Interactive Documents with R

Ramnath Vaidyanathan
Assistant Professor of Operations Management
Desautels Faculty of Management
Montreal, QC

Abstract

In this talk, I will focus on how to create and share interactive web-friendly content from R. I will discuss how to create interactive presentations, visualizations, web pages, blogs, applications and dashboards from R using simple authoring tools based on markdown.

The advent of \texttt{knitr} and \texttt{RMarkdown} have made it easy to create dynamic documents in different formats, including HTML. However, most content is still static and does not take full advantage of the web as an interactive medium. As a part of this talk, I will present a modular approach to inject interactivity into an RMarkdown document.

Finally, I will also present an application of these tools to build an \textbf{Integrated Learning Environment}, that allows an author to write a lesson in R Markdown, integrate interactive components including interactive R consoles, record the lesson as a screencast, sync the screencast with the slides, and publish it.

Note: All the slides and code for the presentation will be posted on github.