For the Longest Time: Continuity and Change in One Teaching-Related Subreddit

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Contents

Get set up

This section loads the data and packages and starts to process the data, but doesn't calculate any statistics or create any results.

1. Load packages

2. Set up settings for sharing

3. Load subreddit posts

4. Load subreddit responses

5. Create a merged dataframe of both posts and responses.

Analysis and Results

Figure 1. Contributions over time

```
## [1] "Our dataset includes activity in the r/Teachers subreddit from 2015-11-30 to 2019-06-30 (43 mon
```
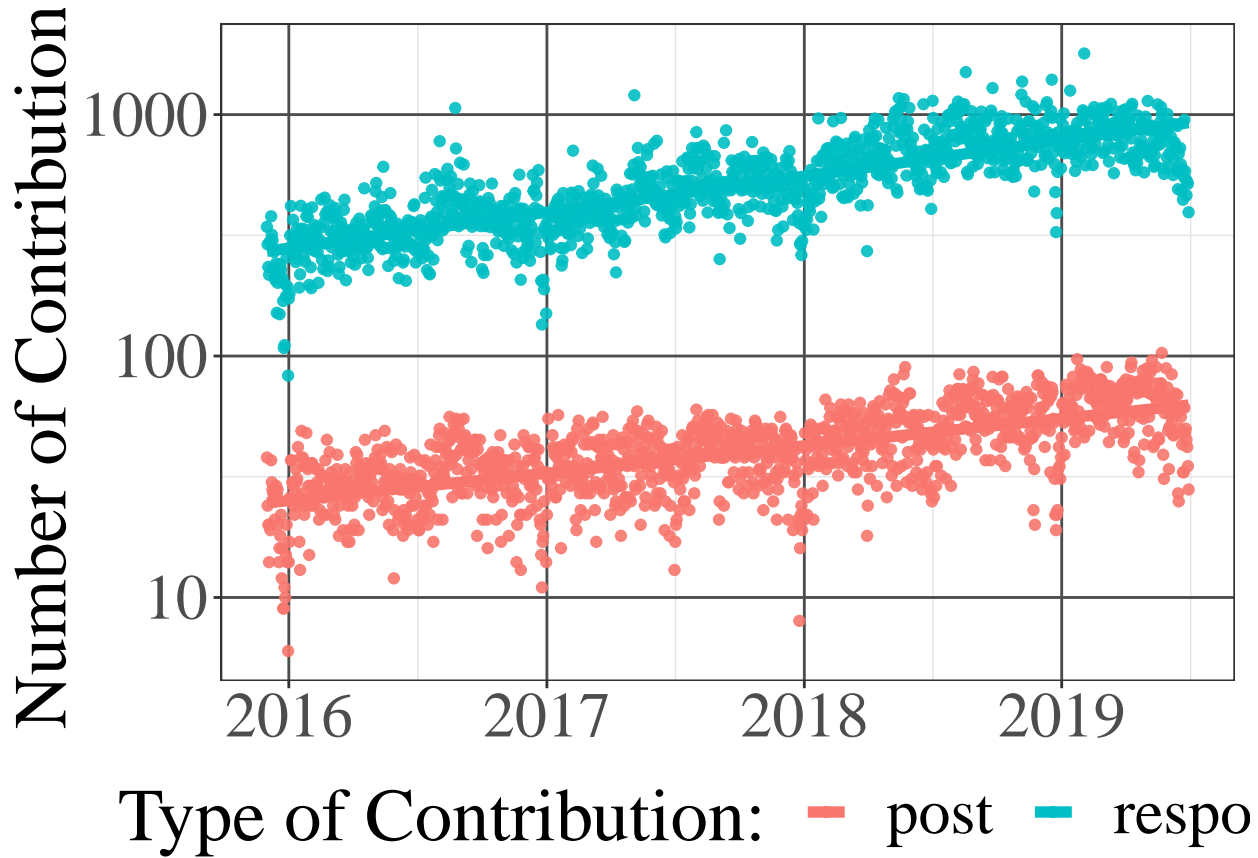
Type of Contribution: post ▬ respo

Table 1. Overall contributions in r/Teachers

Year	Contributors	Posters	Responders	Multiple Posts	Multiple Responses
2015	2027	464	1906	94.61	49.32
2016	13988	5822	12613	92.55	63.58
2017	17392	7162	15704	92.47	63.42
2018	25020	9071	23100	92.74	61.75
2019	17596	5979	16241	91.04	61.92

