

Package: biblioview (via r-universe)

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Title A Shiny Web Portal and Abstract Enricher for Zotero Libraries

Version 0.5.9

Description Provides automated pipelines to fetch Zotero group libraries, generate APA citations, and harvest citation counts and missing abstracts from external metadata APIs (Crossref, OpenAlex, and Europe PMC).

License GPL (>= 2)

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check_doi_abstracts	<i>Check Abstract Availability Across Providers for a Single DOI</i>
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Description

Debugging utility to query external APIs directly for a specific DOI and print abstract availability and character length.

Usage

```
check_doi_abstracts(doi, email_contact = Sys.getenv("POLITE_EMAIL"))
```

Arguments

- doi Character string. Raw or clean DOI (e.g., "10.1007/s10452-015-9564-x").
- email_contact Character. Contact email for API headers.

Value

A named list of retrieved abstracts (or NULL per provider).

Examples

```
# 1. PLOS ONE: "phyloseq: An R Package for Reproducible Interactive Analysis..."
check_doi_abstracts("10.1371/journal.pone.0061217")

# 2. Journal of Statistical Software: "Data Validation Infrastructure for R" (validate package)
check_doi_abstracts("10.18637/jss.v097.i10")

# 3. PLOS ONE: "Dose-Response Analysis Using R" (drc package)
check_doi_abstracts("10.1371/journal.pone.0146021")
```

clean_doi_string	<i>Clean and Normalize DOI Strings</i>
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Description

Strips common URL prefixes (including bare 'doi.org/'), leading/trailing whitespace, and verifies that the resulting string follows standard DOI format.

Usage

```
clean_doi_string(raw_doi)
```

Arguments

raw_doi	Character string containing a raw DOI or DOI URL.
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Value

Character string containing the clean DOI (e.g., "10.1579/..."), or NULL if input is invalid or missing the '10.' prefix.

enrich_missing_abstracts	<i>Enrich Missing Abstracts from External Metadata APIs</i>
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Description

Enrich Missing Abstracts from External Metadata APIs

Usage

```
enrich_missing_abstracts(
  df,
  email_contact = Sys.getenv("POLITE_EMAIL"),
  providers = list(epmc = fetch_abstract_epmc, crossref = fetch_abstract_crossref,
    openalex = fetch_abstract_openalex)
)
```

Arguments

df	A data frame generated by fetch_all_zotero_data.
email_contact	Character. Valid email address for polite API pools. Defaults to the environment variable POLITE_EMAIL.
providers	Named list of provider fetcher functions executed in list order. Defaults to Europe PMC -> OpenAlex -> Crossref.

Value

Data frame with updated Abstract column where matches were found.

Examples

```
## Not run:
# Default usage (Europe PMC -> OpenAlex -> Crossref)
df_enriched <- enrich_missing_abstracts(df = my_zotero_df)

# Custom provider order: OpenAlex primary, Europe PMC secondary
custom_order <- list(
  openalex = fetch_abstract_openalex,
  ePMC     = fetch_abstract_ePMC
)

df_enriched <- enrich_missing_abstracts(
  df = my_zotero_df,
  providers = custom_order
)

## End(Not run)
```

extract_doi

Extract and Normalize DOI from Zotero Item Data

Description

Inspects a Zotero item's metadata list for a DOI, checking the primary DOI field first, followed by the extra field if necessary. Automatically normalizes URL prefixes and validates the '10.' prefix structure.

Usage

```
extract_doi(data)
```

Arguments

data List. The data element of a Zotero API item list (e.g., `item$data`).

Value

Clean character string containing the DOI, or NULL if no valid DOI is found.

extract_zotero_year	<i>Extract 4-Digit Year from Raw Zotero Date Fields safely</i>
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Description

Extract 4-Digit Year from Raw Zotero Date Fields safely

Usage

```
extract_zotero_year(date_vec)
```

Arguments

date_vec	Character vector or list item containing raw date string(s).
----------	--

Value

Character vector of 4-digit years (or NA_character_).

extract_zotero_year_extended	<i>Extract Year from Zotero Date Fields (including BCE / Ancient Dates)</i>
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Description

Extract Year from Zotero Date Fields (including BCE / Ancient Dates)

Usage

```
extract_zotero_year_extended(date_vec)
```

Arguments

date_vec	Character vector of raw date strings from Zotero.
----------	---

Value

Character vector containing year strings (e.g., "2024", "384 BCE", "-0383", or NA).

