The Data Trend is Bigger, Faster and More Complex

Every 60 seconds

- 98,000+ tweets
- 695,000 status updates
- 11 million instant messages
- 698,445 Google searches
- 168 million+ emails sent
- 1,820TB of data created
- 643 new smartphone users*

*Sensor data

practicalanalytics.wordpress.com

*KPCB 2013 report
Big Data Analytics induced the birth of the world’s largest ad company

Maurice Lévy of Publicis, left, and John Wren of Omnicom at a news conference on Sunday in Paris to announce a merger deal.
“Data is the new oil.

Quoted from Clive Humby, author and founder of Dunnhumby, which uses big data to personalize customer experience of brands.
Gasoline Saved the Whales?

In 1854, Abraham Gesner invented Kerosene

In 1859, Drake strikes oil in Titusville, PA

Figure 5 Model projections of the total population size of southern right whales, 1770-1997, using high, low, and base estimates of historic catch scenarios and a 1997 population size of 7,771 whales. (From IWC 2000.)

1Walter S. Tower (1907). A History of the American Whale Fishery. Table III, pg 126
Google Flu Trends

- Google was able to predict flu trends based on search terms
- Placed results on the web for the public’s review by cities & regions
What is Big Data?

Volume

- Large Data Set

Velocity

- Real Time Data
  - Spotify
  - YouTube
  - Waze
  - Google Now
  - Real time online or mobile leads...

Variety

- Data in Many Forms
  - Tweets
  - Blog
  - Comments
  - Websites
  - Audio
  - Visual
  - Online & Offline Document
  - Quantified Self & other sensor data
Turning Big Data into Big Opportunities

Hadoop offers partial solutions

Has Relational Limitation?

Need Horizontal Scalability?

Y

N

N

Y

Structured Data

Unstructured, Streaming Data

Unstructured Data

Type II

Type III

Type I

Has Relational Limitation?

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Unstructured, Streaming Data

Unstructured Data

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Type I

Has Relational Limitation?
Consumer Data Defies Computerhension

- **TYPE I**
  - Sites Content-Text

- **TYPE II**
  - Sites Visited
  - Freq. & Duration of Visits
  - Social Media Interactions
  - Search & Click Key Words

- **TYPE III**
  - Sites Content-Audio
  - Sites Content-Visual
  - Mobile DPI
  - PII
  - Content & Product Preferences
  - Sentiment & Influence

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THANK YOU!

Questions?

Feel free to contact me

Nathaniel Lin PhD
M: +1 404 680 8088
Nlin@bentley.edu