

Package ‘partycoloR’

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Type Package

Title Extract Party Colors and Logos from Wikipedia

Version 0.2.0

Description Extract political party colors and logos from English Wikipedia

party pages. Provides functions to scrape party infoboxes for color codes (HEX or HTML color names) and logo images. Includes integration with the Party Facts database for easy party lookups. Designed for political scientists and party researchers working with electoral and party data.
For Party Facts, see Döring and Regel (2019) <[doi:10.1177/1354068818820671](https://doi.org/10.1177/1354068818820671)> and Bederke, Döring, and Regel (2023) <[doi:10.7910/DVN/TJINLQ](https://doi.org/10.7910/DVN/TJINLQ)>.

License GPL-3

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Suggests testthat (>= 3.0.0), knitr, rmarkdown, ggplot2, scales, dplyr, tidyverse

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URL <https://github.com/lwarode/partycoloR>

BugReports <https://github.com/lwarode/partycoloR/issues>

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clear_partycolor_cache

Clear the partycolor cache

Description

Clears cached data (Partyfacts dataset) from the current R session.

Usage

```
clear_partycolor_cache()
```

Value

Invisible NULL.

Examples

```
clear_partycolor_cache()
```

download_party_logo *Download party logo image*

Description

Downloads a party logo image from a URL and saves it to a file.

Usage

```
download_party_logo(logo_url, destfile, overwrite = FALSE)
```

Arguments

logo_url	A character string with the logo URL (from [get_party_logo()]).
destfile	Path where the image should be saved.
overwrite	Logical. If ‘TRUE’, overwrite existing files.

Value

Invisible ‘TRUE’ if successful, ‘FALSE’ otherwise.

Examples

```
if (curl::has_internet()) {  
  logo_url <- get_party_logo(  
    "https://en.wikipedia.org/wiki/Democratic_Party_(United_States)"  
  )  
  tmp_file <- tempfile(fileext = ".png")  
  download_party_logo(logo_url, tmp_file)  
  unlink(tmp_file)  
}
```

```
get_partyfacts_wikipedia  
Download Partyfacts Wikipedia data
```

Description

Downloads the current Partyfacts Wikipedia dataset containing party names, countries, and Wikipedia URLs for thousands of political parties worldwide.

Usage

```
get_partyfacts_wikipedia(cache = TRUE)
```

Arguments

cache	Logical. If ‘TRUE’ (default), caches the downloaded data for the current R session to avoid repeated downloads.
-------	---

Details

The data comes from the Partyfacts project (<<https://partyfacts.herokuapp.com/>>), which links party datasets and provides Wikipedia URLs for political parties. The data is downloaded from the Partyfacts GitHub repository.

Value

A tibble with columns: country, partyfacts_id, url, name_short, name, name_native, year_founded, year_dissolved.

See Also

`[lookup_party_url()]` for searching parties in the dataset.

Examples

```
if (curl::has_internet()) {
  # Download the dataset
  pf_data <- get_partyfacts_wikipedia()

  # View parties from Germany
  pf_data[pf_data$country == "DEU", ]
}
```

<code>get_party_color</code>	<i>Extract party color from Wikipedia</i>
------------------------------	---

Description

Extracts the primary party color (or all colors) from a political party's English Wikipedia page. The function scrapes the party infobox for color information.

Usage

```
get_party_color(url, all_colors = FALSE, normalize = TRUE)
```

Arguments

<code>url</code>	A character vector of Wikipedia URLs for political party pages.
<code>all_colors</code>	Logical. If 'FALSE' (default), returns only the first/primary color. If 'TRUE', returns all colors as a list.
<code>normalize</code>	Logical. If 'TRUE' (default), attempts to normalize color values to uppercase hex codes. Named colors (e.g., "red") are converted to hex codes.

Details

The function works by scraping the Wikipedia infobox (vcard table) for spans with background-color style attributes. This depends on Wikipedia's current HTML structure and may occasionally fail if the page structure changes.

