Dimensions Analytics

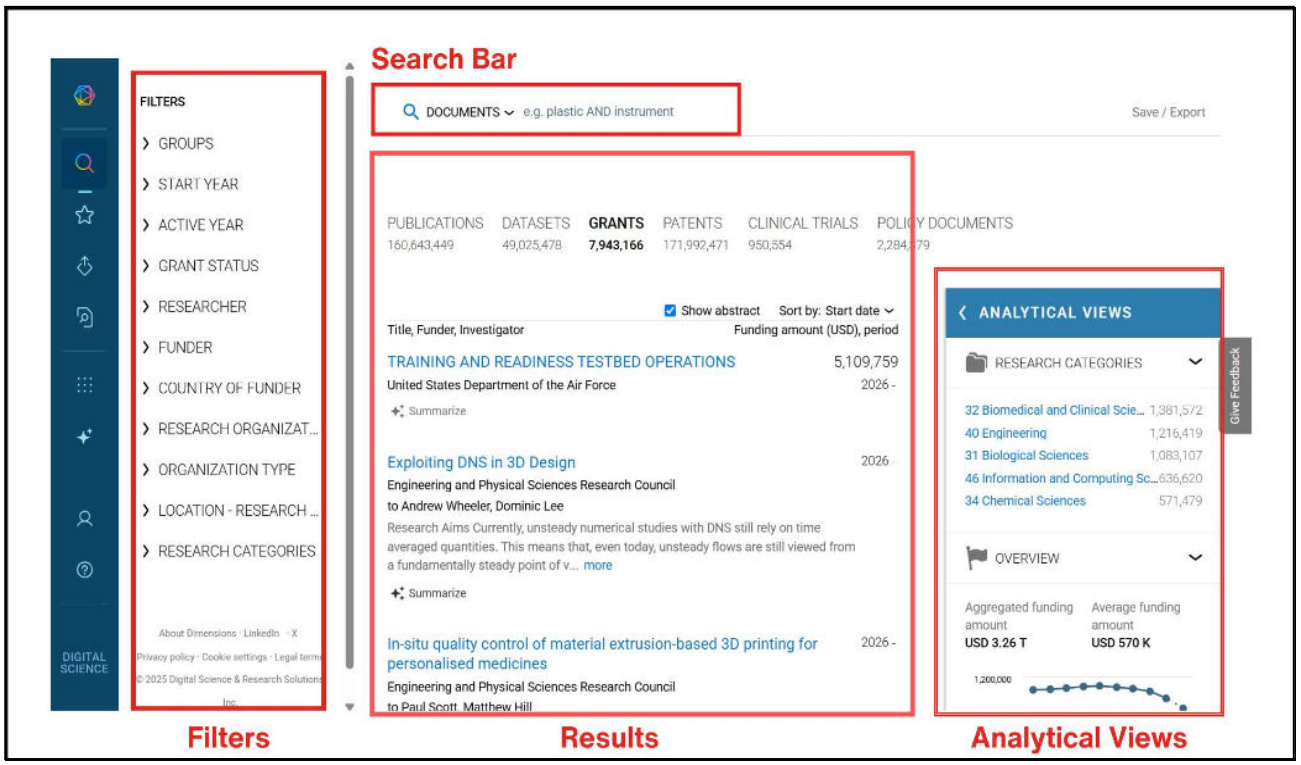
The Basics

Last updated: June 2022

Content

Navigation Overview

The Dimensions platform is divided into three main sections, with a search bar at the top, as illustrated below. The primary sections are Filters, Results (records), and Analytical Views.



Types of searches

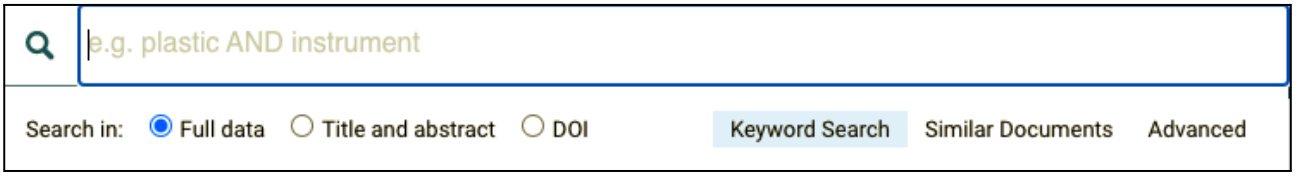
There are a number of ways to search in Dimensions. Below is a brief summary of each.

Document Searches

Document searches allow for searching across the various content types in Dimensions - publications, datasets, grants, patents, clinical trials, policy documents.

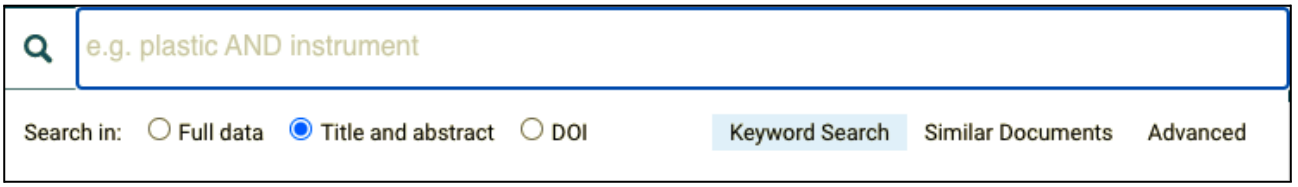
Full data

Our agreements with over 130 publishers mean that Dimensions enables you to search the full text of roughly 70% of publications - even the ones you may not have full text access to. Whether you're searching for a specific chemical or field-specific terminology - expand your search beyond title and abstract to return a broader set of results.



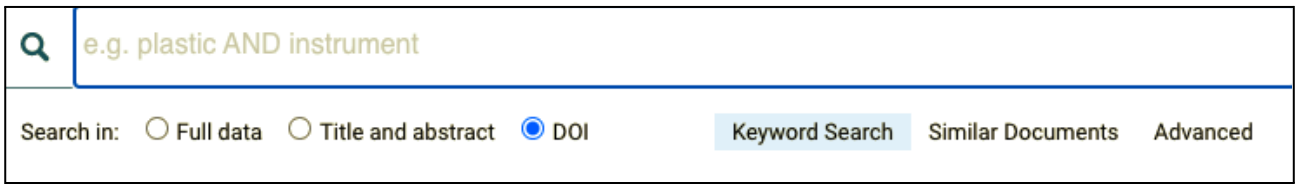
Title & Abstract

This is just what it sounds like - limit your search to just the title and abstract available within Dimensions. This will generally give you a smaller set of results than a full data search, but likely very relevant.



DOI Search (publications only)

If you know exactly what you're looking for, you can search for one or more DOIs. Enter a DOI (add a boolean OR to include additional DOIs), and select the DOI toggle button.

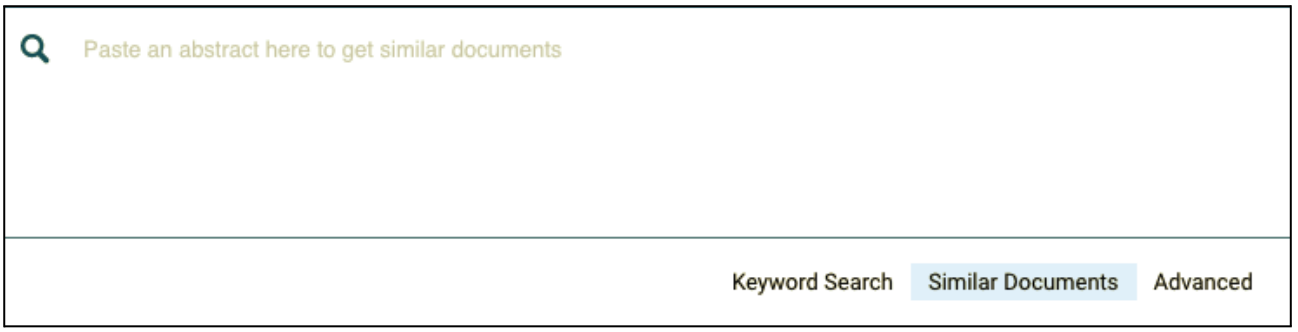


Similar Documents Search

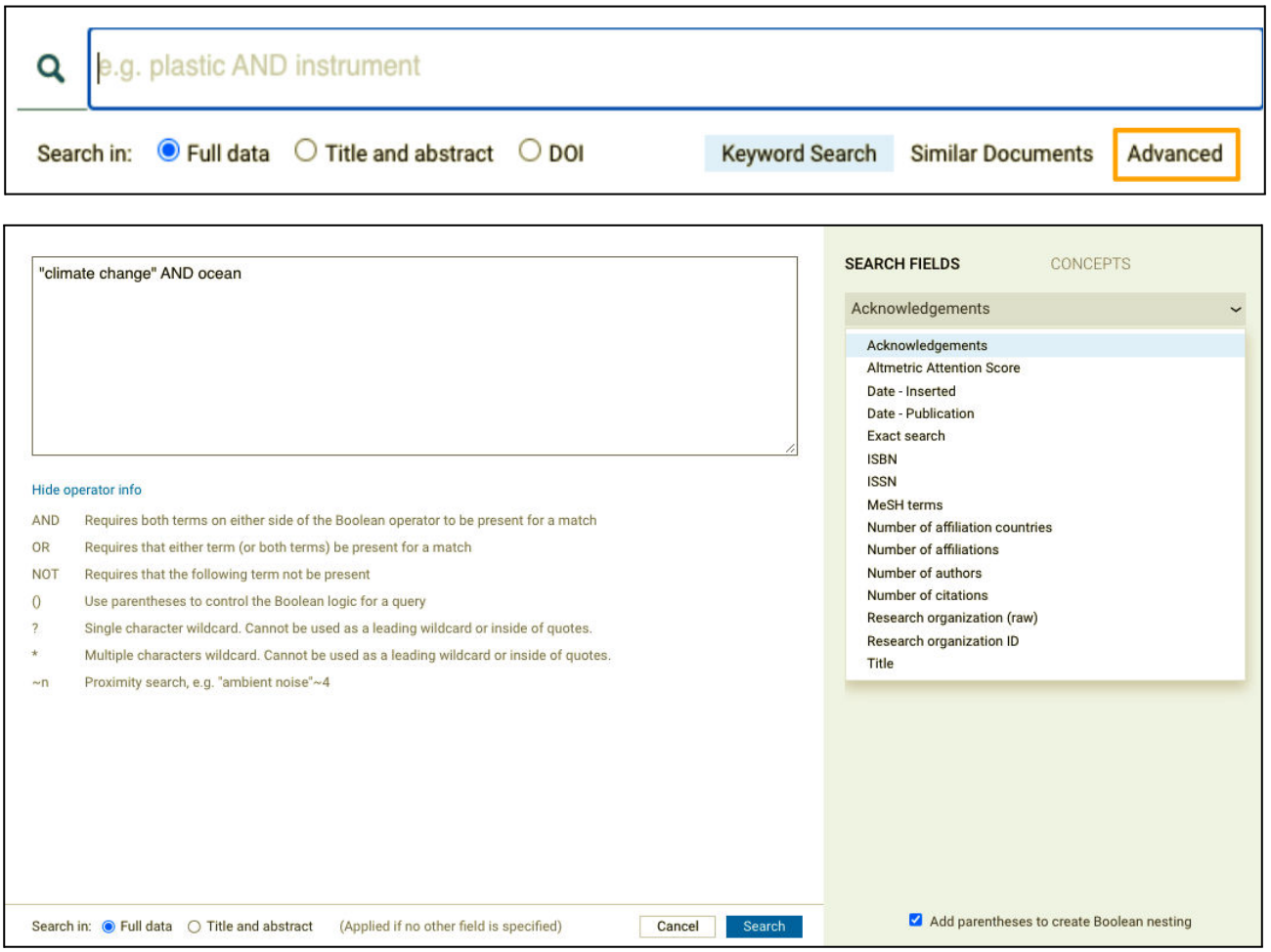
Using the Dimensions 'similar documents' search, you can enter a thesis statement or project summary (any "blob of text") to find closely related content. Dimensions will extract terms from the text and search all content types simultaneously and return highly similar content. This is one of the most popular features in Dimensions. This type of search is recommended when the text is specific enough to yield meaningful results.

