

Analysing and verifying digital images and videos

Technology-assisted verification to counter disinformation

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Deutsche Welle

Research & Cooperation Projects

Twitter: @jospang & @dw_innovation



16 Sep 2023



Introduction

Overview

Source: Jochen Spangenberg



Social Media Becomes a Lifeline in the Nepal Earthquake Aftermath

Posted 26 April 2015 7:11 GMT



Nepal, Apr 2015

Source: [Global Voices Online](#), 26 April 2015.



Brussels 21 March 2016

Source: Screenshot of video by Pinchas Kopferstein. On YouTube [here](#).



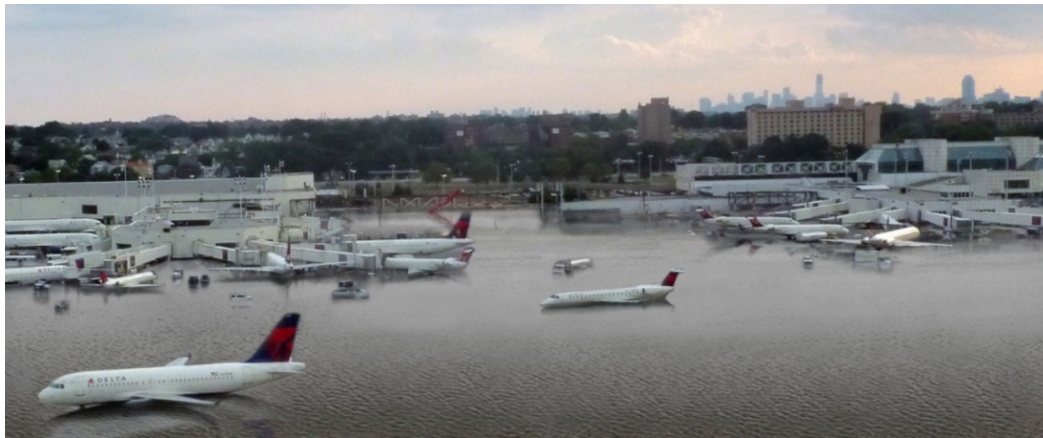
Sulawesi, 29 Sep 2018

Source: Screenshot from video uploaded by Muhammad Yasir Arafat On YouTube [here](#).



Kabul, Afgh, 16 Aug 2021

Source: Screenshot from video uploaded by an unknown source



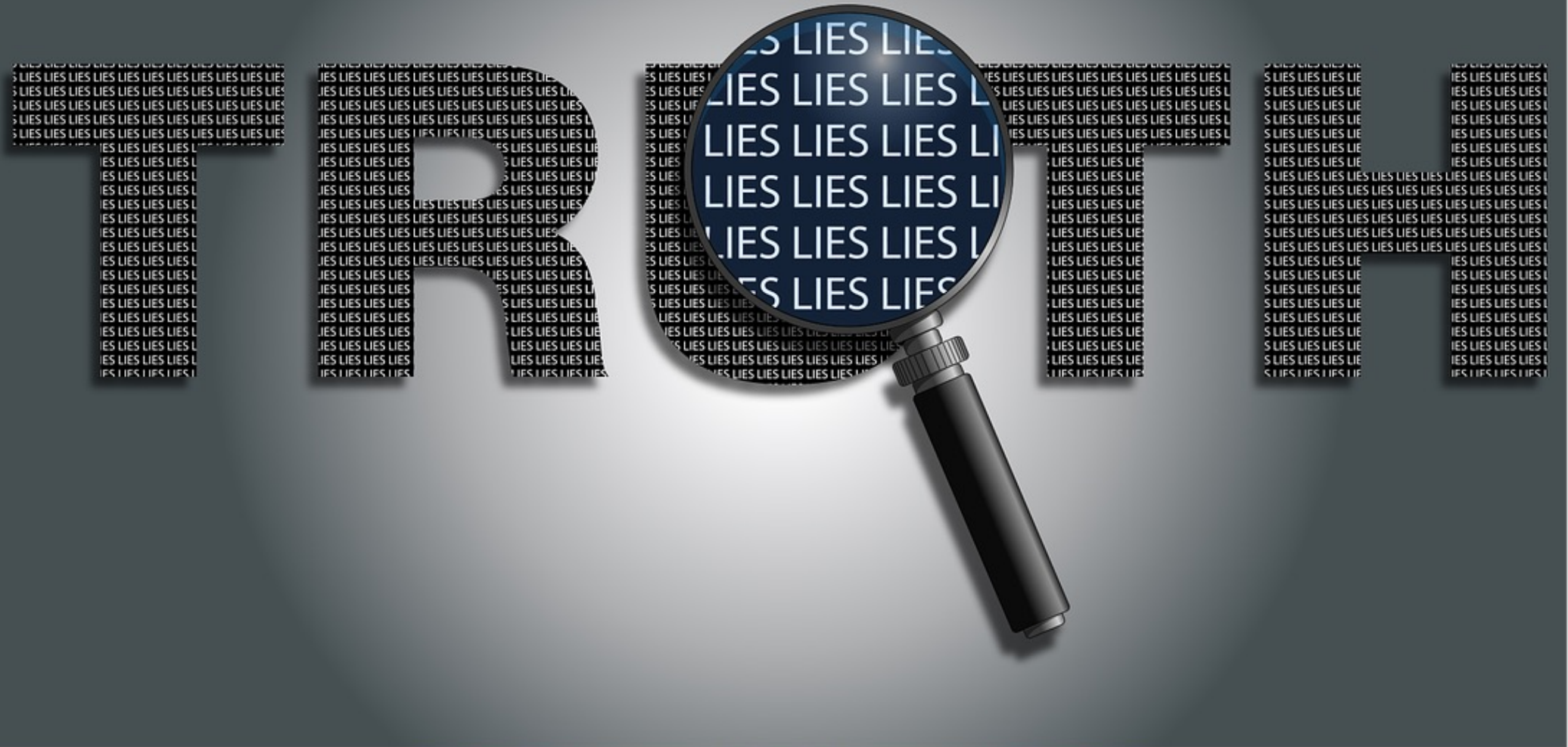
Source: NOT Houston airport after Hurricane Harvey, but a projection of what LaGuardia Airport / New York could look like at high tide with 5 feet of sea level rise, an amount that could occur by 2100, according to some estimates.

Image credit: Nickolay Lamm/[StorageFront](https://www.storagefront.com), interpretation of Climate Central data.

Source: [BR24](https://www.br24.de)

Source: [BBC](https://www.bbc.com)

Source: [DW](https://www.dw.com)



WARNING:

GRAPHIC CONTENT AHEAD

Some people may find some of the images / videos / contents displayed disturbing, unsettling or even traumatising.

**As people react differently to different things,
you may want to consider leaving the session.**

If you do, that would be NO weakness but a sign of strength!

The digital frontline ...



Source: Tweet of Russian embassy in the UK. Screenshot taken 10 March 2022 at 15.52. Tweet has meanwhile been blocked / removed by Twitter

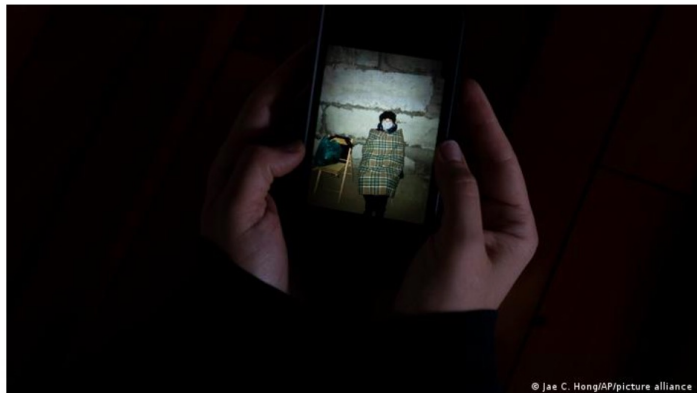
Source: [New York Times](https://www.nytimes.com), published 4 April 2022

Source: Screenshot of [tweet](https://twitter.com/christogrozev) by Christo Grozev (@christogrozev) taken on 1 March 2022 at 12.55 CET

WORLD

How war videos on social media can trigger secondary trauma

During a war, trauma is no longer limited to the battlefield. Violent and distressing content on social media can leave a lasting impression. Here's how users can be prepared.



A Ukrainian immigrant in California shows a photo of her aunt hunkering down in a basement in Kyiv, Ukraine, amid Russia's invasion

Date 09.03.2022

Author Jochen Spangenberg

Related Subjects Facebook, Twitter, Ukraine, Russia's invasion of Ukraine (2022)

Keywords Ukraine, social media, Twitter, Facebook, trauma, vicarious trauma

Send us your feedback.

Print Print this page

Permalink <https://p.dw.com/p/489i0>



Source: [dw.com / Jochen Spangenberg](https://www.dw.com/en/how-war-videos-on-social-media-can-trigger-secondary-trauma/a-61111111)



News | Ukraine | March 28, 2022

Mental well-being of investigators on the digital frontline

Search

Recent Posts

Call for Interest for new Signatories to join the Code of Practice on Disinformation

Online Training: "Understanding and handling disinformation for practitioners focusing on Africa"

The vital role of measuring impact in media literacy initiatives

10 Recommendations by the Taskforce on Disinformation and the War in Ukraine

Mapping European media literacy initiatives in response to the war in Ukraine

Source: [EDMO / Jochen Spangenberg](https://www.edmo.eu/en/news/mental-well-being-of-investigators-on-the-digital-frontline)



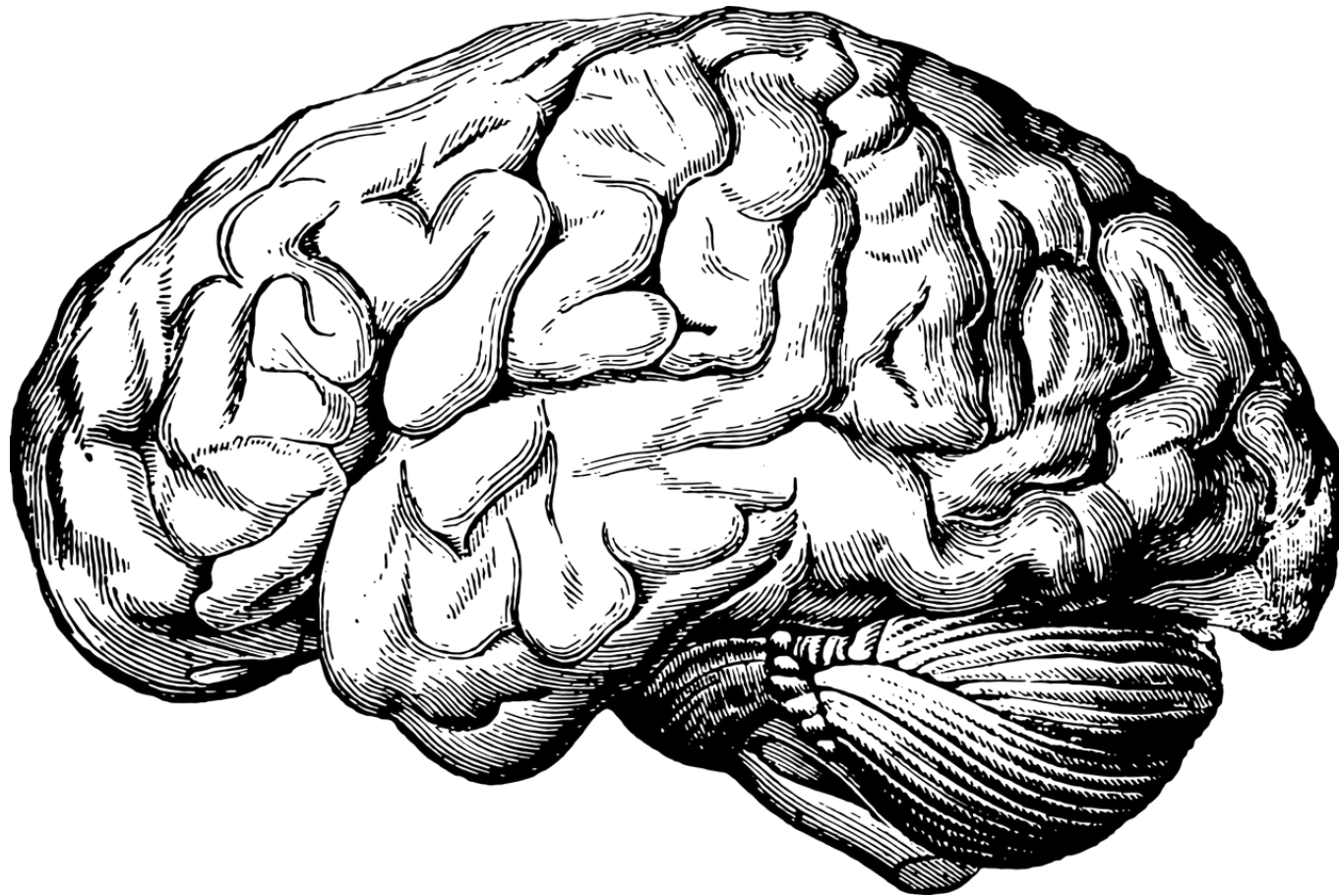
Source: [Agence Olloweb](#) via [Unsplash](#)

