Vizualizations

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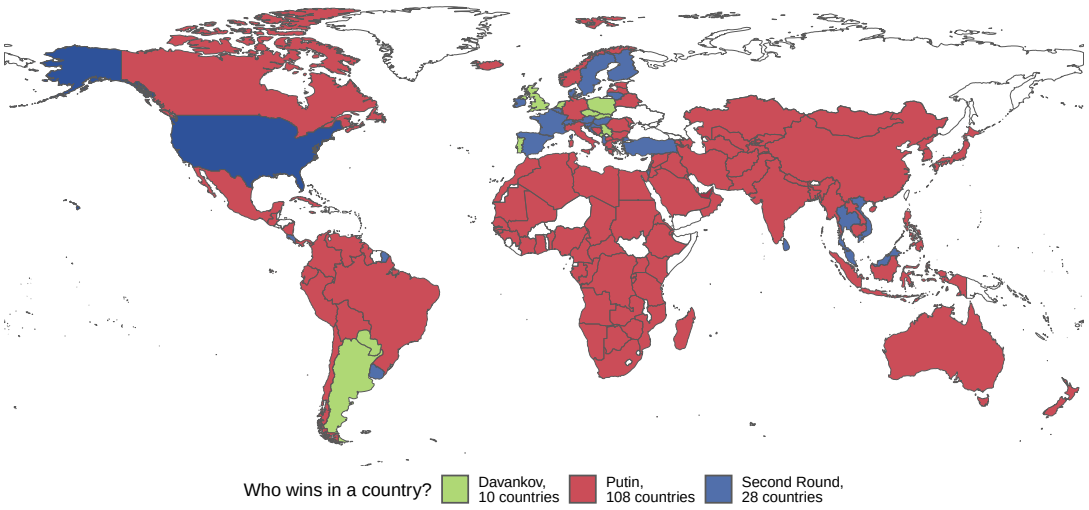
```
# Manage packages

  ## Package list
  packages <- c("readxl", "tidyverse", "lubridate")

  ## Install packages not yet installed
  installed_packages <- packages %in% rownames(installed.packages())
  if (any(installed_packages == FALSE)) {
    install.packages(packages[!installed_packages])
  }

  ## Load packages
  invisible(lapply(packages, library, character.only = TRUE))


  # Set options
options(scipen = 999)

# Define global functions

  ## Fitting stargazer onto the page
  resizebox.stargazer = function(..., tab.width = "!", tab.height = "!")
      {
    require(stringr)
    res = capture.output(stargazer::stargazer(...))
    tab.width = tab.width
    tab.height = tab.height
    res = prepend(res, "}", before = length(res))

    res = c(res[1:str_which(res, "^\\\\\\begin\\{tabular\\}.*")-1],
        paste0("\\resizebox*{",tab.width,"}{",tab.height,"}{%"),
        res[str_which(res, "^\\\\\\begin\\{tabular\\}.*"):length(res)]
        )
    cat(res, sep = "\n")
  }


library(here)
source(here("scripts", "data_building.R"))


world <- ne_countries(scale = "medium", returnclass = "sf") |>
  mutate(countrycode_c = countrycode(as.numeric(iso_n3_eh), origin = "iso3n",
                                     destination = "iso3c"))

merged_world <- merged |>
```

```
  mutate(putin_full = if_else(countrycode_c == "TUR", putin_cec, putin_full),
         davankov_full = if_else(countrycode_c == "TUR", davankov_cec, davankov_full),
         spoiled_full = if_else(countrycode_c == "TUR", spoiled_cec, spoiled_full)) |>
  group_by(countryname_en, countryname_ru, countrycode_c, countrycode_n) |>
  filter(!countryname_ru %in% c("    ", "       ")) |>
  summarise(putin_full = mean(putin_full),
            davankov_full = mean(davankov_full),
            spoiled_full = mean(spoiled_full)) |>
  mutate(result = case_when(putin_full > 0.5 ~ "Putin",
                            davankov_full > 0.5 ~ "Davankov",
                            davankov_full <= 0.5 & putin_full <= 0.5 ~ "Second Round",
                            .default = "Oops"),
         result2 = case_when((davankov_full + spoiled_full) > putin_full
                             ~ "Davankov + Spoiled",
                             putin_full > (davankov_full + spoiled_full) ~ "Putin",
                             putin_full == (davankov_full + spoiled_full) ~ "Tie",
                             .default = "Oops"),
         result3 = case_when(davankov_full > putin_full
                             ~ "Davankov",
                             putin_full > davankov_full ~ "Putin",
                             putin_full == davankov_full ~ "Tie",
                             .default = "Oops")) |>
  full_join(world, by = "countrycode_c") |>
  st_as_sf()

putin_quant = classIntervals(c(min(merged_world$putin_full) - .00001,
                               merged_world$putin_full), n = 9, style = "quantile")

davankov_quant = classIntervals(c(min(merged_world$davankov_full) - .00001,
                               merged_world$davankov_full), n = 4, style = "quantile")

spoiled_quant = classIntervals(c(min(merged_world$spoiled_full) - .00001,
                               merged_world$spoiled_full), n = 4, style = "quantile")


ggplot(merged_world, aes(fill = result)) +
  geom_sf(alpha = 0.8) +
  scale_fill_manual(
    labels = c(paste0("Davankov,\n",
                      sum(merged_world$result == "Davankov", na.rm = T),
                      " countries"),
               paste0("Putin,\n",
                      sum(merged_world$result == "Putin", na.rm = T),
                      " countries"),
               paste0("Second Round,\n",
                      sum(merged_world$result == "Second Round", na.rm = T),
                      " countries")),
                    values = c("#9BCF53", "#bf212f", "#264b96"),
                    na.translate = F, na.value = "lightgrey") +
  labs(title = "Results of 2024 Russian Presidental election abroad",
       subtitle = "Average share of votes by country, first round outcome of election",
       fill = "Who wins in a country?",
       caption = "\nSources: Ivan Shukshin's Telegram channel - t.me/nevybory,\nCentral Election Commission of the Russian Fe
  theme_void() +
  theme(legend.position = "bottom") +
  coord_sf(ylim = c(-55, 90))
```