→ Remember to press enter after pasting the text.

The default number of records returned is 500, this can be increased to 1,000 or 2,000 using the drop-down menu under your results.



Advanced search extended field searching



You can now take advantage of the following options (unless otherwise noted, these options are available for publications only) via the Advanced Search button on the search bar to help refine your queries and search within the following fields and ranges:

Acknowledgements

Altmetric Attention score (range)
Can be used with publications & clinical trials

Date - inserted (range, mmddyyyy - mmddyyyy, date added to Dimensions)
Can be used with all content types

Date - publication (range, mmddyyyy - mmddyyyy)

Exact search
Use when you do not want Dimensions to automatically search for plurals, etc.

ISBN

ISSN

MeSH terms
Can be used with publications & clinical trials

Number of affiliation countries (range)

Number of affiliations (range)

Number of authors (range)

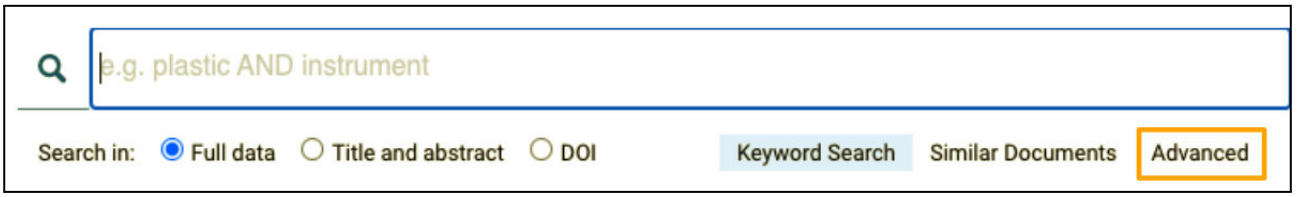
Number of citations (range)

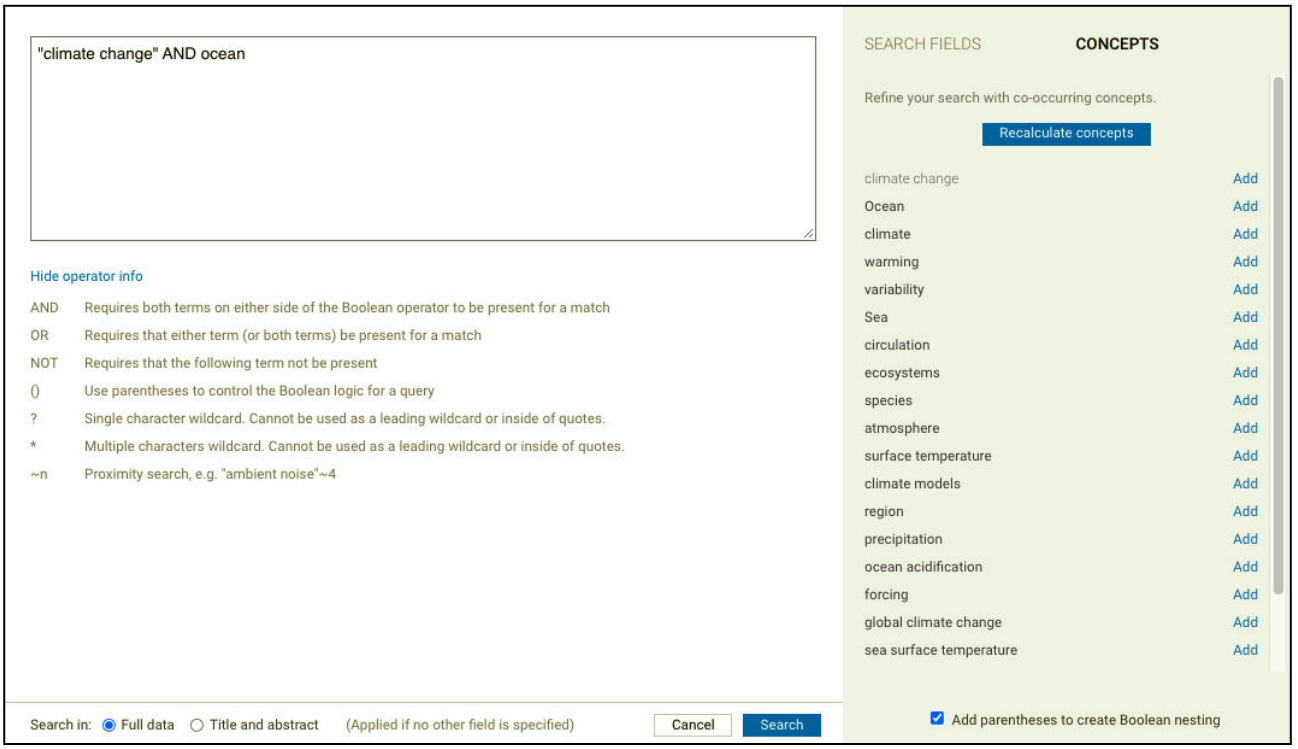
Research organizations (raw)
Search within the raw affiliation string

Research organization ID

Title (title only, not title & abstract)
Can be used with all content types

Advanced search with co-occurring concepts





You can access a list of relevant concepts related to their current search to further refine a query: either to narrow down the results or to broaden the search.

Open the search bar and click on “Advanced” - the panel can be entered from all content types

To calculate co-occurring concepts the user needs to provide at least one keyword or filter
The terms are always calculated based on publication results - We calculate n=20 concepts per default, more can be loaded on request (click on “show more”), max 100

After adding / manipulating concepts, users can recalculate concepts (“Recalculate concepts” button). As for every other keyword search, users can choose between searching in “full data” or “title & abstract”.

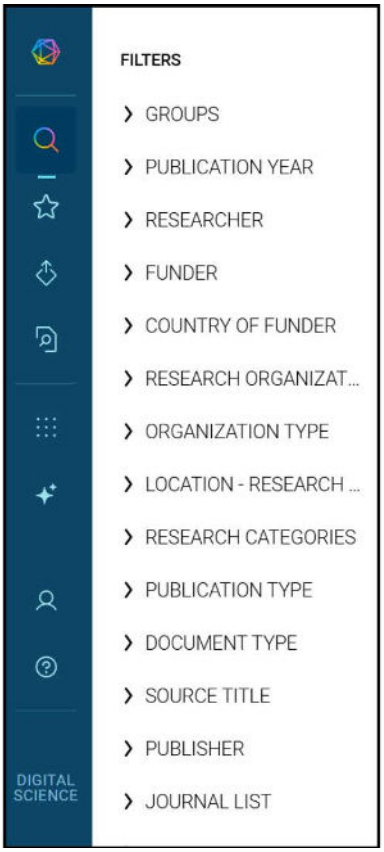
You can opt to either add the term with a Boolean AND, OR or NOT (drop down will appear when clicking “Add”)

You can also opt to add parentheses to create Boolean nesting.

Organization Searches

Organization searches allow you to search for organizations by name or ID, filter by organization type or location, or export organization details.

Filters



Filters should be considered similar to “advanced search” fields and should be the first stop in constructing a query that involves:

- Date parameters
- Researchers
- Organizations (Funders, Universities, Companies, Publishers)
- Places
- Research categories (see below)
- Status (eg. “active” in grants, “granted” in patents)

Entering these terms (eg. researcher name, organization name) into the search bar will not be as effective and will likely return some erroneous results.

Filter options will differ by content type (eg. a publication record does not have an “active year” whereas a grant record will).

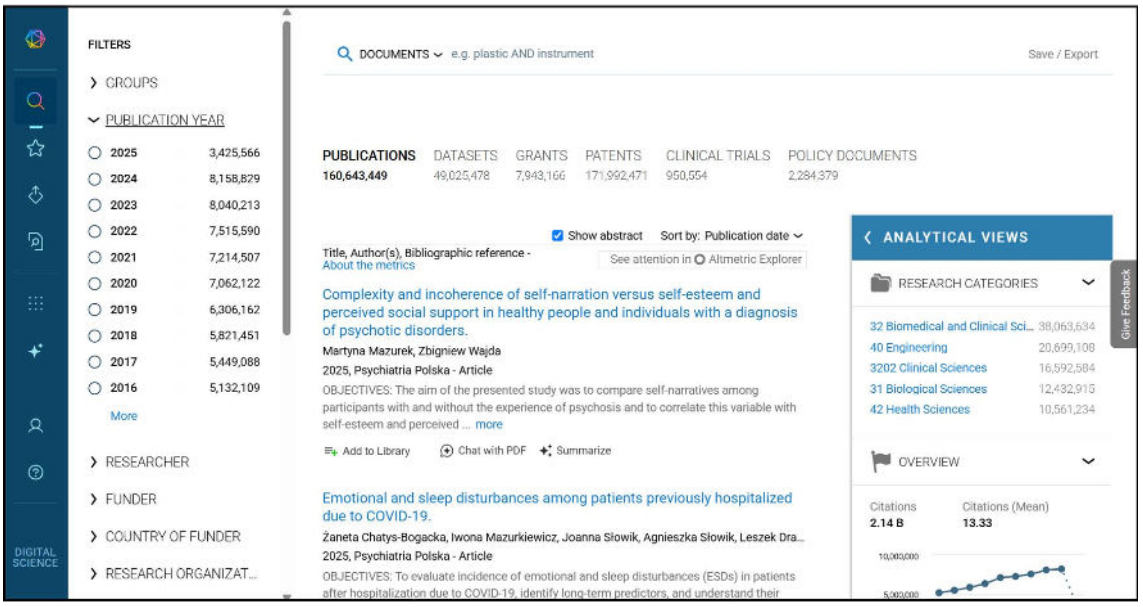
We recommend checking for applicable filters in relevant content types when constructing a query.

The filters are found on the left side of the page, and allow you to narrow down your search results to only those of interest, such as those related to a specific researcher, funder, research organization*, etc. If you are using Dimensions Analytics you can also create your own groups of entities to search with.

Limiting to a single filter item within an entity

To see all results for a specific researcher, organization or funder, etc., simply click on the relevant filter section on the left side to unfold it. If the name, organization or category you are looking for is among the top-listed, simply hover over the number of results next to this, and the words "Limit to" will appear. Click on "Limit to" to apply the filter to your search.

If the name, organization or category you are looking for is not in the top results listed, click on "more" and start typing the name you are searching for. Once this appears in the list, click "Limit to" next to the name, and the filter will be applied.

