Turning Search into Find

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AODC 2010 Darwin Australia
13th Australasian Online Documentation and Content Conference

What we'll cover in this session

- Why search is important
- The obstacles to Find
- Innovative approaches to search on the Web
- Top 10 factors that help turn Search into Find
- Some practical pointers towards implementation

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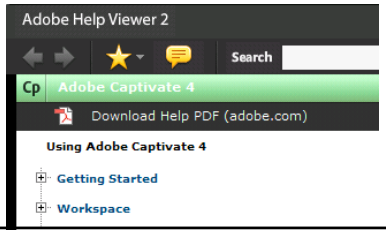
Why search/find is so important

- Search is not necessarily the most effective tool for finding information

  BUT
- It is the tool that users prefer to use

  [Hood, Henderson, Jordan, 2003]
- Many Help systems now omit an Index



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We used to find things…

- Now we search…

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What are the obstacles to Find?

Don't know what search keywords to use

Can't ask questions

Too many search results

Search does no linguistic analysis

Search is not picking up synonyms

Can't specify search tightly enough

Zero search results

Don't really know what I'm looking for

Search takes no account of semantics

Not clear which search result is best

Search has no understanding of the domain

Best search result is at the bottom of the list

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SOME INNOVATIVE APPROACHES TO SEARCH ON THE WEB

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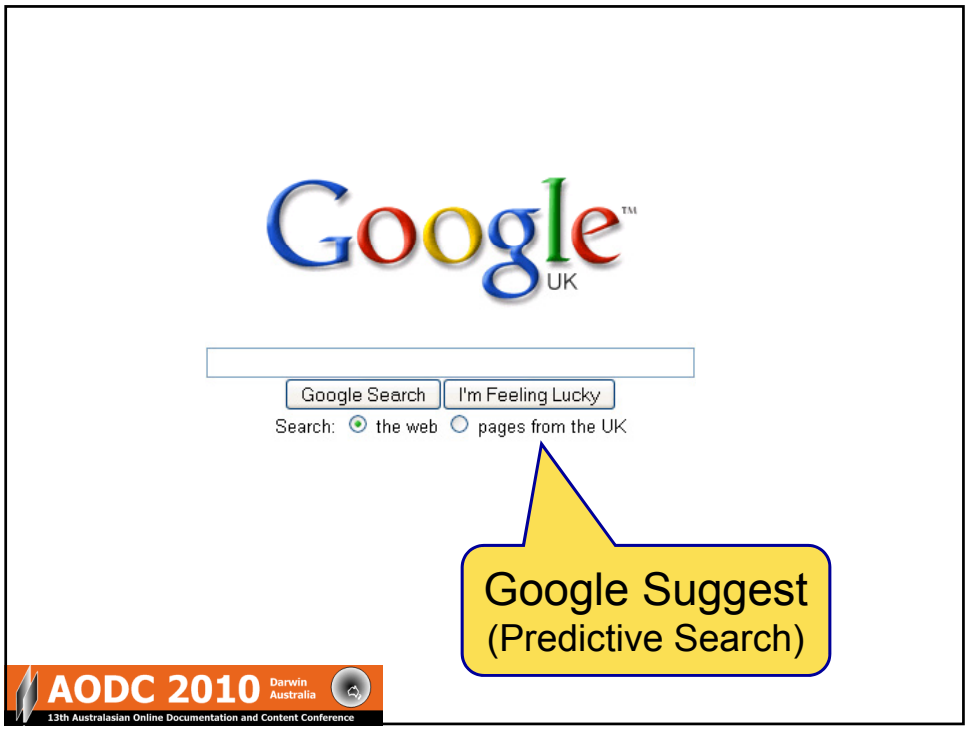

