



المركز السوري للإعلام وحرية التعبير
Navenda Sûriyayî ya Ragihandinê û Azadiya Derbirinê
Syrian Center for Media and Freedom of Expression



NATIONAL
ENDOWMENT
FOR
DEMOCRACY

SUPPORTING FREEDOM AROUND THE WORLD

Open-Source Intelligence: Initiating Efficient Investigations Perspectives from Syrian Journalists.

Appendix



Open-Source Intelligence^[1]:

Initiating Efficient Investigations Perspectives from Syrian Journalists.

Appendix

The Syrian Center for Media and Freedom of Expression (SCM) is an independent, non-governmental, non-profit civil society organization founded in 2004. It works to achieve justice, defend human rights, promote media freedom, support civil society, and encourage active citizenship. The center has gained expertise in combating impunity and promoting the rule of law. The center has held special consultative status with the United Nations Economic and Social Council since 2011. Its work focuses on documenting human rights violations and presenting legal cases to hold perpetrators accountable, strengthening the role of victims and their families, and supporting journalists, human rights defenders, and independent media to build democracy and support civil peace. The center has established a developed database to serve as a reference for transitional justice processes.

This research was authored by Miral Sabry Al-Ashry,
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www.scm.bz/en

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Appendices

[25] [26] [27] [MS28]

Bellingcat's Online Investigation Toolkit

bit.ly/bcattools | last update: August 2023

Welcome to Bellingcat's freely available online open source investigation toolkit.

This toolkit includes satellite and mapping services, tools for verifying photos and videos, websites to archive web pages, and much more.

Follow Bellingcat's work via the website or through social media. We provide workshops to familiarize with these tools, and learn open source investigative methods.

We are currently in the process of updating this toolkit. If you have any feedback on the toolkit, please get in touch with Johanna Wild (toolkit@bellingcat.com, please do not use this e-mail address to suggest tools that you would like to see added to the toolkit!)

Tools marked in yellow are the most used per category by Bellingcat.

Just getting started? Read these:	Sheet Map:	
First Steps to Getting Started in Open Source Research	image/video 📷	stay safe ⚠️
A Beginners Guide to Social Media Verification	social media 🗨️	archiving 📁
	people (phone, email, username) 👤💬👤	dataviz 📊
Bellingcat links:	maps/satellites 🗺️	guides ?
Website	transport ✈️	education_ 📐
Discord	websites 🌐	misc

Patreon	companies & finance_ 💰	-
Github	environment & wildlife 🌳 🐯	
Youtube	non-english_🌐	-
BlueSky		
Reddit		
Mastodon		
Facebook		
Twitter		
Twitch	-	
Soundcloud		

IMAGE AND VIDEO VERIFICATION		
type	name	description
reverse image search	InVID-WeVerify	Verification plugin to help journalists verify images and videos. Contextual data, Metadata, reverse search (Google, Yandex, Baidu), image forensic, Magnifier). @WeVerify on Twitter.
reverse image search	Google Lens / Desktop	Google Lens but in your browser - it's better than Google Image reverse search.
shadow analysis	SunCalc.org	Make an approximation of the time of the day using shadow direction.

metadata	metadata2go	Check metadata for both photos and videos online.
metadata	Reveal Image Verification Assistant	Forensic providing eight filters to detect still images alterations. “Web-based image tool. Also available within InVID verification plugin.”
metadata	ExifPurge	EXIF Purge is a small portable application to remove EXIF metadata from multiple images at once. With the click of a button you can remove the camera, location and other technical information from a batch of photos which is embedded by the camera or the photo editing software.
metadata	FotoForensics	Image forensics tool.
metadata	Forensically Image Forensics	Web-based image forensics tool. Can easily identify fake or doctored images. Public access, information not private.
metadata	Irfanview	Windows-based software to extract metadata.
metadata	SpiderPig	Github - Extract metadata. Command line interface and scriptable. Requires dependencies and knowledge of web technologies.
metadata	Jimpl	Online EXIF data viewer
metadata	jhead	Remove EXIF/metadata.
metadata	Splunk	Extract metadata. Report grade analysis and presentation. Not simple to setup and deploy.

facial recognition	VGG Face Finder (VFF) Engine	Visual Geometry Group and released under the BSD-2 clause. VFF is a web application that serves as a web engine to perform searches for faces over an user-defined image dataset. It is based on the original application created by VGG to perform visual searchers over a large dataset of images from BBC News.
facial recognition	PimEyes	Face Search Engine & Reverse Image Search.
facial recognition	Search4Faces	Search a database of 84 million TikTok accounts
facial recognition	Amazon Rekognition	Check how similar two faces are
Face restoration tool	GFPGAN	Practical face restoration algorithm for old photos or AI-generated faces
image classification	VGG Image Classification (VIC) Engine	The VGG Image Classification (VIC) Engine is an open source project developed at the Visual Geometry Group and released under the BSD-2 clause. VIC is a web application that serves as a web engine to perform image classification queries over an user-defined image dataset. It is based on the original application created by VGG to perform visual searchers over a large dataset of images from BBC News.
Image organization	PureRef	Image workspace; lets you arrange images in groups, organize them, etc.
Image Editor (object removal)	Cleanup.Pictures	Web tool for quickly removing objects from an image.
IPVM Calculator	https://calculator.ipvm.com/	Tool for simulating camera views (for geolocations).

reverse image search	VGG Image Search Engine (VISE)	This standalone application can be used to do a reverse image search on a large collection of images.
reverse image search	RootAbout	Reverse search images on the Internet Archive
reverse image search	KarmaDecay	Reverse search images on Reddit
GAN detector	AmIReal	Github - detects if faces were generated by ThisPersonDoesNotExist
misc	fdupes	Github - Locating exact matches of duplicate files.
misc	RenRot	Github - Attempts to rename image filenames to their original name, and rotate them to the original orientation.
YouTube	YouTube Geofind	Allows you to search for YouTube videos by coordinates rather than keywords

