

W1.1 : Intro to Tableau Public

- Tableau is for visualization data.

Before visualization, need to pre-process data.

- Business Intelligence Analyst Role

1. Business Analytics

2. Business Analysis

3. Data Analytics

- interpret data → find meaning → share w/ 股東

- decipher → visualize → analyze

总结: 第一周设计内容

W1.2: Data Visualization for Business Intelligence Analysts

· Data Visualization = Data Viz

· Power of Data Viz

· Careers in Data Viz

· Data Viz and Human Perception

· Datasaurus Dozen

↳ Data + dinosaur

- Anscombe's Quartet: it's comprised of 4 separate tables that have same descriptive statistics but different data viz when the values are plotted.

⇒ statistics CANNOT be used instead of data viz.

· Range of Data Viz Goal.

Explore Explain Exhibit



1. Explore.

- create data viz for better understanding.
- 如果 analysis 没有方向, 要画很多图来找方向.
画图的目的是为了 audience, 而是便于自己理解.

- the exploring 阶段. 各种图都可以画.
只是 rough draft, 所以这个阶段都是 individual use.

2. Explain.

- data viz can help making large, complicated, or abstract insight easier to understand.
- 一般都不自用, 而是和其他 mediums pair 起来 to amplify the strength of the insight.

3. Exhibit

- 到这个阶段, takes on more of an art form, and does not always adopt general data viz best practice.

Data Viz and the Analysis Process

- Steps:

- 1° Explore the data
- 2° Wrangle the data : 把比较杂的数据 type.
- 3° Create data viz
- 4° Produce insights

W2.1 Preprocess the Data Source

- Dirty Data

- raw data is often dirty.
- dirty 可以有多种脏法。

Type	Description	Example
Invalid data	Values that are not possible	Negative values in an <i>Age</i> field
Incorrect data	Values that are possible but not accurate	Outdated information
Inconsistent data	Values that are represented differently	"Monday," "Mon," and "M" in a <i>Day of Week</i> field
Inconsistent data types	Values that are represented using different types of data	The word "eight" and the numeral "8" in an <i>Hours Slept</i> field
Duplicate data	Data that was unintentionally recorded more than once	Multiple votes from the same person
Missing or incomplete data	Values that are either entirely missing or incomplete	"John" found in a <i>Full Name</i> field (missing the last name)

- Data Preparation

- Rename field
- Hide field
- Pivot field (类似于merge多个field)
- Change field data type
- Split field

各种操作。都可以做。

W2.2 Tableau Data Types


Classifying Data in Tableau.


Data Fields in Tableau.


• fields $\begin{cases} \text{discrete} \\ \text{continuous} \end{cases}$

Tableau Data Types


1° String 

2° Date 

3° Date & Time 

4° Numerical 

5° Boolean 

6° Geographical 

Field in 个是操作.

在 Tableau Public 里面就设有 4, 2, 3.