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9 Algorithms

Chapter 2 of nine algorithms was discussing how search engines can match and rank key words to find the best fit for what the user is looking for. The first idea talked about was indexing, search engines assign a page number to every page on the web. Computers use indexing by saving how many times a word appears on each page and the position on that page the word is found. With this simple approach search engines can find a lot of answers to our questions. They cannot necessarily rank the web pages very well, but it searched what we are looking for. This word and location trick are extremely important when it comes to phrase query and finding words that are close together rather than just single words. The next step for a search engine was to be able to rank the pages from most useful to least useful. To do this, we must answer if the page is relevant to the topic searched. It turns out the answer to this is quite simple and easy. It turns out the pages where the query words are next to each other are the most relevant. A weakness I would like to point out is that searches largely depend on the keywords you type in, but ranking involves the use of context in the query. This mean that without the search engine knowing the context you may get some results that you do not need. What was so impressive was how “easy” it seems to find a webpage you are looking for. It blows my mind how something so simple can make a huge difference in our lives. There are always legal implications when using a search engine such as plagiarism and trying to steal someone’s work. Search engines have affected the whole world and not just the commercial world. This algorithm allows people to access your company’s website within seconds. If you forget a math equation and your trying to figure somebody’s finances out, you can look it up in seconds. It makes access to information so much easier and which can be a good thing and bad thing sometimes. Now that I know exactly how the phrase query works I can hopefully condense my future searches down to exactly what I need. Instead of searching a broad phrase search a couple key words and see where that takes me. By using such a simple algorithm, we are able to find the smallest needles in the biggest haystacks.