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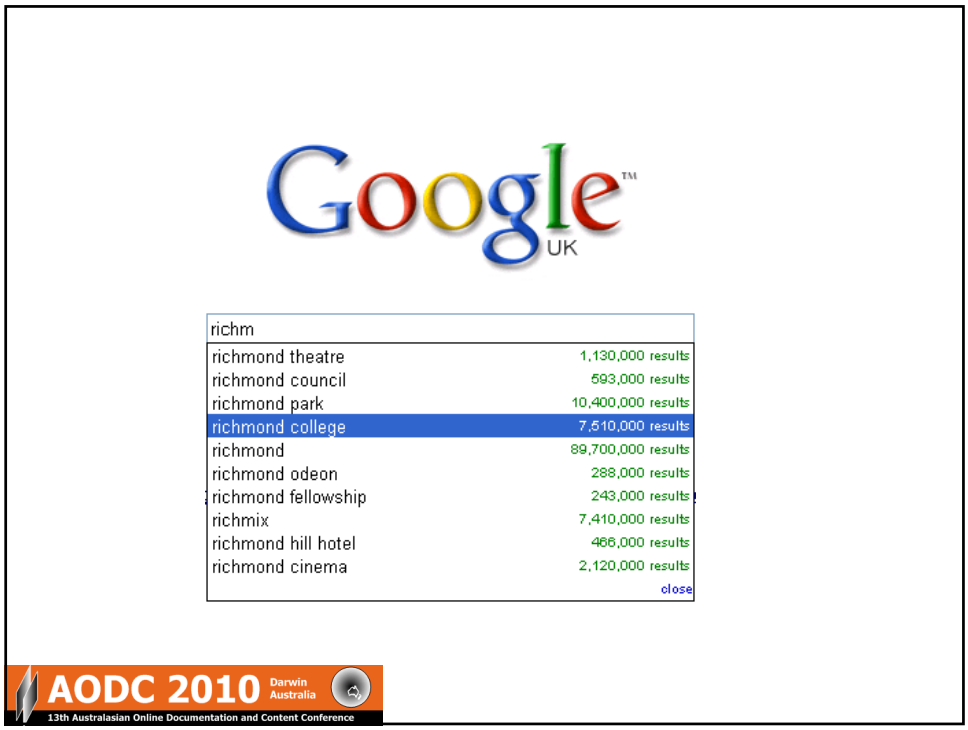
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richmond park 10,400,000 results
richmond college 7,510,000 results
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richmond odeon 288,000 results
richmond fellowship 243,000 results
richmix 7,410,000 results
richmond hill hotel 466,000 results
richmond cinema 2,120,000 results
close
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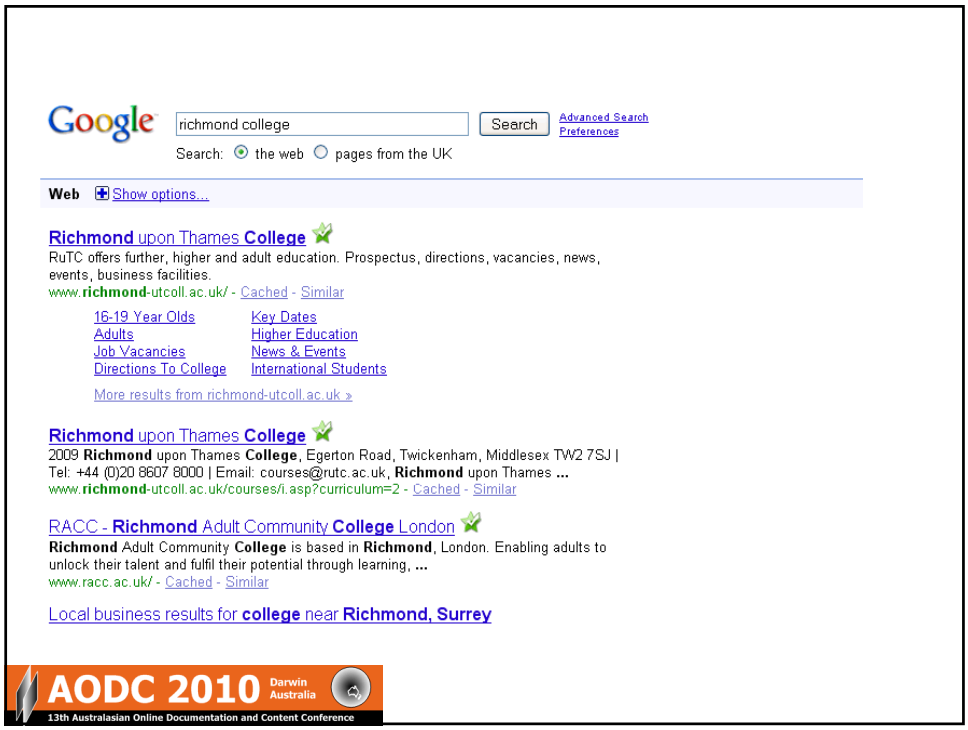
Google
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Search
Advanced Search
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Search: the web pages from the UK
Web Show options...
Richmond upon Thames College
RuTC offers further, higher and adult education. Prospectus, directions, vacancies, news, events, business facilities.
www.richmond-utcoll.ac.uk/ - Cached - Similar
16-19 Year Olds
Adults
Job Vacancies
Directions To College
Key Dates
Higher Education
News & Events
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More results from richmond-utcoll.ac.uk »
Richmond upon Thames College
2009 Richmond upon Thames College, Egerton Road, Twickenham, Middlesex TW2 7SJ | Tel: +44 (0)20 8607 8000 | Email: courses@rutc.ac.uk, Richmond upon Thames ...
www.richmond-utcoll.ac.uk/courses/i.asp?curriculum=2 - Cached - Similar
RACC - Richmond Adult Community College London
Richmond Adult Community College is based in Richmond, London. Enabling adults to unlock their talent and fulfil their potential through learning, ...
www.racc.ac.uk/ - Cached - Similar
Local business results for college near Richmond, Surrey
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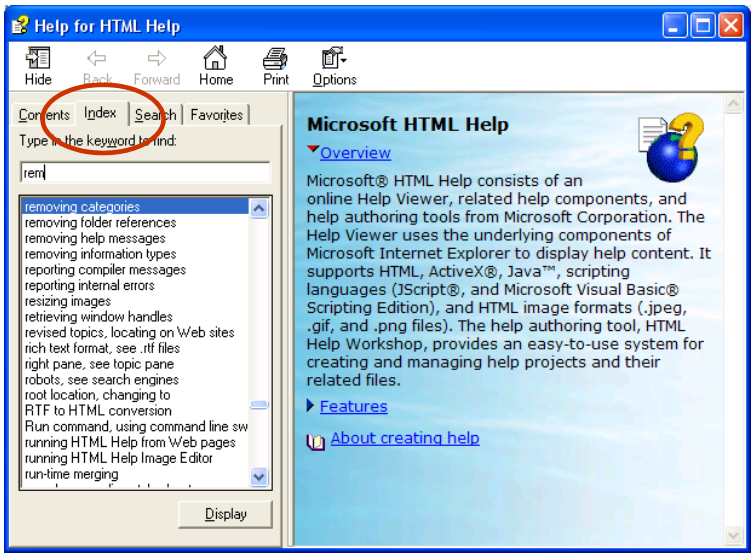
Remind you of anything?



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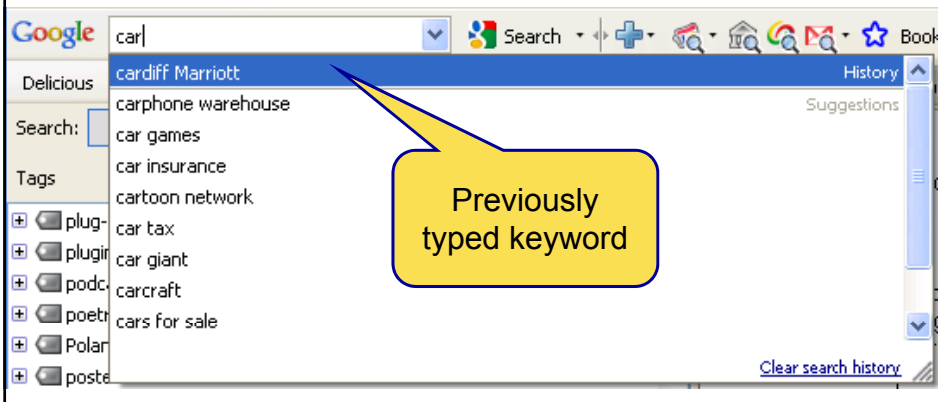
Google toolbar