TTT

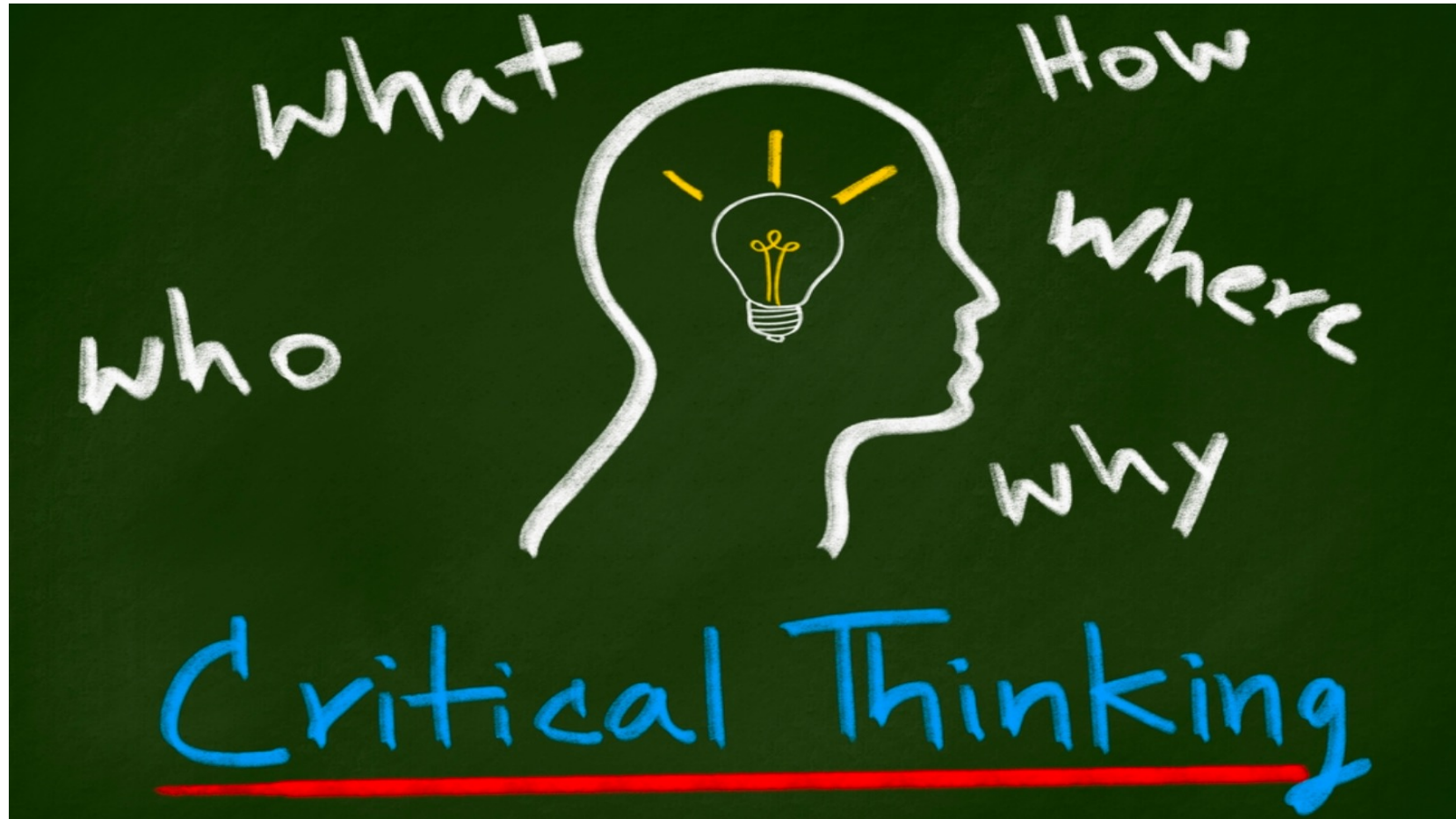
Tech, Tools and Tactics



Source: Pixabay



Source: Pixabay

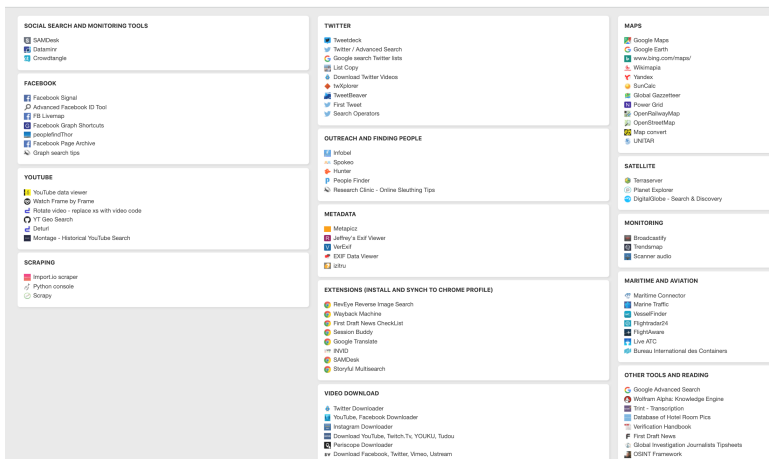


Source: [Sanskriti School](#)

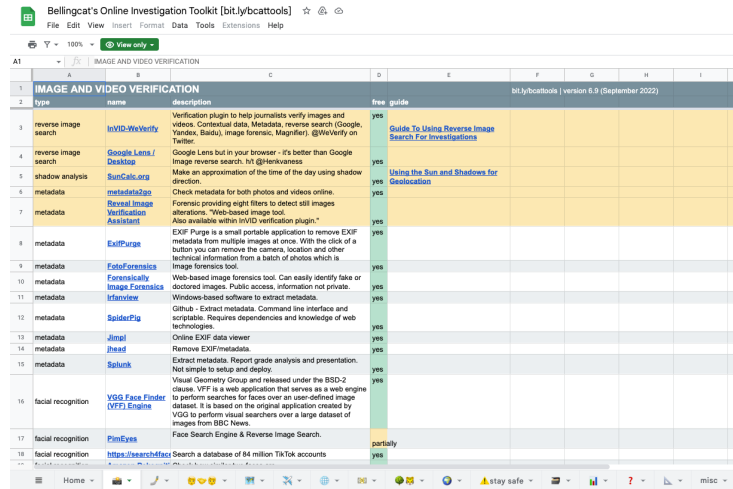
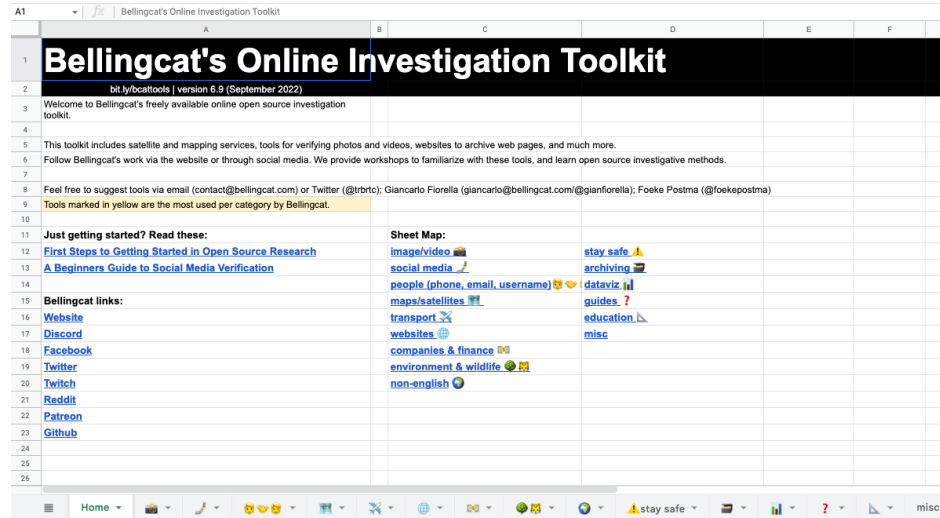
Tools ... (and OSINT)



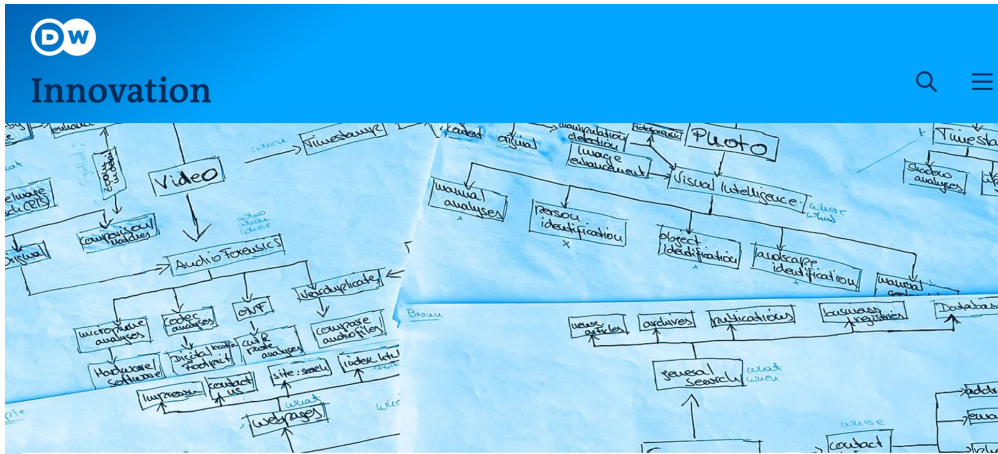
Source: [Nixintel's OSINT list](#)



Source: [Malachy Browne's OSINT list](#)



Source: [Bellingcat](#) (version 6.9)



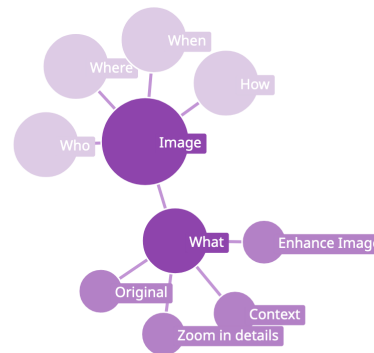
VERIFICATION

How to Verify? Explore Workflows and Tools for Verification

How to verify?

Explore workflows and tools for verification.

Video
Audio
Source
Text
Synthetic media



What

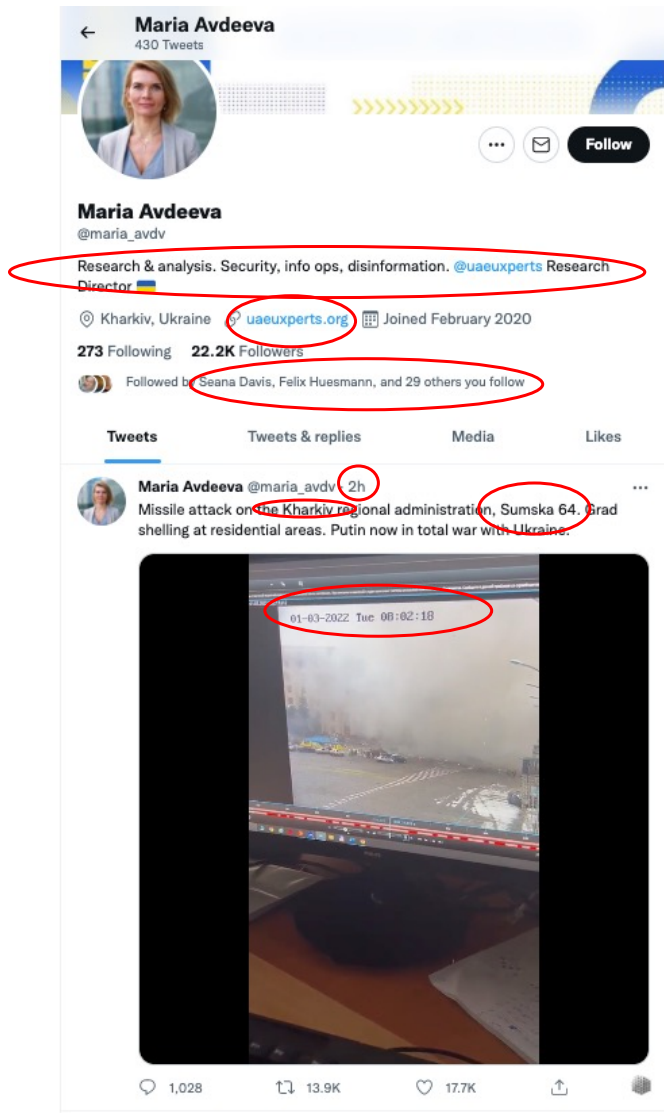
has happened?

The information in the content you are investigating indicates that an event took place. Can you corroborate that the event and the claim shared by the source occurred via other sources? Is there more information available on the event? And are you looking at or listening to the original file or is it a (manipulated) copy?

