Colecionar
Analizar
Visualizar

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Where do you get data?
Donde puedes conseguir data?

1. Data Libraries - Librarias de data
2. **Web Scraping**
3. Design your own experiment! - disena su propio experimento

1) Data Librarias

http://data.worldbank.org/country/colombia

2) Actividad - Web Scraping

Installacion

1. **Install python**
   a. https://www.python.org/downloads/
   b. 2.7
   c. click download link
2. **Install pip**
   a. https://pip.pypa.io/en/stable/installing/
   b. download get-pip.py
3. **Install jupyter**
   a. `pip3 install jupyter`
4.

2) Actividad - Web Scraping

1. pip install bs4
2. pip install requests
3. pip install pandas
4. pip install numpy
5. pip install matplotlib

3) Disena un experimento!

Survey monkey
Amazon mturk
https://moves-app.com/ (apps that willing participants can install to track themselves)
Questionnaires in person on the street
A/B Testing
Organize a data collection team

3) Disena un experimento!

1) Data management plan
    a) How will you keep it safe?
    b) Will you be sharing?
    c) Organization of the data? Tables? Etc
    d) Collection of data?
    e) Who? What? Why?
2) Obtain Human subject Approval
    a) This is going into IRB approval
3) Design data collection instrument
4) Pilot the instrument
5) Implement

You have data…now what?
Ahora tienes data…y ahora que?

1) Analysis
2) Visualizacion

1) Analysis

a. Quantitative

i.

1) Analysis

a. Quantitative

i. The frequency (rate, duration) of specific behaviors or conditions
ii. Test scores (e.g., scores/levels of knowledge, skill, etc.)
iii. Survey results (e.g., reported behavior, or outcomes to environmental conditions; ratings of satisfaction, stress, etc.)
iv. Numbers or percentages of people with certain characteristics in a population (diagnosed with diabetes, unemployed, Spanish-speaking, under age 14, grade of school completed, etc.)

1) Analysis

a. Quantitative

i. La frecuencia de un condicion particular
ii. Markas de examen
iii. Resultados de una encuesta
iv. Numeros de percentajes de personas con características
v.

1) Analysis

a. Qualitative

i.

1) Analysis

a. Qualitative

i. qualitative information tends to be “soft,” meaning it can’t always be reduced to something definite. That is in some ways a weakness, but it’s also a strength. A number may tell you how well a student did on a test; the look on her face after seeing her grade, however, may tell you even more about the effect of that result on her.

ii. Qualitative data can sometimes be changed into numbers, usually by counting the number of times specific things occur in the course of observations or interviews, or by assigning numbers or ratings to dimensions - subjective

1) Analysis - Actividad

a. Analyze your Facebook Information

i. http://www.wolframalpha.com/input/?i=facebook+report

b. Go to this site - Vaya a este link

c. Make a wolfram user account and connect your facebook to it - Haga una cuenta de Wolfram y conecta su Facebook

d. Look at the data analysis that has taken place - mira lo que pasa!

e. Then, discuss with your group the importance of using it or why it exists.
   i. discuta con un companero la importancia de este arramiento.

f. How did Wolfram organize and analyze your data?
   i. Como Wolfram organiza y analiza su data de Facebook?

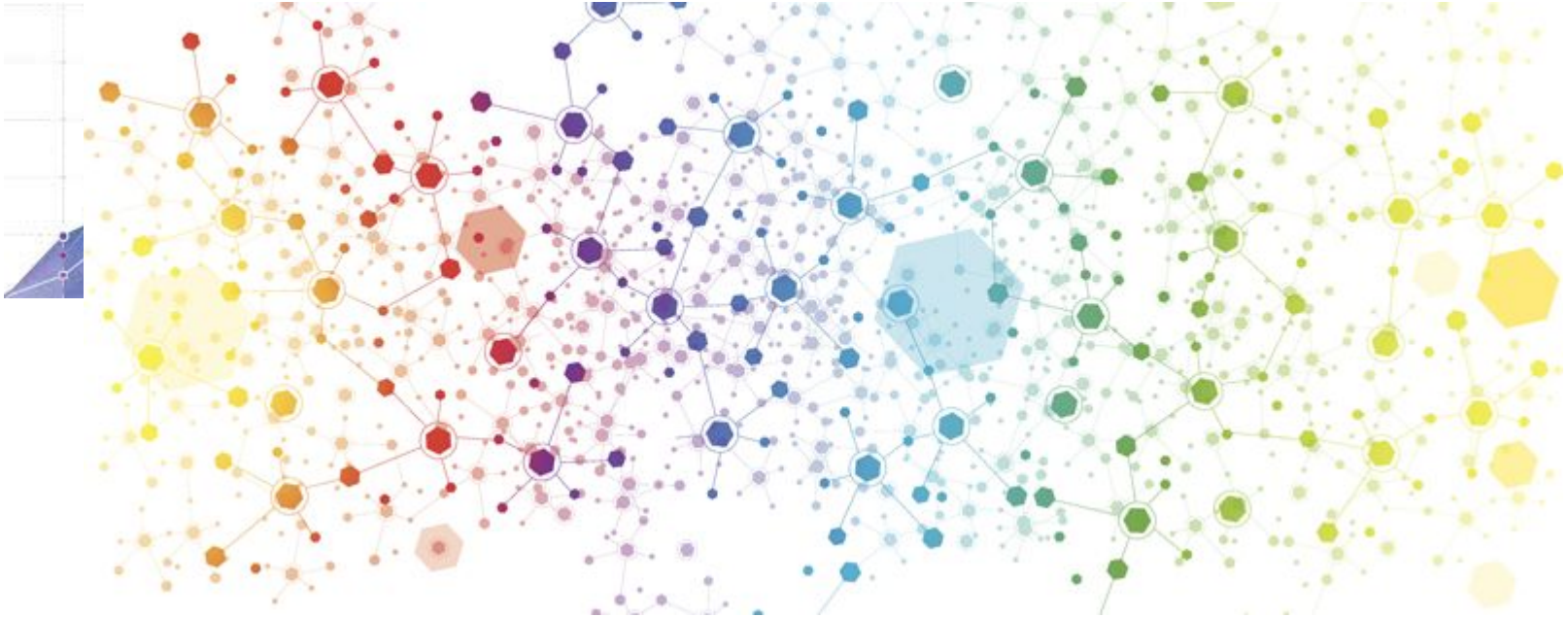
g. What are the implications from its analysis?
   i. Que son las implicaciones de este analysis

