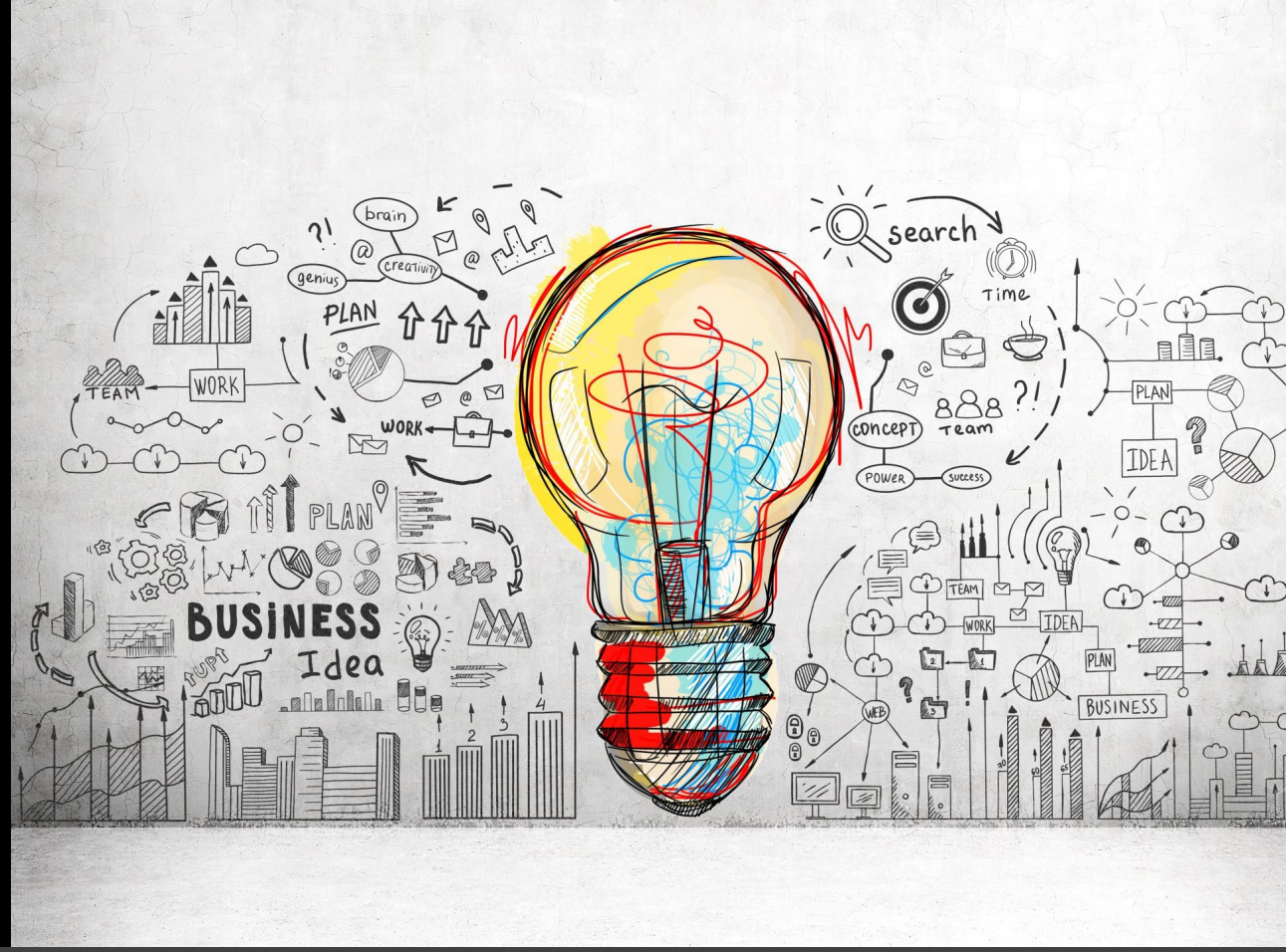
Shutay Consulting

data science, analytics, research



DATA SCIENCE ASSESSMENT

Strategy & Execution

Analytics taxonomy development

- Maturity levels are based on the following criteria
  - Complexity of data, methods, & algorithms
  - Degree of insight (descriptive to prescriptive)
  - Traditional approaches vs. deep learning (cognitive sciences)
- Taxonomy definitions, examples, and scoring
- Advanced analytics / data science aligns with the examples closer to the bottom half and right-hand side

Analytics Maturity Model: Capabilities	Level 1	Level 2	Level 3	Level 4
DESCRIPTIVE *What happened?*	Ad-hoc reporting through citizen data science techniques	Interactive dashboards created on local computer without coding	Reporting that requires significant data integration from disparate sources	Complex data wrangling & sample projection for generalization
DIAGNOSTIC *Why did it happen?*	Intuition-based	Basic visualizations	Models without hold-out sample	Evidence-based diagnostics such as A/B Testing
DISCOVERY *Proactive insight generation through hypothesis testing*	Visual data exploration	Exploratory analysis & Data mining	Augmented with disparate data sources	Augmented with curated data
PREDICT / PRESCRIBE *What will happen & what should happen?*	Intuition-based	Models with hold-out sample	Augmented with ML / AI	Evidence-based testing & automated tuning
COGNITIVE *Vision & audio data processing*	Leveraging pre-existing cognitive apps (e.g., word clouds)	Experimental lab trained neural network models	Moderately accurate field trained neural network models	Highly accurate field trained neural network models

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