Figure 6

Overview

This script takes a data frame produced by platforms.qmd and outputs a figure that adheres to PLOS submission guidelines.

Import packages and utilities

```
project_root <- here::here() # requires that you be somewhere in the
# project directory (not above it)
# packages
suppressMessages(source(file.path(project_root, "scripts/packages.R")))
# functions and objects used across scripts
suppressMessages(source(file.path(project_root, "scripts/utils.R")))
```

Load data

```
platforms_raw <- load_qualtrics_data("clean_data/hosting_services_Q8.tsv")

# This poorly named function from utils.R
# is basically just read.csv with my data path in there
vc <- load_qualtrics_data(file.path("data_for_plots/vc_platforms.tsv"))
data_repos <- load_qualtrics_data(file.path("data_for_plots/data_repo_platforms.tsv"))
```

```
counts <- data.frame(colSums(platforms_raw))
names(counts)[1] <- "count"
counts <- counts %>% arrange(desc(count))
counts
```

```
                   count
GitHub               222
Custom Website        71
GitLab                69
Article Supplement    35
Zenodo                34
Bitbucket             33
Other                 26
SourceForge           18
OSF                   14
Thingiverse           12
Dryad                 11
Figshare              11
Gitea                  7
Codeberg               6
Dataverse              6
Launchpad              5
Mendeley Data          2
Vivli                  0
```

```
# Includes all platforms
ordered_platforms <- rownames(counts)
```

```
vc$platform <- factor(
  vc$platform,
  levels = rev(ordered_platforms)
)

data_repos$platform <- factor(
  data_repos$platform,
  levels = rev(ordered_platforms)
)
```

```
p_vc <- basic_bar_chart(
  df = vc,
  x_var = "platform",
  y_var = "prop",
  title = "Usage of version control\nhosting platforms",
  ylabel = "Percent of Respondents",
  axis_title_size_x = 6,
  axis_title_size_y = 6,
  axis_text_size_x = 6,
```

```
  axis_text_size_y = 6,
  title_size = 7,
  show_axis_title_x = TRUE,
  show_axis_title_y = FALSE,
  show_bar_labels = TRUE,
  label_position = "above",
  label_color = "black",
  label_size = 2.1,
  plot_title_margin_b = 2,
  percent = TRUE,
  horizontal = TRUE,
  color_index = 9,
  x_axis_title_margin_t = 5
)

p_vc <- p_vc +
   # Expands y-axis by 15% on the upper end
  scale_y_continuous(
  labels = percent,
  expand = expansion(mult = c(0, .15))
  )
```

```
Scale for y is already present.
Adding another scale for y, which will replace the existing scale.
```

```
p_data <- basic_bar_chart(
  df = data_repos,
  x_var = "platform",
  y_var = "prop",
  title = "Usage of data repositories",
  ylabel = "Percent of Academic Respondents",
  axis_title_size_x = 6,
  axis_title_size_y = 6,
  axis_text_size_x = 6,
  axis_text_size_y = 6,
  title_size = 7,
  show_axis_title_x = TRUE,
  show_axis_title_y = FALSE,
  show_bar_labels = TRUE,
  label_position = "above",
  label_color = "black",
  label_size = 2.1,
```

```
  plot_title_margin_b = 2,
  percent = TRUE,
  horizontal = TRUE,
  color_index = 9,
  x_axis_title_margin_t = 5
)

p_data <- p_data +
  scale_y_continuous(
  labels = scales::percent,
  limits = c(0, 1),
  expand = expansion(mult = c(0, .1))
)
```

```
Scale for y is already present.
Adding another scale for y, which will replace the existing scale.
```

```
p_combined <- patchwork::wrap_plots(
  p_vc,
  plot_spacer(),
  p_data
) +
  plot_layout(widths = c(1, 0.01, 1))

ggsave(
  filename = file.path(FIGURE_PATH, "fig6.tif"),
  plot = p_combined + plot_annotation(tag_levels = "A") & theme(plot.tag = element_text(size
  device = "tiff",
  width = 5.2, height = 2.5, units = "in",
  dpi = 450,
  compression = "none",
  bg = "white"
)
```