Chapter 1 Data Analytics thinking

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The widest applications:

in marketing for tasks such as targeted marketing, online advertising, and recommendations for cross-selling

Example 1: France Hurricane
- Walmart mined data from last hurricane to detect increase amount of sale
- Found some unexpected outcomes: increase in sale for strawberry tart and beer

Example 2: Consumer Churn Prediction
- Motivation: hard to expand new markets, it's more profitable to retain existing customers

Structure of data driven organization
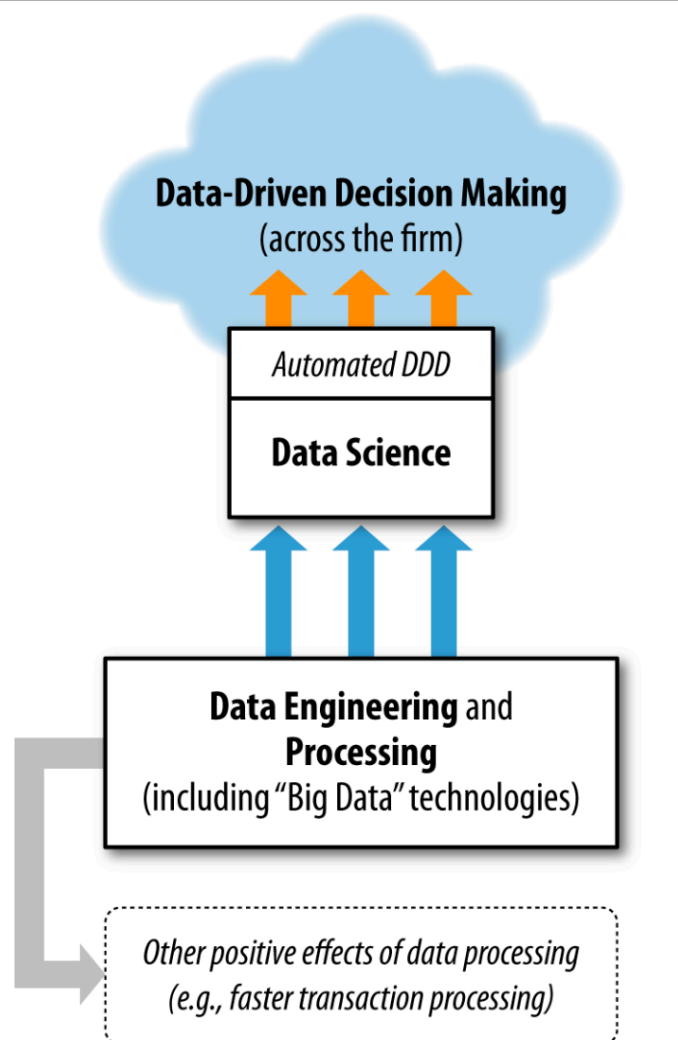
2 types of data driven decisions:
- Type 1: discoveries made directly from data (e.g. Walmart predict hurricane)
- Type 2: repeating decision in massive cycle, so that decision-making can benefit from even small increases in accuracy based on data analysis

Fundamental concepts for data analytics thinking:
- Data mining projects for business can be done by following standard procedure.
  - The Cross Industry Standard Process for Data Mining, abbreviated CRISP-DM
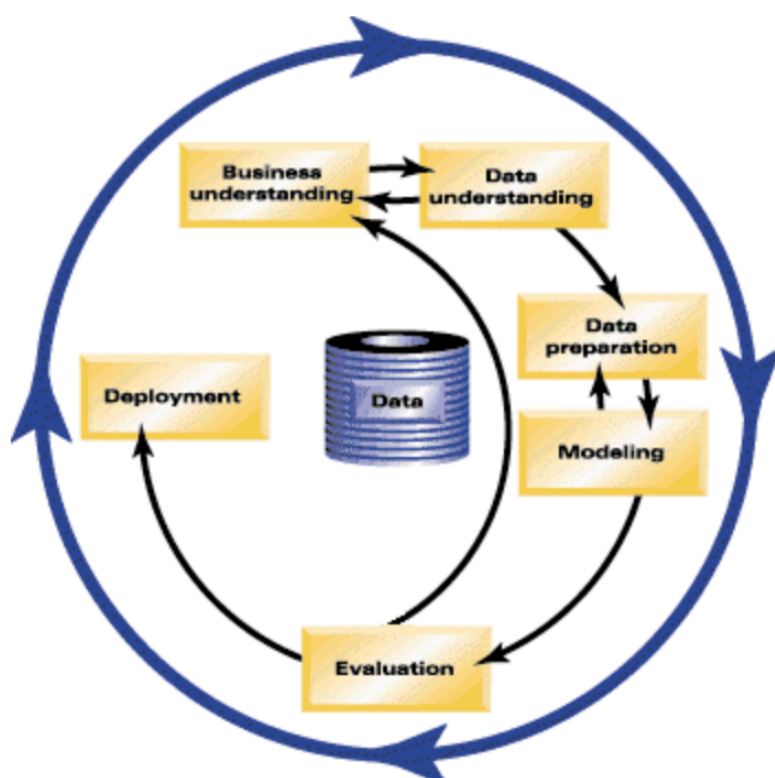
- Information technology can be used to find correlated attributes for the problem
- Focusing on one dataset too much may result in over-fitting, which is to avoid
- Consider the context it's applying to, e.g. would a slightly larger default rate be better?