SOCIAL MEDIA		
platform	name	description
Multiple	Phantombuster	No-code tool to easily scrape / automatically extract info from all kinds of social media (aimed at marketers). Be aware you'll have to log-in and share data with a company.
Multiple	Social-searcher	Search hashtags and usernames across various platforms
Multiple	SMAT	Disinformation tracker. Works by pulling data from Gab, Parler, 4chan, 8kun, .win, poal, telegram, Gettr, Bitchute, Tiktok

Multiple	snsrape	Comand-line tool for scraping multiple social media platforms without using official API, especially Twitter and Telegram
ClubHouse	ClubhouseDB	Search users, number of followers/following, and date of registry
ClubHouse	Search4Faces	Reverse-search a face in about 5m clubhouse avatars
Discord	Disboard	Search for public discord servers
Discord	DiscordLeaks	Search hundreds of thousands of messages leaked from 180+ white-supremacist / nazi discord servers, by UnicornRiot
Facebook	Sowdust FB search / graph.tips/beta	This page tries to be a simple interface to show how the current Facebook search function works, after Graph search was closed.
Facebook	Who posted what?	Find posts on Facebook.
Facebook	Facebook Live Map	Live broadcasts around the world.
Facebook	Facebook Video Downloader	Handy website to download public Facebook videos. Copy paste the URL of the video and download it in the available definition formats.
Facebook	new-fb-search	GitHub - so you'll have to know how to use that.
Facebook	Sleep Stats	GitHub - Track user sleeping habits
Facebook	Skopenow	Social Media Investigations - name, phone, email, username searches.

Facebook	HaveIBeenZuckered	Check if a telephone number is present within the Facebook data breach.
Gab	SMAT-app / Gab	Search messages, count links, see activity & timeline
Gettr	SMAT-app / Gettr	Search messages, count links, see activity & timeline
Google	Google Account Finder (EPIEOS)	Find the profile picture and public Google Map Reviews + Photos associated with a G-mail address. Also checks for phone numbers, and checks for email addresses on social networks
Gravatar	Email Checker	Check if an email address has been used to comment on blogs and whether there is a profile image attached.
Instagram	InstaLoader	GitHub - scrape information from public accounts. Does not use the official API, and allows downloading pictures and videos along with their captions and other metadata from Instagram. Similar to twint for Twitter.
Instagram	StorySaver	Download public Instagram Stories, Highlights and Videos.
Instagram	Bellingcat Insta Location Search	Github - Finds Instagram location IDs near a specified latitude and longitude
LinkedIn	LinkedIn Overlay Remover	Removes the overlay that displays over a linkedin profile.
LinkedIn	Email to LinkedIn (Epieos)	Check if an email address is connected to a LinkedIn Profile

Minecraft	NameMC	Find usernames, track username changes
Parler	Parler Video Uploads Map	A map showing the approximate (100ft) location of where Parler videos have been uploaded.
Parler	SMAT-app / Parler	Search messages, count links, see activity & timeline
PlayStation	PSNprofiles	Search username, see daily activity, games played, country, and profile pic
Reddit	F5Bot	Sends you an email when a keyword is mentioned on Reddit.
Reddit	Redective	Analyse Reddit profiles - incl word frequency and active hours
Reddit	Unddit	Display removed (by mods) and deleted (by users) comments/posts for Reddit.
Reddit	KarmaDecay	Reverse image search for Reddit
Snapchat	Snap Map	Searchable map of geotagged snaps.
Steam	SteamId.uk	Lookup player names, view (more) previously used names, and when accounts befriended each other (Free). View screenshots of account, (bulk) search based on previously used names (paid).
Telegram	Intelligence X: TG	Google-based search engine for Telegram (includes Telegago)
Telegram	Telemetr.io	Telegram channel analytics

Telegram	Telegago	Google-based search engine for Telegram.
Telegram	TelegramDB	Database of Telegram channels
Telegram	TGstat	Searches archived Telegram channels and provides channel analytics.
Telegram	tlgrm.eu/channels	Search Telegram channels.
Telegram	Geogramint	Github - Find Telegram groups and users near a geographical location
Telegram	Bellingcat Phonenumbrer Check	Github - check whether a specific phone number is connected to a Telegram account.
Telegram	Telepathy	GitHub - “swiss army knife” for investigating Telegram chats
TikTok	TikTokApi	Python - This is an unofficial api wrapper for TikTok.com in python. With this api you are able to call most trending and fetch specific user information as well as much more.
TikTok	Bellingcat TikTok Analysis	Github - Bellingcat built - Helps to download posts and videos from TikTok for a given set of hashtags over a period of time.
TikTok	Bellingcat TikTok Date Extract	Get the exact upload date + time for tiktok video urls
TikTok	TikTok Downloader	Extension - Download TikTok videos. Doesn't work for some videos, unclear why.
TikTok	Search4Faces	Search a databaes of 84 million TikTok accounts







Twitter	Botometer	Checks the activity of a Twitter account and gives it a score. Higher scores mean more bot-like activity.
Twitter	Hoaxy	Visualize the spread of claims and factchecking.
Twitter	InVID verification plugin	InVID plugin provides a Twitter advanced search by time interval up to the minute. Allows documenting use cases from the past without APIs and time limit. Allows searching for content within a user-defined time range after a breaking news.
Twitter	Onemilliontweetmap	Tweets map per locations up to 6 hours old, keyword search option.
Twitter	Social Bearing	Twitter analytics & search for tweets, timelines & twitter maps. Find, filter and sort tweets or people by engagement, influence, location, sentiment and more'
Twitter	Treeverse	Extension - visualise Twitter conversations.
Twitter	TwitterAudit	Check bots.
Twitter	Twitter List Copy	Copy public Twitter lists into your own existing lists.
Twitter	Twitter Video Downloader	Download Twitter videos
Twitter	Twitter advanced search	Search by date, keywords, etc.












