

**ADVANCED COURSE ON  
VERIFICATION AND  
NEW NARRATIVES  
ON FACT CHECKING  
FOR NAMIBIAN JOURNALISTS**

Windhoek, Namibia  
7-9 June 2022

#PeriodismoÁfrica

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# PHOTO AND VIDEO VERIFICATION TO AVOID DISINFORMATION

# Class content

- Photo verification tools
- Video verification tools
- Audio verification
- OSINT (Open Source Intelligence)
- Geolocation

# Google Reverse Image Search



# Google Reverse Image Search



**Search by image** ×

Search Google with an image instead of text. Try dragging an image here.

Paste image URL

Upload an image

Search by image

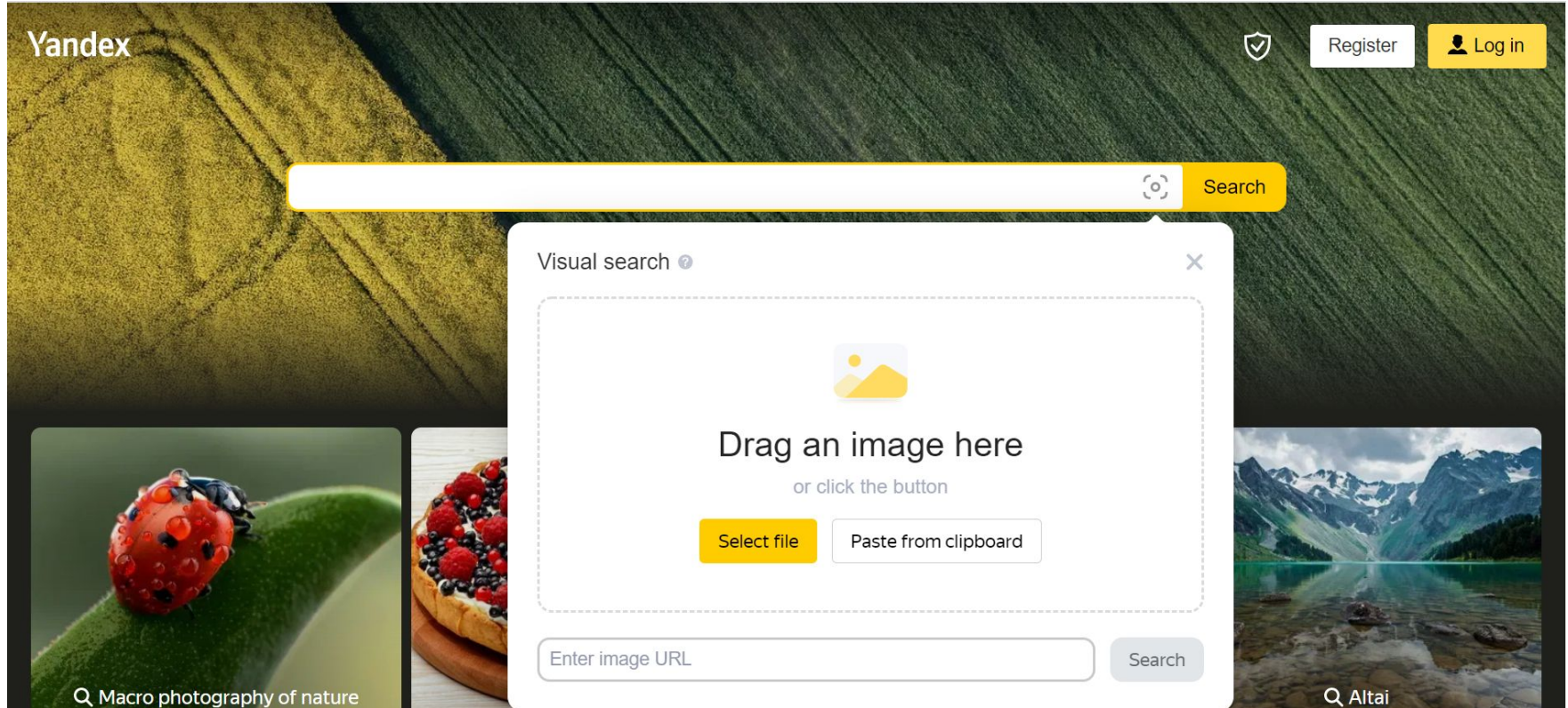
# Google Reverse Image Search

To perform the reverse Google search, there are different options. One of them is to save the image and then insert it into the camera icon that can be found in Google Images by clicking on the "Upload an image" option.

