Mindtools: What it means to be literate now...

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Jan 12, 2013 • Google, Mountain View, CA
I am a cyber-tribal-techno-cognitive-anthropologist.
I am a cyber-tribal-techno-cognitive-anthropologist.

I think about how groups of people think about, understand, and use the technology of mindtools.
My job...

I am also a software engineer & research scientist.
What kind of a caterpillar is this?
Mindtool #1: Search-by-Image

1. Drag the image into Image Search
Mod the tool

2. Add a couple of keywords...
A quest to understand what “literacy” means...

- Dictionary def: “able to read and write”
I think that’s woefully out-of-date.
Literacies

- By looking at usage patterns in searches:
  - Ocean
  - Kitchen
  - Legal
  - Information
  - Financial
  - Computer
  - Health
  - Statistical
  - Media
  - Social
  - Emotional
  - Scientific
  - ...etc...
And... a relatively recent concern...
Which of these can you read & write?

لا أتكلم العربية

我不会汉语

\[ b[A-Z0-9._%+-]+@[A-Z0-9.-]+\.[A-Z]{2,4} \]

\[ \text{life} \leftarrow \{ \uparrow 1 \omega \lor \land 3 \, 4=+/, -1 \, 0 \, 1 \circ \ominus \, -1 \, 0 \, 1 \circ \ominus \, \ominus \subseteq \omega \} \]
```python
BOARD_SIZE = 8

class BailOut(Exception):
    pass

def validate(queens):
    left = right = col = queens[-1]
    for r in reversed(queens[:-1]):
        left, right = left - 1, right + 1
        if r in (left, col, right):
            raise BailOut

def add_queen(queens):
    for i in range(BOARD_SIZE):
        test_queens = queens + [i]
        try:
            validate(test_queens)
            if len(test_queens) == BOARD_SIZE:
                return test_queens
        except BailOut:
            pass
        raise BailOut

queens = add_queen([])
print queens
print "\n".join("*q + "Q " + ". "*(BOARD_SIZE-q-1) for q in queens)
```
Mindtool #2: “how to use” indexed knowledge
The world IS different

Reader’s Guide to Periodical Literature

HIGH SCHOOLS—Curriculum—cont.

Taking on the NCAA: we can change the world. J. Nathan. bibl f Phi Delta Kappan v82 no4 p310-12 D 2000

SCHOOLs

A wake-up call on high-school starting times. S. Black. The Education Digest v66 no4 p33-8 D 2000

STANDARDS


HIGH TECH See Technology

HIGH TECHNOLOGY INDUSTRIES


Technology and America’s good times [good American economy tied to government funding of science and technology research] R. E. Litan. por Brookings Review v19 no1 p4-9 Spring 2001

Told you so [this year’s forecast and a look back at 2000] M. Wolff. por New York v33 no5 p36-8 Ja 1 Ja 2001

Who may prosper despite the fall [slump in high technology] J. Kerstetter. por Business Week no3712 p60 D 18 2000

EMPLOYEES

Recruiting


Visa relief. V. Rivkin. por Working Woman v66 no1 p15 D 2000a3 Ja 2001

Visas bring labor, but not for long [H-1B visas for high-tech jobs] N. Watson. por Fortune v142 no14 p64-8 D 18 2000

Location

Sleepy little towns turn high tech. L. Roberts. por Home Office Computing v19 no1 p17-18 Ja 2001

WESTERN EUROPE


HIGH YIELD BONDS See Junk bonds

HIGHER EDUCATION See College education; Colleges and universities

HIGHWAY ACCIDENTS See Traffic accidents

HIGHWAYS See Express highways; Roads

HIKING

See also Backpacking

Trails

See also Equipment

Hiking boots

ARIZONA

Camelback [hiking Arizona’s Camelback Mountain; cover story] T. Kuhn. por Arizona Highways v77 no1 p6-11 Ja 2001

History-rich Cody Trail in Buffalo Bill country near Oracle Ridge offers spectacular views [hiking the Cody Trail] K. Tighe. por map Arizona Highways v77 no1 p56 Ja 2001


NEW MEXICO

Winter walking in Bandelier. J. P. Fleming. por map Santer (National edition) v206 no1 p28 Ja 2001

HIKING BOOTS

A beloved boot kicks off [Sorel boots] K. Peraino. por NewswEEK v37 no3 p57 Ja 15 2001

HILFERTY, ROBERT

Coffeehouse musician. por New York v33 no50 p18 Ja 1 2001

HILL, A. A., AND OTHERS

Genomic analysis of gene expression in C. elegans. por Science v290 no5492 p809-12 D 27 2000
LIFE BEFORE GOOGLE: A SHORT STORY

I JUST THOUGHT OF SOMETHING I'D LIKE TO KNOW MORE ABOUT.

THAT'S A DAMN SHAME.

THE END
Informacy

- The literacy of information... **informacy**
  - By analogy with “numeracy”

- Knowing what the information is...

