Interactive Documents from R

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The advent of RMarkdown and knitr have made it easy to create dynamic documents in different formats, including HTML. While the process of generating content is dynamic, most content themselves is still static and does not take full advantage of the web as an interactive medium.

In this talk, I will present a generic framework to create, customize and share interactive web-friendly documents from R. I will introduce slidify [1], an R package, that provides a modular approach to generating interactive documents that allows clean separation of content from presentation and behaviour. This extends prior work on a compendium based approach to reproducible documents by Gentleman and Lang [2].

As an example, I will present an application of these tools to build an **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.

References

[1] Vaidyanathan, R. (2014). Slidify: Interactive Documents from R. `http://slidify.github.io`.

[2] Gentleman, R., & Temple Lang, D. (2004). Statistical analyses and reproducible research. Bioconductor Project Working Papers