



DATA

STORYTELLING

WORKSHEET DAY 2

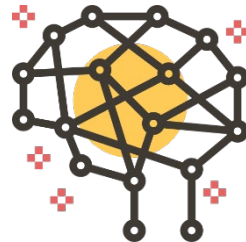
The Power Of Story



Grabs your attention and takes you on a journey

Stimulates our senses

- Physiologically
- Emotionally
- Intellectually



YOU REMEMBER IT

DAYS...

MONTHS...

YEARS...

Notes:

ACTIVITY 1

Recall: Cinderella

Plot

Twists

Ending

Data vs Story

Data is 1)
 2)
 3)

Story is 1)
 2)
 3)

Exercise:

State if you agree or disagree with the following statement:

“A good story is always way more persuasive than facts and figures. Thus, data brings no value-add to a presentation.”

Notes:

9 Data Storytelling Concepts

01 D

02 A

03 T

04 A

05 S

06 T

07 O

08 R

09 Y

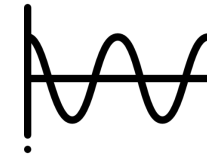
Three Pillars Of Data Storytelling



DATA



VISUALS



NARRATIVE

Sources of Data:

Sources of Visuals:

Sources of Narrative:

You make a compelling presentation with **ALL** these pillars

Notes:

ACTIVITY 2

Complementary Effects of Data Storytelling Elements

Relationship 1: DATA - VISUALS

Relationship 2: VISUALS - NARRATIVE

Relationship 3: NARRATIVE - DATA

ACTIVITY 3

Explore & Analyze

Objective: Describe some points of interest from the provided set of data

1)

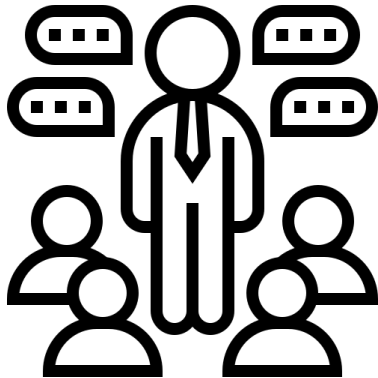
2)

3)

4)

Question: Describe how you approached the exploration and analysis

Know Your Audience



Target Audience (Who are they?)

- Use familiar language
- Show your homework
- Get to the point

Value Levers (What do they value?)

E.g., Brand Loyalty, Market Share, Customer Satisfaction

Doubts or Fears (What worries them?)

E.g., Job Insecurity, Overwhelming Workload

Notes:

Know Your Audience

ETHOS

(Credibility)



to convince an audience of the author's credibility or character

PATHOS

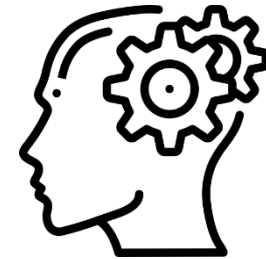
(Emotion)



to persuade an audience by appealing to their emotions

LOGOS

(Logic)



to convince an audience by use of logic or reason

You must employ three types of argument to persuade

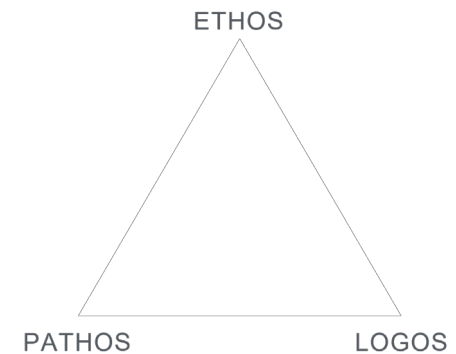
Notes (How to apply any of these types):

ACTIVITY 4

Audience Focusing

Assume that you will be sharing your findings with the head of satisfaction, Tom. When you previously gave a presentation to Tom, he interrupted your presentation multiple times asking you to “cut to the chase”. He also commented that the graphs in the presentation has too little information and questioned the validity of the data. Describe how you would plan for the upcoming sharing.

Show how you would structure your presentation to best fit your audience?



