Analytics Tools for Human-Centered Data Science
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Human-Centered Data Science (HDS)
Emerging from the intersection between human-computer interaction (HCI), computer-supported cooperative work (CSCW), and visual analytics and data science, research in Human-Centered Data Science (HDS) focuses on understanding how people explore vast datasets and gain insights from tools supporting interaction with data. One ultimate goal of HDS is to ensure that computational tools facilitate human reasoning and understanding, particularly in the context of big data.

Recent Projects

Aeonium: Visual Analytics for Collaborative Qualitative Coding

Aeonium supports human insight in collaborative coding through visual overviews of codes assigned by multiple researchers and distributions of important keywords and codes. The underlying machine learning model highlights ambiguity and inconsistency. Our goal was not to reduce qualitative coding to a machine-solvable problem, but rather to bolster human understanding gained from coding and reinterpreting the data collaboratively.

Lariat: Visual Analytics for Exploring Social Media Data

Lariat is a tool for social media research to explore twitter data. The design stemmed from a series of interviews with social scientists and a participatory design session. One key feature of the tool is to let users generate plots on the fly and use them as a way to drill down into a specific subset of tweets, supporting the sense-making process.

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About Human-Centered Data Science Lab (HDS Lab)
The HDS Lab is directed by Dr. Cecilia R. Aragon in the Department of Human Centered Design & Engineering. Members in the lab use both quantitative (statistical and computational) and qualitative (ethnography, human-centered design) methods to study how people make sense of very large data sets. We then build visualizations, games, and other software to enable these interactions.