

The « Google World »

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In chapter 1 we presented the key role of information in competitive intelligence and also the necessity to go through the information overload to create competitive advantage. Overcoming the “information obesity” is important since it will allow you to focus your attention on the useful information. The information technology progress allows the development of many different information sources and, out of it the production of information more or less accurate or often only the repetition of existing one. The problem of information retrieval is that if it is well taught in documentalists schools or in information science and documentation, it not the case in the other disciplines and this is the problem. The facilities offered by Internet are easily accessible to everyone, but their use is not optimal for the greater part of them. In this chapter we will present some basic techniques which will provide a base from which information retrieval will be easier and better. We will focus mainly on the free access source and products or on the low cost one (specially for patent analysis).

1 Google in advanced mode

When we speak of the Google’s world we means all the tools and information sources offer by Google. We do not want to open a debate on the hegemony of Google but as it responds to our needs we will use it preferentially.

If most of the people use Google by writing a few words in the Google windows and perform their search it should be note:



Figure 1 – The implicit AND operator

- That we will retrieve all the URL which contains the words coconut AND pineapple. So implicitly is the Boolean operator AND which is used.
- The number of answers obtained are very large and we cannot make the difference between the URL containing **coconut NOT pineapple** neither the URL containing **coconut OR pineapple**. The NOT and OR are two other Boolean operators. How to access to these two operators? This must be done through the expert mode of Google.

The following figures give the process to access to Google expert (or advanced) mode. This mode is available in different language, since Google direct you on the language of the

country where you are using Google. If you want to use Google US (which is personally what I am doing) when you open Google go to the bottom right of the screen and select Google.com



Figure 2 – Getting advanced mode

To go to advanced mode go on the top right of the screen, click on the black crown and select “advanced search”.

