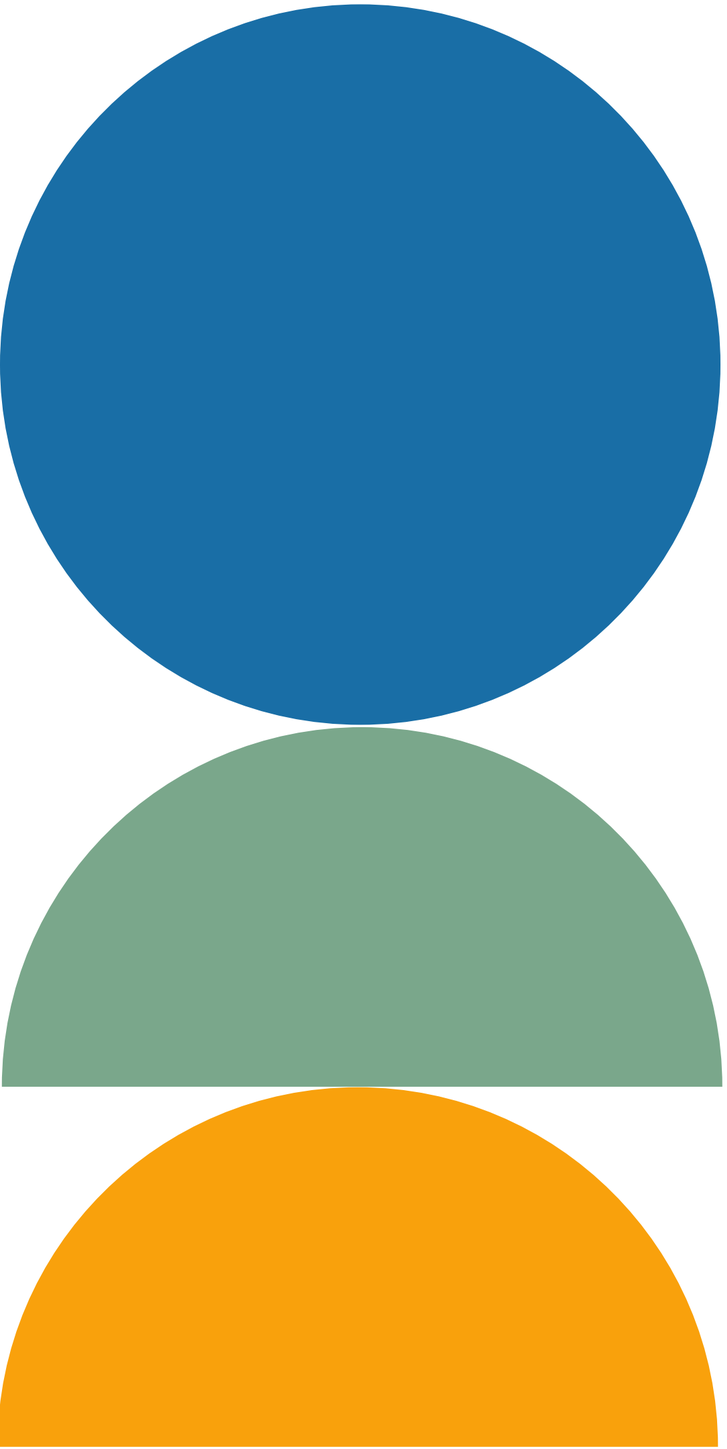
Data 101

widya analytic

itsmecevi.github.io

Quantitative
Qualitative



Type:

