Databrary Weekly

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Contents

1 Institutions & Authorized Users

```
new_stats <- databraryapi::get_db_stats()
new_stats$date <- lubridate::as_datetime(new_stats$date)
```

Let's try a Google Sheets-centered workflow. If this is the first time you are rendering this document in your current work session, please run this command to authenticate to Google from the command line, that is **outside of RMarkdown**:

```
db <- googlesheets::gs_title('Databrary-analytics')
```

```
#key <- "1tvlIQzULrMtXo97aJu71ljdTmNXkwwpU9eO0asVer3g"
db <- gs_title('Databrary-analytics')
```

Now, let's load the data about the number of institutions and investigators.

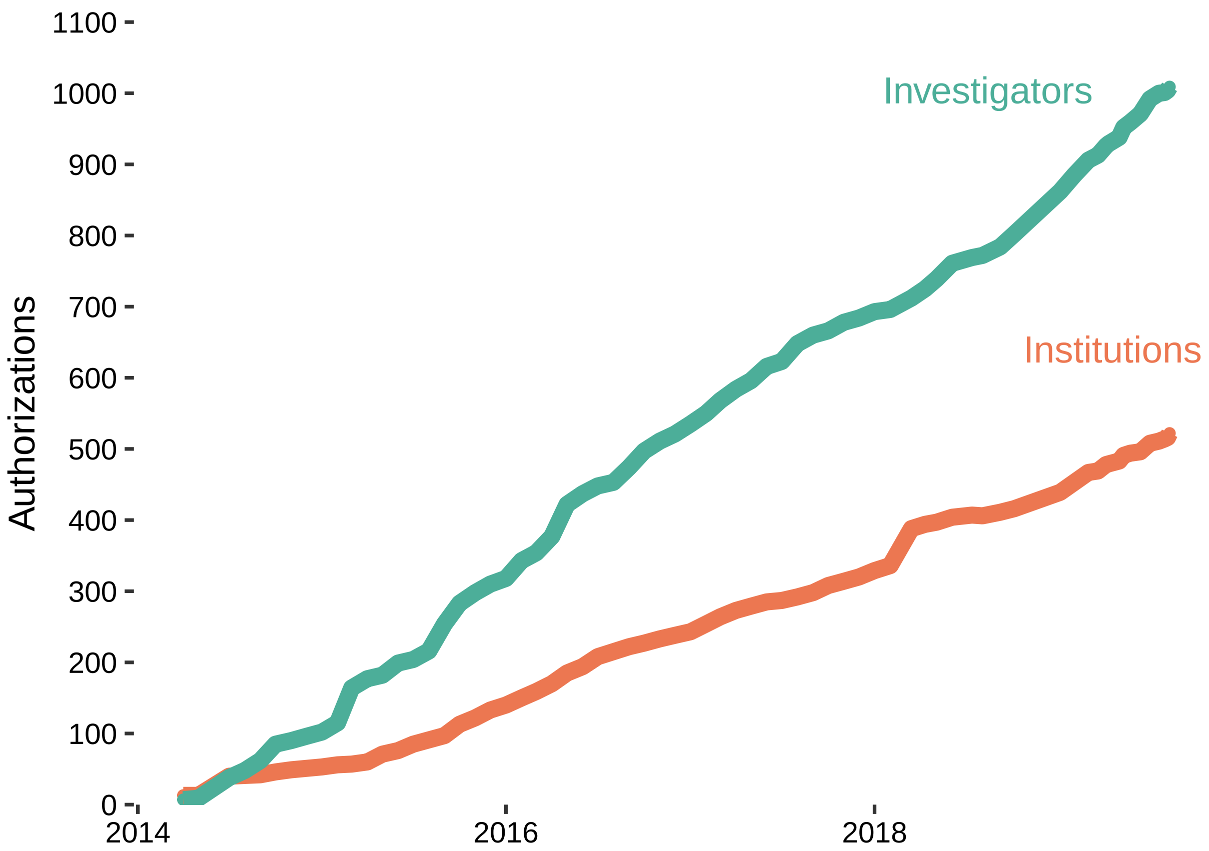
```
old_stats <- db %>%
  gs_read(ws = 'institutions-investigators')
```

