Guide to text searching OpenAlex in EPPI-Reviewer

Contents

User Guide for text-based searching of OpenAlex in EPPI-Reviewer
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About this Guide

This guide shows how to use EPPI-Reviewer's 'Search and Browse' feature to undertake text based searches OpenAlex in EPPI-Reviewer. It also shows how to construct multi-line Boolean searches on the public OpenAlex website, and then integrating these searches within EPPI-Reviewer. The guide is arranged into the following six sections:

Section 1 shows how to access OpenAlex through EPPI-Reviewer.

Section 2 shows how to use Search and Browse OpenAlex in EPPI-Reviewer and construct searches in the OpenAlex public website.

Section 3 has details on constructing simple and complex searches.

Sections 4-6 cover the management of searches, from combining and viewing results to importing and documenting search history within a review.

There are two other modes of searching the OpenAlex network graph in EPPI-Reviewer: i) citation and relation-item searching, and ii) composite searching on graph relations for updating reviews and living reviews. These modes are covered in separate guidance.

Key differences between the search and browse features in EPPI-Reviewer and the public OpenAlex website

EPPI-Reviewer uses the OpenAlex Application Programming Interface (API) to search the OpenAlex records. Some of the features may change as OpenAlex is continually evolving.

Some of the functions in EPPI-Reviewer work the same as OpenAlex (Title, Title/abstract search and Custom filter searches). The Custom search (which is similar to a 'Google Scholar' type search of titles, abstracts and full-text) works in EPPI-reviewer and is no longer available in OpenAlex. Other differences include the Topics system developed for the former Microsoft Academic Search is also available to search on in EPPI-Reviewer (and are called 'concepts' in OpenAlex.

The Custom filter search in EPPI-Reviewer is similar to searching in the OpenAlex website. Multi-line and multi-field Boolean searches can be constructed using this approach, however, constructing these types of searches is not user-friendly (in EPPI-Reviewer or OpenAlex, currently) and we recommend building complex searches in the OpenAlex website and then running these within Custom filter within EPPI-Reviewer. Further details are provided in Section 2.

In addition, EPPI-Reviewer allows the combining of separate search lines with AND and OR (with some restrictions), and has an "on import" filtering out feature for text in Journal, URL, DOI and title. Records from OpenAlex can be directly imported into the 'review management' part of an EPPI-Reviewer database and the import automatically removes duplicates of OpenAlex records that are present in the 'review management' part. These features are described in Sections 4-6.

1. Accessing the OpenAlex Search and Browse interface in EPPI-Reviewer

The OpenAlex search interface is located within an individual review. To access this, first click on the **'Update review'** button on the review homepage (Figure 1). If you do not have this feature in your review you need to ask the EPPI-Reviewer Support Team to enable this feature (email: eppisupport@ucl.ac.uk).

Then click the **'Search and browse'** button to navigate to the search and browse page (Figure 2).

