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Using the bookdown R package to create a free modern introductory statistics textbook focused on data visualization, reproducibility, and resampling techniques.

The bookdown R package has allowed for resources to be freely available while also encouraging collaboration and reproducible analyses. It allows one to write just one source document and export to HTML, PDF, and ebook formats. As examples, this package can be used to create textbooks that include GIFs for students to follow along with while using RStudio, to show R code and its results, and to easily update your resource as you need. In this talk, I'll discuss how I created an open source textbook for my Social Statistics course (available at <http://ismayc.github.io/moderndiver-book>) and feedback I received from my students this past semester on using it.

I'll also discuss why I believe everyone should be using modern R packages in their introductory statistics course and how this textbook can be used as a guide for doing just that. Instructor resources are in development and will be available to further support open access to a modern introductory statistics curriculum. I'm hoping this provides the mathematics and statistics community with a guide to how you could incorporate modern R packages into your classes and why it is so important to teach your students introductory statistics as an introduction to the practice of reproducible statistical analysis. (Received September 20, 2016)