

Transform Research and Instruction Support through Social Media Analysis and Data Visualization

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Background

Leading public research university, one of the three Tier One research universities in Texas

- Jack J. Valenti School of Communication faculty interested in showing students how to connect consumer behavior with demographic information, but students had little or no background in statistics
- Faculty also interested in collecting data from social media to explore consumers' sentiments on certain products
- One of the library strategic initiatives: provide expertise in data visualization, and partner with faculty to implement instruction on data literacy
- Data librarian has the expertise in locating data and creating visualizations to aid exploratory analysis

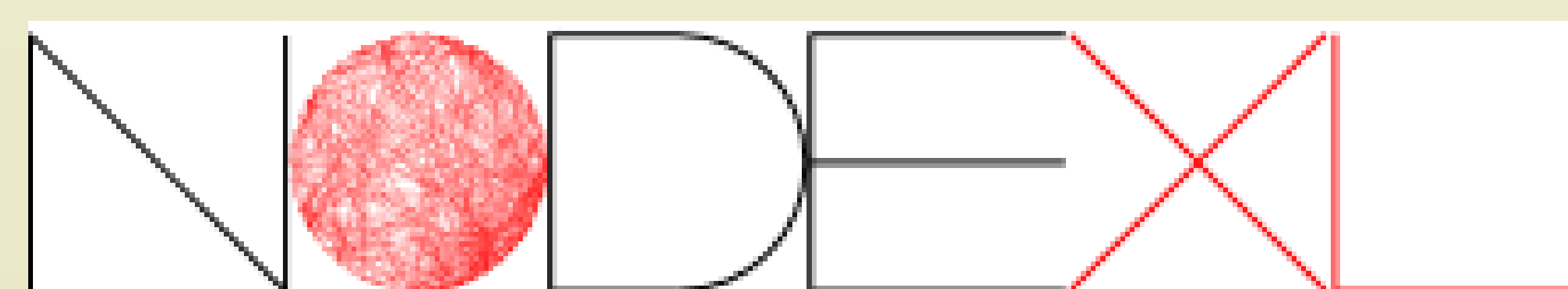
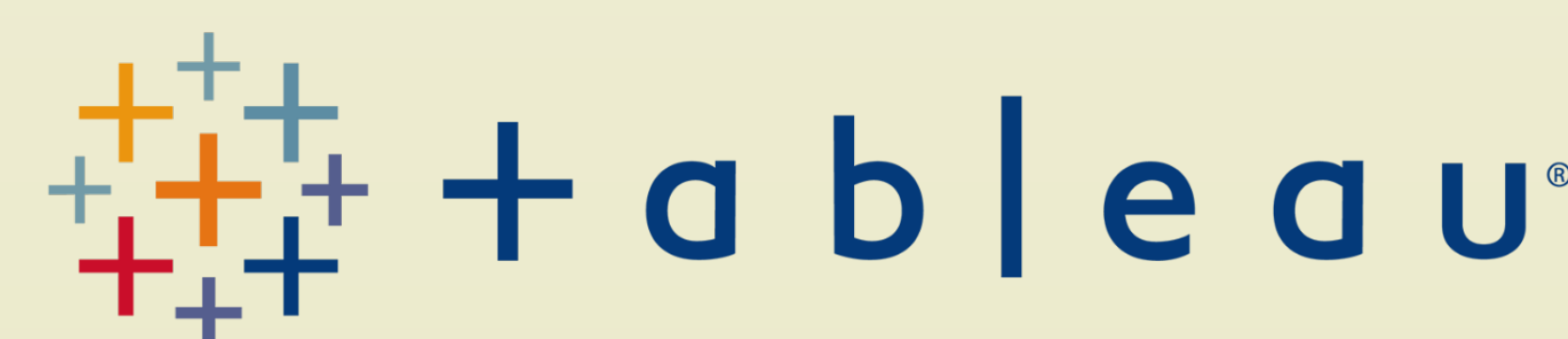


