



DATA STORYTELLING

MODULE 1.2

DATA STORYTELLING FRAMEWORK

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Module outline

- Identify the basic components and key ingredients of story telling with data
- Understand the underlying concepts of data visualisation in storytelling
- Carry out a hands on workshop



Key Ingredients of a good Data Story



- ✓ **Data**
- ✓ **Narrative**
- ✓ **Visual**



Data+Visual+Narrative = Change



Your audience need a structure to process information. In order to follow a story, either written or spoken, people need to understand how all the bits of information relate to one another.

- Situation-Complication-Resolution (SCR) Framework by McKinsey
 - Situation-Problem-Solution-Next Steps (SPSN) Framework by (EY)
 - Freytag's Pyramid by Gustav Freytag
- ... plus numerous other adaptations



McKinsey's Situation-Complication-Resolution (SCR) Framework

- **Situation**
The framing of the important, recent context the audience already knows and accepts as fact.
- **Complication**
The reason the situation requires action.
- **Resolution**
The action required to solve a problem (or capture an opportunity).



Just 4 slides are needed to persuade your audience about your idea:

- **Situation:** To start, describe the current state to your audience. What is the status quo you're trying to change?
- **Problem:** Next, picture the problem. What's the issue with the situation? Wherein lies the pain you're trying to solve?
- **Solution:** Present the solution. How do you solve the problem? How do you cure the pain?
- **Next Steps:** You convinced the audience. What are the next steps you need to take? Which actions need to be taken?

The authors recommend combining SPSN with SUCCESS



SUCCESS Framework

Simple: Keep it simple. Data Scientists often fall in love with technical details. Really focus on the most important message you're trying to bring across.

Unexpected: Use the element of surprise to get the attention of the audience. Break expected patterns.

Concrete: Use concrete examples. Help your listeners or readers picture the situation that you're trying to solve.

Credible: Get credible resources to back up your claim. Use data, or external validation, to give your story credibility.

Emotional: Remember that not your numbers will make people care, but your people stories will make them care. We want to help people, not just reduce costs or improve efficiency. Appeal to the five emotions of fear, happiness, surprise, sadness, and love/hate.

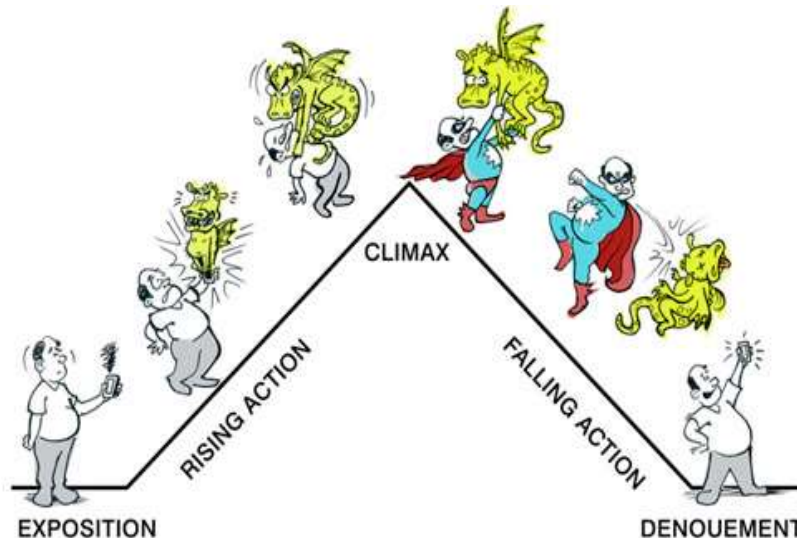
Stories: Every story has a hero, an obstacle to be overcome and a happy ending. Try to make a story out of your point to help it stick.



Freytag's Pyramid

Freytag Narrative Structure for Storytelling

- Exposition – introduce character & setting
- Rising Action – sometimes referred to as a conflict (hero & villain)
- Climax – high point of story
- Falling Action – turning point of story
- Resolution – the close of the story (denouement)

