

36-721

Statistical Graphics and Visualization

Fall 2015

6.0 units

Project 2: Interaction Design

Due Sat 10/10/15, 5pm

You will choose **a dataset to explore and summarize graphically** in the form of an interactive graphic.

[For dataset and question ideas, see `ProjectIdeas.pdf`.]

Find a story or message to convey using several graphs, text, and interactions or animations. Decide on an appropriate size and format. Sketch several layout ideas, choose a visual style, and implement your interactive graphic on the computer. You do not have to use Shiny or D3 if you are more comfortable with another tool, such as Tableau or `ggvis`.

Please submit

- **your code and data files** for the interactive graphic,
- **written instructions** for installing or setting it up, and
- (optionally) **a link** to the graphic online, if you are hosting it yourself or through `shinyapps.io`.

See rubric on next page.

Component	Sophisticated	Competent	Not yet competent
Message	Clear, multifaceted message or purpose, supported strongly by text, graphs, and annotations. Starting view is global overview (Shneiderman's mantra).	Simplistic but clear message or purpose. Text and graphs support the message adequately. Starting view opens with reasonable default settings.	No message or purpose, or not supported by text and graphs.
Consistency	Consistent navigation across the graphic (actions, tabs, screens, etc.) Controls are consistent with similar websites/software. All graphs show consistent visual design (as in HW 2 rubric).	Navigation is consistent through most of the graphic, even if controls may be unlike standards in other similar software. Graphs may not all have consistent visual design.	Navigation changes erratically or unhelpfully after different interactions. Graphs have no consistent visual design.
Constraints	Limited number of interactions keeps the interface manageable. Each interaction is constrained to prevent user errors before they happen.	Number of interactions is not overwhelming. If interactions allow user errors, error messages are human-interpretable and helpful.	An overwhelming number of interactions to choose from. Interactions allow bad inputs that lead to unintelligible errors.
Visibility	Each interaction has obvious meaning and predictable consequences. Controls and context-giving annotations do hide as you interact.	Most interactions have clear meaning and consequences. Controls don't hide as you interact, but critical annotations may sometimes hide.	Interactions have no predictable meaning or consequences. Controls and critical annotations get hidden by interactions.
Feedback	Graphic is clear in how it reacts to user's actions. Feedback complements, not interrupts, user's actions. Graph titles, annotations, etc. always reflect user's selections.	Graphic responds to user's actions. Feedback exists but interrupts user (e.g. pop-up box). Graph titles, etc. reflect at least some of user's selections.	Elements that look interactive do not respond. No clear user feedback is given. Graph titles, etc. do not change with user selections.
Other	Three or more interactions. Shows good craftsmanship, with no obvious imperfections. Cites all data sources.	One or two interactions. Shows decent craftsmanship, with minor imperfections. Cites data sources.	No interactions. Poor craftsmanship with many imperfections. Does not cite data sources.