Twitter	Twitter location-based search	Insert in search box: geocode:[coordinates],[radius-km], for example: geocode:36.222285,43.998233,2km (only works with km, so 500m = 0.5km). Be aware that it's easy to fake a geolocation for a tweet.
Twitter	Tweet Beaver	Tool for analyzing Twitter accounts (e.g., get Twitter ID, common follows, analyze and download user data, etc.)
Twitter	Twlets	Download anyone's tweets, followers and likes in an Excel sheet. Easy and quick to use, there's a Chrome extension too.
Twitter	Twitter Follower Collector	Scrapes any account's Twitter followers
Twitter	t	command-line power tool for Twitter (it is an open source command line script written in Ruby). Highly flexible, can be put in Bash scripts to automate Twitter activity and searches. Deeper search through REST API. Output spreadsheets/CSV. Fast performance for bulk operations.
Twitter	Spoonbill	Check for changes made to a Twitter account's status (i.e., bio, pinned tweets, location, etc.)
Twitter	Memory Lol	Github - Provide historical information about social media accounts. Historical screen names for 443 million Twitter accounts.
Vkontakte	Search4Faces	Upload a facepic, find similar on VKontakte (also searches Odnoklassniki)













Vkontakte	FindClone	Searches images from VK profiles (within certain limits)
Vkontakte	Vk.watch	See public comments left by an account, profile photos used, and very basic facial recognition
Vkontakte	Bellingcat VK Scraper	Github - scrape data, and especially media links like videos and photos, from vk.com URLs.
WhatsApp	WAtools.io	Track whatsapp activity, number, profile picture
Xbox	XboxGamertag	Search gamertags, see games played and recorded game clips
YouTube	Amnesty YouTube Dataviewer	Reverse image (video still) search and exact uploading time. Here's an Advanced Guide on Verifying Video Content.
YouTube	RadiTube	A search engine that searches the subtitles of about 380 (right/left) radical YouTube channels. You query for example for "q says" of "voter fraud" in 170,000 videos, and the search results will link you to the specific time-code in the video.
YouTube	YouTube location-based search	Location-based search on YouTube, but it's unclear whether it shows where it was uploaded, from which server, or only filters on keywords (e.g. "Paris" in title shows up in Paris).
YouTube	YouTube Geofind	YouTube Geofind; three different search functions, location, topic, and channel.

YouTube	youtube-dl	Python tool to download from a variety of sources. Select video / audio formats, quality etc. Updated frequently to support parsing the relevant sources (alternate link: youtube-dl.org)
YouTube	YouTube Metadata	An alternative to Amnesty's YT viewer, with slightly more information.
4chan	4plebs	Searchable archive of specific 4chan boards. Makes it possible to read threads after they are purged from 4chan.
8chan/8kun	Open Measures	Search messages, count links, see activity & timeline







PEOPLE SEARCH








type	name	description
	TrueCaller	App that gathers phonenumber and names from contact lists.
	GetContact	Phonenumber ID app - draws from crowdsourced contactbooks
	Have I Been Pwned?	Does email or phone appear in data breaches?
	Whats My Name	Search username on 270+ platforms
	Bellingcat Name Variant Search	Simple tool to help search for different ways of writing a name.
	Epieos (Check Email Usage)	Checks where an email has been used. Based on Holehe.

	Watools.io	Tools for whatsapp: Check if number is used, download profile pic, check online status
	Skype	You can search names, emails, and phonenumbers in Skype.
	Worldwide Osint Tools map	Global overview of yellow/white pages, court cases, business registries etc.
	FastPeopleSearch	Mostly good for US.
	Search Systems	Finding public record information online in over 70,000 databases organized by type and location to help you find property, criminal, court, birth, death, marriage, divorce records, licenses, deeds, mortgages, corporate records, business registration, and many other public record resources.
	NigeriaPhonebook	Look up by name, state, and phone number. Last names are partially censored for free accounts.
	Hitta	Look up phone numbers/names (Sweden)
	Rasit	Look up phone numbers/names (Sweden)
	Person Lookup	find individuals, phonenumbers, and adresses
	192.com	Searching for someone's address in the UK, phone number and who they live with according to electoral rolls.
	MenoM3ay	Caller ID service (mobile app)

	ThisNumber	An international directory of white pages and yellow pages phone books, and online directory enquiries. It's a free, independent and up-to-date guide to telephone directories on the web.
	Eniro	Yellow Pages (Swedish Edition)
	Email Reputation	How trustworthy is an email, is it a throwaway etc.
	Namecheck	Username and domain check website. Easy to see on which platforms a single username has been used. Many mismatches.
	Swedish Name Register	Find out how common a name is in Sweden based on census data
	Netherlands Name Register	Find out how common a name is in the Netherlands based on census data
	Check Usernames	Check usernames on 160 social networks
	The Law Pages	Search criminal court case details in the UK, such as sentence, hearing, defendant, etc.
	Pipl	Identity information for professionals
	Spokeo	People search through email, phone, name
	Sherlock	Check usernames on 300 websites and social networks
	Blackbird	Check usernames on 574 websites and social networks









MAPS, SATELLITES, STREETVIEW, & LOCATION-BASED INFO









Type	name	description
	Google Earth Pro	More functions than the web-based version. Make sure to check download additional layers, such as overlays for Bing Maps, Geonames, and Wikimapia.
	Google Maps	Google's mapping service offering satellite imagery, street maps, and streetview. Many 3D modelled places in Americas, Australia, Europe, N Africa, and SE Asia. Probably the easiest-to-navigate mapping service of all. No historical satellite imagery, but historic Streetview images available in many places.
	Sentinel Hub Playground	A user-friendly place for Sentinel 2/ Landsat images. Updated every 5-10 days with new imagery, dependent on cloud cover. Ability to explore a variety of GIS variables eg NDVI or NDWO. The EO Browser facilitates time-lapse reviews. Generally low resolution of 10m/px.
	Wikimapia	Crowdsourced information related to geographic locations. Possibility to switch between Google/Bing/OSM. Massive amount of UCG information. Can be laggy, and need to refresh page after a view searches. Lost Google API.
	LiveUAMap	Timeline of news and zones of control in conflict / civil unrest areas, globally
	Peakvisor	Mountain identification tool.