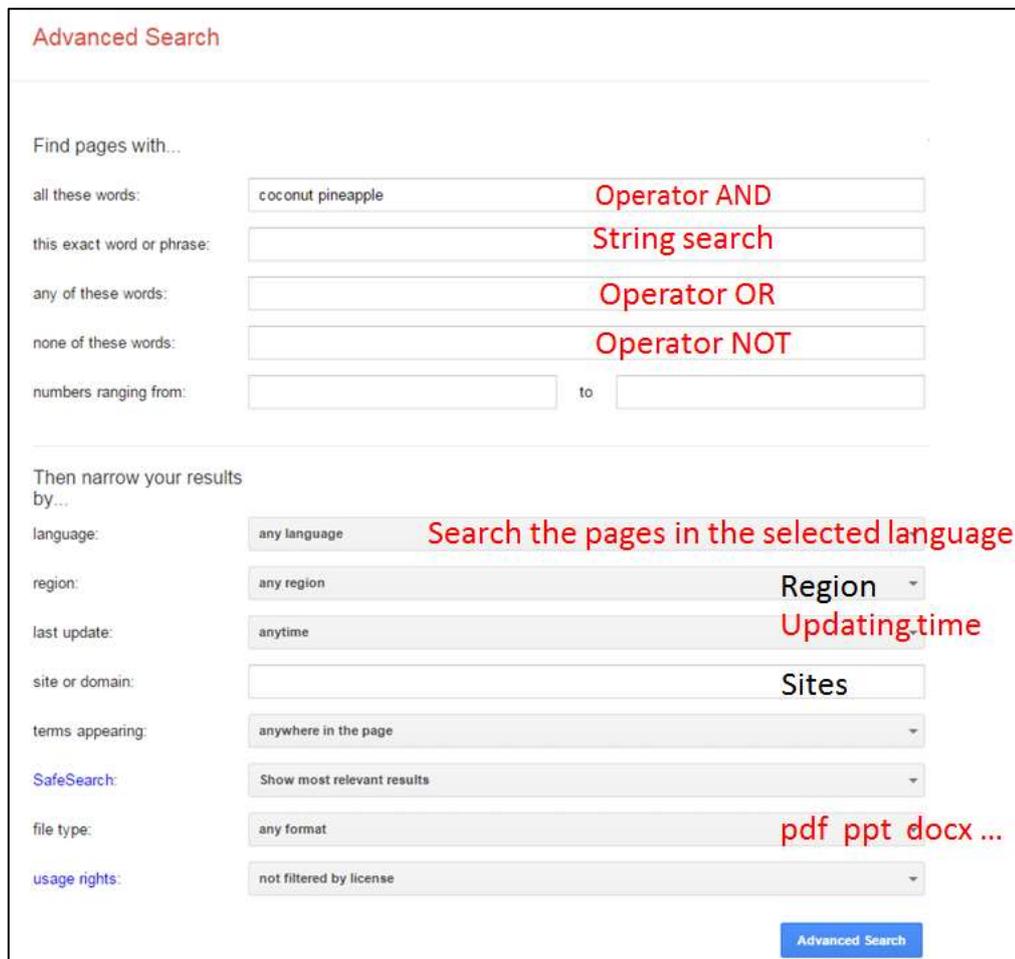


Figure 3 – Advanced search mode

The most useful search tips are indicated in RED and the less useful in BLACK.

The string search mode means the retrieval of the part of a phrase or a chemical name for instance as it is written in the window.



Figure 4 – The string search mode

Note that all the words are put automatically in quote. You can do the same without using the advanced search screen, you will save time!

2 Google Scholar

When you use Google itself, you will get all the URL without distinction. But, for academics and researchers, this introduces a lot of noise and most of the results published in scientific journals are not available. To provide this information, Google has developed a specific Google: Google Scholar. Google Scholar makes available most of the scientific literature and its coverage is most important than Scopus or the Web of Science because its index also includes various journals, reports and papers which are not present in the "classical" databases. It also gets data from Open access journals. Then Google Scholar is very interesting when you are looking for a wide range of papers giving a good overview of a domain or an application or a research subject. Moreover as we will see, Google Scholar offers the possibility for a researcher to create inside Google Scholar (and from the data present in Google Scholar his profile).

Before using Google Scholar and to get the best possibilities offer, you should register in Google. This is free and you will need only to indicate your email and provide a password. To get register in Google you must open Google and click to CONNEXION. You will get the following screen, and click on create your account (here in French) at the bottom. During this process you will be able to put your picture, etc.



Figure 5 – Create your account

When this will done you will get the following screen when you will open Google (either from Internet explorer or from Chrome).



Figure 6 – When toy will be registered

To go to Google Scholar, click on the square dots just after images. You will go through different screens until you reach Google Scholar.



Figure 6 – Google Scholar

When you are registered in Google, you have the facility to develop your “profile” which will appear under the heading of “My citations” (second d top right in figure 6). For the first time, to create your profile, click on my citations and follow the instructions. If you need help you may consult the power point of Dr Cheung and Leung¹. You will have to indicate your name, email, name of your institution, etc. When your prod=file will be created, clicking on my profile, will allow you to “see” your profile and to modifier (add, or retrieve) all your papers. They can be sorted by dates or citations number. In the following figure you will see the profile of “Dou Henri” with all the papers sorted by decreasing years.