`fetch_abstract_crossref`*Fetch Abstract from Crossref*

Description

Fetch Abstract from Crossref

Usage

```
fetch_abstract_crossref(doi, req_template)
```

Arguments

<code>doi</code>	Clean DOI string.
<code>req_template</code>	httr2 base request.

Value

Character string containing abstract or NULL if not found.

`fetch_abstract_epmc`*Fetch Abstract from Europe PMC API*

Description

Queries Europe PMC for an article's abstract using its DOI. Requires `resultType = "core"` in the query parameters to ensure abstract text is included.

Usage

```
fetch_abstract_epmc(encoded_doi, base_req)
```

Arguments

<code>encoded_doi</code>	Character string. Clean or URL-encoded DOI.
<code>base_req</code>	An httr2 request object configured with user-agent/headers.

Value

Character string containing abstract text, or NULL if not found.

`fetch_abstract_openalex`*Fetch Abstract from OpenAlex*

Description

Fetch Abstract from OpenAlex

Usage

```
fetch_abstract_openalex(doi, req_template)
```

Arguments

<code>doi</code>	Clean DOI string.
<code>req_template</code>	httr2 base request.

Value

Character string containing abstract or NULL if not found.

`fetch_abstract_semanticscholar`*Fetch Abstract from Semantic Scholar*

Description

Fetch Abstract from Semantic Scholar

Usage

```
fetch_abstract_semanticscholar(doi, base_req)
```

Arguments

<code>doi</code>	Clean DOI string.
<code>base_req</code>	httr2 base request.

Value

Character string containing abstract or NULL if not found.

fetch_all_zotero_data *Fetch All Data from a Zotero Group Library*

Description

Loops through specified or all collections in a Zotero group library, retrieves their items, formats them into a tabular structure, and appends the collection name.

Usage

```
fetch_all_zotero_data(group_id, api_key, collection_id = NULL)
```

Arguments

group_id	Character or numeric. The target Zotero Group ID.
api_key	Character. Your secret Zotero Web API v3 key.
collection_id	Optional character vector. Unique Zotero collection keys (hashes) to pull down. If NULL (default), all collections in the library are processed.

Value

A data frame containing structured reference data with columns: Sub_Collection, Authors, Year, Title, DOI, APA_Citation, and Abstract.

fetch_citation_counts *Fetch Citation Counts from OpenAlex via Batch Queries*

Description

Scans a data frame for a DOI column, extracts all valid identifiers, and queries the OpenAlex API in batches of up to 50 items to retrieve up-to-date citation metrics (cited_by_count). The results are joined back to the original data frame under a new citations column.

Usage

```
fetch_citation_counts(df, email_contact = Sys.getenv("POLITE_EMAIL"))
```

Arguments

df	A data frame containing bibliographic data, typically generated by fetch_all_zotero_data().
email_contact	Character string containing the contact email used to gain entry to the OpenAlex "Polite Pool." Defaults to the system environment variable Sys.getenv("POLITE_EMAIL").

Value

A data frame identical to the input, but with an added integer column named `citations` containing the citation metrics. Rows with missing or unmatched DOIs will default to NA.

Examples

```
## Not run:
enriched_data <- fetch_citation_counts(raw_data)

## End(Not run)
```

```
fetch_collection_items
```

Fetch All Items Within a Specific Zotero Collection

Description

Handles paginated API requests (100 items per page) to retrieve all top-level items from a specific Zotero collection key.

Usage

```
fetch_collection_items(group_id, api_key, collection_key)
```

Arguments

`group_id` Character or numeric. The target Zotero Group ID.
`api_key` Character. Your secret Zotero Web API v3 key.
`collection_key` Character. The unique alphanumeric key for the sub-collection.

Value

A data frame of processed items belonging to the collection.

```
fetch_ris_from_crossref
```

Fetch Bibliography Metadata in RIS Format from Crossref

Description

Takes a vector of DOIs and retrieves their bibliographic data formatted as RIS using Crossref Content Negotiation. Includes robust error handling and automatic retry logic for network rate-limiting.

Usage

```
fetch_ris_from_crossref(dois, email = NULL)
```

Arguments

dois	Character vector of DOIs.
email	Optional email address for Crossref's polite pool (recommended).

Value

A character vector of RIS formatted entries.