Exploratory

PROS

- ✓ Reader has agency of interpretation
- ✓ Ability to answer own questions
- ✓ Transparency: understand the source of the interpretation, potential to recognize bias
- ✓ Can provide awareness of the complexity of a subject

CONS

- ✓ Requires a level of visualization and data literacy
- ✓ May require knowledge of the topic
- ✓ Requires self-motivation to learn about the topic and data
- ✓ Possibility of getting lost
- ✓ Requires time, attention, and cognitive investment from the reader
- ✓ An exploratory visualization tailored to a specific data set requires significant design investment

Explanatory

PROS

- ✓ Message and points of interest area provided by the author
- ✓ Facilitates navigating through the data
- ✓ Author does the work to engage the reader
- ✓ May inspire interest in unfamiliar topics

CONS

- ✓ Readers may disagree with the perspective communicated
- ✓ Reliant on trust in the author's perspective
- ✓ Limited freedom to experience the story in one's own way
- ✓ Potential omission of data that is personally important to the reader

Notes:

The Action Statement

BEFORE

Make transferring funds simpler for customers with our mobile app

Increase the variety of items for our breakfast menu

Introduce Robotic Process Automation to reduce time to generate monthly reports

AFTER

.....

.....

.....

.....

.....

.....

.....

.....

Notes:

Use the Strongest Verb Possible

CHANGE	NO CHANGE	FINISH
Accelerate	Maintain	Complete
Disrupt	Persevere	Conclude
Challenge	Retain	Discontinue
Leverage	Endure	Resolve
Integrate	Uphold	Fulfill
Optimize	Prolong	Settle
Penetrate	Sustain	End
Outperform	Continue	Attain

Notes:

ACTIVITY 5

Articulate the Stakes

What action does the data say needs to be taken?

What are the benefits if the audience adopts your recommendation?

What are the risks if the audience does not adopt your recommendation?

Articulate the Stakes

Write a complete and single sentence that:

