Data Problems: Tools vs. Culture

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Introduction

▶ This talk is for a general audience

Introduction

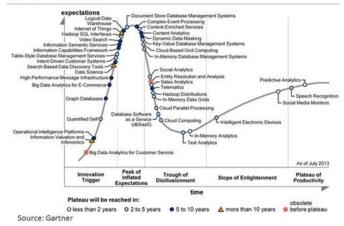
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Introduction

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- Background

Current Events

Hype Cycle for Big Data, 2013



What is 'Big Data' anyway?

Data Problems

▶ Most are not 'Big Data' (whatever that means) problems

Data Problems

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- ▶ Most are not problems for lack of a tool

Data Problems

- ▶ Most are not 'Big Data' (whatever that means) problems
- Most are not problems for lack of a tool
- Most are culture problems

Culture

Organizational

Behavior and meanings attached to behaviors

Role of Data Science

Culture

Organizational

Behavior and meanings attached to behaviors

Role of Data Science

► The primary job of a Data Scientist is to help change the culture

Mission of a Data Scientist

▶ Help the organization identify the right problems

- ► Help the organization identify the right problems
- ▶ Do what is necessary to solve the problems

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- ▶ Do what is necessary to solve the problems
- Evaluate the solution

- ► Help the organization identify the right problems
- ▶ Do what is necessary to solve the problems
- Evaluate the solution
- Repeat

Long-term

Help people become better at identifying and solving their own problems

Hadoop

- ► Hadoop
- ► Storm

- ► Hadoop
- ► Storm
- ► Spark

- ► Hadoop
- ► Storm
- ► Spark
- Big Data

- ► Hadoop
- ► Storm
- Spark
- ► Big Data
- ▶ Data Lake

- Hadoop
- Storm
- Spark
- ▶ Big Data
- ▶ Data Lake
- ► HBase

- ► Hadoop
- Storm
- Spark
- ▶ Big Data
- Data Lake
- ► HBase
- Cassandra

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- Lambda Architecture
- ► d3.js
- Tableau
- ► HDFS

What is the problem?



Concrete

- Concrete
- ► Quantifiable

- Concrete
- Quantifiable
- Financial

- Concrete
- ► Quantifiable
- Financial
- Unsure of real problem

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- Quantifiable
- Financial
- Unsure of real problem

Sad possibility

▶ Too weak, or unmotivated, to fix the real problem

▶ Stop talking about tools as solutions

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- Start/continue asking questions

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- Be Socratic: use questions to teach people how to ask the right questions

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- Start/continue asking questions
- Be Socratic: use questions to teach people how to ask the right questions
- ► Lead by example

Questions?

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