Where does data come from?

- [http://www.datavizchallenge.org/](http://www.datavizchallenge.org/)
  - Not just where it comes from, what you do with the data
  - How is data obtained from the web? In what format?
  - What is a URL? What is a file?

- How is data stored once it's found?
  - Read all at once? Problems?
  - Read a bit at a time? Issues?
  - How do we use Python for this?

Files and URLs: plus ça change

- What do we do with files in Python?
  - Open them, how is that done?
  - Read them, how is that done?
  - Close them, how is that done?
  - What about writing to files?

- Using URLs as a source of data
  - `import urllib`
  - What does that make `urllib`? What functions in it?
  - Calling `urllib.urlopen("URL")` returns a ...
    - What can we do with this?

When good data goes ...

- How do we read stock market data?
  - Where does it come from, is it live?
  - Why store data in tuples, (what is a tuple)
  - How do we manipulate lists of information ...

- What if we wanted to get ...
  - S&P 500 stocks
  - What is an API?
  - Where and how do we store data?
  - What questions should we ask?

Nathan Myhrvold

- Who is he?
  - We invent for fun. Invention is a lot of fun to do. And we also invent for profit. The two are related because the profit actually takes long enough that, if it isn't fun you wouldn't have the time to do it.