Results of 2024 Russian Presidental election abroad

Average share of votes by country, first round outcome of election



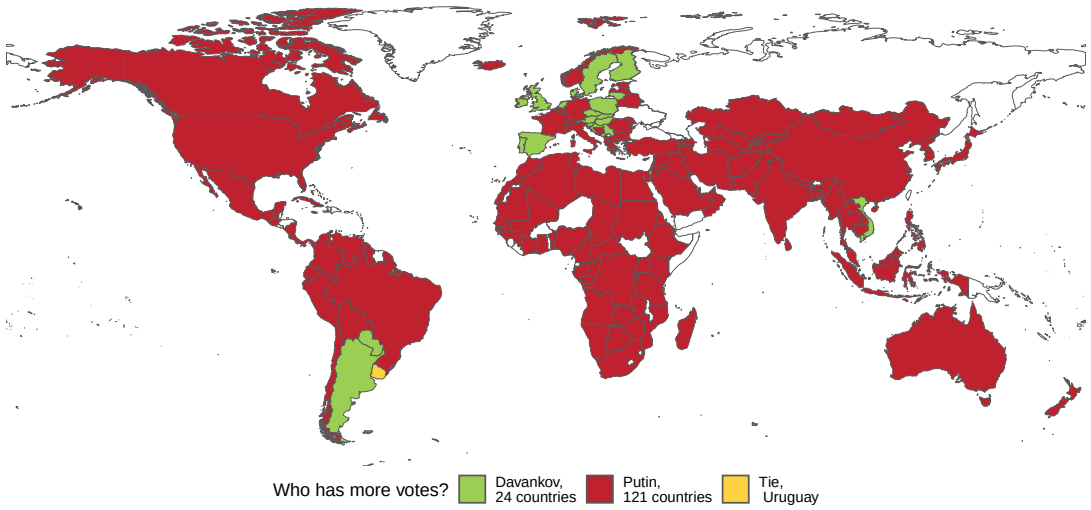
Sources: Ivan Shukshin's Telegram channel – t.me/nevybory,
Central Election Commission of the Russian Federation

Note: Abkhazia and South Osetia not shown

```
ggplot(merged_world, aes(fill = result3)) +
  geom_sf(alpha = 1) +
  scale_fill_manual(labels = c(paste0("Davankov,\n",
                                      sum(merged_world$result3 == "Davankov",
                                          na.rm = T),
                                      " countries"),
                               paste0("Putin,\n",
                                      sum(merged_world$result3 == "Putin", na.rm = T),
                                      " countries"),
                               "Tie,\n Uruguay"),
                    values = c("#9BCF53", "#bf212f", "#FFD23F"),
                    na.translate = F, na.value = "lightgrey") +
  labs(title = "Results of 2024 Russian Presidental election abroad",
       subtitle = "Average percent of votes by country, which candidate has more",
       fill = "Who has more votes?",
       caption = "\nSources: Ivan Shukshin's Telegram channel - t.me/nevybory,\nCentral Election Commission of the Russian Fe
  theme_void()+
  theme(legend.position = "bottom") +
  coord_sf(ylim = c(-55, 90))
```

