

From reproducibility to interactivity:



to



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more than **70** percent

have tried and **failed** to reproduce
another scientist's experiments

more than **50** percent

have tried and **failed** to reproduce
their **own** experiments

Google Scholar yields

8

9

0

results containing the term **reproducibility crisis**
just in **2021**

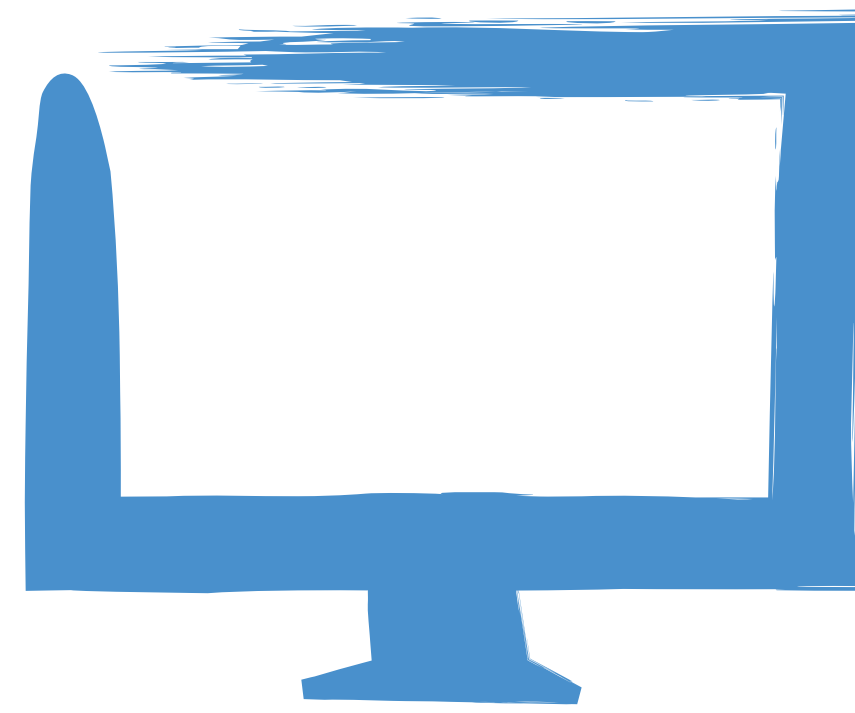
R Markdown

Go to RStudio Cloud
Start the project titled

> 01-reproducible-to-interactive

Open the file titled

> 01-rmd.Rmd



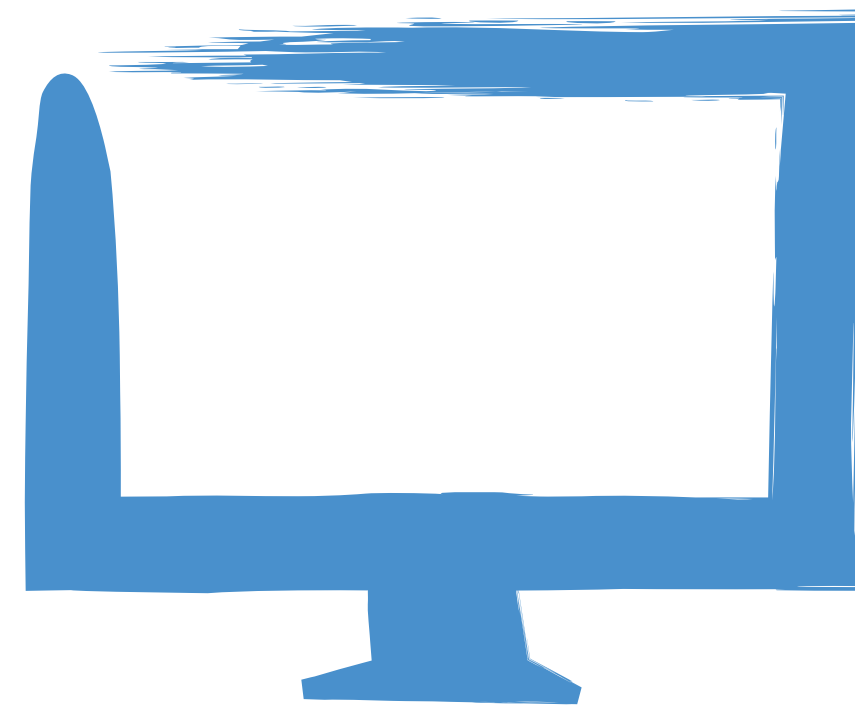
R Markdown + parameters

Go to RStudio Cloud
Start the project titled

> `01-reproducible-to-interactive`

Open the file titled

> `02-rmd-with-parameters.Rmd`



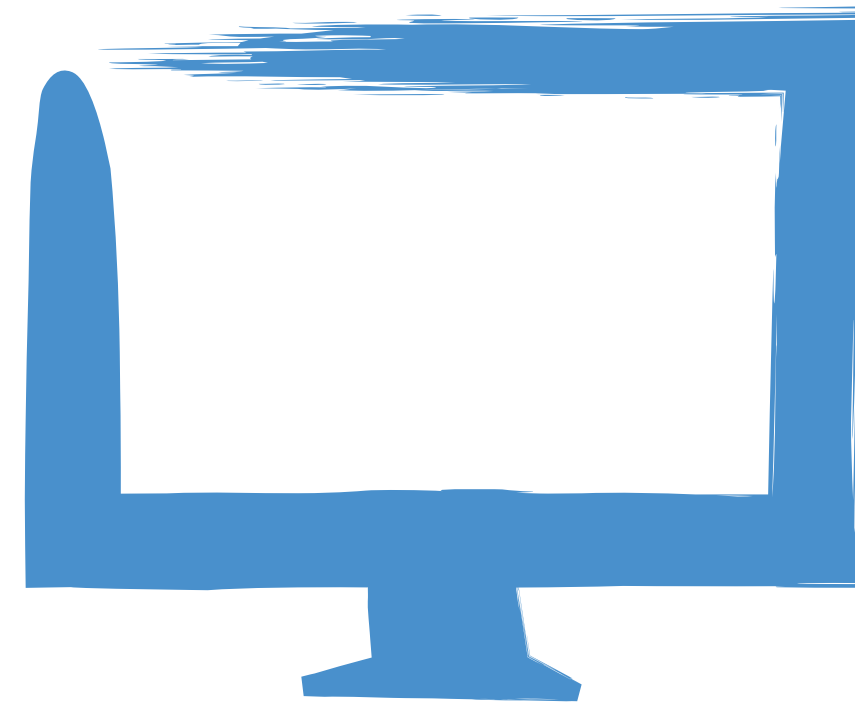