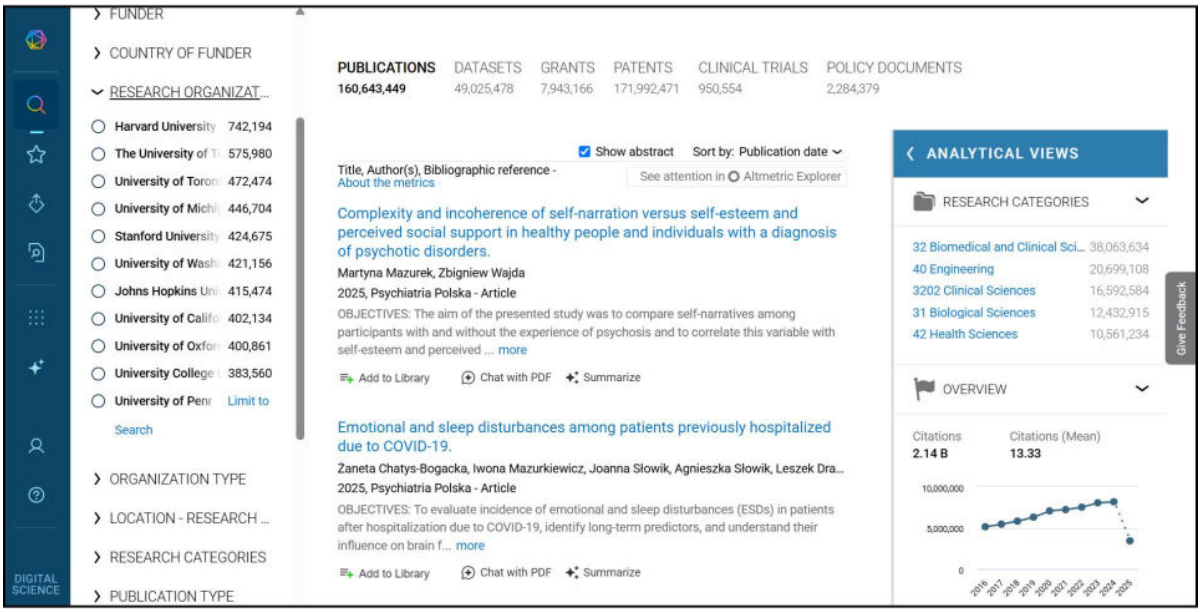


Limiting to more than one filter within the same entity

Combining filters with 'OR'

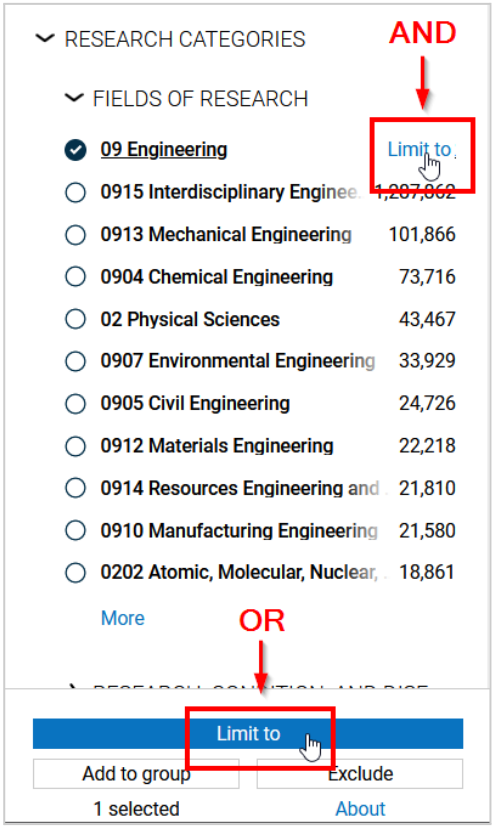
If you would like to limit to more than one filter within the same entity at a time in an "OR" search (e.g. when looking for all papers published by 5 different organizations), you can do this by ticking the circles to the left of each option of interest in the filter list. Simply select each of the names you want to include in the search by checking the circles, and then click on "Limit to" at the bottom of the page. If the names you are looking for do not appear in the top results, click on "more" and type the name. The options will appear, and when you identify the one you are looking for, click on this name, and it will be added, and included, in the list. Once you have added all

desired names, you can then click on "Limit to" to apply the group of filters to your search.



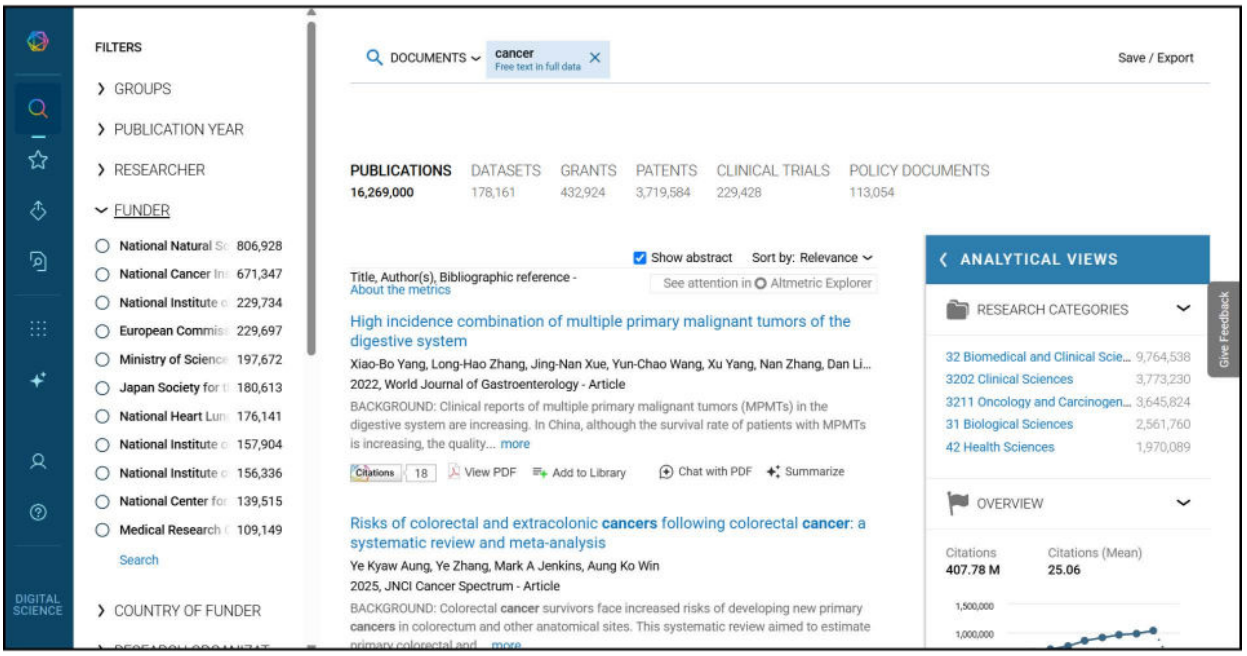
Combining filters with 'AND'

To combine multiple filters within one entity in an "AND" search (e.g. when looking for all papers which 5 different organizations have collaborated on), select the first of the desired filter options by clicking "Limit to" to the right of it and repeat this one after the other for each individual facet.



Excluding an entity from a search

Filters can also be used to exclude an entity from your search results. Simply select one or more entities in a filter and then click on "Exclude" at the bottom of the page.



Research Categorization Systems

Fields of Research (FOR)

We have implemented the Fields of Research (FOR) system covering all areas of research from the Australian and New Zealand Standard Research Classification (ANZSRC). The original FOR system has three levels (2-, 4- and 6-digit codes). The implementation in Dimensions categorises on 2- and 4-digit codes. This categorization system covers many areas of research including social sciences, art and history.

Research, Condition, and Disease Categorization (RCDC)

The Research, Condition, and Disease Categorization (RCDC) is a classification scheme used by the US National Institutes of Health (NIH) for reporting required by the US Congress. We have implemented this system using automated allocation of RCDC codes to documents in Dimensions based on category definitions defined by machine learning. In addition to the semantic definitions, the NIH uses business rules to assign awards to categories based on decisions rather than an analysis of the content and topic. These business rules are highly specific to the NIH and have not been taken into account for Dimensions. Also, RCDC reports to the US congress take the specific aims section into account, as well as the abstract. Using only the abstract and title for category definition, without the business rules or specific aims, allows a comparable RCDC categorization within Dimensions.

Health Research Classification System (HRCS) and Research Activity Codes (RAC)

The Health Research Classification System (HRCS) is a classification system used by biomedical funders to classify their portfolio in health and research activity codes. There are two strands to HRCS – Research Activity Codes and Health Categories. We have modelled Health Categories on a machine learning approach that are automatically applied to all data types, allowing broad analysis and comparison.

ICRP Cancer Types

The ICRP's cancer type coding scheme complements the CSO and is linked to the International Classification of Diseases. Information about the codes used can be found at ICRP https://www.icrpartnership-test.org/cancer-type-list. We have implemented this system using automated allocation of ICRP cancer types to documents in Dimensions based on category definitions defined by machine learning.

ICRP Common Scientific Outline

The Common Scientific Outline or 'CSO' is a classification system organized into six broad areas of scientific interest in cancer research. The CSO is complemented by a standard cancer type coding scheme. Together, these tools lay a framework to improve coordination among research organizations, making it possible to compare and contrast the research portfolios of public, non-profit, and governmental research agencies. The CSO is maintained by the International Cancer Research Partnership and further information on versions, using the CSO and training guides can be accessed at ICRP https://www.icrpartnership.org/cso. We have implemented this system using automated allocation of CSO codes to documents in Dimensions based on category definitions defined by machine learning.

Units of Assessment

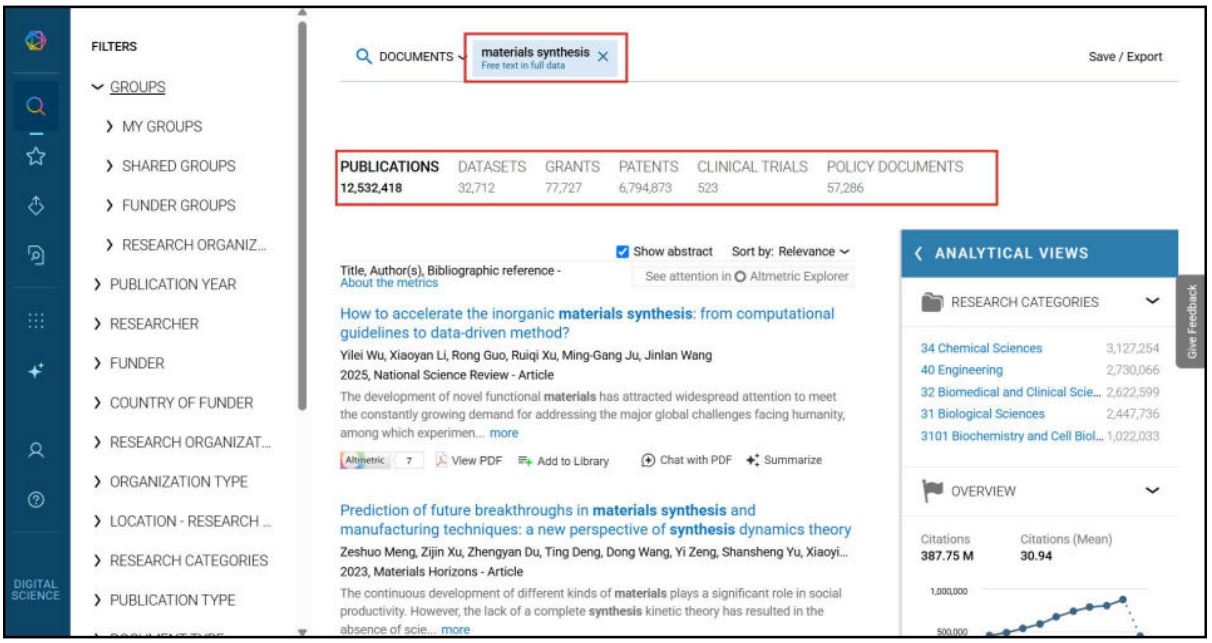
The Units of Assessment (UoA) is a classification scheme used by the Research Excellence Framework 2021 (REF) for assessing the quality of research in UK Higher Education Institutions. We have implemented this system using automated allocation of UoA codes to documents in Dimensions based on category definitions defined by machine learning.