Results of 2024 Russian Presidental election abroad

Average percent of votes by country, which candidate has more



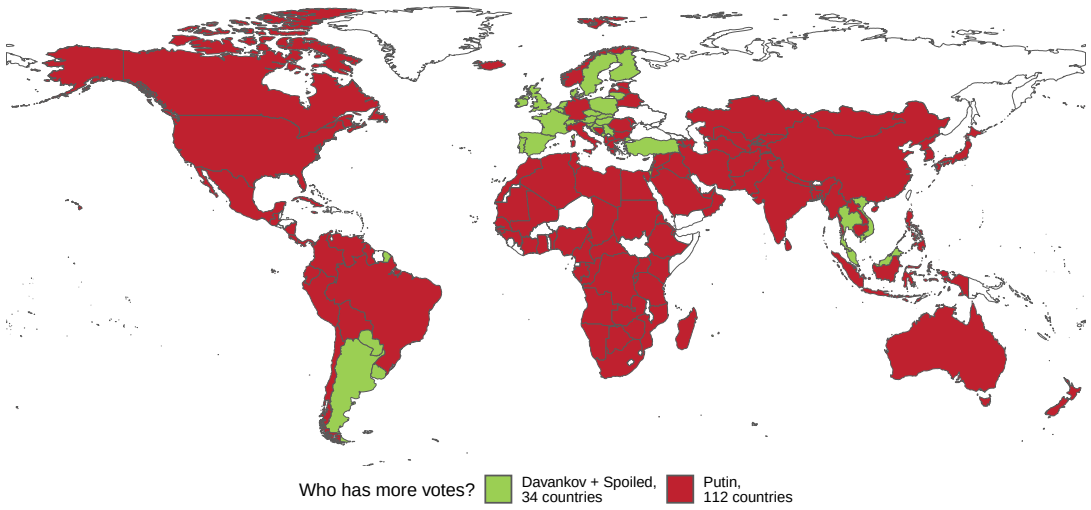
Sources: Ivan Shukshin's Telegram channel – t.me/nevybory,
Central Election Commission of the Russian Federation

Note: Abkhazia and South Osetia not shown

```
ggplot(merged_world, aes(fill = result2)) +
  geom_sf(alpha = 1) +
  scale_fill_manual(labels = c(paste0("Davankov + Spoiled,\n",
                                      sum(merged_world$result2 == "Davankov + Spoiled",
                                          na.rm = T),
                                      " countries"),
                               paste0("Putin,\n",
                                      sum(merged_world$result2 == "Putin", na.rm = T),
                                      " countries")),
                    values = c("#9BCF53", "#bf212f"),
                    na.value = "grey", na.translate = FALSE) +
  labs(title = "Results of 2024 Russian Presidental election abroad",
       subtitle = "Average percent of votes by country, which candidate has more",
       fill = "Who has more votes?",
       caption = "\nSources: Ivan Shukshin's Telegram channel - t.me/nevybory,\nCentral Election Commission of the Russian Fe
  theme_void()+
  theme(legend.position = "bottom") +
  coord_sf(ylim = c(-55, 90))
```

Results of 2024 Russian Presidental election abroad

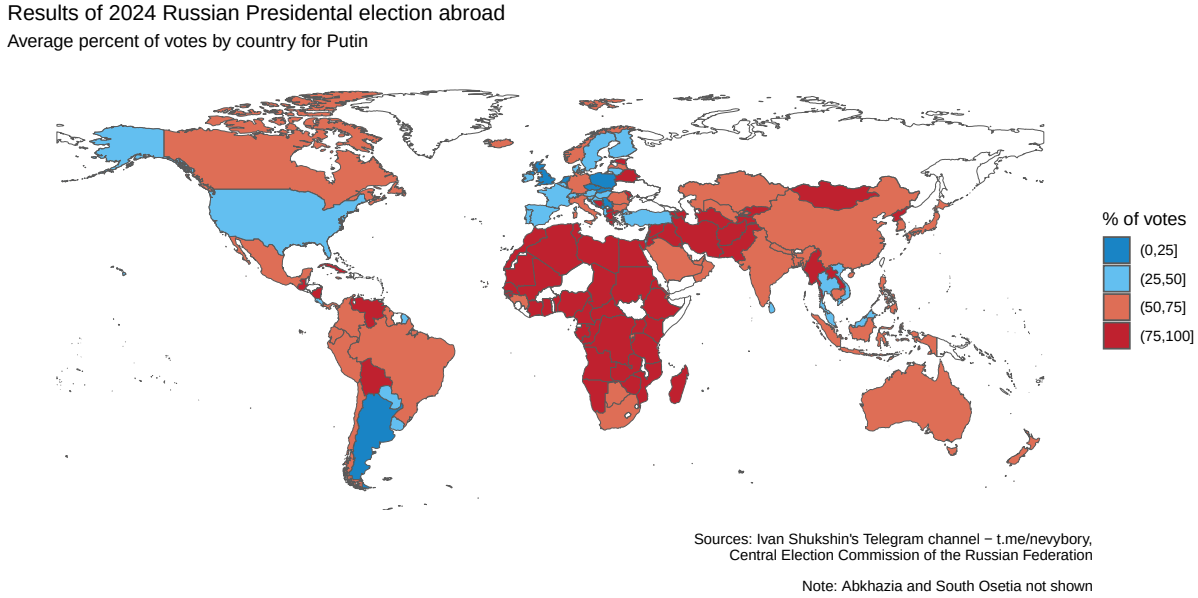
Average percent of votes by country, which candidate has more



