Survey Visualization

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Problem
Survey composed of
- Questionnaire
- Collected data
Want to explore relationships between responses to various questions
- Correlation
- Correlation matrix not efficient

Data set
- National Election Studies center’s pre- and post-election surveys
- National Center for Chronic Disease Prevention and Health Promotion Behavioral Risk Factor survey
- 1K - 100K respondents
- 100s of questions (dimensions)

Proposed solution (1)
A way to visually present questions
correlation relationships between them
Would allow to answer questions that are very hard to do with the correlation matrix

Proposed Solution (2)
Points representing questions positioned along a semi-circle
Correlation axis along diameter

Tool
Implementation so far relies on InfoVis Toolkit and Java 2D
Found source that implements matrices and calculations for Spearman’s rank correlation coefficient
Input data format
- CSV, converted to InfoVis toolkit’s TQD format
- simple parsers can be written to extend the tool to handle other formats, as well
Challenges so far

- InfoVis toolkit
- Statistical calculations and matrix manipulations in Java
- Statistical measures of multi-dimensional correlation

Questions?

Suggestions?