-Numeric->

- Discret
- Continue

-Categorical

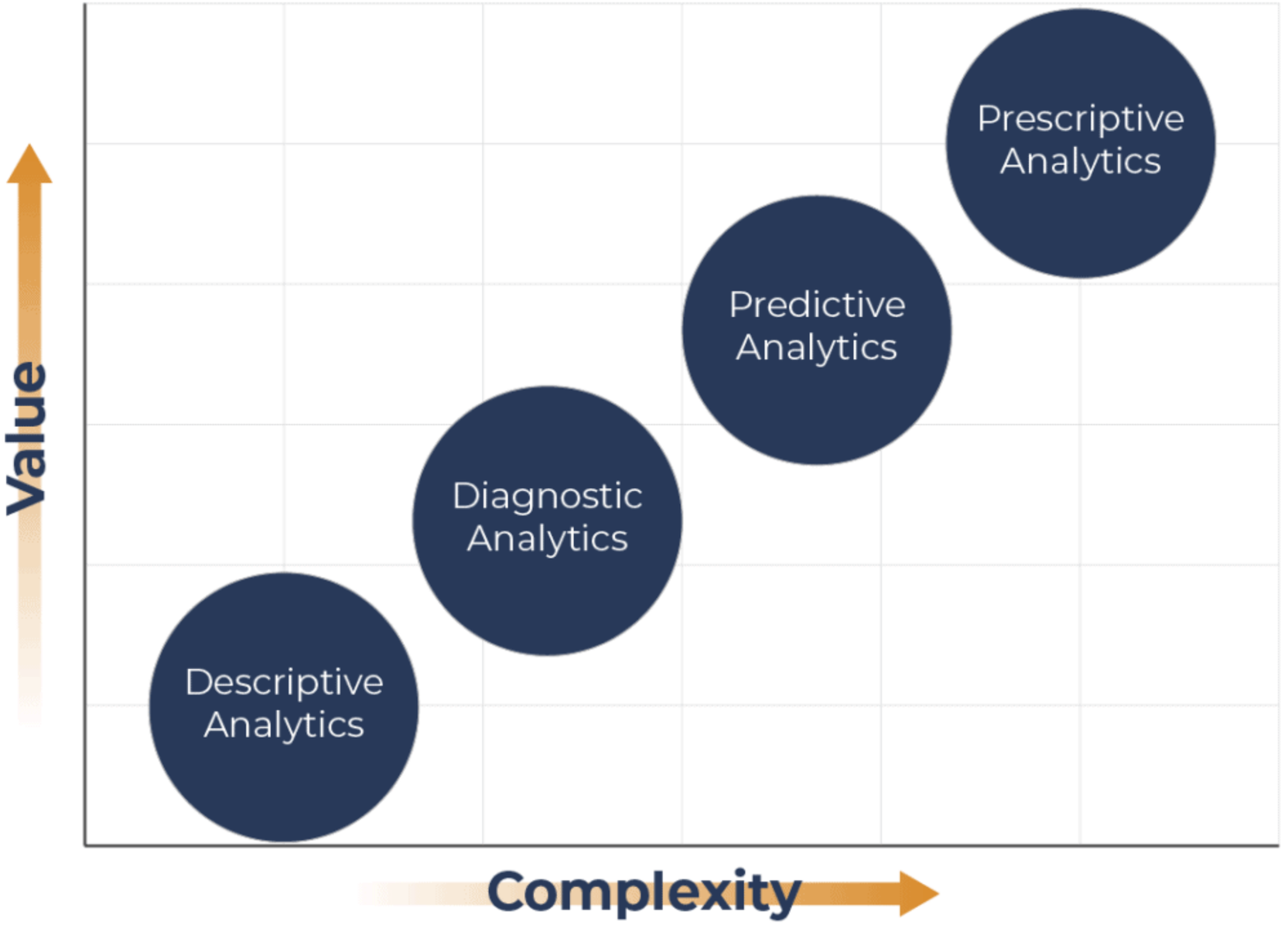
Scale:
-Nominal
-Ordinal
-Interval
-Ratio