	Baidu Maps	Baidu's mapping service offering satellite imagery, street maps, and streetview ("Panorama" - zh:百度全景).
	Bing Maps	Microsoft Bing's mapping service offering satellite imagery and street maps. (Streetview only appears in some countries, use a VPN and go US if it's not there)
	Hitta.se	Mapping service for Sweden
	Tencent Maps	Tencent Maps (formerly SOSO Maps) is a desktop and web mapping service application and technology provided by Chinese company Tencent, offering satellite imagery, street maps, street view (coverage) and historical view perspectives.
	Yandex Maps	Yandex's mapping service offering satellite imagery, street maps, and streetview ("Panorama"). It also crowdsources a lot of 'streetview' imagery through the "mirror" function, from both vehicles and pedestrians.
	GovMap	Very high res imagery for Israel/Palestine
	Copernicus Open Access Hub	The site for the European Space Agency and for images from Copernicus' six Sentinel satellites. Better resolution than Landsat. See explanation from the website GISGeography on how to download free images.








	EOSDIS Worldview	Visually explore the past and the present of this dynamic planet from a satellite's perspective. Select from an array of stories below to learn more about Worldview, the satellite imagery we provide and events occurring around the world.
	ESA Earth Online	Consolidates European Space Agency's earth observation data on topics such as temperature, agriculture, and ice sheets.
	ESA SNAP	A remote sensing program created by the European Space Agency which lets you perform various enhancements and manipulations to remotely sensed data.
	Google Earth Engine	Open-access satellite imagery and analytical framework. Virtually any satellite imagery collected from NASA, NOAA, USGS, etc. is available. Moderate and coarse resolution imagery rather than high-resolution commercial imagery. There's a learning curve with Javascript.
	GeoVisual Search	Search engine that lets users visually query images for similar geographic features. The platform from Descartes Labs is built on satellite imagery from Landsat, the National Agriculture Imagery Program (NAIP), and PlanetScope.
	HERE WeGo	More recent satellite imagery from places like Afghanistan and Iran than Google has.
	Kakao Map	Mapping service for South Korea









	Mapa.sk	Mapping service for Slovakia
	Mappy	Mapping service (and streetview in a couple of French cities [double check this!])
	Pulse GHGsat	Global Methane Concentration per week
	satellites.pro	Combines different satellite services Includes web based Apple Maps satellite view (which has better imagery from e.g. Afghanistan than Google has, for example).
	5Ghz Interference locator	Tool that can help indicate military radar activity close to 5Ghz frequency
	Carte.ma	Mapping/streetview service for Morocco
	Deckhair TV	Open webcams from hotels (??); some of them are strategically located
	Geograph	Georeferenced images.
	Mapillary	Crowdsourced street-level photos. A useful addition to Google StreetView. Little to no coverage in countries like Syria, Iraq, etc.
	KartaView (Previously Openstreetcam)	OpenStreetCam (now KartaView) is a project to collect crowdsourced street-level photographs for improving OpenStreetMap. Collected imagery is published under a CC-BY-SA license and most of the project's code is open source.
	Photo-Map.RU	Geotagged VK posts.

	YouTube location-based search	Location-based search on YouTube, but it's unclear whether it shows where it was uploaded, from which server, or only filters on keywords (e.g. "Paris" in title shows up in Paris).
	Twitter location-based search	Insert in search box: geocode:[coordinates],[radius-km], for example: geocode:36.222285,43.998233,2km (only works with km, so 500m = 0.5km). Be aware that it's easy to fake a geolocation for a tweet.
	(Canada) Open Database of Buildings	Database of ~4.4. million buildings in Canada (comes in GIS format) from Statistics Canada.
	converting coordinates	Convert geographic coordinates between different notation styles.
	F4Map	Global map of 3D buildings and the shadows they cast at morning, noon, evening.
	ShadowMap	Global map of 3D buildings and the shadows they cast at a specific time a day
	find2places	Allows querying Google Maps API for two specific places in precise distance from each other within given radius. Useful for geolocating photos and videos. It's a script, no user-friendly interface.
	Gaode Maps	Popular mapping service in mainland China. When it comes to navigation for drivers and individuals using public transportation, Gaode Maps seems to be a better job than Baidu Maps.



	GeoNames	The GeoNames geographical database covers all countries and contains over eleven million place names that are available for download free of charge. Extremely useful in Geo Tagging, documentation, and data collection.
	Geotips	Service with information (i.e., road types, sign types, license plate types, etc.) for geolocations
	Gjirafa	Mapping service for Albania (specially Kosovo)
	Global Forest Watch	Helps detect changes in forest cover (i.e., to track deforestation). Also includes Global Fire Watch (VIRSS data)
	IndustryAbout	Maps per country showing industrial plants, e.g. power, hydroelectric, nuclear, coal, oil refineries, etc.
	MapChecking	This tool helps you estimate and fact-check the maximum number of people standing in a given area.
	mapy.cz	Mapping service for Czechia
	OGF Multimap Extension	Highlights locations from a given Wikipedia article on the OGF map
	OpenInfraMap	Power lines, telecoms, solar, oil, gas & water infrastructure mapped globally.
	OpenStreetMap	OpenStreetMap is a collaborative project to create a free editable map of the world.

	OpenSeaMap	Sea map of borders, special zones, shipping lanes, with overlays of MarineTraffic and other sources
	overpass-turbo	A web based data mining tool for OpenStreetMap.
	TRIDENT	AI help for querying Overpass Turbo. Simply write what features you're looking for on a map.
	QGIS	Open source GIS programme. Has many user add-ons, including creating 3D landscapes using LiDAR data. Steep learning curve.
	Resource Watch	A nonprofit platform, still in beta, that provides hundreds of data sets on the state of the planet's resources and citizens. It is sponsored by the World Resources Institute and other organizations.
	Topotijdreis.nl	Over 200 years of maps and topography from the Netherlands.
	UTM grid zones	
	what3words	Entire world divided into 3m by 3m squares, and each square is given a 3 word address. For example, the what3words address for Nelson's column in trafilgar square is: cube.soccer.these. This website is especially useful when referring to remote locations and when you are unable to write down a lengthy sentence of exact coordinates.











