

Mapping and Measuring Country Shapes

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```
library(cshapes)

## Loading required package: sp
## Loading required package: maptools
## Checking rgeos availability: FALSE
## Note: when rgeos is not available, polygon geometry computations in maptools depend on gpclib
## which has a restricted licence. It is disabled by default;
## to enable gpclib, type gpclibPermit()

## Loading required package: plyr
# load country border as of 2002
cmap.2002 <- cshp(date=as.Date("2002-1-1"))

## Warning: readShapePoly is deprecated; use rgdal::readOGR or sf::st_read
# download dataset, filter scores for 2002
polity.file <- paste(tempdir(), "p4v2008.sav", sep="/")
download.file("http://www.systemicpeace.org/+ inscr/p4v2008.sav", polity.file)

## Warning in download.file("http://www.systemicpeace.org/+ inscr/p4v2008.sav", :
## cannot open URL 'http://www.systemicpeace.org/+ inscr/p4v2008.sav': HTTP status
## was '400 Bad Request'

## Error in download.file("http://www.systemicpeace.org/+ inscr/p4v2008.sav", : nie można otworzyć adresu
polity <- read.spss(polity.file, to.data.frame=T)

## Error in read.spss(polity.file, to.data.frame = T): nie udało się znaleźć funkcji 'read.spss'
polity.2002 <- polity[polity$year==2002,]

## Error in eval(expr, envir, enclos): nie znaleziono obiektu 'polity'
polity.2002 <- subset(polity.2002, !is.na(polity2), select=c(ccode, polity2))

## Error in subset(polity.2002, !is.na(polity2), select = c(ccode, polity2)): nie znaleziono obiektu 'polity2'
# match country identifiers from both datasets
o <- match(cmap.2002$COWCODE, polity.2002$ccode)

## Error in match(cmap.2002$COWCODE, polity.2002$ccode): nie znaleziono obiektu 'polity.2002'
```

```

# order polity dataset accordingly
polity.2002 <- polity.2002[o,]

## Error in eval(expr, envir, enclos): nie znaleziono obiektu 'polity.2002'
# set row names, required for spCbind function
row.names(polity.2002) <- cmap.2002$FEATUREID

## Error in row.names(polity.2002) <- cmap.2002$FEATUREID: nie znaleziono obiektu 'polity.2002'
# append using spCbind
cmap.2002.m <- spCbind(cmap.2002, polity.2002)

## Error in spCbind(cmap.2002, polity.2002): nie znaleziono obiektu 'polity.2002'
Niestety plik już nie istnieje. Przez to kolejne funkcje również się nie powiedą.
# generate a color palette
pal <- grey.colors(3, 0.25, 0.95)
# find the class intervals and colors
breaks <- classIntervals(cmap.2002.m$polity2, n=3, style="fixed", fixedBreaks=c(-10, -6, 7, 10))

## Error in classIntervals(cmap.2002.m$polity2, n = 3, style = "fixed", fixedBreaks = c(-10, : nie udało
colors <- findColours(breaks, pal)

## Error in findColours(breaks, pal): nie udało się znaleźć funkcji 'findColours'
# create plot and add legend
plot(cmap.2002.m, bty="n", col=colors)

## Error in plot(cmap.2002.m, bty = "n", col = colors): nie znaleziono obiektu 'cmap.2002.m'
legend(x="bottomleft",
       legend=c("Autocracy", "Anocracy", "Democracy"),
       fill = attr(colors, "palette"),
       bty = "n", title="Regime type")

## Error in strwidth(legend, units = "user", cex = cex, font = text.font): plot.new has not been called
cmap <- cshp()

## Warning: readShapePoly is deprecated; use rgdal::readOGR or sf::st_read
centroids <- coordinates(cmap)
distance <- function(from.x, from.y, to.x, to.y) {
  from <- matrix(c(from.x, from.y), ncol=2, nrow=1)
  spDistsN1(from, c(to.x, to.y), longlat = TRUE)
}
cmap$capcentdist <- mapply(distance, centroids[,1],
centroids[,2], cmap$CAPLONG, cmap$CAPLAT)

```

Problemy

- pobierany z sieci plik już nie istnieje

Jak naprawić

- jakby się znało strukturę pliku, można by go odtworzyć i pobierać lokalnie

Session info

```
## R version 3.6.3 (2020-02-29)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Debian GNU/Linux 9 (stretch)
##
## Matrix products: default
## BLAS:   /usr/lib/openblas-base/libblas.so.3
## LAPACK: /usr/lib/libopenblas-r0.2.19.so
##
## locale:
##  [1] LC_CTYPE=pl_PL.UTF-8      LC_NUMERIC=C
##  [3] LC_TIME=pl_PL.UTF-8      LC_COLLATE=pl_PL.UTF-8
##  [5] LC_MONETARY=pl_PL.UTF-8  LC_MESSAGES=pl_PL.UTF-8
##  [7] LC_PAPER=pl_PL.UTF-8     LC_NAME=C
##  [9] LC_ADDRESS=C             LC_TELEPHONE=C
## [11] LC_MEASUREMENT=pl_PL.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats      graphics  grDevices  utils      datasets  methods    base
##
## other attached packages:
## [1] cshapes_0.6      plyr_1.8.6      maptools_0.9-9  sp_1.4-1
##
## loaded via a namespace (and not attached):
##  [1] Rcpp_1.0.4.6      lattice_0.20-40  digest_0.6.25    grid_3.6.3
##  [5] magrittr_1.5      evaluate_0.14    rlang_0.4.5      stringi_1.4.6
##  [9] rmarkdown_2.1     tools_3.6.3      foreign_0.8-75   stringr_1.4.0
## [13] xfun_0.13         yaml_2.2.1       compiler_3.6.3   htmltools_0.4.0
## [17] knitr_1.28
```