USING AND DIFFERENTIATING SEARCH ENGINES

INFORMATION AND DATA LITERACY > 1.1 BROWSING, SEARCHING AND FILTERING DATA, INFORMATION AND DIGITAL CONTENT

TARGET GROUP	AGE GROUP	PROFICIENCY LEVEL	FORMAT	COPYRIGHT	LANGUAGE
All, Job seekers, School drop outs, Students (secondary school)	Adults, Elderly citizens, Teenagers	Level 1	Activity sheet	Creative Commons (BY-SA)	English, French

This workshop allows participants to familiarize themselves with various search engines, to draw up a summary table of some of them (Bing, Google etc.) comparing their different models and how they operate.

General Objective	Skillset building
Preparation time for facilitator	less than 1 hour
Competence area	1 - Information and data literacy
Time needed to complete activity (for learner)	1 - 2 hours
Name of author	Nothing 2hide
Support material needed for training	A computer with a projector or one computer per three participants (the latter option is recommended)-An internet connection-A board/writing surfaces with chalk/markers
Resource originally created in	French

WORKSHOP DIRECTIONS

1 Introduction

‘I’ll Google it’. We often hear this today as soon as we ask a question for which no answer is provided. Many people now use Google on a daily basis. But what is it exactly? This workshop will grow participants’ understanding of what search engines are and how to differentiate between them since no, Google is not the only one!

***Facilitation tips**:* The goal is not to encourage the use of one search engine over another, rather to inform participants of the facts. It will be up to them to choose which search engine to use. There is no harm in using Google if there is awareness and acceptance of how it works. For more information on browsers and search engines as well as on personal data, see the workshops dedicated to these subjects.

2 Definition of a search engine

Ask the group the following question: what is a search engine for you? Ask them to say which ones they use and which ones they know. (5 minutes). This will be a simple exchange. Note the different keywords and the examples mentioned on the board. This step will tell you how much the participants know. The goal from here on is to make it understood that while Google is the most popular search engine, it does not mean it needs to be the only one we use.

Option 1: each participant, or by groups of two or three, type ‘search engine’ into Google

Option 2: the facilitator types ‘search engine’ into Google and displays the screen using a projector for the whole group. Amongst the top results will be the Wikipedia page ‘List of Search Engines‘. Go to that page and explore it with the audience. It gives an overview of the most prominent search engines and categorises them by those dedicated to images, those designed for children, those with ecological and non-profit agendas, etc. Give the following details while they are searching.

Why are there so many specifically Chinese search engines? (Baidu, Panguso, Sohu, Soso) ?
You should understand that the rules are different depending on the country. Some governments enforce internet censorship, wanting to control what their populations have access to. This is why for example the Chinese government chose to block search engines like Google and Bing. There are instead

national companies that dominate the market. In general, western countries (particularly Western Europe and North America) all have access to the same search engine.

What is an ecological or non-profit search engine? The goal of these is to allow users to support social and environmental initiatives without changing their habits. These search engines want to use their income (ad revenue mostly) to support a variety of causes. For example, Ecosia is a German-founded search engine that reserves 80% of its revenue for reforestation programs all over the world, including in Burkina Faso, Peru, Tanzania and Madagascar. Meanwhile, Lilo finances social and environmental projects by using half of the money it generates through ad revenue. Add that searches can be done elsewhere – not just on search engines. See here for example.

Facilitation tip: Feel free to ask questions and encourage reflection before giving the answer.

3 Comparison of various search engines

Explore three or four different search engines such as Google, Yahoo, Qwant and Duckduckgo. Do the same search across various engines. Take a very simple term, such as manga, smartphone or something related to current affairs. Leave them search themselves or project your screen, in which case it would be you the facilitator who does the searches. Describe together the different parts of a search engine: the search bar, images, news, etc. Take note of ads (sponsored links) on the home page or on results pages.

Example*:* Enter the term ‘smartphone’ into the various search engines. Compare the results (this should be an exchange): differences, common references, order of appearance, etc. We will see that the results and their classification vary considerably from one engine to another. Explain at this point the basic functioning of a search engine and introduce the idea of indexing.

Indexing: refers to process by which a search engine learns of the existence of a search engine and then stores it. When a site is created, it is to its advantage that it be made visible so that the likes of Google will include it in its index. This means that Google will notice the site and store it in its memory. Therefore, when we search for ‘Lionel Messi’, the search engine will present results from all the sites that it has in its memory that references this person.

As there are many results, it will display them by relevance. Those who manage the websites have it in their interest to appear as high as possible in the results. Google works based on two principal strategies. One is generating revenue from displaying clients’ webpages more visibly. These are

sponsored links. The other is through SEO – Search Engine Optimisation. For example, if someone creates a blog about manga and the word manga is found for example in the titles of the blog as well as in the titles of the blog posts, it will be more and more visible in searches using this term. There are many rules and guidelines allowing searches to be optimised – some people even make their careers in this field.

***Facilitation tip**:* To expand on this, refer to the workshop plan 'Search Engine Indexing'.

4 Research game: 'Behind the Engine'

Here is a quick little research game you can play with participants. On the whiteboard (or other surface), draw a table including the search engines discussed in the previous section. In advance, you the facilitator will need to be familiar with different search engines (below are the elements that you will need to know at the minimum). For each search engine, participants will need to find the relevant information:

- The company that owns it
- The year of its founding
- Its country of origin
- Its economic model
- Does it practice the harvesting of user data?
- Does it have a social or environmental agenda?
- Does it provide other services (mail, music, etc.) If so, list them.

First ask participants to try to list the answers from what they already know and from what they can deduce. They will have 10 minutes to fill in the table. Now create groups of 2 or 3. Each team will work on search engine. They will take 15 minutes to do some online research in order to fill the boxes that remain empty and verify the information already filled in.

Below is the table that should be filled in. It is available here in PDF format: Using and Differentiating Search Engines exercise

	BING	GOOGLE	YAHOO !	QWANT	DUCKDUCK GO
Country					
Company					
Year of establishment					
Economic model (main source of revenue)					
Social, humanitarian, environmental or other nonprofit goals					
Other services					

The solution:

	BING	GOOGLE	YAHOO !	QWANT	DUCKDUCK GO
Country	France	USA	USA	France/Germany	USA
Company	Microsoft	Google	Yahoo!	Qwant	DuckDuckGo
Year of establishment	2008 (under the name MSN search)	1998	1995 (the oldest of these, it was born as a simple website directory)	2013	2008
Economic model (main source of revenue)	Advertising (targeted)	Advertising (targeted)	Advertising (targeted)	Advertising (related to current search trends)	Advertising (however there is the option to turn off ads)
Social, humanitarian, environmental or other nonprofit goals	No	No	No	No	Yes
Other services	Yes	Yes	Yes	Yes	No