

CARLO DE GAETANO

DATE

**DOING RESEARCH
WITH IMAGES.
IMAGE SORTER AND
CLARIFAI API
INTERFACE**



<https://bit.ly/31xmcXn>

At this link you can find the presentation

REQUIREMENTS

<https://bit.ly/31xmcXn>

Install **Google Chrome**

Install **TabSave** extension

Download [Image sorter \(mac\)](#) ([here Windows](#))

Create an account on [Clarifai](#) and get an **API Key**

Download **Bbedit** || **Notepad++** or simply use **Apple TextEdit**

Add to your browser [Google Image URLs Extractor](#)

(if the described procedure isn't working, wait for explanation)

For attending this tutorial you should have been installed some softwares and extension on your laptop: Google Chrome, TabSave Extension, the Google Image URLs Extractor, Image Sorter

TWO APPROACHES

VISUAL ATTRIBUTES ANALYSIS

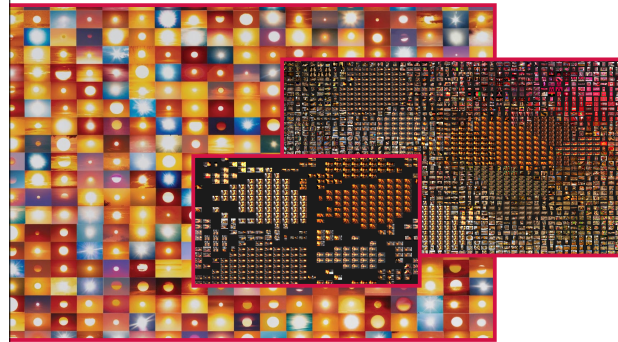
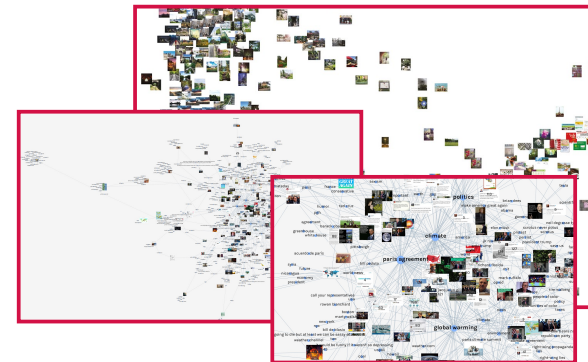


Image sorter

CONTENT ANALYSIS



Clarifai API Interface

What if we do Content Analysis

WHAT IMAGE SORTER DOES

ImageSorter is an **image browsing app** which allows an **automatic sorting** of images

Google Chrome

Tab Save

Google Image Extractor

Image Sorter

Excel

For attending this tutorial you should have been installed some softwares and extension on your laptop: Google Chrome, TabSave Extension, the Google Image URLs Extractor, Image Sorter

STEP BY STEP EXERCISE

INTRODUCTION | **IMAGESORTER** | CLARIFAI

MAIN STEPS

- Google Image URLs extractor
- Define a query for Google Images Search and grab links
- Copy the links in a spreadsheet
- Download images
- Upload picture on Image Sorter and browse them

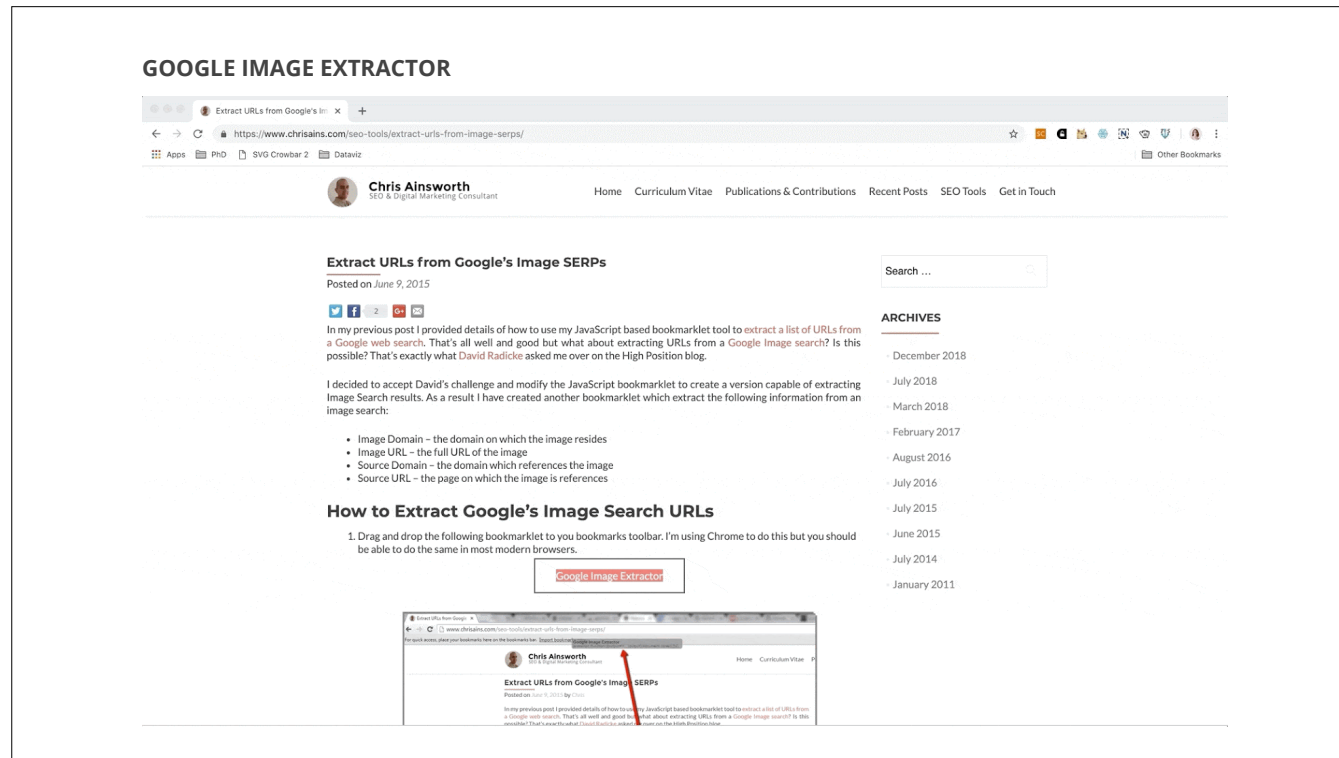
You need five steps for creating an image sorter composition