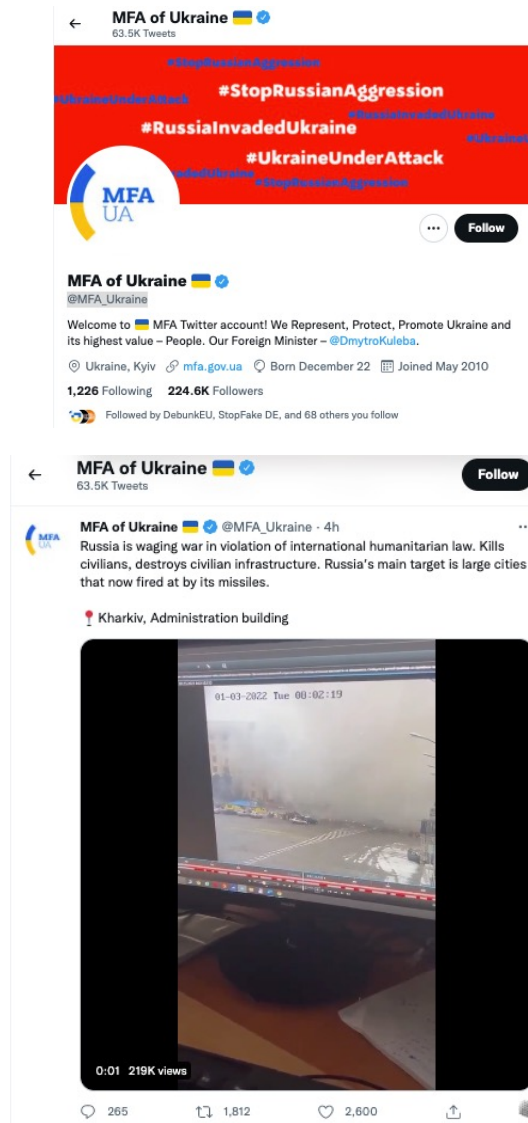
Good to know

- Check local media
- Search cross-medial on different social media platforms
- Reach out to eyewitnesses and reporters on the ground

Example of an investigation
(to illustrate a possible workflow and
digital verification process)



Source: Video shared via [Twitter](#) by @maria_avdv. Screenshot taken on 1 March 2022 at 10.20 CET



Source: Video shared via [Twitter](#) by @MFA_Ukraine. Screenshot taken on 1 March 2022 at 12.03 CET

Taking and checking the location given in the text of the tweet

Sumska St, 64
Kharkiv

Kharkiv Sumska 64

Sumska St, 64
Kharkiv
Kharkivs'ka oblast
Ukraine
61000
Building

Directions Save Nearby Send to your phone Share

Add a missing place
Add your business
Add a label

Photos

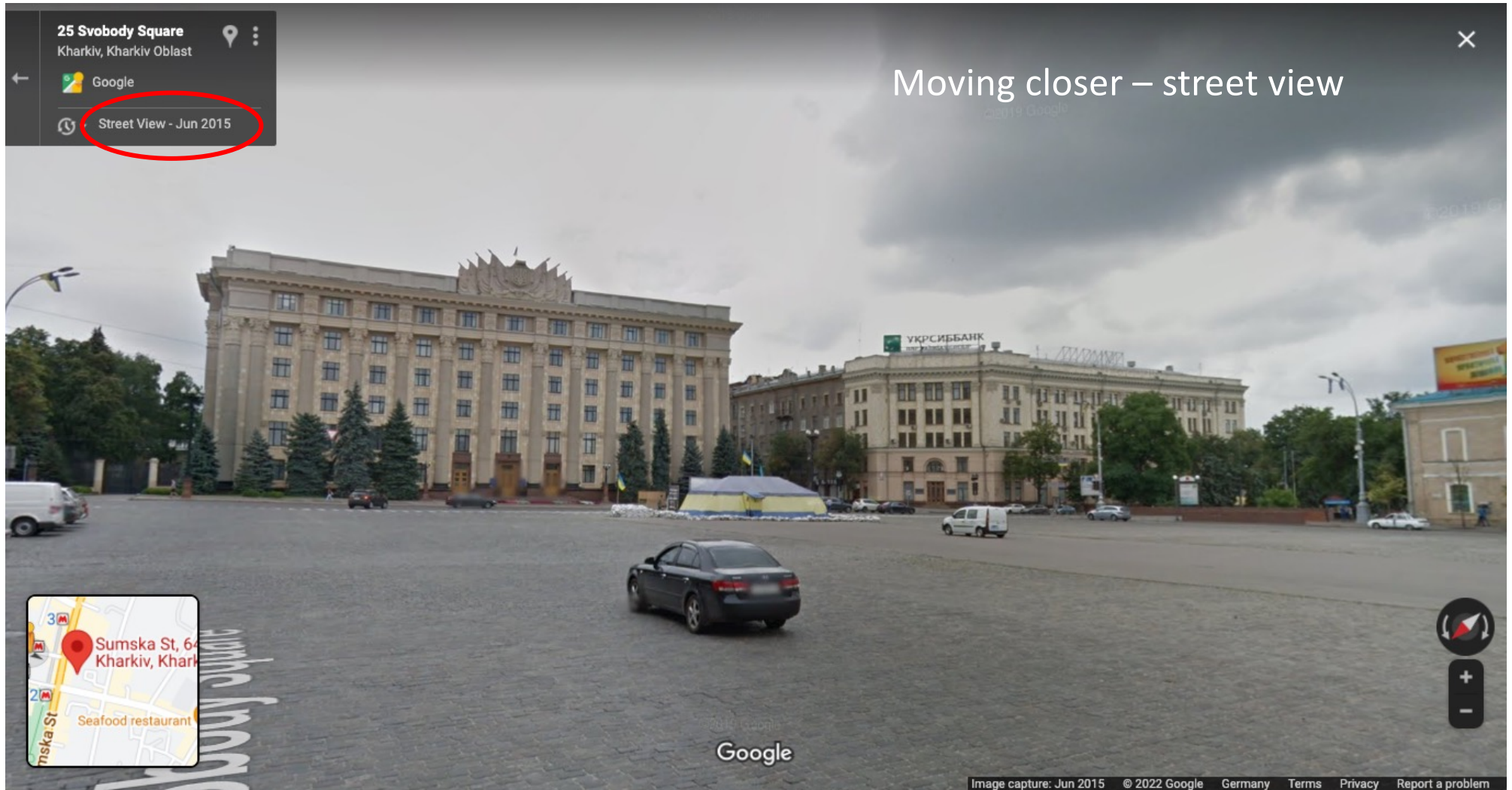
6 Photos

Restroom Туалет

Shevchenko City Garden Міський сад

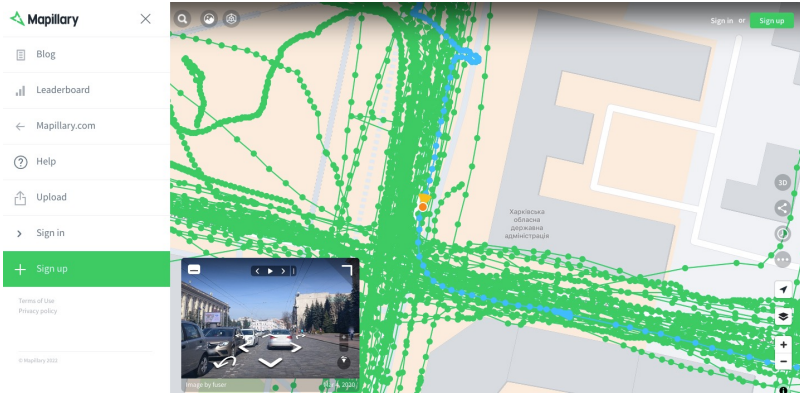
Taras Shevchenko Monument Пам'ятник Тарасу Шевченку Memorial honoring

Source: [Google maps](https://www.google.com/maps)

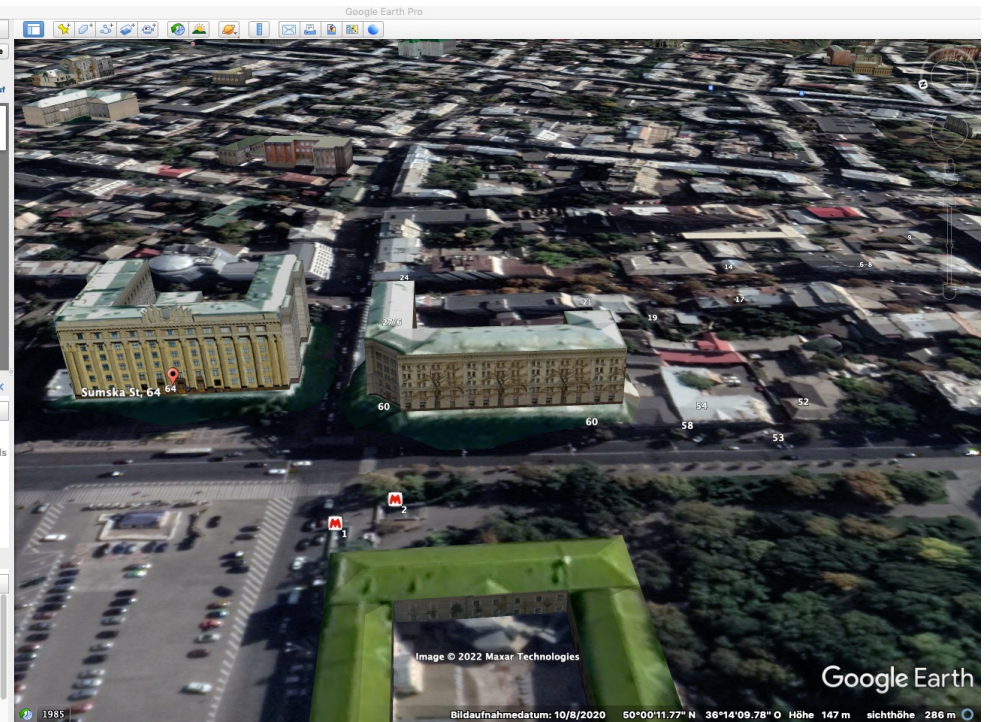
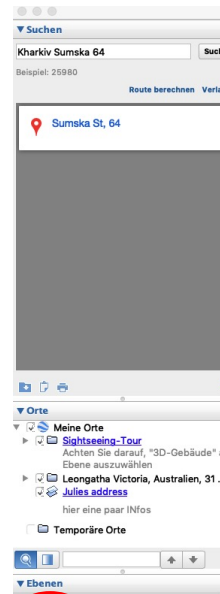


Source: Google maps / Street view

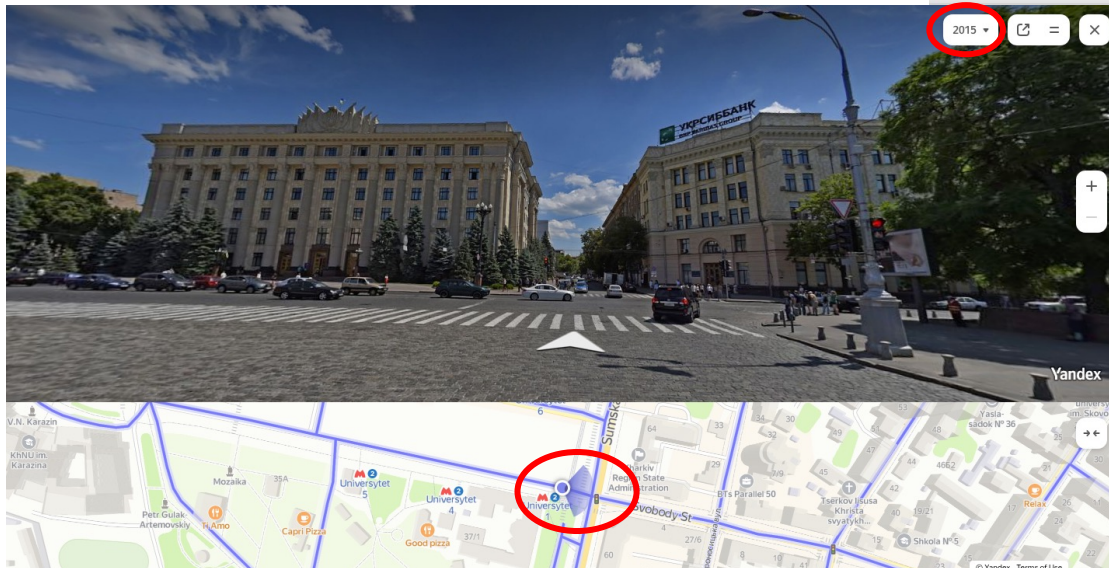
Different mapping / geo tools, different perspectives



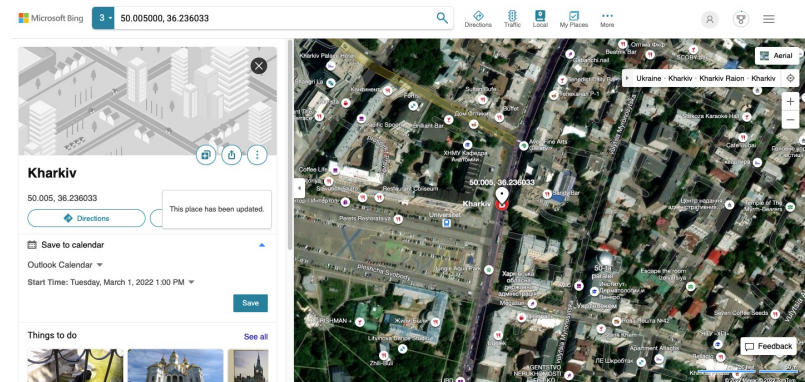
Source: [Mapillary](https://www.mapillary.com)



Source: Google Earth / Maxar



Source: [Yandex Maps](https://yandex.com/maps)



Source: Bing Maps

← **Maria Avdeeva**
430 Tweets



Maria Avdeeva
@maria_avdv

Research & analysis. Security, info ops, disinformation. @uaeuxperts Research Director 🇺🇦

📍 Kharkiv, Ukraine 🔗 uaeuxperts.org 📅 Joined February 2020

273 Following 22.2K Followers

Followed by Seana Davis, Felix Huesmann, and 29 others you follow


Tweets Tweets & replies Media Likes

Maria Avdeeva @maria_avdv · 2h
Missile attack on the Kharkiv regional administration, Sumska 64. Grad shelling at residential areas. Putin now in total war with Ukraine.

