

Data

Is All Around Us

Brian Stacey
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“In science, if you know what you are doing, you should not be doing it.

“In engineering, if you do not know what you are doing, you should not be doing it.

“Of course, you seldom, if ever, see either pure state.”

Richard Hamming, The Art of Doing Science and Engineering



Operations Research

- ... to employ the scientific method to improve the way in which decisions are made

*Problem
Identification*

Data Analysis

*Definition
of Objectives*

Solution Analytics

Implementation

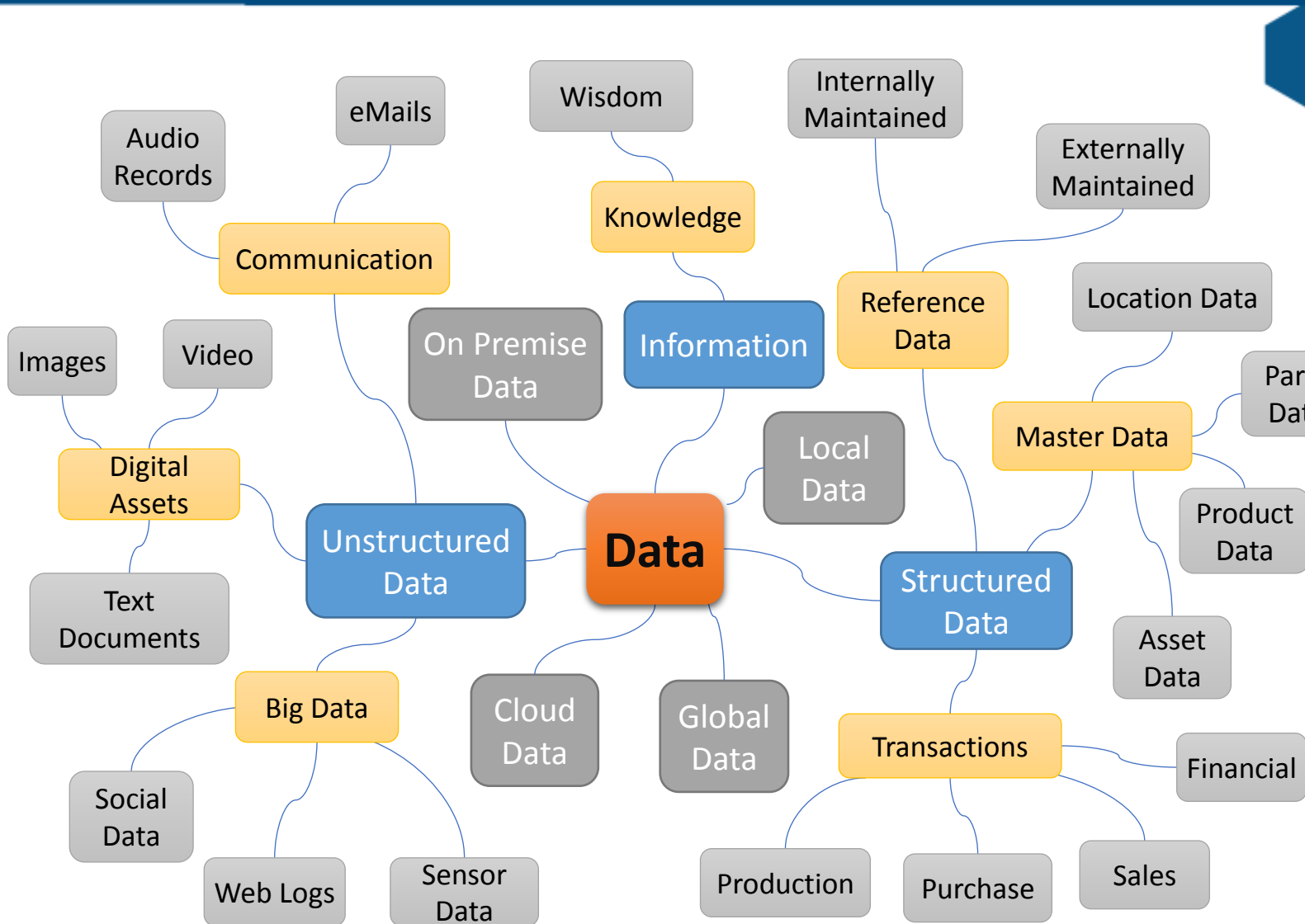


Welcome to my World

- **Data**
- **Big Data**
- **Data Science**
- **Analytics**
- **Artificial Intelligence**
- **Data-driven Decisions**
- **Data Lakes**
- **... and more**



Data



Big Data

Big ??

Data ??



Big Data

Big ??

- **Volume**
 - **Velocity**
 - **Variety**
 - **Veracity**

Data ??



Big Data



Big Data



- **Hadoop**
 - **ZooKeeper**
 - **MapReduce**
 - **HDFS**
 - **Oozie**
 - **HBase**
 - **Hive**
 - **Pig**



Data Science

Data Scientist



Data Science

Data Scientist

Data Engineer

Analytical Engineer



Analytics

- ? What
- ? Who
- ? How
- ? Why



Artificial Intelligence



***Machine
Learning***

***Neural
Networks***

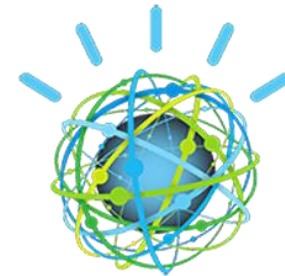
***Natural
Language
Processing***



Artificial Intelligence



Google



IBM Watson

amazon



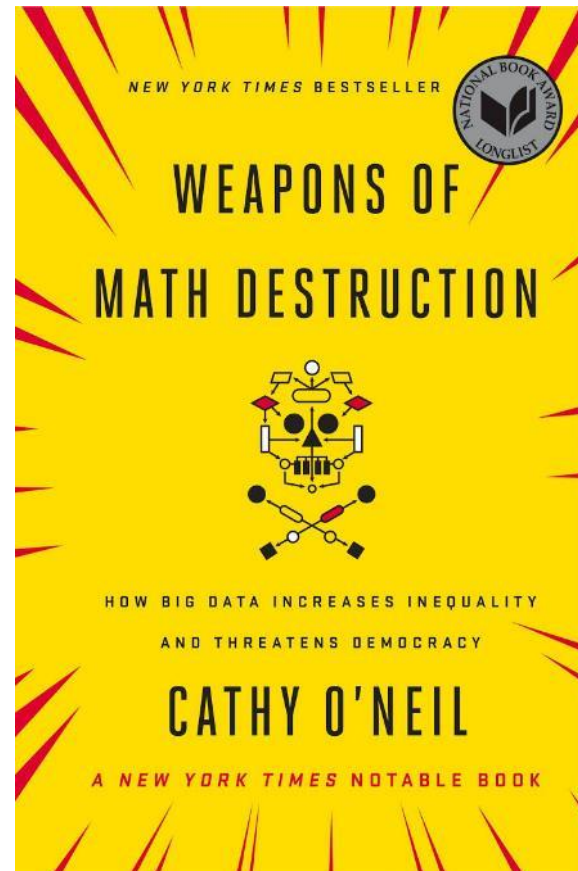
Artificial Intelligence



Artificial Intelligence



TED
Ideas worth spreading



Data-driven Decisions



Operational



Tactical



Strategic



Data-driven Decisions



Do they want it ?

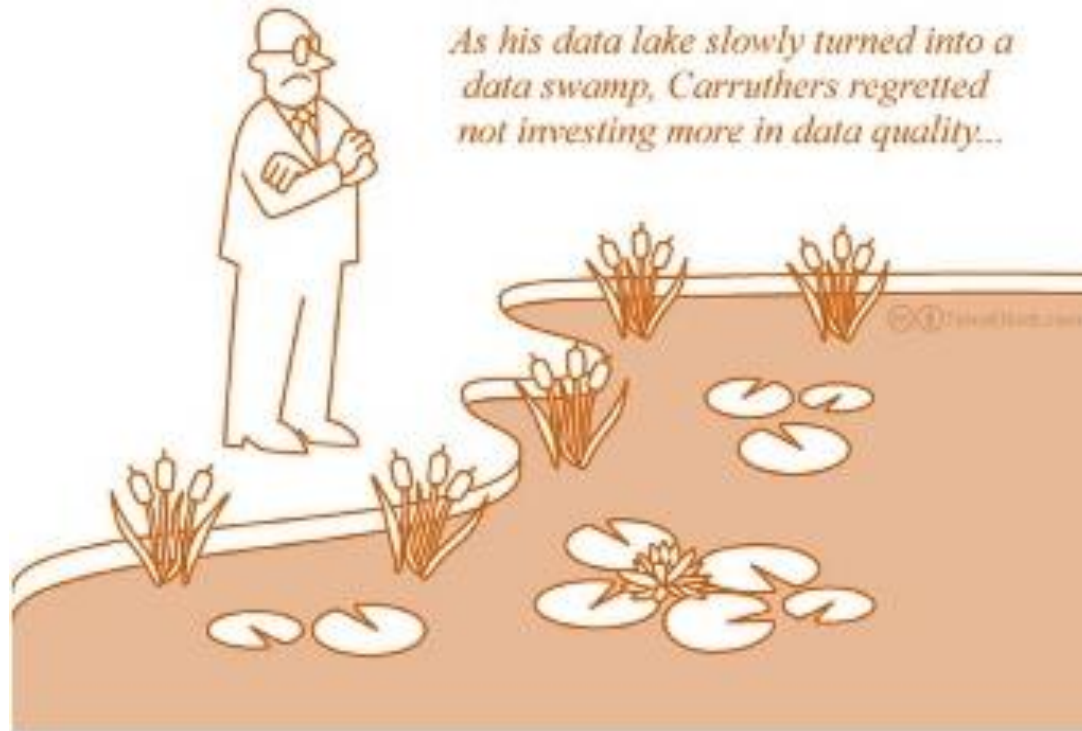
All this Data ...



Data Lake



All this Data ...



Data Swamp !!



So what can we do ?



Value



So what can we do ?



Value



Context



So what can we do ?



Value



Context



Semantics



So what can we do ?



Value



Context



Semantics



Insight



Thank you

- www.datasciencecentral.com
- www.information-management.com
- www.supplychainshaman.com
- www.oreilly.com
- liliendahl.com
- tdwi.org
- www.techtarget.com
- TED – Cathy O’Neil

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