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Lesson Proper for Week 14

SEARCH ENGINES

A **search engine** is a software program that helps people find the information they are looking for online using keywords or phrases.

Search engines are able to return results quickly—even with millions of websites online—by scanning the Internet continuously and indexing every page they find.

When a user enters a search term, the search engine looks at the website page titles, contents and keywords it has indexed and uses algorithms (step-by-step operations) to produce a list of sites—with the most relevant websites at the top of the list.

How Do Search Engines Work?

The work of a search engine can be broken down into three stages.

- o Firstly, there is the process of discovering the information.
- o Secondly, there is the organization of the information so that it can be effectively accessed and presented when users search for something.
- o Thirdly, the information must be assessed to present search engine users with relevant answers to their queries.

These three stages are usually called crawling, indexing, and ranking.

1. Crawling

Search engines use pieces of software called *web crawlers* to locate publicly available information from the internet, which is why this process is known as *crawling*. Web crawlers can also sometimes be referred to as *search engine spiders*. The process is complicated, but essentially the crawlers/spiders find the webservers (also known as just servers for short) which host the websites and then proceed to investigate them.

A list of all the servers is created, and it is established how many websites are hosted on each server. The number of pages each website has, as well as the nature of the content, for example, text, images, audio, video, is also ascertained. The crawlers also follow any links that the website has, whether internal ones that point to pages within the site, or external ones that point to other websites and use them to discover more pages.

2. Indexing

Information found by the crawlers is organized, sorted, and stored so that it can later be processed by the algorithms for presentation to the search engine user. This is known as *indexing*. Not all the page information is stored by the search engine, instead, it's just the essential information needed by the algorithms to assess the relevance of the page for ranking purposes.

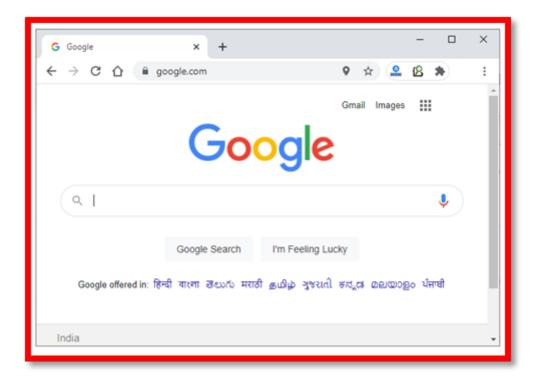
3. Ranking

When a query is entered into a search engine, the index is scoured for relevant information and then sorted into a hierarchical order by an algorithm. This ordering of the search engine results pages (SERPS) is known as *ranking*.

Different search engines use different algorithms, and so give different results. Over the years, algorithms have become more and more complex as they attempt to present more relevant and accurate answers in response to the queries of search engine users.

EXAMPLES OF SEARCH ENGINES

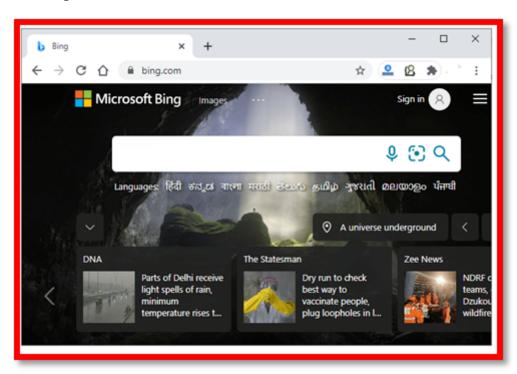
1. Google



Google is the biggest search engine in the world by far. It handles over 5 billion searches each day and has a market share of over 90% at the time of writing (August 2019).

Developed originally by Larry Page and Sergey Brin in 1997,

2. Bing

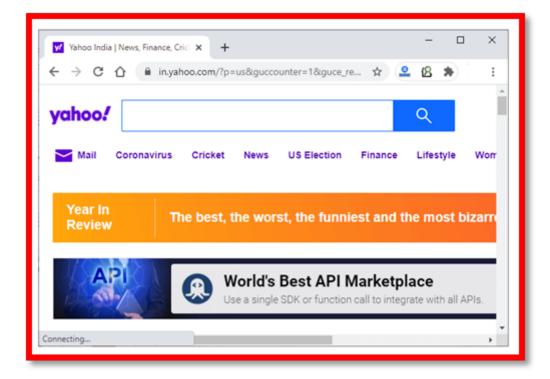


The origins of Microsoft's Bing can be found in the technology company's earlier search engines, MSN Search, Windows Live Search, and Live Search.

Bing was launched in 2009

Bing is a Microsoft product now, which is known as Microsoft Bing. Bing has now renamed to Microsoft Bing in October 2020.

