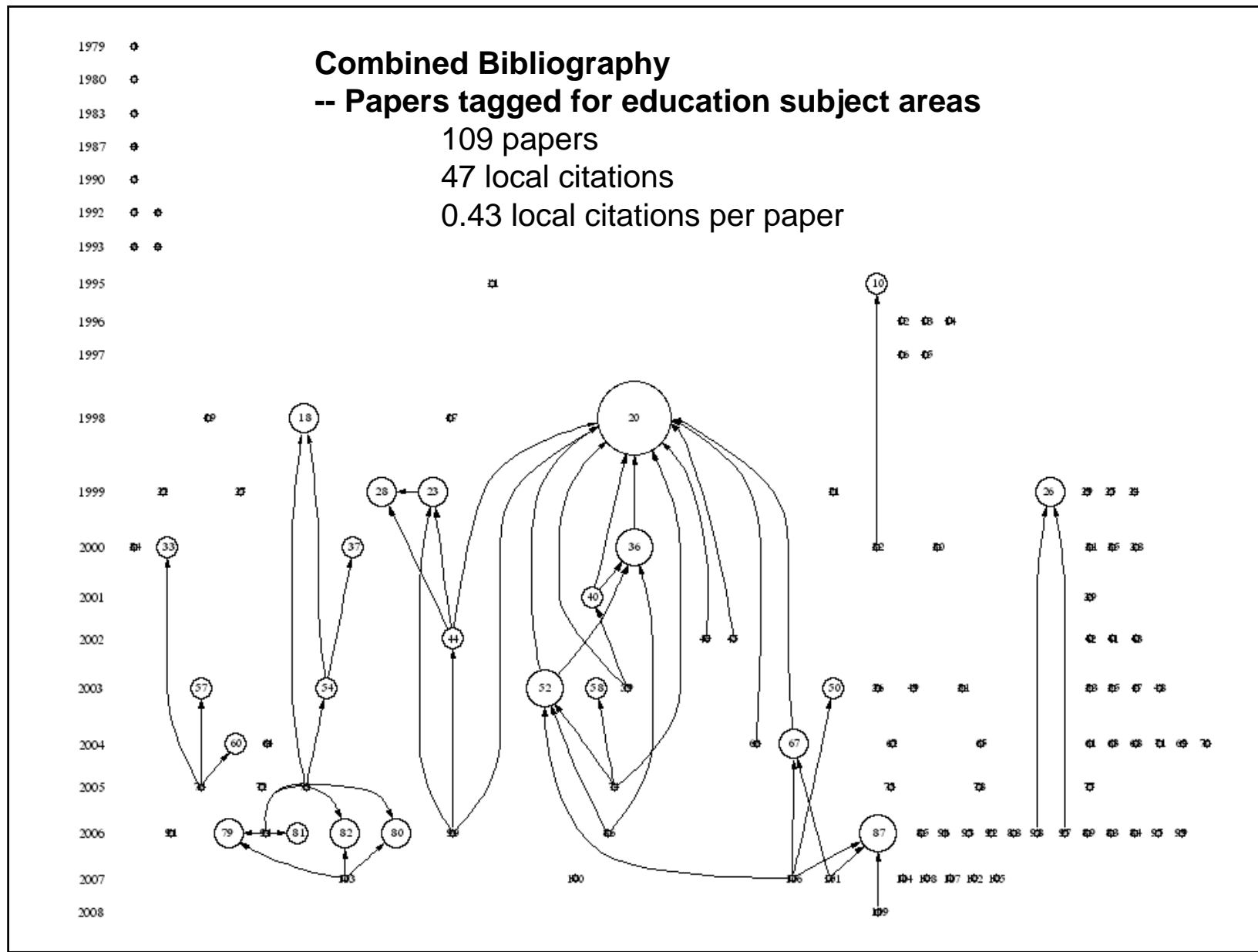


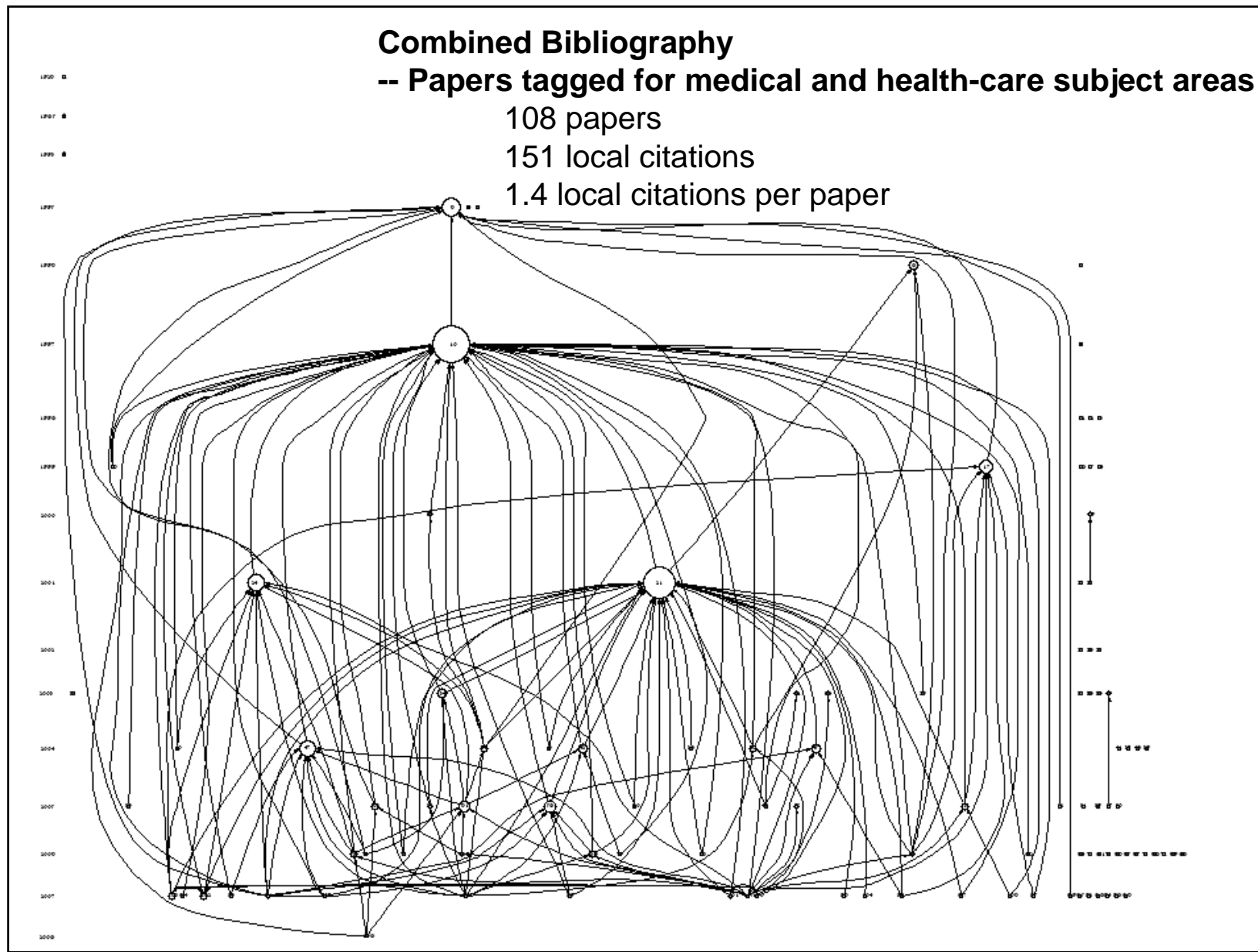


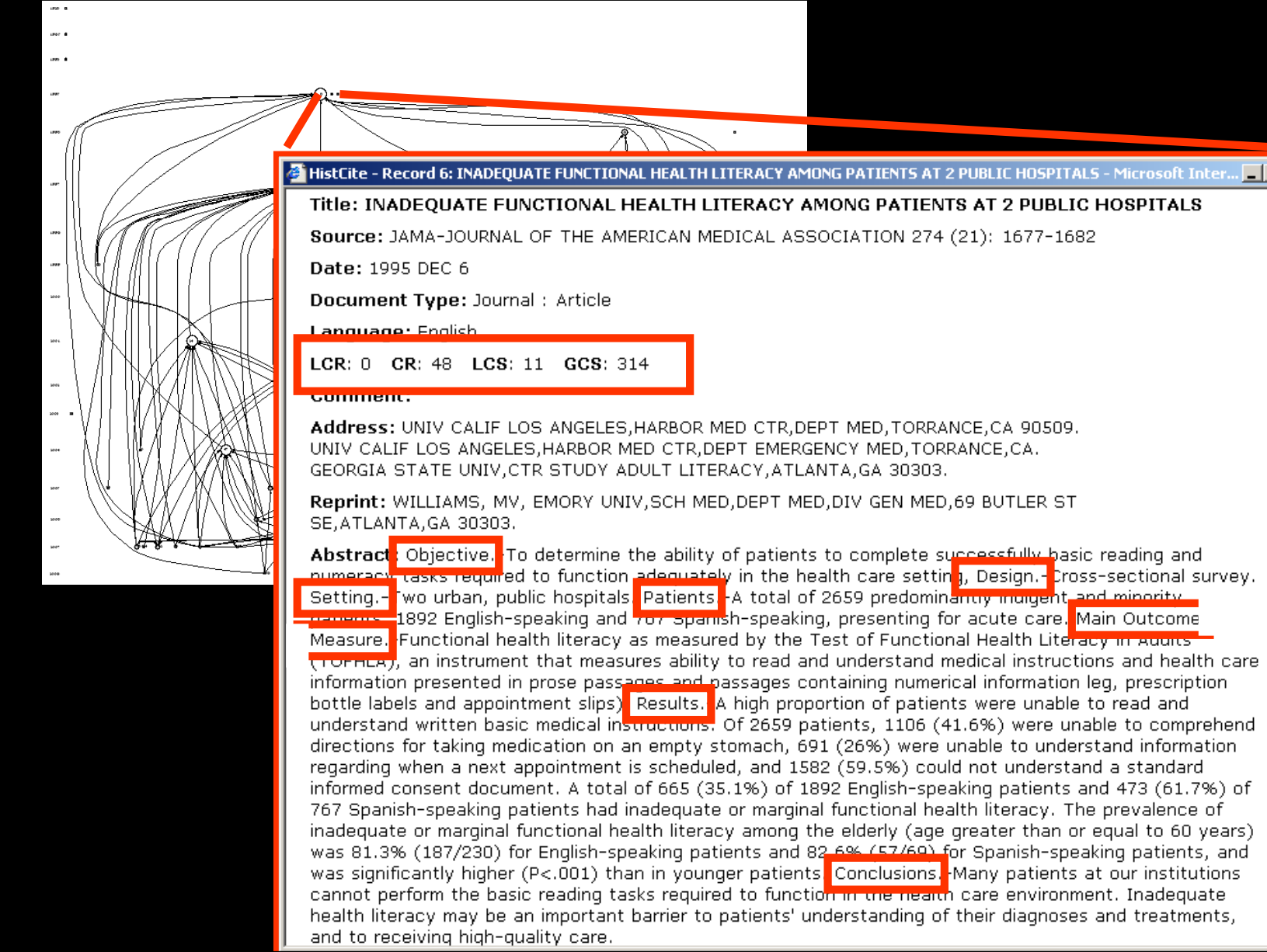
Exponential Growth

y = Number of articles in combined literature
 x = Number of years since 1974









HistCite - Record 6: INADEQUATE FUNCTIONAL HEALTH LITERACY AMONG PATIENTS AT 2 PUBLIC HOSPITALS - Microsoft Inter...

Title: INADEQUATE FUNCTIONAL HEALTH LITERACY AMONG PATIENTS AT 2 PUBLIC HOSPITALS

Source: JAMA-JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION 274 (21): 1677-1682

Date: 1995 DEC 6

Document Type: Journal : Article

Language: English

LCR: 0 CR: 48 LCS: 11 GCS: 314

Comment:

Address: UNIV CALIF LOS ANGELES, HARBOR MED CTR, DEPT MED, TORRANCE, CA 90509.
UNIV CALIF LOS ANGELES, HARBOR MED CTR, DEPT EMERGENCY MED, TORRANCE, CA.
GEORGIA STATE UNIV, CTR STUDY ADULT LITERACY, ATLANTA, GA 30303.

Reprint: WILLIAMS, MV, EMORY UNIV, SCH MED, DEPT MED, DIV GEN MED, 69 BUTLER ST SE, ATLANTA, GA 30303.

