SEARCH ENGINE INDEXING

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 2	Activity sheet	Creative Commons (BY-SA)	English, French

Each search engine aims to browse and present the information found through a specific ranking. This workshop will present the best way to search for information considering the search engines' indexing strategy.

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)	0 - 1 hour
Name of author	Nothing 2hide
Support material needed for training	Computers-Postits-Pencils
Resource originally created in	French

WORKSHOP DIRECTIONS

1 Introduction

This workshop helps participants to understand what a search engine is and how it works. First you will need to quickly contextualise and define a search engine. Then, your group will play a research-based game.

Facilitation tips: Participants will navigate online themselves by group but you will be there to facilitate the game, give definitions and the necessary context for understanding the material. You can therefore get to the following ideas:

- Difference between search engines and internet browsers
- How search engines work (indexing)
- How to search online effectively
- How cookies work (if you have time or if this becomes relevant)

For more information on these subjects, we recommend you see the workshop plan 'Mirror, Mirror, What Do You Know About Me?', 'Personal Data: Keeping Track' and 'Tool – Online Research'.

2 What is a search engine?

Ask participants what a search engine is. If a whiteboard is example, write down the keywords given in their answers. These could be expressions, or names/brands (e.g. Google). Beginners often confuse browsers and search engines.

At this point, define them: **Browser**: a program (or application) that is installed on a computer. It allows users to access (or 'surf', as was used to be said) the internet. It is through browsers that we can access search engines as well as every kind of service, tool and website available online (streaming, YouTube, social media, etc.) Microsoft Edge (previously internet Explorer) is Microsoft's default browser. Safari is Apple's. Other popular ones are Firefox and Chrome.

Search engine: a kind of website accessible through a browser. The most popular is Google. There are many others such as Bing, Qwant, DuckDuckGo, etc. It allows users to find resources (articles, images, videos, files, etc.) by searching with words. It indexes websites and lists the most relevant ones

according to what users search for.

Facilitation tips: You can here take to time to explain the differences between the most popular browsers and search engines by discussing the idea of personal data. The goal would not be to stigmatise users of Google for example, but to allow each participant to make informed choices.

3 Online search game

You should now organise a quick game whose objective is the understand the idea of a search engine. Divide participants into groups, each of which should go to a computer. The game will be a race – one of the groups will not be allowed to use a search engine while the other will. Explain the rules, noting that the two groups must start at the same time. For the first group, the instructions are the following. Give them three names of websites. From these three, they will have to find the answer to a question and respond as fast as possible. Ask them to go to these sites:

- BBC Sport
- Eurosport
- ESPN

Ask the question (**note to facilitator**: this is an example – feel free to choose another if you wish):

> *How many olympic medals (gold, silver and bronze) does Michael Phelps have in and which years did he win them?*

The answers should be written down on paper. Here are the instructions for the second group. Ask them to use a search engine, Google for example. As for the first group, they will need to find the number of Olympic medals won by Michael Phelps and in what years. The group will write their answer down on paper.

Once the instructions are clear, reveal the question to both groups. Start the timer. The first group that finishes says so, notes the time taken and verify the information (hopefully searched and known by the facilitator already). Insist that the primary goal is to get accurate information. If all goes well, the second group, having access to a search engine, will be a lot faster. Once both groups are finished, give the response and the time of each group. It could now be an idea to redo the same game with another sports-related question linked to sport. The group that was previously using only sports websites can

now use a search engine and vice versa. Example question:

> *Name five players on the 2017 Netherlands football team that won the UEFA Women's Euro 2017.*

4 Conclusion

Analyse what happened with participants. Explain the idea of a search engine. What the first group did is to go search information on several sites, one by one. This is what search engines do – they identify a number of websites that are then indexed. When you do an online search, the engine will look for all the occurrences of your search terms in its index. It then gives you all the results it finds, ranking them by relevance.

Here, the example was simple. The response was easy to find. For a more complex search, looking through every site would be too time-consuming. Basically, search engines save you time by finding results amongst images, videos and pages of all kinds and presenting the ones it thinks are most pertinent. As if there are millions of people looking in all corners of the internet to help you out with your search terms. Finally, remember that the content found is not in the search engine. It's on the internet – all the search engines does is show the links.