Package 'gtrendsR'

October 24, 2021

Type Package

Title Perform and Display Google Trends Queries

Version 1.5.0

Description An interface for retrieving and displaying the information
returned online by Google Trends is provided. Trends (number of
hits) over the time as well as geographic representation of the
results can be displayed.

License GPL (>= 2)

BugReports <https://github.com/PMassicotte/gtrendsR/issues>

URL <https://github.com/PMassicotte/gtrendsR>

Depends R (>= 3.5.0)

LazyData yes

Imports ggplot2, jsonlite, anytime, curl

RoxygenNote 7.1.2

Suggests knitr, rmarkdown, tinytest

Encoding UTF-8

NeedsCompilation no

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Repository CRAN

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R topics documented:

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categories	*Google Trends categories.*

Description

- name Names of the categories
- id IDs of the categories

Usage

```
data("categories")
```

Format

A data frame with 1426 rows and 2 variables

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countries	*Word countries ISO code.*

Description

- country_code Two-digits country codes
- description Description of the location
- sub_code ISO3166-2 country codes

Usage

```
data("countries")
```

Format

A data frame with 117293 rows and 3 variables

References

http://www.unece.org/cefact/codesfortrade/codes_index.html

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gtrends	*Google Trends Query*

Description

The gtrends default method performs a Google Trends query for the 'query' argument and session 'session'. Optional arguments for geolocation and category can also be supplied.

Usage

```
gtrends(
  keyword = NA,
  geo = ",
  time = "today+5-y",
  gprop = c("web", "news", "images", "froogle", "youtube"),
  category = 0,
  hl = "en-US",
  compared_breakdown = FALSE,
  low_search_volume = FALSE,
  cookie_url = "http://trends.google.com/Cookies/NID",
  tz = 0,
  onlyInterest = FALSE
)
```

Arguments

keyword	A character vector with the actual Google Trends query keywords. Multiple keywords are possible using gtrends(c("NHL","NBA","MLB","MLS")).
geo	A character vector denoting geographic regions for the query, default to "all" for global queries. Multiple regions are possible using gtrends("NHL",c("CA","US")).
time	A string specifying the time span of the query. Possible values are:

> **"now 1-H"** Last hour
> **"now 4-H"** Last four hours
> **"now 1-d"** Last day
> **"now 7-d"** Last seven days
> **"today 1-m"** Past 30 days
> **"today 3-m"** Past 90 days
> **"today 12-m"** Past 12 months
> **"today+5-y"** Last five years (default)
> **"all"** Since the beginning of Google Trends (2004)
> **"Y-m-d Y-m-d"** Time span between two dates (ex.: "2010-01-01 2010-04-03")

gprop	A character string defining the Google product for which the trend query if preformed. Valid options are:

- "web" (default)

- "news"
- "images"
- "froogle"
- "youtube"

category   A character denoting the category, defaults to "0".

hl   A string specifying the ISO language code (ex.: "en-US" or "fr"). Default is
                  "en-US". Note that this is only influencing the data returned by related topics.

compared_breakdown

                  Logical. Should compare breakdown the results by city and subregion? Can
                  only be used if one 'geo' is used conjointly with more than one keyword. If
                  'TRUE', then the relative hits across the keywords will be returned. 'FALSE'
                  by default.

low_search_volume

                  Logical. Should include low search volume regions?

cookie_url   A string specifying the URL from which to obtain cookies. Default should work
                  in general; should only be changed by advanced users.

tz   A number specifying the minutes the returned dates should be offset to UTC.
                  Note the parameter 'time' above is specified in UTC. E.g. choosing "time=2018-
                  01-01T01 2018-01-01T03" and "tz=-120" will yield data between 2018-01-01T03
                  and 2018-01-01T05, i.e. data specified to be in UTC+2.

onlyInterest   If you only want the interest over time set it to TRUE.

Value

An object of class 'gtrends' (basically a list of data frames).

Categories

The package includes a complete list of categories that can be used to narrow requests. These can
be accessed using data("categories").

Related topics

Note that *related topics* are not retrieved when more than one keyword is provided due to Google
restriction.