	<u>Maritime Awareness Project (NBR)</u>	South China Sea maps with oil and gas fields, fishing areas, air defense zones and administrative, claimed, disputed zones, submarine data cables.
	<u>Radiant Earth</u>	A non-profit group that helps the global development community discover, explore and analyze satellite, drone and aerial imagery archives. Radiant Earth is working with Code of Africa, among others. Apply to gain assistance via their website. Or contact Radiant Earth.
	<u>EOS Landviewer</u>	EOS Landviewer provides free services for up to 10 images. More images and analysis are available to journalists at a discount. Contact: Artem Seredyuk artem.seredyuk@eosda.com. EOS is in the process of developing a service provisionally called EOS Media that will be providing free images and analysis of major natural disasters.
	<u>Soar.earth</u>	Aerial, satellite and drone imagery on a global map.
	<u>Airbus Geostore</u>	Platform to get a preview of their imagery and order images.
	<u>Descartes Labs</u>	A commercial service that collects data daily from public and commercial imagery providers. Will help journalists. “We do not charge for these requests, only ask that they are credited,” as mentioned on GIJN.
	<u>DigitalGlobe</u>	Satellite imagery vendor. Preview available via the catalogue, search tool very easy to use.










	DualMaps	Combines Google's road maps, aerial view, and street view in one embeddable tool.
	WarWire	Location-based searches on Twitter, VK, and Instagram.
	Echosec	Aggregated location-based searches on Twitter, VK, Foursquare.
	Image Hunter (Apollo Mapping)	Find available high-res images per location
	Geolocation Estimator	Platform that estimates image location using deep learning/AI.
	GPSJam	Daily maps of GPS interference
	GeoHints	Overview of different traffic lights, utility poles, bollards etc on Google Streetview
	Map Switcher	Chrome extension: Switch between different map services. Convert coordinates and directions and jump to the same location on another map.

TRANSPORT TRACKERS

type	name	description
	MarineTraffic	An open, community-based project, providing (near) real-time information on the movements of ships and their locations in harbours and ports.
	Bosphorus Observer	Ship spotting resource for vessels traversing the Bosphorus Strait.

	Global Fishing Watch	No account needed. Identification of “dark vessels”, and includes Indonesian VMS layer.
	Illegal, unreported, unregular fishing Vessels List	A combined list of known illegal, unreported, unregular fishing vessels
	IMO Registry	Ship/shipping-related information from the IMO
	ShipSpotting.com	Community website for uploading pictures & details of vessels spotted around the world.
	VesselFinder	Live marine vessel tracker.
	Tokyo MOU	Ship inspection/history database (PSC Database)
	SARfish	Github - SAR ship detection, by @MJ_Cruickshank
	ADS-B Exchange Radar View	Live flight tracker (including many military aircraft)
	Flightradar24	Tracking (civilian) flights. \$ to go back in 12-month archive.
	ADS-B Historical Flight Viewer	Look up flight history of a specific aircraft as far back as two years. Search by ICAO number.
	Airfleets	Database for aircraft details.
	AirNav RadarBox	Live flight tracker.
	FlightAware	Live flight tracker.
	PlaneFinder	Live flight tracker.

	Live ATC	Audio from air traffic control towers in the United States. Aircraft have to identify themselves to ATC towers, so in cases where aircraft are trying to obscure their information from other sites, it might be another way to grab tail numbers or just generally track flights. More complicated to use than e.g. Flightradar24.
	OpenSky-Network	Community , open source flight tracking network.
	Federal Aviation Administration	Nationwide Plane Registry. Search by N-Number (a.k.a. callsign). Comprehensive list of privately owned planes in the US.
	Aviation Safety Network	Aircraft incident database; can be searched by country, registration, year, etc.
	http://www.airframes.org/	A database of aircraft details
	https://app.icarus.flights/	Flight tracking platform with 2 years free historical data; highly customizable search parameters
	Trains	Full interactive maps of various railway networks in European countries.
	OpenRailwayMap	a detailed online map of the world's railway infrastructure
	Transit Visualisation	(public) transit routes visualized - near global
	WikiRoutes	Public transport database.

	Carnet.AI	“API which is capable of recognizing the Make, Model and Generation of most cars built since 1995, with 97+% accuracy.”
	License Plate Mania	collection of license plate pictures across the world.
	License Plate Map (Europe)	Map of Europe with pictures of license plates
	License Plate Map (Americas)	Map of North & South America with pictures of license plates
	License Plate Map (Asia & Middle East)	Map of Asia & Middle East with pictures of license plates
	Equasis	Vessel ownership and identification records. Lists historical information. You'll need an account to access information.
	FleetMon	Vessel position tracking, including a global vessel and port database. Tools for the shipping industry, Maritime News and a lively community of shipspotters. You'll need an account to access information.
	Winward	Platform which combines maritime-related data.
	Chronotrains	Map platform for checking how far you can go within five hours by train from different European destinations.

WHOIS, IPs, & WEBSITE ANALYSIS	
name	description
Carbon Dating The Web	This is a simple application that estimates when a webpage was created. Unfortunately, Carbon Dating won't show when a page was updated, only created.
DNS Cyrillic Check	Check if malicious or Cyrillic domains are registered
DNS History	Collection of historical DNS information.
DNS Trails	The World's Largest Repository of historical DNS data
Geo IP Tools	Check your own IP, handy to check if your VPN is working.
Finitimus	Finitimus allows users to find the publish date for articles and other Internet content, with a click of a button.
Moz Link Explorer	Analyse the links of any website.
Passive DNS	Collects, stores and analyses data from thousands of passive DNS collection sensors.
Shodan	Internet of things search engine.
SpyOnWeb	Find out related websites via their tracking code.
WebCookies.org	A website security and privacy scanner that, among many other features (mostly focused on GDPR compliance) aggregates large amount of information about advertiser and analytics identifiers of scanned websites, as well as the /ads.txt files.

Whatcms.org	What content-management system is this website using?
WhoIs	For domain name search and information. Try either whois.net or whois.icann.org
WHOIS History	Historical WHOIS registration lookup
Vortimo	Suite of tools for website, email, WHOIS, etc. analysis
Site24x7	Find IP address of a website
WhoIS Domain Tools	

Companies & Finance			
type	country	name	description
Crypto	Global	Etherscan	Tracking transactions & finding a cryptowallet each based on the ETH blockchain.
Crypto	Global	BlockExplorer	Following a bitcoin trail or following a bitcoin account?
Leak	Global	ICIJ Offshore Leaks Database	Find out who's behind more than 810k offshore companies, foundations and trusts from the Panama Papers, the Offshore Leaks, the Bahamas Leaks and the Paradise Papers investigations.

