From reproducibility to interactivity:

 to

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more than

70

percent

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

Baker, Monya. "1,500 scientists lift the lid on reproducibility." Nature News 533.7604 (2016): 452.

more than **50** percent

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

Baker, Monya. "1,500 scientists lift the lid on reproducibility." Nature News 533.7604 (2016): 452.

890

Google Scholar yields

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

R Markdown

```
> 01-interactivity-in-r/01-rmd.Rmd
```

R Markdown + parameters
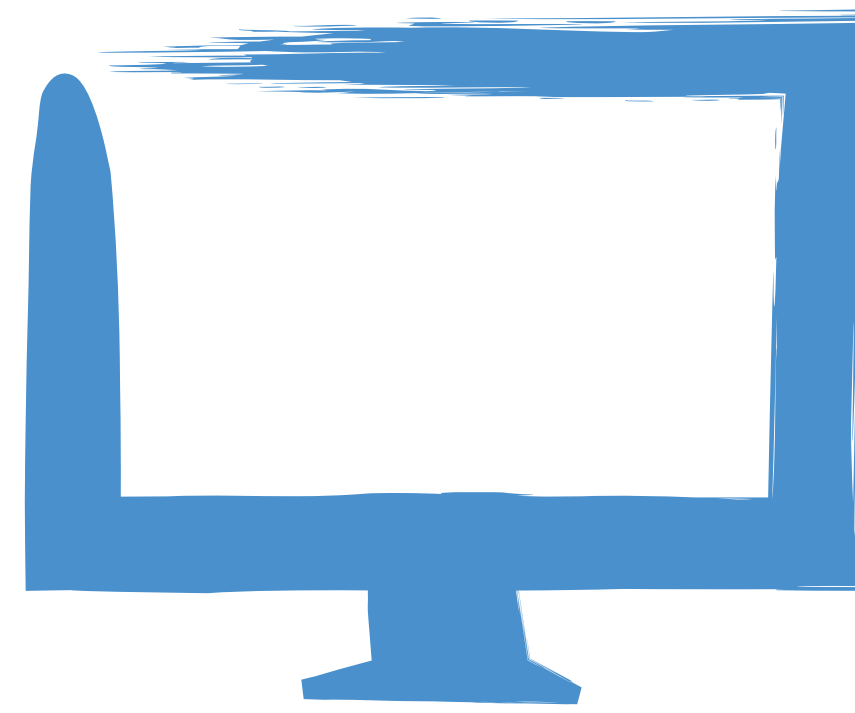
`> 01-interactivity-in-r/02-rmd-with-parameters.Rmd`

R Markdown + htmlwidgets

> 01-interactivity-in-r/03-rmd-with-htmlwidget.Rmd

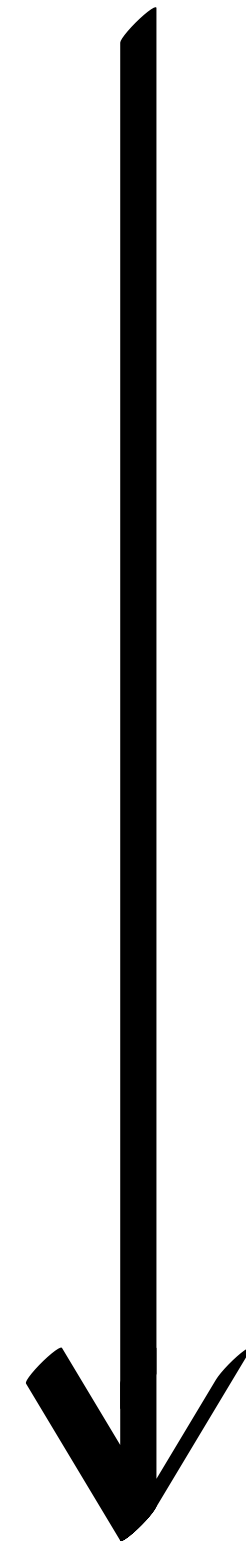# R Markdown + Shiny

> 01-interactivity-in-r/04-rmd-with-shiny.Rmd

Flexdashboard + Shiny

> 01-interactivity-in-r/05-rmd-dashboard-with-shiny.Rmd
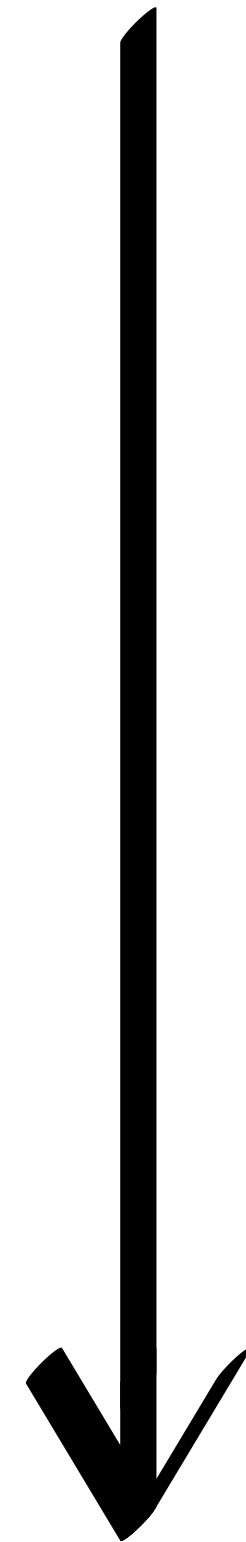
Ladder of interactivity

More
interactive

.Rmd

.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

More
~~Complicated~~ ~~Sophisticated~~

.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

‣ Open **`01-reproducible-to-interactive/06-shiny-to-param-rmd.R`**, run the app, observe its functionality.

‣ Now open **`01-reproducible-to-interactive/07-shiny-to-param-rmd.Rmd`** and fill in the blanks to convert the app to a parametrised R Markdown document.

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Solution

Solution to the previous exercise

> `01-reproducible-to-interactive/08-shiny-to-param-rmd.Rmd`