Table 2. Descriptive Statistics of Posts per Poster and Responses per Responder

Year	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
2015	13.80	19.71	7	1	147	3.36	6.16	1	1	129
2016	20.46	57.19	8	1	2169	9.44	39.67	2	1	2186
2017	22.14	67.85	9	1	3809	10.10	50.21	2	1	3480
2018	25.94	98.02	9	1	6580	10.19	48.50	2	1	3033
2019	21.54	67.20	8	1	2565	7.93	33.40	2	1	1906

Table 3. Content Interaction by Posts, Threads, and Responses

Year	Posts	Threads	Responses	Response Rate	Responses per Thread	Words per Post	Words per Response
2015	642	536	6404	83.49	11.95	160.70	69.78
2016	11413	9761	119091	85.53	12.20	150.63	63.34
2017	13564	12066	158591	88.96	13.14	150.18	62.41
2018	18473	16055	235279	86.91	14.65	153.10	56.56
2019	15663	9649	128766	61.60	13.35	149.79	54.61

Table 4. Descriptive Statistics of Voting Scores of Posts and Responses

Year	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
2015	10.81	26.14	3	0	330	3.37	6.85	2	-35	108
2016	11.12	61.49	3	0	5074	3.54	13.32	2	-235	2620
2017	16.91	138.95	3	0	10471	4.66	14.81	2	-238	1954
2018	24.88	147.05	3	0	8383	6.10	26.32	2	-530	4843
2019	35.18	146.23	3	0	3636	7.01	23.96	2	-156	1264

Table 5. Social Interaction: Network Statistics by Year

nodes, edges, transitivity, reciprocity, degree (mean, SD, median, min, max)

Year	Nodes	Edges	Transitivity	Reciprocity	Mean	SD	Median	Min	Max
2016	13934	117765	2.65	0.52	8.59	30.48	2	0	1368
2017	17332	156861	2.53	0.64	8.65	33.38	2	0	1819
2018	24878	231474	2.43	0.82	8.86	37.81	2	0	2247
2019	17496	126277	1.84	0.38	6.99	26.10	2	0	1352

Version/dependencies

```
sessionInfo()
```

```
## R version 3.5.2 (2018-12-20)
## Platform: x86_64-apple-darwin15.6.0 (64-bit)
## Running under: macOS Mojave 10.14.6
##
## Matrix products: default
## BLAS: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRblas.0.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
##  [1] ggraph_1.0.2    igraph_1.2.4.1  lubridate_1.7.4 anytime_0.3.3
##  [5] forcats_0.4.0   stringr_1.4.0   dplyr_0.8.0.1   purrr_0.3.2
```

```
##  [9] readr_1.3.1     tidyr_0.8.3     tibble_2.1.1     ggplot2_3.1.1
## [13] tidyverse_1.2.1 knitr_1.22
##
## loaded via a namespace (and not attached):
##  [1] clisymbols_1.2.0  tidyselect_0.2.5  xfun_0.6
##  [4] haven_2.1.0       lattice_0.20-38   colorspace_1.4-1
##  [7] generics_0.0.2    usethis_1.5.0     viridisLite_0.3.0
## [10] htmltools_0.4.0   yaml_2.2.0        rlang_0.4.0
## [13] pillar_1.3.1      glue_1.3.1        withr_2.1.2
## [16] tweenr_1.0.1      modelr_0.1.4      readxl_1.3.1
## [19] plyr_1.8.4        munsell_0.5.0     gtable_0.3.0
## [22] cellranger_1.1.0  rvest_0.3.3       evaluate_0.13
## [25] highr_0.8         broom_0.5.2       Rcpp_1.0.1
## [28] scales_1.0.0      backports_1.1.4   jsonlite_1.6
## [31] fs_1.2.7          farver_1.1.0      gridExtra_2.3
## [34] ggforce_0.2.2     hms_0.4.2         digest_0.6.18
## [37] stringi_1.4.3     ggrepel_0.8.0     rprojroot_1.3-2
## [40] polyclip_1.10-0   grid_3.5.2        cli_1.1.0
## [43] tools_3.5.2       magrittr_1.5      lazyeval_0.2.2
## [46] crayon_1.3.4      RApiDatetime_0.0.4 pkgconfig_2.0.2
## [49] MASS_7.3-51.4     xml2_1.2.0        viridis_0.5.1
## [52] assertthat_0.2.1  rmarkdown_1.12    httr_1.4.0
## [55] rstudioapi_0.10   R6_2.4.0          nlme_3.1-139
## [58] compiler_3.5.2
```