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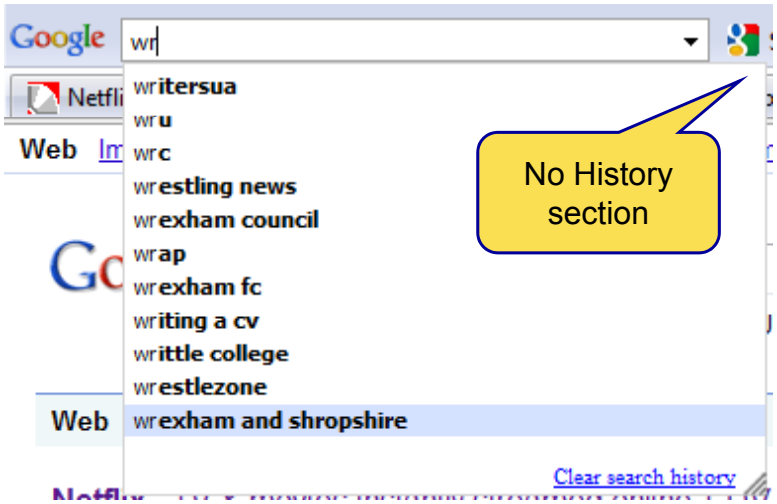
Google toolbar update



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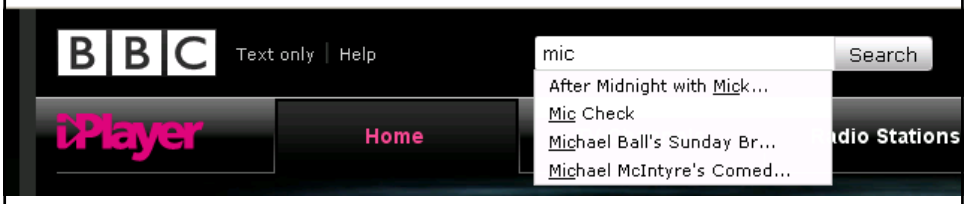
BBC I-Player



Update:

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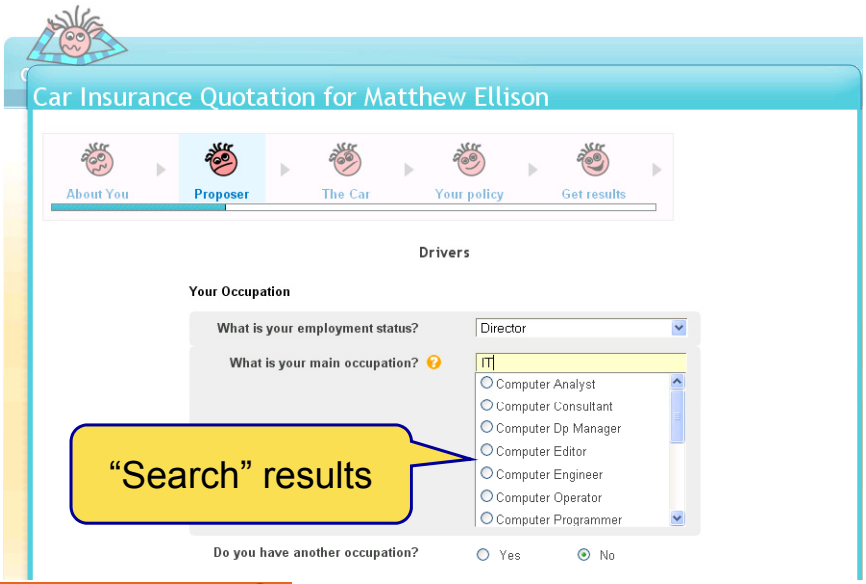
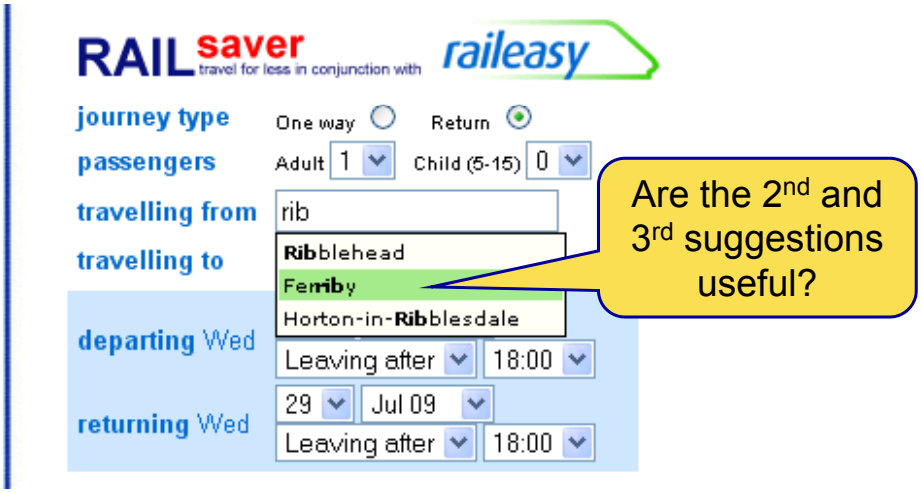
Confused.com