3. Yahoo!



Yahoo is the most used search engine in the United States. Its market share in the United States is 49.15%.

In the United States, Yahoo is the default search engine for Mozilla Firefox since 2014 till now.

From 2001 to 2004, it was powered by Inktomi and then Google.

From 2004, Yahoo! Search was independent until a deal was struck with Microsoft in 2009 whereby Bing would power the index and crawling.

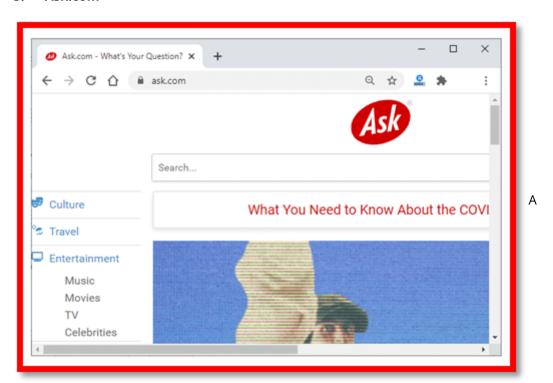
4. Baidu



Founded in the year 2000 by Robin Li and Eric Xu, Baidu is the most popular search engine in China, and the fourth most visited website in the world.

Baidu has its origins in RankDex, a search engine previously developed by Robin Li in 1996. As well as its Chinese search engine, Baidu also offers a mapping service called Baidu Maps and more than 55 other internet-related services.

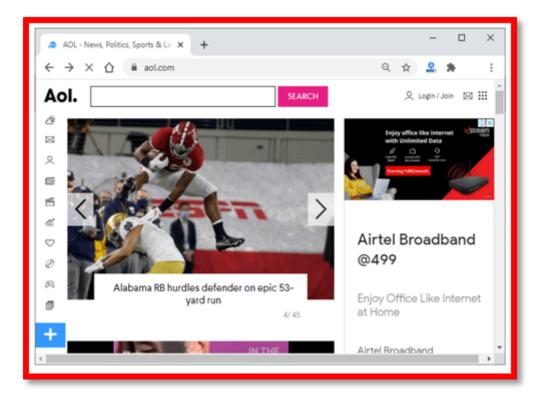
5. Ask.com



sk is a web search engine, which was formerly known as Ask Jeeves initially, but now it is redirected to ask.com. Ask Jeeves is disappeared since February 2006. You can access this search engine using the www.ask.com link.

Ask search engine is a bit different from other search engines. Basically, it is based on the pattern of question/answer. Most of the questions (user queries) are answered by other users on this search engine.

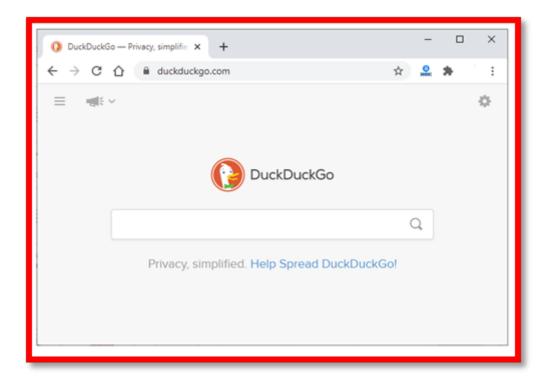
6. AOL



Stands for America Online. In 1985, it was first come into existence. As the name implies, AOL search engine comes with all the required functionality of a search engine. It offers different news categories search options on its home page to see the latest news updates.

In past days, AOL was a famous search engine and was on the top of the world's search engines. At that same time, AOL had its own search engine called NetFind. In 1999, NetFind was renamed to AOL Search. Currently, it ranks lower, but it still falls in the top 10 search engines list.

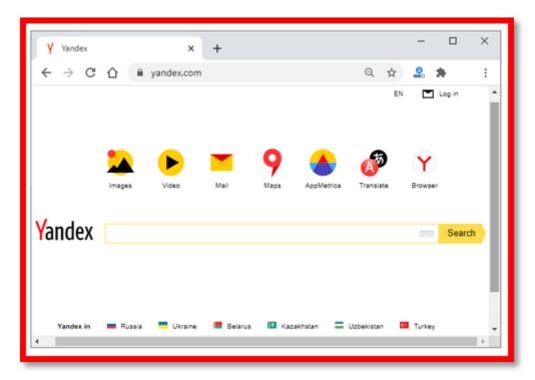
7. DuckDuckGo



DuckDuckGo is a web search engine, which is available in multiple languages. DuckDuckGo is also abbreviated as DDG. DuckDuckGo is not as popular as Google, but at least you have heard the name of this search engine.

One best benefit of using this search engine, DuckDuckGo does not store the user's personal information. So, do not need to worry about your data that the boogeyman is watching you through your computer screen.