Cross-Sectional

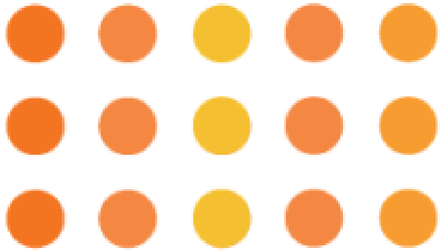
Longitudinal

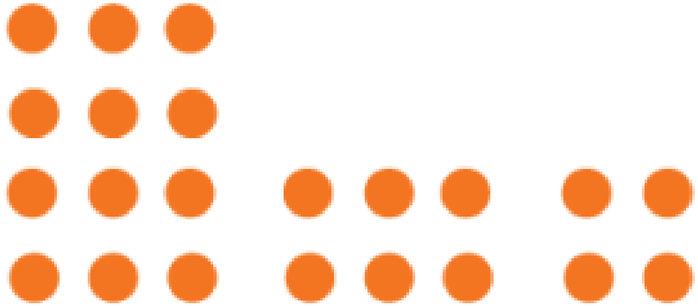
Dataset->Variable->Relation

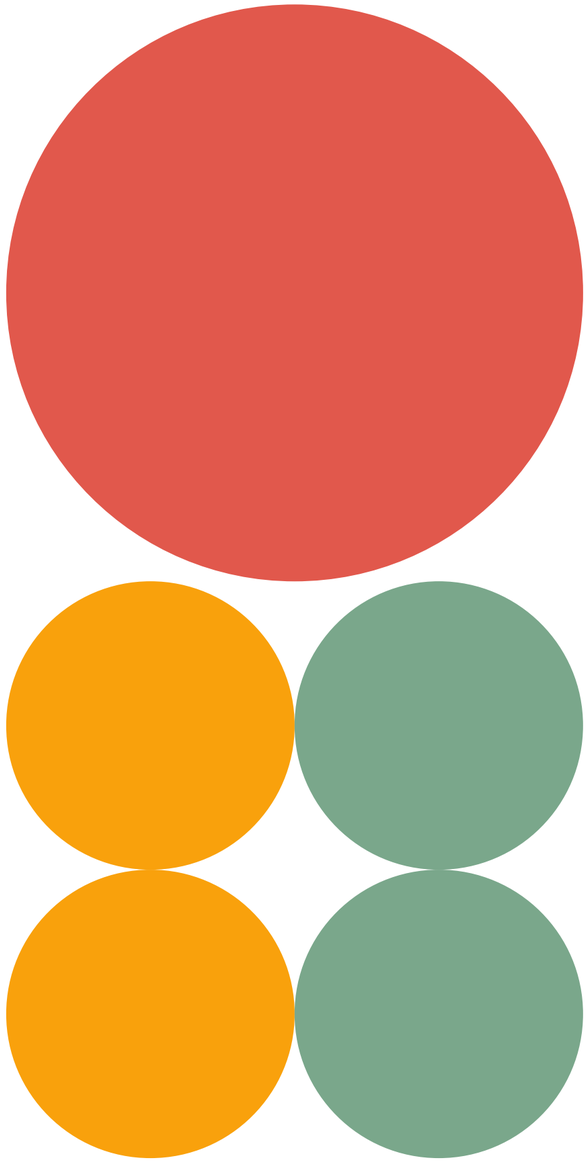
Analytics


Prescriptive Analytics
Predictive Analytics
Diagnostic Analytics
Descriptive Analytics
Value
Complexity

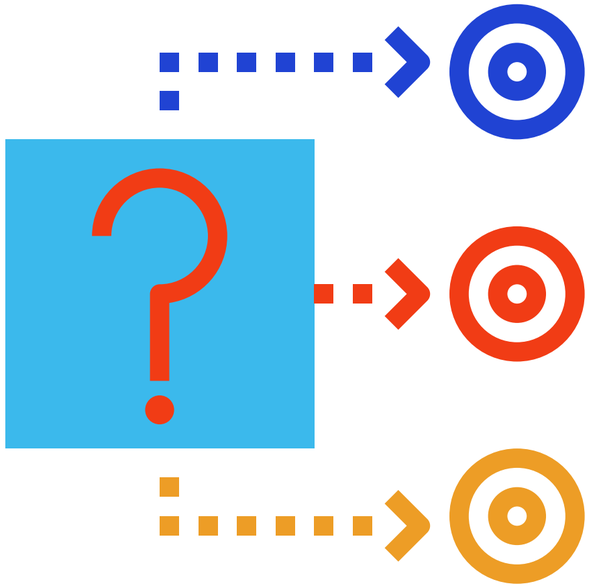
Descriptive: What happend?







- Past events (sales, customer attrition, or success of marketing campaigns)
- Tabulating social metrics
- Reporting of general trends



Why did this happen?

Why did this happen?

Step 1: identify the anomalies.

Step 2: Drill into the data.

Step 3: Determine causal relationships.