MAIN STEPS

‣ Google Image URLs extractor

- Define a query for Google Images Search and grab links
- Copy the links in a spreadsheet
- Download images
- Upload picture on Image Sorter and browse them

First of all you need a system that allow you to download pictures from the web. Few years ago there was DownThemAll, but now is not more available because of Firefox Browser updating. We will grab links and then pictures from these links. You can find on the presentation the link to this page. You should click there and then right click on the button, and copy the link in your bookmarks bar.



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MAIN STEPS

- Google Image URLs extractor
- **Define a query for Google Images Search and grab links**
- Copy the links in a spreadsheet
- Download images
- Upload picture on Image Sorter and browse them

Then you need a query

INCOGNITO MODE GOOGLE CHROME


gilets jaunes - Cerca con Google


https://www.google.it/search?hl=it&tbm=isch&source=hp&biw=1680&bih=906&ei=6u8iXLTkG6miwTMvoWoCw&q=gilets+jaunes&oq=gilets+jaunes&gs_l=img_3..010.1437.3803..4282..0.0..0.116.880.121.....0...1.gws+...>


Google gilets jaunes


Tutti Notizie Video Immagini Maps Altro Impostazioni Strumenti SafeSearch


novembre 2018 manifestation colère sécurité reims vendredi macron toulouse mouvement illustration lespinasse mobilisation


 EN IMAGES, "Macron, rends-nous notr...
franceville.fr


 4 giorni fa
Marseille : BFM empêché de travailler par d...
francois-regis.francoville.fr


 2 giorni fa
Voeux d'Emmanuel Macron : la réaction des "gilets ja...
actu.orange.fr


 Gilets jaunes : voici les péages et ...
actu.fr


 France/Monde | Gilets jaunes : leur ...
ledeuphine.com


 Vendée. Le point sur les actions des Gilets...
ouest-france.fr


 6 giorni fa
Gilets jaunes": nouvelles mobilisations prévues samedi, ...
actu.orange.fr


 Avant la rencontre à Malignon: Les Gilets jaunes il...
laverdi.lavendromond.fr


 Gilets jaunes, le mouvement gilet jaune
20minutes.fr


 Gilets jaunes": le diesel, "signe extérieur de pauvreté"...
capital.fr


 Gilets jaunes : le point en Champagne-Ardenne co...
francetvinfo.fr

 Personne n'est allé...
OS de REVOLUTION

 Gilets jaunes : le point en Champagne-Ardenne co...
francetvinfo.fr

 Gilets jaunes, le mouvement gilet jaune
20minutes.fr

 Gilets jaunes": le diesel, "signe extérieur de pauvreté"...
capital.fr

 Gilets jaunes : le point en Champagne-Ardenne co...
francetvinfo.fr

Be careful and remind that a good research is done in incognito mode. Wrote down your query, like "jilet jaunes" and when you have enough results, click on your new bookmark for grabbing the urls.