The search engine will give us different results in which the same image has been used, which will allow us to find out whether the photo is current or not and to know **more context** about it.

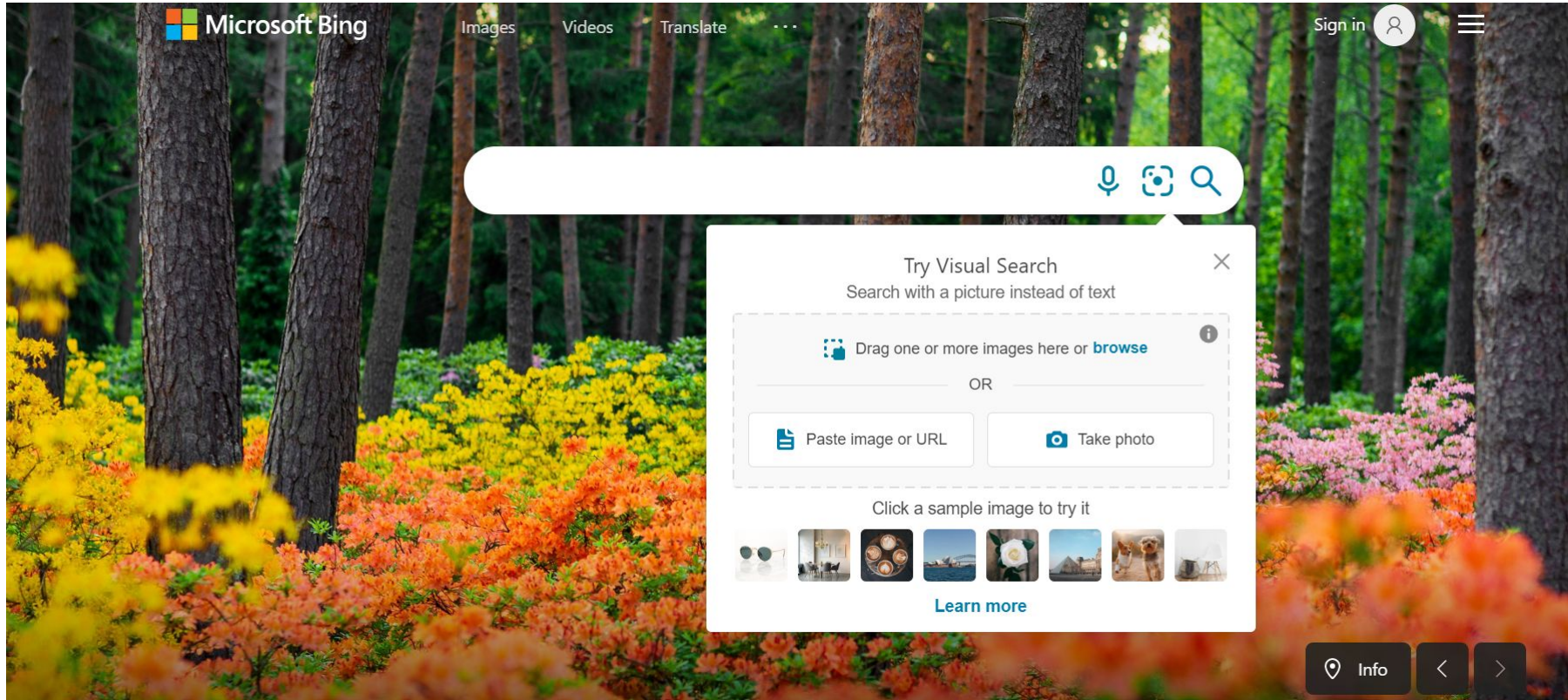
If we find the same image, for example, in a news article from another country published years ago, we can get a first indication that it has been **taken out of context**.

# Yandex Reverse Image Search





# Reverse Image Search - Bing



# Reverse Image Search - TinEye





# Reverse Image Search

Se reportan cientos de victimas en toda #Ucrania por el bombardeo de #Rusia, 🙄🙄🙄



This photo was shared this year in connection with the Russian invasion of Ukraine, along with messages claiming that the image was taken in Ukraine.