- (i) Expresses what needs to be done
- (ii) Describes what is at stake

Three-Act Structure

BEGINNING

MIDDLE

END

Beginning

- Build the context
- Introduce the problem or opportunity

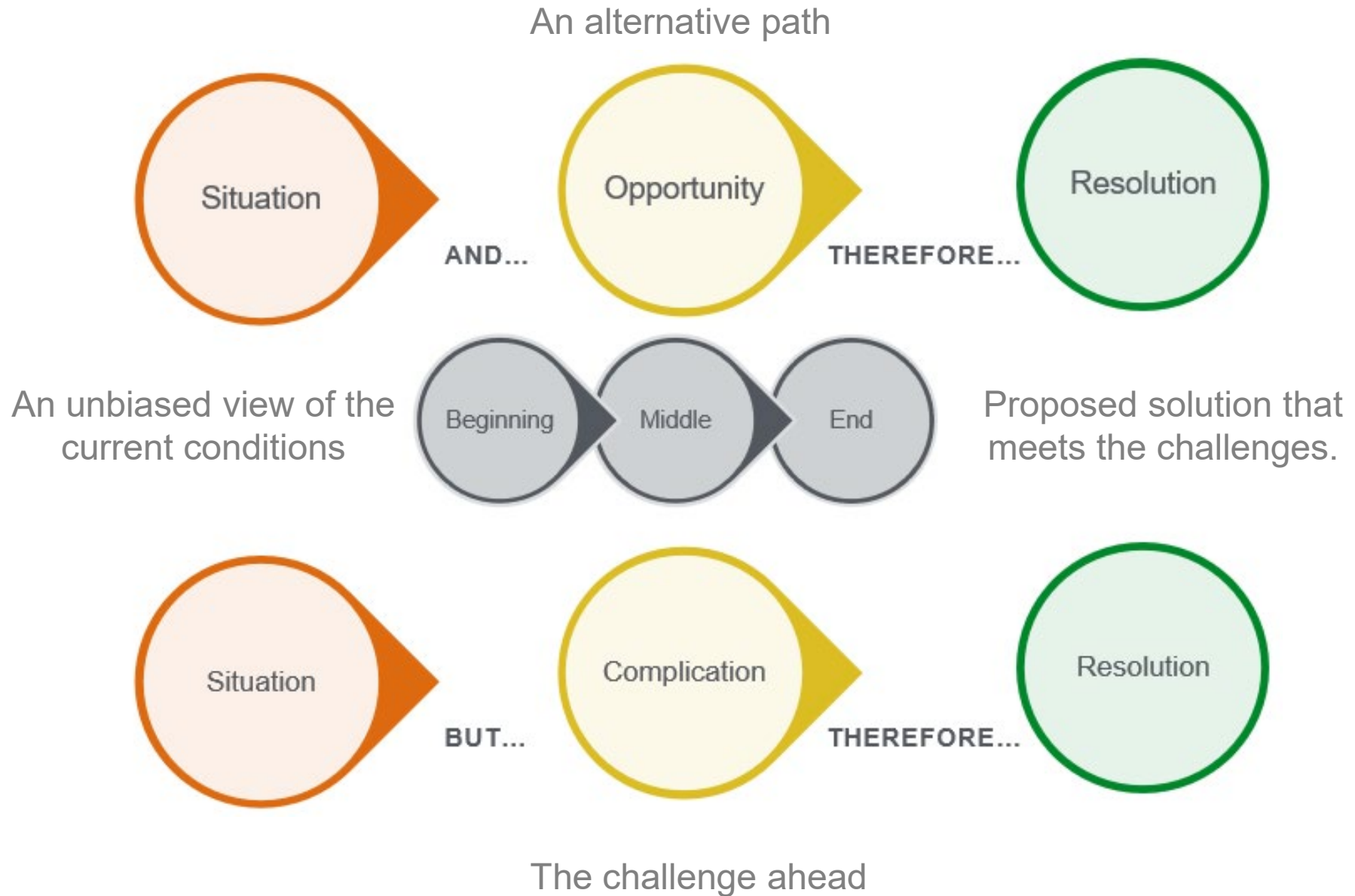
Middle

- Give examples that illustrate the situation
- Include data that demonstrates the problem
- Articulate what will happen if no action is taken or no change is made
- Discuss potential options for addressing the problem
- Illustrate the benefits of your recommended solution

End

- Make it clear to your audience why they are in a unique position to make a decision or drive action
- End with a call to action
- Tie it back to the beginning

Three-Act Structure



Beginning-Middle-End

Fill in how you would structure your narrative in the following stages:

(i) Beginning / Situation

Beginning-Middle-End

Fill in how you would structure your narrative in the following stages:

(ii) Middle / Opportunity / Complication

Beginning-Middle-End

Fill in how you would structure your narrative in the following stages:

(iii) End / Resolution

Contrast

CONTENT		EMOTION
ALTERNATIVE POINT OF VIEW	YOUR POINT OF VIEW	BIOGRAPHICAL STORIES
PAST OR PRESENT	FUTURE	METAPHORS
PROBLEM	SOLUTION	SHOCKING STATEMENTS
IMPOSSIBLE	POSSIBLE	INVITATIONS TO MARVEL
ORDINARY	SPECIAL	HUMOR
QUESTION	ANSWER	

Contrast

Identify the contrasts in the following sentences:

“We have been discussing about tackling climate change for the past 30 years. The reality? We have not only done little to make our world a better place, we have instead accelerated global warming.

Temperatures have increased 0.6°C in the last three decades causing sea levels to rise 30cm per year. At this rate, East Coast Park will be submerged in less than a decade.

If global warming remains unchecked, the place we call Singapore will be nothing but seawater in the future.

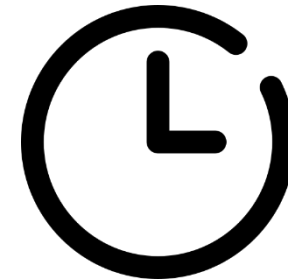
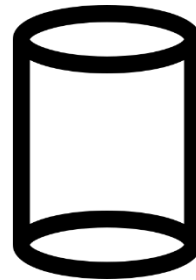
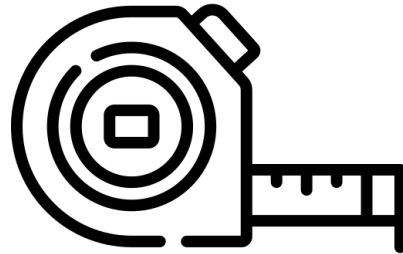
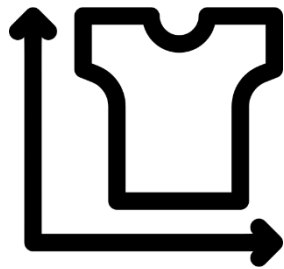
What I do wouldn't matter, we hear this all the time, but imagine the possibilities if we work together as one.

