Masters introduction

Abstract

Statisticians and analysts have been using R for a long time. R programming environment has reproducible document standards embedded, such as R markdown. While R markdown requires the programmer to manually construct the structure of reproducible file, R list-down Package provides a programmatic solution to generate the files. On top of the already available R list down package, this paper demonstrates implanting graphs and interactive plots when users generate any reproducible documents by using trelliscopejs package. The concept is followed by a demonstration using gapminder dataset.

Introduction

The R markdown (Baumer, Cetinkaya-Rundel, Bray, Loi, and Horton, 2014) demonstrates the possibility of constructing reproducible documents using R language. The format allows author to integrate R codes, written work, data tables, visualization plots and much more information into one directly structured document. R markdown provides several output formats when users knit the file. Amongst scientific writings and analytical reports, documents knitted using R markdown, the majority are made up of chunks of R codes and narrative writings, which contextualize the R codes and the product of each chuck of codes. In this paper, the chunk of R codes and the narrative writings will be referred to computational components and narrative components respectively (Kane,Jiang and Urbanek, 2020).

R markdown

The list-down package

Trelliscopejs

Visualization using trelliscopejs package in list-down

2.

2.1Basic explanation of the list-down package

2.2workflow

3. Rendering and formatting

4. Adding plots to the listdown object

4.1 Trelliscopejs example

5. plotly example

6.conclusion

Baumer, B., Cetinkaya-Rundel, M., Bray, A., Loi, L., & Horton, N. J. (2014). R Markdown: Integrating a reproducible analysis tool into introductory statistics. *arXiv preprint arXiv:1402.1894*.

Kane, M. J., & Urbanek, S. (2020). On the Programmatic Generation of Reproducible Documents. *arXiv preprint arXiv:2007.12631*.