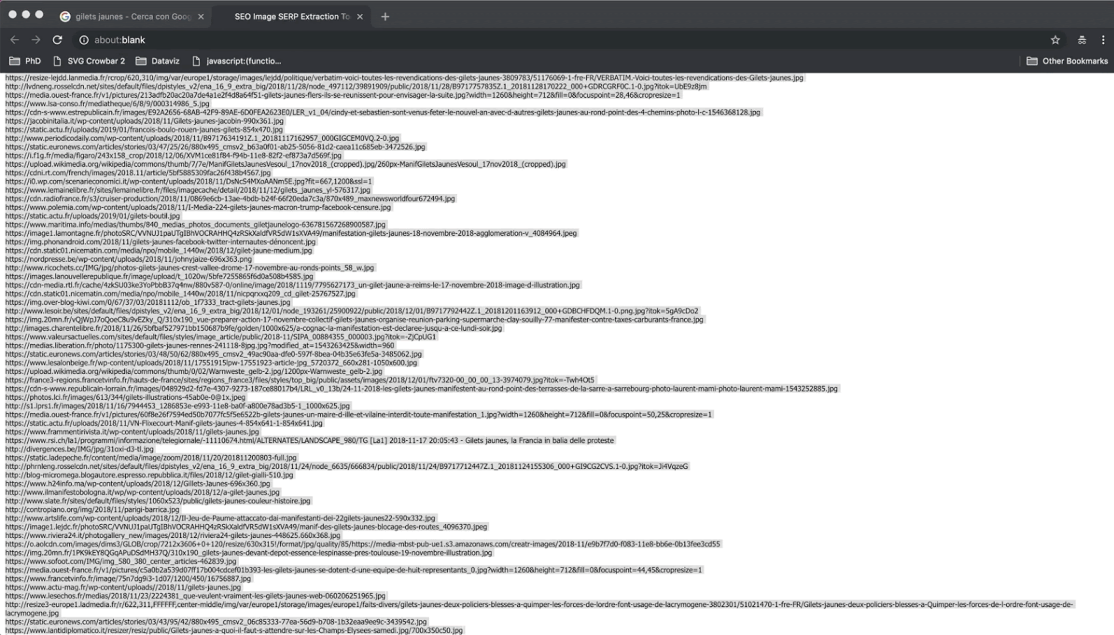
MAIN STEPS

- Google Image URLs extractor
- Define a query for Google Images Search and grab links
- **Copy the links in a spreadsheet**
- Download images
- Upload picture on Image Sorter and browse them

You can create visualization on rawgraphs following five or six easy steps.

First of all you need a dataset, copy and paste it in the online tool, select a visual model, map your data according to different visuali variables, export the results in svg or png format and if you can, edit it in Illustrator.

