he GDELT GEO 2.0 API is accessed via a simple URL with the following parameters.

* **QUERY.** This contains your search query and supports keyword and keyphrase searches, OR statements and a variety of advanced operators.
  + **""**. Anything found inside of quote marks is treated as an exact phrase search. Thus, you can search for "Donald Trump" to find all matches of his name.
    - *"donald trump"*
  + **(a OR b)**. You can specify a list of keywords to be boolean OR'd together by enclosing them in parentheses and placing the capitalized word "OR" between each keyword or phrase. Boolean OR blocks cannot be nested at this time. For example, to search for mentions of Clinton, Sanders or Trump, you would use "(clinton OR sanders OR trump)".
    - *(clinton OR sanders OR trump)*
  + **-.** You can place a minus sign in front of any operator, word or phrase to exclude it. For example "-sourcelang:spanish" would exclude Spanish language results from your search.
    - *-sourcelang:spanish*
  + **Domain**. Returns all coverage from the specified domain. Follow by a colon and the domain name of interest. Search for "domain:cnn.com" to return all coverage from CNN.
    - *domain:cnn.com*
  + **DomainIs**. This is identical to the main "Domain" operator above, but requires an exact match, allowing searching for common short domains like "un.org". For example, when searching for "domain:un.org" many other domains that end in "un.org" are returned like "catholicsun.org". Using this option you can restrict to a precise match, allowing you to return only articles from the "un.org" domain.
    - *domainis:un.org*
  + **ImageFaceTone**. Searches the average "tone" of human facial emotions in each image. Only human faces that appear large enough in the image to accurately gauge their facial emotion are considered, so large crowd photos where it is difficult to see the emotion of peoples' faces may not be scored accurately. The tone score of an average photograph typically ranges from +2 to -2. To search for photos where visible people appear to be sad, search "imagefacetone<-1.5". Only available in any of the "image" modes.
    - *imagefacetone<-1.5*
  + **ImageNumFaces**. This searches the total number of foreground human faces in the image. Typically only unobstructed human faces facing toward the camera and in the foreground of the image are counted – large crowd scenes will not be counted properly. Use this to identify images depicting a certain number of people in the foreground of the photo. You can search for "<" less than, ">" more than or "=" – searching "imagenumfaces=3" will identify images with three human faces, while "imagenumfaces>5" will return images with more than 5 human faces. Only available in any of the "image" modes.
    - *imagenumfaces>3*
  + **ImageOCRMeta**. This searches a combination of the results of OCR performed on the image in 80+ languages (to extract any text found in the image, including background text like storefronts and signage), all metadata embedded in the image file itself (EXIF, etc) and the textual caption provided for the image. To search for images of a specific event, such as "mobile congress" you would use this field, since that information would most likely either be found in signage in the background of the image, provided in the EXIF metadata in the image or listed in the caption under the image. The search parameter for this field must always be enclosed in quote marks, even when searching for a single word like "imageocrmeta:"zika"". Only available in any of the "image" modes.
    - *imageocrmeta:"zika"*
  + **ImageTag**. Every image processed by GDELT is assigned one or more topical tags from a universe of more than 10,000 objects and activities recognized by Google's algorithms. This is the primary and most accurate way of searching global news imagery monitored by GDELT, as these tags represent the ground truth of what is actually depicted in the image itself, whereas other fields like "imageocrmeta" and "imagewebtag" reflect metadata and caption information provided by others about the image. Always remember that these tags are assigned 100% by computer and thus you will always find some error in the results. You can find a list of all tags appearing in at least 100 images over the past year ([Image Tag Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-IMAGETAGS.TXT)) – in addition the two special tags "safesearchviolence" and "safesearchmedical" can also be used. Searching for "imagetag:"safesearchviolence"" will return violent images, for example. Values must be enclosed in quote marks. Only available in any of the "image" modes.
    - *imagetag:"safesearchviolence"*
  + **ImageWebCount**. Every image processed by GDELT is run through the equivalent of a reverse Google Images search that searches the web to see if the image has ever appeared anywhere else on the web that Google has seen. Up to the first 200 web pages where the image has been seen are returned. This operator allows you to screen for popular versus novel images – searching for "imagewebcount<10" will search for relatively novel images while "imagewebcount>100" will return images that appear widely online. Note that this records only the number of pages that Google has seen the image on, not the number of sites, meaning that if, for example, CNN uses a single image widely in its reporting of a breaking news event and publishes many articles on the event with the same image, this count will be high for that image, even though it is a novel image. Only available in any of the "image" modes.