Abstract: **Objective:** To determine the ability of patients to complete successfully basic reading and numeracy tasks required to function adequately in the health care setting. **Design:** Cross-sectional survey. **Setting:** Two urban, public hospitals. **Patients:** A total of 2659 predominantly indigent and minority patients—1892 English-speaking and 767 Spanish-speaking, presenting for acute care. **Main Outcome Measure:** Functional health literacy as measured by the Test of Functional Health Literacy in Adults (TOFHLA), an instrument that measures ability to read and understand medical instructions and health care information presented in prose passages and passages containing numerical information (eg, prescription bottle labels and appointment slips). **Results:** A high proportion of patients were unable to read and understand written basic medical instructions. Of 2659 patients, 1106 (41.6%) were unable to comprehend directions for taking medication on an empty stomach, 691 (26%) were unable to understand information regarding when a next appointment is scheduled, and 1582 (59.5%) could not understand a standard informed consent document. A total of 665 (35.1%) of 1892 English-speaking patients and 473 (61.7%) of 767 Spanish-speaking patients had inadequate or marginal functional health literacy. The prevalence of inadequate or marginal functional health literacy among the elderly (age greater than or equal to 60 years) was 81.3% (187/230) for English-speaking patients and 82.6% (57/69) for Spanish-speaking patients, and was significantly higher ($P < .001$) than in younger patients. **Conclusions:** Many patients at our institutions cannot perform the basic reading tasks required to function in the health care environment. Inadequate health literacy may be an important barrier to patients' understanding of their diagnoses and treatments, and to receiving high-quality care.

*As a Numeracy editor,
What have I learned from my travels with Todd?*

On Forming a new discipline: Think of your new discipline as a new silo with pervious boundaries.

Therefore:

Have your journal (and other materials) open access.

Cite one another.

Use stand-alone abstracts.

Have meaningful titles.