

Search, Discovery, Serendipity, and New Directions for Search

By Greg R. Notess

Montana State University Library

SearchEngineShowdown.com

Twitter: [@notess](https://twitter.com/notess)

Trends in Search

- Finding Books
- Finding Articles
- General Information Searches
- People & Social Searching
- Potential Futures


Library Catalogs

- Personal & Library Book Collections
 - Need Catalog As Size Increases
 - Simple Descriptive to More Complex Meta Data
- Now Full Text
 - Amazon
 - Google Books
 - HathiTrust
 - OpenLibrary

Book Catalog

◀ HALIFAX ▶

Young Men's Christian Association.



CATALOGUE OF BOOKS
IN LIBRARY.

JAMES BOWEN & SONS, PRINTERS, 125 HOLLIS STREET, HALIFAX.
1890.

HALIFAX
YOUNG MEN'S CHRISTIAN ASSOCIATION
LIBRARY.

The Library is open from 10 a. m. to 8 p. m. for the issue of Books. Books may be kept for fourteen days. A fine of two cents for each day over. Books may be renewed, if not called for by any other member.

❖ CATALOGUE. ❖

A.

889	Abomination of Modern Society,	<i>Tulange</i>
430	Abyssinia, Journal of	<i>Gobat</i>
501-502	Acme Biography, 2 vols.	
700	Adventurer,	
918	Advice to a Young Christian,	
774	Æolian Harp,	<i>Herbert</i>
2178	Africa,	<i>Moffatt</i>
2146-2147	" Across, 2 vols.,	<i>Cameron</i>
1963-1964	" The Heart of, 2 vols.,	<i>Schweinfurth</i>
1760	" Wilds of	
1834	Against the Stream,	<i>Edward Garrett</i>
1270	Agassiz "Principles of Zoology,"	
422	Age and its Architects,	<i>Hood</i>
1312	Age, Eminent Women of the	
718, 1740	Agriculture in Nova Scotia, 2 copies,	<i>Dawson</i>
700	Air, The	<i>Mudie</i>
1851	Alcoholic Drinks,	<i>Forbes</i>
660	" Liquors, Carpenter on	
2278	Alcohol, Ten Lectures on	<i>Richardson</i>
532	Alison and Adolphus,	<i>Gatty</i>
1291-1292	Alison's "History of Europe," 2 vols.,	
1295-1296	" " " " " 2 vols.,	
195	Alps and Switzerland,	<i>Williams</i>
1548	Alypius of Tagaste,	<i>Webb</i>

2

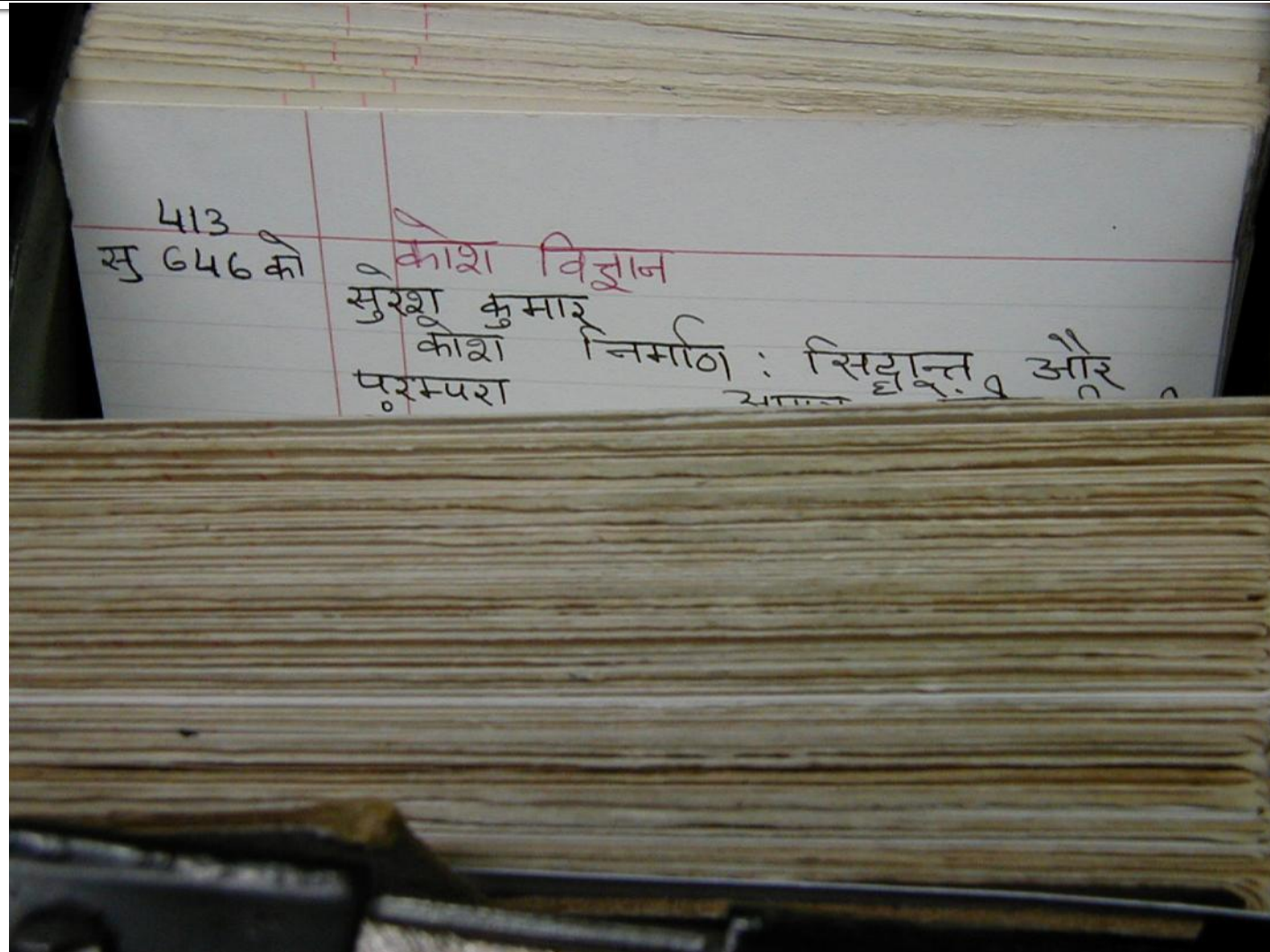
Y. M. C. A. Library

1297	Ambrose, Works of Isaac	<i>MacKenzie</i>
1823	America, A History of	<i>Powers</i>
989-993	" Impressions of, 2 vols.,	<i>Chambers</i>
1927	" Things in	
550	American Convents,	<i>Bayard Taylor</i>
1277	" Life, A Story of	<i>Sam Slick</i>
2473	Americans at Home,	<i>MacColl</i>
643	Among the Masses,	<i>Butler</i>
642	Analogy of Religion,	<i>Cutter</i>
462	Anatomy, Treatise on	
1185	Ancient British Church,	
1827	Anecdotes, Moral and Religious, The World of	<i>Hood</i>
2282	Anecdotes of the Wesleys,	<i>Wahly</i>
521	" " " New Testament,	<i>Whitcross</i>
522-523	" " " Old " 2 vols.,	
316	Angler in Canada,	<i>Louman</i>
-693-694	Animal Instincts, 2 vols.,	<i>Kirby</i>
761	" " Life, Curiosities of	
2024	" Sagacity,	
417	Answers to Bishop Coleman,	<i>Marshall</i>
1189	Antediluvians and Patriarchs,	<i>Dr. Kitto</i>
2196	Antipodes, Our	
531	Anxious Inquirer,	<i>James</i>
746-747	Apocalyptic Sketches, 2 vols.,	<i>Cunningham</i>
1695	Apologia Pro Vita Sua,	<i>Newman</i>
2174	Apology,	<i>Bareley</i>
2484	" Justin Martyrs'	<i>Bickersteth</i>
1195	Apostles and the Early Church,	<i>Kitto</i>
1998	Apostolic Christians,	<i>Smith</i>
1663	" Church, Hope of the	
2482-2483	" Fathers, 2 vols.,	<i>Bartn</i>
518	Appleton's Traveller's Guide,	<i>Williams</i>
325-948	Archais, 4 copies,	<i>Dawson</i>
1900-2105	Architecture of the Heavens,	<i>Nichol</i>
1500	Arctic Regions, Sabbaths in the	<i>Scorsby</i>
845	" " Winter in the	<i>Tomlinson</i>
1167	Argentine Republic,	<i>Jaking</i>
88	Aristocracy, Romantic Records of the, 3 vols.,	<i>Burke</i>
1008-1100	Armenia,	<i>Carzen</i>
967	Arminius, Works of, 3 vols.	
1619-1621	Around the World of Christian Missions,	<i>Bainbridge</i>
85	Art and Nature, Experiences of	<i>Becher</i>
1232	Arthur Bonnicastle,	<i>Holland</i>
571	Artist's Guide,	<i>Pilkington</i>
2039	Art and Science, Triumphs and Discovery in	
2018	Arts and Manufactures of Great Britain,	<i>Tomlinson</i>
415		

Card Catalog



Cards: Handwritten



DICTIONARY CATALOGUE (INDIAN LANGUAGES)

PUNJABI

HINDI

SANSKRIT

URDU



Cards: Typewriter/Printer

M1045 Mahler, Gustav, 1860-1911.
M21
B6

Blumine; symphonic movement. Bryn Mawr, Pa., T. Presser Co., 1968, '1967.
score (20 p.) 28 cm. 2.00
Rejected 2d movement of the composer's First symphony.
Duration: about 8 min.

1. Orchestral music. 1. Title.

M1045.M21B6 1968- 79-203119

Library of Congress 69 (18) M

636

M1045
to
M1140

COM Catalogs (1970s)

- Computer Output Microfilm (COM)
- Could Update Whole Catalog



Online Catalog: Terminal



ALICE

THE ON-LINE CATALOG

ALICE

1. Title	2. Author
3. Subject	4. Call number
5. Date	6. Edition
7. Language	8. Country
9. Dewey	10. OCLC



Interlibrary
loan depart
↑

ON-LINE CATALOG
TERMINALS
FOR
INDICATED DEPARTMENTS

Today's Catalogs

- Web-based
- May Incorporate
 - Covers Graphics
 - Table of Contents
 - Summaries
 - Reviews

Meta Data to Full Text Transition

- Book Catalog: Title, Author, Number
- Card Catalog: Adds Subject Headings, More
- Discovery Systems: Add Full Text Searching
- Indexes: Descriptors, Titles, Keywords

Finding Articles

- Similar History
- From Read Them All
- To Indexes with Simple Meta Data
- To Complex Subject Print Indexes
 - MESH
 - Chemical Abstracts Ring Index
- To Full Text Searching

Full Text Rise

- Articles
- Web Pages
- Books
- The Whole Item

Internet Searching

- Also Similar, but Much Faster
- VERONICA Search for Gopher Space: 1992
 - Very Easy Rodent-Oriented Net-wide Index to Computerized Archives
 - Searches Titles Only
- World-Wide Web Worm
 - Titles Only
- Yahoo! Directory

Full Text Web Searching

- Easy to Automate
- Early Development in Mid-1990s



Age of Google

- Google's Rise to Dominance
- Full Text Searching of Large Collections
- Intensive Relevance Work
 - PageRank + 100's of Other Algorithms
- Most Crucial Decision:
 - Develop Own Ad Network

Spread to New Areas

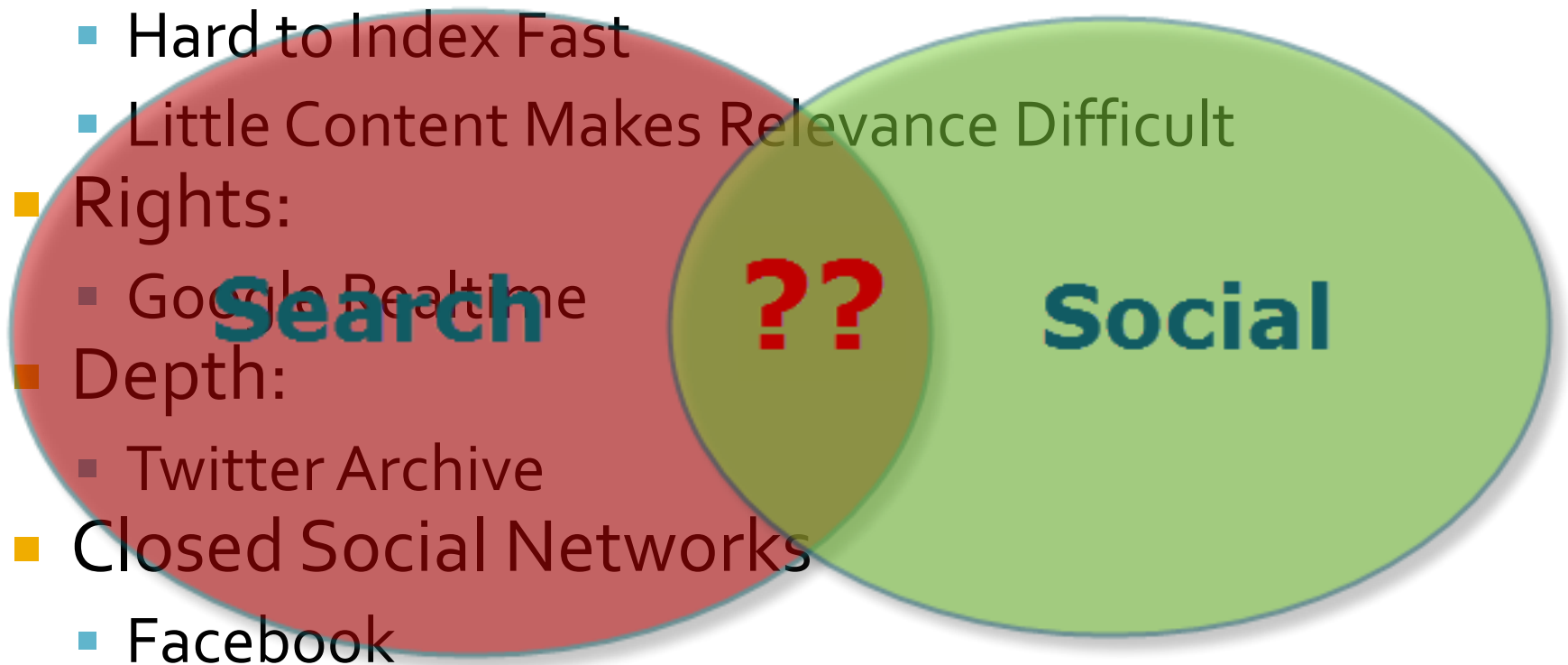
- Gmail
- Google Documents Now Google Drive
- Google Books
- Social Efforts
 - Search Wiki, Google Wave, Buzz Failures
 - Google+ Emphasis Now

Brief Social Network Timeline

- 2003: LinkedIn
- 2004: Facebook Expands Beyond Harvard
 - MySpace Launches
- 2005: YouTube Launches
 - Facebook Expands to HS, Some Other Countries
- 2006: Twitter Launches
- 2008: Facebook Surpasses MySpace
- 2011: Google+, Pinterest

Social Networks & Search

- Microblogging:
 - Hard to Index Fast
 - Little Content Makes Relevance Difficult
- Rights:
 - Google Realtime
- Depth:
 - Twitter Archive
- Closed Social Networks
 - Facebook



Search Personalization



- Emphasized for Past Few Years
- Aim: Aids Relevance (of Results & Ads)
- How?
 - Geolocation
 - Past Search History
 - Interests/Demographics





Web Search + Social


- Google+ SPYWorld
- Bing Preview
- For Both Continuing Aim to
 - Increase Relevance
 - Increase Ad Profits

Search Plus Your World





+Greg R. Search Images Maps Play YouTube News Gmail Documents Calendar More ▾

Google internet librarian  Greg R... 0 + 

Search  Showing personal results. [See all results](#)   

Everything **Personal** 

Images **Images for internet librarian** - Report images

Maps    

Videos

News

Shopping

More

Any time

Past hour



Past 24 hours


Past week

Past month

Past year

Custom range...