We then update the old stats with new data if `params$update_stats` is TRUE. In the current context, `params$update_stats` == FALSE.

```
# initialize updated_stats
updated_stats <- old_stats
if (as.logical(params$update_stats)) {
  next_entry <- dim(updated_stats)[1] + 1
  updated_stats[next_entry,] = NA
  updated_stats <- updated_stats

  # fill with new data
  updated_stats$date[next_entry] <- new_stats$date
  updated_stats$institutions[next_entry] <- new_stats$institutions
  updated_stats$investigators[next_entry] <- new_stats$investigators
  updated_stats$affiliates[next_entry] <- new_stats$affiliates
}
```

Now, we plot the data.

```
# Create a tidy form for plotting both institutions and investigators and affiliates
updated_stats <- updated_stats %>%
  gather(., key = "type", value = "count", -date) %>%
  mutate(date = lubridate::as_date(date)) %>%
  select(date, count, type) %>%
  #filter(type %in% c('institutions', 'investigators', 'affiliates')) %>%
  filter(type %in% c('institutions', 'investigators')) %>%
  filter(!is.na(count))

# Plot
p <- updated_stats %>%
  ggplot(., aes(x = date, y = count, color = type, group = type)) +
  geom_point() +
  geom_line(size = ln_size) +
  #scale_colour_manual(values=c(color_purple, color_orange, color_teal)) +
  scale_colour_manual(values=c(color_orange, color_teal)) +
  ylab("Authorizations") +
  databrary_theme +
  scale_y_continuous(breaks = seq(0, round_any(max(updated_stats$count), 100, ceiling), 100), expand = c
  coord_cartesian(ylim = c(0, round_any(max(updated_stats$count), 100, ceiling)))

ggdraw(p) +
  #draw_label("Affiliates", colour = color_purple, .9, .3)+
  draw_label("Investigators", colour = color_teal, .8, .9) +
  draw_label("Institutions", colour = color_orange, .9, .6)
```



Next, we update the Google Sheet if `params$update_gs` is TRUE. In the current context, `params$update_gs` == FALSE.

```
if (as.logical(params$update_gs)) {
  db <- db %>%
    gs_add_row(ws = 'institutions-investigators', input = new_stats[,c(1, 4, 2, 3)])
  message("'update_gs' parameter is 'TRUE', so Google Sheet data will be updated.")
} else {
  message("'update_gs' parameter is 'FALSE', so Google Sheet data unmodified.")
}
```

1.1 New investigators

```
new_people <- databraryapi::get_db_stats(type = "people")
new_people %>%
  mutate(url = paste0("https://databrary.org/party/", id)) %>%
  select(., sortname, prename, affiliation, url) %>%
  knitr::kable()
```

sortname	prename	affiliation	url
Danilovich	Margaret	Northwestern University	https://databrary.org/party/4773
Kaur	Maninderjit	MGH Institute of Health Professions	https://databrary.org/party/5709
Demir-Lira	O. Ece	University of Iowa	https://databrary.org/party/697
Myers	Lauren	Lafayette College	https://databrary.org/party/712
Lei	Ryan	Haverford College	https://databrary.org/party/5676

sortname	prename	affiliation	url

1.2 New institutions

```
new_institutions <- databraryapi::get_db_stats(type = "institutions")
new_institutions %>%
  mutate(db_url = paste0("https://databrary.org/party/", id)) %>%
  select(., sortname, url, db_url) %>%
  knitr::kable()
```

sortname	url	db_url
MGH Institute of Health Professions	https://www.mghihp.edu/	https://databrary.org/party/5731
Lafayette College	https://www.lafayette.edu/	https://databrary.org/party/194
Haverford College	https://www.haverford.edu/	https://databrary.org/party/5722