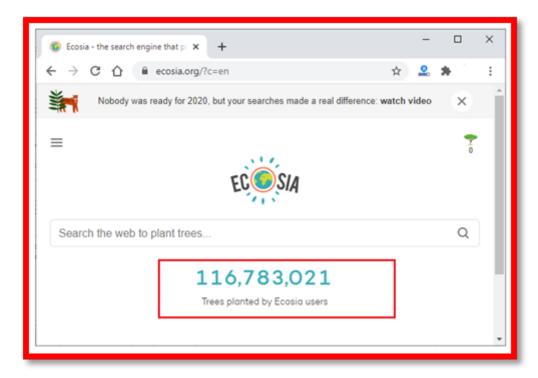
8. Yandex



Two Russian developers designed the Yandex under a project and patent in 1990 under the company named Arkadia. It is a web search engine owned by Russia. According to Wikipedia, Yandex operates the largest search engine in Russia.

The term Yandex stands for the "Yet another Index" after adopting in 1993. In 1997, yendex.ru domain launched for Yandex. It offers an interactive interface so that the user can use it easily.

9. Ecosia

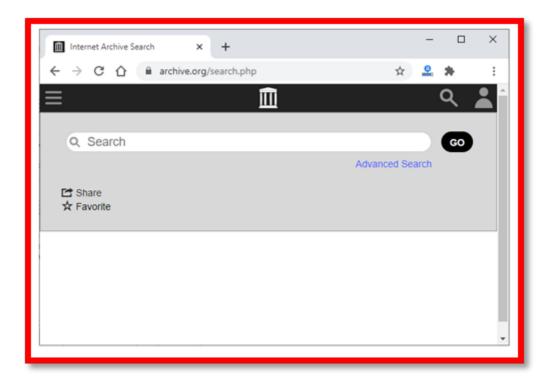


Ecosia is a search engine, which is a Berlin-based (Germany) social business founded in 2009. The meaning of Ecosia - the search engine that plants trees.

You can access this search engine using the www.ecosia.com link. You have planted 0 trees if you never used Ecosia.

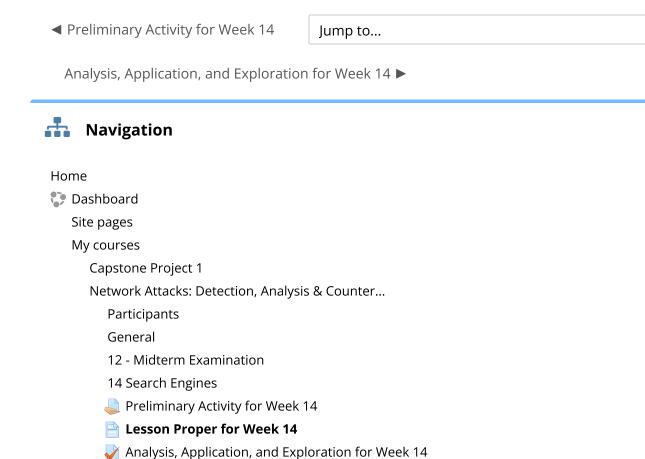
To plant a single tree, you need to do around 45 searches on it. Keep sign in with Ecosia search engine and track your impact (trees you planted) shows on its home page.

10. Internet Archive



Internet Archive search engine is basically an American digital library whose main objective is to "universal access to all knowledge". The official website of Internet Archive search engine is archive.org.

This search engine is different from the other search engine. Basically, it is a very useful tool to trace the record of old websites. This search engine will show how a website has looked like since 1996.



Generalization for Week 14

Very Evaluation for Week 14

Assignment for Week 14

15 Encryption And Certificates

16 Multi-Factor Authentication (Mfa)

Ojt/Practicum 1

Social And Professional Issues

System Integration And Architecture 2

Courses



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COURSE OF ACTION: Whoever has maliciously uploaded these concerned materials are hereby given an ultimatum to take it down within 24-hours. Beyond the 24-hour grace period, our Legal Department shall initiate the proceedings in coordination with the National Bureau of Investigation for IP Address tracking, account owner identification, and filing of cases for prosecution.

1

Graduation Announcement



Due to the insistent demand of BCP graduates and alumni and the IATF pronouncement of the low Alert Level Status, and in coordination with the DepEd and CHED, the BCP Administration is happy to announce that face-to-face graduation rites will proceed as scheduled.

Level	Date of Graduation	Venue	Graduation Fee	Downpayment
SHS	July 16, 2022	MV Campus	P 1,000.00	P 200.00
College	July 10, 2022	PICC	P 4,000.00	P 500.00

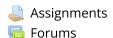
Balance must be paid two (2) weeks before the date of graduation.







Activities





Resources

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