Leak	Global	OCCRP Investigative Dashboard	Search 178 million public records and leaks from 236 sources on company and individual names.
Sanctions	Global	OpenSanctions	<p>Site owner: Team coordinated by Friedrich Lindenberg, funded initially by the German government. An international database of persons and companies of political, criminal, or economic interest. Combines the sanctions lists, databases of politically exposed persons, and other information about persons in the public interest into a single, dataset. Free for non-commercial users.</p>
Sanctions	Global	Sanctions Explorer	Database of OFAC/UN/EU sanctions
Registry	Global	Osint Tools Map	Worldwide map of business registries, court records and other info, by @cyb_detective
Registry	Belgium	fGov.be	Belgian companies registry.
Registry	China	National Enterprise Credit Information Publicity System	Companies registered in China, including registered capital, legal representative, incorporation date, penalty history and business irregularity records.

Registry	China	Court Enforcement Information Publicity	Chinese individuals and companies listed by the court as involved in dishonest practices.
Registry	Cyprus	cadastral map	Cadastral map of Cyprus.
Registry	Cyprus	offshore companies	
Registry	Estonia	E-business Register	Search companies and individuals in Estonia.
Registry	Austria, France, Germany, Luxembourg, Poland, Spain, Switzerland, UK	NorthData	<p>Worth using in conjunction with OpenCorporates Site owner: German company.</p> <p>Provides company information that is publicly available from sources such as trade registers, annual reports, funding registers, trademark records, patent registries and others (not all included in the free search) Free search is by name. Fields returned: Name; Register; Address; History; Merger/Acquisition/Control; Network (relationships with other entities); Publications</p>
Registry	European Union, Iceland, Liechtenstein, Norway	European e-Justice portal	<p>Site owner: European Union Consolidates official national registers for all member states. Site might contain data not available on OpenCorporates. Fields returned: Registered office; Registration number; Company type; Business Register ID; EUID</p>

Registry	France	Societe	Search companies and individuals in France.
Registry	Germany	NorthData	<p>Worth using in conjunction with OpenCorporates Site owner: German company. Provides company information that is publicly available from sources such as trade registers, annual reports, funding registers, trademark records, patent registries and others (not all included in the free search) Free search is by name. Fields returned: Name; Register; Address; History; Merger/Acquisition/Control; Network (relationships with other entities); Publications</p>
Registry	Global	OpenCorporates	<p>A good place to start companies research as it covers so many jurisdictions. Site owner: English company Data sources: Primary public sources. Read the data use licence. Searches are free, though some features require a login (which they may provide if you agree to freely share your results). Fields returned (differ per country): Company Number; Status; Incorporation Date; Company Type; Jurisdiction; Directors / Officers; Registered Address; Registry Page; Branches; Shareholdings in other companies ; Subsidiaries; Trademark registrations; Events</p>

Registry	Italy	Registro Imprese	<p>The official Italian companies registry and offers a wide array of basic information and data: company's purpose, legal email address, locations (legal HQ and operative offices or warehouses, etc). A few times it reports the date of establishment or when a company started providing a specific service/activity. It is only in Italian but has a very easy interface. The basic searching service is free, but it is possible to buy reports and specific information about a company. Same old story as for any other national registry.</p>
	Italy	Info Imprese	<p>A second database of Italian companies that basically reflects registroimprese. it. Offers the same service of registroimprese.it, but it often reports more details about a company's activity and purpose, which can help a lot in the investigation. It is perfect to validate the results you may have previously found on registroimprese.it.</p>



Registry	Italy	Icribis.com	Great portal. Offers further information such as VAT n., Chamber of Commerce registration number, revenue range, estimate of personnel employed. Usually well kept and updated. Only “obstacle”: you have to create a socket puppet with a social security number. The basic searching service is free, but it is possible to buy reports and specific information about a company.
Registry	Lesotho	http://www.obfc.org.ls/registry/	Search for companies, directors and shareholders in Lesotho. Information is comprehensive and up-to-date.
Registry	Mauritius	https://portalmns.mu/	Search for companies in Mauritius. Availability of information varies.
Registry	Namibia	http://www.bipa.na/search/	Search if a company is registered in Namibia
Registry	Nigeria	https://publicsearch.cac.gov.ng/ComSearch/	Check if a company is registered in Nigeria. Limited information available.
Registry	Portugal	Portal da Justiça	Search companies and individuals in Portugal.
Registry	Seychelles	http://www.registry.gov.sc/BizRegistration/WebSearchBusiness.aspx	Check if a company is registered in the Seychelles. Limited information available.

Registry	South Africa	http://www.cipc.co.za/za/	Search for companies in South Africa. Database is searchable by company name and company registration number. One can also search by individual director, but director searches require an individual's ID number.
Registry	Switzerland	Zefix	Search companies and individuals in Switzerland.
Registry	Switzerland	offshore companies	
Registry	United Kingdom	Companies House	Search companies and individuals in the United Kingdom and Gibraltar.
Registry	Zimbabwe	https://zimeservices.pfms.gov.zw/irj/portal/anonymous	Search for companies in Zimbabwe. Database requires you to register with a foreign passport number. Information is not necessarily up-to-date as records are still being digitised.
Registry	United Arab Emirates	National Economic Register	Search businesses licences in Arabic or English - find names, emails, phonenumbers.
Registry	Ecuador	https://appscvsconsultas.supercias.gob.ec/consultaCompanias/societario/busquedaCompanias.jsf	Ecuadorian business registry.










Registry	Colombia	https://www.rues.org.co/	Colombian business registry.
Registry	Spain	https://librebor.me/	Spanish business registry
Other	China	China Judgements Online	Judgements given out by Chinese regional courts
Other	China	Cninfo	Chinese public companies financial reports and regular announcements.
Other	China	QCC	Private website, one of the biggest information providers, with basic registration information, shareholder structure, beneficial owners, business authorization certificates, patent information, etc.
Other	China	Qixin	Similar to QCC
Other	Italy	Guidamonaci.it	As much an ace of spades as a potential flop. One out of three it presents a detailed overview of a company (VAT n., Revenue, Employees, Offices, Activity, mail). Two out of three it offers some basic information and it may be able to add in some more details. Requires registration with a socket puppet. Sometimes its data and information are not up to date.