Railsaver.co.uk



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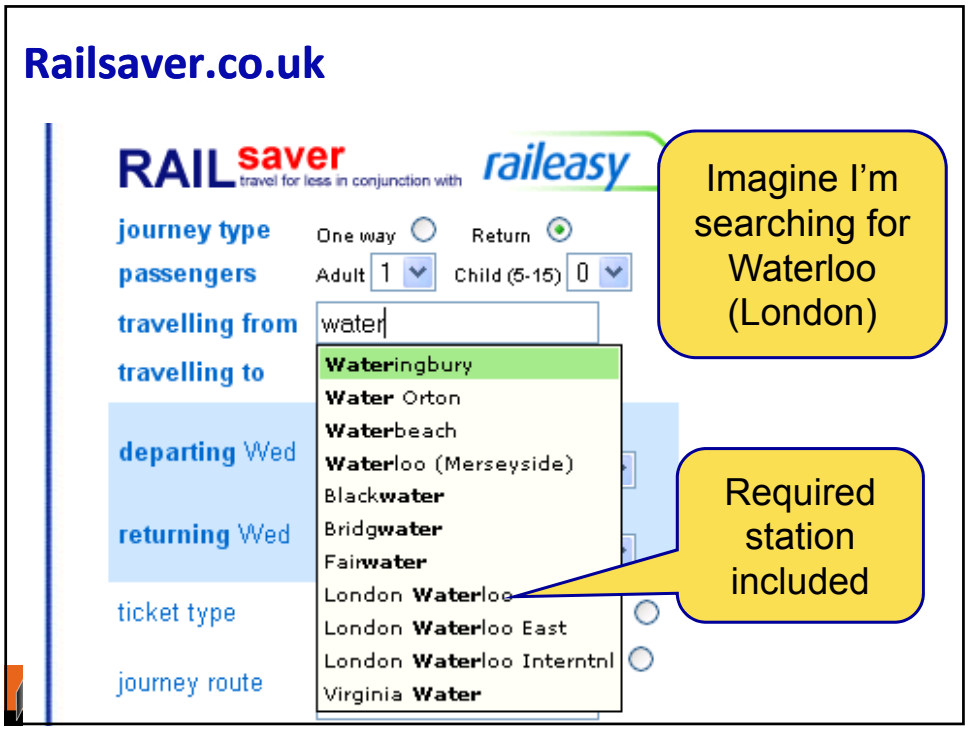

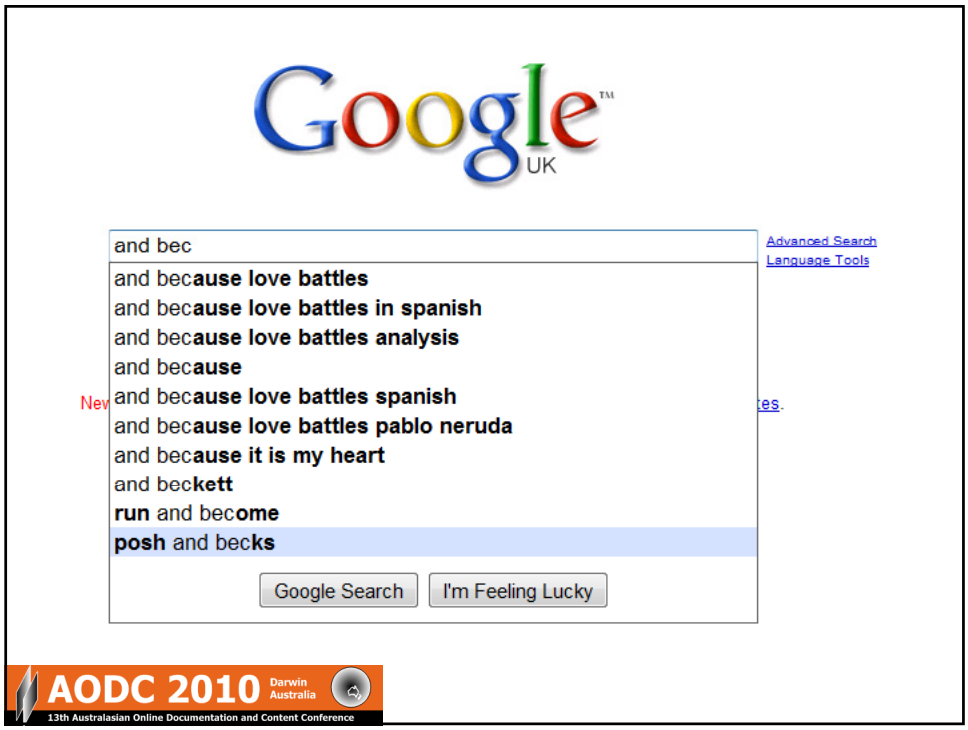

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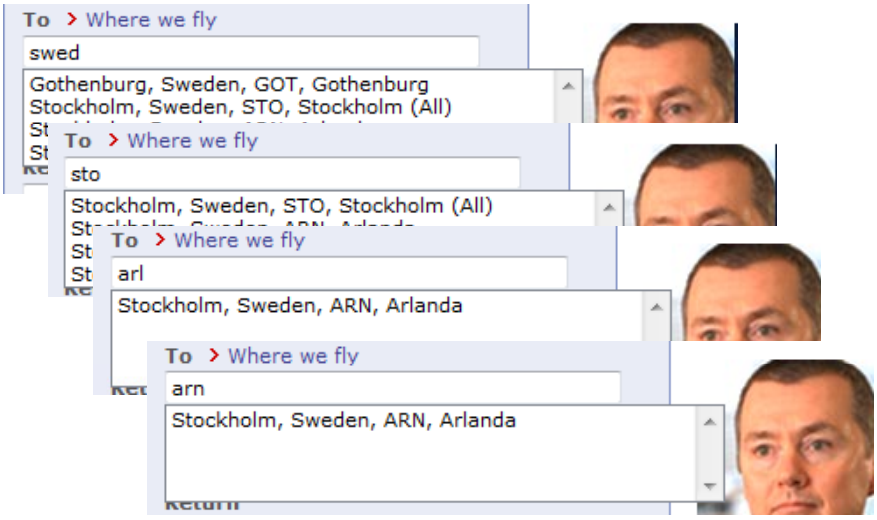
British Airways (BA.com)



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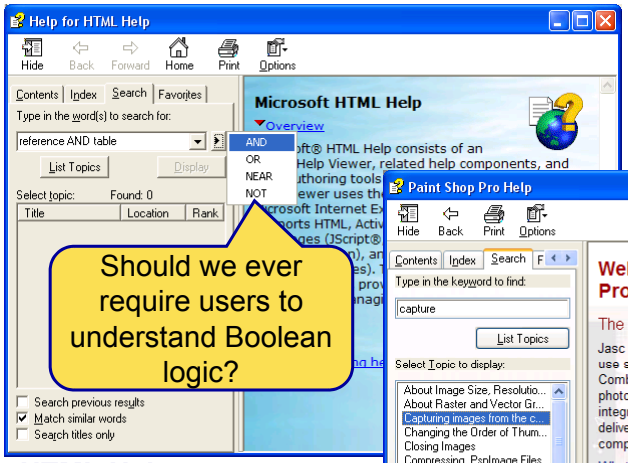
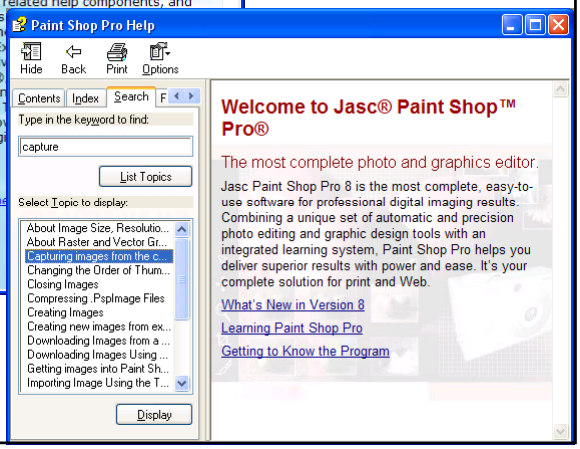
Need to Balance search functionality and simplicity/ease of use



HTML Help – Advanced Search

HTML Help – Simple Search



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Need to Balance search functionality and simplicity/ease of use

- Two online bookshops:
  - Borders (UK) – ~~popular high street bookseller~~ Now out of business
  - Blackwells – strong links to academic institutions and libraries
- Compare their approach to search

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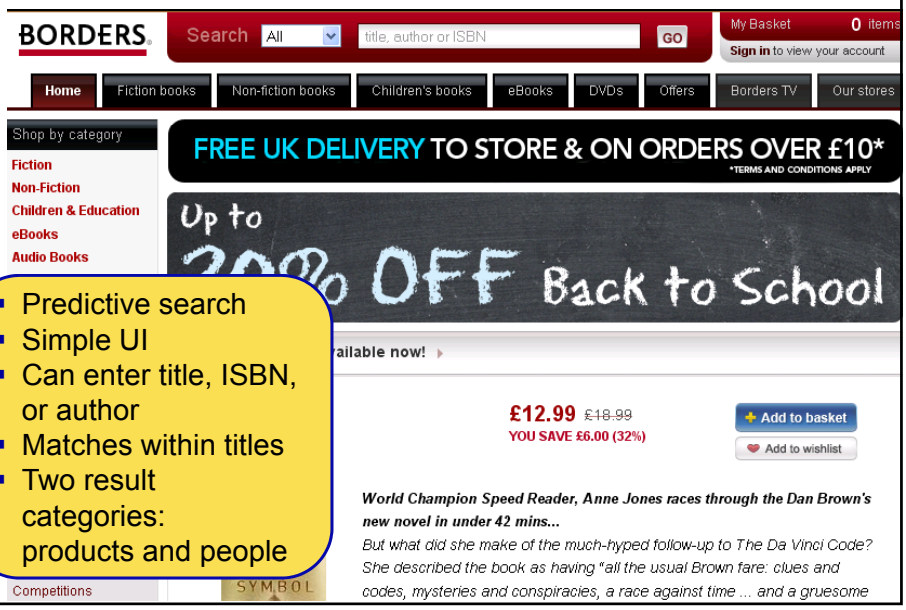
Borders



- Predictive search
- Simple UI
- Can enter title, ISBN, or author
- Matches within titles
- Two result categories: products and people

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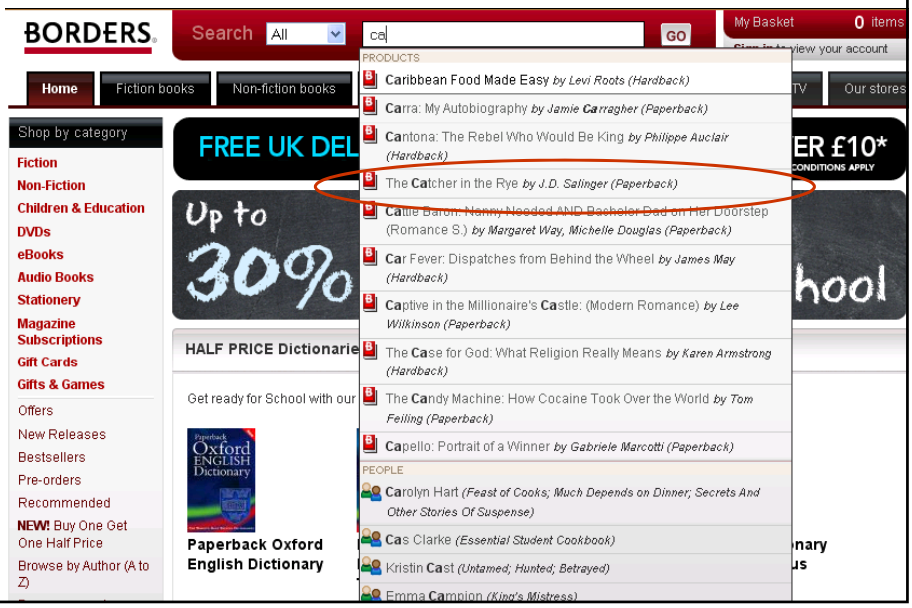
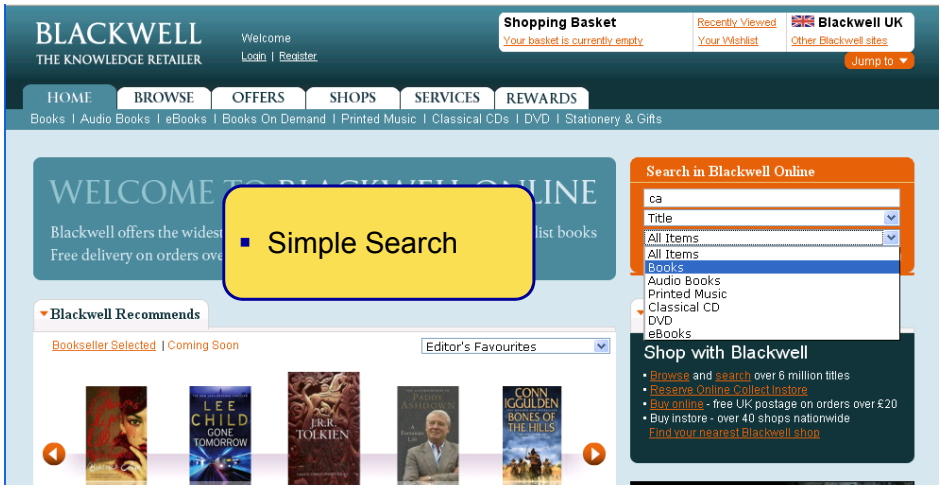
Borders



Blackwells



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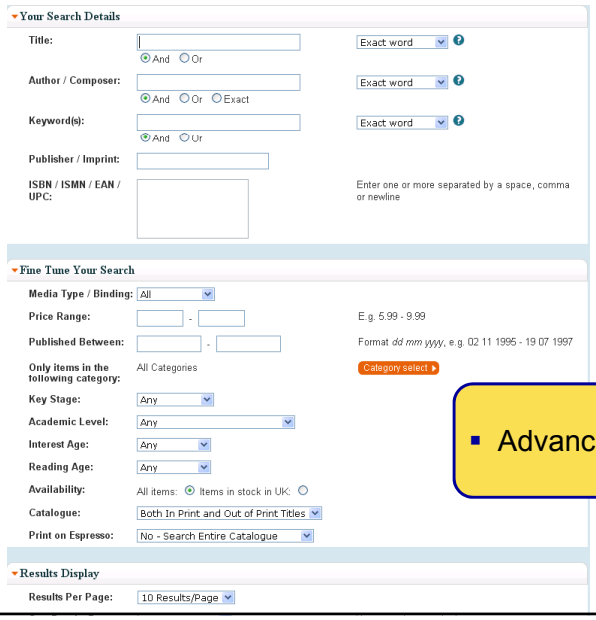
Blackwells



- Advanced Search

Faceted Search

- Classify information by specific characteristics (facets)
- More flexible than a TOC, which presents a single, pre-determined, taxonomic structure
- Users explore available information by choosing required facets
  - Combine facets to narrow down the search
- Can be use to refine the results of full-text search

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Example of faceted search

Browse Varietal

Red Wines (171), White Wines (149), Bubbly (40), Pink Wines (30), Dessert/Fortified Wines (41)

Browse Region

French (55), German (6), Italian (67), New Zealand (2), Other European (8), Portuguese (19), South American (4), Spanish (15), USA (255)

Browse Price

Bargains under $20 (237), Top shelf (over $100) (11)

Set your own Price:

MIN — MAX

(Drag pointers to select)

http://facetmap.com/browse/

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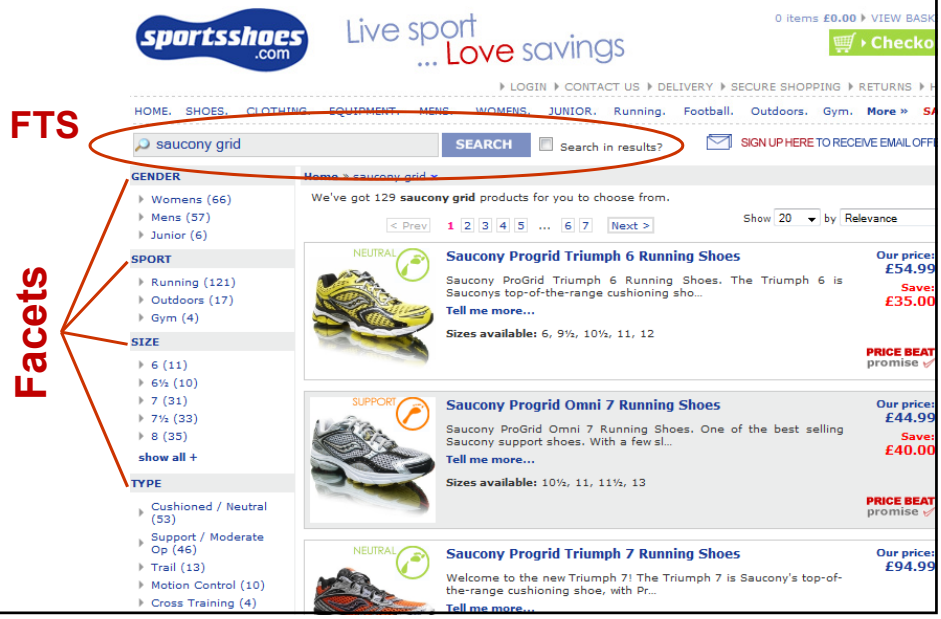
Combining FTS and faceted search



FACTORS THAT HELP TURN SEARCH INTO FIND

In reverse order…

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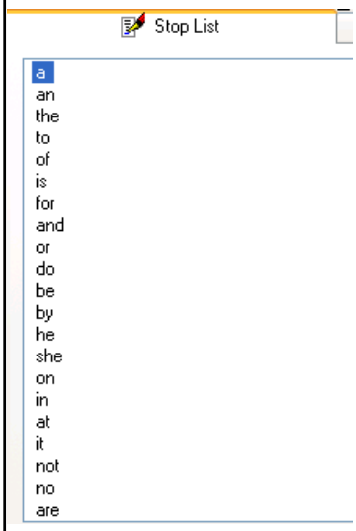
#10 Stop words – facility to exclude specific words from search matching



- Common words that are not indexed by search
- Marginally reduces file size and increases search speed
- Might cause problems when searching for phrases
  - Example: sort by date

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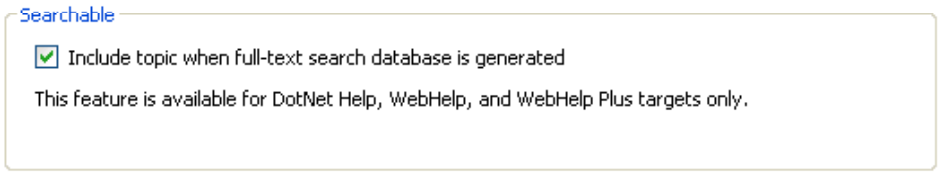
#9 Facility to exclude specific topics from search

- Option to exclude topic from search
- Enables you to ensure topic only appears in a specific context
  - Context-Sensitive Help topics
  - Pop-ups
  - Topics with pre-requisites



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#8 Search result synopses (context)

- Show first few words or key extract for each search result
- Similar to Google's presentation of search results
- Enables user to assess relevance of search result

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#7 Boolean search

- AND, OR, NOT
- Enables users to combine keywords for advanced search
  - Using AND decreases number of results
  - Using OR increases number of results
- Most Web search engines use Boolean AND
- Most Help search engines use Boolean OR
  (perhaps afraid to offer zero results)

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Comparing search provided by HATs

Help format	Boolean Ops	Other features
Adobe AIR Help and WebHelp	▪ Supported ▪ Defaults to OR	▪ Ranking ▪ Highlighting ▪ Context ▪ Substring
MadCap WebHelp	▪ Supported ▪ Defaults to OR	▪ Ranking ▪ Highlighting ▪ Filtering
ComponentOne NetHelp	▪ Not supported ▪ Defaults to OR	▪ Ranking (no numbers) ▪ Highlighting
Author-it Browser-based Help	▪ Supported ▪ Defaults to AND	▪ Ranking + hit count ▪ Match partial words
WebWorks Help	▪ Not supported ▪ Defaults to AND	▪ Ranking (arbitrary numbering)

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#6 Phrase matching (quoted keywords)

- Examples:
  - “currency conversion”
  - “topic templates”
  - “content explorer”
- Usually unnecessary with sophisticated search engines
- May help to filter out unwanted search results

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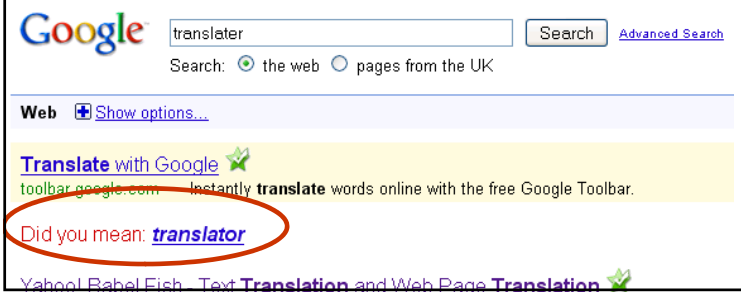
#5 Fuzzy matching linguistic analysis

- Suggesting misspellings
- Offering close matches
- Stemming and parts of speech
  - Cow finds cattle
  - Translate finds translation and



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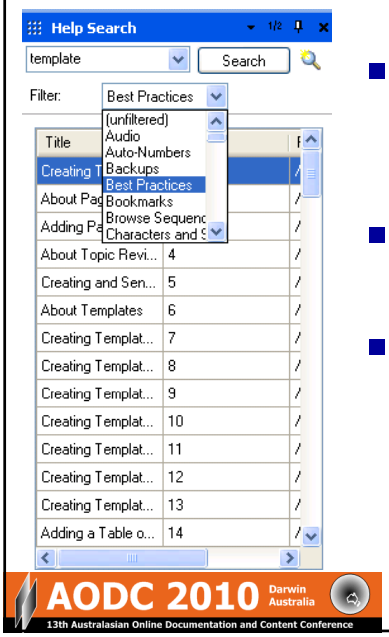
#4 Search filtering and faceted search



- Concept of "Information Types" coined by Microsoft in 1996 for HTML Help
- Commonly used on e-commerce sites
- Achievable with Concept Keywords and Search Filters in Flare's WebHelp and DotNetHelp

Facets for software user assistance

Sports Shoes

- Gender
  - Men
  - Women
- Sport
  - Running
  - Gym...
- Size
  - 4,5,6,7,8
- Type
  - Cushioned
  - Trail

Software user assistance

- Role
  - Administrator
  - User
- Software module
  - Accounts
  - Human resources
- Experience
  - Novice, intermediate, advanced
- Required info
  - Step-by-step
  - Field descriptions...

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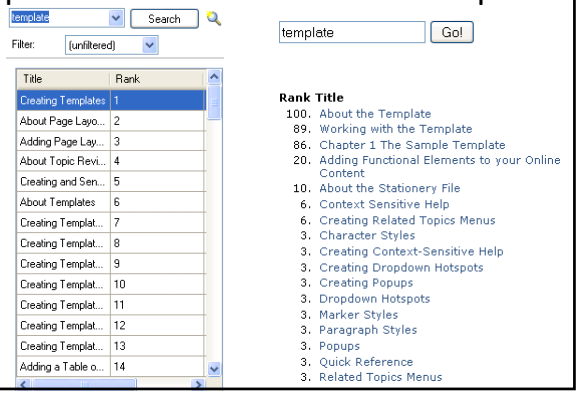
#3 Ranking of search results

- What determines sequence?
  - Number of occurrences of keyword
  - Meta data
  - Concept of “best bet” in MS Vista Help



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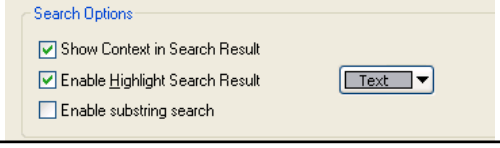
#2 Meta Data

