**Title:** Dynamic Data Visualization

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**Abstract:**

There are many instances in which it is useful to visualize data while it is still in the process of being collected. This is true both for data sets that have a predetermined sample size and for data sets that are constantly growing. In order to monitor the development of data sets as they grow, it is useful to implement data visualization that can continuously incorporate new information. I term these types of updating displays “continuous” data visualizations. There are many instances of continuous data visualization, but perhaps the most familiar is Google Finances’ depiction of market share prices, which updates in real-time with information from the relevant stock exchange.

A closely related theme in data visualization is the ability to interact with displayed data in a meaningful way. To continue with the example of Google Finance, a user can toggle a particular market shares’ display to capture its performance over several time periods. This type of interactivity in data visualization can often provide fresh insights into how the data can be conceptualized, and may reveal trends and patterns a static display would obscure.

Continuous data visualization and interactive data visualization share a common feature—they are *dynamic* forms of displaying data. The way the data is shown changes either in response to new information, in response to the user’s actions, and in some cases both. My proposed talk will broadly cover some of the motivations, benefits, and limitations of dynamic data visualizations. I will draw on examples from multiple fields including fitness tracking, finance, and experimental Psychology to illustrate these points. Finally, I will conclude my presentation with tips on how to implement templates that can be used for continuous and interactive data visualization.

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