2 Volumes

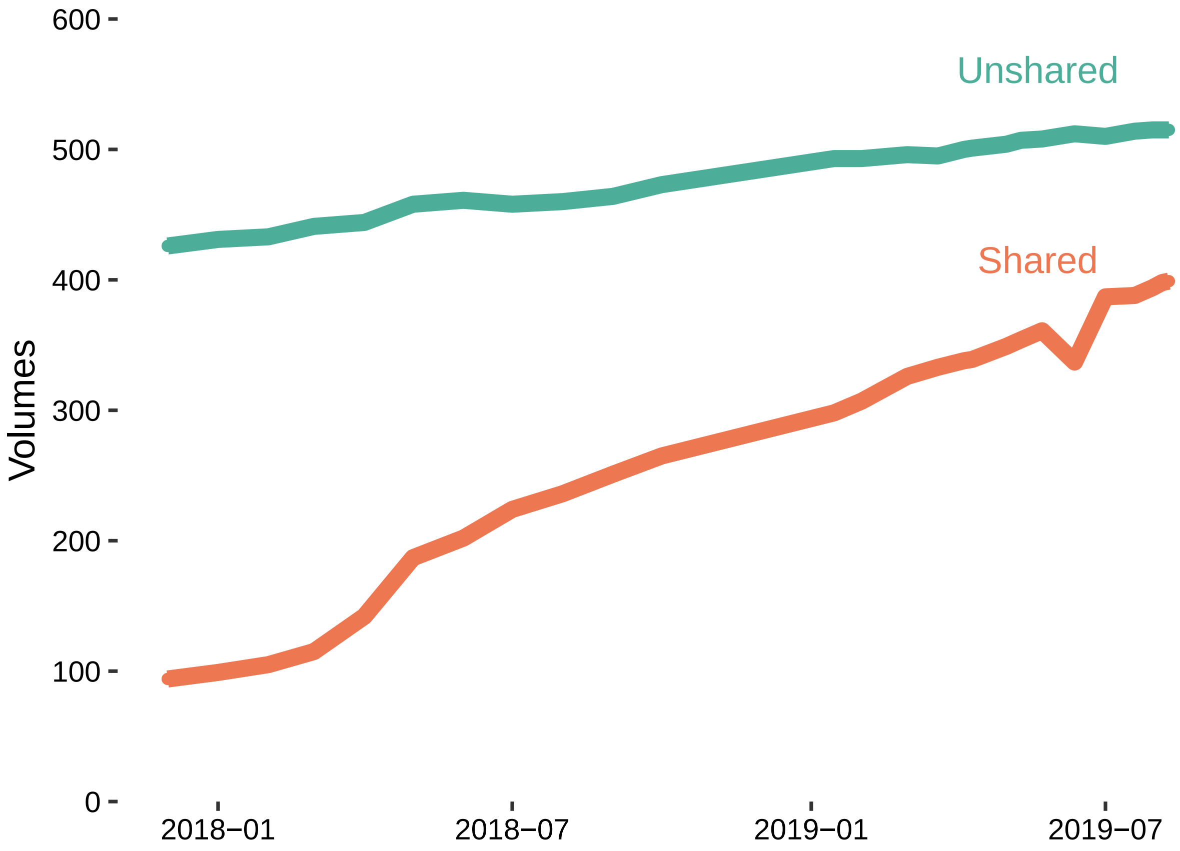
Let's try a new workflow based on Google Sheets. We should already have the spreadsheet loaded.

```
# Read from Google Sheet
old_vols <- db %>%
  gs_read(ws = 'volumes-shared-unshared')
```

