Searching Google.com databases

Questions to answer for a database:

1. **What subjects and publication types are included in the database?**
   
   Any subject and every subject. However, it must be freely available. On campus, there are many resources you have access to that are not free because the library pays for them and makes them available to anyone on the Notre Dame network.
   
   Google Book indexes books and journal articles, Google Scholar indexes journal articles, Google Patent indexes patents, and Google indexes web pages and may also include books, articles, and patents.

2. **What are the coverage dates?**
   
   Anything added to a web page since 1992.

3. **What Boolean operators are used by the database?**
   
   AND  Space between words or phrases is interpreted by the Google software as an AND
   OR      Capitalized OR (this works some of the time)
   NOT     Minus sign immediately preceding a word or phrase

4. **If truncation is allowed then what symbols are used?**
   
   None. Uses word stemming technology so the system automatically truncates.

5. **If wildcards are allowed then what symbols are used?**
   
   None

6. **How do you search for a phrase?**

   a. System automatically determines if something is a phrase
   b. You can force a phrase by putting “quotes around the phrase terms”
      Example: “Notre Dame”
      There is a phrase wildcard – “first-word * last-word” Google will find phrases where the first word is within 80 characters of the last word.
      Example: “Fighting * Dame” = Fighting Irish of the University of Notre Dame

7. **Is it possible to group words from the same concept?**
   
   No

8. **Any unique features?**

   Definitions………………………………………….. define:library
   Key concepts at a particular web site…………….. aspirin site:edu
   Words in the title of a web page…………….. allintitle:orienteering maps
Key Concepts according to You

A key concept should be a single word or a phrase.

1. Circle the key concept(s) in the following sentence:

   What is the effect of aspirin on blood clotting?

Key Concepts according to Google

2. Type the sentence from Q1 into Google. How many results do you get?

3. A. What key concepts did Google identify? Write them below.
   (Look at the first page of Google search results for words in bold.)

   B. Are these key concepts the same as you identified? Yes or No or Some

   C. Google automatically searches for alternate forms of a word. Did you find clot, clots, or clotted in the search results when you typed clotting? Yes or No

Advanced searching

Click on the Settings link (at the top of the page) and select Advanced search.

4. A. Type ham pork into the all these words field. This is an AND search.

   How many results?

   B. Type ham pork into the any of these words field. This is an OR search.

   How many results?

   C. Type ham pork into the any of these words field and BBQ Barbecue into the none of these words field and Christmas dinner into the this exact word or phrase field and turducken turkey into the all these words field.

   How many results?

   D. Write the text found in the search box on the results page. This is how Google translated your search from the Advanced Search page.
E. Looking at 4D. What symbol does Google use to represent the Boolean operators? Draw a line connecting the correct items in each column

<table>
<thead>
<tr>
<th>Advanced Search Text</th>
<th>Google translation</th>
<th>Boolean Operator or Proximity</th>
</tr>
</thead>
<tbody>
<tr>
<td>All of these words</td>
<td>minus sign</td>
<td>phrase</td>
</tr>
<tr>
<td>Any of these words</td>
<td>OR</td>
<td>not</td>
</tr>
<tr>
<td>Exact word or phrase</td>
<td>“ ”</td>
<td>and</td>
</tr>
<tr>
<td>None of these words</td>
<td>&lt;space&gt; between words</td>
<td>or</td>
</tr>
</tbody>
</table>

F. What order does Google prefer to see the Boolean operators? Look at what you wrote for 4D. Draw a line between the columns to the right answer.

- Always First: and
- Second: not
- Third: phrase
- Always Last: or

Keep it Simple – Use only the key concepts.

5. A. Based on 3A – Google identified three key concepts – effect / aspirin / blood clotting. Prioritize the concepts. Write your first priority. Type that key concept into the search box. How many results do you get?

1st priority: ____________________________ Results: ____________________________

B. Write your second priority. Add the second key concept to your first priority into the search box. How many results do you get?

2nd priority: ____________________________ Results: ____________________________

C. Write your third priority. Add the third key concept to your search in 4B. How many results do you get?

3rd priority: ____________________________ Results: ____________________________

D. Compare your answers for 5A-C. Is there anything strange about the results?

E. Compare the answer you got for 5C with someone else. Are your answers the same?
**What are stop-words?** Words that are not key concepts and therefore are not included by the search engine in searching the database. **Google** replaces stop-words with a space.

**Advanced searching - without going to the advanced search screen**

6. A. Recreate your 5C search (you will have 3 concepts in the same order as 5C). This time put quotes around “blood clotting” How many results do you get?

   B. Is this different from your answers in questions 2 & 5C? Yes or No

   C. Write the title of the sixth entry in your results for 6A.

   D. What is the highest results page number you can get to? Keep clicking until you can go no further.

   E. Compare your answers for 6C-6D with someone else. Are they the same? Yes or No. If no, then what is different?

   All the results in 6A have blood right in front of clotting and this is a more focused set of search results which is usually better because you don’t have to look through a lot results where blood is not right front of clotting.

**Beyond Advanced Searching – Allintitle:**

   Examples:  allintitle:caffeine
              allintitle:notre dame
              (no space on either side of the colon.)

7. How many web pages have the two key concepts (aspirin blood clotting) in their title?

   Google will search for words in the title of a web page. Words in the title are more important than words in the web page because they describe the content of the page.
Beyond Advanced Searching – Define:

Example: define:caffeine

8. What is the definition of the following word?
   (If there is more than one definition then pick the shortest one.)

   Defenestration

Let’s have some fun searching the web

Remember to apply what you have learned earlier in this worksheet.


   Write the title of the web page at the top of the first results page.
   (Does this title puzzle you? Click on the title to view the web page. Does it still puzzle you?)

10. Find a web page that shows the popular or common first names?
    (Hint: use OR and use quotes for a phrase)

    What is the rank of your first name?

    Write your answer on the blackboard.

Beyond Advanced Searching – Google Calculators and Conversions

   Write the answer for each question.

11. What is the square root of 533.61? Type sqrt(533.61)

12. What is 9 raised to the power of 4.53? Type 9^4.53
13. What is 5367 multiplied by 279? Type 5367 * 279

14. What is the natural log of 68.34? Type ln 68.34

15. What is 7,650 divided by 23? Type 7650/23

16. The dimensions of a football field are 160 feet by 360 feet. What is the area? (use what you have learned from questions 11-15)

17. How many square feet are in an acre? Type square feet in acre

18. How many acres are needed for a football field? (use what you have learned from questions 11-17)

19. I have 5,000,000 Japanese Yen. How much US money do I have? Type 5,000,000 yen in usd

20. I want to exchange $500 for British pounds. How many British pounds do I get? (notice the pattern in Q17 & Q19)

21. On a trip to Canada, the weather report on the radio says the day is going to be a hot one, 38 Celsius. How hot is this in Fahrenheit? (notice the pattern in Q17 & Q19)