## SEARCHOLOGY 101

## **Exploring Theories and Practices for Learning Efficiency and Learning Productivity**



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#### Introduction

#### What is Searchology?

 Background: Development of information technology: the Internet, especially Internet 2.0

#### Related theories

- E-Learning
- Connectivism
- Digital environment/ecology
- TPCK

#### Related Technology

- Database
- Search engines
- Multimedia dissemination
- Blogging

#### Principles

- Immediacy
- Relevancy
- Accuracy
- Currency
- Efficiency

#### Conclusion

- Learning is a process facilitated by searching technology that enables the learner to get whatever he/she wants
- Learning by searching
- Searching is learning

#### Theoretical Foundations-1

#### Library Science

- Information System/Architecture
- Information Resources & Services
- Information Organization & Transmission
- Information Retrieval System
- Cataloging and Classification
- Internet Database & Management
- Digital Library

#### Theoretical Foundations-2

#### Internet Databases and Search Engines

- Database Category
  - Discipline Areas
  - Access Limitations
  - Services of the Database
- Internet 1.0
- Internet 2.0
- Connectivism
  - Wisdom of the Crowds Blogging
  - New Frontiers Chaos or Order?
- Search Engines

#### Theoretical Foundations-3

- Cultural Awareness and Basic Skills
  - Media Literacy
  - Information Literacy
  - Guide for the 21<sup>st</sup> Century Literacy
  - 21st Century Literacy
  - 21st Century Skills
  - Metalearning
  - Futurology
  - **TPCK**

#### Searching Technology in Practice

- Effective use of various search engines with unique features and digital library services
- Data Mining
- Text Mining
- Bookmarking
- Automatic Searching
- Personalized Searching
  - Search engine preference
  - Use of special tools fitting in personal interest areas
  - Building database of databases

### Sequence of Search

- Define Searching Objectives
  - Scope
  - Focus
- Define Search Strategies
  - Choice of Database
  - Choice of Search Tools
- Define Key Words and Search Methods
  - Limiters
  - Truncation
  - Boolean
  - Logic
  - Nesting
- Results Evaluation
  - Website Evaluation
  - Content Evaluation
- Use of a Search Results
  - Understand the Context
  - Choose what you really want
  - Archive the by-products

### Indicators of Quality Search

- Immediacy
- Currency
- Relevancy
- Accuracy
- Efficiency

## Google and Searchology

- Searchology has becoming Google's buzzword in its research and propaganda recently
- Google's most recent presentation on searchology. Watch the <u>Webcast</u> with Marissa Meyer, Craig Silverstein and others.

#### Question for You

Will Google be obsolete or degraded to a second class search engine soon?

#### Debut of World's First Live Search Engine

- Challenge Google and other first generation search engines!
- A new searchological revolution is booming along!
- Mylivesearch is said to be the first of its kink in the world.

# Special Searching Strategy-1 Learn as Digital Native Does

- Digital natives don't like to read paper books
- Digital natives read everything online
- Online information are webbed and interactive
- Searching is in the flow with reading activities
- Try this blog site

# Special Searching Strategy-2 Hunting for Windfalls

- Use of references on academic papers
- Use of <u>specific databases</u>

## Special Searching Strategy-3 Serendipity: Incidental Finding

- Go to elearningspace
- When you submit your email for newsletter subscription, see what you can see on next page
- You see "Archive". That is the treasure you accidently find.
- What is that URL about under the "Submit" button? Powered by ymlp.com
- Aha, it is a Mailing List provider, it is free... Won't you try it?

## Special Searching Strategy-4 Be a Sniffer Dog

- Imagine how kids today mess up on the website? They surf around the screen and click on everything.
- See what you can find on <u>Ask for Kids</u>. Are you going to sniff on everything?
- Use of sidebar resources. Read the sidebar on elearningspace.
- Be a sniffer dog. Don't miss anything valuable to you from the nook and canny of the screen.

## Special Searching Strategy-5 My Friends Have Done It For Me

- Use of Social Bookmarks
- Blog websites
- Facebook
- MySpace

## Special Searching Strategy-6 Let the Machine Do It

- Automatic & Semi-Automatic Searching
  - SDI (Selective Dissemination of Information) service
  - Use of Database Alerts e.g. Try PsychINFO in ODU Library
  - Newsletter subscription e.g. <u>Globalization 101</u>
  - Listserv subscription e.g. <u>ASCDSmart</u> <u>Results</u>
  - RSS (Really Simple syndication) Feeds subscription. IE7 has RSS read built in.
  - iPod feeds subscription
  - Use of Search Engine Alerts, e.g. Google Alert e.g. <u>Future of Education II - 10 years later</u>. Try Yahoo Alerts too!
  - Your webpage monitor Free & Website Watcher

# Special Searching Strategy-7 Be an Archeologist

Uncover the "Antiques"

# Special Searching Strategy-8 Be a True Believer of "You Can Find Anything Online"

My Story of finding a commercial online. "Save Big Bucks"

# Special Searching Strategy-9 Database of Databases: Build Your External Brain

- Personalized Database Examples
  - PPT templates
  - Search Engine <u>Tutorials</u>
  - Statistics
    - SPSS
    - Survey Monkey
    - Experiment Design
  - Use of Gadgets:
    - PDA
    - Cell phone
    - iPod
    - Pocket PC

# Special Searching Strategy-10 Be an Active Player in the Digital Learning Community

- Be a contributor, not only a consumer
  - Create your website
  - Start your blog
  - Manage your e-mail newsletter at http://www.ymlp.com

### Conclusion: Searching is Learning

- Learning by doing
- Learning by gaming
- Learning by connecting
- Learning by socializing
- Learning by searching
- Searching is learning

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#### Reflection on Terms

- Data Information Knowledge
- Tab vs. Tag
- Directory/Folder vs. Tags
- Plug-Ins vs. Add-Ons
- Deep link vs. Home page link/Front Page
- Firefox vs. Explorer
- Online search vs. Inline search
- Menu Bar vs. Ribbon (MS Office 2007)
- ...

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#### Issues

- Educational technology vs. Learning Technology
- Information Explosion vs. Learning Efficiency
- Distractions vs. Learning Opportunities
- Digital Divide vs. Learning Opportunity Equalizer
- Formal Searching vs. Incidental Searching/Learning
- Physical Isolation vs. Over Cyber Socializing
- Technology vs. Pedagogy & Content Knowledge (TPCK)
- Learning Theory from the Cooperate world vs. Learning Theory from the Educational World
- Universal Truth: Necessity is the Mother of Invention
- Mind boggling question: Why do educators lag behind in learning theory research and application?

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#### Reference

- What is Web 2.0? Ideas, technologies and implications for education
- Connectivism Web2.0
- Association for Educational Communications and Technology