

On Beyond Google

Web Literacy for Teachers and Students

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Internet Basics

- Origins
- Benefits
- Today

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Internet Basics

Origins of the Internet

- Advanced Research Projects Agency (ARPA) of the U.S. government created the Internet in 1969
 - Un-interruptible communications network
- Government
- Military
- Research

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Internet Basics

Benefits of the Internet

- It was a worldwide system of computer networks - a network of networks
- It allowed research scientists to "talk to" each other at distant universities, military installations, etc.
- All text-based information
 - HTML

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Internet Basics

The Key Benefit

- Messages could be routed or rerouted
- In more than one direction
- Network could/would continue to function even if parts of it were destroyed* in the event of a military attack or other disaster.
 - *It worked on September 11th when cell phones couldn't...

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Internet Basics

What is the Internet today?

- worldwide network of networks open to the public that is used for:
 - Communication
 - Research
 - Education
 - Commerce
 - Military/government business
 - Entertainment
 - everything...

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Internet Basics

What changed?

- Creation of the WWW
 - Tim Berners-Lee 1989
- Development of a Graphic User Interface (GUI) A "Browser"
 - MIT Mosaic 1993
- WWW part of the Internet became accessible to the public

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Internet Basics

What Is A Browser

- A translator of programming language
- A graphical interface for the code
 - A window to the Internet
- A way to access search tools
- A tool for bookmarking favorite sites
- A tool for collecting images for later use

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Internet Basics

The Internet & Education

- Research
- WebQuests
- Virtual field trips
- Communication
- Publishing
- Contact experts
- Global Projects

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Search Basics

Where do we begin searching?

- Understand the search tools
- Pick a topic
- Formulate a search question
- Choose keywords and phrases
- Give it a few tries
- Refine your methods
- Create a strategy
- Modify your strategy

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Search Basics

Understand the Search Tools

- Search Engine and Meta Search Engine
- Directory (also called subject directories)
- Portal (also called vortal - vertical portal)
- Database
- User/Discussion Groups
- Blogs
- Wikis
- Podcasts

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Search Basics

Search Engine

- Search Engine
 - Spiders and robots "bots"
 - new findings logged automatically
 - Some sites are submitted by "owner"
 - unique mathematical equation "algorithm" used in searches
 - Google - most used
 - AltaVista - most comprehensive



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Search Basics

Meta Search Engine

- Engines that search other engines
- One search returns results from many other search engines
 - Dogpile
www.dogpile.com
 - Webcrawler
 - Mamma Metasearch
<http://www.mamma.com/>

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Search Basics

Directory

(also called subject directories)

- Good starting point if you don't have a very specific topic or question
- Good for general questions
- very selective
- index reviewed by human being
- smaller database coverage
- paid inclusion

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Search Basics

Specialized Search Engines

- Directory of Google Custom Search Engines for Teachers
<http://www.customsearchengine.com/>
- Digital Library for Earth System Education
<http://www.dlese.org/library/index.jsp>

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Search Basics

Meta Site

(also called specialized directories or portals)

- Good starting point if you need info on a specific topic or question
- Specialized
- Very selective
- Immediate "expertise"
- Index reviewed by human being
- Smaller database coverage
- Paid inclusion

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Search Basics

Pick a topic and a tool

- Choose between
 - Directory
 - Meta site or specialized directory
 - Search Engine
 - Meta search engine
 - Specialty search engine

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Search Basics

Formulate a search question

- This may be given by the teacher
 - Make it a good question!
 - Research rather than report
 - Open ended!
- This may be chosen by the students
 - Help them ask a good question
 - Research rather than report
 - Workable

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Search Basics

Give it a few tries
Refine your methods

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Search Basics

Create a strategy

NETS for Searching

<http://webquest.sdsu.edu/searching/fournets.htm>

- Narrow your search
- Exact phrases
- Trim back the URL (truncate)
- Similar pages

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Search Basics

Modify your strategy

- Make corrections to narrow or expand
- Choose different keywords
- Use Boolean terms or quotes
- Change the order of words