Sustainable Development Goals (publications and grants only)

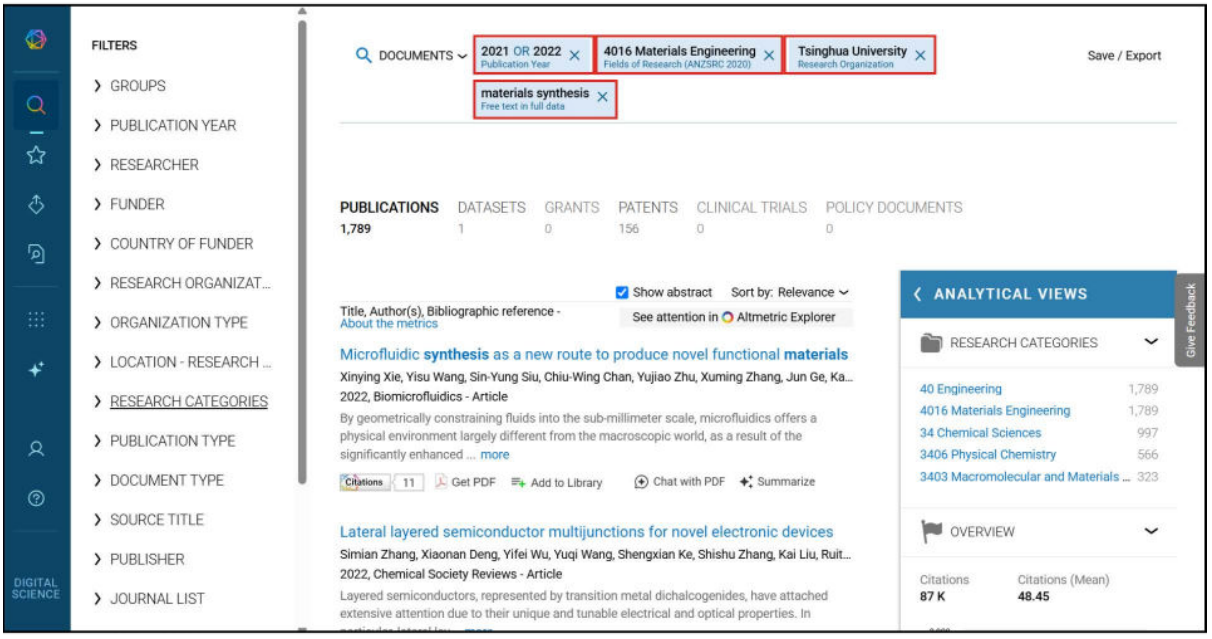
We have implemented the UN Sustainable Development Goals (SDGs) as a classification scheme covering areas of research associated with one or more SDGs (the majority of the SDGs are interrelated). The scheme uses automated allocation of the 17 SDGs and their associated targets and indicators to all fitting documents in Dimensions thereby addressing research areas aligned to the goals.

Results

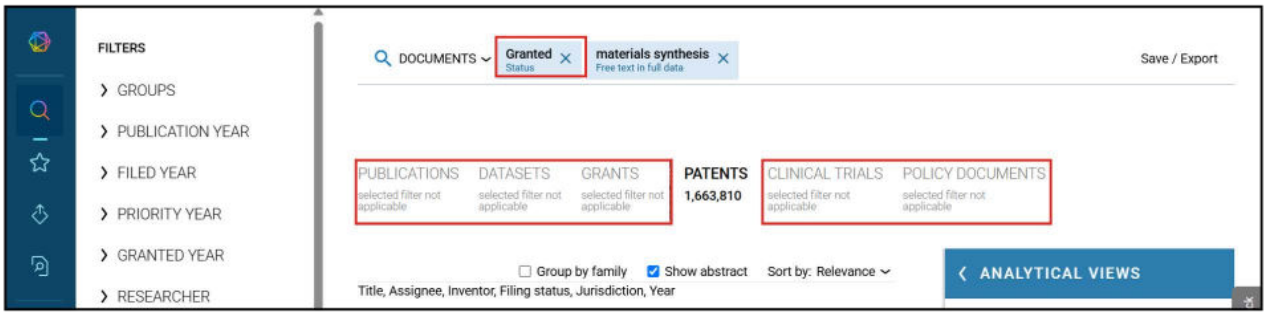
The middle panel in Dimensions will provide you with the resulting records from your query, across each content type as applicable. Information on supported boolean operators can be found via the support portal.



You can layer a boolean search or a similar documents search with filters:



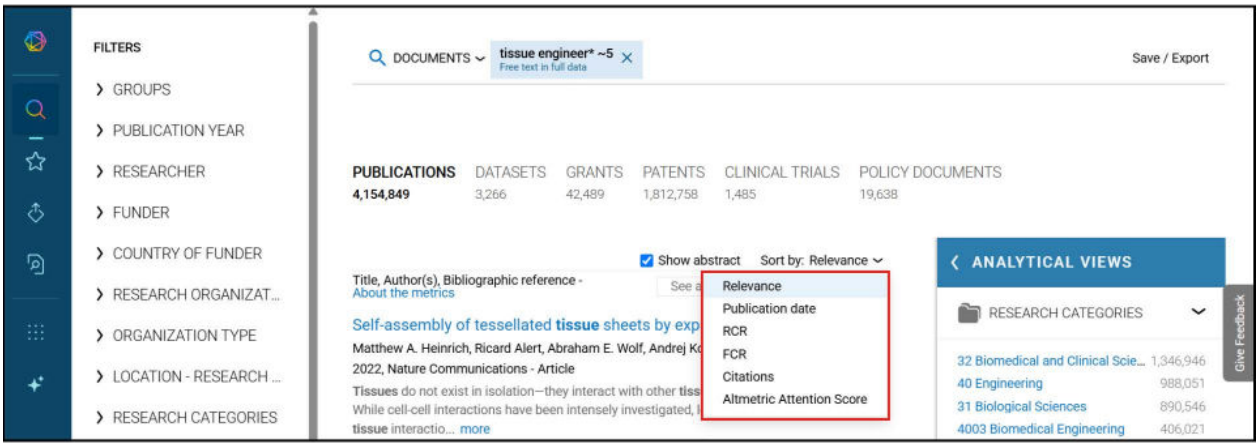
If filters are applied that are specific to a certain content type (eg. “Legal Status” in patents), this will be noted under the other content types.



Sorting results

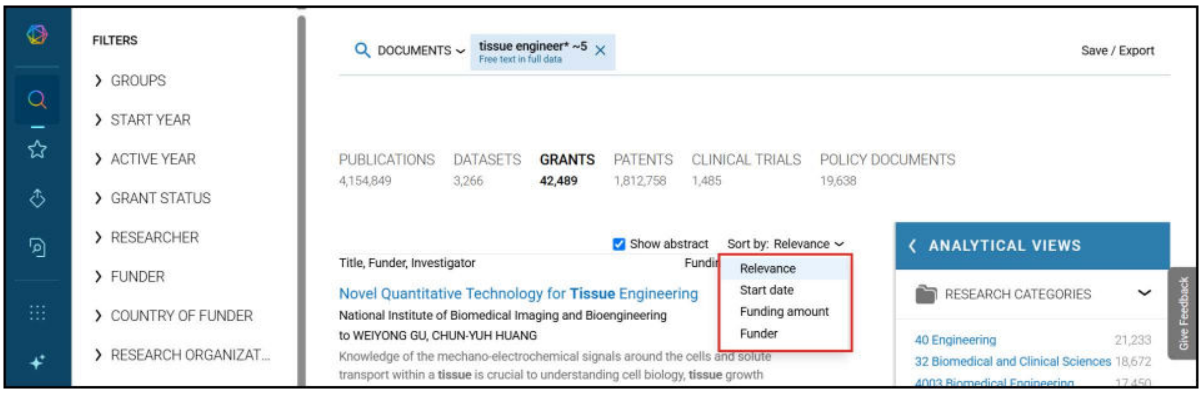
Results can be ordered in a number of ways:

Publications: Relevance, Publication, date, RCR, FCR, Altmetric score

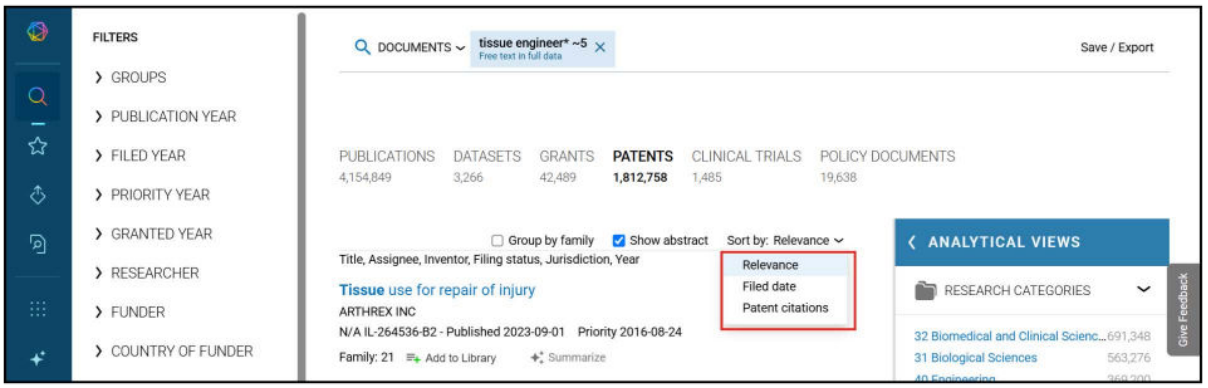


Datasets: Relevance, Publication date

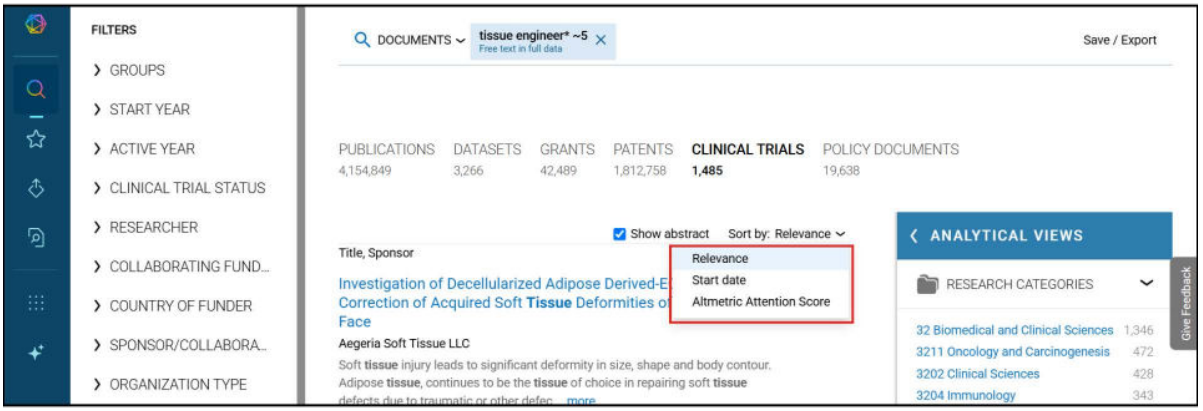
Grants: Relevance, Start date, Funding amount, Funder