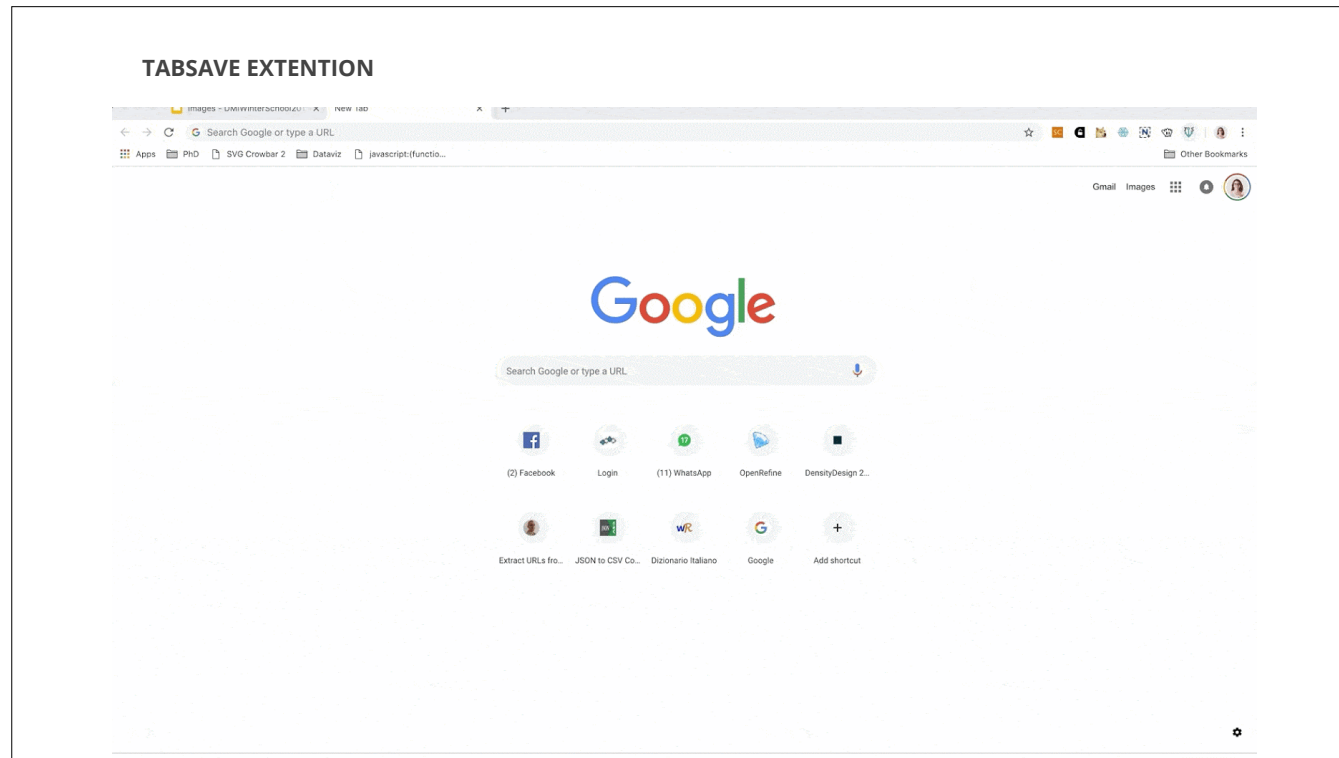
EXCEL/GOOGLE SPREADSHEETS



Copy and paste the results on a spreadsheet

MAIN STEPS

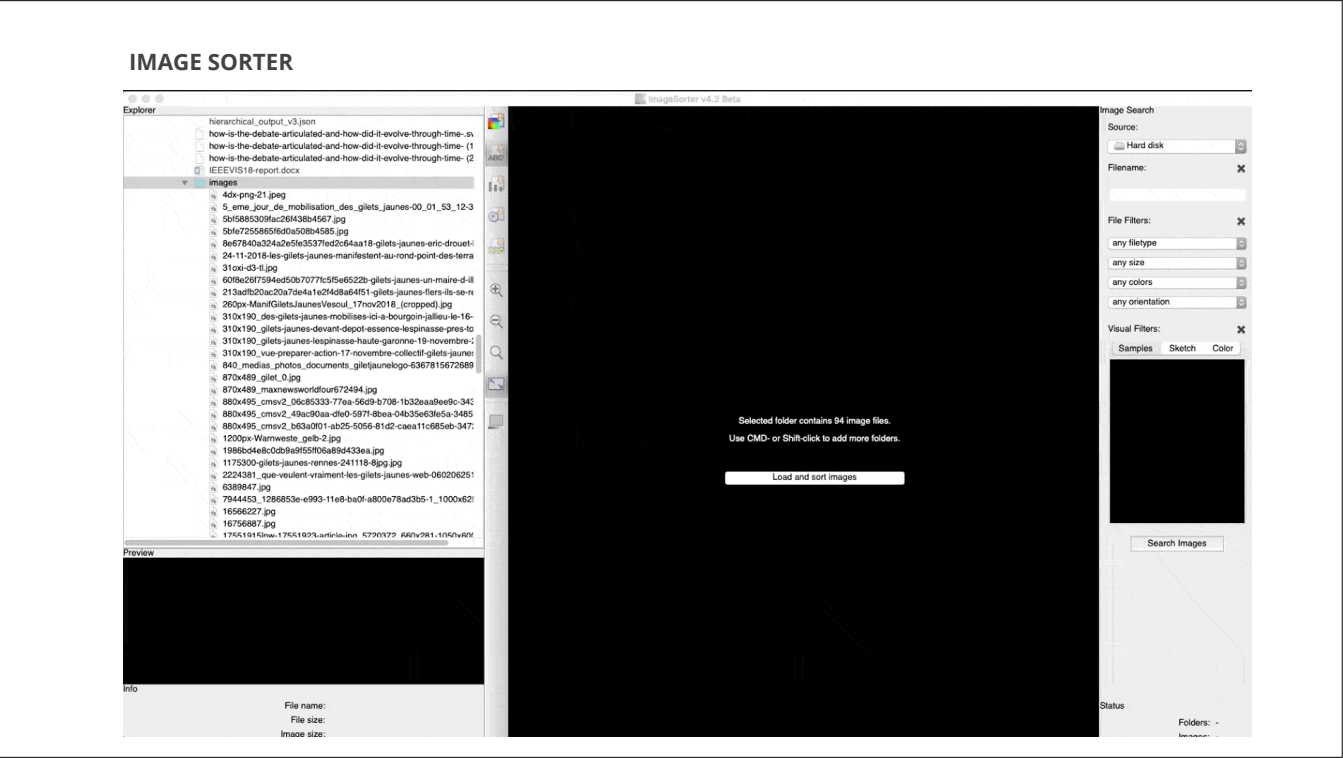
- Google Image URLs extractor
- Define a query for Google Images Search and grab links
- Copy the links in a spreadsheet
- **Download images**
- Upload picture on Image Sorter and browse them



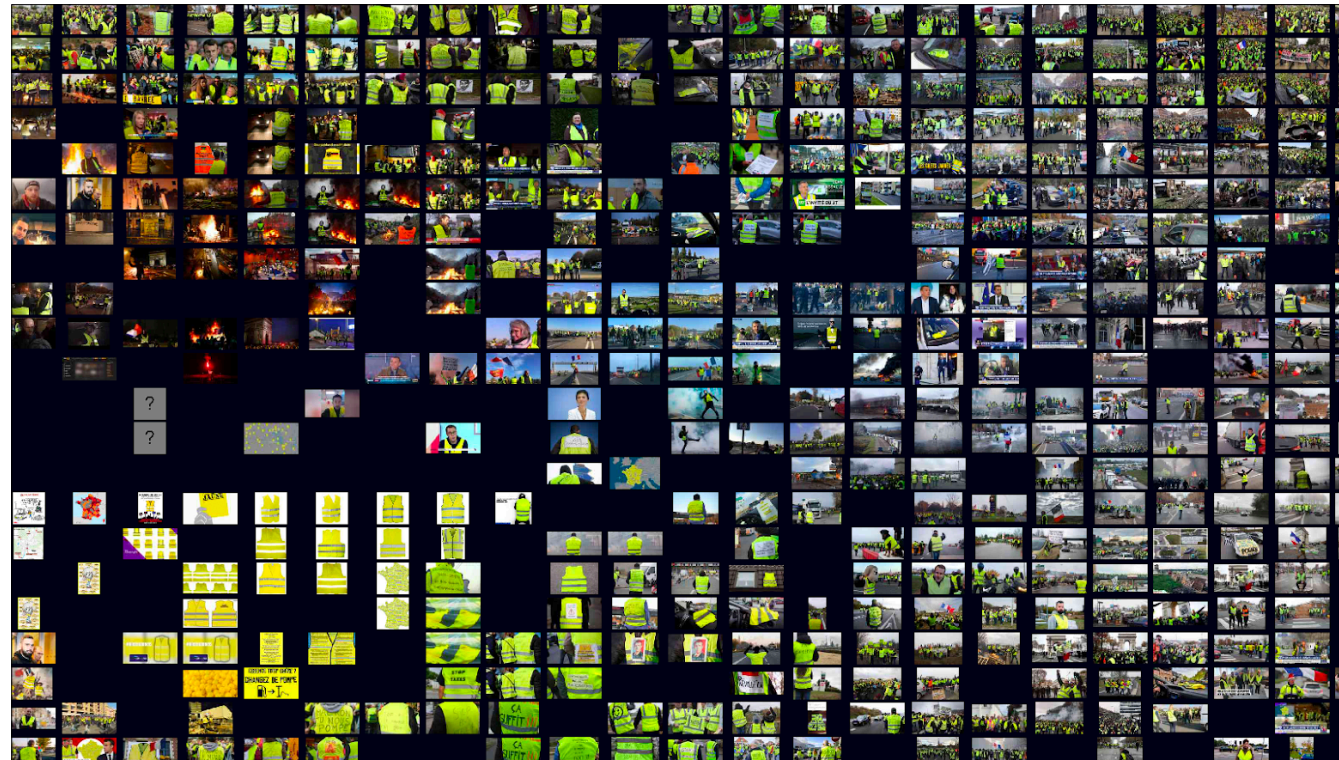
And download images by pasting the links in the TabSave window (The Extension that you should have downloaded). It will download pictures in a folder (if no, put all the images in a folder)