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The Grammar of the Internet

How to read the URL

- (http://) is a protocol name
- (www.) is the location of the site
- (gpsk12) This is the name of the organization that maintains the site
- (.com, .org, .gov, .net, .mil, .edu or state.us) domain or suffix that identifies the category of the organization
- <http://www.gpsk12.org>

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The Grammar of the Internet

Look at these URLs

<http://ccbit.cs.umass.edu/SchoolofEducation/Preservice/vroom>
<http://memorialhall.mass.edu/home.html>
http://www.strategy2design.com/keyboarding_links.html
http://broccoli.cs.umass.edu/pvma/pvma_staging/
<http://www.gazettenet.com/12032001/sports/sports.htm>
http://massachusetts.ihigh.com/0,1713,5___216,00.html

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The Grammar of the Internet

What happens when a page is not found?

- Deconstruct the URL to see if you can find the missing web page...
- Go to the home page and see if there is a search feature

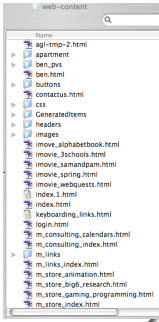
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The Grammar of the Internet

Structure of the Website

<http://www.strategy2design.com>
<http://www.strategy2design.com/index.html>
<http://www.strategy2design.com/>

When folder structure changes, the page has a new URL. Websites change all the time. Now you can use the URL to find a page.



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Keyword Searching

Define Keywords

- Talk about what to enter into the search box
- Talk about how kids/students search now
- Ask about the types of things that they look up when they go online
- Talk about entering full questions

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Keyword Searching

How do you teach keyword searching?

- Think out loud
- Brainstorm a list of keywords
- Take keywords out of questions
- Formulate research questions
- Practice
- Use games and make it fun!

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Games and Mini Lessons

Microsoft Word Should look like this...

- Keywords for this search
- URL (web address www.....)
- The answer to the question

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Games and Mini Lessons

Who wrote the book *The Wind in the Willows*?

Kenneth Grahame

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Games and Mini Lessons

What are the short pleated skirts associated with Scotland called?

kilts

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Games and Mini Lessons

What is the name of the largest castle in the capital of Scotland?

1. Scotland capital
2. _____ "largest castle"

Edinburgh Castle

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Games and Mini Lessons

What kind of animal is Brian in *The Magic Roundabout*?

"The Magic Roundabout" characters

snail

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Games and Mini Lessons

What part of the body is treated by an optician?

optician

eyes

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Games and Mini Lessons

If someone is descending are they going up or down?

descending definition

down

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Games and Mini Lessons

On which temperature scale is 212 degrees the boiling point of water?

"boiling point of water"

Fahrenheit

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Games and Mini Lessons

Part 2 - At high altitude, does water boil at a higher or lower temperature and why?

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Games and Mini Lessons


What sea creature possesses three hearts and eight tentacles?

"eight tentacles" "three hearts"
or
8 tentacles and 3 hearts

Octopus


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Games and Mini Lessons



Trivial Pursuit

- Work alone or in partners to find the answers to the questions on the next slide.
- In Microsoft Word: You need to copy and paste or drag and drop the URL of each site on which you found an answer. This is your proof. Type in a word processor the keywords that you used.



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Games and Mini Lessons

Trivial Pursuit




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Games and Mini Lessons

Trivial Pursuit

Trivial Pursuit Master Game - Genus Edition
Trivial Pursuit Master Game - Genus II Edition
Pursuit for Juniors - First Edition (1987)
The 1980s (1989) (also sold as card set)
Vintage Years (20's/50's) (1989) Anniversary Millennium (1998)
Biographies (2000)
Genus V (2000)
Book Lover's Edition (2004)
Pop Culture 2 to go (2006)



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Games and Mini Lessons

Which country is in South America
Ghana, Guinea or Guyana?

Guyana

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Games and Mini Lessons

- What is the full name of the coyote of the *Roadrunner* cartoon fame?