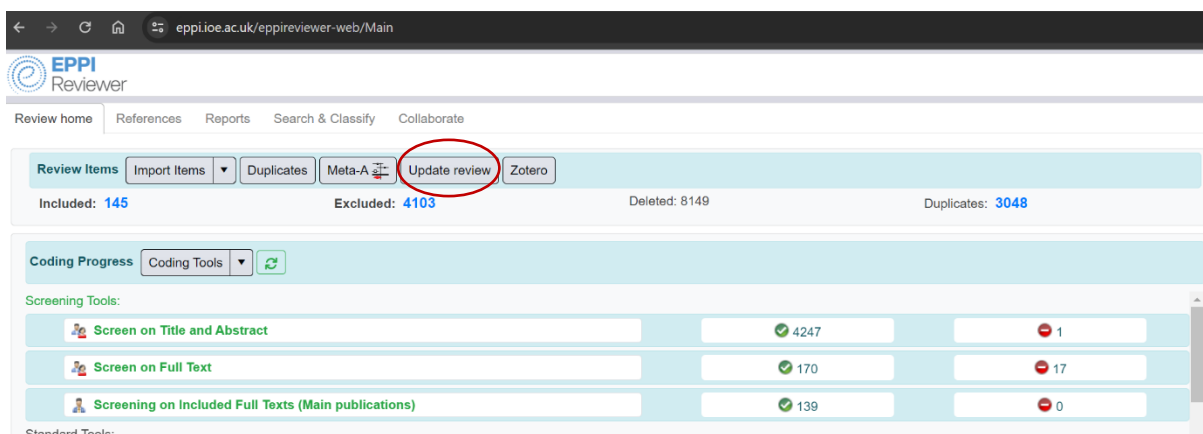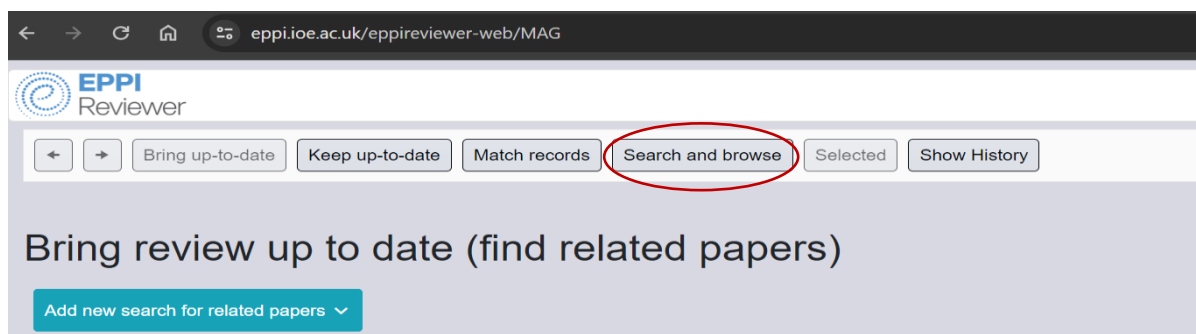*Figure 1: Accessing OpenAlex in EPPI-Reviewer*

Figure 2: Navigating to the OpenAlex search page in EPPI-Reviewer

2. Search and browse options

Generally, the steps for conducting the search will be as follows:

1) Under New search, choose the type of search you want to undertake (use the arrow next to Word(s) in title)

2) Enter the search text

3) Click on the blue 'search' button

4) Repeat for a new search

1) **Choose the type of search**

Under New Search (Figure 3), the **Word(s) in title** box contains an arrow. Click the arrow to reveal a dropdown menu with various search options: Word(s) in title, Word(s) in title/abstract, Topic, OpenAlex ID, Custom filter, and Custom search. Table 1 presents these options and a description of each option.

The arrow on the second drop-down box (with the words **No date limit**) provides options to limit the search by date. This option is not available for custom search. If you select a date option, a calendar appears for you to select date(s). When you use a publication date filter, you are relying on the information provided by the publisher. To access the most recent added records in the OpenAlex database, use the 'OpenAlex creation date from' option.
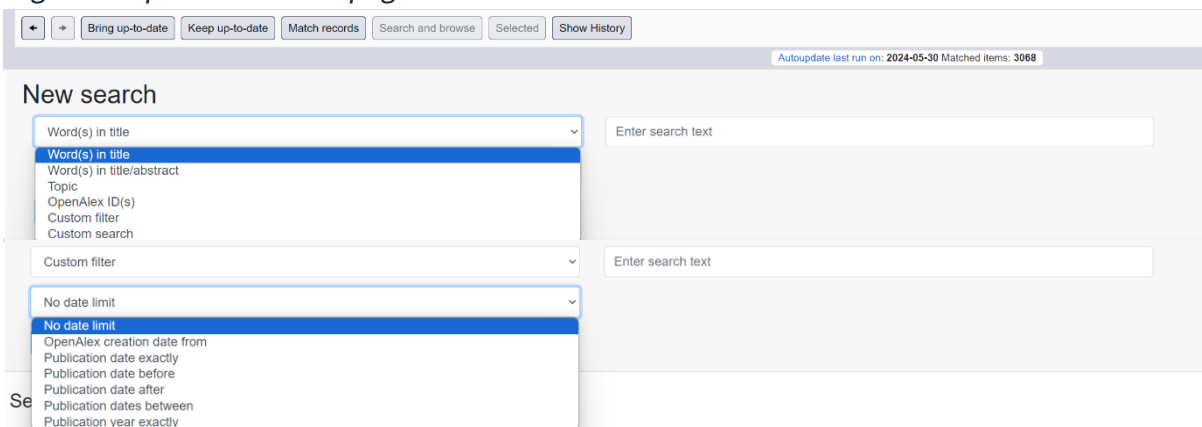
Figure 3: OpenAlex search page in EPPI-Reviewer