Now update from information derived from `databraryapi::db_stats()` if `params$update_stats` is TRUE.

```
updated_vols <- old_vols
if (as.logical(params$update_stats)) {
  next_entry <- dim(updated_vols)[1] + 1
  updated_vols[next_entry,] = NA

  updated_vols$date[next_entry] <- new_stats$date
  if (is.null(new_stats$datasets_shared)) {
    new_stats$datasets_shared = 0
  }
  updated_vols$shared_volumes[next_entry] <- new_stats$datasets_shared
  updated_vols$unshared_volumes[next_entry] <-
    new_stats$datasets_total - new_stats$datasets_shared
}
updated_vols <- updated_vols %>%
  gather(., key = "type", value = "count", -date)
```

```
# Plot
vols_plot <- updated_vols %>%
  ggplot(., aes(x = date, y = count, color = type, group = type)) +
  geom_point() +
  geom_line(size=ln_size) +
  scale_colour_manual(values=c(color_orange, color_teal)) +
  ylab("Volumes") +
  databrary_theme +
  scale_y_continuous(breaks = seq(0, round_any(max(updated_vols$count), 100, ceiling), 100), expand = c
  coord_cartesian(ylim = c(0, round_any(max(updated_vols$count), 100, ceiling)))


ggdraw(vols_plot) +
  draw_label("Unshared", colour = color_teal, .84, .92) +
  draw_label("Shared", colour = color_orange, .84, .70)
```



Next, we update the Google Sheet if `params$update_gs` is TRUE.

```
if (as.logical(params$update_gs)) {
  new_data <- data_frame(date = Sys.Date(),
                         shared_volumes = new_stats$datasets_shared,
                         unshared_volumes = new_stats$datasets_total - new_stats$datasets_shared)
  db <- db %>%
    gs_add_row(ws = 'volumes-shared-unshared', input = new_data)
} else {
  message("'update_gs' parameter is 'false', so Google Sheet data unmodified.")
}
```

2.1 New volumes

```
# define helper functions
new_volumes <- databraryapi::get_db_stats(type = "datasets")
if (is.null(new_volumes)) {
  stop('New volumes data not downloaded.')
}

unnested_vols <- new_volumes %>%
  unnest(.)
  # rename(., owner_name = name1, owner_id = id1) %>%

unnested_vols$owner_name <- unnested_vols$name1
unnested_vols$owner_id = unnested_vols$name1

unnested_vols <- unnested_vols %>%
  mutate(., url = paste0("https://nyu.databrary.org/volume/", id),
         date_created = lubridate::as_date(creation))

unnested_vols %>%
  select(., name, date_created, owner_name, url) %>%
  knitr::kable()
```

name	date_created	owner_name	url
Test	2019-08-13	Frank, Jennifer	https://nyu.databrary.org/volume/959
ESC Sparkle	2019-08-09	Adolph, Karen	https://nyu.databrary.org/volume/957
ESC Modeling	2019-08-09	Adolph, Karen	https://nyu.databrary.org/volume/956
Oh, Behave!	2019-08-05	Adolph, Karen	https://nyu.databrary.org/volume/955
Oh, Behave!	2019-08-05	Xu, Melody	https://nyu.databrary.org/volume/955

If there are multiple investigators for the volume, there will be a row for each investigator on the new volume.

3 Data about volumes with videos

```
# TODO: Fix this. It's hacky and awful.

# List files with metadata
csv_files <- list.files(path = "csv", pattern = "vol_", full.names = TRUE)

# Extract vector of volume numbers, determine the maximum
vol_nums <- stringr::str_match(csv_files, pattern = "_([0-9]+)\\.")
vol_ids <- as.numeric(vol_nums[,2])
last_vol <- max(vol_ids)
vols_to_test <- params$vols_to_test

# Create function to write new data files for each volume
write_vid_csv <- function(vol.id = 1) {
  message(paste0("Getting data for volume ", vol.id))
  vid_dat <- get_video_stats(vol.id)
  # This .Rmd file is already in working/
  if (!is.null(vid_dat)) {
    write.csv(vid_dat, file = paste0("csv/vol_", vol.id, ".csv"),
              row.names = FALSE)
  }
}
```

```r
vol_files <- list.files("csv", pattern = "vol_[0-9]+", full.names = TRUE)

# Import the individual csv files
video_data <- lapply(vol_files, read_csv)
video_stats <- Reduce(function(x,y) merge(x, y, all = TRUE), video_data)
```