Wile E. Coyote

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Games and Mini Lessons

- Which country is in South America - Ghana, Guinea or Guyana?

Guyana

Games and Mini Lessons

- Which of Brobdingnag, Lilliput and Slobbbovia does Gulliver not visit?

Slobbbovia

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- What do badgers live in - flets, nets or setts?

Setts

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- Which animal has a longer life expectancy - the elephant or the tortoise?

The tortoise

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Learn how to use an online dictionary or thesaurus...

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- Find enough information to see what the three things have in common...

Games and Mini Lessons

World Teasers

Answer: (c) Canada

World Region: North America

Country: Canada

Capital: Ottawa, Ontario

Population: 33,390,141

Land Area: 3,511,003 sq. mi. (about the size of the United States)

Life Expectancy: 80.3 years

Literacy Rate: 99%



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Games and Mini Lessons

Other ideas?

Family Quiz Book
 Questions for specific grade levels
 Use textbook questions at the end of chapters. Let the students answer the questions as teams. Combine the work into a study sheet.
 Watch "Who Wants to be a Millionaire" and see if you can find the answer faster than the person says it.

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Evaluating Sites

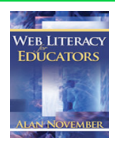
Good sites for all ages

- California Velcro Crop Under Challenge
<http://home.inreach.com/kumbach/velcro.html>
- Dihydrogen Monoxide
<http://www.dhmo.org>
- The Pacific Northwest Tree Octopus
<http://zapatopi.net/treeoctopus/>

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Evaluating Sites

Questions to ask...



- R = read the URL
- E = examine the content
- A = ask about the author or owner
- L = look at the links

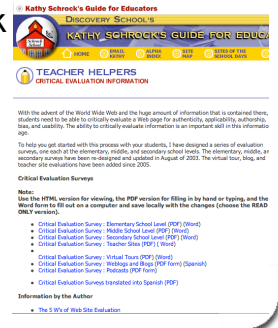
This is from Alan November's book *Web Literacy for Educators*.

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Evaluating Sites

Kathy Schrock

<http://school.discoveryeducation.com/schrockguide/eval.html>



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Evaluating Sites

Pre-selected sites

- pre-selected sites varying quality
- safely begin to decide for themselves
- give reasons for choosing one over another

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Deeper Searching

Create a virtual index

host:nationalgeographic.com

altavista

Web Images MP3/Audio Video News

host:nationalgeographic.com **FIND** Advanced Search Settings

SEARCH: Worldwide USA RESULTS IN: All languages English, Spanish

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Deeper Searching

Create a virtual index

host:nationalgeographic.com

altavista Web Images MP3/Audio Video

host:nationalgeographic.com **FIND**

SEARCH: Worldwide USA RESULTS IN: All languages

Altavista found 959,000 results

National Geographic Society
Discover the Society's photos, maps, globes, magazines, worldwide expeditions, travel tips, vacation planning, and more about geography.
www.nationalgeographic.com

world_map_satellite_map_street_maps_online_atlas_map_machine ...
Locate nearly any place on Earth, search and print historical, weather, and population maps, and more with our dynamic atlas.
maps.nationalgeographic.com/mag-machine

Children's Games, Photos, and Stories | National Geographic Kids
National Geographic Kids page features different people, animals, and places each month with educational facts, games, activities, and related child friendly links.
kids.nationalgeographic.com

Daily Nature and Science News and Headlines | National Geographic News
Reporting our world daily ... WEEK IN PHOTOS: Aztec Dancers, WWII Parade, More: Great Pyramid Mystery to Be Solved by Hidden Room ...
news.nationalgeographic.com

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Deeper Searching

Create a virtual index

host:nationalgeographic.com + africa

altavista Web Images MP3/Audio Video News

host:nationalgeographic.com + africa **FIND**

SEARCH: Worldwide USA RESULTS IN: All languages

Altavista found 21,200 results

National Geographic on Africa
National Geographic: AFRICA. Photo Galleries, Travel, More ...
Faces of Traditional Africa. Explore the vast continent through the eyes of ...
www.nationalgeographic.com/africa