Table 1: Search Options and descriptions

Search option	Description
Word(s) in title	It searches for the word(s) in the title of a record.
Word(s) in title/abstract	It searches for the word(s) in title or abstract of a record. All the words entered in the search are searched for either in the title or either in the abstract.
Topic	It searches the concepts section of a record. Concepts are abstract ideas about the works. Each work is associated with a variety of concepts, derived from its title, abstract, and the place where it is presented (Concepts will not be actively maintained, updated, or supported by the OpenAlex team). OpenAlex also includes an entity called Topics, which comprise approximately 4,500 topics, and this differs from the Topic option in EPPI-Reviewer.
OpenAlex ID(s)	It is used to find a specific record using an OpenAlex ID. Each work record in OpenAlex has a unique ID that starts with a letter 'W'. Multiple OpenAlex IDs can be searched by separating them with

Search option	Description
	commas with no space and without the letter 'W' (e.g. `4327946446`, `4327946447`).
Custom filter	The custom filter option enables searching on many different fields using the same **filtering** options that are available in the OpenAlex public interface https://openalex.org/works. More details about this are provided later in this guide.
Custom search	It searches for the word(s) in title or abstract or full text of a record (if available).

If you are running a search that combines words with multiple Boolean operators (e.g. AND, OR, NOT) we recommend using Custom filter or Custom search options. Undertaking a NOT search is possible in Custom search (across title, abstract and full-text). In Custom filter, NOT searches are not possible for title or abstract (this is explained further below). It is also possible to use the 'Import filters' to exclude certain words in the journal, URL, DOI or title (see section 5 for further details on using the import filters).

Although it now seems possible to undertake simple searches with one Boolean operator (OR, AND) in the Words in title or Words in title/abstract, there may be some differences to the Custom filter search. We currently recommend using the Custom filter search when constructing a systematic search.

2-1. Description of the Custom search and Custom filter options

Custom search and Custom filter may be the most efficient options compared with title, title/abstract, topic, as they allow searching on multiple terms and operators. However, they differ in their purpose and how the operators AND, OR, NOT are entered.

2-1-1. Custom search

If you need to quickly search and locate relevant records to your query, you can use the 'Custom search' field. When using this field, the submitted query is searched in the title, abstract, and full text (if available) of all records. Figure 4 shows an example where the text entered is:

```
("active travel" OR commuter) AND ("physically active" OR walking)
```

Figure 4: Example of a query in Custom search field

Here are some tips on constructing searches to help you get started:

- Words can be combined with the help of Boolean operators (AND, OR, NOT) in Custom search. These operators must be written in UPPERCASE.

- Space between words is considered as an AND operator.
- Phrase searching is supported by using double quotation marks. For example, searching "diabetic eye" will find the exact phrase. Searching diabetic-eye (with a hyphen and no quotes) would locate documents containing both "diabetic" AND "eye". Curly quotes will not be recognised for phrase searching.
- Parentheses can be used for grouping words in Custom search.
- Truncation and proximity search are not supported.
- The special characters * ? ~ will be removed from any searches.
- OpenAlex does not support wildcard searches. However, if you input a word in singular form, the search will return results for both the singular and plural forms.
- For most text searches, stop words are removed: i.e. a, an, and, are, as, at, be, but, etc.
- Stemming is automatically used to improve results, but it is helpful to use different variations of a word written in a query to increase the comprehensiveness of the search, especially for words in a phrase.