    - *imagewebcount<10*
  + **ImageWebTag**. Every image processed by GDELT is run through the equivalent of a reverse Google Images search that searches the web to see if the image has ever appeared anywhere else on the web that Google has seen. The system then takes every one of those appearances from across the web and looks at all of the textual captions appearing beside the image and compiles a list of the major topics used to describe the image across the web. This offers tremendous descriptive advantage in that you are essentially "crowdsourcing" the key topics of the image by looking at how it has been described across the web. Values must be enclosed in quote marks. Only available in any of the "image" modes. You can access a list of all tags appearing in at least 100 images ([Image WebTag Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-IMAGEWEBTAGS.TXT)).
    - *imagewebtag:"drone"*
  + **Location**. Searches for a given word or phrase in the full formal name of the location. Thus, you can search for "location:"new york"" to search for all locations that contain "new york" in their name (though in this case "locationadm1:usny" would also yield the same result). Values must be enclosed in quote marks.
    - *location:"new york"*
  + **LocationADM1**. Returns all matches within the specified first order administrative division (ADM1). Search for "locationadm1:ustx" to return all matches from the state of Texas in the United States. Due to spelling variations you must specify the four-character ADM1 code rather than spelling it by name ([ADM1 Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-ADM1S.TXT)).
    - *locationadm1:USTX*
  + **LocationCC**. Returns all matches within the specified country. For countries with spaces in their names, type the full name without the spaces (like "locationcc:unitedarabemirates" or "locationcc:saudiarabia"). You can also use their 2-character FIPS country code ([Country Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-COUNTRIES.TXT)).
    - *locationcc:france*
  + **Near**. This returns all matches within a certain radius of a given point. You specify a particular latitude and longitude and then a radius in either miles or kilometers from that point and all matches within the resulting bounding box are returned. Note that while a radius is specified the actual search conducted is technically a bounding box, rather than a radial search. NOTE that for southern latitudes and western longitudes you should use negative values. By default "radius" is interpreted as miles, but you can append "km" to the end to specify kilometers. To search for all mentions of locations within 100 miles of Paris, France, you would use "near:48.8566,2.3522,100" or to use 100 kilometers instead, you would search for "near:48.8566,2.3522,100km".
    - *near:48.8566,2.3522,100*
  + **SourceCountry**. Searches for articles published in outlets located in a particular country. This allows you to narrow your scope to the press of a single country. For countries with spaces in their names, type the full name without the spaces (like "sourcecountry:unitedarabemirates" or "sourcecountry:saudiarabia"). You can also use their 2-character FIPS country code ([Country Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-COUNTRIES.TXT)).
    - *sourcecountry:france*
  + **SourceLang**. Searches for articles originally published in the given language. The GEO API currently only allows you to search the English translations of all coverage, but you can specify that you want to limit your search to articles published in a particular language. Using this operator by itself you can map all of the locations mentioned in a particular language across all topics to see the geographic focus of a given language. Search for "sourcelang:spanish" to return only Spanish language coverage. You can also specify its three-character language code. All 65 machine translated languages are supported ([Languages Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-LANGUAGES.TXT)).
    - *sourcelang:spanish*
  + **Theme**. Searches for any of the GDELT Global Knowledge Graph (GKG) Themes. GKG Themes offer a more powerful way of searching for complex topics, since they can include hundreds or even thousands of different phrases or names under a single heading. To search for coverage of terrorism, use "theme:terror". You can find a list of all themes that have appeared in at least 100 articles over the past two years ([GKG Theme Lookup](http://data.gdeltproject.org/api/v2/guides/LOOKUP-GKGTHEMES.TXT)).
    - *theme:TERROR*
  + **Tone**. Allows you to filter for only articles above or below a particular tone score (ie more positive or more negative than a certain threshold). To use, specify either a greater than or less than sign and a positive or negative number (either an integer or floating point number). To find fairly positive articles, search for "tone>5" or to search for fairly negative articles, search for "tone<-5".