MAIN STEPS

- Google Image URLs extractor
- Define a query for Google Images Search and grab links
- Copy the links in a spreadsheet
- Download images
- **Upload picture on Image Sorter and browse them**

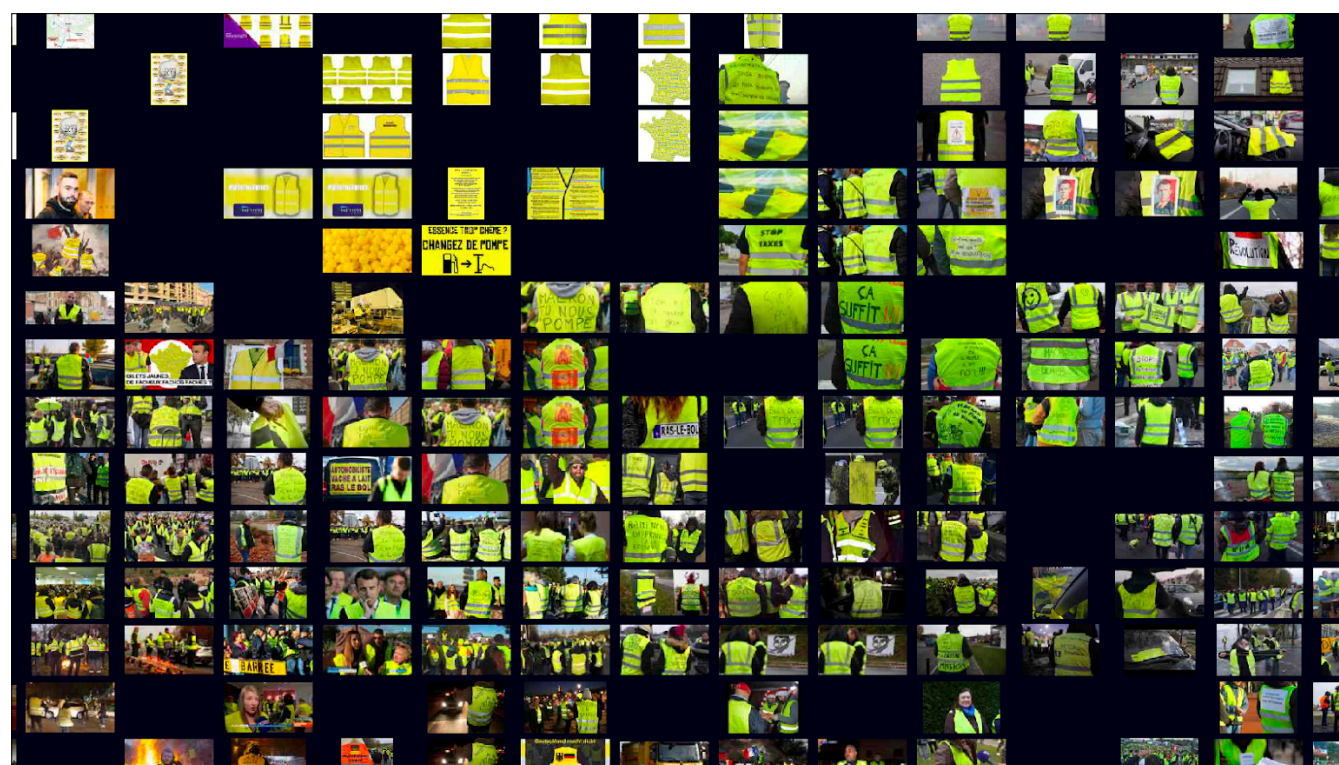


Open Image sorter and upload your folder of images.



Sort them by color and find a similarities.

It's not possible to download a full picture of the results, but you can easily make a screenshot and change the background.