For use with `'dplyr::mutate()'`, this function is vectorized over the 'url' argument. Each URL is processed independently.

Value

If ‘all_colors = FALSE’, a character vector of hex color codes (or NA for failed extractions). If ‘all_colors = TRUE’, a list of character vectors containing all colors for each URL.

Examples

```
if (curl::has_internet()) {  
  # Single party  
  get_party_color("https://en.wikipedia.org/wiki/Democratic_Party_(United_States)")  
  
  # Multiple parties  
  urls <- c(  
    "https://en.wikipedia.org/wiki/Democratic_Party_(United_States)",  
    "https://en.wikipedia.org/wiki/Republican_Party_(United_States)"  
  )  
  get_party_color(urls)  
  
  # Get all colors (some parties have multiple)  
  get_party_color(urls, all_colors = TRUE)  
}
```

get_party_color_by_name

Get party color by name

Description

A convenience function that combines party lookup and color extraction. Searches for a party by name, finds its Wikipedia URL, and extracts the party color.

Usage

```
get_party_color_by_name(  
  party_name,  
  country = NULL,  
  all_colors = FALSE,  
  data = NULL  
)
```

Arguments

party_name	A character string with the party name to search for.
country	Optional. ISO 3-letter country code to filter results.
all_colors	Logical. If ‘TRUE’, returns all colors. Default is ‘FALSE’.
data	Optional. A Partyfacts dataset.

Value

If exactly one party is found, returns the color(s). If multiple parties match, returns a tibble with party info and colors. Returns NA if no party is found.

Examples

```
if (curl::has_internet()) {
  # Get color for German SPD
  get_party_color_by_name("SPD", country = "DEU")

  # Search more broadly
  get_party_color_by_name("Labour", country = "GBR")
}
```

<code>get_party_info</code>	<i>Extract party information from Wikipedia</i>
-----------------------------	---

Description

Extracts both the party color(s) and logo URL from a political party's English Wikipedia page in a single call.

Usage

```
get_party_info(url, all_colors = FALSE)
```

Arguments

- | | |
|------------|---|
| url | A character vector of Wikipedia URLs for political party pages. |
| all_colors | Logical. If 'FALSE' (default), returns only the primary color in the 'color' column. If 'TRUE', adds an 'all_colors' list-column. |

Details

This function combines [get_party_color()] and [get_party_logo()] into a single call, which is more efficient when you need both pieces of information as it only fetches each Wikipedia page once.

Value

A tibble with columns: 'url', 'color' (primary color as hex), 'logo_url', and optionally 'all_colors' (list of all colors).

Examples

```
if (curl::has_internet()) {
  # Get info for multiple parties
  urls <- c(
    "https://en.wikipedia.org/wiki/Democratic_Party_(United_States)",
    "https://en.wikipedia.org/wiki/Republican_Party_(United_States)",
    "https://en.wikipedia.org/wiki/Social_Democratic_Party_of_Germany"
  )
  get_party_info(urls)

  # Include all colors
  get_party_info(urls, all_colors = TRUE)
}
```

get_party_info_by_name

Get party info by name

Description

A convenience function that combines party lookup with color and logo extraction. Searches for a party by name, finds its Wikipedia URL, and extracts both color and logo.

Usage

```
get_party_info_by_name(
  party_name,
  country = NULL,
  all_colors = FALSE,
  data = NULL
)
```

Arguments

party_name	A character string with the party name to search for.
country	Optional. ISO 3-letter country code to filter results.
all_colors	Logical. If ‘TRUE’, includes all colors as a list-column. Default is ‘FALSE’.
data	Optional. A Partyfacts dataset.

Value

A tibble with party info, color, and logo_url columns. Returns a tibble with zero rows if no party is found.