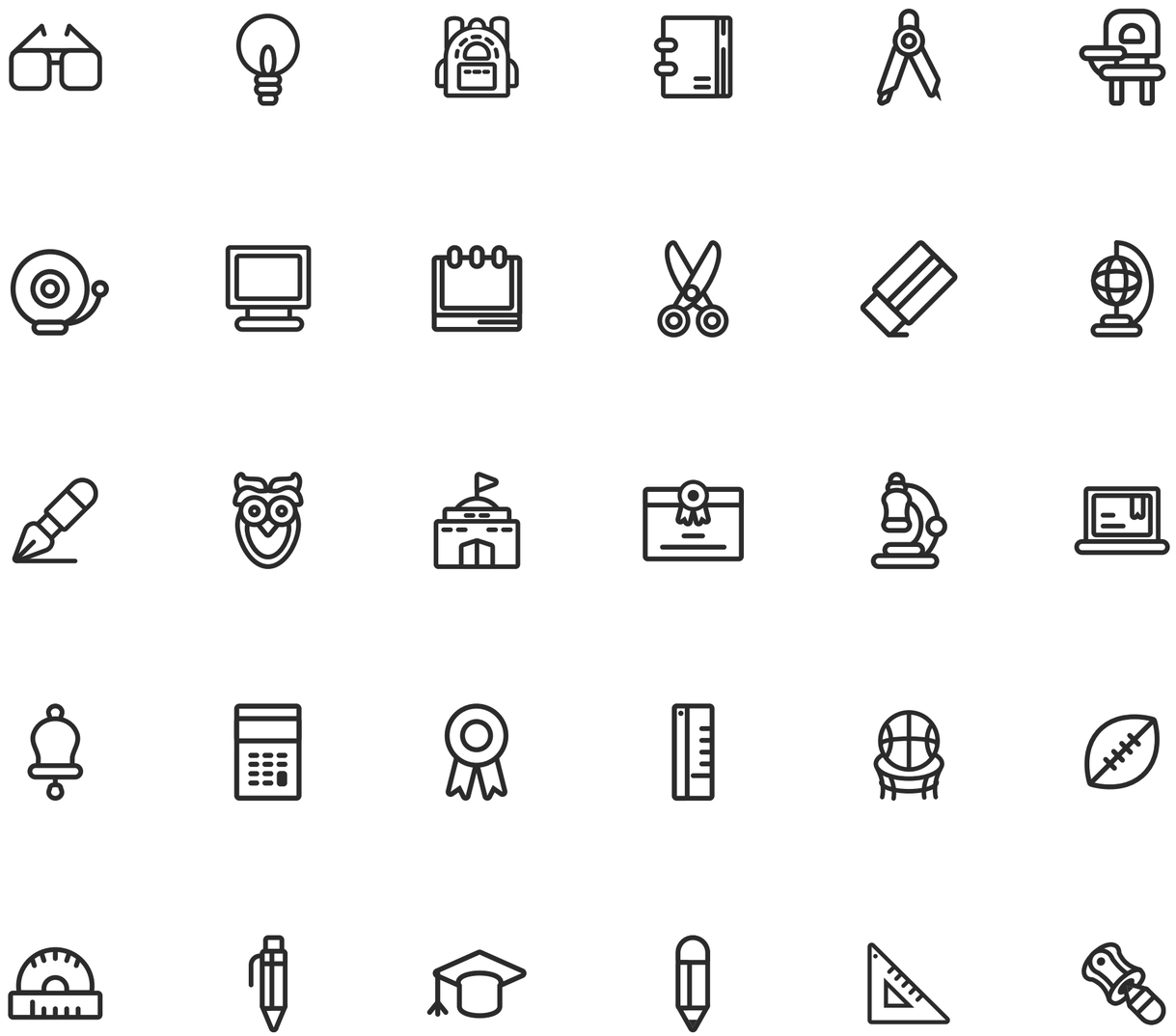
Probability theory, Regression analysis, Filtering, and Time-series data, Data mining, Machine Learning, Statistics

Prediction

- Reducing risk
- Predicting customer behavior
- Ability to set desirable prices
- Prioritizing leads
- Customer targeting and segmentation
- Enhancing marketing campaigns
- Detecting fraud
- Improving operations

Prediction

- White Noise
- Random Walk
- AR
- MA
- ARMA
- ARIMA
- ARCH
- GARCH
- Machine Learning



Prescriptive Analytics

It’s the most complex type, which is why less than 3% of companies are using it in their business.

1. What should be done?
2. What can we do to make _____ happen?
3. Graph analysis (optimalization)
4. Simulation (monte carlo, oracle crystal ball)
5. Neural networks
6. Recommendation engines
7. Machine learning
8. Deep learning