TWO APPROACHES

VISUAL ATTRIBUTES ANALYSIS

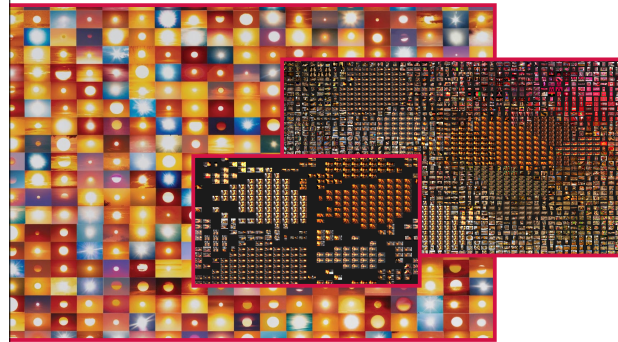


Image sorter

CONTENT ANALYSIS



Clarifai API Interface

What if we do Content Analysis

WHAT A CLARIFAI INTERFACE DOES

Takes a list of images (in the form of urls) and outputs what an **algorithm**, also called a **model**, "sees" in these images

Clarifai is a computer vision platform that recognizes the content of images. We will use the same group of images from google images we will use a clarifai interface that enables you to tag more picture at the same time.

MAIN STEPS

- [Image Tagging tool interface](#)
- Create a CSV with images urls (with header, any string)
- Copy and paste API KEY (previously created)
- Drag&drop the .CSV file with urls
- Run
- Download the data and import it in the spreadsheet
- Explore the data

STEP BY STEP EXERCISE

INTRODUCTION | IMAGESORTER | **CLARIFAI**

MAIN STEPS

- [Image Tagging tool interface](#)
- Create a CSV with images urls (with header, any string)
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The screenshot shows a web browser window with the URL `https://densitydesign.github.io/dd-image-tagging/`. The page has a light gray background and a white content area. At the top, there's a navigation bar with the title "IMAGE TAGGING TOOL INTERFACE". Below this, the main content area contains the following text:

Image tagging tool interface

This tool is an easier interface to the [Clarifai API](#) for people who either don't want to code or don't want to bother to learn how to use the API. What this API does in short is that it takes a list of images (in the form of urls) and outputs what an algorithm, also called a model, "sees" in these images.

Different models are specialized in "seeing" different things. Some were trained to pick out colors, others are great at identifying celebrities, so choose the model that most suits you for the job. Remember that they are not perfect, just like humans, so they may make mistakes (sometimes big ones).

The input should be a .csv file with all the image urls. There must be one image per line and a column header at the beginning of the file.

Below the text, there are two input fields:

- Clarifai API Key:** A text input field with a placeholder "Insert a valid Clarifai API Key".
- Select a Clarifai Model:** A dropdown menu with "General" selected.

Below the dropdown, there's a section titled **Model: General** with the following text:

The 'General' model recognizes over 11,000 different concepts including objects, themes, moods, and more. A 'null' value in every field means either that the algorithm couldn't anything in the image or it could not load the image.

At the bottom of the page, there's a dashed box containing the text `links.csv`.

MAIN STEPS

- [Image Tagging tool interface](#)
- **Create a CSV with images urls (with header, any string)**
- Copy and paste API KEY (previously created)
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- Download the data and import it in the spreadsheet
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SAVE THE URLS LIST AS .csv

MAIN STEPS

- [Image Tagging tool interface](#)
- Create a CSV with images urls (with header, any string)
- **Copy and paste API KEY (previously created)**
- Drag&drop the .CSV file with urls
- Run
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- Explore the data

COPY AND PASTE THE API KEY

Images - DMiWinterSchool201... x

DensityDesign Image Tagging... x

List of requirements and steps... x

API Keys | Clarifai Developer x


+

https://clarifai.com/developer/account/keys

Apps PhD SVG Crowbar 2 Dataviz javascript:(functio...

Other Bookmarks

Important: Please verify your email address before continuing to use the API or you will be limited to 100 operations.

 clarifai

PRODUCTS ▾ SOLUTIONS USE CASES DEVELOPERS ▾ COMPANY ▾ DEMO PRICING | BEATRICE [LOG OUT](#)

ACCOUNT

Applications

• API Keys

Profile

Billing

Usage

Manage Your API Keys

Create new API Keys with different scopes or manage your existing keys.

[CREATE NEW API KEY](#)

No Description	Created 03 Jan 2019, 14:25	✎ 🗑
API KEY COPY TO CLIPBOARD 28481d2352ac4973b5e1f7db1651f5da	SCOPES All	APPS my-first-application

cliamte	Created 29 Jun 2017, 14:47	✎ 🗑
API KEY COPY TO CLIPBOARD e965dff0829945799aff58252c7803cf	SCOPES All	APPS climate

climate-all-scopes	Created 29 Jun 2017, 14:48	✎ 🗑
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COPY AND PASTE THE API KEY

Images - DMiWinterSchool201...DensityDesign Image Tagging - List of requirements and steps - API Keys | Clarifai Developer +

https://densitydesign.github.io/dd-image-tagging/

AppsPhDSVG Crowbar 2Datavizjavascript:(functio...

Other Bookmarks

What this API does in short is that it takes a list of images (in the form of urls) and outputs what an algorithm, also called a model, "sees" in these images.

Different models are specialized in "seeing" different things. Some were trained to pick out colors, others are great at identifying celebrities, so choose the model that most suits you for the job. Remember that they are not perfect, just like humans, so they may make mistakes (sometimes big ones).