Examples

```
## Not run:

head(gtrends("NHL")$interest_over_time)
head(gtrends("NHL")$related_topics)
head(gtrends("NHL")$related_queries)

head(gtrends(c("NHL", "NFL"))$interest_over_time)

head(gtrends(c("NHL", "NFL"), geo = c("CA", "US"))$interest_over_time)
```

```
## Interest by city

gtrends(keyword = "obama", geo = "US-AL-630")

## Sport category (20)
data(categories)
categories[grepl("^Sport", categories$name), ]
gtrends(c("NHL", "NFL"), geo = c("CA", "US"), category = 20)
gtrends(geo = c("CA"), category = 20)

## Playing with time format

gtrends(c("NHL", "NFL"), time = "now 1-H") # last hour
gtrends(c("NHL", "NFL"), time = "now 4-H") # last four hours
gtrends(c("NHL", "NFL"), time = "now 1-d") # last day
gtrends(c("NHL", "NFL"), time = "today 1-m") # last 30 days
gtrends(c("NHL", "NFL"), time = "today 3-m") # last 90 days
gtrends(c("NHL", "NFL"), time = "today 12-m") # last 12 months
gtrends(c("NHL", "NFL"), time = "today+5-y") # last five years (default)
gtrends(c("NHL", "NFL"), time = "all") # since 2004

## Custom date format

gtrends(c("NHL", "NFL"), time = "2010-01-01 2010-04-03")

## Search from various Google's services

head(gtrends(c("NHL", "NFL"), gprop = "news")$interest_over_time)
head(gtrends(c("NHL", "NFL"), gprop = "youtube")$interest_over_time)

## Language settings

head(gtrends("NHL", hl = "en")$related_topics)
head(gtrends("NHL", hl = "fr")$related_topics)

## Compared breakdown
head(gtrends(keyword = c("nhl", "nba"), geo = "CA", compared_breakdown = FALSE)$interest_by_region)
head(gtrends(keyword = c("nhl", "nba"), geo = "CA", compared_breakdown = TRUE)$interest_by_region)

## End(Not run)
```

| plot.gtrends | *Plot Google Trends interest over time* |

Description

Plot Google Trends interest over time

Usage

```
## S3 method for class 'gtrends'
plot(x, ...)
```

Arguments

x	A gtrends object.
...	Additional parameters passed on in method dispatch. Currently not used.

Value

A ggplot2 object is returned silently.

Examples

```
## Not run:
res <- gtrends("nhl", geo = c("CA", "US"))
plot(res)

## End(Not run)
```

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setHandleParameters	*If* gtrends *should be used behind a proxy, especially with NTLM authentication mode, you need to set the proxy parameters and credentials using "setHandleParameters" function*

Description

If gtrends should be used behind a proxy, especially with NTLM authentication mode, you need to set the proxy parameters and credentials using "setHandleParameters" function

Usage

```
setHandleParameters(
  user = NULL,
  password = NULL,
  domain = NULL,
  proxyhost = NULL,
  proxyport = 8080,
  proxyauth = 15,
  extra_curl_opts = list()
)
```

Arguments

user	A string specifying your username
password	A string specifying your password
domain	A string specifying the authentication domain
proxyhost	A string specifying the Proxy host DNS or IP address
proxyport	A numeric specifying the Proxy Port : 8080 (default)
proxyauth	A numeric specifying the Proxy Authentication Method : 0 for NONE 1 for BASIC 2 for DIGEST 4 for NEGOTIATE 8 for NTLM 15 for ANY (default)
extra_curl_opts	
	A list of additional named options to pass into curl::handle_setopt(), e.g. list(timeout=60)

Examples

```
## Not run:
library(gtrendsR)

setHandleParameters(
  user = "xxxx",
  password = "*******",
  domain = "mydomain",
  proxyhost = "10.111.124.113"
)

res <- gtrends(c("nhl", "nba"), geo = c("CA", "US"))

# include additional curl options
setHandleParameters(
  user = "xxxx",
  password = "*******",
  domain = "mydomain",
  proxyhost = "10.111.124.113",
  extra_curl_opts = list(timeout = 60)
)

## End(Not run)
```

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