Sources: Ivan Shukshin's Telegram channel – t.me/nevybory, Central Election Commission of the Russian Federation

Note: Abkhazia and South Osetia not shown

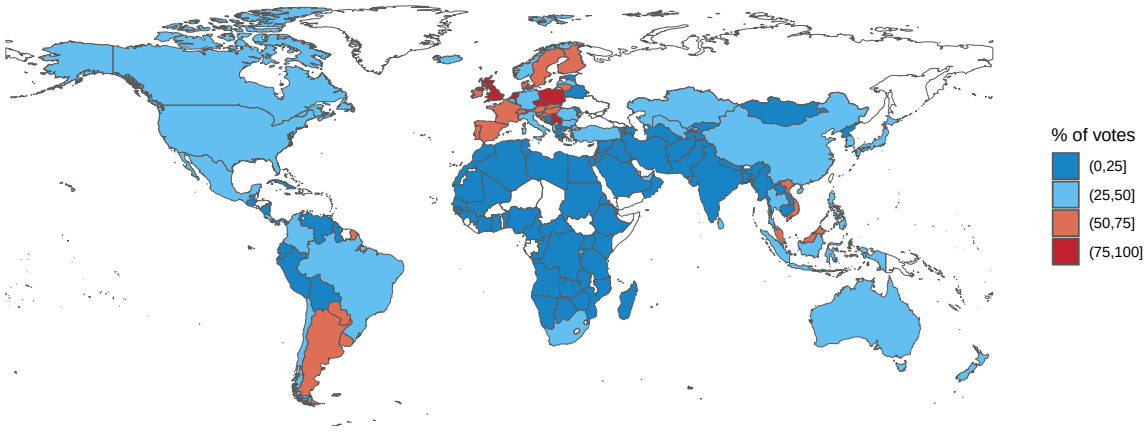
```
merged_world |>
  mutate(putin_bins = cut(putin_full*100, c(0, 25, 50, 75, 100))) |>
  ggplot(aes(fill = putin_bins)) +
    geom_sf() +
    scale_fill_manual(values =
                        c("#1984c5", "#63bff0", "#de6e56", "#bf212f"),
                      na.translate = F) +
    labs(title = "Results of 2024 Russian Presidental election abroad",
         subtitle = "Average percent of votes by country for Putin",
         fill = "% of votes",
         caption = "\nSources: Ivan Shukshin's Telegram channel - t.me/nevybory,\nCentral Election Commission of the Russian
    theme_void() +
    coord_sf(ylim = c(-55, 90))
```




```
merged_world |>
  mutate(davankov_bins = cut((davankov_full + spoiled_full) *100,
                             c(0, 25, 50, 75, 100))) |>
  ggplot(aes(fill = davankov_bins)) +
  geom_sf() +
  scale_fill_manual(values =
                      c("#1984c5", "#63bff0", "#de6e56", "#bf212f"),
                    na.translate = F) +
  labs(title = "Results of 2024 Russian Presidental election abroad",
         subtitle = "Average percent of votes by country for Davankov + spoiled ballots",
       fill = "% of votes",
       caption = "\nSources: Ivan Shukshin's Telegram channel - t.me/nevybory,\nCentral Election Commission of the Russian Fe
  theme_void() +
  coord_sf(ylim = c(-55, 90))
```

Results of 2024 Russian Presidental election abroad

Average percent of votes by country for Davankov + spoiled ballots



Sources: Ivan Shukshin's Telegram channel – t.me/nevybory,
Central Election Commission of the Russian Federation

Note: Abkhazia and South Osetia not shown