

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

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Get set up

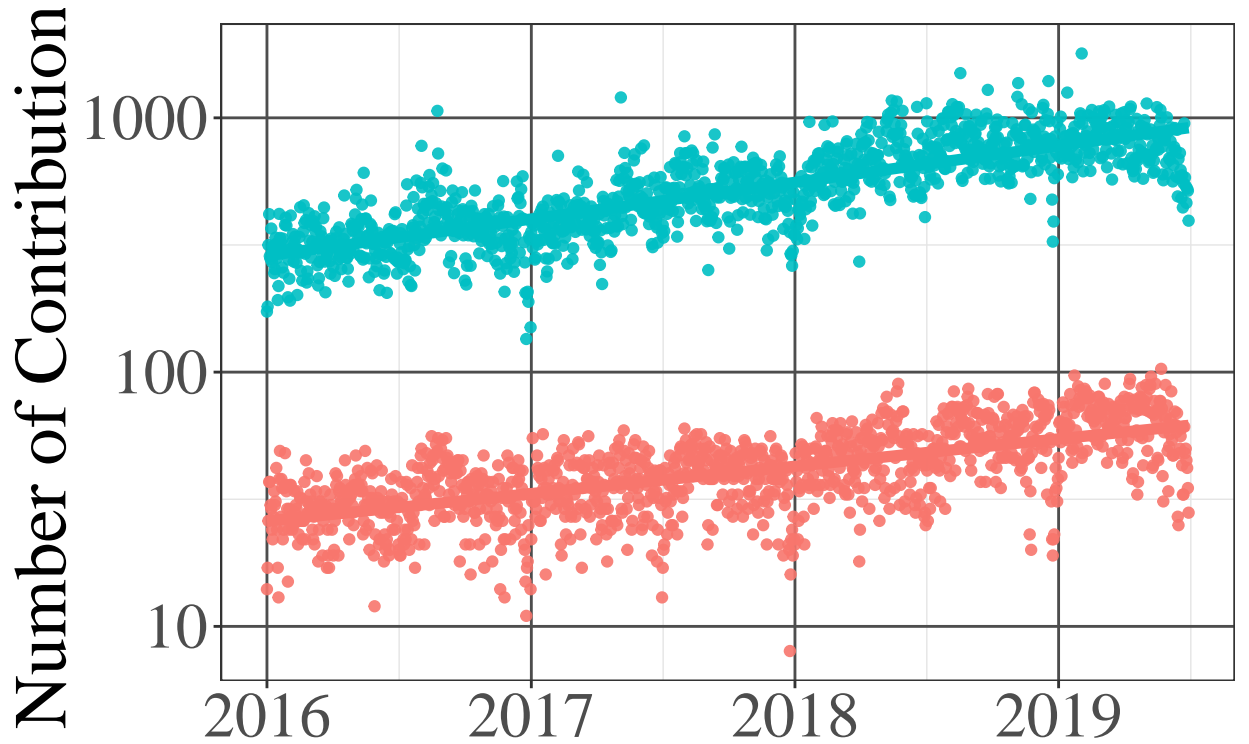
This section loads the data and packages and starts to process the data, but doesn't calculate any statistics or create any results.

1. Load packages
2. Set up settings for sharing
3. Set timeframe
4. Load subreddit posts
5. Load subreddit responses
6. Create a merged dataframe of both posts and responses.

Analysis and Results

Figure 1. Contributions over time

```
## [1] "In total, we collected 696661 contributions from 55089 contributors"
## [1] "dated between 2016-01-01 and 2019-07-01 (41.98 months),"
## [1] "a total of 54933 posts and 641728 responses to those posts,"
## [1] "to one teaching-related subreddit: r/Teachers."
```



Type of Contribution: — post — respo

```
## [1] "The slope of the `post` linear regression is 0.03 (p=0),"
## [1] "and the slope of the `response` linear regression is 0.49 (p=0)."
```

Table 1. Overall contributions in r/Teachers

Year	Contributors	Posters	Responders	Multiple Posts	Multiple Responses
2016	14737	6715	12614	81.53	63.58
2017	18023	7971	15705	84.19	63.43
2018	25998	10411	23101	82.25	61.75
2019	18369	7062	16242	78.58	61.93

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

Year	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
2016	17.98	53.75	7	1	2169	9.57	42.28	2	1	2186
2017	20.08	64.71	7	1	3811	10.19	51.59	2	1	3480
2018	22.83	91.93	7	1	6581	10.29	51.02	2	1	3033
2019	18.49	62.33	6	1	2567	8.04	36.34	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
2016	11413	9762	119092	85.53	12.20	159.44	63.34
2017	13564	12067	158592	88.96	13.14	166.85	62.41
2018	18473	16056	235280	86.91	14.65	156.38	56.56
2019	11483	9650	128767	84.03	13.34	161.45	54.61

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

Year	Mean	SD	Median	Min	Max	Mean	SD	Median	Min	Max
2016	9.72	56.97	2	0	5074	3.54	13.32	2	-235	2620
2017	15.22	131.14	3	0	10471	4.66	14.81	2	-238	1954
2018	21.85	137.32	2	0	8383	6.10	26.32	2	-530	4843
2019	29.86	134.61	2	0	3636	7.01	23.96	2	-156	1264

Table 5. Social Interaction: Network Statistics by Year

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    igragh_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
```