R Markdown + htmlwidgets

Go to RStudio Cloud
Start the project titled

> `01-reproducible-to-interactive`

Open the file titled

> `03-rmd-with-htmlwidget.Rmd`



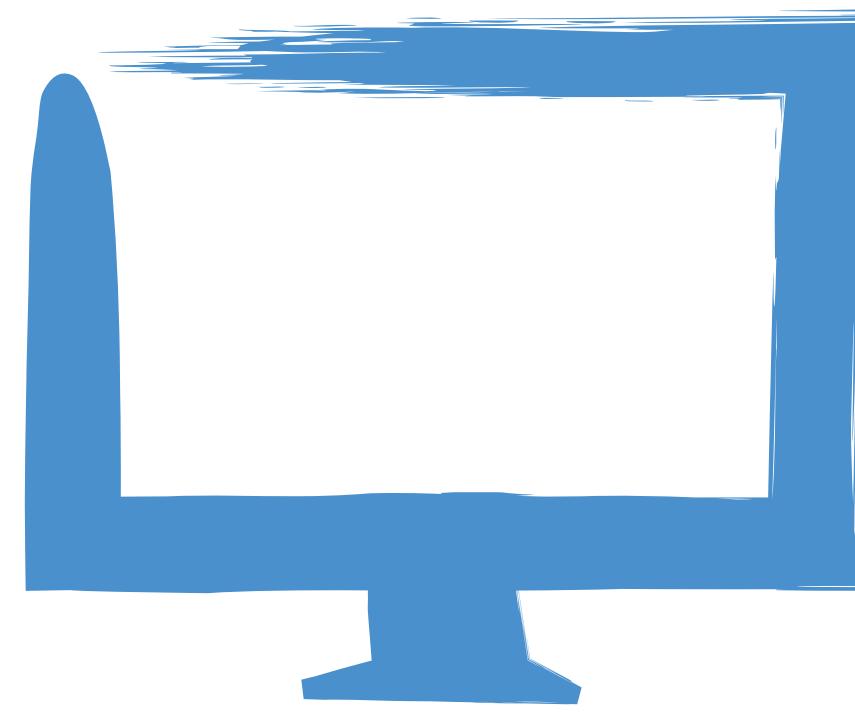
R Markdown + Shiny

Go to RStudio Cloud
Start the project titled

> `01-reproducible-to-interactive`

Open the file titled

> `04-rmd-with-shiny.Rmd`



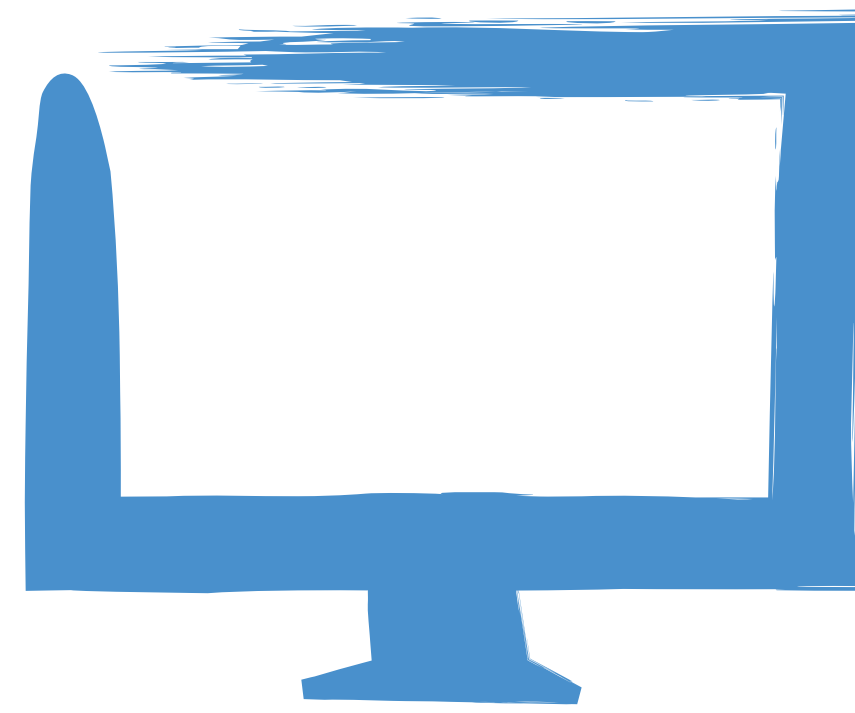
Flexdashboard + Shiny

Go to RStudio Cloud
Start the project titled

> `01-reproducible-to-interactive`

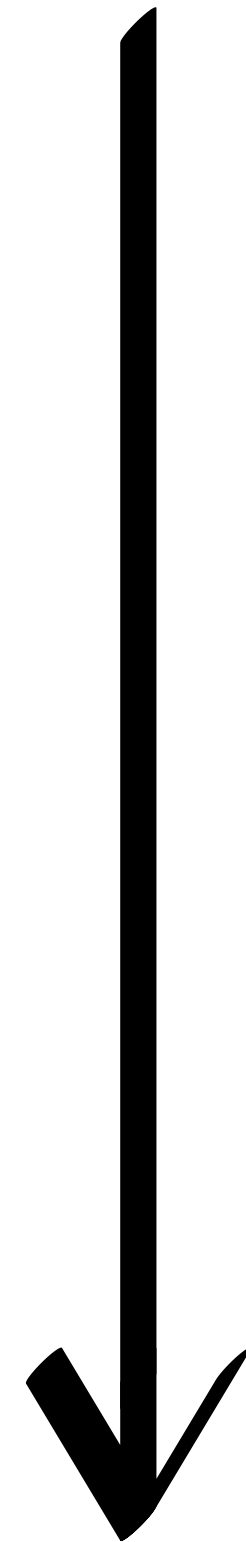
Open the file titled

> `05-rmd-dashboard-with-shiny.Rmd`



Ladder of interactivity

*More
interactive*



.Rmd

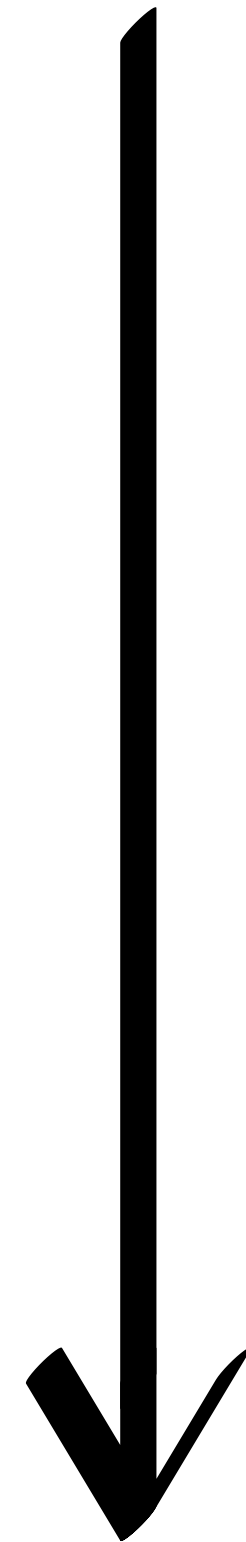
.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

More
complicated



.Rmd

.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

.Rmd

.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

*Change the data more
than once per session?*

.Rmd

.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

*Need more than
a document or
dashboard?*

Your turn

- Go to RStudio Cloud, open/start the project titled `01-reproducible-to-interactive`
- Open the file titled, run the app, observe its functionality `06-shiny-to-param-rmd.R`
- Run the app, observe its functionality
- Then, open the file titled `07-shiny-to-param-rmd.Rmd`
- Fill in the blanks to convert the app to a parametrised R Markdown document

10_m 00_s



Solution

Solution to the previous exercise is in the project titled

`01-reproducible-to-interactive`

In the file titled

`08-shiny-to-param-rmd.Rmd`

