The modern proliferation of digital data is well documented (Bail 2014). Large repositories of digital text have similarly revolutionized the possibilities for quantitative research in the social sciences (Evans and Aceves 2016). However, text data often require extensive processing and manipulation to get into a usable format, deterring otherwise inspired researchers. Using modern repositories like JSTOR’s Data for Research (https://www.jstor.org/dfr/), one can easily download preprocessed text data, opening up a wealth of possibilities for cutting-edge scholarship.

For example, any user on JSTOR can create and request a data set that includes meta-data and word frequencies for up to 25,000 articles at a time. Data sets are based on search parameters that allow filtering by keyword, publication type, or specific journal titles. Figure 1 presents two analyses using this repository. The left pane of Figure 1 uses every research article published in the American Sociological Review between 1936 and 2015 (N = 5,320) to plot the use of three keywords over time: race, class, and gender. Yearly totals are calculated from individual article word frequencies, plotted on a log2 scale, and fit with a smoothed trend line. This is a simple and effective way to observe longitudinal trends in word usage. Among the “holy trinity” of the social sciences, class appears to be a mainstay of sociological conversations, whereas race and gender gained increased attention post-1960.

The right pane of Figure 1 depicts every research article published in the American Journal of Sociology between 1897 and 2014, plotted according to page length and publication date (N = 5,060). Trend lines are based on linear estimates of page length as a function of date and number of authors. This visualization presents a clear parabolic trend in article length and the significant effect of co-authorship over time ($R^2 = .35$). Individual article points are sized and colored according to residuals, emphasizing outliers. Albion Small’s 150-page editorial retrospective on the discipline in 1916 (an extreme outlier) is given a text label. This is a simple and effective way to observe longitudinal trends in discipline norms surrounding article length and collaboration.

Equipped with similar data, researchers can explore countless other substantive questions. Using authorship data, one could examine the diffusion of collaborative publishing models across different disciplines. Using text data in JSTOR’s bag-of-words format, one could easily conduct dictionary-based text analysis on key terms or more sophisticated topic modeling to examine the themes that characterize sociological research and their fluctuations over the past hundred years. A similar research agenda could provide insight into the degree to which themes in sociology overlap with related disciplines like political science, anthropology, or psychology. Paired with author affiliations, one could even examine the institutional or regional concentration of substantive research areas over time, giving a firm empirical foundation to future discussions of theoretical “schools” of thought. For an example of recent bibliometric research, see Borrett et al. (2018).

The plot was produced using R and ggplot2 (R Core Team 2018; Wickham 2016). Code used to produce the plots, article length and the significant effect of co-authorship over time ($R^2 = .35$). Individual article points are sized and colored according to residuals, emphasizing outliers. Albion Small’s 150-page editorial retrospective on the discipline in 1916 (an extreme outlier) is given a text label. This is a simple and effective way to observe longitudinal trends in discipline norms surrounding article length and collaboration.

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The plot was produced using R and ggplot2 (R Core Team 2018; Wickham 2016). Code used to produce the plots,
including instructions on converting JSTOR’s xml metadata to a useable format, are available at https://github.com/john bernau/jstор_dfr.

**Supplementary Material**

Supplementary material is available for this article online.

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**Author Biography**

John A. Bernau is a PhD candidate at Emory University. His research examines how groups use language to solve social problems. His dissertation uses recent methods in computational social science to examine American discussions of death and dying over the past 50 years.