    - *tone<-5*
  + **ToneAbs**. The same as "Tone" but ignores the positive/negative sign and lets you simply search for high emotion or low emotion articles, regardless of whether they were happy or sad in tone. Thus, search for "toneabs<1" for fairly neutral articles or search for "toneabs>10" for fairly emotional articles.
    - *toneabs>10*
* **MODE**. This controls the type of map that is generated. The modes that begin with "image" are restricted to image-related searches, while the other modes are restricted to keyword searches and basic document attribute searches. For example, to create a point map of a textual keyword or all coverage from a particular domain or a specific language, use "PointData" mode, while to search for all images depicting flooding, use "ImagePointData".
  + **PointData**. This is the default map mode and displays a dot at each location mentioned in proximity to your search term. It supports only textual searches and basic document attribute searches. All image-related search parameters (like "imagetag") are disabled in this mode and will return an error. Each location includes an HTML block listing up to 5 matching articles matching your search that appeared in proximity to that location.
  + **ImagePointData**. This is identical to PointData mode, but supports only the image-related search parameters and a few basic document parameters like source language. In short, if you want to create a map of a textual keyword or article attributes like language or tone use the "PointData" mode and if you want to search for images use the "ImagePointData" mode. Each location includes an HTML block listing up to 5 matching images matching your search.
  + **PointHeatmap**. If you just want to create a heatmap of the locations most closely associated with your search term, but don't need to return a list of the matching articles themselves, this mode returns up to 25,000 distinct matching locations. It trades off not returning the matching article list to be able to return a larger list of locations. This mode is only available with GeoJSON output format.
  + **ImagePointheatmap**. The same as above, but for image searches.
  + **PointAnimation**. Similar to PointHeatmap in that it does not return the actual article list, but extends it by creating a series of heatmaps in 15 minute increments over the past 7 days, allowing you to visualize the changing geography of a topic. This mode is only available with GeoJSON output format. The GeoJSON is optimized for one-click visualization using Carto's "Torque" animation mode.
  + **ImagePointAnimation**. The same as above, but for image searches.
  + **Country**. This map mode aggregates all locations to the country level. With PointData mode, often there are so many dots on the screen it can be hard to really get a sense of the macro country-level landscape of a search. This mode also performs normalization, dividing the number of times locations in each country were mentioned in context with your search by the total number of times that country's locations were mentioned overall and multiplied by 100 to yield a percent density. This normalizes for the fact that there are likely more articles mentioning the United States with respect to any major global issue simply because the US plays such a central role in global politics, so by normalizing the result volume, the underlying true geographic trends emerge.
  + **ImageCountry**. The same as above, but for image searches.
  + **SourceCountry**. This map mode reflects the country or origin of your search results, coloring each country by the percent of all content monitored from that country over the last 7 days that contained your search term and clicking on any country shows up to five matching articles from that country's press. This allows you to rapidly triage how the world is reporting on a particular issue and the specific framing and contextualization distinct to each nation's press.
  + **ImageSourceCountry**. The same as above, but for image searches.
  + **ADM1**. This performs the same role as "Country mode above, but operates at the resolution of first order administrative divisions (ADM1's). This offers the benefits of geographic aggregation while offering finer resolution for analyses where it is important to understand the specific corner of a country that is being mentioned most frequently in context with your search. Note that this mode may display less of the world than either point or country modes, since a mention of "France" will appear in the latter modes, but ADM1 will only reflect city/landmark or ADM1 resolution hits.
  + **ImageADM1**. The same as above, but for image searches.
* **FORMAT**. This controls what file format the results are displayed in and allows you to control whether only articles that contain social sharing images are shown.
  + **HTML**. This is the default mode and returns a fully interactive browser-based map. The title of each matching article is displayed in textual format in the location popup.
  + **ImageHTML**. This is the same as "HTML" mode, but filters for only articles that contain a social sharing image and displays results by showing a thumbnail image beside the title of each article in the location popup. This format is required for the "image" modes but can be optionally used with the other modes.
  + **ImageHTMLShow**. This enables a special "showcase" mode in which the search results are divided into a 5 degree grid and one image is selected for display from each grid cell and displayed in a popup with up to 100 images total displayed on the map. This is particularly useful for presentations and for rapidly triaging matching imagery from across the world since a sample of up to 100 images scattered across the world are shown all at once, rather than having to see the results one at a time by clicking on each location. This format is only available for pointdata, country, sourcecountry, imagesourcecountry, imagecountry and imagepoint data modes.
