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CS 547 Hw2 Short Answer

1. I chose to investigate Google and Bing.

a) Do both engines use stemming?

No, it doesn't seem like they use it in the search results.

However, they do like to predict what you will type next in the search bar, and will do things like, if I typed "histori", it would return results for "history".

I tested this by using the Porter Stemmer in hw1 to stem some words, and I searched for them.

b) Do both engines filter for stop words?

No they do not filter for stop words.

I tested this by simply entering:

"The, of, and, is, to, a, in"

Both engines provide results for these sole words. For example, searching "The", returns a Wikipedia page for the word, "the".

2.

	Rel.	N. Rel
Retrieved	14	16
N. Retrieved	66	—

a) What is the Precision? $tp / (tp + fp)$

$$\Rightarrow 14 / (14 + 16) = \frac{14}{30} = \frac{7}{15} = \underline{46.7\%}$$

b) What is the Recall? $tp / (tp + fn)$

$$\Rightarrow 14 / (14 + 66) = \frac{14}{80} = \frac{7}{40} = \underline{17.5\%}$$