

The main topic in Module 3 is searching the web with search engines and finding accurate information on the web. I have quite a bit of experience with using search engines, as I use one every day, but what I did not know about these search engines is how they work internally. I did not know that they search through one big database, use meta tags, and use stemming to find webpages with certain terms. It goes to show that search engines are not really as simple as they seem to be.

The first part of Module 3 is about search engines. A search engine is a website that finds webpages that relate to a certain word or phrase that is searched for. It usually consists of a text box to insert the phrase and a search button to begin the search. The search engine then goes through a database that is made by web robots, which find webpages relating to the search phrase. Webpage owners could also add their website to these databases. The most popular search engines are Chrome, Bing, and Yahoo, all of which were built with HTML, which is how they are able to let users click on the webpage hyperlink. Search engines also tell the user how many webpages come up in their search, also called a hit. One problem with search engines is with dead links, which is when a webpage is no longer exists at a certain location. Webpages with multiple dead links suffer from link rot. In order for a search engine to find pages that include a search term, it uses a meta tag, which is HTML code that informs web robots about the content of the results. It consists of keywords, which are phrases relating to the search term. Meta tags are only seen internally, since they are not shown anywhere throughout the search engine. Moving onto features, search engines also use what is called page ranking to determine which webpage is most relevant to the search term. Page ranking is when webpages are categorized by counting how many webpages are linked to them. The page with the most links is usually the top result. Certain sites may be the top hit of a search because the owner(s) could pay to either have it on top or appear in a box on the side of the search engine called a banner ad. Search engines make their revenue from these ads, so they are fairly common. Another process search engines use is called stemming, which is when webpages with terms similar to that of a search term are found to gather more results. If the user is looking for a specific file, search engines also use search operators, which include what site the file is from, what type of file it is, and what term(s) the file is related to. This is convenient for those who are looking for a specific file but cannot find it through regular searches.

The next part of Module 3 is about doing research on the web and how to find credible sources. It starts off with logical operators. They use a set, which is a collection of objects that contain criteria to determine if a search term is in the collection. The search engine user can go through the set and determine whether the webpage criteria contains search terms “A” and “B”, “A” or “B”, not “A”, and not “B.” This is useful if the user is looking for more than one search term. Of course, people could also determine a credible source by taking a look into the author, site owner, content, and appearance of a webpage. The content of a webpage could have no credibility if an author cannot be found or the author does not have much information about him or herself on the internet. The reader should also look into whether the author is qualified to write about the information in the article. For example, if the author has a degree in a field completely irrelevant to the information, it is most likely not credible. The article could also be biased if the author is affiliated with a group that is biased as well. There could also be bias if the site owner is a for-profit organization. The most obvious red flags will be in the content of the article. If the article is older, not relevant to the search topic, the author does not acknowledge his or her own bias, there are spelling errors, or the website is poorly designed, there is a greater chance of it not being credible. However, this could still happen even if the webpage does not have any of these. One popular website for finding information about a topic, Wikipedia, could potentially have misleading or false information, since people are able to freely edit the articles on the website. Some articles are well-written, but others, especially those of topics that are not of interest to most people, are not very credible. One way to see if information is not credible is to see if the information has a disclaimer about needing citations.