This is no time to squabble about the mistakes we have made in the past. Now is the time to secure our future. Now is the time for us to show the world that we can be the first carbon-neutral society.”

List out the types of contrasts found in the passage above.

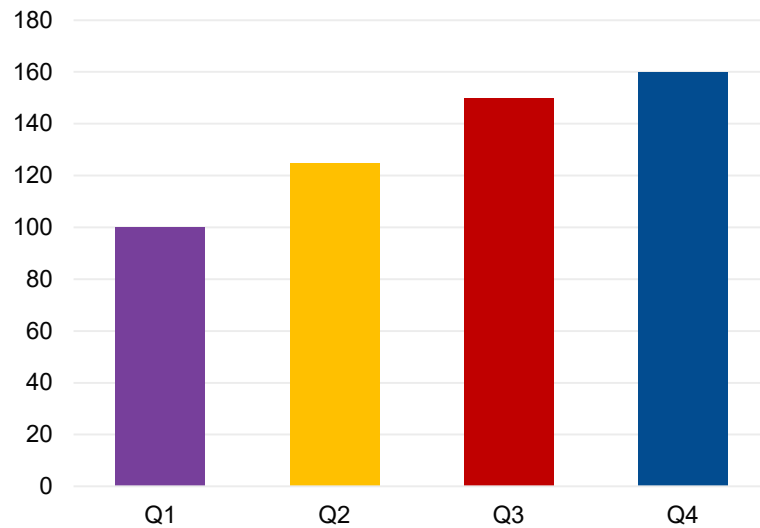
Relate to Size & Time

Humans sometimes struggle to understand the magnitude of data



Notes:

Adjectives to Describe Differences



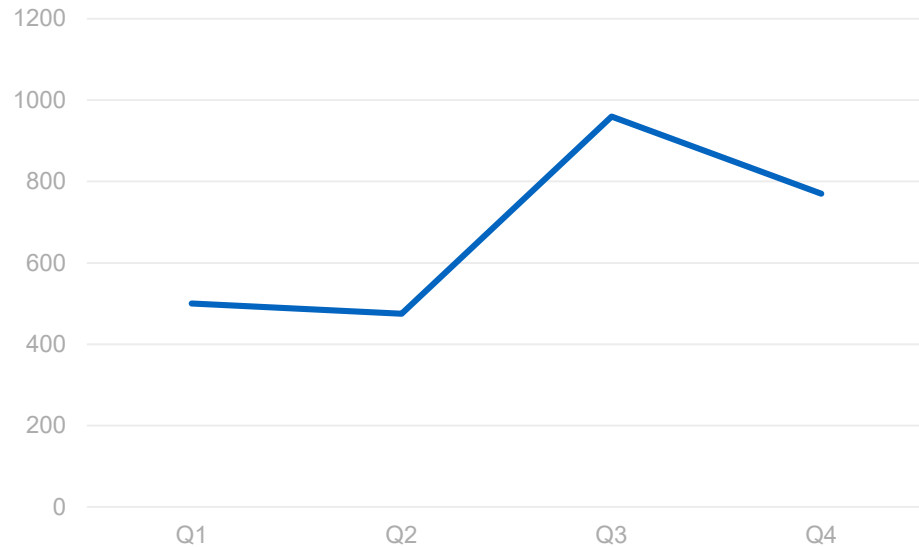
Grew
Greater
Higher
Stronger
More than

Shrank
Fewer
Lower
Weaker
Less than

Notes:

Q: What about proportion?