- How to use and interact with the information

- For example: What is an index? How do you use it?
Mindtool #3: Find text

- Fundamental online reading skill
- Control-F / CMD-F / Edit>Find>
- Lets you find a piece of text in an online document very quickly
- Find how long Beth Assuange took to run this race.
Study #1

Frequency (10-second buckets)  n = 85

Beyond 120 secs, 25% of answers are incorrect
Study #2: How many people know Control-F?

- Survey of 2,225 US-English internet users:
  - 90.5% do **NOT** know how to “find” on a page

- Survey of 545 US-English internet using teachers:
  - 51.1% do **NOT** know how to “find” on a page

- Analysis of over 50K Firefox users (worldwide):
  - 93% have **NEVER** used the “find” command on a page
A Googler wonders...

C: What can I do to stop my phone’s volume from constantly changing?

B: I wish I could do that too!

Dan: Did you think about searching for an app for that?

A: How?
Search for app...

Google search for 'android volume lock' with results from Volume Locker and VolumeLock - Android Apps on Google Play.
Dan’s request...

Dan: Wish I could do Control-F for more than one thing at a time....

C: Try doing a search for [Chrome regexp search]

“regexp” = “regular expression” – a language for specifying patterns to match in text files
Turns out, there is a regexp “Find” extension
French Airstrikes Counter Northern Mali Islamic Insurgency

French airstrikes sought to halt an offensive by Islamist rebels in northern Mali as west African nations pledged to send about 2,000 soldiers to oust the militants fully.

From France: 2013 Hollande tightens security in France after Mali, Somalia action
Opinion: AP Interview: UN chief says France, Senegal, Nigeria offer help to Mali to defeat Al Qaeda in the Islamic Maghreb
Wikipedia: Northern Mali conflict

Related Hollande → Mali → France →
Mindtool #4: Knowing cultural conventions: Genre/Media

- Home page
- Bookmarks page
- Product page
- Product reviews site
- Online textbook
- Web directory
- Open source project
- Draggable maps
- Online survey
- Online news
- FAQ
- DIY guide
- Photo gallery
- CFP
- API docs
- P2P listings
- 3D object viewer
- MMORPG
- Internet memes
- Readme.txt
- Lolcatz
- Pinboard site
- Video
  - Spoof site
  - Etc etc etc...
Spoof sites
Knowing the conventions of the culture

- Knowing the language
  - Emoticons: :-) :P :-(
  - Acronyms: ROTFL, LOL, BRB, TTYL, POS, OOO
  - Terms / concepts: index, key, metadata, filters, sort, ranking...
Why you need to understand emoticons

Is it true that Rosa Parks would have moved to the back of the bus but she was listening to her iPod?

My sister is helping me with a class presentation but she likes to joke she says it is true. She also said Lincoln gave the slaves bus passes, but they thought it was a trick so just kept sneaking on the back like they do today?

1 year ago

Best Answer - Chosen by Asker

..... yeah it's true :P

1 year ago

2 people rated this as good

Asker's Rating: ******

Thank you, I'll put that in my report. I trust you you have the nicest avatar
It’s not just that there’s a lot, it’s also that there are great compendiums of topic information.
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Think of it this way: 1 Library of Congress is added each day... everyday... and the rate of acquisition is accelerating
It’s now 1 LOC/day/week
Every minute
80+ hours of video are uploaded

3 billion
videos watched every day

70%
of traffic is international
And.... The rest of the world...
Ayano Tsuji - Wikipedia
ja.wikipedia.org/wiki/つじあやの
Translated from: Japanese
Ayano Tsuji (January 06, 1978 -) is a Japanese-born singer-songwriter, Sakyoku, Kyoto, ukulele musicians. Real name: 乃 Aya Tsuji (as read). Ryukoku University Faculty of Letters Department of History...
Tools evolve
Tools evolve
5 years... many changes
Meta-literacy

- Knowing how to be literate about being literate....
  - *Literate* = *able to read, write, answer questions, and function in domain*

- That is, “*being literate about being literate*”

- Knowing what the UI is; that is, how to READ the UI
- Knowing how to use the UI effectively
- Knowing what’s possible to ask / search / possible
Meta-literate: *How do you read a tool?*
Tools are evolving... rapidly
What’s possible to ask about the world?

- Just as you had to know what was possible in the card catalog, now you need to know what’s possible in the Google world...

- What can you query?

- What is possible now?

- What will be possible next week?
Google Goggles

- Visual queries about the real world
The evolution of asking questions

- A story about what you can ask...
The crowd chants wildly along with a piece of music. Unfortunately, there are no words. How do you find the music?
How do you search for something like this?
How do you search for something like this?
Find an aerial image of the Squire House before 1977

- $N = 250$
- $\text{Success} = 0$
- Time called at 7 minutes (420 seconds)
And the solution you should have known...
Meta-literacy

- ... is the skill of knowing how to be literate about your own information literacy...
What’s possible: Beyond genres…media kinds

- Web pages
- News streams
- News archives
- Patents
- Images
- Videos
- 3D-models
- Code
- Blogs
- Financial
- Public data

- Reviews
- Product data
- Maps
- Groups
- Magazines
- Scholarly papers
- Calendars
- RSS feeds
- Books
- Local info (geocoded events)
“Every man should have a built-in crap detector.”

Ernest Hemingway

From: Hemingway in Cuba, Atlantic, August, 1965
Change is constant / has been constant / will continue to be constant

- Searchers search for new kinds of things...
  - There are new kinds of things to search for
    - (real-time updates; social content; etc.)

- Tools & systems change to offer new capabilities
And all of this is searchable in ways you might not have imagined...

...because of mind tools!
Mindtool #6: Use tools in unorthodox ways

What’s the phone number of the office this image was taken from?
Now, which office are you in?

Search [google offices warsaw] to find that the information is at: http://www.google.com/about/company/address.html

Google Warsaw
Warsaw Financial Center
Emilii Plater 53
00-113 Warszawa
Poland
Phone: +48 22 207 19 00
Fax: +48 22 207 19 21
Mindtool #7: Search for tools
Show Elevation Profile
opposite / adjacent = tan ( Θ )
1.45 / 8.80 = tan ( Θ )
1.45 / 8.80 = 0.1651
[ arctan (0.1651) ]
[ 0.16362 radians in degrees ]
9.3749 / 0.27 = 34.7 minutes .... Or 7:39AM
BUT....

[ right triangle angle calculator ]
Mindtool #8: Become informate

Power Searching with Google

Another live session of Power Searching with Google begins on September 24!

Register now to complete the course alongside a community of global participants and when the course begins you'll receive:

- Access to community discussion forum
- The opportunity to put your new skills to test with mid and post class assessments
- Support from Google course staff
- An official Power Searching with Google certificate upon completion

Register
Our MOOC: Power Searching with Google

- Deliver high quality educational experience to a very large number of students
- Short amount of learning time (6 hours)
- *Semi-synchronous*
Learning communities

- **Hangout On Air:**
  - live narrowcast to class; recorded for out-of-time-zone students
  - Google Moderator used to collect and vote on questions from students (15K votes on 647 questions)
For these MOOCs...

- 257K registrations
- 190K (74%) attended first lesson
- 33% FCCR (First-course-to-completion ratio)
- 44K students completed course
- 4.5 Net Promoter Score (out of 5)
- 98% of survey respondents recommend this \((n=40.6K)\)
- 40% mean improvement in performance scores
ME102: Mechanics I

Mechanics I is about things: how things move, how things react to forces, and how they sometimes fall apart. We will need to learn to use all the right terms (for example, "statics," "solids," "forces," "moments," "vectors," and "torque"), but ultimately, this course is about objects in the real world and how they behave, move, twist, and turn when subjected to different influences, like wind, or the weight of your hand, or the twisting motion of a wrench. The end goal in this course is to begin to think like an engineer. Put differently, we're going to begin to learn how and why things break so that we can build them better.

The Saylor Foundation
Saylor.org

Course Outline

Course Introduction

Unit 1: Introduction to Statics

Unit 2: Material Mechanics and Analysis of Solid Objects
Creating a CourseBuilder MOOC

- **System builder**
  - *Open source* familiarity
  - *Experience creating course material* either for a traditional live classroom or online class
  - *HTML*
  - *JavaScript* familiarity (particularly JavaScript arrays, simple objects, and regular expressions. Of these, regular expressions tend to be the biggest stumbling block.)
  - *Google App Engine* (Python in the cloud) familiarity is a plus but it's not necessary.

  - Can get sample course to run in 1-4 hours
  - First complete class in ~5 days (not including content development)
See: https://code.google.com/p/course-builder/

Cost: ~300 students, free;

AppEngine cost $20/day for 150K students
Mindtool #7: PowerSearchingWithGoogle.com (1/23/13)

Advanced Power Searching

Advanced Power Searching with Google begins on January 23, 2013!

Register now to sharpen your research skills and strengthen your use of advanced Google search techniques to answer complex questions. Throughout this course you’ll also:

- Take your search strategies to a new level with sophisticated, independent search challenges.
- Join a community of Advanced Searchers working together to solve search challenges.
- Pose questions to Google search experts live in Hangouts and through a course forum.
- Receive an Advanced Power Searching certificate upon completion.

Not sure if you’re ready for Advanced Power Searching? Brush up on your search skills by visiting the Power Searching with Google course.

Register Now
Desiderata

- You **NEED** to understand internet information content—how it’s organized and what is possible

- You **NEED** to emphasize these skills in our students and in ourselves...

- You **NEED** to become a meta-literate person... and plan to continually develop these skills going forward
WE are in the business of making information into something people truly, and deeply understand.
WE are in the business of making information into something people truly, and deeply understand.

WE need to become informate / meta-literate users of information.
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WE need to become informate / meta-literate users of information.

WE need to build the best next generation tools that make information use simple, easy, fast and precise. Who has time for slow/low-quality content?
“Tomorrow’s illiterate will not be those who cannot read and write, but rather those who cannot learn, unlearn, and relearn.”

Alvin Toffler, *Future Shock* (1970), remixed slightly...
WE need to teach our students what’s possible, what’s best, and how.

250K this quarter
1M this year
2M next year
end