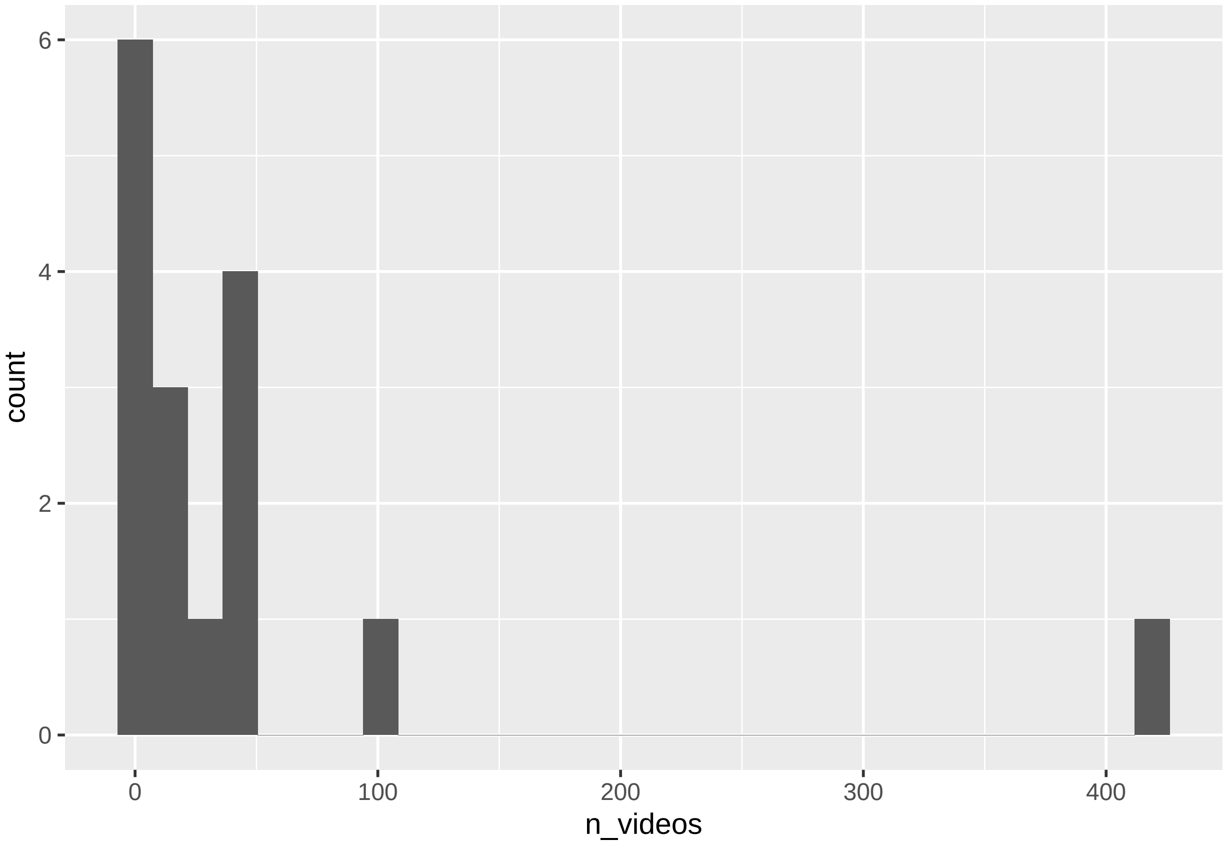
The median number of videos per volume is 16 with a range of [1, 4368].

```r
vols <- video_stats$vol_id
vol_info <- lapply(vols, list_volume_metadata)
vols_data <- Reduce(function(x,y) merge(x, y, all = TRUE), vol_info)
vols_joined <- dplyr::left_join(vols_data, video_stats, by = c("vol_id" = "vol_id"))
```

There are 16 volumes with DOIs (shared) that have sessions and at least one video as of today (2019-08-13 12:48:47).

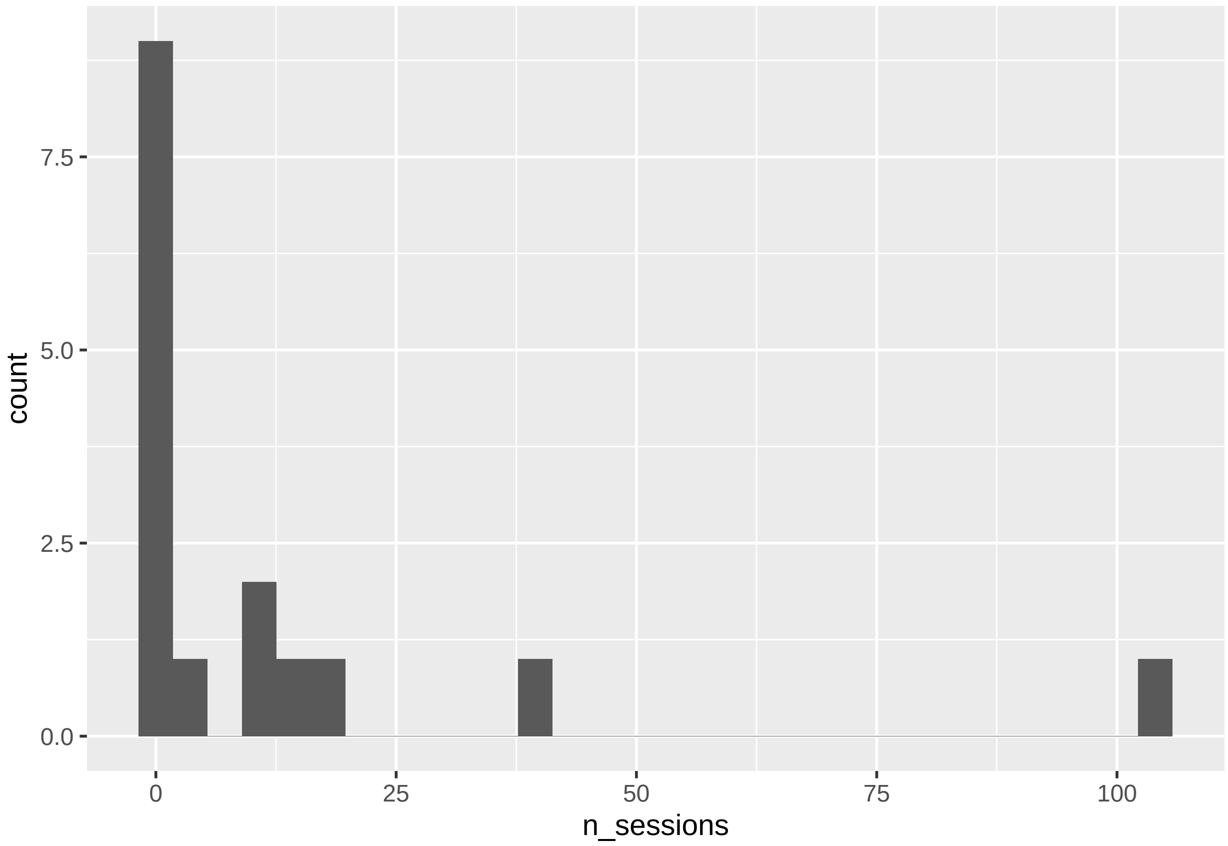
3.1 Number of videos in (shared) volumes

```r
vols_joined %>%
  filter(!is.na(doi)) %>%
  ggplot(.) +
  aes(x=n_videos)+
  geom_histogram()
```



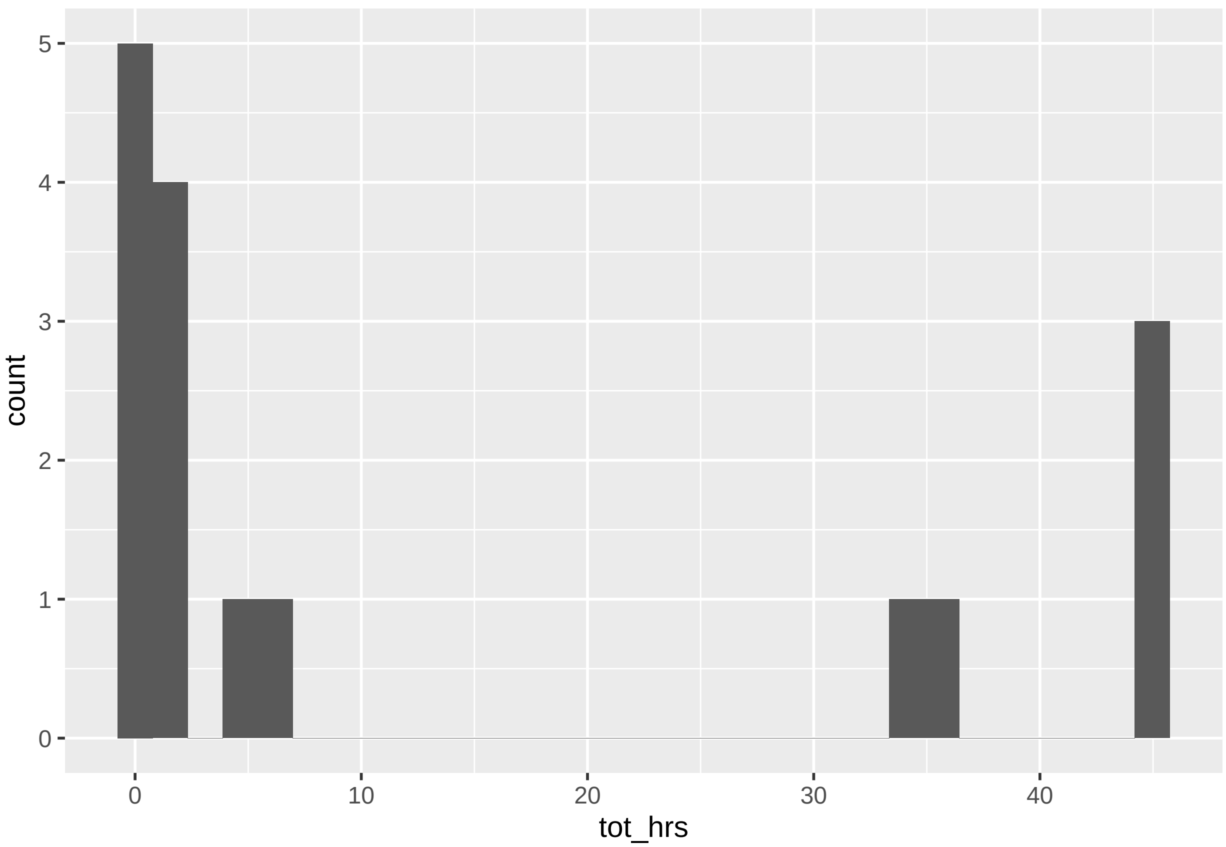
3.2 Number of sessions in (shared) volumes

```
vols_joined %>%
  filter(!is.na(doi)) %>%
  ggplot(.) +
  aes(x=n_sessions)+
  geom_histogram()
```



3.3 Total video hours in (shared) volumes

```
vols_joined %>%
  filter(!is.na(doi)) %>%
  ggplot(.) +
  aes(x=tot_hrs)+
  geom_histogram()
```


count
5
4
3
2
1
0
0
10
20
30
40
tot_hrs