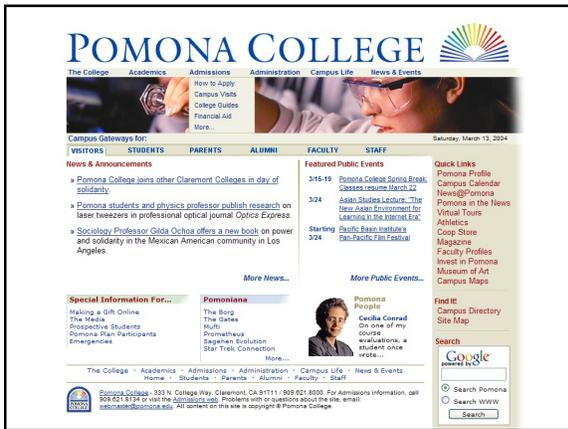


UFinder

An interactive tool for data exploration and decision-making

Jeanette Bautista
Micheline Manske



Problem

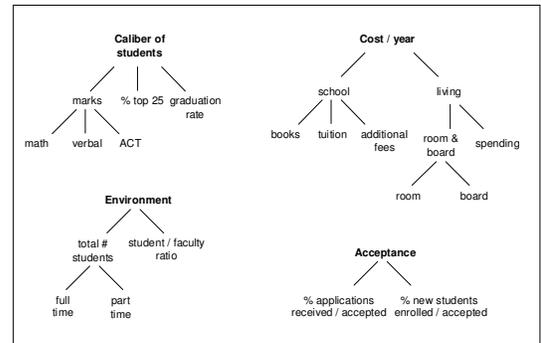
- There are many variables to consider when choosing a school
- Everyone assigns weights these variables differently

Solution

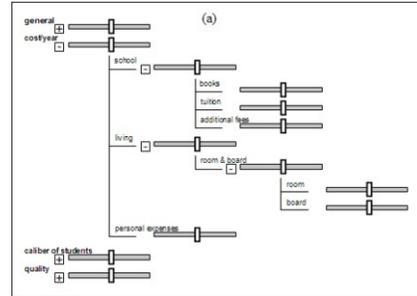
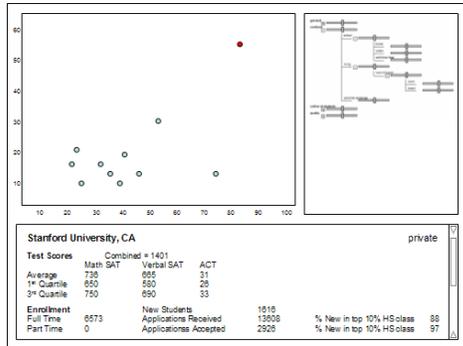
- Visualization that allows users to select ranges for variables to reduce the number of schools
- Interactive tool to allow users to weight variables differently and explore how this changes the rankings of schools

Data set

- 1300 US colleges and universities
- 33 variables
- Variables are arranged hierarchically

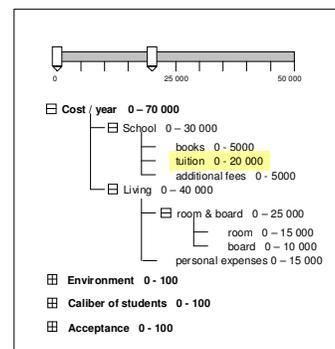
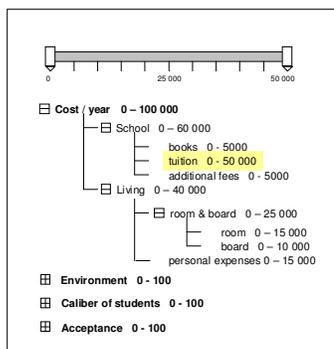
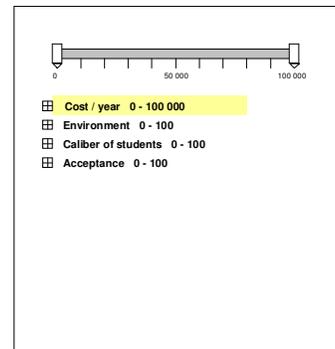


Initial Design



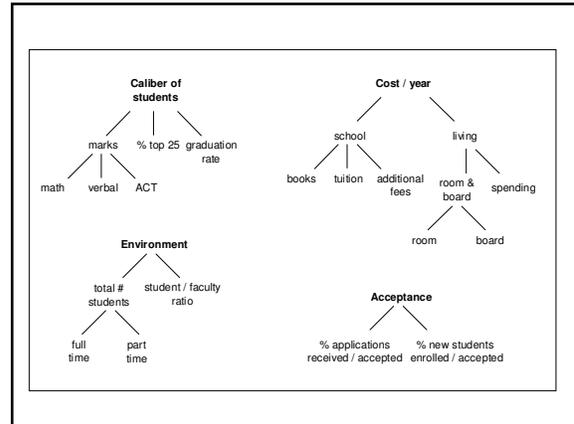
Problems encountered

- Some data values missing
- Slider layout may use up too much screen space



Problems encountered

- Some data values missing
- Slider layout may use up too much screen space
- Combining values hierarchically may be difficult



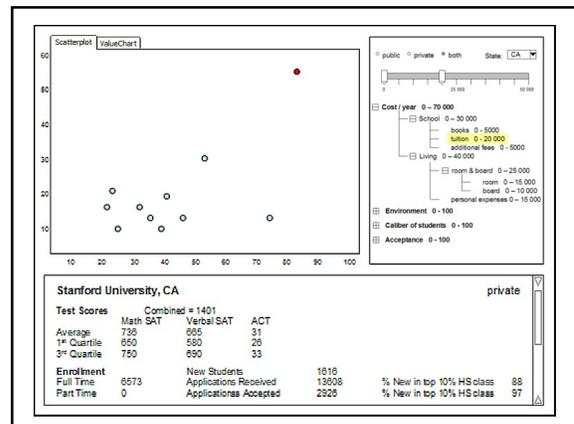
Problems encountered

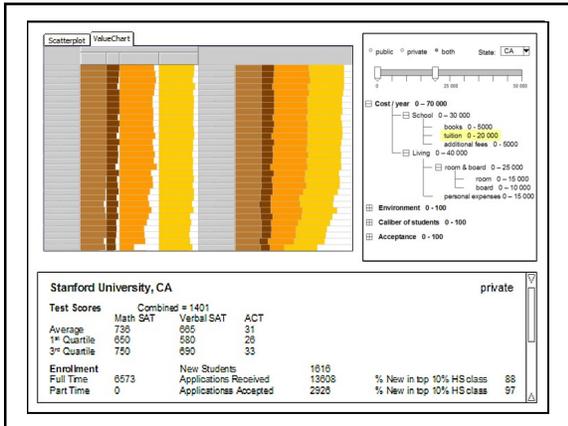
- Some data values missing
- Slider layout may use up too much screen space
- Combining values hierarchically may be difficult
 - it depends on how much you value each component

Demo

Problems with ValueCharts

- A value for a variable must represent a positive aspect in ValueCharts.
 - inverse relation
- There are too many schools to list them all
 - sliders to narrow range
- There are too many variables to have a column for each
 - multiple value charts





Suggestions?

Where we're at

- Become familiar with the InfoVis toolkit
- Discuss ideas with Giuseppe Carenini
- Implement preliminary interface (no functionality)

Where we're going

- Get sliders working with a scatterplot
- Implementation with ValueCharts
- Incorporation of multiple levels of ValueCharts
- Extension?

References

[1] Giuseppe Carenini and John Lloyd. ValueCharts: Analyzing Linear Models Expressing Preferences and Evaluation. In publication.

[2] Jean-Daniel Fekete. The InfoVis Toolkit. Version 0.6alpha2, 2004.
<http://www.lri.fr/~fekete/InfovisToolkit/>

[3] US News "colleges" data set. 1995 Data Analysis Exposition sponsored by the Statistical Graphics Section of the American Statistical Association.
<http://lib.stat.cmu.edu/datasets/>