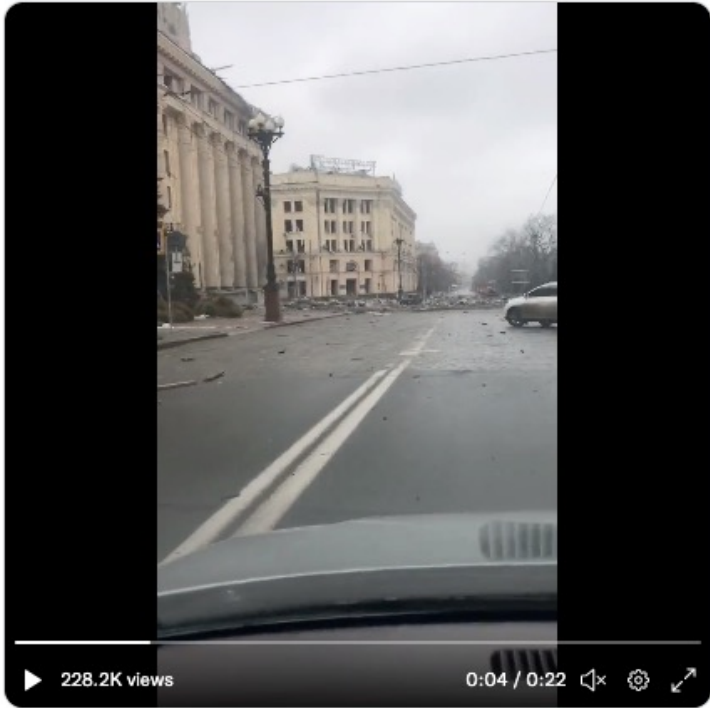


1,028 13.9K 17.7K

Source: Video shared via [Twitter](#) by [@maria_avdv](#).
Screenshot taken on 1 March 2022 at 10.20 CET

 **Euan MacDonald** ✓
@Euan_MacDonald

Video of aftermath of Russian rocket strike in Kharkiv, 0801, March 1, 2022. Target seemed to be Regional Administration Building, but rocket missed. Geolocated at 50.005000, 36.236033.

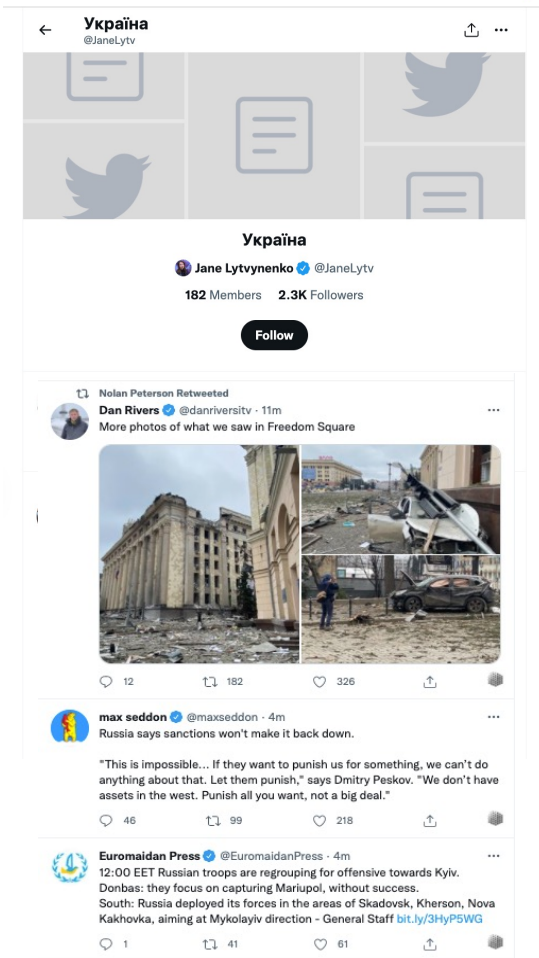


228.2K views 0:04 / 0:22

7:57 AM · Mar 1, 2022 · Twitter Web App

556 Retweets 46 Quote Tweets 1,598 Likes

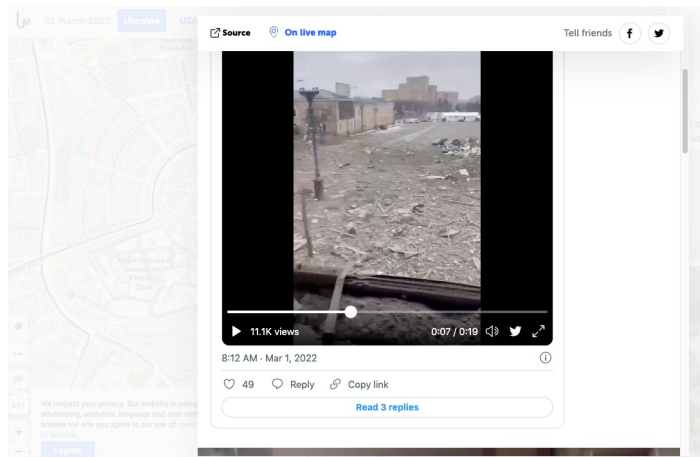
Source: Video shared via [Twitter](#) by [@Euan_MacDonald](#)
Screenshot taken on 1 March 2022 at 10.52 CET



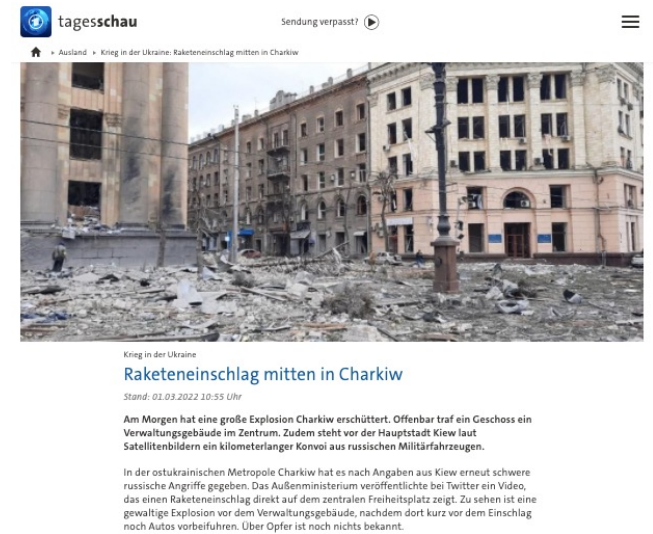
Source: Screenshot of tweets contained in [Jane Lytvinenko's Twitter List](#), taken on 1 March 2022 at 12.16 CET



Source: Screenshot of [tweet](#) by Christo Grozev ([@christogrozev](#)) taken on 1 March 2022 at 12.55 CET



Source: Screenshot of content embedded into [LiveUMap](#) taken on 1 March 2022 at 13.00 CET
Tweet by [@antiputler_news](#) [here](#)



Source: Screenshot of [tagesschau.de](#) taken on 1 March 2022 at 12.21 CET



Source: Pixabay



Francis Scarr
@francska1



Just when you thought 🇷🇺 state TV had stopped surprising you, Gazprom-owned NTV comes out with this:

"In expert opinion it was the 🇺🇦 military who attacked the Kharkiv administration building with a Smerch multiple rocket launcher or an Olkha, its modern 🇺🇦 modification"



8:02 AM · Mar 2, 2022 · Twitter Web App

747 Retweets 215 Quote Tweets 2,513 Likes

Source: [Tweet of Francis Scarr](#), BBC Monitoring, 2 March 2022
Screenshot taken on 2 March 2022 at 14.05 CET



Eliot Higgins @EliotHiggins · 5h

Again, it's no mystery a Russian missile was involved, it was caught on camera just before it exploded. Pathetic war time propaganda from the Russian media.



Source: [Tweet of Eliot Higgins](#), Bellingcat, founder, 2 March 2022
Screenshot taken on 2 March 2022 at 14.10 CET

...



Christo Grozev @christogrozev · 4h

We enhanced the CCTV images from the moment the missile hit the cultural/administrative building in Kharkiv. It matches the contours and dimensions of 3M54-1 Kalibr. Obviously, Ukraine has no such missiles.



Source: [Tweet of Christo Grozev](#), Bellingcat, lead Russia investigator,
2 March 2022. Screenshot taken on 2 March 2022 at 14.13 CET

...



Eliot Higgins

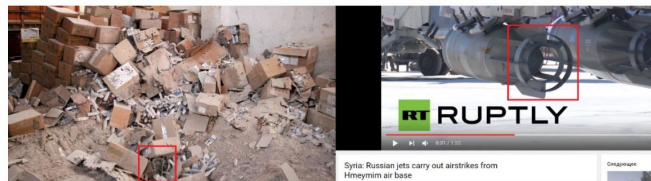
Eliot Higgins is the founder of Bellingcat and the Brown Moses Blog. Eliot focuses on the weapons used in the conflict in Syria, and open source investigation tools and techniques.

Confirmed : Russian Bomb Remains Recovered from Syrian Red Crescent Aid Convoy Attack

September 22, 2016 Russia Syria

Translations: [Русский](#)

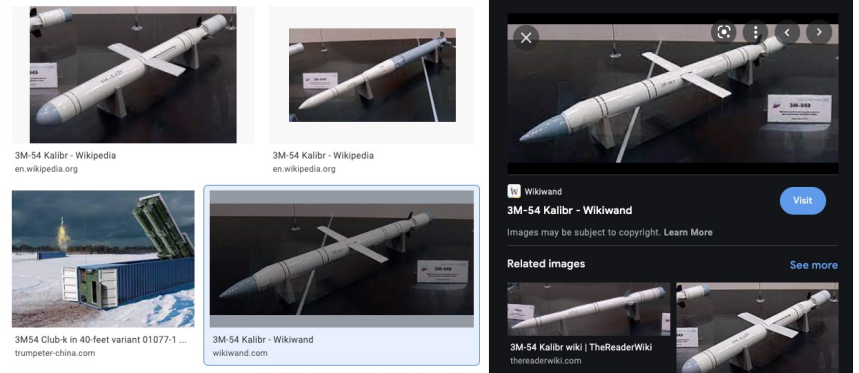
Yesterday, [Bellingcat](#) published [its report](#) on the bombing of the Syrian Red Crescent aid convoy on September 19th. The report examined various aspects of the attack using open source information, including the comparison of what appeared to be the tail section of a OFAB 250-270 bomb that appeared in images from the attack, first published by [CIT](#):



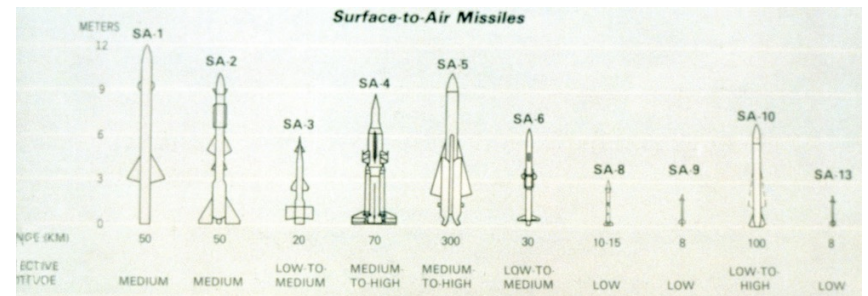
Conflict Intelligence Team comparison of debris found in crater and an OFAB 250-270. [Source](#)

Since the post was published the Bellingcat team has been in touch with the Syrian Civil Defence unit closest to the attacked site, who recovered and photographed two pieces of debris, including the object featured above.

