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.

Google Scholar yields

131

results containing the term **reproducibility crisis**
just in **2020**

R Markdown

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

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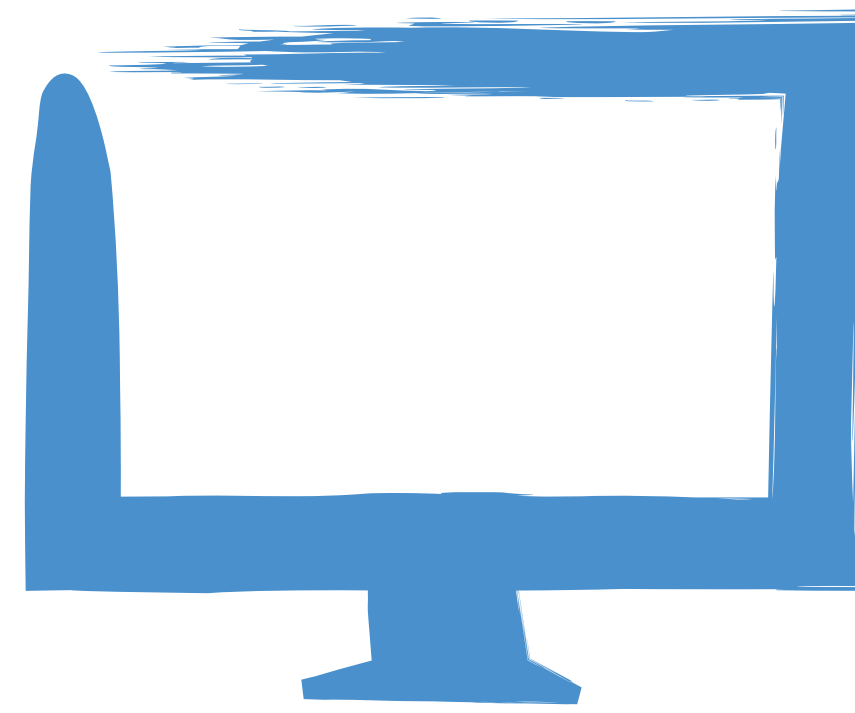
> 01-interactivity-in-r/02-rmd-with-parameters.Rmd

R Markdown + htmlwidgets

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

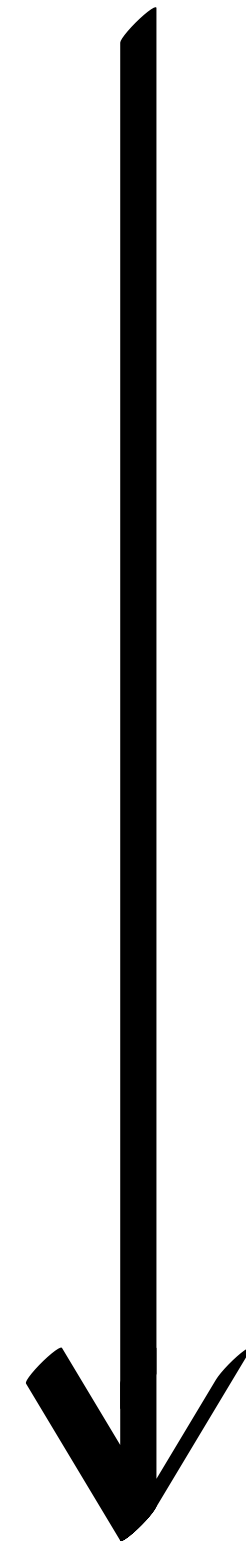# R Markdown + Shiny

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

Flexdashboard + Shiny

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

Ladder of interactivity
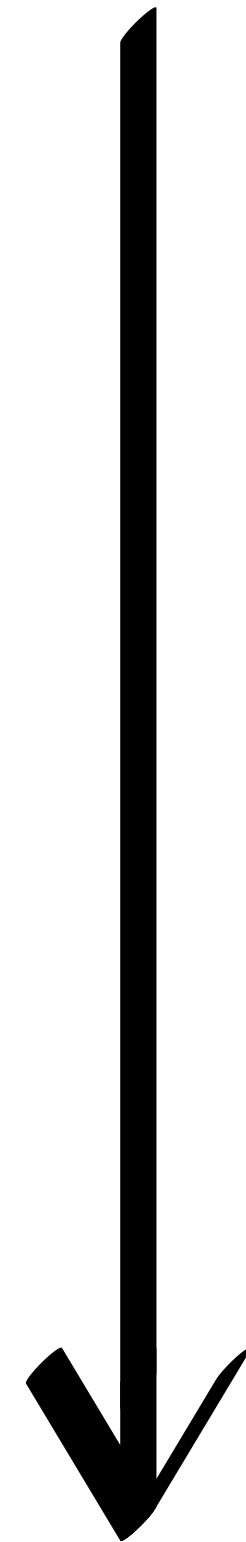
More interactive

.Rmd

.Rmd with parameters

.Rmd with htmlwidgets

.Rmd with Shiny components

Shiny app

More
Complicated

.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?

‣ Open **06-shiny-to-param-rmd.R**, run the app, observe its functionality.

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

‣ View **08-shiny-to-param-rmd.Rmd** for slightly more extended features.

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rmarkdown **to** Shiny

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