The input should be a .csv file with all the image urls. There must be one image per line and a column header at the beginning of the file.

Clarifai API Key: 28481d2352ac4973b5e1f7db1651f5d

Select a Clarifai Model: General

Model: General

The 'General' model recognizes over 11,000 different concepts including objects, themes, moods, and more. A 'null' value in every field means either that the algorithm couldn't anything in the image or it could not load the image.

Drag & drop a .csv file here

PROCESS INPUT FILE

MAIN STEPS

- [Image Tagging tool interface](#)
- Create a CSV with images urls (with header, any string)
- Copy and paste API KEY (previously created)
- **Drag&drop the .CSV file with urls**
- Run
- Download the data and import it in the spreadsheet
- Explore the data

We are now focusing on the first step, the most important one.

DRAG AND DROP THE .CSV FILE

Images - DMiWinterSchool201...DensityDesign Image Tagging - List of requirements and steps - API Keys | Clarifai Developer

https://densitydesign.github.io/dd-image-tagging/

AppsPhDSVG Crowbar 2Datavizjavascript:(functio...Other Bookmarks

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links.csv

has been loaded and parsed

Wrong .csv? Throw me another one!

PROCESS INPUT FILE

MAIN STEPS

- [Image Tagging tool interface](#)
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RUN THE MODEL

Images - DMiWinterSchool201... X

DensityDesign Image Tagging X

List of requirements and steps X

API Keys | Clarifai Developer X

+

https://densitydesign.github.io/dd-image-tagging/

Apps PhD SVG Crowbar 2 Dataviz javascript:(functio... Other Bookmarks

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links.csv

has been loaded and parsed

Wrong .csv? Throw me another one!

DONE! READY TO PROCESS ANOTHER

MAIN STEPS

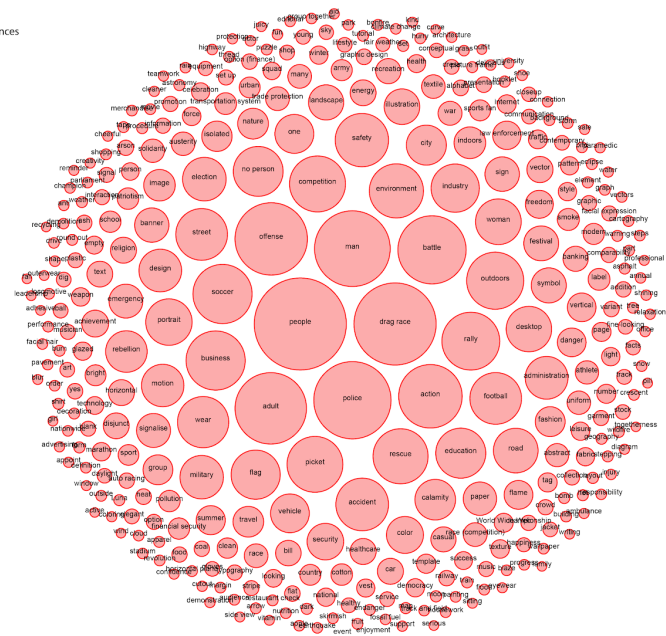
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- Create a CSV with images urls (with header, any string)
- Copy and paste API KEY (previously created)
- Drag&drop the .CSV file with urls
- Run
- **Download the data and import it in the spreadsheet**
- Explore the data