¹ How to create your own Google Scholar Profile, <http://www.ciworldwide.org>

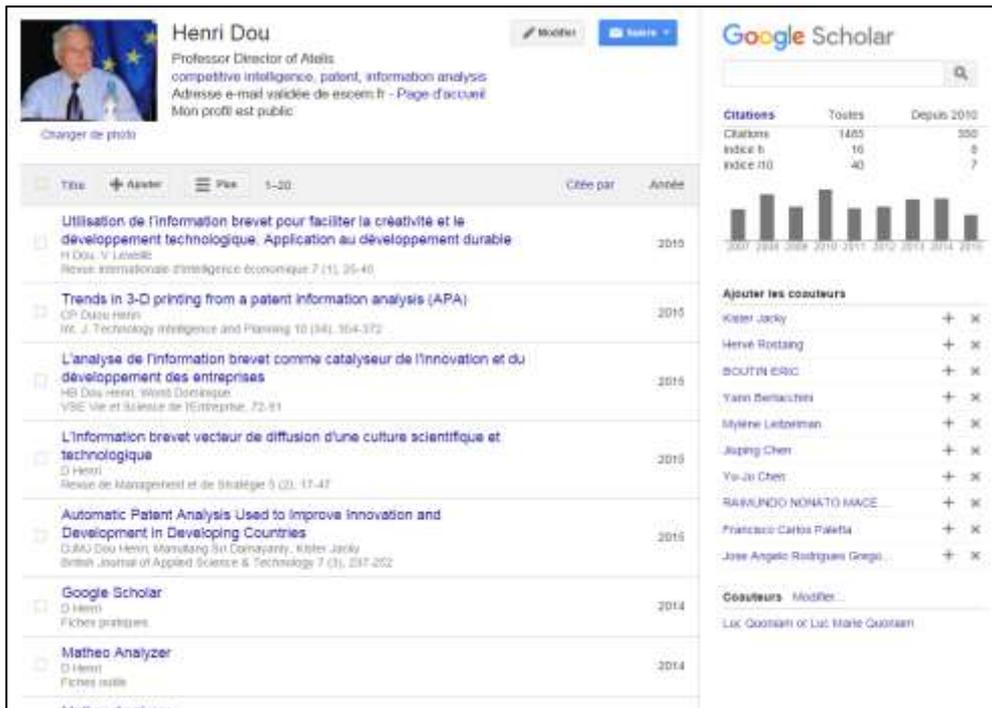


Figure 7 – My citations in Google Scholar

The left part of the screen displays your papers. You may add papers if they are not indicated, retrieve some of them if they are not from you or are in duplicate, or eventually joint them if there are some misspelling so that the citations from the two papers will be added in the remaining one.

The right part of the screen display “your citations” profile per year(according the Google determination). On the left part of the screen your papers are display with their citation number. Clicking on the citation number, will display all the papers which cite your selected paper. Mind self- citations are also indicated. Then, do not abuse of them, because some people look to them and draw some conclusion about your behavior!

Using Google Scholar

As Google, Google Scholar functions in advanced mode. You move to this mode by clicking on the arrow after the search window on its left. The following figure presents it.



Figure 7 – Google Scholar in advanced mode

You may search with words, but also by author names. Here there is a search on author Dou Henri, for articles published from 2015. The result is the following.



Figure 8 – Results from the search: Dou Henri, 2015

Some features are very interesting: on top appears the profile of Dou Henri, this is the way to search for authors profile (if they create it). Most of the researchers do it and we advise you to do it if it is not already done. This will give you the same as in “my citations” for the query of the author, but you will not be able to modify his profile. Now on the left, you can modify the interval of dates for the search. On the right you can see for the last reference **[PDF] from revue-rms.fr** this indicates that this article is available in pdf format, generally free. To get the full text click on [PDF] from revue-rms.fr. Now, one of the best features of Google Scholar is to get either the related articles and even more important various citation formats for this reference for instance:

Cite

Copy and paste a formatted citation or use one of the links to import into a bibliography manager.

MLA Henri, Dou, et al. "Automatic Patent Analysis Used to Improve Innovation and Development in Developing Countries." *British Journal of Applied Science & Technology* 7.3 (2015): 237.

APA Henri, D., Damayanty, M. S., Jacky, K., & Jean-Marie Jr, D. (2015). Automatic Patent Analysis Used to Improve Innovation and Development in Developing Countries. *British Journal of Applied Science & Technology*, 7(3), 237.