- The key to flexible and effective search
- Enables you to avoid zero search results
  - Topics found even if they don’t contain the search keywords within the visible text
- RoboHelp 8:
  - option to add search keywords manually
  - automatically adds index keywords as search keywords
    (you must not enable substring search)



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#1 Predictive search

- Reduces required number of key presses
- Provides better "scent of information"
- Discourages "long tail" searches?
  - Before Google Suggest, 20 - 25% of all searches never occurred before (http://preview.tinyurl.com/longtail25)

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Practical ways to implement predictive search

- Google Custom Search
  - Tips and guidelines available on the Web
  - Use PHP and jQuery to add auto complete (see http://tinyurl.com/nkfw8p)
- Turnkey auto-suggest technologies such as PredictAd
- Adobe Forums case study

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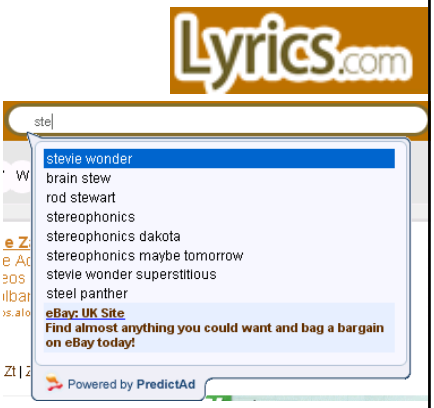
PredictAd

- Learns community search patterns
- Provides:
  - suggested search queries (like Google Suggest)
  - direct links to adverts, live search results, related articles, etc. (like Borders Search)
- These results can be based on:
  - partial keyword entry
  - deep analysis of content
  - the user's profile
  - the context of the search



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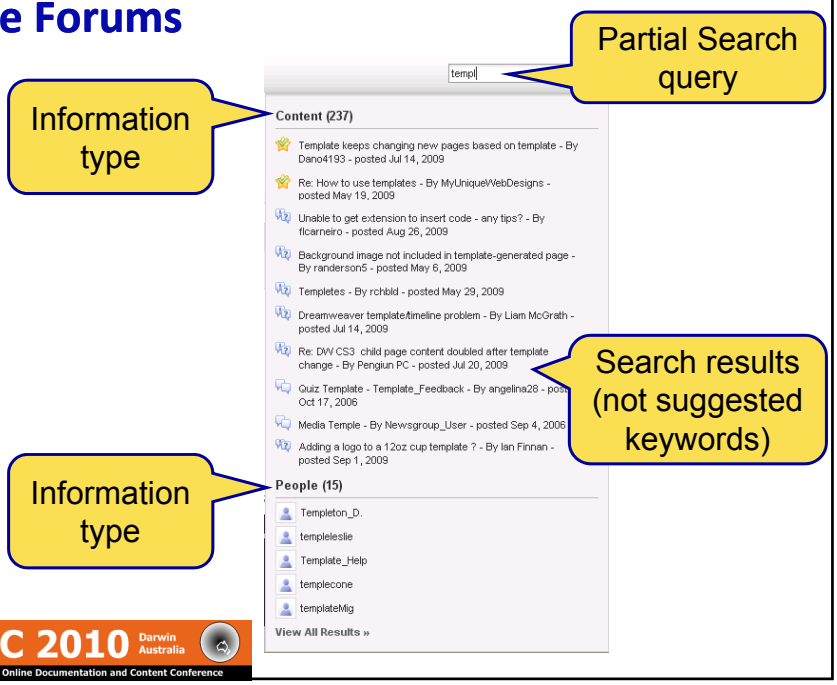
Adobe Forums



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Adobe Forums

- Powered by Jive Software's Clearspace
- How the predictive search works:
  - JavaScript captures keyup events from the search box
  - after a specific number of characters, an AJAX request is sent to the server with a wildcard search based on the characters entered
    for example: templ*
  - JavaScript is used to create an HTML div containing HTML that formats the results
  - Other JavaScript code enables the user to use the up and down keys to move through results and the enter key to select one and go to the content

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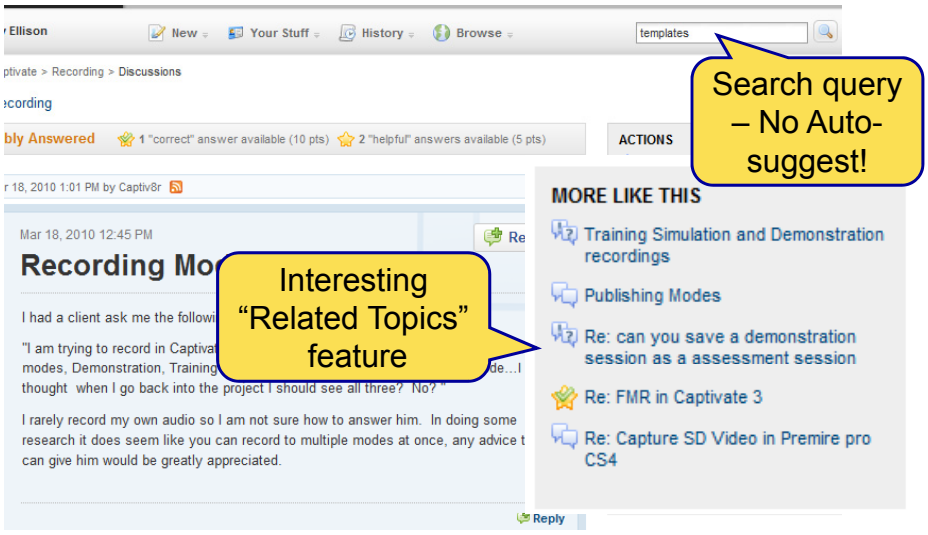
Adobe Forums - update



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- **Predictive Search Query Suggestions**
  http://www.seobythesea.com/?p=1375
- **Enable Auto-complete Search in WordPress Blog!**
  http://tinyurl.com/lhtdqh
- **Drupal: Keyword Autocomplete**
  http://drupal.org/project/keyword_autocomplete

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Questions?

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