Source: [Bellingcat](#)



Source: Google image search "3M54-1"

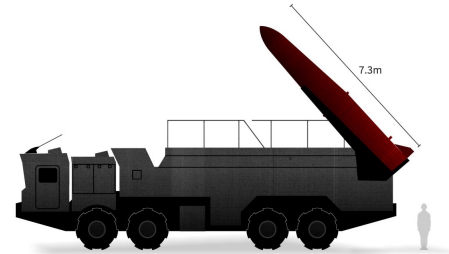


Source: [picryl.com](#)



Weapons of the war in Ukraine

By Gerry Doyle, Samuel Granados, Michael Ovaska and Prasanta Kumar Dutta
PUBLISHED MARCH 10, 2022

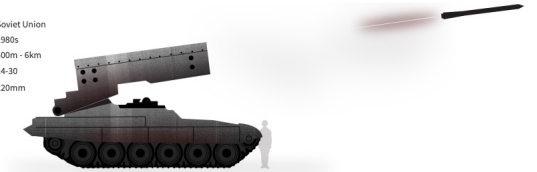


9K720 Iskander

ORIGINATED FROM Russia
IN SERVICE 2006
RANGE 400-500km
PAYLOAD 700kg
CAPACITY 2 ballistic or cruise missiles

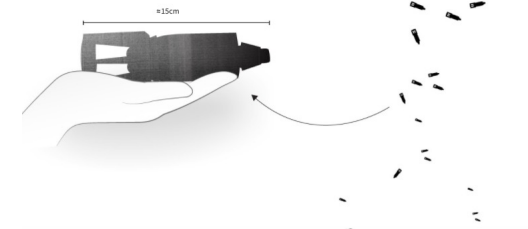
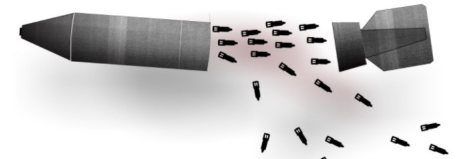
Source: Center for Strategic and International Studies

ORIGINATED FROM Soviet Union
IN SERVICE 1980s
FIRING RANGE 400m - 6km
LAUNCH TUBES 24-30
CALIBER 220mm

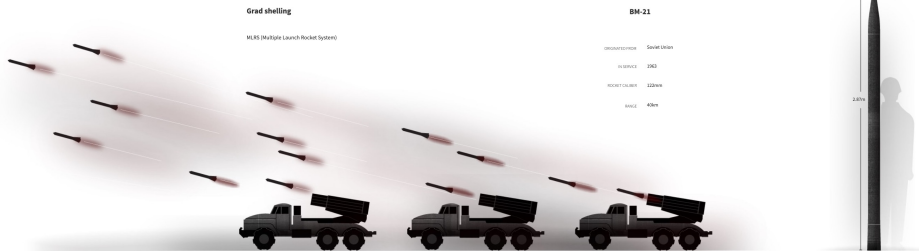


Cluster munitions

Amnesty International and Human Rights Watch both said that Russian forces appeared to have used widely banned cluster munitions, with Amnesty accusing them of attacking a preschool in northeastern Ukraine while civilians took shelter inside.



Source: Rosobornexport, Geneva International Centre for Humanitarian Demining



Grad shelling

BM-21 (Multiple Launch Rocket System)

BM-21

ORIGINATED FROM Soviet Union
IN SERVICE 1963
LAUNCH TUBES 12/24/36
RANGE 40km

Source: Rosobornexport, US Army



Guerrilla

The population has been asked to remove road signs to make it difficult for Russian soldiers to orient themselves.

Molotov cocktail

The Ukrainian government is using social media to share instructions on how to throw Molotov cocktails at vulnerable areas of Russian vehicles.

Barricades

Ukrainians have made metal anti-tank barricades known as "hedgehogs", and smaller spiked barriers aimed at stopping wheeled vehicles.

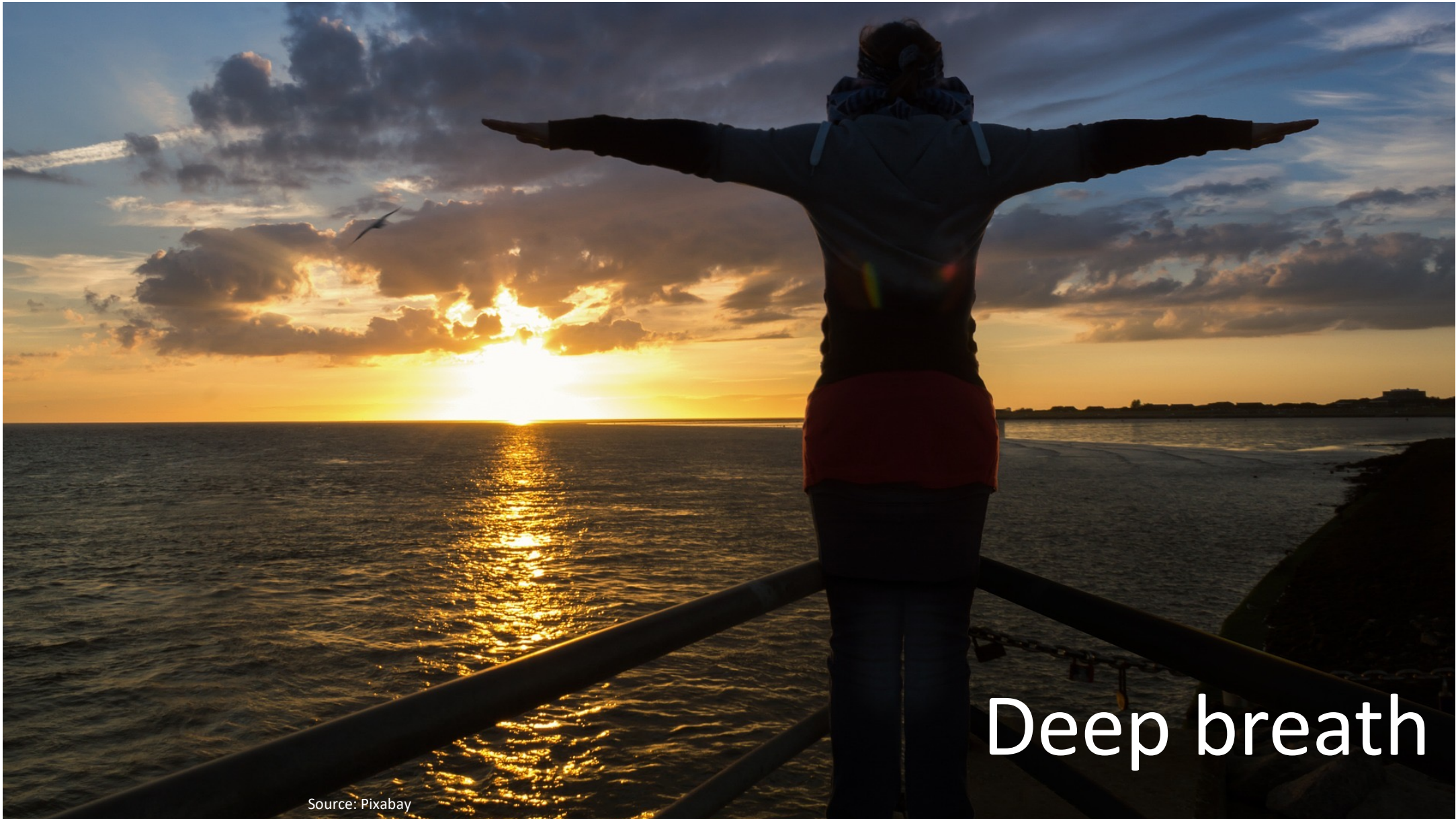
MBT

Main battle tank

BMP

Infantry fighting vehicle





Deep breath

Source: Pixabay



vera.ai



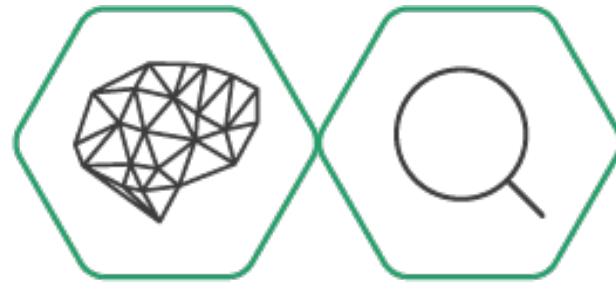
Some context



2016-2018



Sources: respective copyright holders



vera.ai

Sep 2022-Sep 2025



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Of
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VAN AMSTERDAM



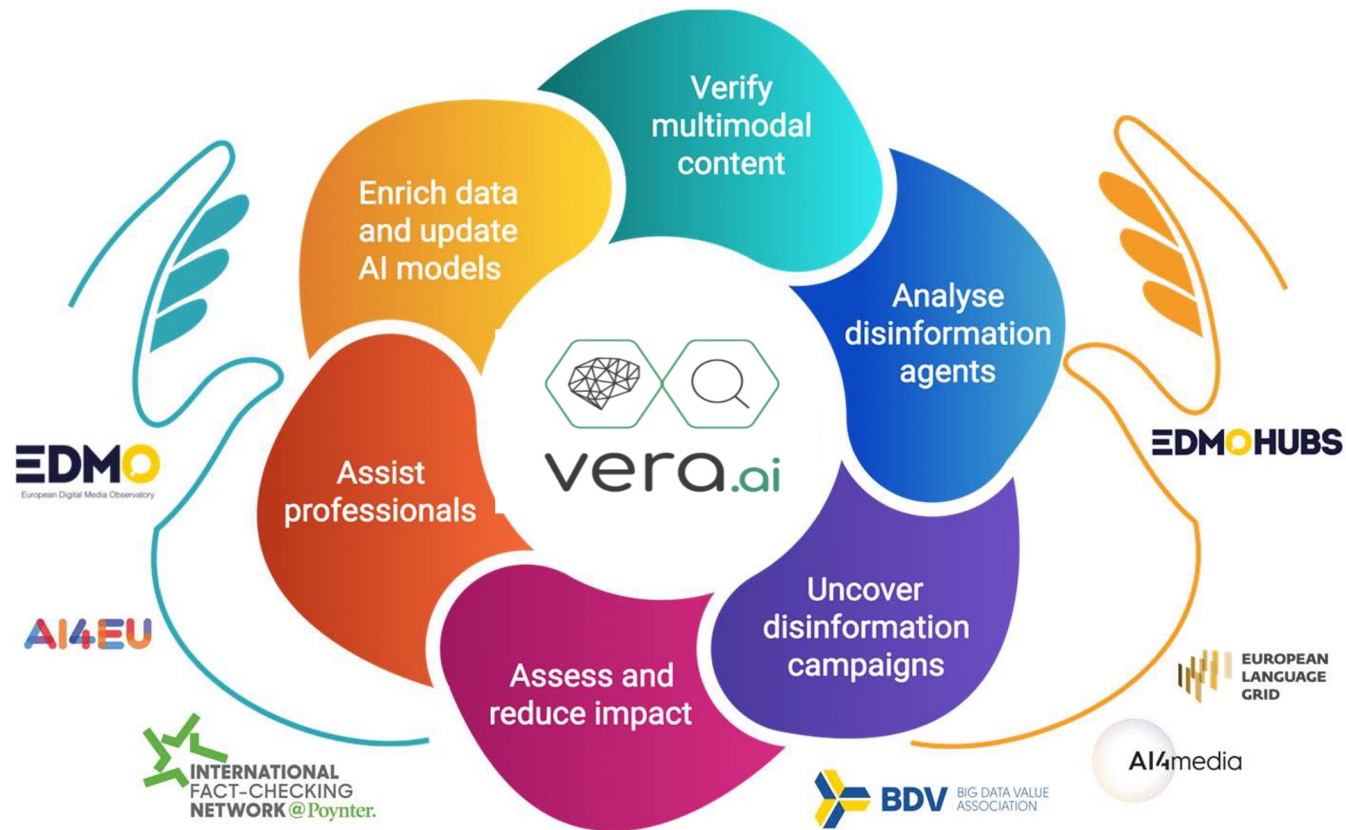
 ontotext



1506
UNIVERSITÀ
DEGLI STUDI
DI URBINO
CARLO BO

Overall aims and concept

Develop novel AI- and network science-based methods that assist verification professionals throughout the complete content verification workflow.



Some verification assistants by vera.ai


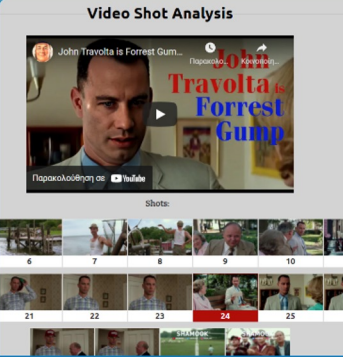



Image Verification Assistant
Detect digital tampering in images.



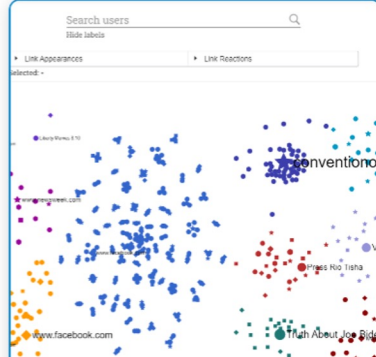
Video Shot Analysis
Check if media contains deepfake manipulated faces




Location Estimation
Infer the location of an image purely based on its visual content



Context aggregation and analysis
Preview and analyze useful metadata around an online image or video




NetworkX Visualization
Interactively visualize the interactions of online communities



Rumour veracity classifier
Classifies tweets based on whether the claims they make are true, false or unverifiable.

1,200 free requests / day
Larger batches **GBP0.80 / CPU hour**



WeVerify OCR Service
This pipeline identifies URLs in the input text and tries to process them with optical character recognition to identify text in images.

150 free requests / day
Batch processing not available

What is “the plug-in”?

In short: “outward facing”: a freely available browser extension for the analysis of digital content (mainly images and videos), optimised for Chrome, available to anyone, for free

The screenshot displays the vera.ai website interface. At the top, there are logos for WeVerify, InVID, and vera.ai, followed by navigation links: TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT. The language is set to English. A sidebar on the left lists 'VERIFICATION' tools: Tools, Video, Image, Search, and Data analysis, along with 'MORE' options like About. The main content area is titled 'Tools' and features a 'Video' tab selected among 'Video', 'Image', 'Search', and 'Data Analysis'. Under the 'Video' tab, there are five tool cards: 'Video analysis' (contextual info for YouTube/Facebook), 'Keyframes' (video fragmentation for reverse image search), 'Thumbnails' (reverse search of YouTube video thumbnails), 'Video rights' (legal rights info for YouTube/Twitter), and 'Metadata' (extracts metadata for images/videos). A 'Logout' button is visible in the top right. A 'Feedback' button is in the bottom right. The source is cited as 'vera.ai project / consortium'.