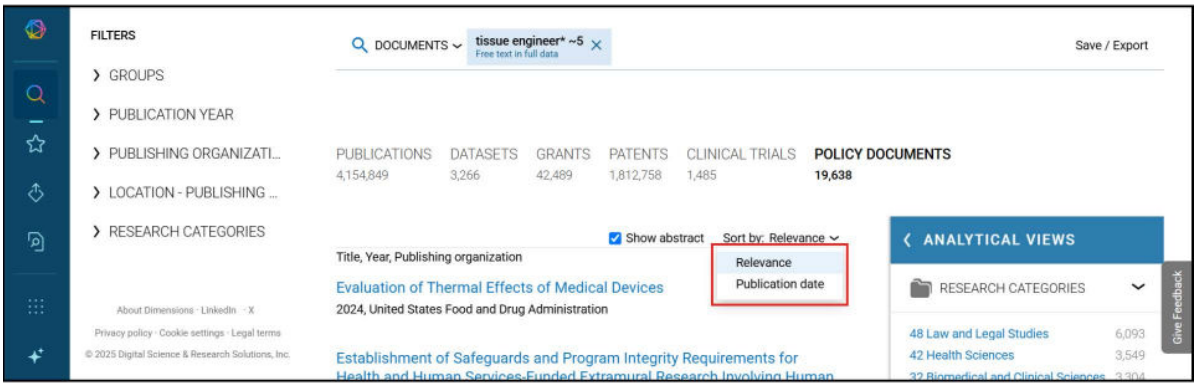
Patents: Relevance, Filed date, Patent citations



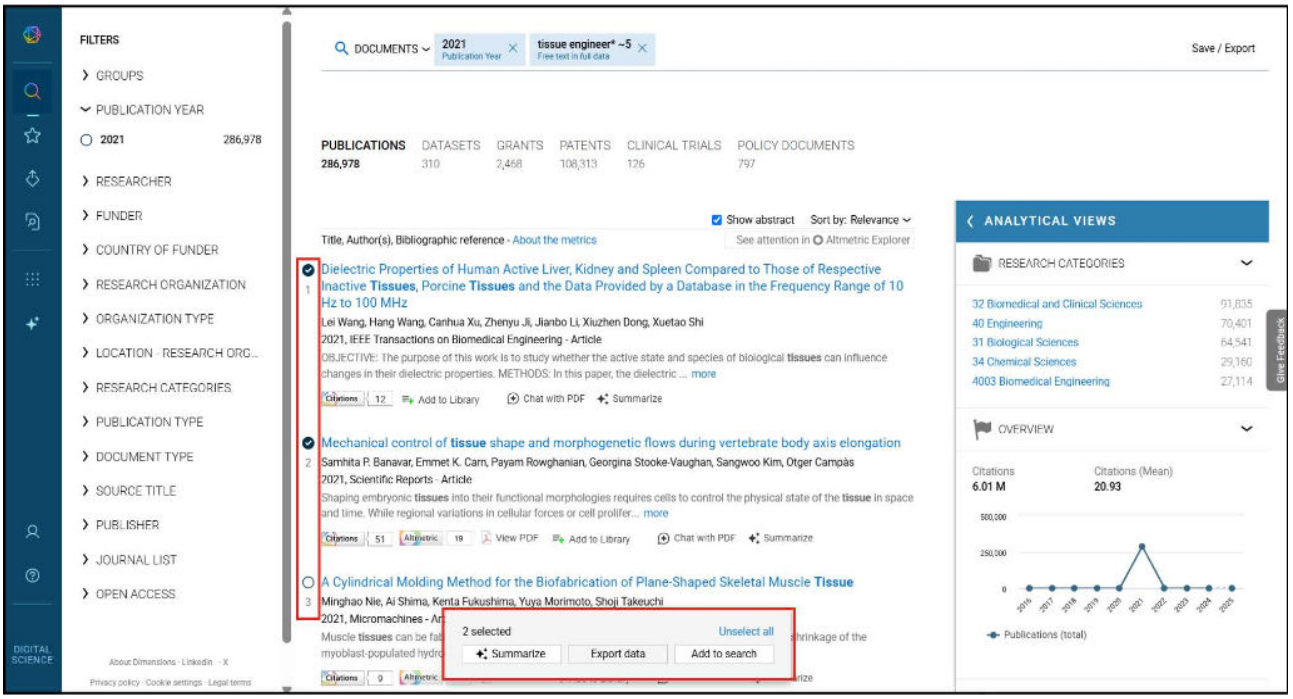
Clinical trials: Relevance, Start year



Policy Documents: Relevance, Publication date



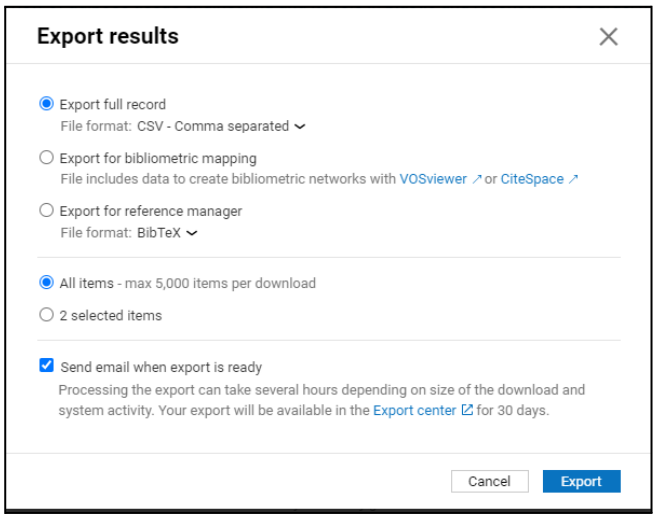
Exporting results



Results from each content type can be exported. Metadata included in the export will vary based on content type and/or analytical view from which they were exported.

Individual records can be exported by hovering to the left of records and checking the desired items. You can also select individual records to create a new set of search results. See the bottom of your screen for both export and “add to search” options.

Export options



Formats

Publications can be exported in three formats: .csv, .xlsx and .csv for bibliometric mapping. The bibliometric mapping export is compatible with two free network mapping applications, VOSviewer and CiteSpace. Up to 500 publication records can be exported in either BibTex/RIS format.

Export Center

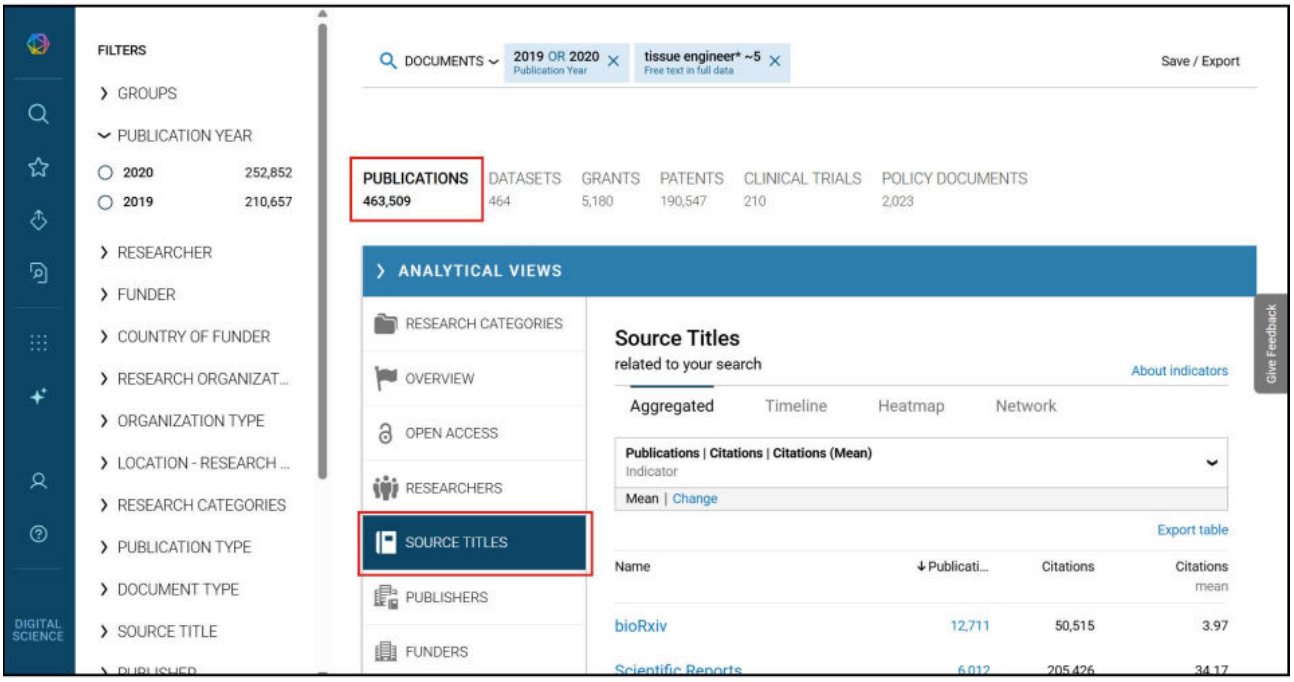
You can locate your downloads by clicking on your name in the upper left corner of the screen and selecting Export Center.

Analytical Views

Analytical views provide high-level insights into your search results in each content type. Think of Analytical Views as a pivot table for the metadata in your result list. These views provide instant insights into your results without any out-of-platform manipulation. In addition, you can export results from analytical views just as you would your result set, but with more options to download, including available visualizations as images. While available for all content types, some highlighted examples are shown below.

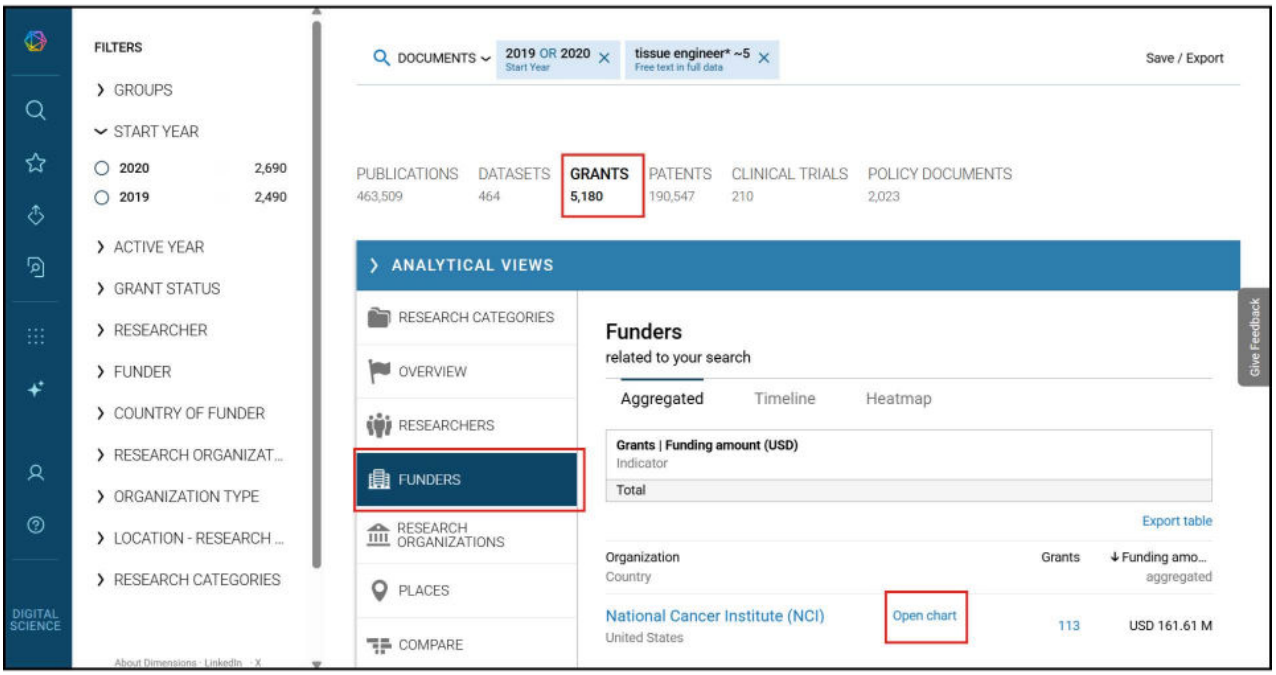
Publications

Here we can choose from a number of options. Below is an example that surfaces the source titles with the most articles related to this search. You can see other options including Research Categories, a general overview, Open Access (OA) status, researchers, publishers, funders, research organizations, places and a comparison tool.