Chicago Henri, Dou, Manullang Sri Damayanty, Kister Jacky, and Dou Jean-Marie Jr. "Automatic Patent Analysis Used to Improve Innovation and Development in Developing Countries." *British Journal of Applied Science & Technology* 7, no. 3 (2015): 237.

[BibTeX](#) [EndNote](#) [RefMan](#) [RefWorks](#)

Figure 9 – Citation formats of the second article

Those formats may even be stored in various citation management software. When you know of tedious it is to put citations in the right format when you write an article realize of it is useful!

One interesting way to use Google Scholar or Google, is to build some alerts. Google offers the facility to develop a search and when this is correct to build an alert. Which means that every time that arelated information will appear in Google Scholar or in Google, the information will be send on your email. (email asked when you build the alert). Because the number items retrieve may be large, it is a good advice to create an email only affected to the alerts.

In the bibliometrics chapter of this book, you will see how it is possible with the free application PoP to analyze up to 1000 references from Google Scholar.

3 Google Patent

Another database from Google is the database of the US patents. This database contains all the US patents, gives access to the first page or the full text and also to the drawings. All the text of the patent is indexed. This introduces sometimes some noise, because of the large numbers of words indexed. The following figure gives an example of the Google Patents retrieval. As usual an advanced mode is available. This mode will have search fields appropriate to patent searches.

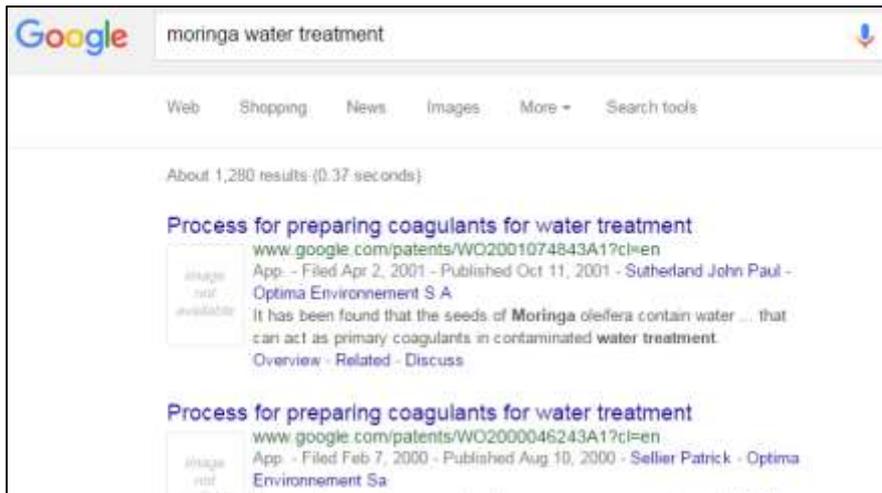


Figure 10 – Results from Google Patent

If you click on the title of the patent, you will have the full text display as in the following figure.

