Exploratory Data Analysis in R with Tidyverse

Session 5: Interactive Data Visualization with plotly

instats

Bringing ggplot2 to Life with `ggplotly()`

- Use `ggplotly()` to add interactivity to your existing ggplot2 visualizations

- Enables zooming, panning, and dynamic tooltips

- No need to rewrite your plots—just wrap them in `ggplotly()`

- Preserves layout and theme from `ggplot2`

Enhancing Tooltips for Exploration

- Use the `text` aesthetic in `ggplot2` to create custom hover content
- Pass `tooltip = "text"` to `ggplotly()` to show only the custom text
- Combine multiple fields into rich tooltips using `paste()` or `str_c()`
- Helps provide more context without cluttering the plot itself

Building Interactive Bar and Box Plots

- Use `plot_ly()` for full control over interactivity from the start

- Create bar charts with hover text and reorder categories

- Build boxplots with `type = "box"` to explore distribution across groups

- `layout()` customizes titles, axis labels, and scales

Comparing Multiple Variables in Long Format

- Use `pivot_longer()` to reshape data for multi-feature plotting
- Facet across features like energy, valence, and danceability
- Use one consistent structure to build many plots at once
- `ggplotly()` makes each subplot interactive

Adding Sliders, Lines, and Hover to Time Series

- Use `plot_ly()` to plot time series with line mode
- Add range sliders with `rangeslider = list(visible = TRUE)`
- Build hover text dynamically using `mutate()`
- Use `ggplotly()` to make custom ggplot2 time series plots interactive