Package 'xSub'

October 14, 2022

Title Cross-National Data on Sub-National Violence

Version 3.0.2

Description Tools to download and merge data files on sub-national conflict, violence and protests from <http://www.x-sub.org>.

URL https://github.com/zhukovyuri/xSub

Depends R (>= 3.3.2)

Imports countrycode, haven, RCurl

License GPL-3

Encoding UTF-8

LazyData true

RoxygenNote 7.1.1

NeedsCompilation no

Author Yuri Zhukov [aut, cre],
Christian Davenport [aut],
Nadiya Kostyuk [aut]

Maintainer Yuri Zhukov <zhukov@umich.edu>

Repository CRAN

Date/Publication 2022-06-30 16:40:02 UTC

R topics documented:

get_xSub *Get xSub file*

Description

This function downloads individual files from www.x-sub.org. Function produces a data.frame, for the user's choice of data source, country, spatial and temporal units, and (optionally) writes this data.frame to disk, in multiple formats.

Usage

```
get_xSub(
  data_source,
  sources_type = "individual",
  data_type = "spatial panel",
  country_iso3 = NULL,
  country_name = NULL,
  space_unit,
  time_unit,
  geo_window = "1 km",
  time_window = "1 day",
  dyad_type = "undirected",
  out_dir = getwd(),
  write_file = TRUE,
  write_format = "csv",
  verbose = FALSE
)
```

Arguments

data_source	Name of data source. See info_xSub() for full list.
sources_type	Type of data sources ("individual" or "multiple"). Character string.
data_type	Type of dataset ("event" or "panel"). Character string.
country_iso3	Country code (ISO3). See info_xSub() for full list.
country_name	Country name. See info_xSub() for full list.
space_unit	Geographic level of analysis. Character string. Can be one of "adm0" (country), "adm1" (province), "adm2" (district), "priogrid" (grid cell), "clea" (electoral constituency). See info_xSub(details=TRUE) for availability by country.
time_unit	Temporal level of analysis. Character string. Can be one of "year", "month", "week", "day". See info_xSub(details=TRUE) for availability by country.
geo_window	Geographic window (if source_type="multiple"). Could be either of "1 km" (default) or "5 km". Character string or vector.
time_window	Time window (if source_type="multiple"). Could be either of "1 day" (default) or "2 day". Character string or vector.

dyad_type	Time window (if source_type="multiple"). Could be either of "undirected" (default) or "directed". Character string or vector.
out_dir	Path to directory where files will be saved.
write_file	Logical. If write_file=TRUE, selected file will be written to disk, at location specified by out_dir.
write_format	Output file format. Can be one of "csv" (comma-separated values, default), "R" (RData format, compatible with R statistical programming language), "STATA" (dta format, compatible with Stata 14).
verbose	Logical. When verbose=TRUE, file download progress is printed to console.

See Also

info_xSub, get_xSub_multi

Examples

```
# Check which countries are available for ACLED
info_xSub(data_source="ACLED")

# Download ACLED data for Egypt, at country-year level
## Not run:
my_file <- get_xSub(data_source = "ACLED",country_iso3 = "EGY",
           space_unit = "adm0",time_unit = "year")

## End(Not run)

# Download ACLED data for Egypt, at district-month level
## Not run:
my_file <- get_xSub(data_source = "ACLED",country_iso3 = "EGY",
           space_unit = "adm2",time_unit = "month")

## End(Not run)

# With country name instead of ISO3 code
## Not run:
my_file <- get_xSub(data_source = "ACLED",country_name = "Egypt",
           space_unit = "adm2",time_unit = "month")

## End(Not run)

## Not run:
# Download ACLED data for Egypt, event level
my_file <- get_xSub(data_source = "ACLED",country_iso3 = "EGY",
           data_type = "event")

## End(Not run)

## Not run:
# Download multiple source data for Egypt, at province-month level
my_file <- get_xSub(sources_type = "multiple",country_iso3 = "EGY",
           space_unit = "adm1",time_unit = "month", geo_window = "1 km",
```

```
            time_window = "1 day", dyad_type = "undirected")

## End(Not run)
```

`get_xSub_multi` *Get xSub files for multiple countries*

Description

This function downloads and merges mutiple country files from `www.x-sub.org`. Syntax is similar to `get_xSub()`.