See Also

`write_ris()`

Examples

```
## Not run:
ris <- fetch_ris_from_crossref(
  dois = c("10.1016/j.ecolmodel.2020.109282", "10.1111/gcb.15000"),
  email = "user@example.com"
)
write_ris(ris, "export.ris")

## End(Not run)
```

fetch_zotero_collections

Fetch Sub-Folders (Collections) from a Zotero Group

Description

Connects to the Zotero API and retrieves a named vector of all sub-folders (collections) within the specified group library.

Usage

```
fetch_zotero_collections(group_id, api_key)
```

Arguments

group_id	Character or numeric string containing the Zotero Group ID.
api_key	Character string containing the Zotero API access key.

Value

A named character vector where the values are the unique Zotero collection hashes (e.g., "A8F3X2Z9") and the names are the human-readable folder titles (e.g., "Marine Biology"). Returns an empty vector if no folders exist.

Examples

```
## Not run:
folders <- fetch_zotero_collections("1234567", "your_api_key")

## End(Not run)
```

format_hyperlinks

*Format DOI and URL Columns into Clickable HTML Anchors***Description**

Scans a data frame for columns matching "doi" or "url" (case-insensitive) and transforms their string values into active HTML anchor tags (). It automatically protects existing full URLs inside the DOI column from being duplicated with the DOI resolver prefix.

Usage

```
format_hyperlinks(df)
```

Arguments

df A data frame containing bibliographic data, typically generated by `fetch_all_zotero_data()`.

Value

A data frame with the matched identifier columns transformed into HTML link strings.

Examples

```
## Not run:
# Assuming raw_data contains columns named 'DOI' and 'url'
clean_df <- format_hyperlinks(raw_data)

## End(Not run)
```

launch_dashboard

*Launch the Biblioview Dashboard Locally***Description**

Launch the Biblioview Dashboard Locally

Usage

```
launch_dashboard(group = NULL, key = NULL, folder = NULL, title = NULL)
```

Arguments

group	Optional character string containing a default Zotero Group ID.
key	Optional character string containing a default Zotero API Key.
folder	Optional character string containing a sub-collection (folder) of the group library.
title	Optional character string to override the default portal header title.

render_biblioview_table

Create Standard Biblioview DataTable

Description

Handles hyperlink formatting, JS tooltips, column truncation, and export button configurations uniformly.

Usage

```
render_biblioview_table(df, title = "export", show_buttons = TRUE)
```

Arguments

df	Data frame containing reference entries.
title	Character. Export filename prefix.
show_buttons	Logical. Include Copy/CSV/Excel export buttons.

sync_missing_abstracts_to_zotero

Sync Missing Abstracts Back to Zotero API

Description

Scans a Zotero group library (or specific collections) for top-level items missing abstracts, fetches them from external APIs, sanitizes formatting, and writes them back to Zotero.

Usage

```
sync_missing_abstracts_to_zotero(
  group_id,
  api_key,
  collections = NULL,
  force_overwrite = FALSE,
  email_contact = Sys.getenv("POLITE_EMAIL"),
  providers = list(epmc = fetch_abstract_epmc, crossref = fetch_abstract_crossref,
    openalex = fetch_abstract_openalex)
)
```

Arguments

group_id	Character or Numeric. The Zotero Group ID.
api_key	Character. A Zotero API key with write access to the group.
collections	Character vector (optional). One or more Zotero folder/collection names. If NULL (default), scans the entire group library.
force_overwrite	Logical. If TRUE, re-fetches and overwrites pre-existing abstracts. Defaults to FALSE.
email_contact	Character. Contact email used for polite external API pools. Defaults to environment variable POLITE_EMAIL.
providers	Named list of provider functions passed to external APIs.

Value

A named list containing summary statistics of the sync operation and details on any unresolvable items.

write_ris	<i>Export RIS Entries to File</i>
-----------	-----------------------------------

Description

Writes a character vector of RIS records to a file.

Usage

```
write_ris(ris_data, file)
```

Arguments

ris_data	Character vector of RIS records (e.g. from <code>fetch_ris_from_crossref</code>).
file	Path to the destination file.

Value

The file path invisibly.

See Also

[fetch_ris_from_crossref\(\)](#)

`zotero_to_apa`*Convert Zotero Item Data to Simplified Plain-Text APA 7 Format*

Description

Parses Zotero JSON items across articles, books, chapters, reports, and webpages, enforcing APA 7th rules without rich text (no italics or bolding).

Usage

```
zotero_to_apa(item)
```

Arguments

<code>item</code>	List. A single raw item element from the Zotero JSON API.
-------------------	---

Value

A single-row data frame with standardized bibliographic columns.

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