2-1-2. Custom filter and OpenAlex website searches

The 'Custom filter' functions similarly to a field search in many bibliographic databases. This option allows for various searches, including developing complex strategies and finding records by searching across title, abstract, authors, country, or institution (and many other options). It is similar to searching using OpenAlex website when pasting the search as a URL (web address). To see the filtering options, we recommend you view the public website interface (https://openalex.org/works) and clicking on the blue + icon. A full list of filters is here: https://docs.openalex.org/api-entities/works/filter-works. These filters are presented in two groups, attribute filters and convenience filters.

Overview of the structure used for searching Custom Filter and used OpenAlex website

The structure and symbols used may be unfamiliar at first. The user specifies the filter to be searched on, and the terms used for filtering. The following example is a search on the title/abstract for the phrase "active travel" and is ANDed with the publication date using a comma:

```
title_and_abstract.search:"active travel",publication_date:2003-2024
```

It is possible to 'OR' terms within a filter (using the pipe symbol |) and to AND multiple filters together in one search line. The following example is a search on the title/abstract for either the phrase "active travel" OR commuting and is ANDed with the publication date using a comma:

```
title_and_abstract.search:"active travel"|commuting,publication_date:2003-
2024
```

It is not possible to OR separate filters together within one search line. The symbols OR, AND and NOT are different compared with Custom Search.

If using the above search in OpenAlex website, the search should be preceded by the following URL

```
https://openalex.org/works?filter=
```

Therefore, the full search will be as follows:

```
https://openalex.org/works?filter=title_and_abstract.search:"active
travel"|commuting,publication_date:2003-2024
```

Where a search is constructed using the OpenAlex search boxes and blue button, the URL address of the API search is available through 'settings' (see section 2.1.3). This can be pasted into the URL if the text "api." is removed first.

Symbols for Custom Filter/OpenAlex website searches:

- The pipe symbol (|) is used for ORing a list of values or words in each filter. (e.g. `title.search:Anxiety|Depression`). It should be noted that this symbol must not be used for ORing between different filters (like title and author).
- The plus symbol (+) is used for ANDing a list of values or words within a given filter (e.g. `title.search:depression+exercise`). It is not used for ANDing search filters.
- The exclamation mark (!) is used as a Boolean NOT operator to remove a value from search results, specifically for some filters like Document type and Keywords, but not for OpenAlex "convenience filters" such as title or title/abstract. Keep in mind that this function may not always work as expected, and it is best to test it out first.
- Comma symbol (,) is used for ANDing between different filters. (e.g. `title_and_abstract.search:Anxiety|Depression,authorships.countries:countries/gb|fr`)

 Some search tips for the 'Custom filter'/OpenAlex website searches:

- You can combine up to 100 values or words for a given filter. However, the search string length should be less than 2,000 characters.
- Be careful about using spaces in 'Custom filter' searches. Spaces between the field name and colon (:), or after commas (,) used for combining different fields with AND, can cause errors in your search results.
- Note: when two terms ANDing like this (`title_and_abstract.search:transport+mode`), this will search for transport and mode in the title or transport and mode in the abstract. It will not identify records where these two terms exist across title or abstract (e.g. transport in title and mode in abstract). In order to search this latter option, one would need to search and combine the terms separately: e.g. `title_and_abstract.search:transport,title_and_abstract.search:mode`

Table 2 shows some filters and their description that you can use in 'Custom filter' field to find relevant records. For a detailed list of all filters, please refer to the OpenAlex technical documentation (https://docs.openalex.org/api-entities/works/filter-works).