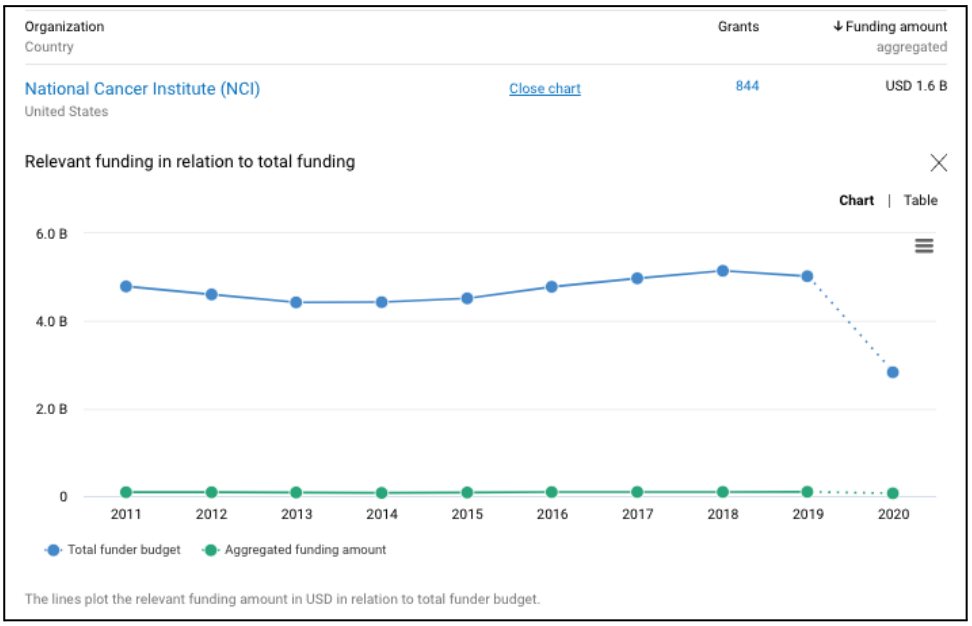


Grants

Similarly, Analytical Views for Grants display aggregated data based on our search. The below example shows funding data organized by funder, per the search criteria. You can even analyze the funding trends for that funder by clicking the Open chart link.



The blue line plots the funder's allocated budget over time; the green line shows their allocated amount relative to your search query.

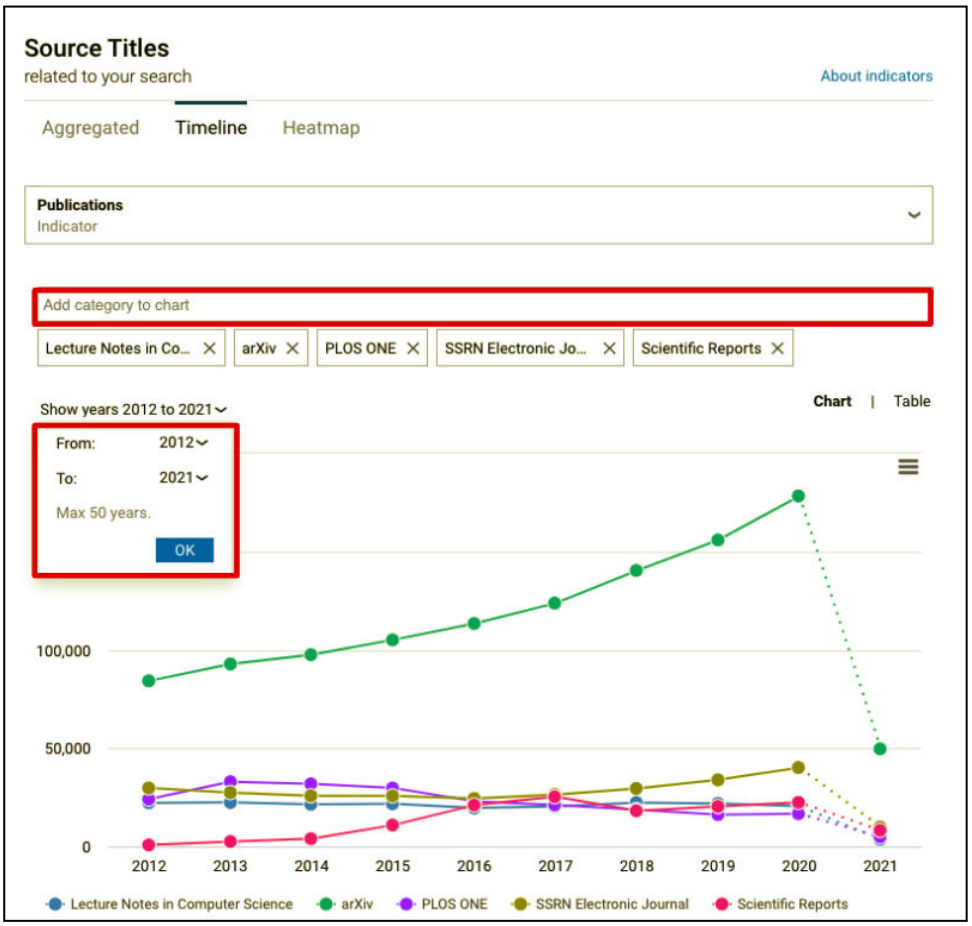


By removing the overall budget line (clicking Total funder budget in the legend below the x-axis), you can see that organization's funding related to your search query over time. Hovering over the dots on the timeline will surface a link to those specific grants, should you wish to continue drilling into the data. This is an easy way to get an at-a-glance view of funding trends in Dimensions by individual funders.

Visualizations

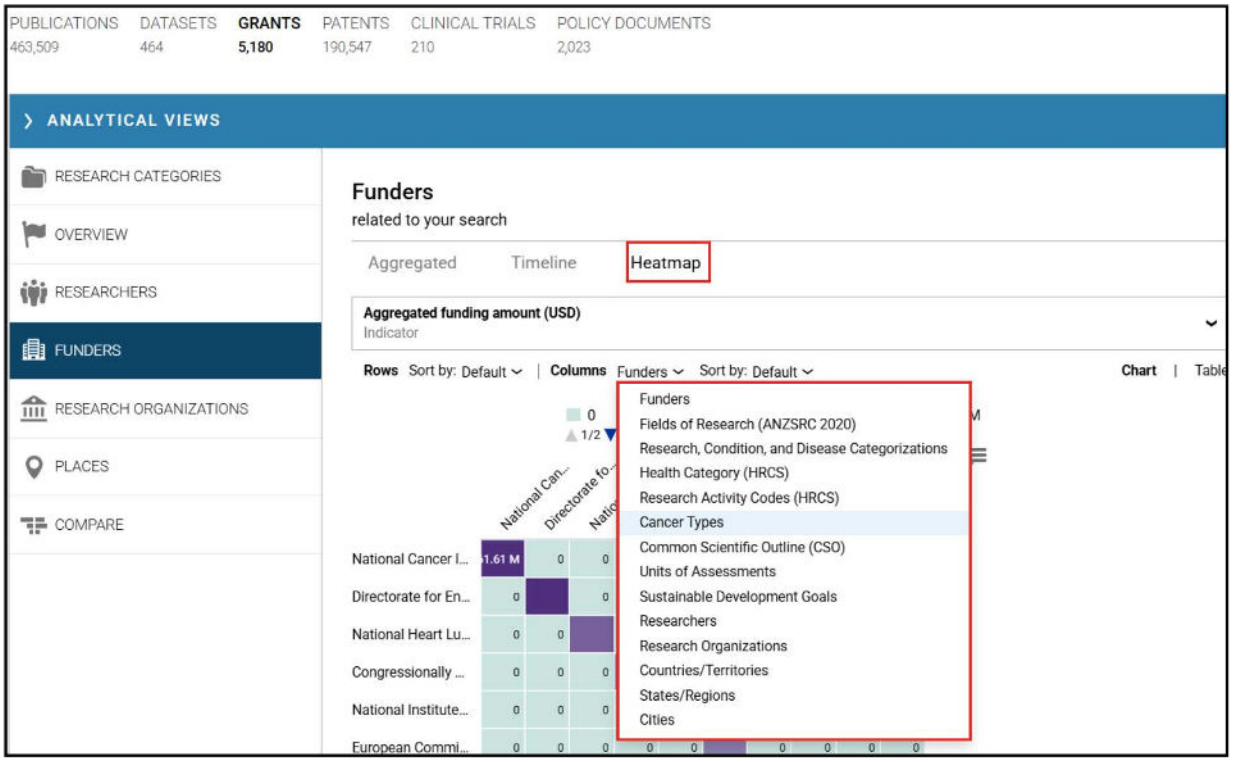
Timelines

Timelines are available in multiple places in Analytical Views. You can adjust the period of time it reflects and add or remove elements shown (eg. funders, research categories). You can also opt to view the data in a table by clicking near the top right of the timeline.



