



Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

A Brief Introduction to Tableau Public

Chico State Data Science Initiative Workshop

Ben Juliano

Meriam Library, Room MLIB 442
2:00–3:00 p.m.

April 17, 2018



Presentation Outline

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

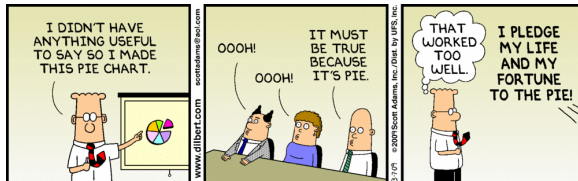
What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

- 1 Motivation
- 2 What is Tableau Public?
- 3 Hands-On Activity
- 4 Next Steps
- 5 Resources





Motivation

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

- **Data visualization** “is viewed by many disciplines as a modern equivalent of visual communication; *it involves the creation and study of the visual representation of data.*”
- **Data visualization** addresses the data analysis and visualization challenges associated with **big data**.
- All major industries, including the government, have to deal with rapidly growing data sets and *how information can be efficiently and correctly extracted, analyzed, and summarized to support informed decision making.*

- From *Wikipedia* at https://en.wikipedia.org/wiki/Data_visualization
and https://en.wikipedia.org/wiki/Big_data



Motivation

Chico State
DSI
Workshop:
Tableau
Public

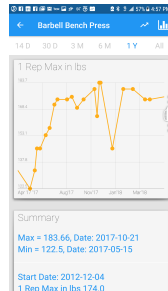
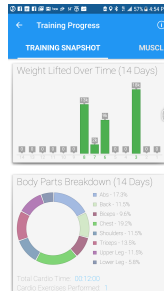
Ben Juliano

You don't have to be a big company to appreciate data visualization!

Modern vehicles



Personal health



Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources



Motivation

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources



Check out some dashboards I have built ...
<https://public.tableau.com/profile/ben.juliano>



The Tableau Product Line

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

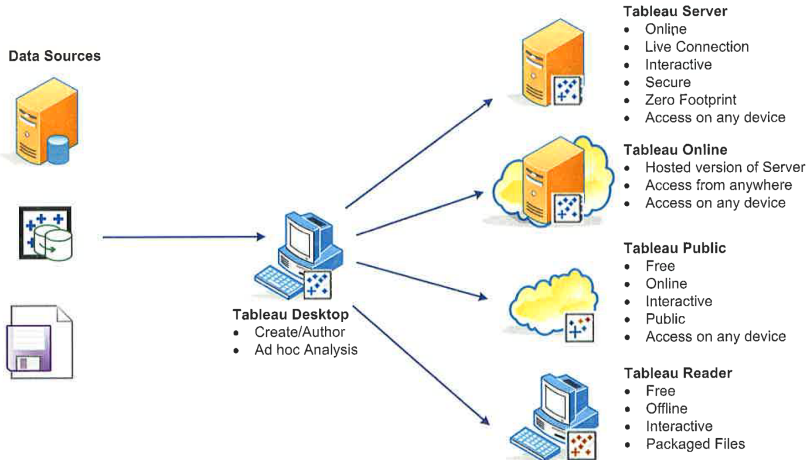
Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources





What is Tableau Public?

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

- **Tableau Public** is a free service that lets anyone publish interactive data visualizations (*a.k.a.* “vizzes”) to the web.
- Vizzes published to **Tableau Public** can be embedded in webpages and blogs, can be shared via social media or email, and can be made available for download to other users.
- Visualizations are created in the accompanying app *Tableau (Desktop) Public Edition* (or another edition of *Tableau Desktop*) — no programming skills are required.



What is Tableau Public?

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

- The **Tableau Public** website features a gallery of some vizzes created by people in the community.
- See <https://public.tableau.com/en-us/s/gallery>

Gallery / Greatest Hits

Stunning data visualization examples from across the web created with Tableau Public.

Viz of the Day

Featured

Select a viz



Voting and Employment in Italy

David Marquardt uses data to identify relationships between employment status and voting patterns in Italy.

March 20, 2018



The Musical Influence of Rachmaninoff

Do you know what songs were influenced by Russian composer Sergei Rachmaninoff? Check out this viz by Emily Chen to find out.

March 24, 2018



The African Water Crisis

Using data from a variety of sources, Alex Patridge creates a visualization highlighting the access to clean water in Africa.

March 22, 2018



Hands-On Activity

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

Are you ready? Let's get setup for our short activity for today ...

- 1 Download the *Tableau Public* app from <https://public.tableau.com/en-us/s/download> and install it on your computer.
- 2 Discuss some terminology and some features of the application.
- 3 Go to the *Tableau Resources* page at <https://public.tableau.com/en-us/s/resources>, click *Sample Data*, and from the *Science* group download the *Magnitude 6+ Earthquakes* dataset.
- 4 Discuss some features of this dataset.
- 5 Create a *Tableau Public* account to save your work.