Table 2: some filters and descriptions for using in the Custom filter/OpenAlex website (last checked on 30th June 2025)

Filter	Description
default.search:	Text search across titles, abstracts, and full text of works.
display_name.search:	Text search across titles.
title.search:	Text search across titles. This feature only works within EPPI-Reviewer, not on the OpenAlex website.
abstract.search:	Text search across abstracts. This feature only works within EPPI-Reviewer.
title_and_abstract.search:	Text search across titles and abstracts.
fulltext.search:	Text search across full texts for Works. Full text search is available for a subset of works. This feature only works within EPPI-Reviewer
from_created_date:	Records with created date greater than or equal to the given date. Date format is YYYY-MM-DD. This feature only works within EPPI-Reviewer.
publication_date:	Records with publication date equal to the given date. Date format is YYYY-MM-DD.
from_publication_date:	Records with publication date greater than or equal to the given date. This feature only works within EPPI-Reviewer.
publication_year:	Records with publication year equal to the given year. A year range is also possible when the year is separated by hyphen (e.g. `publication_year:2003-2015`)
author.id:	Searches OpenAlex author identifier e.g. `author.id:a5073148912` searches for records by Ann Oakley. To search for an author, you need their author ID. To find this ID, go to the OpenAlex webpage (https://openalex.org/works). Click the blue '+' button, select the 'author' filter, search for the desired author, and then perform the search. The author ID will be at the end of the URL, starting with 'a' followed by numbers (`https://openalex.org/works?filter=authorships.author.id:a5073148912`).
primary_topic.id:	Searches the primary topic of records e.g. `primary_topic.id:t13184` retrieves all records with the primary topic 'Qualitative Research in Social Sciences and Education'. To search for a topic, you need its ID. To obtain the ID, use the OpenAlex webpage (https://openalex.org/works). Click the blue '+' button, select the 'topic' filter, find your desired topic, and search for it. The topic ID will be part of the URL, formatted as 't' followed by numbers at the end of URL. (e.g.

Filter	Description
	`https://openalex.org/works?filter=primary_topic.id:t13184`) There is a google sheet that contains the 4,500 available topic ids. The sheet is available to download and search at this link here: https://docs.google.com/spreadsheets/d/1v-MAq64x4YjhO7RWcB-yrKV5D_2vOOsxl4u6GBKEXY8/edit?usp=sharing The primary topic is the highest-scoring topic (out of approximately 4,500) that has been automatically assigned based on the "available information about the work, including title, abstract, source (journal) name, and citations" (as described here: https://docs.openalex.org/api-entities/topics).
keywords.id:keywords/	Searches the keywords section of a record. For example: `keywords.id:keywords/active-travel` finds records where the phrase 'active travel' was automatically assigned as a keyword by AI. Note: This filter uses hyphens (-) to separate words in phrases.
type:types/	Searches the predefined Publication Types in OpenAlex. For example, this string will search multiple publication types – book, book chapter, dissertation, report, other `type:types/book-chapter|types/book|types/dissertation|types/report|types/other`
ids.openalex:	Find records by their OpenAlex ID (e.g. searches for two records by their Works ID `https://openalex.org/works?filter=ids.openalex:W1068980580|W113344177`). You can search using up to 100 IDs in one query.
cites:	To find records that cite an OpenAlex record. When looking for multiple records use the pipe symbol in conjunction with the OpenAlex ID (e.g. `cites:w2007434490|w1538472335|w2162327774|w162379766|w97408685`).
cited_by:	To find records which are in the bibliography or reference list of an OpenAlex record (e.g. `cited_by:w2007434490|w1538472335|w2162327774|w162379766|w97408685`).
related_to:	To find records which are related to an OpenAlex record (e.g. `related_to:w2007434490|w1538472335|w2162327774|w162379766|w97408685`).
authorships.countries:countries/	To find by country from the author affiliations in the record. (e.g. to search for authorships from Great Britain (GB) or

Filter	Description
	France (FR), use: `authorships.countries:countries/gb|fr`).

