

- Image plagiarism simply means image theft.
- This happens when someone copies your photos online, like copying images from your Instagram, Facebook, your blog or any online platform and then reuse them somewhere else without properly citing those pictures, often in a way that disregards you as the copyright owner and shows as if the photos were their own.
- Giving no due credit or citation to the original source of the photos, not only do such people commit copyright infringement but also pose a grave threat to the liberal ideas of free sharing and downloading.
- we will discuss how to track plagiarism related to images and photos using a technique called reverse image search

REVERSE IMAGE PROCESSING -

- Reverse Image Lookup is a Content-Based Image Retrieval (CBIR) technology that involves searching for visually similar images on the internet.
- When we search for something online, we usually enter keywords/key- phrases in a search engine like Google.
- Similarly, for a reverse image search, we upload an image on the search engine and the search engine queries its database and matches the image color by color and pixel by pixel to return a list of exactly same or visually similar photos on the internet.
- It's an effective technique for checking image plagiarism.

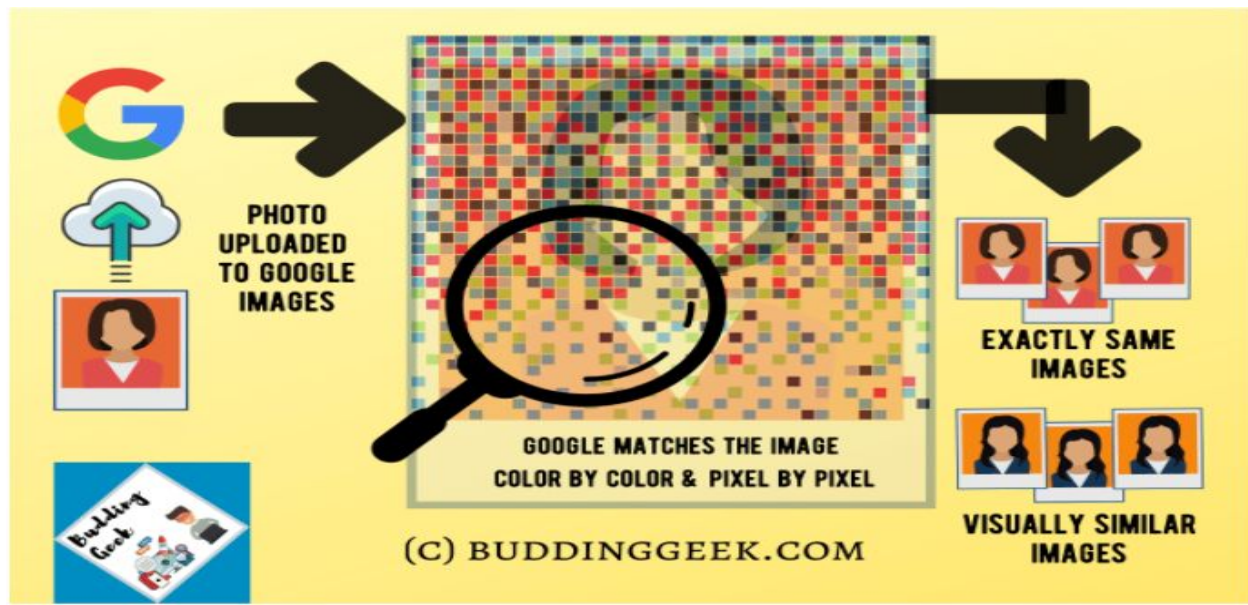
Content-Based Visual Information Retrieval (CBVIR) -

To search for images with the help of other images rather than keywords, a query technique called Content-Based Image Retrieval (CBIR) — also called Content-Based Visual Information Retrieval (CBVIR) or Query by Image Content (QBIC) — is used in applying computer vision to retrieve digital images from the Internet based on well-calculated algorithmic models.

Sounds too technical?

in the standard search you type in keywords to find text-based content, to search by image, you only have to upload the photo you want to search for.

HOW REVERSE IMAGE SEARCH WORKS -



IMPORTANT USES OF REVERSE IMAGE SEARCH -

- Number one, it lets you find out who is using your copyrighted images on the internet
- Helps you find out the original source of the image – in case you are curious to find out.

BENEFITS OF USING REVERSE IMAGE SEARCH -

- Before getting into the tools and methods for performing reverse image search, let's know some of its important uses
- It helps you find out where your pictures are getting misused or where your copyrighted images are getting used on the internet
- It also helps you in knowing the source of the picture – in case you want to find out
- It also helps in finding out the high-resolution images on the internet that can be used for your projects

LIMITATIONS OF REVERSE IMAGE SEARCH IN CHECKING IMAGE PLAGIARISM -

- The tools and techniques mentioned above largely rely on web crawlers' ability to index the image files and web pages. If someone does not publish the stolen images online, or in case web crawlers are blocked from crawling a certain web page, it becomes almost impossible to check image plagiarism.

REFERENCES -

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3. <https://towardsdatascience.com/image-similarity-detection-in-action-with-tensorflow-2-0-b8d9a78b2509>
4. <https://github.com/eisbilen/ImageSimilarityDetection>
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6. <https://www.pyimagesearch.com/2017/11/27/image-hashing-opencv-python/>
7. <https://ourcodeworld.com/articles/read/1006/how-to-determine-whether-2-images-are-equal-or-not-with-the-perceptual-hash-in-python>
8. <https://stackoverflow.com/questions/37220055/pip-fatal-error-in-launcher-unable-to-create-process-using>
9. https://en.wikipedia.org/wiki/Hash_function
10. <https://pypi.org/project/ImageHash/>
11. <https://www.thepythoncode.com/article/extract-pdf-images-in-python>
[on](#)
- 12.

INSTALLATIONS -

1. PYTHON - <https://www.python.org/>
2. Pip install ImageHash
3. pip install PyMuPDF Pillow
- 4.

Python -

Version - `python -version`

Numpy - `python -m pip install numpy`

ImageHash - `python -m pip install ImageHash`