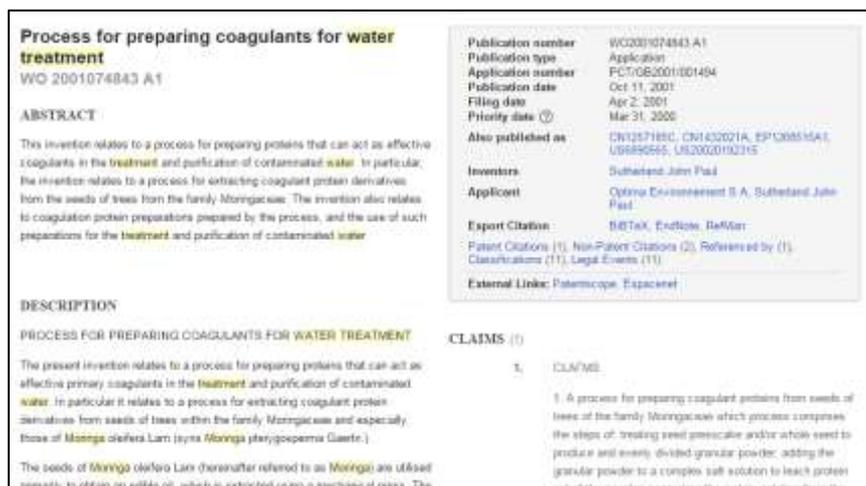


Figure 11 – Full data from Google Patent

4 Google image

This is another feature which is interesting. You may know, that it is better and faster to select somethings when you “see” it. We are going to use Google this way. Let us say that you want for a PowerPoint for instance or to illustrate an article the best explicit drawing and that we want something about the Porter’s 5 forces. Just make the query with “porter five forces” and select **images** bellow the window search.



Figure 12 – Images from “porter five forces”

Now, select the image you like and clicking on it go the corresponding URL.

5 Google Translate

This is also a powerful facility from Google. To get Google Translate, when Google is opened, click on the square dots on the upper right. You will have a screen with various displays, and select Translate. The following figure shows a translation from Indonesian to French.



Figure 13 – Google Translate

The number of languages available is very large, but some languages are more or less easy to translate, then you must do some tries. A little tip which is interesting. In patent for instance, you get the full text in pdf (image format). To translate it you need to have it in electronic format. Then use an OCR, submit the pdf to it and after you may use the cut and paste system to get your translation. But, if you do not have an OCR ready? Do not mind Google may afford it for free this is the next example: Google Drive.

6 Google Drive

To get to Google Drive, when Google is opened, click on the square dot on the upper right, on select on the displays, **Drive**. To use Google Drive you need to be registered in Google.

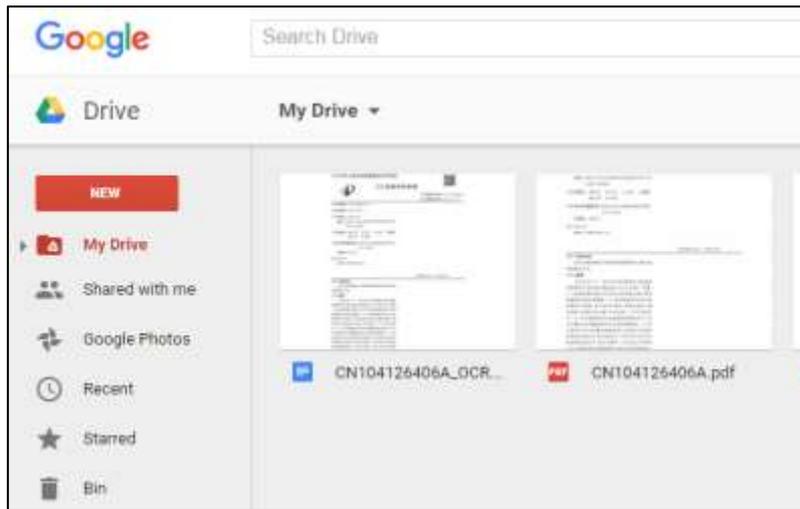


Figure 14 – Google Drive

Here you have in Drive the text of one Chinese patent



Figure 15 – Chinese patent uploaded in Drive has pdf, and submits automatically to OCR in Drive

To automatically convert a pdf image to an OCRed in Drive, you must activate an option. To do it refers to the following figure².

² Rebecca Tarnopol, How to OCR documents for free in Google Drive, <http://computers.tutsplus.com/tutorials/how-to-ocr-documents-for-free-in-google-drive--cms-20460>