Hands-On Activity: Application Terminology

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

| Term | MS Excel | Tableau |
|------------------|---------------------------|---|
| <i>Worksheet</i> | tabbed doc in a workbook | tabbed doc in a workbook |
| <i>Workbook</i> | an Excel spreadsheet file | a Tableau (packaged) file |
| <i>Dashboard</i> | N/A | interactive collection of worksheets |
| <i>Story</i> | N/A | interactive collection of worksheets and/or dashboards |



Hands-On Activity: *Magnitude 6+ Earthquakes* dataset

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Features

- 17 columns, 8313 rows
- Data spans 1900 through March 2014
- For each event: date, time, latitude, longitude, depth, magnitude, etc.
 - see *USGS Earthquake Hazards Program spreadsheet format*

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources



Hands-On Activity: *Magnitude 6+ Earthquakes* dataset

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

What sort of questions are there?

- Where do the most prevalent magnitude 6+ earthquakes occur?
- Have the frequency of magnitude 6+ earthquakes been increasing? If so, in what area(s)?
- Does the data provide us with sufficient information to predict where the next “big” earthquake may occur?



Hands-On Activity: Application Terminology

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

The screenshot shows the Tableau Public interface with the following labels:

- Workbook name:** Tableau Public Exercise
- Go to Start Page:** The Home icon in the top-left corner of the toolbar.
- View cards:** The 'Columns' and 'Rows' shelves, each containing a green pill labeled 'AVG(Longitude)' and 'AVG(Latitude)' respectively.
- Go to Data Source:** The 'Data' tab in the left-hand pane.
- New Worksheet/Dashboard/Story tab:** The icons at the bottom of the left-hand pane for creating new content.

The main view displays a map of the world with red circles of varying sizes representing earthquake magnitudes. The right-hand pane shows a 'Date' filter (1/5/1900 to 3/17/2014), an 'AVG(Mag)' color scale (6.000 to 8.000), and a 'CNT(Number of Recor...)' legend (1, 100, 200, 349).



Hands-On Activity: Application Terminology

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

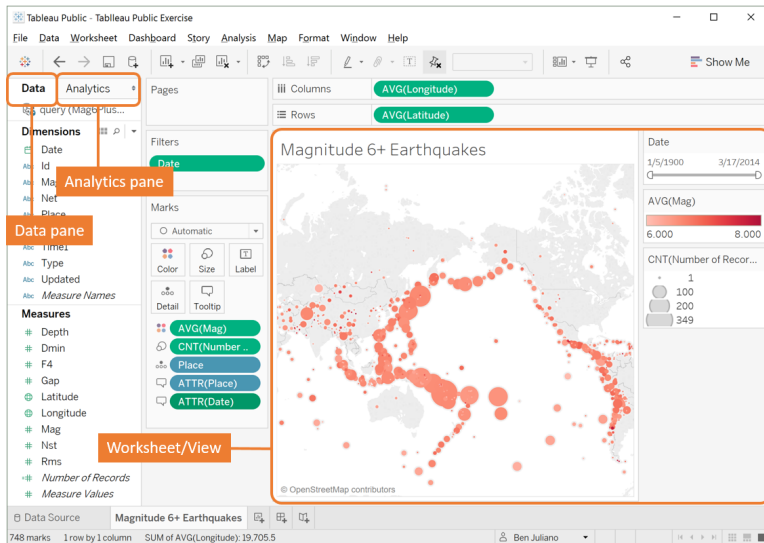
Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources





Next Steps

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

Recommendations to go further with this ...

- Learn more about Tableau Public
 - How-to Videos
 - Sample Data
 - Live Training
 - *Super Data Science @ YouTube*
 - *Tableau 10 Essential Training @ Lynda.com*
- Learn more about our *Data Science certificate*



Resources

Chico State
DSI
Workshop:
Tableau
Public

Ben Juliano

Motivation

What is
Tableau
Public?

Hands-On
Activity

Next Steps

Resources

- 1 Ben Juliano's *Tableau Public* site, <https://public.tableau.com/profile/ben.juliano>
- 2 Chico State *Data Science Initiative* website, <https://datascience.csuchico.edu>
- 3 *Tableau Public Frequently Asked Questions* site, <https://community.tableau.com/docs/DOC-9135>
- 4 *Tableau Public* download site, <https://public.tableau.com/en-us/s/download>
- 5 *Tableau Public Gallery* site, <https://public.tableau.com/en-us/s/gallery>
- 6 *Tableau Public* Resources site, <https://public.tableau.com/en-us/s/resources>