 **Call for Speakers Deadline April 20, 2012 The Internet@Schools ...**
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internet librarian



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Hide personal results

Everything

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Sarah Houghton shared this on Google+ · 30 Dec 2011 · Public

<https://www.google.com/search?q=internet-librarian&rlz=1C1G8&ibid=5748&num=0>

Bing Facebook Social Search

- Just launched in U.S.
- Still labeled as “Preview”



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[Movies near Bozeman, MT](#)

bing.com/movies

[Dark Shadows](#)
★★★★☆ · PG-13 · 1h 53m · Comedy

[The Dictator](#)
★★★★☆ · R · 1h 23m · Comedy

[Marvel's The Avengers](#)
★★★★★ · PG-13 · 2h 22m · Action/A...

[The Hunger Games](#)
★★★★☆ · PG-13 · 2h 22m · Action/A...

[The Lucky One](#)
★★★★☆ · PG-13 · 1h 41m · Drama

[The Raven](#)
★★★★☆ · R · 1h 43m · Suspense...

[The Five-Year Engagement](#)
★★★★☆ · R · 2h 04m · Comedy

[The Pirates! Band of Misfits](#)
★★★★☆ · PG · 1h 28m · Animation

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Greg ▾
451



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Greg 452

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Arthur Carey likes Amazon Kindle



Richard T. Kaser likes Amazon Kindle

ACTIVITY

What is this?



Danny Sullivan posted "now really, only greg should see this really really really. heh."



Danny Sullivan posted "Heh, hope you're all enjoying this live"



Search with friends

Google Threats

- Facebook?
 - Closed Environment
 - Google Can Only Index Public
 - Thus the Google+ Push
- Wikipedia?
 - Dominates Results
 - Any Search Engine Can Find Wikipedia Articles
 - No Ads on Wikipedia



praha



Sign in

Search

About 243,000,000 results (0.22 seconds)

Safe Search off

Everything

Images

Maps

Videos

News

Shopping

More

Prague - Wikipedia, the free encyclopedia

en.wikipedia.org/wiki/Prague

Prague (/ˈpraːɡ/; Czech: **Praha** pronounced [ˈpraɦa] (listen)) is the capital and largest city of the Czech Republic and fourteenth largest city in European Union.

↳ [History of Prague](#) - [Prague Castle](#) - [Prague Astronomical Clock](#) - [Prague 9](#)

Images for praha - Report images



All results

Sites with images

More search tools

Home (Portal of Prague) - Praha.eu

www.praha.eu/jnp/en/home/index.html

Praha.eu – portál hlavního města Prahy. CZ - EN - Site Map - Help. Search. Home - City Hall - Transport - First Aid - Life in Prague - Entertainment - Visit Prague ...

Praha.eu (Portál hlavního města Prahy)

www.praha.eu/ - Translate this page

Prague



Prague is the capital and largest city of the Czech Republic and fourteenth largest city in European Union. Wikipedia

Area: 192 sq miles (496 km²)

Local time: 1:55am Sunday (CET)

Points of interest



Library Discovery

- “Google Like”
 - Succeeds with Single Index Approach
 - Faster Search Results
- But Not (Yet)
 - Social
 - Ads
 - Perfected Relevance

Serendipity

- Browsing Still Valued
- Web Examples:
 - StumbleUpon
 - YouTube Related Videos
 - Amazon: Others Who Viewed This Bought . . .

Search Futures

- Return of Meta Data Emphasis?
- One Database vs. Specialized Databases
- Post-Processing Results Over Pre-Processing
 - Left Hand Facets vs. Boolean & Field Prefixes
- Enabling Serendipitous Discovery
 - Still a Challenge Needing a Solution

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Questions?


11 12 13 14 15 16 17 18 19 20

THE TECH SET

Ellyssa Kroski, Series Editor

#17

Screencasting for Libraries



Greg R. Notess

LIBRARY AND INFORMATION TECHNOLOGY ASSOCIATION