h. How is it represented?
   i. Come decide Wolfram visualizar y representat este data?

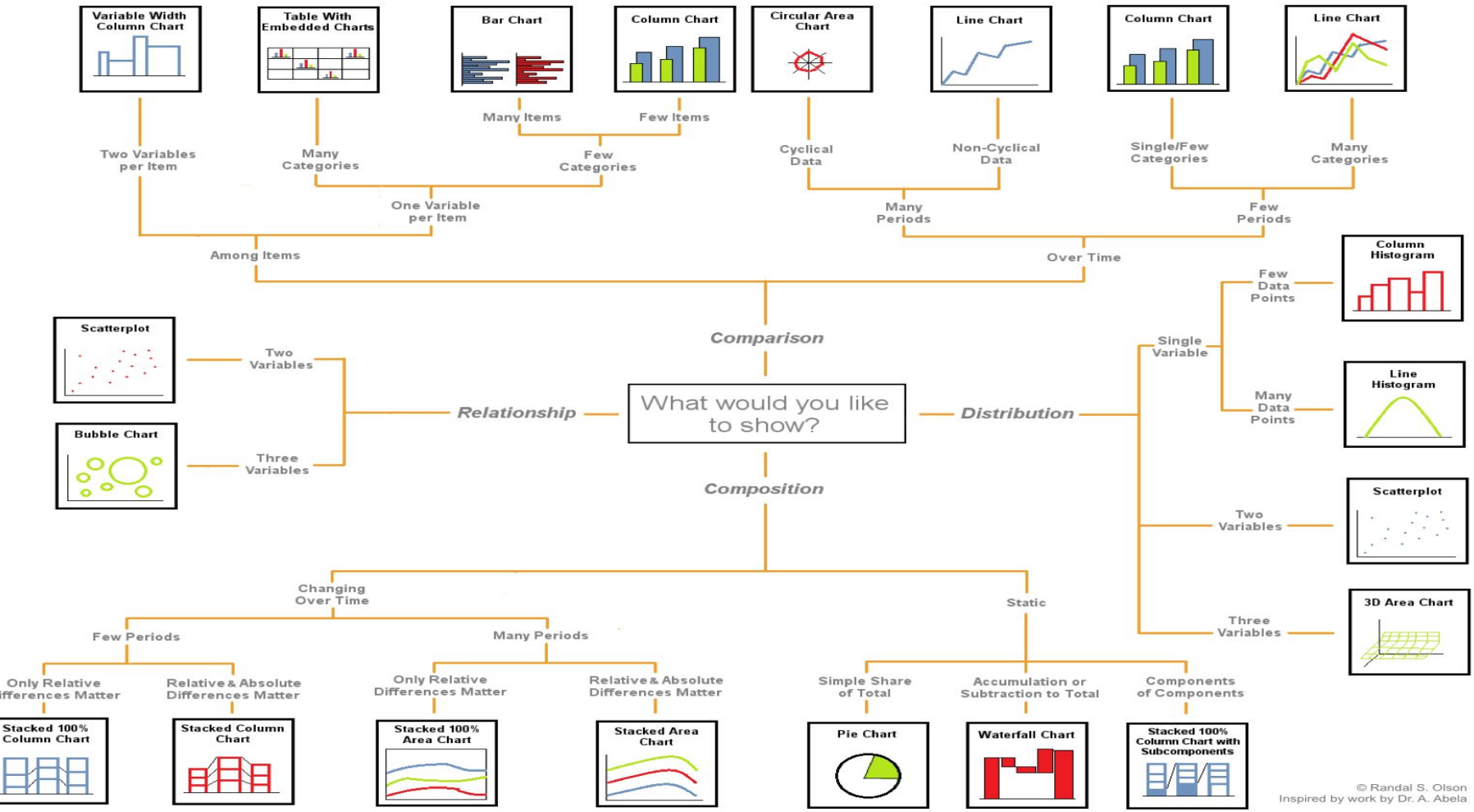
1) Analysis - Actividad

a. http://tylervigen.com/spurious-correlations
b.

Visualizacion - contando una estoria



The chart selector — some basic chart suggestions



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