Heatmaps

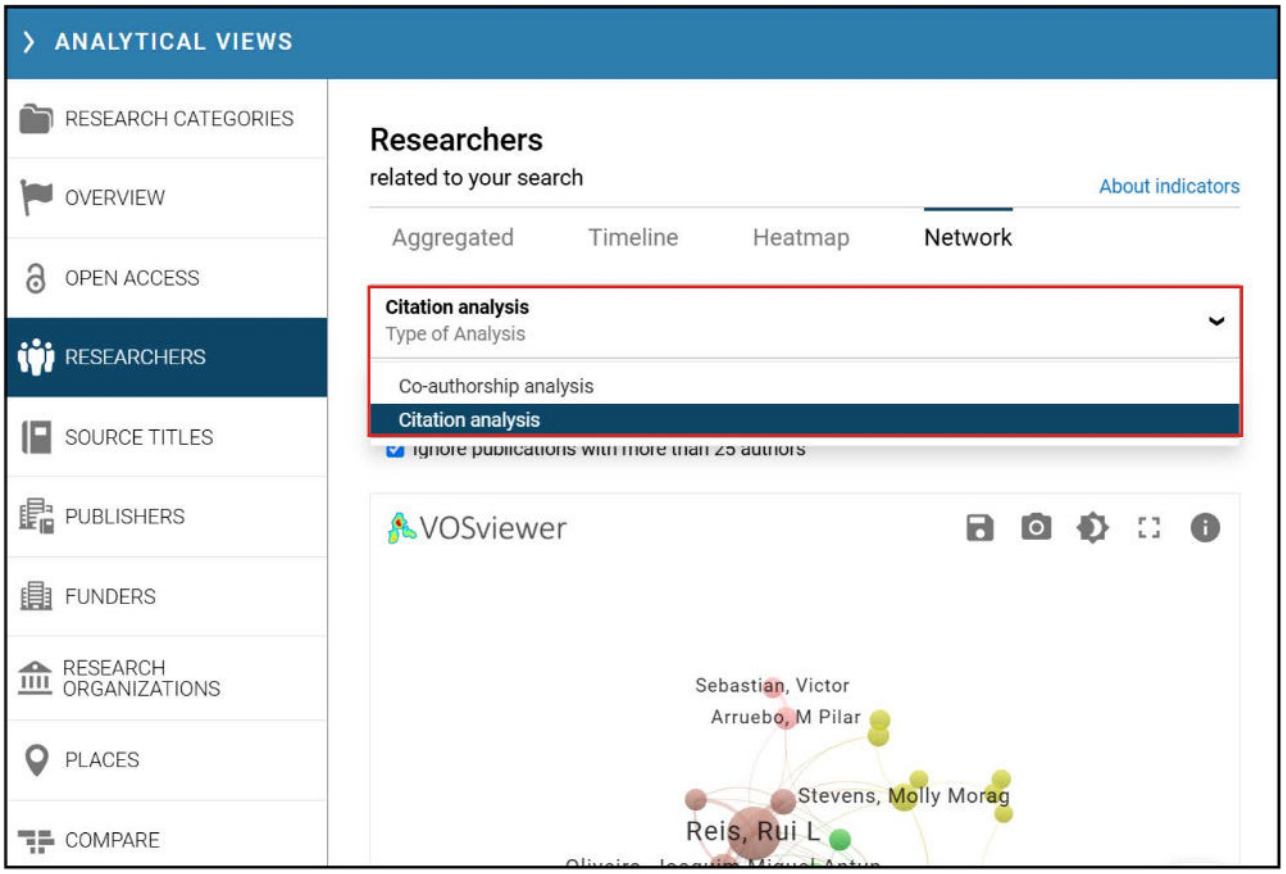
Similarly, heatmaps can be adjusted depending on what you'd like to see displayed. Hovering over the numbers in the heatmap will surface a link to the relevant objects, again providing an easy way to drill down into your search results.



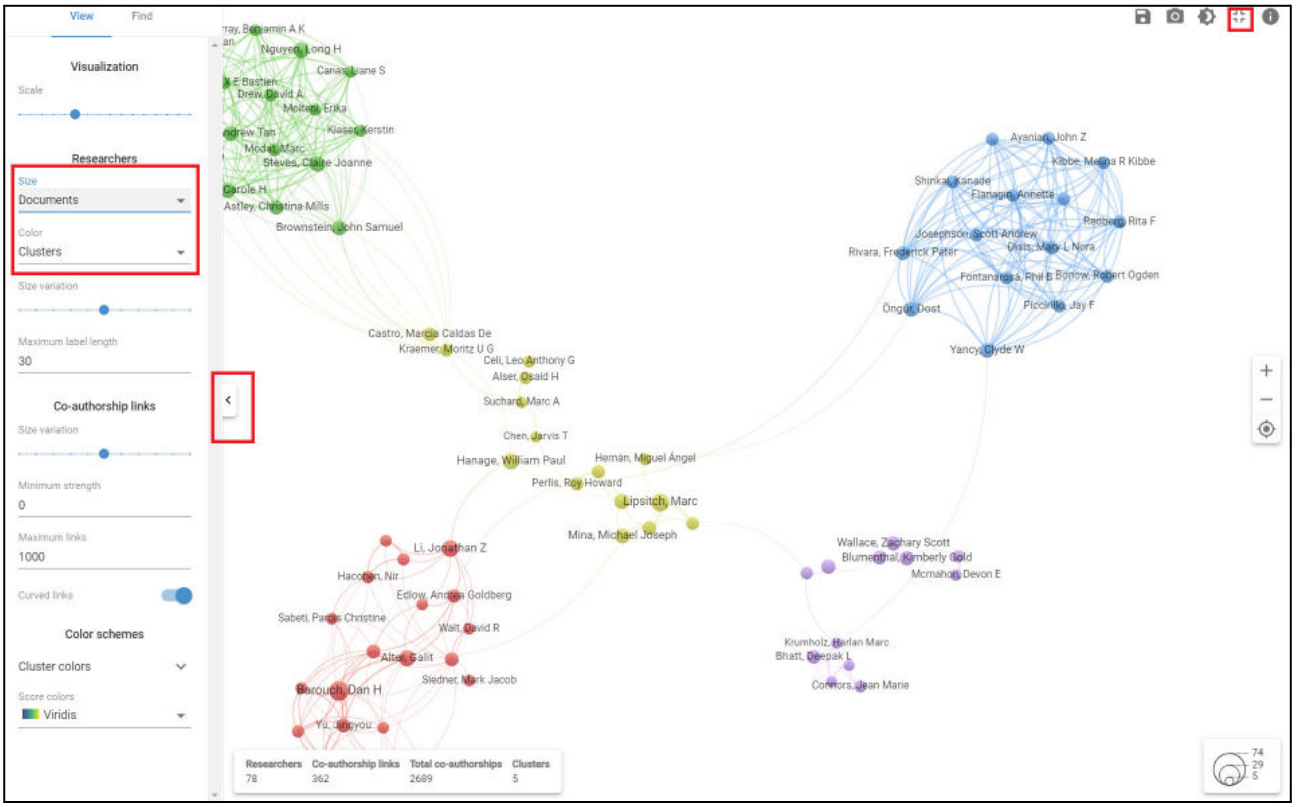
Networks

Network visualizations for Researchers can be created using an integrated VOSviewer tool. There are two options for these visualizations: Co-authorship Analysis and Citation Analysis. This is currently available in Analytical Views for publications, by selecting the Researchers “tab”.

Up to 25,000 publication records can be examined to create network visualizations. By default, the network returns up to 100 researchers but users can change the threshold from the options available.



Clicking the expand button in the upper-right corner of the visualization opens it full screen for easier analysis. Clicking the arrow on the left side of the page opens a pane with additional options to customize and stylize the visualization as desired. Specifically, the values populating the Color and Size of the nodes can be changed depending on the type of analysis being performed.



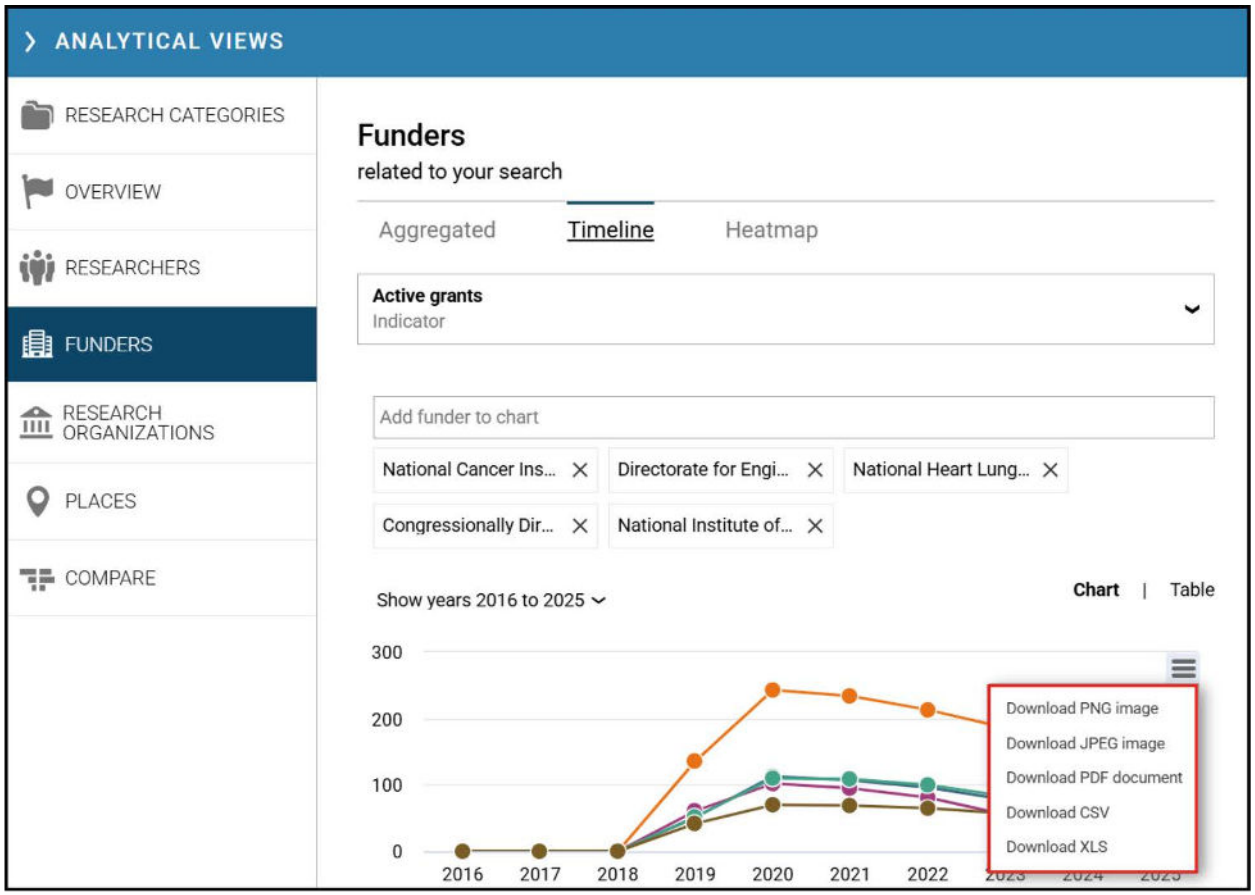
Export options for Analytical views

Aggregated Lists

You can select “export table” at the top right of aggregated lists in Analytical Views, and Dimensions will export the first 500 results into a .csv or xlsx file, available to access in your export center.

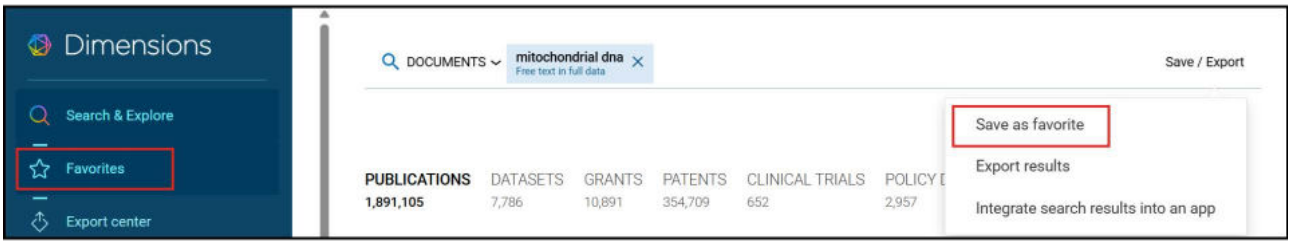
Visualizations

Timelines and heatmaps can be exported either as images, pdf or data files. Heatmaps are most readable in an image or pdf format (versus platform view).



