Package 'rClinicalCodes'

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Title R tools for integrating with the www.clinicalcodes.org
repository

Description R tools for integrating with the www.clinicalcodes.org web
repository

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Depends R (>= 2.15)

Imports stringr, RCurl, XML, rjson, tm

Suggests testthat, roxygen2,

Repository CRAN

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R topics documented:

```
all_ClinicalCodes_articles
```
Downloads a list of all articles in ClinicalCodes

Description

This function gives a dataframe of all articles listed in the ClinicalCodes repository.

Usage

```
all_ClinicalCodes_articles()
```

Details

Article IDs from the list are included and can then be passed to the download functions to import codelists and research objects into R

Value

A dataframe of article information, links and IDs

Examples

```
## Not run:
all_articles <- all_ClinicalCodes_articles()

## End(Not run)
```

```
codelists_for_ro
```
Associates lists of clinical codes with a ClinicalCodes research object

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Description

This function uses the codelist_url slot in a Research object to download codelists

Usage

```
codelists_for_ro(ro)
```

Arguments

ro   an object of class ResearchObject

Details

Internally it calls the get_clinicalcodes() function with a url argument

Value

a new ResearchObject with associated clinicalcodes dataframes for all codelists

Examples

```
## Not run:
# get research object without codes
RO <- research_object(article_id = 2, download_codes = FALSE)
# associate codes
RO <- codelists_for_ro(RO)

## End(Not run)
```

---

codelist_keywords   *Extract keywords from clinical code lists*

Description

This function takes a dataframe of clinical codes and gives a vector of keywords, sorted by frequency

Usage

```
codelist_keywords(codelist, keyword_column = "description",
  extra_stopwords = NULL)
```

Arguments

codelist   a dataframe of clinical codes, such as downloaded using the get_ClinicalCodes
                  function

keyword_column   The column of the dataframe to extract keywords from

extra_stopwords
                  an optional character vector of further stopwords to remove

Details

All terms are converted to lower case. Common stopwords, whitespace and punctuation are re-
moved Optional extra_stopwords vector

Value

character vector of keywords, sorted by frequency in the list

Examples

```
## Not run:
# Get codelist from url:
angina_codes <- get_ClinicalCodes(
url = "https://clinicalcodes.rss.mhs.man.ac.uk/medcodes/article/6/codelist/angina/download/")
codelist_keywords(angina_codes, extra_stopwords = c("good", "poor", "[x]"))

## End(Not run)
```

---

get_ClinicalCodes *Downloads clinical codes file from ClinicalCodes.org*

Description

Either specify the full path or the article id and codelist name If an article_id is supplied but no codelist_name, all codelists are downloaded and saved as a list

Usage

```
get_ClinicalCodes(url = NULL, article_id = NULL, codelist_name = NULL)
```

Arguments

url	character representing the url of a codelist download on www.clinicalcodes.org
article_id	integer representiong the id of a www.ClinicalCodes.org article
codelist_name	character representing a codelist name associated with an article on www.ClinicalCodes.org

Value

a dataframe of clinical codes or a list of dataframes of clinical codes

Examples

```
## Not run:
# Get codelist from url:
angina_codes <- get_ClinicalCodes(
url = "https://clinicalcodes.rss.mhs.man.ac.uk/medcodes/article/6/codelist/angina/download/")
head(angina_codes)
# get codelist by id and name
depression_codes <- get_ClinicalCodes(article_id = 6, codelist_name = "depression")
head(depression_codes)
# Get all code lists for an article
codelists <- get_ClinicalCodes(article_id = 2)
sapply(codelists, nrow)

## End(Not run)
```

| rClinicalCodes | *rClinicalCodes, R interface to the www.ClinicalCodes.org repository for clinical codes.* |

Description

rClinicalCodes, R interface to the www.ClinicalCodes.org repository for clinical codes.

| research_object | *Downloads Research objects for articles from www.clinicalcodes.org* |

Description

This function builds an R representation of a ClinicalCodes Research object

Usage

```
research_object(article_ids, download_codes = FALSE, trim = 50)
```

Arguments

article_ids	integer representiong the id of a www.ClinicalCodes.org article
download_codes	logical should the individual code lists be downloaded as part of the research object?
trim	integer How many characters from titles should be included in list names for multiple codelists?

Details

The ResearchObject contains metadata describing the article (URI, abstract, ID, title, authors, doi, journal etc.), comments on the article, codelist metadata (associated articles, name, url, number of codes in the list, user field names, comments) and optional full codelists. The individual codelists can be downloaded directly with the download_codes argument set to TRUE. Otherwise they can be associated later using the codelists_for_ro() function

Value

an object of class ResearchObject (R representation of a ClinicalCodes research object)

Examples

```
## Not run:
# get research object and codes
RO <- research_object(article_ids = 2, download_codes = FALSE)
ROs  <- research_object(article_ids = 5:7, download_codes = FALSE)

## End(Not run)
```

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