# Reverse Image Search

Páginas con imágenes que coinciden con la búsqueda

<https://www.nytimes.com> › espanol › gaza-israel-alto-fuego

Fuego cruzado frustra la posibilidad de un cese de ...

1024 × 692 · 9 ago 2018 — More in The New York **Times** en Español.



<https://colombiacheck.com> › chequeos › publicaciones-... ▼

Publicaciones de “guerra en Ucrania” usan dos fotos de ...

1182 × 920 · 23 feb 2022 — MAHMUD HAMS / AFP”. Foto de AFP en Gaza. Esta imagen ha sido usada por medios de comunicación como el New York **Times** en la nota “Fuego cruzado ...



# Reverse Image Search

The New York Times

MEDIO ORIENTE

## *Fuego cruzado frustra la posibilidad de un cese de hostilidades en Gaza*

Give this article



Por Isabel Kershner

9 de agosto de 2018

[Read in English](#)



Un ataque aéreo israelí en Gaza, el miércoles. Mahmud Hams/Agence France-Presse

**Result: The imagen was from Gaza in 2018**

Los Angeles Times

## Fighting between Israel and Hamas escalates on the Gaza border



A fireball explodes during Israeli airstrikes in Gaza City on Aug. 8, 2018. (Mahmud Hams / AFP/Getty Images)

BY NOGA TARNOPOLSKY

AUG. 8, 2018 3:25 PM PT

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## **The work does not end with the reverse image search (it has only just begun)**

- Do not stay with the first results in Google or Yandex
- Search for the image in question within the publications that the search offers
- Identify if there is an author of the image
- Contact the author of the image and corroborate
- Search for news of the time on the subject that places the image in a certain context
- Sometimes you don't get an immediate result (keep trying)

# Image alterations - Other tools

Reveal

FotoForensics

Forensically

InVid-WeVerify

Image analysed with  
Forensically



Análisis realizado con Reveal sobre una imagen manipulada de un soldado. El área de calor indica dónde es probable que se haya producido alguna manipulación en la imagen.

# Video verification (InVid-WeVerify)



English

## VERIFICATION

- Tools
- Video
- Image
- Search
- Data analysis

## MORE

- About



Advanced tools  
The advanced tools are locked

LOGIN



Video



Image



Search



Data Analysis



Video analysis

It brings you the contextual information of a Youtube, Facebook or Twitter video



Keyframes

It fragments a YouTube, Facebook or Twitter video or a mp4 file into keyframes for reverse image search



Thumbnails

It extracts and performs a reverse search of the thumbnails of a Youtube video



Video rights

It provides information about the legal rights of a Youtube or Twitter video



Metadata

It extract metadata for jpeg images and videos (in mp4 or m4v format)



# Video verification (InVid-WeVerify)



It fragments a YouTube, Facebook or Twitter video or a mp4 file into keyframes for reverse image search

## Source of the video



### Link

The video to fragment into keyframes is provided with a URL Link



### File

The video to fragment is provided with a local file

Insert the video URL

SUBMIT

## Video verification (InVid-WeVerify)

- Install InVid-WeVerify as an extension or plugin
- Download video you want to verify in your computer (or search for a link on YouTube)
- Upload to InVID
- Video - Keyframes
- File - Upload video
- Reverse keyframe search

Momento exacto de la  
erupcion del Volcan  
Tonga Karaka Tonga



comparto el video de  
video de Siegfriedarce



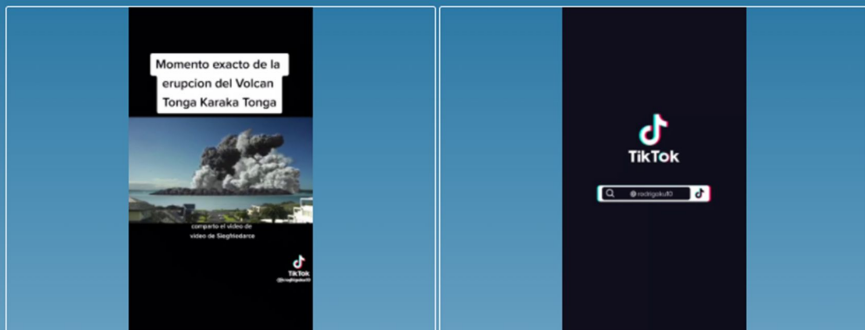
Message: **“Exact time  
of the eruption of the  
Tonga volcano”**