Verbs to Describe Change over Time

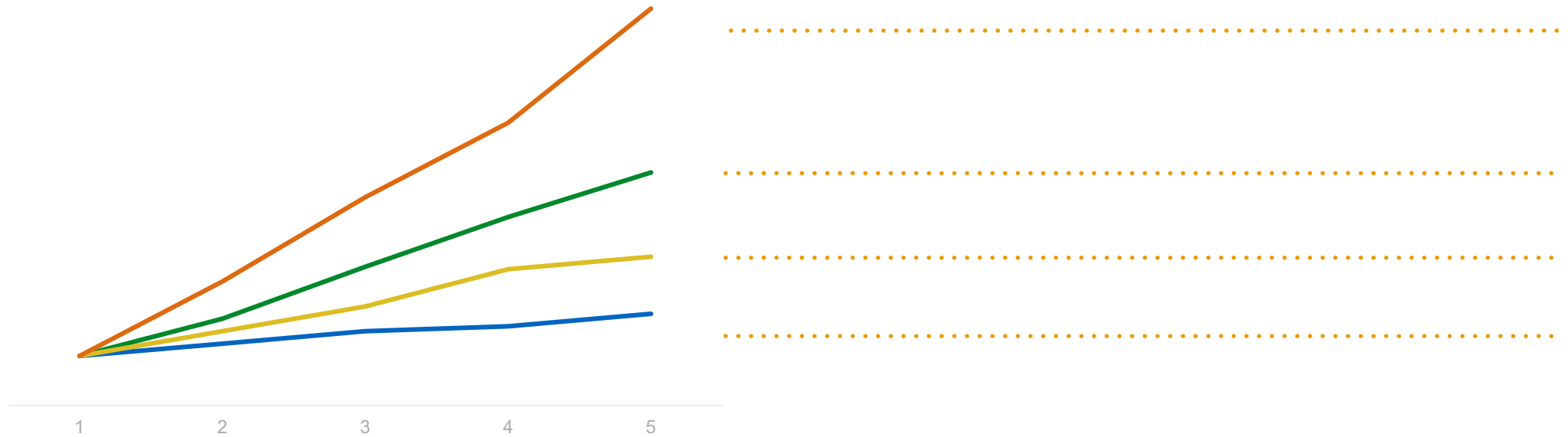


Surge
Increase
Peak
Accelerate
Climb

Plummet
Decrease
Decline
Decelerate
Steady

Notes:

Adverbs to Describe Change over Time



Notes:

Organizing Tips

ADOPT PATTERNS FOR FLOW

- Reveal
- Repetition

LEVERAGE ON ANIMATIONS

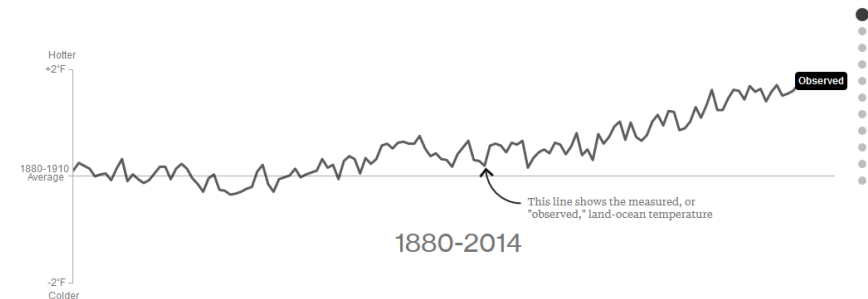
REDUCE COGNITIVE BURDEN

Notes:

What's Really Warming the World?

By Eric Roston 🐦 and Blacki Miglozzi 🐦 | June 24, 2015

Skeptics of manmade climate change offer various natural causes to explain why the Earth has warmed 1.4 degrees Fahrenheit since 1880. But can these account for the planet's rising temperature? Scroll down to see how much different factors, both natural and industrial, contribute to global warming, based on findings from NASA's Goddard Institute for Space Studies.



Time to Deliver

Objective:

Based on your response from the earlier activities, prepare a deck of slides, with narration as notes, to simulate a presentation.

You will be asked to present to the class.

Possible Issues with Data Use

MAKING UP DATA

- Don't falsify or manipulate data

MISREPRESENTING DATA

- Don't lie, mislead, or abuse



At times, violations can happen unintentionally. BE CAREFUL.

Notes:

Be Yourself

ADAPT BEST PRACTICES FOR YOUR PURPOSE

- Every scenario is different!

BE CONFIDENT WITH YOUR DELIVERY

- You have done your homework

Notes: