Introduction

Interactive Graphics

Will Doyle

Types of Interactive Graphics in R

- D3

- Plotly

- Rshiny

- Base R

Elements for Interactivity

- Click on points
- Adjust axes
- Add new data
- Adjust color schemes
- Animate
- Change analytic approach
- Change format of plot
- Examine data sources

Conclusion

Using Interactive Graphics

Will Doyle

Escaping Flatland

50 years ago, presentations of data analysis were:

- Low resolution

- Black and white

- Not interactive

- Two-dimensional

- Unable to accommodate alternative assumptions

Escaping Flatland

Changes in the last 50 years

- Modern computers can present **very** high resolution graphics

- Modern computers can render a **huge** array of color combinations

- Web applications can easily incorporate interactivity

- Additional dimensions can be visualized, particularly through animation

- Direct access to data is easy to accomplish

Escaping Flatland

Today, most presentations of data analysis are:

- Low resolution

- Black and white

- Not interactive

- Two-dimensional

- Unable to accommodate alternative assumptions

The Challenge

- Modern statistical graphics are based on conventions that have been around for decades

- Need to go beyond these and use modern computing to its fullest

- Remember, though:

"It is alright to decorate construction but never construct decoration."

—Augustus Welby Northmore Pugin