Resources & Technology

Data Sources

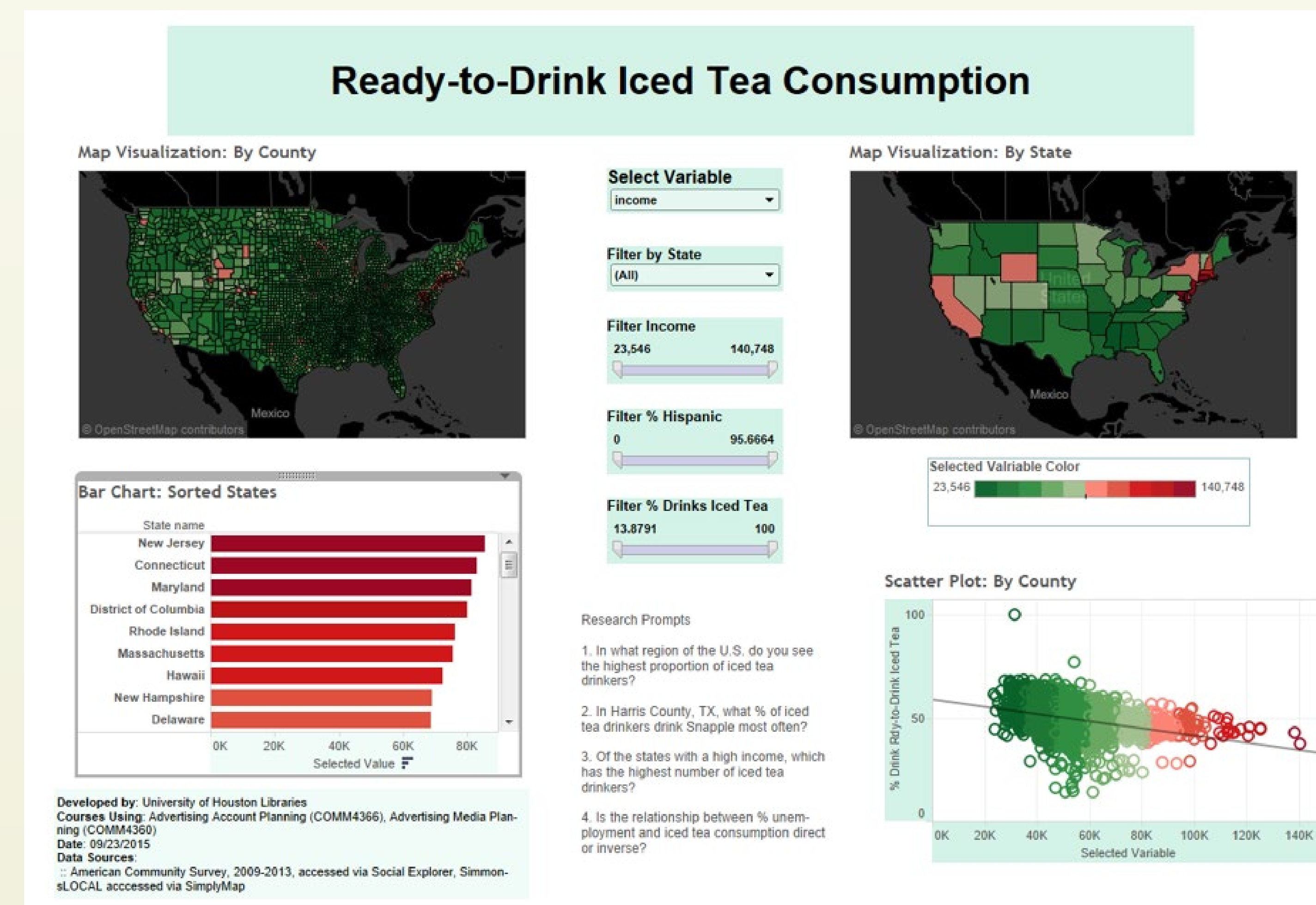


Technology

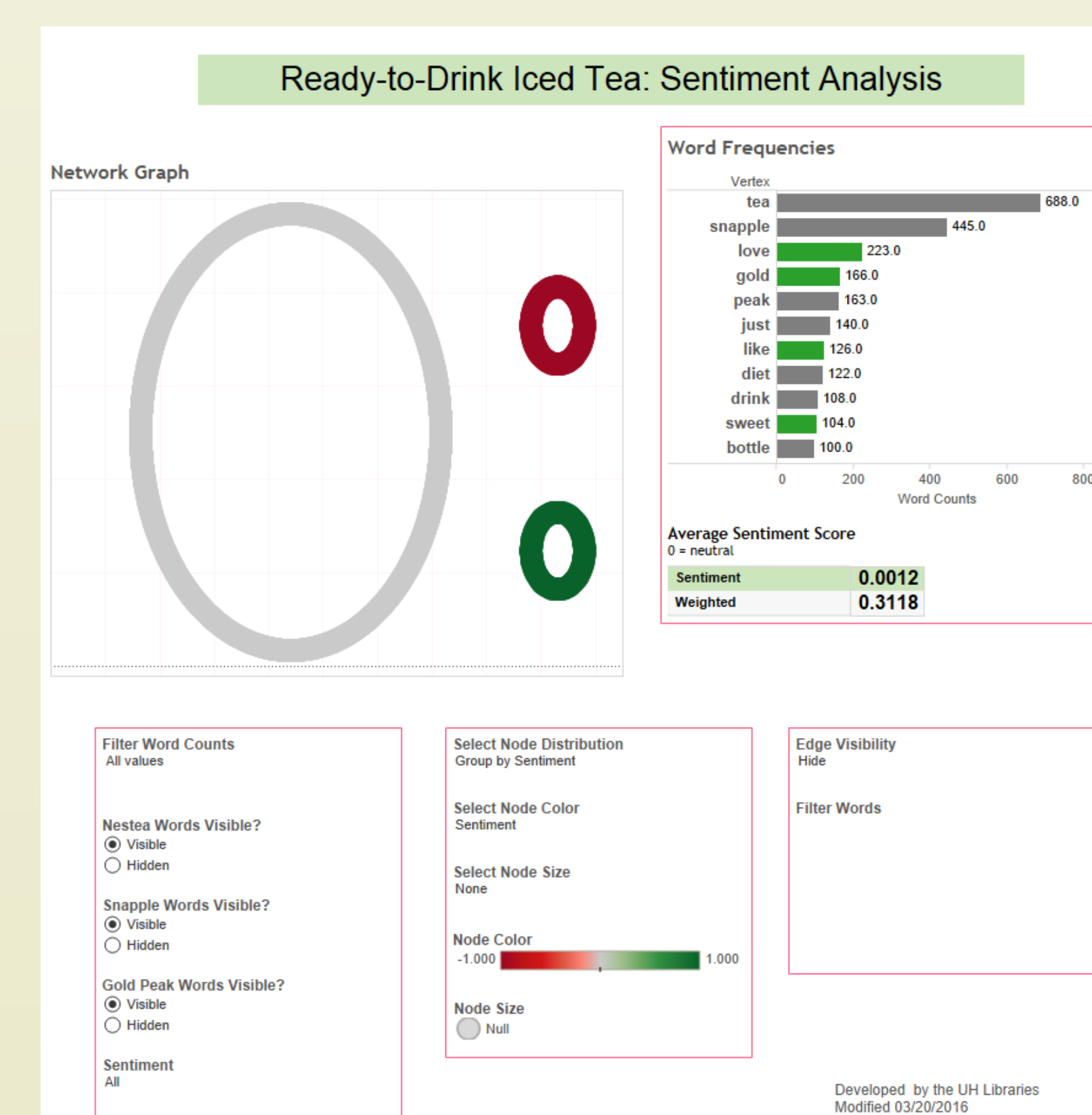


Implementation

Upper level undergraduate communication class *Media Planning*
Case study: Snapple, the ready-to-drink iced tea



Fall semester: explore connections between patterns of consumer behavior and their demographic characteristics. Students explored census information such as income and race by state and at the county level. Tableau also calculate relationships between different variables. Students answered questions, for example, is there a relationship between the percent of unemployment and iced tea consumption?



Spring semester: collect people's comments on Facebook for three types of iced tea, Nestea, Snapple, and Gold Peak, using the software NodeXL Pro to find this data. Sentiment analysis, a methodology to determine whether people's attitude toward a topic or product was positive, negative, or neutral, was analyzed by the program. Visualized sentiment and word frequency using Tableau.

Lessons Learned

Cost

- Tableau software -- expensive
- NodeXL pro -- minimal cost

Publishing Data

- SimplyAnalytics is a proprietary database. Data cannot be published online
- Privacy issues with social media data

Training Needs

- Librarians need to further develop skills for data visualization
- Increase students' data literacy skills

Scalability

- Very time consuming, not scalable at the moment
- Think about alternative plans: train interested subject librarians; train graduate assistants

Collaboration

- Data librarian work with subject librarian
- Librarians and faculty work closely together