Examples

```
if (curl::has_internet()) {
  # Get info for German SPD
  get_party_info_by_name("SPD", country = "DEU")

  # Search more broadly with all colors
  get_party_info_by_name("Labour", country = "GBR", all_colors = TRUE)
}
```

get_party_logo	<i>Extract party logo URL from Wikipedia</i>
----------------	--

Description

Extracts the party logo image URL from a political party's English Wikipedia page. The function scrapes the party infobox for the logo image.

Usage

```
get_party_logo(url)
```

Arguments

url	A character vector of Wikipedia URLs for political party pages.
-----	---

Details

The function looks for logo images in the Wikipedia infobox. The returned URL is typically a Wikimedia Commons thumbnail URL. Note that some party pages may not have logos, or the logo may be in a non-standard location.

The returned URLs point to image files hosted on Wikimedia servers. These can be used directly in R graphics or downloaded for further processing.

For use with ‘`dplyr::mutate()`’, this function is vectorized over the ‘`url`’ argument.

Value

A character vector of logo image URLs (or NA for failed extractions or pages without logos).

Examples

```
if (curl::has_internet()) {
  # Single party
  get_party_logo("https://en.wikipedia.org/wiki/Democratic_Party_(United_States)")

  # Multiple parties
  urls <- c(
    "https://en.wikipedia.org/wiki/Democratic_Party_(United_States)",
```

```
    "https://en.wikipedia.org/wiki/Republican_Party_(United_States)"
)
get_party_logo(urls)
}
```

get_party_logo_by_name

Get party logo by name

Description

A convenience function that combines party lookup and logo extraction. Searches for a party by name, finds its Wikipedia URL, and extracts the party logo URL.

Usage

```
get_party_logo_by_name(party_name, country = NULL, data = NULL)
```

Arguments

party_name	A character string with the party name to search for.
country	Optional. ISO 3-letter country code to filter results.
data	Optional. A Partyfacts dataset.

Value

If exactly one party is found, returns the logo URL. If multiple parties match, returns a tibble with party info and logo URLs. Returns NA if no party is found.

Examples

```
if (curl::has_internet()) {
  # Get logo for German SPD
  get_party_logo_by_name("SPD", country = "DEU")

  # Search more broadly
  get_party_logo_by_name("Labour", country = "GBR")
}
```

`lookup_party_url` *Look up party Wikipedia URL*

Description

Search the Partyfacts Wikipedia dataset for a party by name and/or country.

Usage

```
lookup_party_url(party_name, country = NULL, data = NULL, exact = FALSE)
```

Arguments

<code>party_name</code>	A character string to search for in party names. The search is case-insensitive and matches partial names.
<code>country</code>	Optional. ISO 3-letter country code (e.g., "DEU", "USA", "GBR") to filter results.
<code>data</code>	Optional. A Partyfacts dataset (from [get_partyfacts_wikipedia()]). If not provided, downloads the data automatically.
<code>exact</code>	Logical. If 'TRUE', requires exact match on party name. Default is 'FALSE' (partial matching).

Value

A tibble with matching parties and their Wikipedia URLs.

Examples

```
if (curl::has_internet()) {
  # Search for parties with "Democratic" in the name
  lookup_party_url("Democratic")

  # Search within a specific country
  lookup_party_url("SPD", country = "DEU")

  # Exact match
  lookup_party_url("CDU", country = "DEU", exact = TRUE)
}
```

wikipedia_party_color *Extract party colors from Wikipedia (legacy function)*

Description

```
'r lifecycle::badge("deprecated")'
```

This function is deprecated. Please use [get_party_color()] instead.

Usage

```
wikipedia_party_color(party_url_list)
```

Arguments

party_url_list A list of Wikipedia political party URLs

Value

A data frame / tibble containing extracted color codes from Wikipedia

Examples

```
if (curl::has_internet()) {  
  party_list <- c(  
    "https://en.wikipedia.org/wiki/Democratic_Party_(United_States)",  
    "https://en.wikipedia.org/wiki/Republican_Party_(United_States)"  
  )  
  wikipedia_party_color(party_list)  
}
```

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