Published: January  
2022 in YouTube and  
Twitter

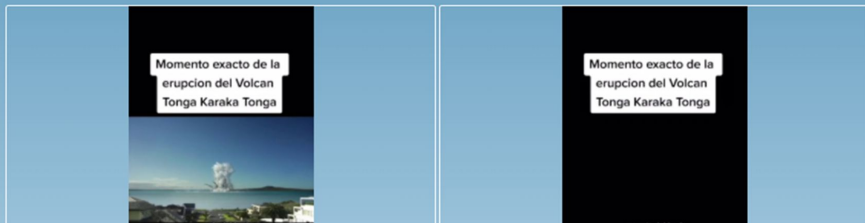
# Video verification (InVid-WeVerify)

Extracted keyframes from video  
0cb59625653e304841917ac61fef77fa\_1)

Click on a keyframe to perform reverse image search



----- Additional keyframes (may contain duplicates) -----



## Páginas con imágenes que coinciden con la búsqueda

<https://espaja.com> › verifications › este-video-correspon... ▼

¿Este video corresponde a la erupción del volcán submarino ...

539 × 822 · 21 ene 2022 — ... y no a las imágenes de la erupción del volcán submarino en Tonga, ... del "momento exacto de la erupción del volcán Tonga Karaka Tonga", ...

<https://www.excelsior.com.mx> › trending › falso-video-... ▼

¡Falso! Este video que circula en redes no se la erupción en ...

800 × 600 · 19 ene 2022 — Unas 84 mil personas, más del 80% de la población de las Islas Tonga, se han visto afectadas por la **erupción del volcán Tonga-Hunga Ha'apai** ...

<https://www.youtube.com> › watch

Auckland Museum Volcano Simulation - YouTube

320 × 180 · 18 dic 2019 — This is an educational simulation of an earthquake caused by a volcanic **eruption**. It is also featured in our onsite Volcanoes Gallery, ...





### Auckland Museum Volcano Simulation - Auckland Museum

103.823 visualizaciones • 19 dic 2019 • This is an educational simulation of an earthquake caused by a volcanic eruption. It is also featured in our onsite Volcanoes Gallery, you can read more about this gallery here: <https://www.aucklandmuseum.com/visit/...>

👍 787    💬 No me gusta    ➦ Compartir    ➦ Guardar    ...

The Tonga volcano erupted on 15 January 2022, triggering a tsunami that has hit the island's coastline.

The video, however, does not show this volcano. Is a computer simulation made by the Auckland War Memorial Museum in New Zealand.

# The challenge of audio verification - Some tips

- Does the person who is speaking identify him/herself (WHO)
- Does he/she give any reference or clue as to the date on which he/she recorded the message (WHEN)
- Does he/she give any reference or clue as to the place where what he/she is saying is taking place (WHERE)?
- Is there any institution, company or person mentioned in the audio that we can corroborate with?
- Are his statements verifiable beyond the fact that we do not know who is saying them? (WHAT)



# The challenge of audio verification

Search 

June 7, 2022

Poynter.



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Fact-Checking

IFCN

## Meet Forensia, a software ready to debunk fake WhatsApp audio files



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# The challenge of audio verification - Forensia

- Launched by the Laboratory of Sensory Research, part of Argentina's National Council of Scientific and Technical Research (Conicet)
- Argentine fact-checker **Chequeado** wanted to verify a controversial audio file from an argentinian politician that was spreading on WhatsApp and other social media. Chequeado needed to confirm if the voice heard was actually from congressman Guillermo Montenegro.
- The research scientist received the WhatsApp file and asked fact-checkers to provide other real audio files from Montenegro's voice. He plugged all of them into Forensia and, in a few minutes, concluded there very little chances of that voice being Montenegro's. On a scale that ranges from -5 to +5, the audio clip was graded -1.
- **Problems:** it's **expensive** and not always absolutely conclusive (it's a **probability**)