WildCam Africa, Live Streaming Video, Botswana, Wildlife, Animals ...
Watch live streaming video of wild animals at Petr's Pond in Maunabo, Game Reserve, Botswana, from National Geographic ...
Petr's Pond, Botswana, Africa ...
www.nationalgeographic.com/video/wildcam/africa

Map Machine: View From Above @ nationalgeographic.com
©1999 AMERICAN Geographic Santa Barbara, CA (800) 809-4MAP
www.nationalgeographic.com/resources/hgs/maps/ViewAfrica.html

Africa facts, Africa travel videos, flags, photos - National Geographic
Africa facts, information and history, travel videos, flags, photos from National Geographic ... Photo Gallery: Africa's Zambezi River ... Printable MapsAfrica ...
travel.nationalgeographic.com/place/locations/continent_africa.html

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Deeper Searching

Reverse Linking

- links out
- links in
- link command
- link:

altavista

Web Images MP3/Audio Video

link:strategy2design.com **FIND**

SEARCH: Worldwide USA RESULTS IN: All languages

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Deeper Searching

Specific domain extension

altavista Web Images MP3/Audio Video News

link:strategy2design.com **FIND**

SEARCH: Worldwide USA RESULTS IN: All languages

Altavista found 121 results

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www.strategy2design.com/01/01_3_21_05.html
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Sport-Spot Copyright Info
...please, information about Sport-Spot, cheerleading, and how names of sport-spot.com or its ...
www.sport-spot.com/copyright.html
More pages from sport-spot.com

Northridge Public Schools - 3rd and 4th Grade Approved Websites
The inclusion of these links should not be construed as a recommendation or ...
http://www.strategy2design.com/ms/879kb.html. KidZone Geography ...
fu_top.cgi?unit=approved_sites.htm
More pages from fu_top.cgi

Kartoo Mémorandum de recherche
www.glo.com, Yahoo) 9. Strategy 2 Design, Links, KartOO vialuf ...
www.strategy2design.com(Yahoo) 10. wickedqueen.net * technology ...
www.kartoo.com/fr/serveur/H? ...
More pages from kartoo.com

The Author Archive
Computer Lesson Plans and Links go
http://lessonsplans.btkinner.com/computer.html
http://strategy2design.com/ms/level.html, Oct. 17, 2007 21 Views 1 ...
www.fut.net/members/author/Topic-Lessons-ActivitiesKids
More pages from fut.net

Every One Learns - Pedagogy, Technology, Motivation, April 2006
Posted by Mike Mur at 9:28 AM 0 comments Links to this post ...
PICK-LEARNING.com (a free resource from the folks at Tech4Learning.com) Lots of ...
everyonewants.blogspot.com/2006_04_01_archive.html
More pages from everonewants.blogspot.com

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Deeper Searching

Specific domain extension

- host:nasa.gov + shuttle
- host:gov + "breast cancer"
- host:edu + "teacher prep"

altavista

Web Images MP3/Audio Video

host:nasa.gov + shuttle **FIND**

SEARCH: Worldwide USA RESULTS IN: All languages

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Deeper Searching

Specific country

- host:cn + olympics
- host:ac.uk American Revolution

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What's Next?

- Let students search
- Scaffold strategies
- Pre-select sites to choose from
- Teach evaluation
- Use games

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What's Next?

- No more reports
- Teach real research skills
- Create constructivist projects
- Insist on critical thinking
- Challenge your students

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Links

Thanks for listening!

My Website...

- www.strategy2design.com

Books that I used as references:

- www.novemberlearning.com
- www.extremesearcher.com



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Links

Tutorials

- Internet Strategies for Kids
<http://www.searchengineyearbook.com/internet-searching.shtml>
- Search Engines and Search Strategies
<http://www.blindteachers.net/Search.html>

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