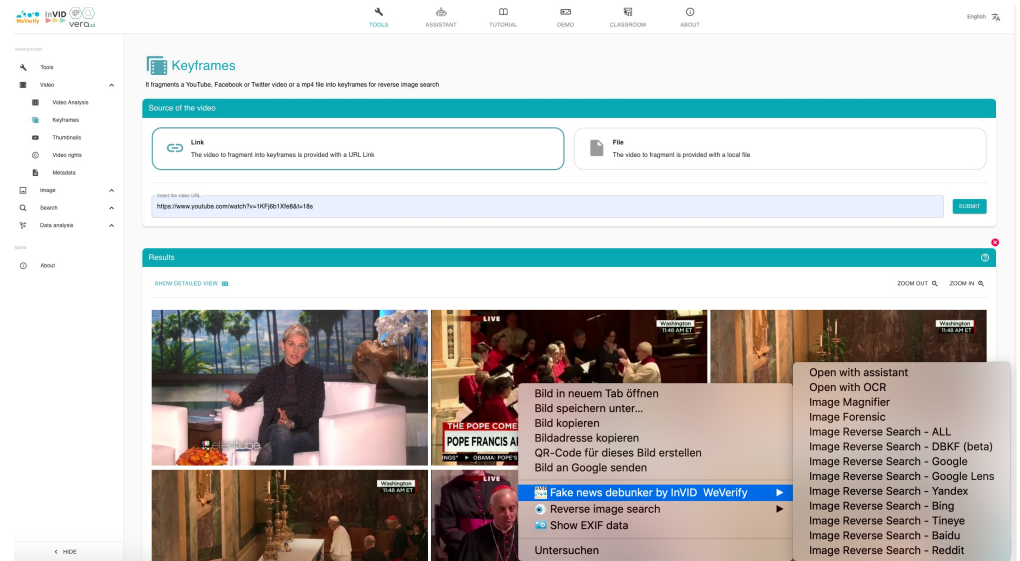
What is it and what's it for?

Combines numerous features















- From third parties
- Own developments / exclusive services

Main usage by

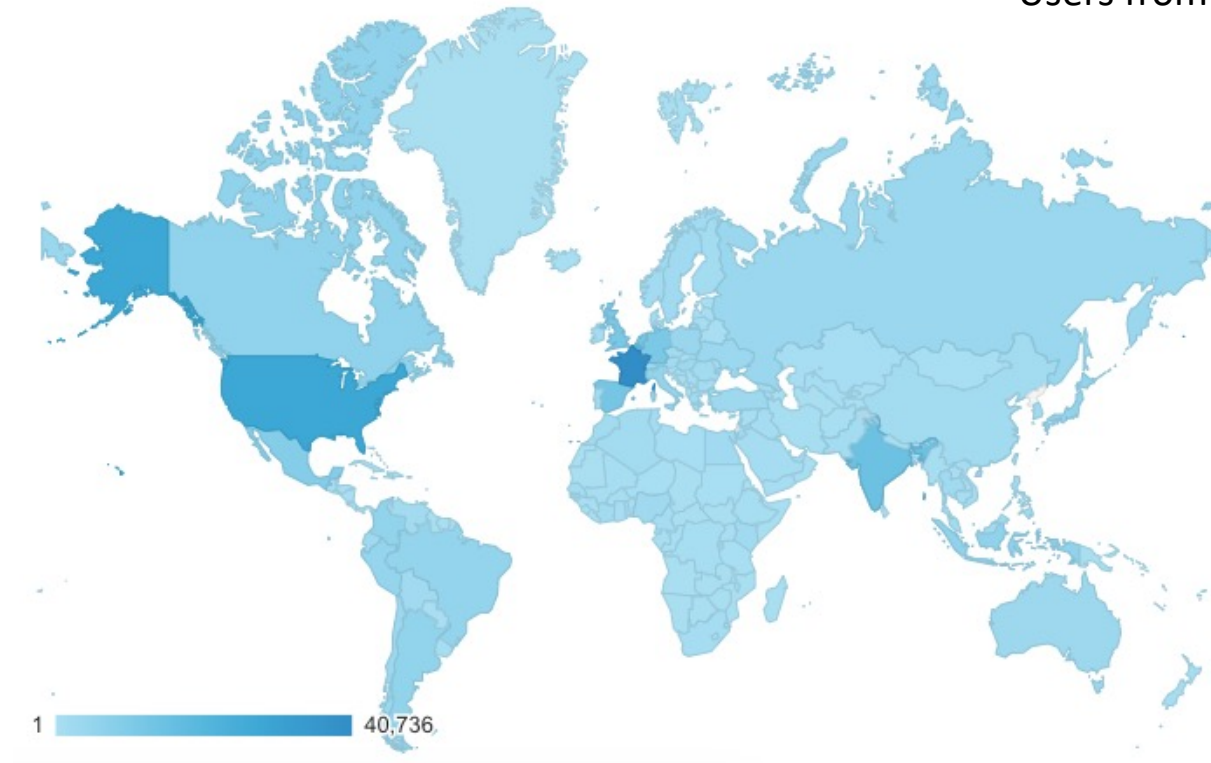
- Media workers (journalists, fact-checkers etc)
- Human rights (abuse) investigators
- OSINT community
- (Law enforcement, other investigators)



Usage of the verification plugin

1.	 France	40,736 (12.68%)
2.	 United States	27,150 (8.45%)
3.	 Belgium	21,037 (6.55%)
4.	 India	15,068 (4.69%)
5.	 Spain	12,471 (3.88%)
6.	 Netherlands	11,959 (3.72%)
7.	 Germany	11,501 (3.58%)
8.	 United Kingdom	11,277 (3.51%)
9.	 Mexico	9,103 (2.83%)
10.	 Indonesia	6,215 (1.93%)
11.	 Canada	6,200 (1.93%)
12.	 Argentina	5,594 (1.74%)
13.	 Colombia	5,593 (1.74%)
14.	 Japan	5,491 (1.71%)
15.	 Italy	5,409 (1.68%)
16.	 Brazil	5,357 (1.67%)
17.	 Peru	5,003 (1.56%)
18.	 Poland	4,249 (1.32%)
19.	 Russia	3,905 (1.22%)
20.	 Ukraine	3,609 (1.12%)

75,000+ active weekly users
100,000+ users overall
Users from 225 countries



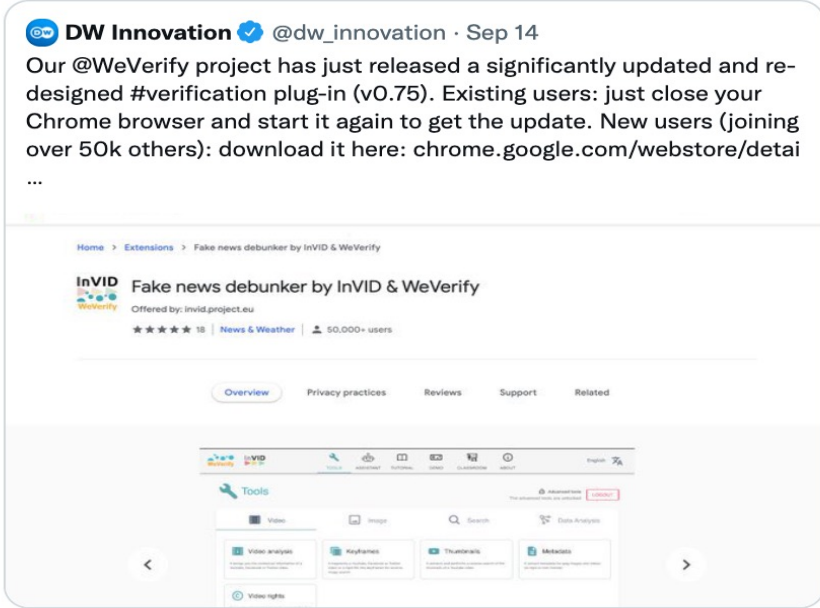
Sources: vera.ai consortium

What others say

InVID_EU Retweeted

Craig Silverman @CraigSilverman · Sep 14
Good morning to the lovely redesigned InVID/WeVerify browser extension, one of the best verification tools out there! Go install this now if you don't already use it.


DW Innovation @dw_innovation · Sep 14
Our @WeVerify project has just released a significantly updated and re-designed #verification plug-in (v0.75). Existing users: just close your Chrome browser and start it again to get the update. New users (joining over 50k others): download it here: chrome.google.com/webstore/detail/



2 12 28

Jane Lytvynenko @JaneLytv · Apr 9, 2020
InVid is indispensable!

Jochen Spangenberg @jospang · Apr 9, 2020
Thanks @JaneLytv for featuring our 'free for all' @WeVerify/@InVID_EU #verification and digital content analysis tool in your talk with @amtremonti / @cjffjc on countering #misinformation. Showcase: the hand-washing orang-utan. #jtalkslive. More info: weverify.eu/verification-p...

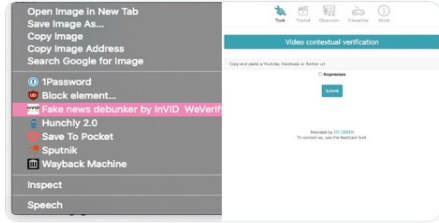


Thread

Jane Lytvynenko @JaneLytv · 2 Nov
Replying to @JaneLytv
The vast majority of false information we see comes in the form of images, videos, and memes. Be on the lookout for those and don't share without checking.

On your comp?
Get @InVID_EU. (Chrome: chrome.google.com/webstore/detail/)

Use it to reverse image search + break down vids.



8 231 695

Sources: Twitter screenshots dated 14 Sep 2021 (left) and 9 April 2020 / 25 Oct 2021 (right)

Getting started – getting the WeVerify browser extension / plug-in

chrome web store

jospange@googlemail.com

Home > Extensions > Fake news debunker by InVID & WeVerify

InVID Fake news debunker by InVID & WeVerify [Remove from Chrome](#)

WeVerify Featured

★★★★★ 25 News & Weather | 100,000+ users

Overview Privacy practices Reviews Support Related

Tools Advanced tools [Logout](#)

Video analysis: Extracts the contextual information of a Facebook, Facebook or Twitter video.

Keyframes: Extracts or highlights Facebook or Twitter video or a specific time-spaces for accurate image search.

Thumbnails: Extracts and performs a reverse search of the thumbnails of a Facebook video.

Metadata: Extracts metadata for any images and videos (by type or meta-data).

Video rights: Provides information about the legal rights of a Facebook or Twitter video.

Feedback

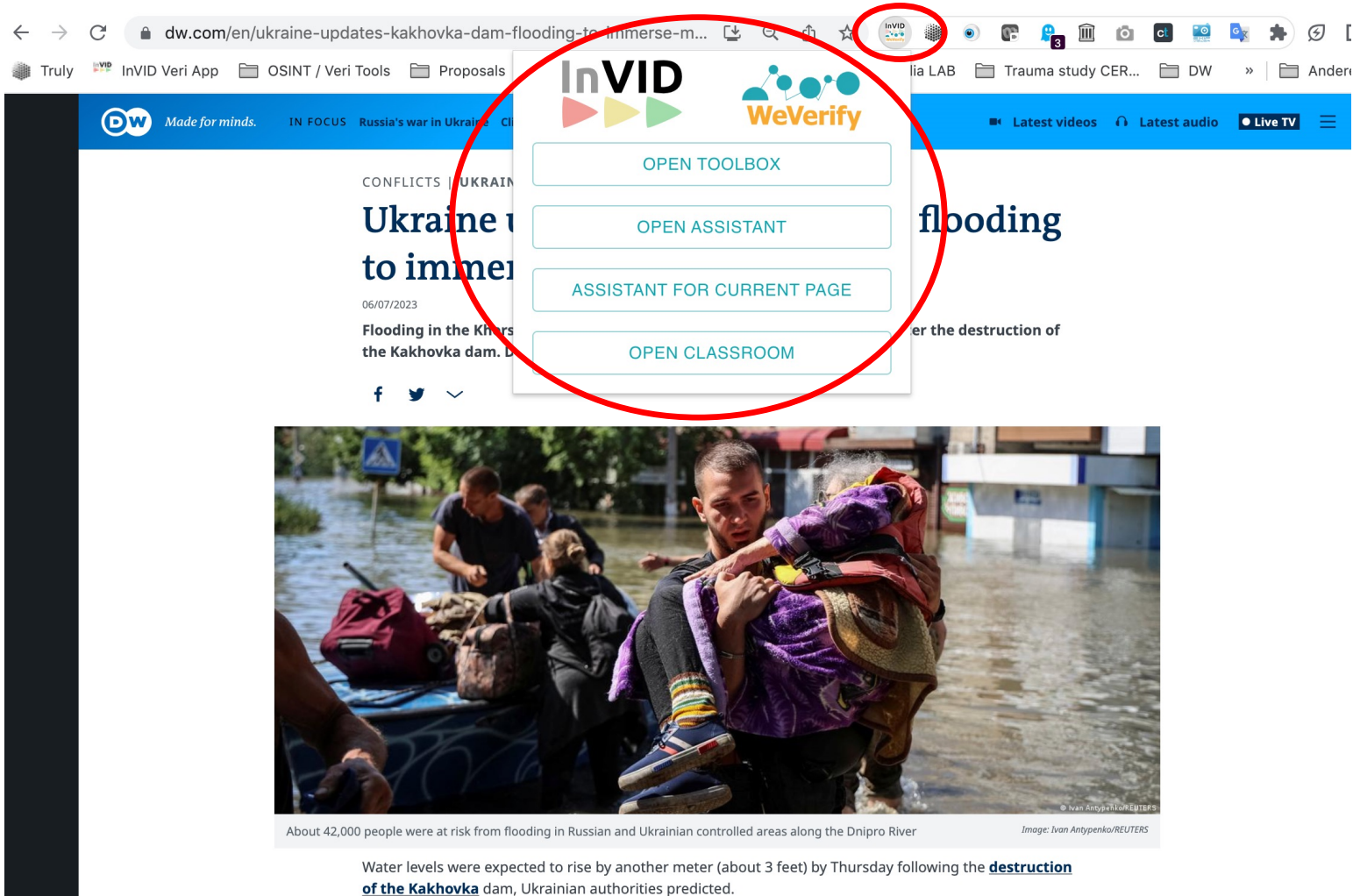
Source: [Chrome store](#)

Getting started – having the WeVerify browser extension / plug-in



Sources: screenshot Chrome browser bar

Getting started – one way



The screenshot shows a web browser with the URL dw.com/en/ukraine-updates-kakhovka-dam-flooding-to-immense-m.... The InVID-WeVerify browser extension is active, displaying a menu with the following options:

- OPEN TOOLBOX
- OPEN ASSISTANT
- ASSISTANT FOR CURRENT PAGE
- OPEN CLASSROOM

The background article is titled "Ukraine flooding" and includes the sub-headline "to immerse". The date is 06/07/2023. The main text reads: "Flooding in the Kherson region after the destruction of the Kakhovka dam." Below the article is a photograph of a man carrying a child on his shoulders while wading through floodwaters. The caption below the photo states: "About 42,000 people were at risk from flooding in Russian and Ukrainian controlled areas along the Dnipro River". The image credit is "Image: Ivan Antypenko/REUTERS".

