DATA NARRATIVES

LEARNING OBJECTIVES

‣ Present the most salient statistics in order to provide context to your audience.

‣ Provide real-world context for the basis of analysis.

‣ Appropriately describe analysis techniques.

‣ Describe stakeholder implications and insights.

‣ Deliver short, effective presentations.

OPENING

DATA NARRATIVES

INTRODUCTION: OVERVIEW OF PRESENTATION STRATEGIES

STORY MAP

This is a Story Map for diagramming any story, including a data story. Consider each component in the context of one of your presentations:

‣ Setting, time, place:

   ‣Where does your data story take place?
   (Where was the data collected?)

   ‣When does your data story take place?
   (When was the data collected?)

STORY MAP

SETTING:	TIME:	PLACE:

CHARACTERS:

PROBLEM:

PLOT/EVENTS:

RESOLUTION:

STORY MAP

‣ Characters:

   ‣Who (or what) is your data about? Who (or what) does it describe?

   ‣Who is the presentation for? Who is the audience you are trying to convince?

STORY MAP

SETTING:	TIME:	PLACE:

CHARACTERS:

PROBLEM:

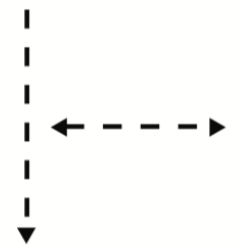| PLOT/EVENTS: |
|---|
| |

RESOLUTION:

STORY MAP

- Problem:
  - What is our motivating question or situation?
  - In the Analytics Workflow, this is "Identify the Problem."

STORY MAP

SETTING:	TIME:	PLACE:

CHARACTERS:

PROBLEM:

PLOT/EVENTS:

RESOLUTION:

STORY MAP

‣ Plot/Events:

    ‣How did you collect the data?

    ‣How did you modify/clean the data?

    ‣What type of analysis did you do?

    ‣What are the findings of your research/analysis?

STORY MAP

SETTING:	TIME:	PLACE:

CHARACTERS:

PROBLEM:
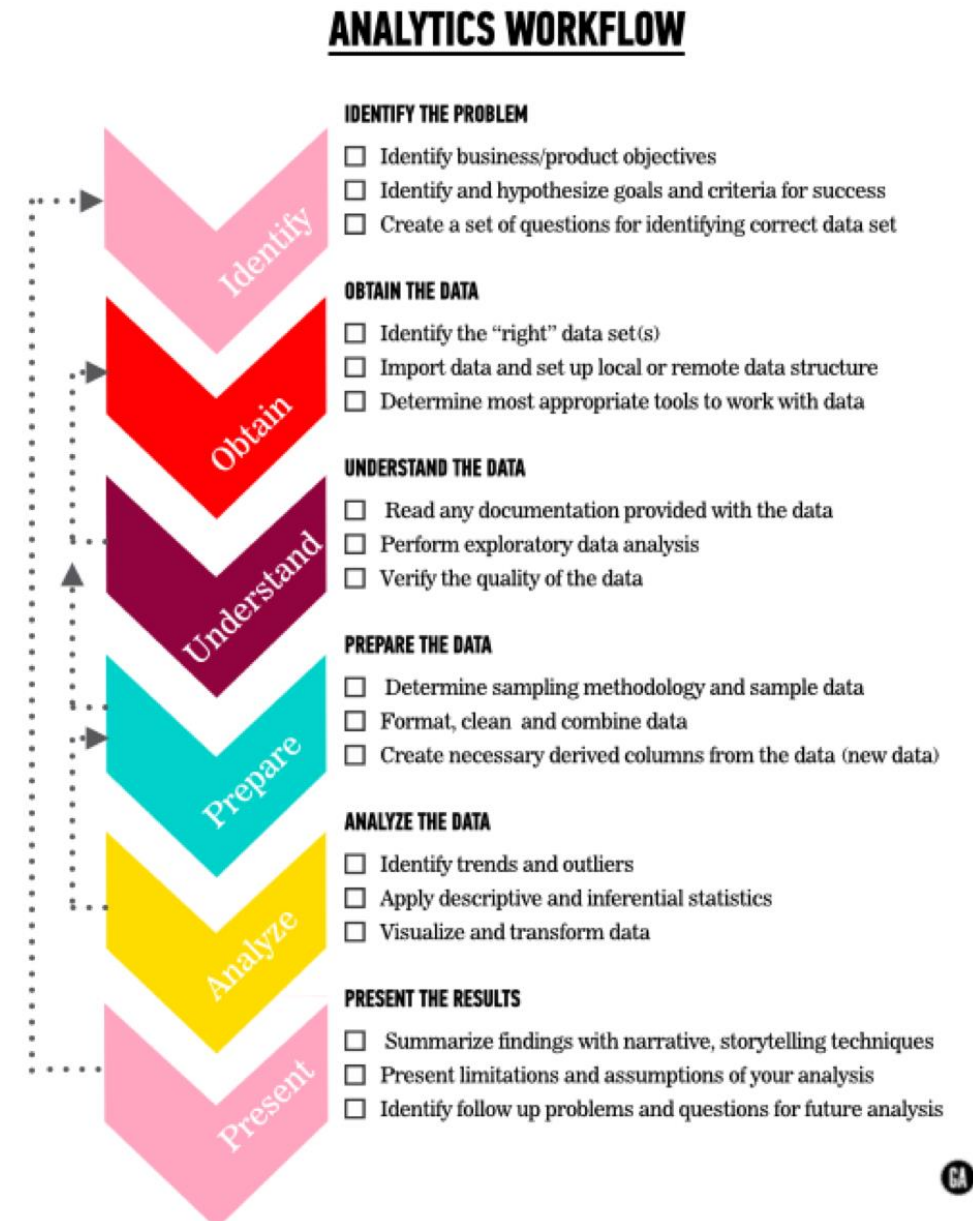
PLOT/EVENTS:

RESOLUTION:

STORY MAP

‣ Plot/Events:

  ‣ These are the majority of the Analytics Workflow steps.

ANALYTICS WORKFLOW

IDENTIFY THE PROBLEM
☐ Identify business/product objectives
☐ Identify and hypothesize goals and criteria for success
☐ Create a set of questions for identifying correct data set

OBTAIN THE DATA
☐ Identify the "right" data set(s)
☐ Import data and set up local or remote data structure
☐ Determine most appropriate tools to work with data

UNDERSTAND THE DATA
☐ Read any documentation provided with the data
☐ Perform exploratory data analysis
☐ Verify the quality of the data

PREPARE THE DATA
☐ Determine sampling methodology and sample data
☐ Format, clean and combine data
☐ Create necessary derived columns from the data (new data)

ANALYZE THE DATA
☐ Identify trends and outliers
☐ Apply descriptive and inferential statistics
☐ Visualize and transform data

PRESENT THE RESULTS
☐ Summarize findings with narrative, storytelling techniques
☐ Present limitations and assumptions of your analysis
☐ Identify follow up problems and questions for future analysis

Identify
Obtain
Understand
Prepare
Analyze
Present

STORY MAP

‣ Resolution

　‣What are your conclusions?

　‣What are your recommendations for next
　　steps, based on your findings?

STORY MAP

SETTING:	TIME:	PLACE:

CHARACTERS:

PROBLEM:

PLOT/EVENTS:
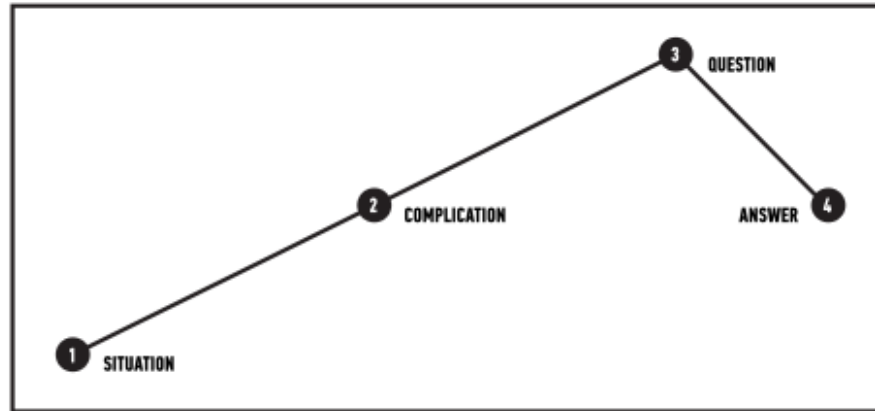
RESOLUTION:

STORY MAP

Our presentations are stories, and we should think of them that way when planning how we present data. Doing so will provide a framework that our audiences will generally be accustomed to, and will help prevent us from missing important details in our presentations.

With our presentations as stories, consider the traditional and nonlinear narratives and how they apply to our presentations:

TRADITIONAL NARRATIVE

The traditional narrative arc is a linear story, consisting of four elements:

| Situation	Complication	Question	Answer
Explains where we are now.	Creates tension in the story you're telling; triggers the Question you will ask.	Asks what we should do now given the Complication.	The Answer to the Question is the substance of your presentation.

‣ As you can see, this pattern maps pretty closely to our Story Map:

‣Situation to setting

‣Complication to problem

‣Answer to resolution

NONLINEAR NARRATIVE

The "What is vs. What could be" is a non-linear story, consisting of three elements:

What Is	What Could Be	Reward
The current undesirable situation.	A utopian future where the original problem of "what is" no longer exists.	The future situation that could exist if we all believe in it. This is your call to action.
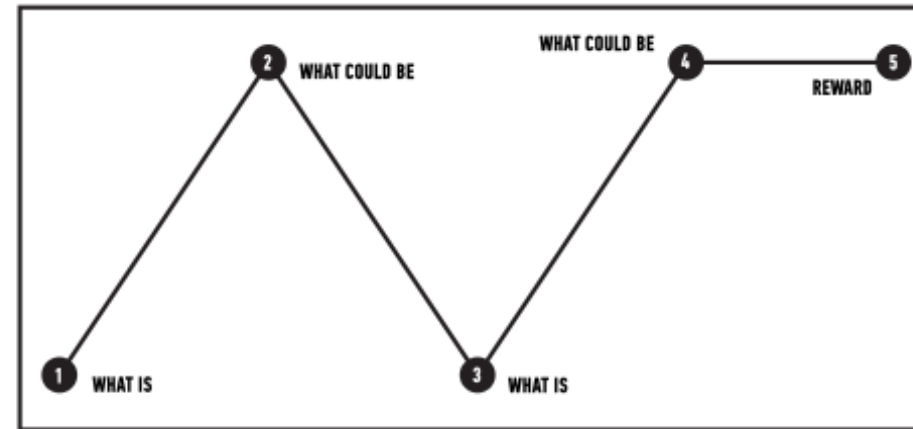
‣ Here your findings identify "What Is."

‣ Your motivation, and your selling point to your audience, is "What Could Be."

‣ Your next steps will allow the "What Could Be" to become a reality, leading to this "Reward."

PRESENTATION CANVAS

To make sure your presentations are most productive and effective. It is important to consider how you are framing the *story* of your analysis. In addition to having a proper story, your presentation should meet both your needs and your audience's needs.

Consider the following Presentation Canvas.

PRESENTATION CANVAS

PRESENTATION OBJECTIVES		PRESENTATION CONTENT
What does your presentation need to accomplish?		How will your presentation fit both needs?
AUDIENCE SEGMENTS What describes your audience & their enrollment?	**AUDIENCE OBJECTIVES** What does your audience need from your presentation?	

▸ Filling out this presentation canvas can ensure you have achieved your goal, which should always be to convey what you think is important while also meeting the needs and expectations of your audience.