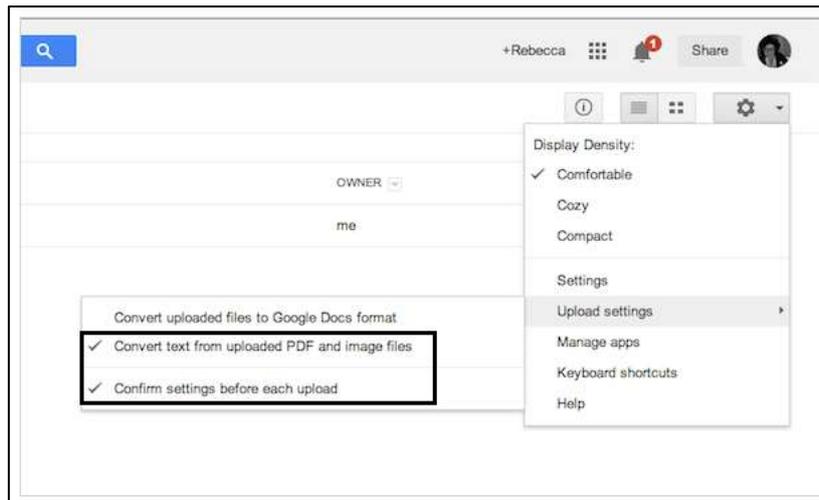


Figure 16 – Option to OCR documents in Drive

To upload a document in Drive, click on NEW (in RED in figure 14). Drive will also allow you to share a document with other people (you will have to indicate them to Drive), and to modified the document a have it instantly available to others. (use the **Shared with me** on the right part of the screen of Drive.

7 Google Earth

During the mast twenty years the information supports change a lot. If at the beginning it was only paper, they move to electronic formats and remain this way until now. But, the type of information is becoming more diversified: written, images, videos, etc. Among the systems available one, Google Earth is important, even if the pictures of the land are not up to date Google Earth can be used as a good information source. Here are two examples showing the interest to use it.

- A port authority in France, liked to make a study on the various facilities offered by some competitors. To benchmark the different pears and harbor basins they perform the study using Google Earth.
- A company making some fruits transformation wished to know which type of waste treatments were used by its competitors (situated far away in other countries) because that can affect the price. They know exactly their addresses, and they use in first step Google Earth to have a rough idea of the problem. Waste treatment involves settling tanks and the often voluminous works. In the following figure there is an example of one of the company analyze for waste treatment through Google Earth. The waste treatments are the facilities on the right part of the picture.



Figure 17 – Evaluation of the type of waste treatment size

8 The videos – Youtube

If during many years the format of information has been to write articles or reports etc. or make Powerpoints ... today the number of formats which will “transport” a valuable information increase. We add first the image, then the audio, and now, the video. This is very interesting, since top people in some fields release short videos which in a few minutes will deliver the best of the subject. Of course this is not going very deep, since the time is short, but the essential is present. So, when something new will hit you, looking for some video on the subject is a very good practice. What may be done, is to go to Google or Google Scholar for instance and detect one of the best authors in that field, and after look to see if he delivered some videos.

A good example is for instance the concept of “soft power” very important in competitive intelligence. It is easy to see that Joseph Nye³ is one of the best people in that field and now if you look to Youtube and search for “soft power” and “Nye” you will get several meaningful videos⁴.

³ The first reference obtained with the query “soft power” is the following:

Soft power - Wikipedia, the free encyclopedia

https://en.wikipedia.org/wiki/Soft_power **Soft power** is a concept developed by **Joseph Nye** of Harvard University to describe the ability to attract and co-opt rather than coerce, use force or give money as a means of persuasion.

⁴ https://www.youtube.com/watch?v=cH9hn3_Q4gQ For a short and powerful video on soft power