Sources: DW website and InVid-WeVerify-vera.ai browser extension

Getting started – another way

The image shows a Twitter search for "Kakhovka Dam" in the "Photos" tab. A tweet by Olga Stefanishyna is visible, featuring an aerial photograph of a flooded residential area. A context menu is open over the image, listing various actions. A red circle highlights the "Fake news debunker by InVID WeVerify" option, which is highlighted in blue. Other options in the menu include "Link in neuem Tab öffnen", "QR-Code für dieses Bild erstellen", "Bild in neuem Tab öffnen", "Reverse image search", and "Welcome to the Wayback Machine".

Sources: Twitter and InVid-WeVerify-vera.ai browser extension

Quick walk-through



 TOOLS

 ASSISTANT

 TUTORIAL










 DEMO

 CLASSROOM

 ABOUT

English 


VERIFICATION

-  Tools
-  Video 
-  Image 
-  Search 
-  Data analysis 

MORE

-  About

Tools

 **Advanced tools**
The advanced tools are unlocked [LOGOUT](#)

 Video

 Image

 Search

 Data Analysis

 **Video analysis**

It brings you the contextual information of a Youtube or Facebook public video. Twitter video analysis is deprecated due to a change of policy.

 **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)

Sources: vera.ai

Quick walk-through



 TOOLS

 ASSISTANT

 TUTORIAL






 DEMO

 CLASSROOM

 ABOUT

English 


VERIFICATION

-  Tools
-  Video ▼
-  Image ▼
-  Search ▼
-  Data analysis ▼

MORE

-  About

Tools

 **Advanced tools**
The advanced tools are unlocked [LOGOUT](#)


 Video


 **Image**


 Search


 Data Analysis

 **Image analysis** NEW
It brings you contextual information of an image posted on Facebook or Twitter

 **Magnifier**
It provides a magnifying lens and a photo editor to help you examine an image thoroughly

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

 **Forensic** NEW
It provides an enhanced toolkit to detect image forgeries

 **OCR** NEW
It provides optical character recognition for texts in images

 **CheckGif** NEW 
It compares an original image and a tampered one (including if the image has been cropped) and generates a GIF as output

Sources: vera.ai

Quick walk-through



 TOOLS

 ASSISTANT

 TUTORIAL






 DEMO

 CLASSROOM

 ABOUT

English 


VERIFICATION

-  Tools
-  Video ▼
-  Image ▼
-  Search ▼
-  Data analysis ▼

MORE

-  About

Tools

 **Advanced tools**
The advanced tools are unlocked [LOGOUT](#)

 Video


 Image

 **Search**

 Data Analysis

 **Twitter search**

It performs advanced search queries on Twitter including by time interval up to the minute

 **Factchecks**

NEW

It provides a customised search engine of Factchecks.

 **XNetwork**

NEW

It provides a customised search engine for cross-network queries.

Quick walk-through



 TOOLS

 ASSISTANT

 TUTORIAL






 DEMO

 CLASSROOM

 ABOUT

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VERIFICATION

-  Tools
-  Video ▼
-  Image ▼
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-  Data analysis ▼

MORE

-  About

Tools

 **Advanced tools**
The advanced tools are unlocked [LOGOUT](#)

 Video

 Image

 Search

 **Data Analysis**

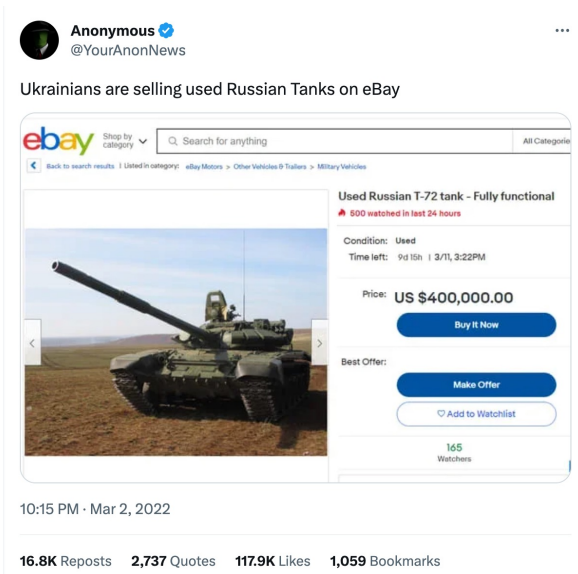
 **Twitter SNA.** 
It performs social network analysis on Twitter (available on registration)

 **CSV Analysis**
It performs social network analysis from a CrowdTangle export

Selected scenarios / use cases:
going live!



1: Investigating an image found online



Source: [Tweet of @YourAnonNews](#). Screenshot taken on 06 Sep 2023 at 10.47 am CET

Questions / investigation:

- Was the photo of this tank taken recently?
- Is it likely that this photo depicts a tank captured by the Ukrainian military?

2: Investigating an image you were sent



Source: Screenshot of a personal image

Questions / investigation:

- When was the image taken?
- Where was it taken?
- Context?

3: Investigating a video



Source: The Ellen Degeneres Show – Onlineversion [here](#)

Questions / investigation:

- Is this real?

A large, round hay bale is the central focus of the image, positioned in a field of harvested crops. The hay is golden-brown and tightly packed. In the background, several other smaller hay bales are visible, and the horizon shows a line of trees under a bright blue sky with scattered white clouds. The overall scene is a rural landscape during a clear day.

Rounding up (1): the verification plug-in

Source: Pixabay

There's a lot in it (1)

e.g. video analysis



TOOLS

ASSISTANT

TUTORIAL

DEMO

CLASSROOM

ABOUT

English

- VERIFICATION
 - Tools
 - Video
 - Video Analysis
 - Keyframes
 - Thumbnails
 - Video rights
 - Metadata
 - Image
 - Image Analysis
 - Magnifier
 - Metadata
 - Forensic
 - OCR
 - CheckGif
 - Search
 - Data analysis
- MORE
 - About

Video analysis

It brings you the contextual information of a Youtube or Facebook public video. Twitter video analysis is deprecated due to a change of policy.

Source of the video

Youtube or Facebook link

Reprocess

Results

The Pope's Astonishing Feat

2015-09-30, 18:00:00 UTC



Video description

During his American tour, the Pope wowed a crowd with an amazing trick!

Video view count	1384840
Like count	9619
Dislike count	722
Duration	00:00:51
Licensed content	true
Upload time	2015-09-30, 18:00:00 UTC Convert to local time

Channel: TheEllenShow

The place for laughs, joy, stars, surprises, and everything Ellen.

Channel created time	2006-11-21, 04:53:43 UTC Convert to local time
Channel view count	22593725502
Channel page	https://www.youtube.com/channel/UCp0hYYBW6iMayGgR-WeoCvQ
Number of subscribers	38300000

Video comments:

All comments (271)

There's a lot in it (2)

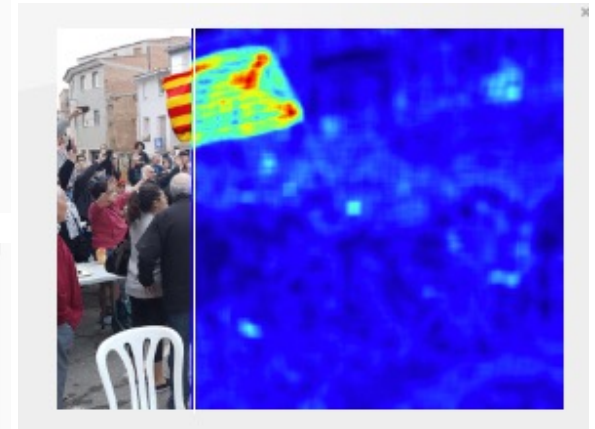
e.g. keyframe extraction

The screenshot displays the Keyframes website interface. At the top, there are navigation links: TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT. The main heading is "Keyframes" with a subtext: "It fragments a YouTube, Facebook or Twitter video or a mp4 file into keyframes for reverse image search." Below this, there are two input fields: "LINK" (with a URL: https://youtu.be/KFjts1Wd) and "FILE". A "SEARCH" button is located to the right of the "LINK" field. Below the input fields, there is a section titled "Video found in the DBKF database" and a "Results" section. The results are displayed as a grid of six video thumbnails. The first thumbnail shows Ellen DeGeneres on her show. The other five thumbnails show Pope Francis at a meeting, with a "LIVE" indicator and a "CNN" logo. Each thumbnail includes a timestamp "Washington 11:48 AM ET" and a news ticker at the bottom: "THE POPE COMES TO AMERICA POPE FRANCIS ARRIVES FOR U.S. BISHOPS' MEETING".

There's a lot in it (3)

e.g. image forensics

The screenshot shows the InVID Forensic web application interface. At the top, there is a navigation bar with icons for TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT. The main header area includes the 'Forensic' logo and a description: 'It provides an enhanced toolkit to detect image forgeries'. Below this, there are two input modes: 'Link mode' (Provide a URL Link towards a jpeg / jpg image) and 'File mode' (The image to analyze is provided with a local file). A sidebar on the left contains navigation options: Tools, Video, Image, Search, Data analysis, and About. The main content area displays a sample image of a crowd with a Spanish flag. Below the image, there are sections for 'Enhancers' (Map 0, Map 1, Map 2) and 'JPEG-Based' (Map 3 to Map 9) analysis tools. The 'JPEG-Based' section includes a 'Warnmap' checkbox and a 'Quality: 100' slider. The 'Noise-Based' section (Map 10, Map 11) includes 'Splicebuster' and 'High frequency noise (WAVELETT)'. A 'Logout' button is visible in the top right corner.



There's a lot in it (4)

e.g. OCR

The screenshot shows the WeVerify OCR interface. The 'Source of the image' section contains the URL: https://english.aawsat.com/sites/default/files/styles/article_img_top/public/2020/11/07/a_girl_carries_a_sign_reading_in_arabic_your_remaining_in_iraq_is_playing_with_fire_during_a_demonstration_outside_the_entrance_to_baghdads_green_zone_on_november_7_2020_alp.jpg?tok=GrIDuJ5W. The 'Image Analysed' section shows a photo of a girl holding a sign with Arabic text. The 'Blocks' section shows the extracted text: 'بقائكم في العراق هو لعب بالنار'. The 'Complete Text' section shows the full text: 'بقائكم في العراق هو لعب بالنار'. The 'Google Translate' interface shows the detected language as 'ARABIC - DETECTED' and the translation: 'Your stay in Iraq will be burned by fire'. Red circles and arrows highlight the sign in the image, the extracted text blocks, the detected language 'Arabic', and the Google Translate output.

