

Doing the right things

Discover
Research Phase

[0] Collection

[1] Access
+ Retrieval

Big Data (Acuisition/Aggregation) Gathering
Empirical(Sensor/IoT Measuring/Sampling)

Ownership (Open/Closed)
Storage (Cloud/Database)

Define
Synthesis Phase

[2] Preparation
+ Wrangling (Munging)

Loading
Feature Extraction/Reduction
Normalization
Transformation
Conversion

Data
Gathering & Ingesting

Doing things right

Develop
Ideation Phase

[3] Exploration

[4] Analysis
+ Machine-Learning

[5] Abstraction

Graphical (spatial)
Ontological (Language)
Semantic (text)
Rule-based/Algorithmic
Quantitative/Qualitative
Numerical/Categorical/Symbolic

Mining (Heuristics/Statistics/Descriptive/Prescriptive)
Construct Useful Insights/Trends/Patterns/Diagnosis(Information)

Parameter Selection + Representation
Summarization
Problem Solving
Diagnostic
Prediction
Encription

Deliver
Implementation Phase

[6] Organization
+ Managing

[7] Automation
+ Reporting

Visualization
Virtualization

Performance (Measure/Monitor)
Evaluation & Review
Decision & Advise or Prescription
(Interactive/Passive) Story Telling

Data
Dissemination & Curation