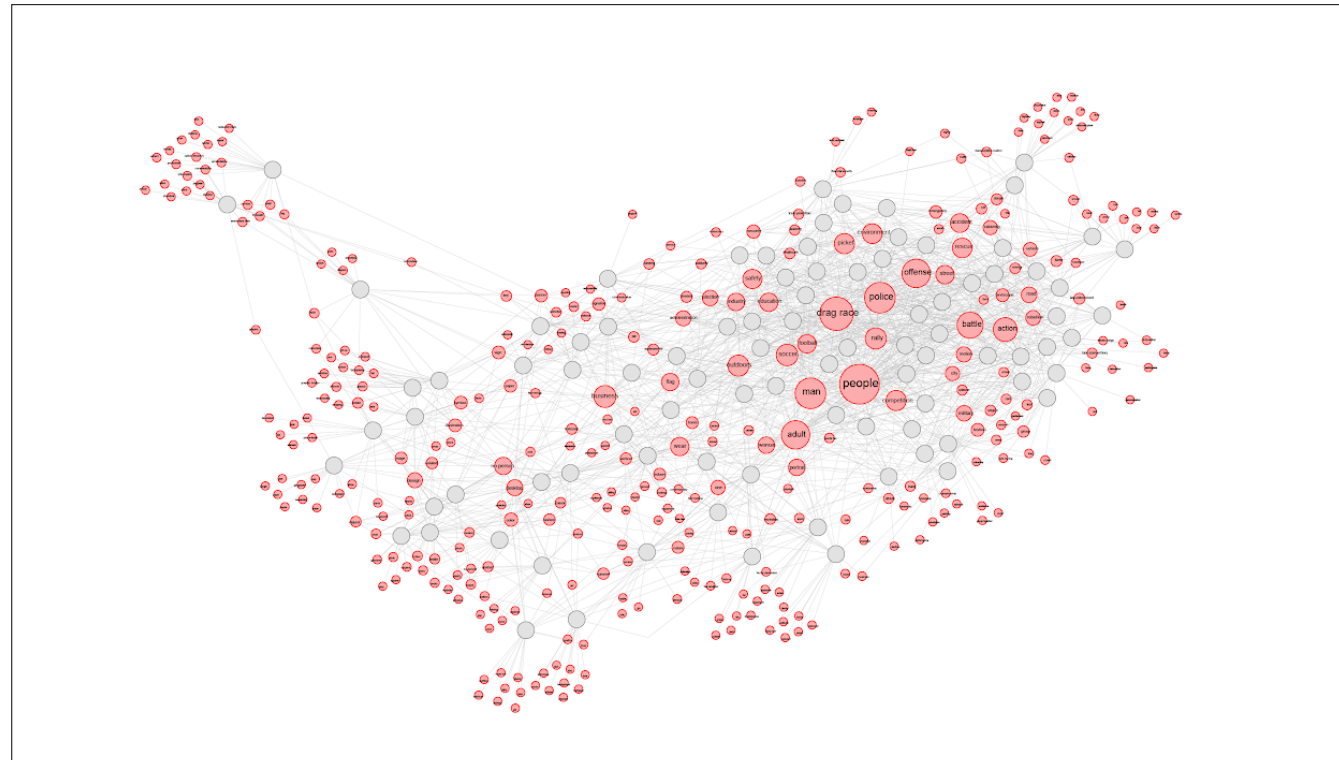
IMPORT DATA FROM A SPREADSHEET

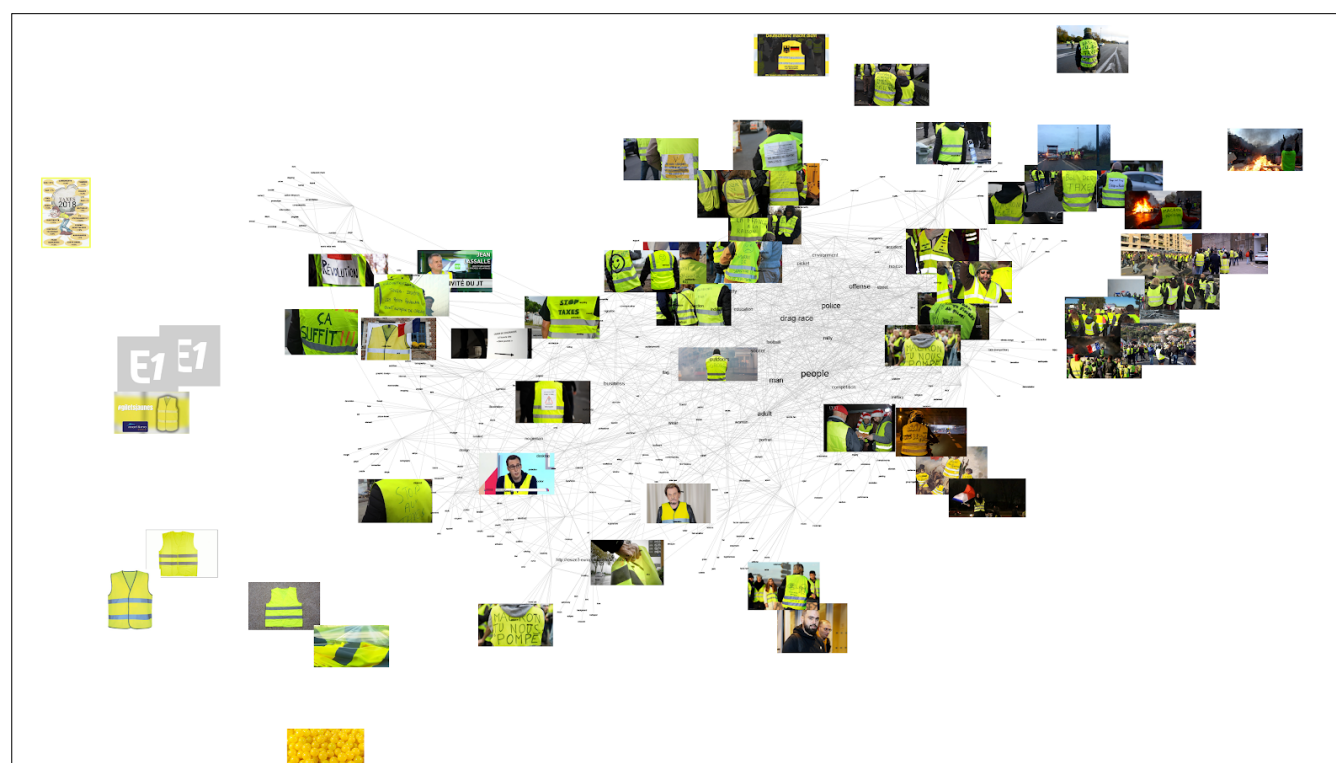
MAIN STEPS

- [Image Tagging tool interface](#)
- Create a CSV with images urls (with header, any string)
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- Drag&drop the .CSV file with urls
- Run
- Download the data and import it in the spreadsheet

‣ **Explore the data**







LET'S PLAY

INTRODUCTION | IMAGESORTER | CLARIFAI



<https://bit.ly/2IIJZ52>