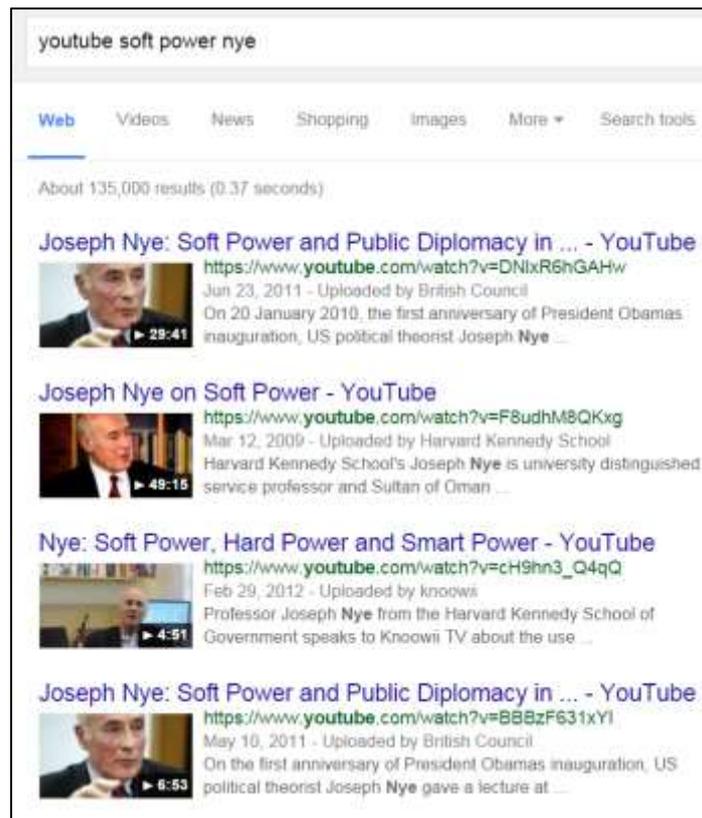


Figure 18 – The soft power by Joseph Nye

9 Extracting the sound from a video of Youtube

Often, a video is useful not really by its images but by the sound, for instance the presentation of a topic by an expert. Then extracting the sound from the video will give you the best of the presentation within a file of a smaller size, useful to put in demo or in smartphones, etc. To do so there are two methods:

9.1 Copy the URL address of the video and open the URL <http://www.youtube-mp3.org> when this is done paste the URL address in the window and let the program go.



Figure 19 – Example SWOT Analysis presentation in Youtube

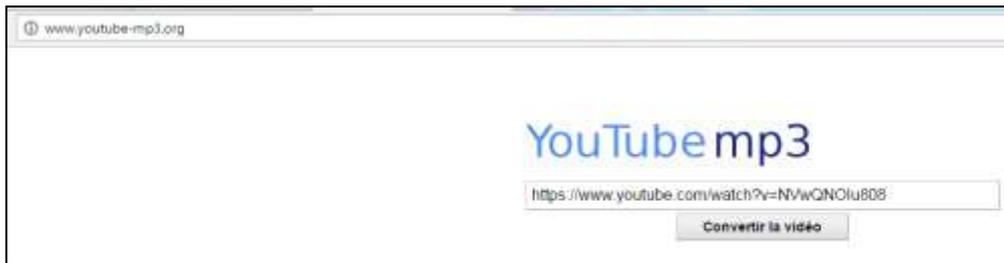


Figure 20 – Youtube mp3

9.2 Sometimes a message from Youtube indicates that there is an error or that the sound cannot be extracted. In this case use the second method, in the url of the video copy the word SON just before Youtube and go. After follow the instructions, this will drive you to another host and the sound will be extracted.