2-1-3. Simple searches in the OpenAlex website

It is possible to construct an exploratory search in OpenAlex website interface using the blue "+" button. This does not allow searching the same element (e.g. title) in more than one line. The steps for doing this are presented below and shown with numbers in Figures 5 and 6.

1- Build your filter on the OpenAlex website (https://openalex.org/works) by clicking the blue "+" button and selecting the desired filter(s) (Figure 5).
2- Click the setting icon ⚙ in the top right corner of the page and select the 'API query' option to view the search syntax (Figure 5).
3- Once the API syntax appears, copy the API Query Link (Figure 5).
4- Paste the copied text into the EPPI-Reviewer's Custom filter field and check the box "*I copied and pasted this search from the OpenAlex user interface from the 'API Query' link*" (Figure 6). This will replicate the search results in EPPI-Reviewer.
5- Note: when the OpenAlex browser runs the search it converts some characters into URL encoding. Some common characters are presented in Table 3.

Figure 5: 'API query' option on OpenAlex website

Figure 6: Using OpenAlex API syntax in EPPI-Reviewer

Table 3: Common characters and their URL encoding

Common characters	URL encode
+	%2b
/	%2F
-	%2d
space	%20
!	%21
"	%22
: (colon)	%3A
| (pipe)	%7C

2-1-4. Complex Boolean searches in the OpenAlex website

Step 1: To undertake a complex Boolean search, it is best to plan and edit the search in a text editor like Notepad. (Microsoft Word is only recommended if its autoformatting settings are configured to use straight quotes instead of curly quotes).

Step 2: Once the search string is developed, this can be pasted in the URL, prefixed by the following: `https://openalex.org/works?filter=`

For example:

```
https://openalex.org/works?filter=title_and_abstract.search:exercise|Walking|
"Physical Therapy"|Running|swimming|Gymnastics|"active gaming"|"physical
activity",title_and_abstract.search:PTSD|"Stress disorder|"Combat
Disorders"|Psychological Trauma"|"traumatic stress"|"complex
trauma",publication_year:2003-2015,language:languages/en
```

After you run the search on the OpenAlex URL, you will be able to use the API query option (Figures 5, 6) to get results in EPPI-Reviewer.

3. Custom filter/OpenAlex website search examples

To better understand how to conduct a search, two example search scenarios are presented below: one for a simple search and the other for a more complex search. For each scenario, the search string and its translated version are provided for use in the EPPI-Reviewer Custom filter and on the OpenAlex website. Additionally, the API Query Link, which can be constructed from the OpenAlex website, is included for use in the EPPI-Reviewer Custom filter (Tables 4 and 5).

3-1. Example search scenario 1

Title/abstract:

"diabetic eye" OR "diabetic retinopathy"

AND

Title/abstract:

screening OR monitoring

Table 4: Search interface, method, and corresponding search string – search scenario 1

Search Interface	Method	Search string
EPPI-Reviewer Custom filter	Manually typing the search query	`title_and_abstract.search:"diabetic eye"|"diabetic retinopathy",title_and_abstract.search:screening|monitoring`
	Using the API Query Link from the search constructed at the OpenAlex website	`https://api.openalex.org/works?filter=title_and_abstract.search:%22diabetic+eye%22|%22diabetic+retinopathy%22,title_and_abstract.search:screening|monitoring&sort=relevance_score:desc&per_page=10`
OpenAlex website	Using the OpenAlex URL search	`https://openalex.org/works?filter=title_and_abstract.search:"diabetic eye"|"diabetic retinopathy",title_and_abstract.search:screening|monitoring`

3-2. Example search scenario 2

Title/abstract:

commuter OR commuting OR (transport AND mode) OR (travel AND mode) OR (transportation AND mode) OR (utility AND travel) OR (utilitarian AND travel) OR "active travel" OR "active transport" OR "active transportation"