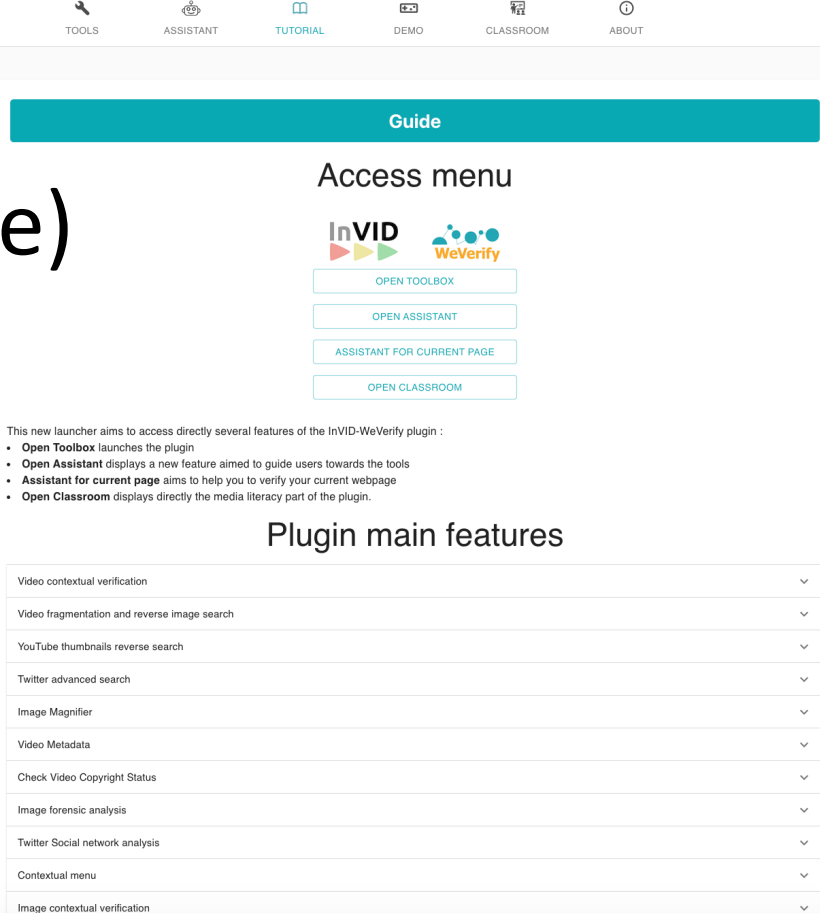
Source: WeVerify screenshot of OCR component

Note / detailed info: technically speaking, OCR doesn't support any languages at all. It has models for scripts, not languages. Specifically it has models for **Arabic, Bengali-Assamese, Cyrillic, Devanagari, Han (both simplified and traditional), Hangul, Hiragana and Katakana, Latin, Tamil, and Telugu.**

The process works by attempting to auto detect the script in use, and then use the right model (or you can set the script model manually -- at least via the API). The model for the script is then used to perform OCR which just produces a series of characters.

Advice for use in verification work (if desired and planned)

- Familiarise with tool and features (this takes some time)
- See what's in it and useful for you – and forget about the rest 😊
- Practice usage



The screenshot displays the top navigation bar of the InVID-WeVerify plugin with icons for TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT. Below this is a teal 'Guide' button and an 'Access menu' containing four buttons: 'OPEN TOOLBOX', 'OPEN ASSISTANT', 'ASSISTANT FOR CURRENT PAGE', and 'OPEN CLASSROOM'. The logos for InVID and WeVerify are also visible.

This new launcher aims to access directly several features of the InVID-WeVerify plugin :

- **Open Toolbox** launches the plugin
- **Open Assistant** displays a new feature aimed to guide users towards the tools
- **Assistant for current page** aims to help you to verify your current webpage
- **Open Classroom** displays directly the media literacy part of the plugin.

Plugin main features

Video contextual verification	▼
Video fragmentation and reverse image search	▼
YouTube thumbnails reverse search	▼
Twitter advanced search	▼
Image Magnifier	▼
Video Metadata	▼
Check Video Copyright Status	▼
Image forensic analysis	▼
Twitter Social network analysis	▼
Contextual menu	▼
Image contextual verification	▼

Advanced tools for journalists

Advanced tools are reserved for factcheckers, journalists and researchers

The screenshot displays the WeVerify InVID Tools interface. At the top, there is a navigation bar with icons for TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT, along with a language selector set to English. Below the navigation bar, the main content area is titled 'Tools' and features a grid of tool cards under the 'Image' category. The tools include Image analysis, Magnifier, Metadata, Forensic, OCR, and CheckGif. A red circle highlights the 'Advanced tools' section in the top right corner, which contains a lock icon, the text 'Advanced tools', 'The advanced tools are locked', and a 'LOGIN' button. A red arrow points from this circle to a yellow warning banner at the bottom of the page. The banner contains a warning icon and the text: 'This tool is reserved for journalists, fact checkers and researchers; you need to unlock the advanced tools in the upper right corner of the Tools page to apply and use it.' A 'Feedback' button is located in the bottom right corner.

Registration for advanced tools

3
Once you get the notification approval, ask for an access code with the same email address you used to register

1 Advanced tools
The advanced tools are locked [LOGIN](#)

Advanced tools

Access to advanced tools is reserved for journalists, fact-checkers and researchers. You need to apply and register to use them.

Already registered? Get an access code:

Email **3**

[GET AN ACCESS CODE](#)

Do you already have a code [Click here](#)

2

Not already registered? Register for an access to the service:

[REGISTER](#)

[Feedback](#)

If you use it: feedback please 😊



TOOLS

ASSISTANT

TUTORIAL

DEMO

CLASSROOM

ABOUT

English 🌐

VERIFICATION

Tools

Video

Video Analysis

Keyframes

Thumbnails

Video rights

Metadata

Image

Image Analysis

Magnifier

Metadata

Forensic

OCR

CheckGif

< HIDE

Tools

Advanced tools
The advanced tools are unlocked [LOGOUT](#)

Video

Image

Search

Data Analysis

Video analysis

It brings you the contextual information of a Youtube or Facebook public video. Twitter video analysis is deprecated due to a change of policy.

Keyframes

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

Thumbnails

It extract

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)

Send Feedback Close

Feedback type

Bug Improvement Feature

Message

Your message... Add your email if you want us to contact you

SEND FEEDBACK

Feedback

Way ahead – what next?



AI is all around ...



Eliot Higgins
@EliotHiggins

Making pictures of Trump getting arrested while waiting for Trump's arrest.



10:22 PM · Mar 20, 2023 · 6.4M Views

5,454 Retweets 2,312 Quotes 40.5K Likes 3,159 Bookmarks

Source: automatically created with Midjourney v5, by Eliot Higgins (shared via [Tweet of 20 March 2023](#)). Screenshot taken on / figures of 3 April 23.15 pm

The Washington Post
Democracy Now in Peril

Politics Fact Checker Biden administration The 2020s Polling Democracy in America Election 2024

DEMOCRACY IN AMERICA

Fake images of Trump arrest show 'giant step' for AI's disruptive power

The tech's capabilities and accessibility have vastly outpaced regulatory and legislative responses, as well as corporate controls

By Isaac Stanley-Becker and Naomi Nik
March 22, 2023 at 5:45 p.m. EDT

MOST READ POLITICS

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- 3 Analysis | What you reject when you assert Trump's complete innocence

Source: [Washington Post](#), 22 March 2023

We won't stop / watch this space...

The screenshot displays the WeVerify Forensic tool interface. At the top, there are navigation links for TOOLS, ASSISTANT, TUTORIAL, DEMO, CLASSROOM, and ABOUT. The main header includes the WeVerify logo, the word 'Forensic', and a description: 'It provides an enhanced toolkit to detect image forgeries'. A warning message states: 'This enhanced forensic toolkit aims to help you detect alterations in manipulated images. You should avoid using it with screenshots, scanned images of documents, or juxtaposed images that are in fact altered images. More filters are highlighting the same zone, more suspicious is that particular area of the image. Please take into account that forensic filters are outlining any digital signal alteration and not only semantically manipulated artefacts (which means false positives are possible). Some complex textures or excess of luminance may also alter the signal without any manipulation intention. Whenever possible, use systematically the best image resolution available (even by searching through similarity for higher resolution identical images)'. The interface shows an 'Analysed Image' section with two side-by-side images of a man in a white puffer jacket. Below this is an 'Enhancers' section with three thumbnail images. On the right, a 'Filters' section displays various detection results: Zero, GHOST, CAGI, Double Quantization, DCT, and BLOCK. A color scale at the bottom of the filters ranges from 'No detection' (black) to 'Detection' (red). A feedback button is located in the bottom right corner.

Forensic
It provides an enhanced toolkit to detect image forgeries

Advanced tools
The advanced tools are unlocked [LOGOUT](#)

⚠ This enhanced forensic toolkit aims to help you detect alterations in manipulated images. You should avoid using it with screenshots, scanned images of documents, or juxtaposed images that are in fact altered images. More filters are highlighting the same zone, more suspicious is that particular area of the image. Please take into account that forensic filters are outlining any digital signal alteration and not only semantically manipulated artefacts (which means false positives are possible). Some complex textures or excess of luminance may also alter the signal without any manipulation intention. Whenever possible, use systematically the best image resolution available (even by searching through similarity for higher resolution identical images).

Analysed Image [NEW IMAGE](#)

Filters

COMPRESSION TRACES DEEP LEARNING CLONING

Zero GHOST CAGI

Double Quantization DCT BLOCK

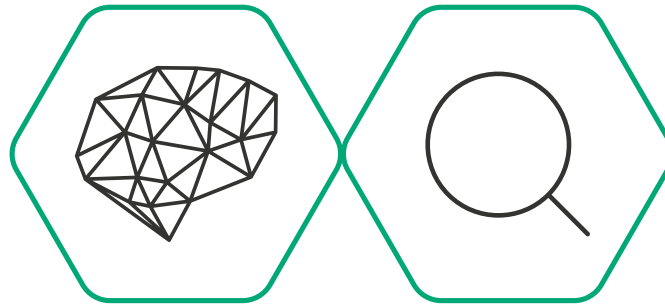
No detection Detection

🔍 Mouse over the filters to see a transparent mask with the results on the image.

- 📌 Those filters detect anomalies in previous processes of creation and compression of the image. If a new element has been removed or added to the image, it can be detected if it has a different compression than the rest of the image.
- ✅ Combination of multiple filters that outline in white or green-light a common area of the image.
- ❌ Complex textures of an object or saturated areas of the photo can generate false positives.

[Feedback](#)

Stay tuned!



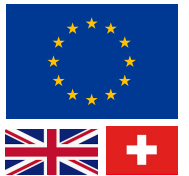
vera.ai

Follow us on Twitter: [@veraai_eu](https://twitter.com/veraai_eu)

Website: <https://www.veraai.eu/>

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Additional funding from Innovate UK grant No 10039055 and the
Swiss State Secretariat for Education, Research and Innovation (SERI)
under contract No 22.00245



A large, round hay bale is the central focus of the image, positioned in a field of harvested grain. The hay is a golden-brown color, and the bale is tightly packed. In the background, there are several other smaller round hay bales scattered across the field. The sky is a vibrant blue with scattered white clouds. The overall scene is bright and clear, suggesting a sunny day.

Rounding up (2):
image & video verification
in general

Source: Pixabay



Tools, tactics, common sense and an inquisitive mind



Source: [Bellingcat](#) (version 6.9)

How to verify?

Explore workflows and tools for verification.

Video Audio Source Text Synthetic media Search for verification tools

What

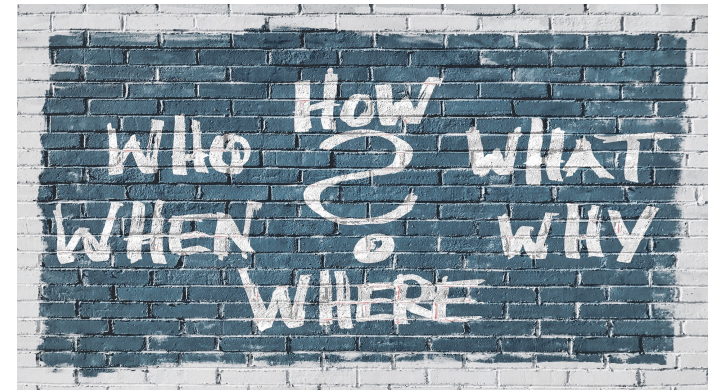
has happened?
 The information in the content you are investigating indicates that an event took place. Can you corroborate that the event and the claim shared by the source occurred via other sources?
 Is there more information available on the event? And are you looking at or listening to the original file or is it a (manipulated) copy?

Good to know

- Check local media
- Search cross-medial on different social media platforms
- Reach out to eyewitnesses and reporters on the ground

Trail: Home - Image - What

Source: [DW Research & Cooperation Projects / How to Verify](#)



Source: Pixabay, CC0



Source: Pixabay

If you're willing to invest ...



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GERMANY CORONAVIRUS **WORLD** BUSINESS SCIENCE ENVIRONMENT CULTURE SPORTS

TOP STORIES / WORLD / ASIA

DW INVESTIGATES

Exclusive: China's systematic tracking, arrests of Uighurs exposed in new Xinjiang leak

An official list of detainees shows how Beijing is tracking every face, every family and every movement of Muslim minority Uighurs in Xinjiang. People have been arrested for growing beards and having "too many" children.

[f](#) [t](#) [v](#) [e](#) [+](#)

Date 17.02.2020
Author William Yang, Sandra Petersmann
Homepage DW News -
All videos DW News
All videos in Media Center

Related Subjects The United Nations Children's Fund (UNICEF), Human Rights, People's Republic of China

Keywords China, Xinjiang, Muslims, human rights, camps, minority, Uighur, Uyghur, Uighur camps


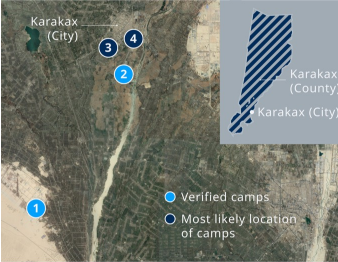
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China's treatment of Uighurs exposed - Sandra Petersmann on DW's investigation

Source: [DW](#)



Source: Pixabay, CC0



THANK YOU

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