Other	Italy	Reportaziende.it	Offers detailed information about Italian companies with revenues over 5 million euro. It details revenue, net income or liabilities. The basic searching service is free, but it is possible to buy reports and specific information about a company.
Other	Italy	aziende.it	Offers pretty much the same service reportaziende. it does. Once again valid way to validate data and information gathered.
Other	United States	ImportYeti	Search 60 million US customs sea shipment records, find company suppliers.
Other	United States	LittleSis	Connects dots between influential / wealthy individuals in (mostly US) politics and business.








Other	Central and Eastern Europe, Sub-Saharan Africa, South America, some offshore jurisdictions	OCCRP Aleph	<p>Site owner: Organized Crime and Corruption Reporting Project</p> <p>An investigative data platform that helps reporters ‘follow the money’. They provide public access to a vast archive of government records and open databases. However, much of the Aleph archive is protected from public access due to concerns about data protection. Reporters and researchers can upload their own files to private investigations, extract text, sketch a diagram, to summarize their investigative findings, and cross-reference persons of interest and companies. You need to apply for full access.</p>
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ENVIRONMENT & WILDLIFE		
	name	description
	Copernicus Atmospheric Monitoring	Global forecasts of aerosols, c02, methane, nitrogen dioxide, and others.
	Environmental Justice Atlas	Map of environmental-related conflict globally

	World Database Protected Areas	The most comprehensive global database on terrestrial and marine protected areas.
	FLASH Environment Assessment Tool (UNOCHA)	For identifying harmful substances and their effect on the environment after industry has been destroyed.
	WildMe & WildBook	Open source pattern recognition software to identify unique whales, sharks, zebras, jaguars, skunks, fish and much more.
	Global Forest Watch	Helps detect changes in forest cover (i.e., to track deforestation). Also includes Global Fire Watch (VIRSS data)
	Global Palm Oil Map	Global map of Palm Oil plantations, 2019 (small holders & industrial)
	Amazonia Socio Ambiental	Amazon rainforest: maps and shapefiles of natural protected areas, concessions, indigenous territories, oil, mining, roads, fires, deforestation in bolivia, brazil, colombia, ecuador, guyanas and suriname, peru, venezuela
	Brazil CAR - Cadastro Ambiental Rural	CAR is an electronic public register of scope national, mandatory for all rural properties. Cadaster of rural properties that can be explored through their owners.

	CryO Tools	Scientific tools for investigating the cryosphere (areas with snow & ice)
	Open Water Oil Spill Identification	PDF of US dep of Commerce to assess color/appearance and structure/distribution of oil spilled on the water.
	Amazon Dashboard	Tracks individual fires, and categorizes them (Savanna - small clear & agriculture - understory - deforestation)
	Globe Forest Watch Fires	Fires on a global map
	Satellite Detected Gas Flaring	
	Unitar Disaster & Damage Assessment	Unitar satellite imagery & maps of floodings, fires, conflict & internally displaced persons
	Explosive Detonation Velocities	A wikipedia list of detonation velocities of various materials.
	MineAlert (Oxpeckers)	Mining licenses in South Africa alongside water licenses and the threats to groundwater, mapped
	WildEye Asia (Oxpeckers)	Seizures, arrests, court cases and convictions related to illegal wildlife trade, in Africa and Asia Pacific, mapped

	WildEye Europe (Oxpeckers)	Seizures, arrests, court cases and convictions related to illegal wildlife trade, in Europe, mapped
	Digital Dangers Map (Oxpeckers)	Online environmental crime stories, mapped.
	Rhino Courtcases (Oxpeckers)	Courtcases in Southern Africa related to Rhino poaching, mapped
	Rhino seizures (EIA)	Rhino incidents and traded horn, mapped globally
	Poach Tracker (Oxpeckers)	Rhino death's across Southern Africa, mapped.
	Merlin	Identify birds (visually), through an app.
	BirdNet	Identify bird sounds - find bird sounds on a global map.
	Hornbill trade (EIA)	Trafficked and seized Hornbill parts in Asia & US, mapped
	Global Forest Watch (Biodiversity)	Global Forest Watch also includes maps with biodiversity hotspots, including birds and tigers
	Global Fishing Watch	Tracks fishing fleets
	Totoaba seizures (EIA)	Map of totoaba seizures in Asia and the US, mapped
	Tiger Trade (EIA)	Trade in tiger (parts) mapped
	Leopard Trade (EIA)	(Snow / Clouded) Leopard trade mapped

	Captive Tiger Facilities (EIA)	Captive tiger facilities implicated in trade, mapped.
	Ivory trade (EIA)	Ivory trade in Asia & Europe, mapped
	Ivory seizures (EIA)	Large scale ivory seizuers globally, mapped
	Pangolin trade (EIA)	Pangolin seizures globally, mapped.
	Pulse GHGs	Global Methane Concentration per week
	Locust Hub (FAO)	A map visualizing locust movements globally
	Wind/Particulate Map	Map that visualizes wind, particulaes, and other data
	Aquaduct (Water Risks)	Water and drought risks mapped, globally.
	River Runner Global	Calculate which water stream a drop of rain will follow
	Movebank	Platform for animal tracking data.

NON-ENGLISH				
Region	Name	Link	Language	Description
Global	DeepL	https://www.deepl.com/en/features	EU Japanese, Chinese	Web and desktop app for free translation up to 5000 characters per day
France	Skyrock	https://www.skyrock.com/	French	
Japan	Line	https://line.me/en/family-apps	Japanese	Popular social network in Japan. Free voice calls and messages, and users can share photos, videos, voice messages, and location info with friends and family. Similar to Telegram, users can share thousands of stickers.
South Korea	KakaoTalk	https://www.kakaocorp.com/service	Korean	Instant messaging platform from South Korea. Video and voice chats with unique filters, events, and announcement boards, as well as chat rooms. Users can send photos, voice notes, and location in messages.