Usage

```
get_xSub_multi(
  data_source,
  sources_type = "individual",
  data_type = "spatial panel",
  country_iso3 = NULL,
  space_unit,
  time_unit,
  geo_window = "1 km",
  time_window = "1 day",
  dyad_type = "undirected",
  merge_files = TRUE,
  out_dir = getwd(),
  write_file = FALSE,
  write_format = "csv",
  verbose = FALSE
)
```

Arguments

`data_source`	Name of data source. Character string. See `info_xSub()` for full list.
`sources_type`	Type of data sources ("individual" or "multiple"). Character string.
`data_type`	Type of dataset ("event" or "panel"). Character string.
`country_iso3`	Country codes (ISO3). Character string or vector. See `info_xSub()` for full list. If left blank, function will download all available countries for selected data source.
`space_unit`	Geographic level of analysis. Character string. Can be one of `"adm0"` (country), `"adm1"` (province), `"adm2"` (district), `"priogrid"` (grid cell), `"clea"` (electoral constituency). See `info_xSub(details=TRUE)` for availability by country.
`time_unit`	Temporal level of analysis. Character string. Can be one of `"year"`, `"month"`, `"week"`, `"day"`. See `info_xSub(details=TRUE)` for availability by country.
`geo_window`	Geographic window (if source_type="multiple"). Could be either of "1 km" or "5 km". Character string or vector.

time_window	Time window (if source_type="multiple"). Could be either of "1 day" or "2 day". Character string or vector.
dyad_type	Time window (if source_type="multiple"). Could be either of "undirected" or "directed". Character string or vector.
merge_files	Logical. If merge_files=TRUE (default), function will combine individual country files into single data.frame, and write single file to disk. If merge_files=FALSE, function produces a list, and writes individual country files to disk separately.
out_dir	Path to directory where files will be saved. Character string.
write_file	Logical. If write_file=TRUE, selected file will be written to disk, at location specified by out_dir.
write_format	Output file format. Character string. Can be one of "csv" (comma-separated values, default), "R" (RData format, compatible with R statistical programming language), "STATA" (dta format, compatible with Stata 14).
verbose	Logical. When verbose=TRUE, file download progress is printed to console..

See Also

info_xSub, get_xSub

info_xSub, get_xSub

Examples

```
# Check which countries are available for GED
info_xSub(data_source="GED")

# Example with two countries
## Not run:
my_file <- get_xSub_multi(data_source = "PITF",country_iso3 = c("ALB","ARM"),
           space_unit = "adm0",time_unit = "year")

## End(Not run)

# Example with two countries
## Not run:
my_file <- get_xSub_multi(data_source = "GED",country_iso3 = c("EGY","AGO"),
           space_unit = "adm1",time_unit = "month")

## End(Not run)

# Example with two countries, multiple sources, event-level
## Not run:
my_file <- get_xSub_multi(sources_type = "multiple",data_type="event",country_iso3 = c("EGY","AGO"))

## End(Not run)

# Example with all countries (WARNING: this can take a long time to run)
## Not run:
my_file <- get_xSub_multi(data_source = "BeissingerProtest",country_iso3 = NULL,
           space_unit = "adm0",time_unit = "year")
```

```
## End(Not run)
```

`info_xSub` *Information on available xSub files*

Description

This function reports the availability of files on the `www.x-sub.org` server, and corresponding country codes and units of analysis. For additional info, see `www.x-sub.org/about/what-is-xsub`.

Usage

```
info_xSub(
  details = FALSE,
  sources_type = "individual",
  data_type = "panel",
  data_source = NULL,
  country_iso3 = NULL,
  country_name = NULL,
  geo_window = NULL,
  time_window = NULL,
  dyad_type = NULL
)
```

Arguments

`details`	Logical. If `details=TRUE`, function returns information on available units of analysis for each country.
`sources_type`	Type of data sources ("individual" or "multiple"). Character string.
`data_type`	Type of dataset ("event" or "panel"). Character string.
`data_source`	Subset results by data sources. Character string or vector.
`country_iso3`	Subset results by country codes (ISO3). Character string or vector.
`country_name`	Subset results by country name. Character string or vector.
`geo_window`	Geographic window (if source_type="multiple"). Could be either of "1 km" or "5 km". Character string or vector.
`time_window`	Time window (if source_type="multiple"). Could be either of "1 day" or "2 day". Character string or vector.
`dyad_type`	Time window (if source_type="multiple"). Could be either of "undirected" or "directed". Character string or vector.