INDEPENDENT PRACTICE: STORYTELLING WITH DATA

INDEPENDENT PRACTICE: MINI-PRESENTATIONS

‣ Your work as an analyst has been noticed. You have been asked to join the Governor's re-election effort!

‣ For a re-election campaign, the Governor wants to tell a story of the "Tale of Two States" (the Governor got this idea from [New York City Mayor Bill de Blasio's campaign](#)). She has asked you to brief the rest of the staff on the differences between the eastern and western portions of Washington.

INDEPENDENT PRACTICE: MINI-PRESENTATIONS

‣ Open L4_reelection_activity.xlsx. See table "East vs. West," which already has some of the ACS data broken down by east vs. west. Also, notice that there is a new variable in the data, "region," that separates out counties by geographic location within the state.

‣ This is a rough document that has results but not enough story. It is up to the students to use what we have discussed thus far to create a proper story, and then present it to the class as a mini-presentation.

INDEPENDENT PRACTICE: MINI-PRESENTATIONS

General prompts can include:

‣ Do you agree with the Governor that there are two Washingtons?

   ‣What are the characteristics of the two Washingtons? (or)

   ‣Why do you disagree?

‣ What strategies might the Governor want to employ to address your findings and better her chances for reelection?

ACTIVITY: CREATE MINI-PRESENTATIONS

EXERCISE

DIRECTIONS

1. Read this story regarding De Blasio's campaign in NYC: http://observer.com/2013/01/bill-de-blasio-tells-a-tale-of-two-cities-at-his-mayoral-campaign-kickoff/
2. Study the data, making changes if necessary.
3. Consider the story frameworks above. They should fill out the Story Map and the Presentation Canvas to help them develop ideas for the mini-presentation.

DELIVERABLE

Mini-presentation of 2-4 slides, Story Map, and Presentation Canvas

ACTIVITY: MINI-PRESENTATIONS

EXERCISE

DIRECTIONS

1. Each student will present their mini-presentations from the Independent Practice.
2. After each presentation, there will be a Q&A.

DELIVERABLE

Your mini-presentation

FEEDBACK: STUDENT PRESENTATIONS

What went well with the presentations? What did not?

‣ Were the presentations communicated as stories?

‣ What were the common settings, problems, characters, events, and resolutions?

‣ How did the Q&A go?

CREATE STORY MAP AND PRESENTATION CANVAS

EXERCISE

DIRECTIONS

Individually, take 5 minutes to sketch out a story using the Story Map, and an additional 5 minutes to consider the parts of the presentation canvas in light of your work so far on your final project.

With 10 minutes remaining in the activity, in groups of 2-3, share your Story Map with others and provide feedback to your peers.

Consider these questions when review your classmates' stories:
- Is the story compelling? Does it follow a traditional or non-linear story structure?
- Is the story supported by data?
- Is the story appropriate for the audience at tomorrow's presentation?

DEMO: CONTROLLING Q&A

CONTROLLING Q&A

‣ Limit the time:

  ‣ Before your presentation, indicate that you'll reserve 5-10 minutes (or whatever's appropriate in your situation) for Q&A.

‣ If you're taking questions during your presentation, experiment with using *leading questions*:

  ‣ These will steer answers to what can be answered with your data.

    ‣ "Which census tract should I pull up here?" (leading) vs. "What data are you interested in?" (open)

CONTROLLING Q&A

‣ Consider some of the most common questions, and have answers ready:
  ‣ "What was the most surprising finding you had?"
  ‣ "What other variables would you like to have had for your analysis?"
  ‣ "What are the next steps / what would you suggest for future analysts?"

CONTROLLING Q&A

‣ Feedback on the Q&A process of our mini-presentations:

  ‣What went well?

  ‣What could have gone better?

DATA NARRATIVES

CONCLUSION

CONCLUSION

‣ Let's recap what we've covered:

    ‣Present your data findings with a storytelling mindset.

    ‣Make sure you meet your needs, as well as your audience's needs.

DATA NARRATIVES
EXIT TICKET

DON'T FORGET TO FILL OUT YOUR EXIT TICKET