AND

Title/abstract:

walkway OR cycleway OR (cycle AND intervention) OR (walk AND intervention) OR (active AND intervention) OR walkability OR bicycle OR pedestrian OR bikes OR biking OR bicycling

AND

Published in the period 2023–2025

Table 5: Search interface, method, and corresponding search string – search scenario 2

Search Interface	Method	Search string
EPPI-Reviewer Custom filter	Manually typing the search query	`title_and_abstract.search:commuter|commuting|transport+mode|travel+mode|transportation+mode|utility+travel|utilitarian+travel|"active travel"|"active transport"|"active transportation",title_and_abstract.search:walkway|cycleway|cycle+intervention|walk+intervention|active+intervention|walkability|bicycle|pedestrian|bikes|biking|bicycling,publication_year:2023-2025`
	Using the API Query Link from the search constructed at the OpenAlex website	`https://api.openalex.org/works?filter=title_and_abstract.search:commuter|commuting|transport+mode|travel+mode|transportation+mode|utility+travel|travel+mode|utilitarian+travel|%22active+travel%22|%22active+transport%22|%22active+transportation%22,title_and_abstract.search:walkway|cycleway|cycle+intervention|walk+intervention|active+intervention|walkability|bicycle|pedestrian|bikes|biking|bicycling,publication_year:2023-2025&sort=relevance_score:desc&per_page=10`
OpenAlex website	Using the OpenAlex URL search	`https://openalex.org/works?filter=title_and_abstract.search:commuter|commuting|transport+mode|travel+mode|transportation+mode|utility+travel|travel+mode|utilitarian+travel|"active travel"|"active transport"|"active transportation",title_and_abstract.search:walkway|cycleway|cycle+intervention|walk+intervention|active+intervention|walkability|bicycle|pedestrian|bikes|biking|bicycling,publication_year:2023-2025`

4. Combining searches in EPPI-Reviewer Search and Browse

You can generally combine up to 20 search lines from the Search Results section by checking the box next to the search lines and using the Boolean operators AND/OR in the 'Combine/filter searches' section (to the right of New Search) (Figure 7). Combining different lines of search is possible where the volume of retrieved records in each line is generally less than 40,000.

Figure 7: Search history and combining the search lines

5. Viewing results, importing, re-running searches in EPPI-Reviewer Search and Browse

5-1. Viewing results and re-running searches

In the search results section, the 'Hits' column displays the number of results. Clicking this number opens a new window showing a list of results that can be browsed. To select references, click the '+' sign next to each desired item. Once selections are complete, click the 'Import Selected' button to add them to the review.
In the re-run/import column, you'll see two icons:

⬇ This icon allows you to import the search results directly into your review. This function enables importing of up to 20,000 records at a time. No duplicate records will be imported where OpenAlex records already exist within the review, or records in the review have been 'matched' with OpenAlex.

▶ This icon lets you re-run or update your search results. It is not available for searches created from combining search lines (using the 'Combine/filter searches' function).

5-2. Filtering out records prior to import

Before importing retrieved records into your review, you can refine them using filters accessible under the 'Import filters' button. These filters include journal, URL, DOI, and title. Type your desired values or text and use commas to separate multiple values or text within a filter. Clicking the import icon will then filter your search results based on your constructed filter. For example, if you enter (`arxiv,vixra,preprint,preprints,tathapi.com,osf.io`) in the URL filter (Figure 8), any records containing these values in their URLs will be excluded from your import.

Figure 8: Refine the retrieved records with 'Import filters' button

Once imported a message will appear to indicate how many records have been imported, and you can find these by clicking Close/Back, and selecting the Sources on the left side of the Review home page.

6. Documenting the search history

EPPI-Reviewer keeps your search history for each query with the Search and Browse interface.

If you have imported a search line without combining it, the search line is imported into the 'Search String' of the "Source" created in the review at import-time.

If you have combined searches and then imported the records, only the combination of numbers is imported and not the actual search history. However, you can copy and paste the search history into a text editor and add this into the Source 'Search string' section within EPPI-Reviewer.