See Also

`get_xSub`, `get_xSub_multi`

Examples

```
# General info on data sources and countries
info_xSub()

# Available files for Pakistan
info_xSub(country_name = "Pakistan")

# Detailed info for Pakistan
info_xSub(details=TRUE,country_name = "Pakistan")

# Available files for SCAD data source
info_xSub(data_source = "SCAD")

# Available files for SCAD data source, event-level
info_xSub(data_source = "SCAD", data_type = "event")

# Multiple data sources, directed dyads
info_xSub(sources_type = "multiple", dyad_type = "directed")

# Multiple data sources, directed dyads, Russia
info_xSub(sources_type = "multiple", dyad_type = "directed", country_name = "Russia")
```

---

xSub_census_individual_raw

Census of individual-source event-level datasets in xSub (updated June 15, 2020)

Description

A list of data sources and countries available for download. Used by `info_xSub()`

Usage

```
xSub_census_individual_raw
```

Format

A list with 4 elements:

level0_bysource Countries organized by `data_source`. List object, where each sub-entry is also a list, containing entries for `data_source`,`country_iso3`,`country_name`.

level0_bycountry Data sources organized by country. List of data.frames, where each row is a country, with columns for `country_iso3`,`country_name`,`data_sources`.

level1 Detailed information on data sources, countries and spatial levels of analysis. data.frame, where each row is a source-country combination, with columns for `data_source`,`country_iso3`,`country_name`,`units`.

all_countries Vector of all country ISO3 codes. Used by `get_xSub_multi`.

Source

http://www.x-sub.org/

`xSub_census_individual_spatial` *Census of individual-source panel datasets in xSub (updated June 15, 2020)*

Description

A list of data sources, countries and levels of analysis available for download. Used by `info_xSub()`

Usage

```
xSub_census_individual_spatial
```

Format

A list with 6 elements:

level0_bysource Countries organized by `data_source`. List object, where each sub-entry is also a list, containing entries for `data_source`,`country_iso3`,`country_name`.

level0_bycountry Data sources organized by country. List of data.frames, where each row is a country, with columns for `country_iso3`,`country_name`,`data_sources`.

level1 Detailed information on data sources, countries and spatial levels of analysis. data.frame, where each row is a source-country combination, with columns for `data_source`,`country_iso3`,`country_name`,`space_`

level2 Detailed information on data sources, countries, spatial and temporal levels of analysis. data.frame, where each row is a source-country-spatial unit combination, with columns for `data_source`,`country_iso3`,`country_name`,`space_unit`,`time_units`.

level3 File census. data.frame, where each row is a single file, with columns for `file_name`,`data_source`,`country_iso3`,`cou`

all_countries Vector of all country ISO3 codes. Used by `get_xSub_multi`.

Source

http://www.x-sub.org/

xSub_census_multiple_raw

Census of multiple-source event-level datasets in xSub (updated June 15, 2020)

Description

A list of data sources, countries and levels of analysis available for download. Used by `info_xSub()`

Usage

```
xSub_census_multiple_raw
```

Format

A list with 4 elements:

level0_bysource Countries organized by `data_source`. List object, where each sub-entry is also a list, containing entries for `data_source`,`geo_window`,`time_window`,`dyad_type`,`country_iso3`,`country_name`.

level0_bycountry Data sources organized by country. List of data.frames, where each row is a country, with columns for `country_iso3`,`country_name`,`geo_window`,`time_window`,`dyad_type`,`data_sources`.

level1 Detailed information on data sources, countries and spatial levels of analysis. data.frame, where each row is a source-country combination, with columns for `data_source`,`geo_window`,`time_window`,`dyad_type`

all_countries Vector of all country ISO3 codes. Used by `get_xSub_multi`.

Source

http://www.x-sub.org/

xSub_census_multiple_spatial

Census of multiple-source panel datasets in xSub (updated June 15, 2020)

Description

A list of data sources, countries and levels of analysis available for download. Used by `info_xSub()`

Usage

```
xSub_census_multiple_spatial
```

Format

A list with 6 elements:

level0_bysource Countries organized by `data_source`. List object, where each sub-entry is also a list, containing entries for `data_source`,`geo_window`,`time_window`,`dyad_type`,`country_iso3`,`country_name`.

level0_bycountry Data sources organized by country. List of data.frames, where each row is a country, with columns for `country_iso3`,`country_name`,`geo_window`,`time_window`,`dyad_type`,`data_sources`.

level1 Detailed information on data sources, countries and spatial levels of analysis. data.frame, where each row is a source-country combination, with columns for `data_source`,`geo_window`,`time_window`,`dyad_type`

level2 Detailed information on data sources, countries, spatial and temporal levels of analysis. data.frame, where each row is a source-country-spatial unit combination, with columns for `data_source`,`geo_window`,`time_window`,`dyad_type`,`country_iso3`,`country_name`,`space_unit`,`time_units`.

level3 File census. data.frame, where each row is a single file, with columns for `file_name`,`data_source`,`geo_window`,`time_`

all_countries Vector of all country ISO3 codes. Used by `get_xSub_multi`.

Source

http://www.x-sub.org/

Index