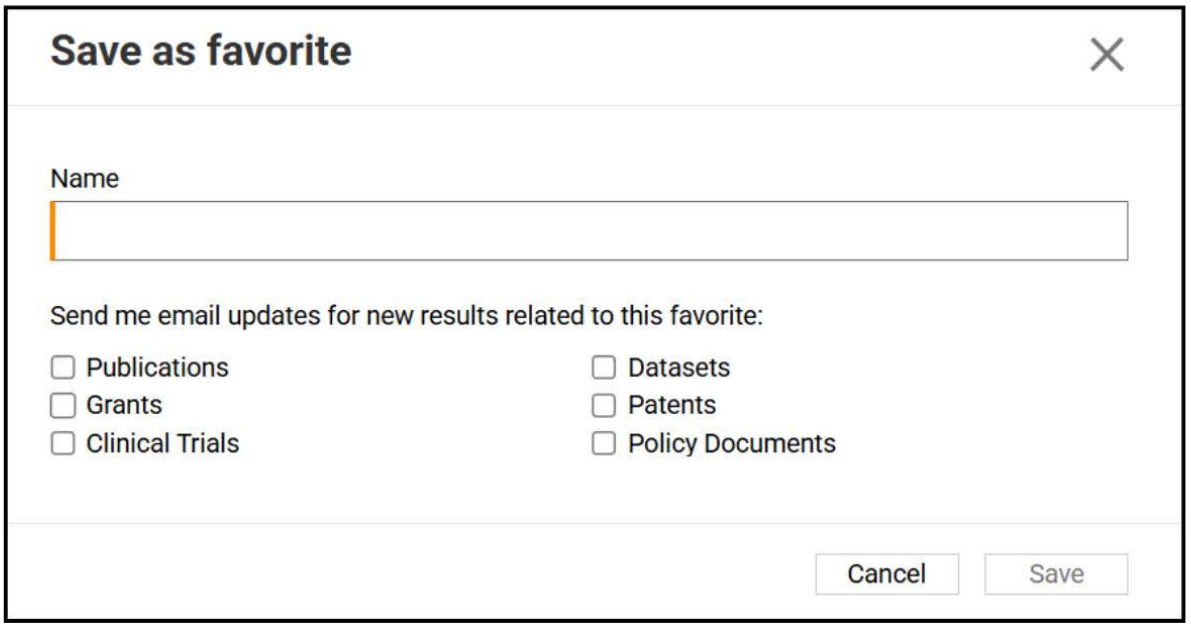
Favorites

Any search in Dimensions can be saved as a favorite, with updated results each time you retrieve the favorite. Favorites can be accessed via the left panel, next to Filters.

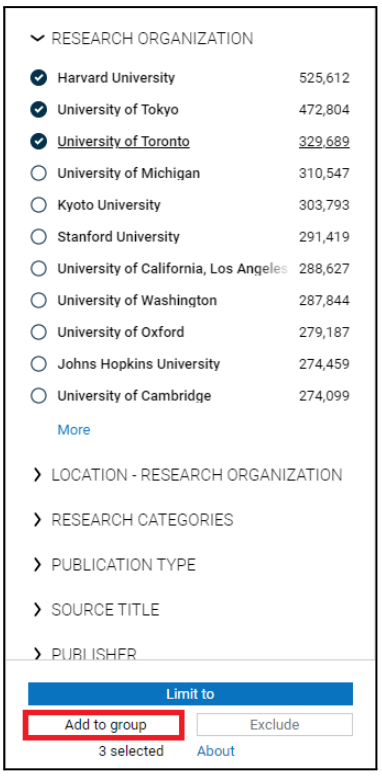


Alerts

Each time you "favorite" a search in Dimensions, you will have the option to be alerted on a weekly basis to new content matching the terms of your search.



Groups



Groups make it possible to combine multiple entities to a custom group with a custom name, which can then be used in conjunction with other facets, groups or keywords. It allows you to create a group of entities of the same type, for example a group of researchers (e.g. “department X”) or a group of organizations (e.g. “peer Universities”). It is not possible to combine entities of different types (e.g. funders and institutions) into a group.

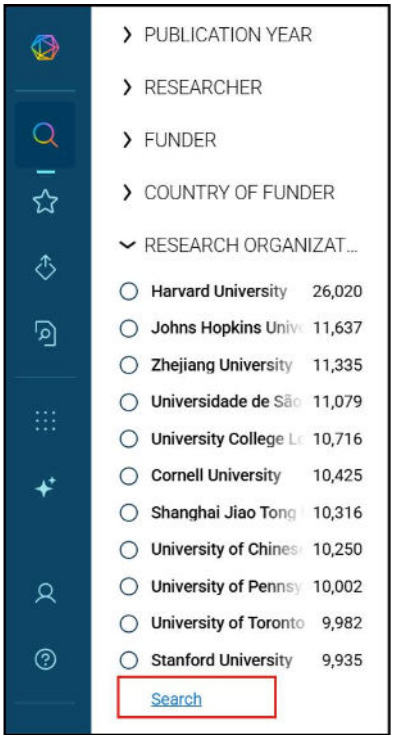
Custom groups can be used in a search like any other entity - they can be combined with every other facet or group, with every boolean keyword or abstract search.

To create a new group:

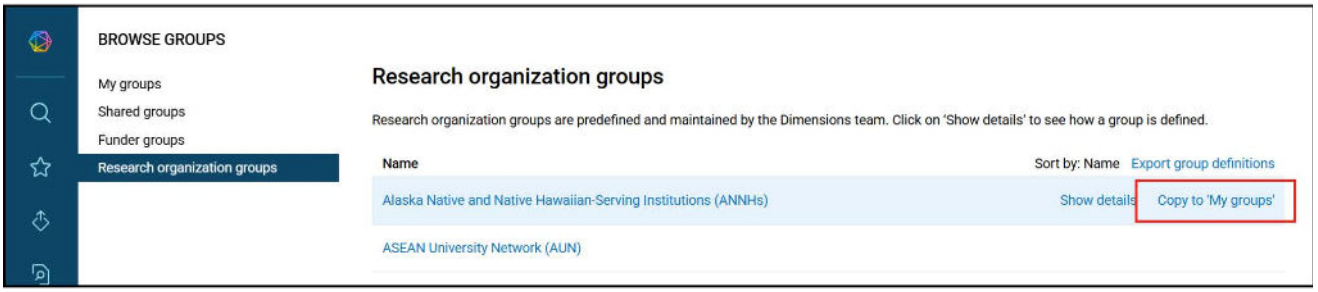
- Select several entities from one facet type (do not click on “limit to”)
- Click “Add to group” at the bottom of the page
- Name and click “Save”
- The new group will now be available under “My groups” in the facet section

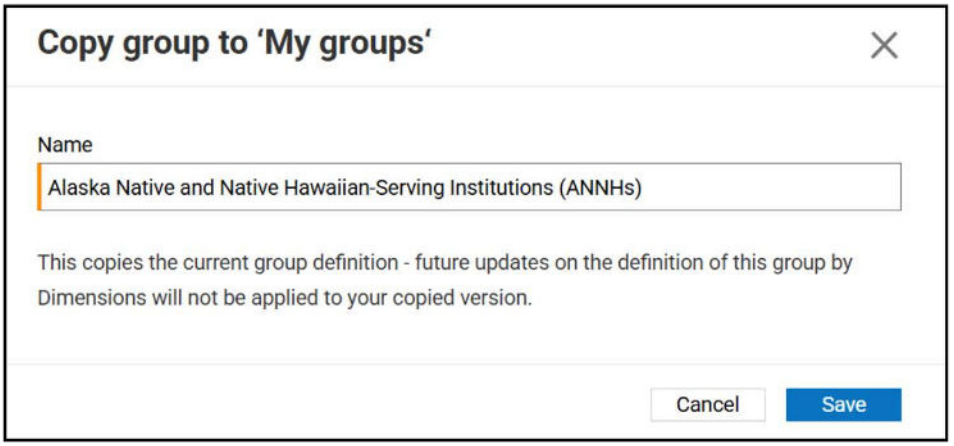
Groups can be shared with fellow Analytics users across the same institution. More information on sharing groups is available upon request.

Customizing pre-set groups



You can also modify pre-set funder or research organization groups to suit your needs by "browsing" the groups and copying to my groups, where you can then rename and add or remove elements (in the example below, research organizations).



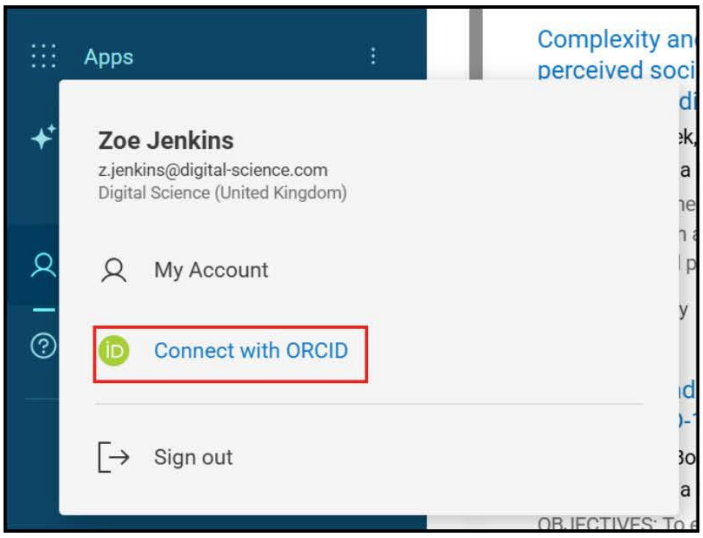


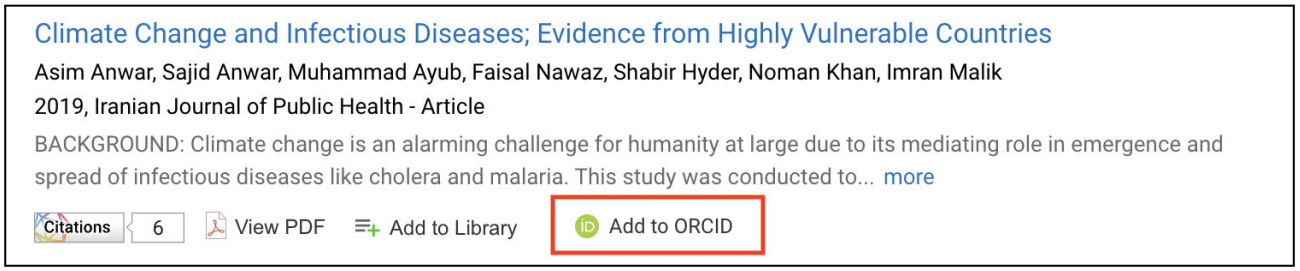
User settings

Your account settings can be accessed by clicking on the icon next to your name in the upper right corner of the platform. From here you can change your password and perform other tasks.

Connect your ORCID account

You can connect your ORCID profile, enabling you to claim publications for your profile with one easy click in the Dimensions platform.





Change currency

We obtain grant funding amounts in their original currencies. We then convert the original currencies in the background and the user can decide in which currency they want to use in Dimensions. The conversion for each grant is based on the exchange rate at the time of the start date of the grant. In the case that a yearly distribution of the funding amount is provided (e.g. NIH projects), the funding amount is converted for each year's exchange rate. You can change the currency that appears in Dimensions. Currencies currently available in Dimensions include:

- Australian Dollars (AUD)
- British Pounds (GBP)
- Canadian Dollars (CAD)
- Chinese Yen (CNY)
- Euros (EUR)
- Japanese Yen (JPY)
- Swiss Francs (CHF)
- New Zealand Dollars (NZD)
- US Dollars (USD)

Get in touch with our team to request more information:

support@dimensions.ai