tidyTouch: An interactive visualization tool for data science education

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Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words "**here we show**" or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords:

Word count:

tidyTouch: An interactive visualization tool for data science education

Introduction

intro to FOSS, R, data science education, * Data Visualization

————————————-**Break**

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants

Material

Procedure

Data analysis

Results

Discussion

R Packages and Session Info

To recognize those that contribute to R, tools used by members of the R community, and a continually developing field of data science, the software used in creating the

tidyTouch app is listed: R (Version 3.6.3; R Core Team, 2020) and the R-packages *dplyr* (Version 0.8.5; Wickham et al., 2020), *ggplot2* (Version 3.2.1; Wickham, 2016), *haven* (Version 2.1.1; Wickham & Miller, 2019), *papaja* (Version 0.1.0.9942; Aust & Barth, 2020), *reactable* (Version 0.1.0; Lin, 2019), *readr* (Version 1.3.1; Wickham, Hester, & Francois, 2018), *readxl* (Version 1.3.1; Wickham & Bryan, 2019), *shiny* (Version 1.4.0.9000; Chang, Cheng, Allaire, Xie, & McPherson, 2019; Chang, 2018; Sievert, 2019), *shinymeta* (Version 0.2.0; Sievert, 2019), *shinythemes* (Version 1.1.2; Chang, 2018), and *tidyr* (Version 1.0.2; Wickham & Henry, 2020). The session info for this project in its current state - containing the R version used for development and additional loaded packages - is listed below.

```
## R version 3.6.3 (2020-02-29)
## Platform: x86_64-pc-linux-gnu (64-bit)
## Running under: Ubuntu 18.04.4 LTS
##
## Matrix products: default
## BLAS:   /usr/lib/x86_64-linux-gnu/blas/libblas.so.3.7.1
## LAPACK: /usr/lib/x86_64-linux-gnu/lapack/liblapack.so.3.7.1
##
## locale:
##  [1] LC_CTYPE=en_US.UTF-8       LC_NUMERIC=C
##  [3] LC_TIME=en_US.UTF-8        LC_COLLATE=en_US.UTF-8
##  [5] LC_MONETARY=en_US.UTF-8    LC_MESSAGES=en_US.UTF-8
##  [7] LC_PAPER=en_US.UTF-8       LC_NAME=C
##  [9] LC_ADDRESS=C               LC_TELEPHONE=C
## [11] LC_MEASUREMENT=en_US.UTF-8 LC_IDENTIFICATION=C
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
```

```
##
## other attached packages:
##  [1] reactable_0.1.0   haven_2.1.1       tidyr_1.0.2       readxl_1.3.1
##  [5] readr_1.3.1       shinythemes_1.1.2 shinymeta_0.2.0   shiny_1.4.0.9000
##  [9] dplyr_0.8.5       ggplot2_3.2.1     papaja_0.1.0.9942
##
## loaded via a namespace (and not attached):
##  [1] styler_1.2.0      tidyselect_1.0.0  xfun_0.13         purrr_0.3.4
##  [5] colorspace_1.4-1  vctrs_0.2.4       sourcetools_0.1.7 htmltools_0.4.0
##  [9] yaml_2.2.1        rlang_0.4.5       pillar_1.4.3      later_1.0.0
## [13] glue_1.4.0        withr_2.1.2       lifecycle_0.2.0   stringr_1.4.0
## [17] munsell_0.5.0     gtable_0.3.0      cellranger_1.1.0  htmlwidgets_1.5.1
## [21] evaluate_0.14     forcats_0.4.0     knitr_1.28        fastmap_1.0.1
## [25] httpuv_1.5.2      fansi_0.4.1       Rcpp_1.0.4.6      xtable_1.8-4
## [29] scales_1.0.0      promises_1.1.0    backports_1.1.6   mime_0.9
## [33] hms_0.5.1         digest_0.6.25     stringi_1.4.6     bookdown_0.18
## [37] grid_3.6.3        cli_2.0.2         tools_3.6.3       magrittr_1.5
## [41] lazyeval_0.2.2    tibble_3.0.0      crayon_1.3.4      pkgconfig_2.0.3
## [45] ellipsis_0.3.0    assertthat_0.2.1  rmarkdown_2.1     R6_2.4.1
## [49] compiler_3.6.3
```

References

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