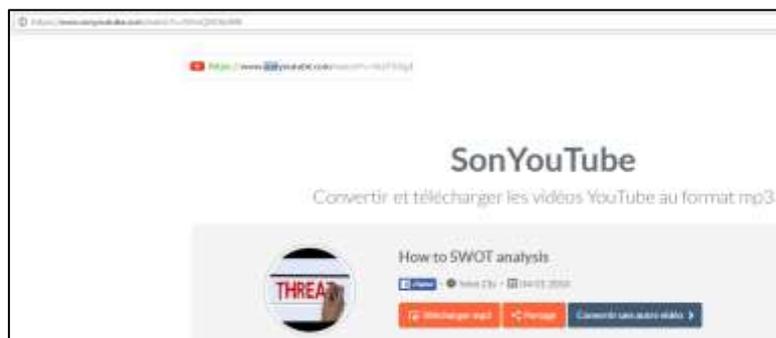


Figure 21 - SonYoutube

10 The bookmark

The bookmark is very useful and may be used in various ways: to store the addresses of various Internet sites, to store Internet pages addresses (for instance the address of a full text article, or the different profiles of authors, etc.). You will have 45 characters to name the address leading to unless using the automatic naming of it. All the addresses can be store in your bookmark in different folders, opening wide possibilities. For instances on a database of IPC (Internet Patent Classification) you must select the addresses of the classes the most important for you and save their addresses under a special folder. This will save time to get them without going through the database and selecting the class. An example will be given when we will present the Patent Databases. The data in your bookmarks may be modified or deleted as you decide.

Your book mark may also be exchanged with other people. it is interesting if you have to work for instance in on a search involving the consultation of various Internet site pages. Exchanging you bookmark with somebody working on the same subject will save a lot of

time and writing. Exchanging Bookmark can be done by using various bookmarking sites⁵ such as delicious⁶ for instance. These sites allow you to exchange your bookmark with other people. If you want to exchange your bookmark with some safety and do not get them public, the best is to copy the folder FAVORIS (Bookmarks or else in another language) which is located in (for PC and with Internet Explorer) drive **C:** then **Utilisateur** then **Utilisateur** then folder **Favoris** (User, User, bookmarks in English) The other people will have just to put it at the same place on his computer. This is the way to consult your bookmark with Internet Explorer. For the users of Chrome you will have to transfer your bookmark from Internet Explorer to Chrome. You will do it this way when Chrome is open.

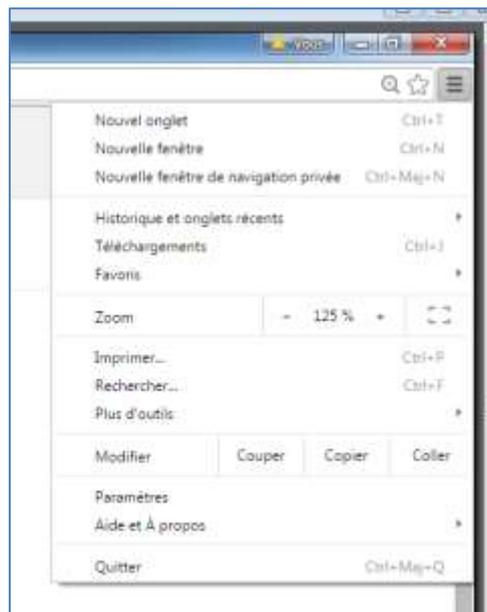


Figure 17 – Transferring you Bookmark to Chrome (top right)

Choose “Favoris” (Bookmarks or else in other languages) this will open a windows on which you will select “Importer les favoris et les paramètres” (import bookmarks and parameters) and after select from Internet Explorer.

11 Conclusion

The facilities offer by Google if they are used properly offer many possibilities to retrieve information, to translate it if necessary, to organize your work with co-workers even on a remote base. If you spend a little time to practice, this is also interesting than playing videos games, you will acquire rapidly the expertise and then be able to work faster and better.

Do not forget that the information may come in various ways, video, e-books, articles, audio books, videos. The only problem is time, since if you want to read everything you will spend

⁵ Social Benchmarking Sites, <http://www.searchenginejournal.com/50-social-bookmarking-sites-importance-of-user-generated-tags-votes-and-links/6066/>

⁶ Delicious Website, [https://en.wikipedia.org/wiki/Delicious_\(website\)](https://en.wikipedia.org/wiki/Delicious_(website))

too much time and you will not have the time to do! So, the best way is to practice and to get the necessary “serendipity”, and have always present, that knowledge is not found, it must be created.