

RHP Computer Applications

5-4 Formulating an Internet Search

Name:



Let's say we have an interest in recent findings about new planets being discovered outside our solar system. Using the information "contained" in this statement, you can see how an effective query can be built by following these guidelines.

We'll summarize the recommendation, show how the statement is phrased, and describe why it's important.

Read through the material and send me two emails for the assignments at the end.

(Go to the next page).



Recommendation	Example	Why Important?
1. Use nouns and objects as query keywords	planet or planets	Actions (verbs), modifiers (adjectives, adverbs, predicate subjects), and conjunctions are either “thrown away” by the search engines or too variable to be useful
2. Use 6 to 8 keywords in query	new, planet, planets, discovery, solar, system	More keywords, chosen at the appropriate “level”, can reduce the universe of possible documents returned by 99% or more
3. Truncate words to pick up singular and plural versions	planet* or discover*	Use asterisk wildcard. The wildcard tells the search engine to match all characters after it, preserving keyword slots and increasing coverage by 50% or more
4. Use synonyms via the OR operator	discover* OR find	Cover the likely different ways a concept can be described; generally avoid OR in other cases
5. Combine keywords into phrases where possible	“solar system*”	Use quotes to denote phrases. Phrases restrict results to EXACT matches; if combining terms is a natural marriage, narrows and targets results by many times
6. Combine 2 to 3 “concepts” in query	“solar system” “new planet” discover* OR find	Triangulating on multiple query concepts narrows and targets results, generally by more than 100-to-1
7. Distinguish “concepts” with parentheses	(“solar system”) (“new planet”*) (discover* OR find)	Nest single query “concepts” with parentheses. (Overkill for now, but good practice when first learning.) Simple way to ensure the search engines evaluate your query in the way you want, from left to right
8. Order “concepts” with subject first	(“new planet”*) (discover* OR find) (“solar	Put main subject first. Engines tend to rank documents more highly that match first terms or phrases



Recommendation	Example	Why Important?
9. Link "concepts" with the AND operator	system") ("new planet*") AND (discover* OR find) AND ("solar system")	evaluated AND glues the query together. The resulting query is not overly complicated nor nested, and proper left-to-right evaluation order is ensured
10. Issue query to full "Boolean" search engine or metasearcher	As above	Full-Boolean engines give you this control; metasearchers increase Web coverage by 3- to 4-fold

By issuing the query in #9 above to AltaVista, we are able to restrict results from a baseline of 418,934 documents using the query **new AND planet** (actually 551,936 if we were to properly include **planets** as well) to a count of 934 documents. Though that number still seems like a lot, we have reduced our possible universe of results by 400 to 600 times, and three of the first five documents listed give us exactly what we were looking for:

<http://www.got.net/~seasons/new.html>

<http://www.ucar.edu/quarterly/summer97/planet.html>

http://www.packer.edu/Access/Internal/Students/Astronomy/New_Planets.html

Assignment

You will be sending me 2 email messages for this assignment. One email message is for question #1; the other is for parts 2 and 3.

- Answer the following questions from the reading above and email the answers to me at rhp@denovodental.com. For the subject of the email, enter **Compapp 5-4a LastName** (replace LastName with your last name).
 - What types of words should be entered in a search engine query?
 - What does an asterisk (*) mean in a search?
 - What do you use quotes ("") for in a search?
 - What do you use parenthesis for?
- Use www.google.com to find a current picture taken from the Mt. Wilson Observatory (current means within 3 hours of the current time!). If you find the correct site, the time the picture was taken will be displayed on the upper left-hand corner of the image. When you find the picture, right-click on the picture in your browser. Choose **Save Picture As...** and choose a name and location to save it at (remember where you put it!). Use the tips above to help fine-tune your search.
- Find the location of the largest optical telescope in the world. Be careful! Remember, just because you saw it on the Internet does not mean it is true. To confirm this fact, make sure you find at least two separate sources confirming your answer.

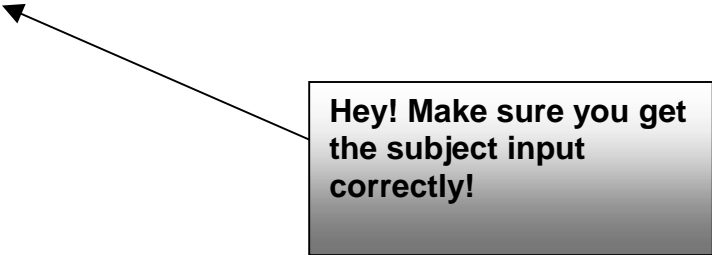
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4. Email me your answer to questions #3 and send the picture from question #2 as an attachment. Subject is **Compapp 5-4b LastName** (Replace LastName with YOUR last name).



Hey! Make sure you get the subject input correctly!