  + **GeoJSON**. This outputs the map as a fully compliant GeoJSON file, ready for import directly into [Carto](https://carto.com/) and other online mapping platforms. For country and ADM1 modes, all polygonal geometry needed to display the map is embedded in the file as a MultiPolygon, allowing you to import and display the map without any further work. For all modes other than "pointheatmap" and "pointanimation", the GeoJSON file will contain the HTML code necessary to display the popup article list for each location.
  + **ImageGeoJSON**. This is the GeoJSON equivalent of the ImageHTML format – only articles with a social sharing image are returned and the HTML popup code contains the thumbnail images for each article sized to display at 175×100 pixels with rounded edges.
  + **RSS**. Displays matching results in RSS format.
  + **ImageRSS**. Displays matching results in RSS format and filters for only articles that contain a social sharing image.
  + **JSONFeed**. Displays matching results in JSONFeed format.
  + **ImageJSONFeed**. Displays matching results in JSONFeed format and filters for only articles that contain a social sharing image.
  + **CSV**. Displays matching results in CSV format.
  + **ImageCSV**. Displays matching results in CSV format and filters for only articles that contain a social sharing image.
* **TIMESPAN**. By default all articles monitored by GDELT over the last 24 hours are searched, but you can narrow this range if you want to consider only the most recent articles, up to the last 15 minutes. You can specify the number of minutes back to search, from the last 15 minutes up to 7 days.
  + **Any value between 15 and 1440**. The number of minutes back to search.
  + **Any value followed by "h".** The number of hours back to search ("2h" = 2 hours).
  + **Any value followed by "d".** The number of days back to search ("2d" = 2 days). Up to 7 days.
  + **A value of "1w".** The number of weeks back to search ("1w" = 1 week). Up to one week.
* **TIMESPANROUND**. For point modes, timespans offer precision down to the specified timespan back from the current second. This creates problems when using the normalized mapping modes like Country or ADM1 modes, which must normalize the results by the total monitoring volume for that country/ADM1. Currently, normalization tables are stored at the daily level running from midnight to 11:59:59PM each day. To ensure that normalization is correct, when using any of the Country or ADM1 modes, the start time is computed based on the selected timespan and then rounded back to the start of that day. You can override this behavior, but it will mean the normalization percentages displayed will be incorrect.
  + **Precise**. Prevent automatic rounding back to the start of the day. Means results will accurately reflect the specified timespan precisely, but normalization percentages will be inaccurate.
* **MAXPOINTS**. To conserve system resources, the API only returns up to a certain maximum number of results for each mapping mode. You can restrict the number of results even further to minimize the size of your maps. This parameter is only enabled for "point" modes and is ignored for all other modes.
  + **Pointdata Mode: 1-1000 Locations**. In pointdata mode, this parameter controls the number of distinct locations drawn on the map, with up to 5 results (this is not configurable) from each location displayed in pointdata mode.
  + **PointHeatmap Mode: 1-25000 Locations**. In pointheatmap mode, up to 25,000 distinct locations are returned.
  + **PointAnimation Mode: 1-10000 Locations**. In pointanimation mode, up to 10,000 distinct locations per timestep are returned.
* **GEORES.** By default the API returns all locations, including cities, ADM1 and country-level mentions. Sometimes you want to filter for more precise geographic mentions, visualizing only city mentions and excluding country-level mentions, for example.
  + **0.** This is the default and will display all locations.
  + **1**. This excludes country mentions and displays ADM1 and city/landmark mentions.
  + **2**. This excludes country and ADM1-level mentions and displays only city/landmark mentions.
* **SORTBY**. By default results are sorted by relevance to your query. Sometimes you may wish to sort by date or tone instead.
  + **Date**. Sorts results by publication date, displaying the most recent articles first.
  + **ToneDesc**. Sorts results by tone, displays the most positive articles first.
  + **ToneAsc**. Sorts results by tone, displays the most negative articles first.
* **ZOOMWHEEL**. By default on desktop computers the mouse scrollwheel can be used to interactively zoom in/out of the map. When embedding the map in a longer webpage, this can interrupt scrolling of the embedding page. Include "&zoomwheel=0" or "&zoomwheel=false" in the URL to disable scrollwheel zooming for the map.