China	Overview / Start.me page	https://start.me/p/7kLY9R/osint-chine	Mandarin / French	An overview of open-source investigation tools for China, written for French readers.
China	Baidu	http://www.baidu.com/	Mandarin	
China	QQ	https://www.imqq.com/English1033.html	Mandarin	App for international chats and calls, created by Tencent. Over 1 billion registered users. It includes a built-in translation feature that allows users to speak with friends in different languages.
China	Qzone		Mandarin	One of China's most popular social networking platforms. Users can write blogs, watch videos, share photos, and listen to music. You can customise your profile buy buying accessoires. Increasingly used for messaging, gaming, and online shopping too. Created in 2005 by Tencent.

China	Weibo	https://login.sina.com.cn/signup/signin.php	Mandarin	Microblogging platform, similar to Twitter with a 140-character limit and the ability to like, share, and receive @comments and messages. With Weibo Radar, users can find friends and daily deals in their area.
China	WeChat/ Weixin	Web(WeChat): https://web.wechat.com/	Mandarin	Most popular messaging and calling app in China. WhatsApp on steroids, as it includes a number of services like doctor's appointments, paying electricity bills and book flights, besides the usual messaging app for voice and video calls.
China	Douyin	https://www.douyin.com/	Mandarin	The Chinese version of TikTok
China	Bilibili	https://www.bilibili.com/	Mandarin	A video sharing site similar to YouTube
China	Xiaohongshu	https://www.xiaohongshu.com/explore	Mandarin	An image and video sharing app similar to Instagram

Former Soviet Union	Odnoklassniki (OK)		Russian	
Former Soviet Union; Middle East; Europe	Telegram		Russian	
Former Soviet Union	Vkontakte (VK)	https://vk.com	Russian	Large social networking site in the former Soviet Union. Very similar lay-out to Facebook with messages, ability to create pages and groups, share and tag images, upload photos and videos, and play games.
	Badoo			
	Taringa!			
	Viber			
Europe	Xing	https://www.xing.com	-	
The Netherlands	Hyves	https://archive.org/details/hyves	Dutch	Old Dutch social network site, retired but archived here.
UAE / Dubai	2gis.ae	https://2gis.ae/dubai	English, Arabic	Addresses have 'Makani' numbers. This website makes them easy to find.

UAE / Dubai	Dubai Land	https://dubailand.gov.ae/en/eservices/property-status-overview//	English, Arabic	Dubai real-estate and property data; title deeds
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ONLINE SECURITY & PRIVACY	
name	description
Protect Yourself From Online Tracking	Privacy International's guide that recommends tools and extensions for Android, iOS, MacOS and Windows that protect you from online tracking.
HTTPS Everywhere	A browser add-on to force any visited sites to serve data over HTTPS (to help prevent man-in-the-middle attacks).
Two Factor Auth (2FA)	Check for every digital service you use whether you have enabled two-factor authentication (2FA)
Panopticlick	A profiling tool which provides a measure of how easy your particular browser instance is to identify. (i.e. How much do you stand out from the crowd.) Can be used in conjunction with https://browserleaks.com/ , which gives a very detailed breakdown of what your browser makes available to the outside world.
Privacy Badger	A browser add-on to prevent browser tracking/cookies.
Search Engines Which Protect Privacy	DuckDuckGo, StartPage, Qwant
Security in a Box	Security in a box guide advice on how to use social media and mobile phones more safely. The Tool Guides offer step-by-step instructions to help you install, configure and use some essential digital security software and services

Security Planner (CitizenLab)	Answer a few simple questions to get personalized online safety recommendations. It's confidential - no personal information is stored and CitizenLab won't access any of your online accounts.
Surveillance Self-Defense	Tips and methodologies for safe(r) online communications.
Tech Solidarity	Basic Security Guide, do and don'ts for basic security when using a laptop and/or mobile device. Here's a guide: techsolidarity.org/resources/basic_security.htm .
URLscan	This is a sandbox that allows you to scan a URL to check it's safe before properly visiting it.
VirusTotal	Analyze suspicious files and URLs to detect types of malware, automatically share them with the security community
Malicious URL Tester	Testing unknown URLs.
Tella App	App for encrypting data on your phone and for securely transferring files
Blur - Chrome extension	Automatically blur images and videos on a page - for when you don't want to see images
ARCHIVING & DOWNLOADING	
name	description
Archive.org	Internet Archive / Wayback Machine
Hunch.ly	Research sidekick. Archives to a local drive.
Pinpoint	Catalogues uploaded documents and files, providing OCR, indexing, and other services.
Archive.today	Archive any webpage, including Facebook.

Arweave	Decentralized (blockchain) archiving.
DMCA	Search takedown notices
Gruber	Slideshare downloader
Wayback Machine Downloader	Download an entire website from the Wayback Machine.
Git Wayback Machine	Finds and searches when and who did what!
Gitrob	Reconnaissance tool for GitHub organizations
Dumpster Diver	Tool to search for secrets in various file types.
TruffleHog	Searches through git repositories for high entropy strings and secrets, digging deep into commit history
Stone	A “research transparency” app that captures desktop research using screen capture and webcam commentaries..
WITNESS	An activists guide to archiving videos.
Perma.cc	Archiving site meant for serious, academic research to preserve citations
Telegram	Guide on archiving Telegram
DATA VISUALIZATION	
name	description
Gephi	Opensource network & visualization program

OCCRP Visual investigative scenarios	Tool that let's you visualize major networks of individuals & companies, designed for journalists, activists, and researchers
DataBasic.io	Web tools for beginners that introduce concepts of working with data
DataWrapper	Easy-to-use chart and mapping tool
Maptia	Support portal for visual storytelling
RAWGraphs	Free web tool to quickly visualize your data
Open Desktop Semantic Search	Desktop search engine that searches unstructured data well
TrustServista	Online story verification and visualisation tool
Neo4j	Graph Platform
Timeline Graphics Editor	Platform for creating timelines
Maltego	Helps both visualize networks and run 'transforms' to discover data from opensource automatically
MGRS Mapper	Map platform that lets you plot army positons/units
Visual timeline creator	
TimelineJS by Knight Lab	Make an interactive timeline of events.