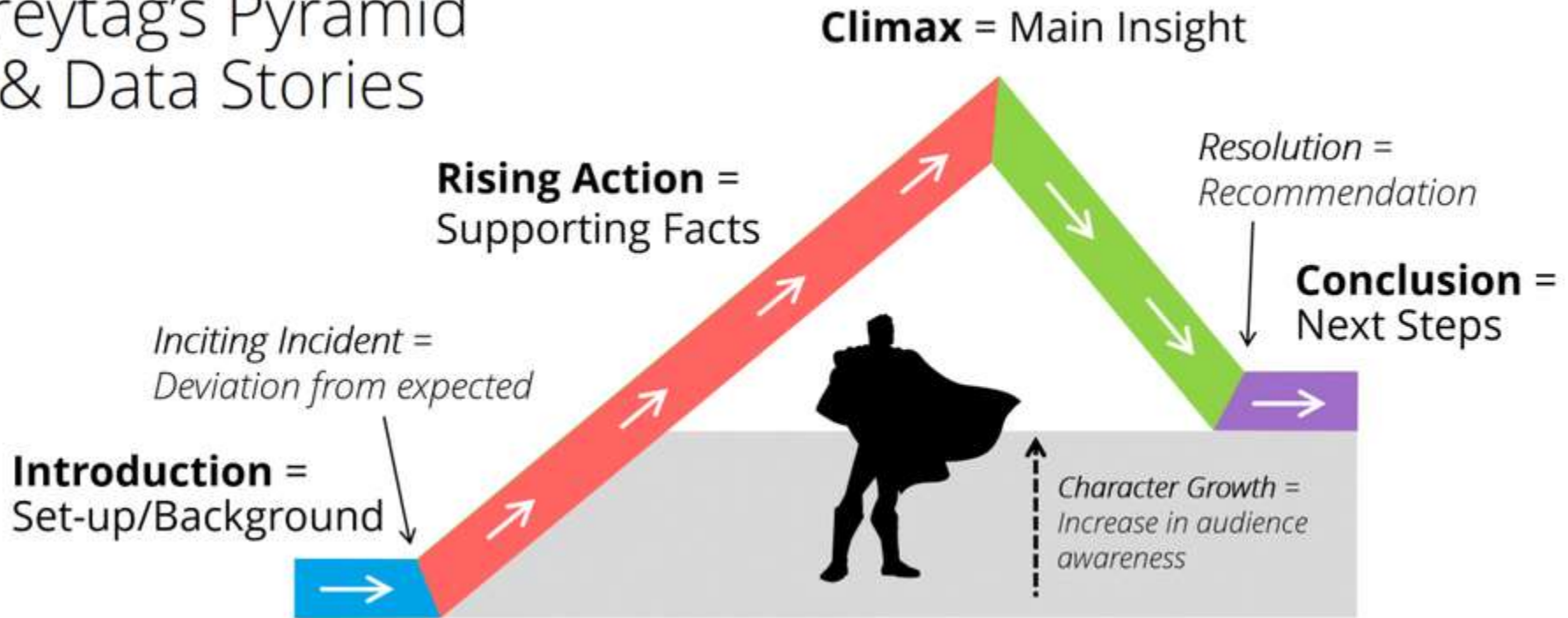


https://en.wikipedia.org/wiki/Dramatic_structure



Freytag Pyramid for Data Stories

Freytag's Pyramid & Data Stories



<https://www.forbes.com>



Structuring your Data Story using the Freytag Pyramid

- **Situation**

- The situation you are addressing
- What has changed in the environment that has caused a new **problem** or introduced an **opportunity** (inciting incident)

- **Supporting facts & data**

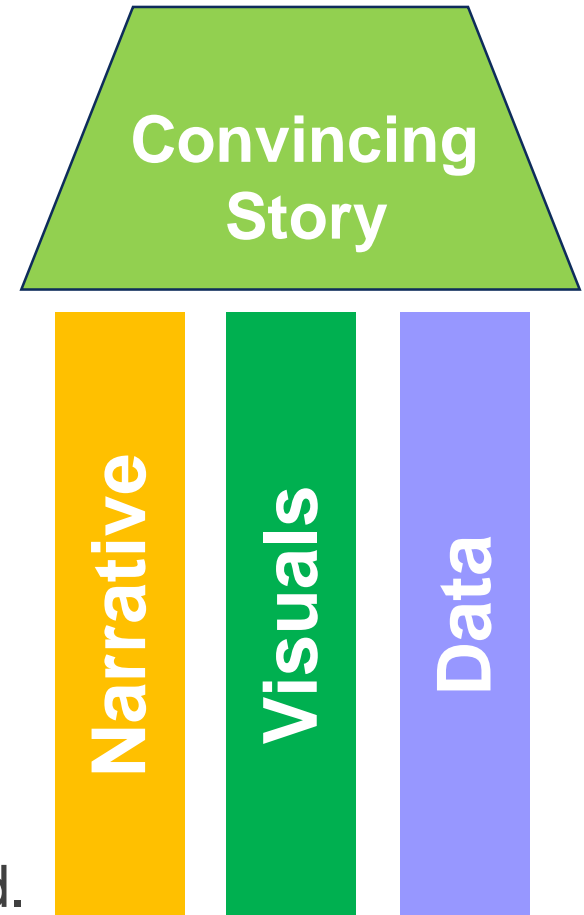
- Use data visuals to prove your point
- Build up your narration and lead your audience to your **main insight**

- **Resolution**

- Discuss **recommendations** and **solutions**

- **Next Steps**

- State clearly what **actions** are needed.





Tips for combining data with stories

- “Once upon a time....”
 - Good stories don’t start with a list of facts /data
- Create human interest first
 - Tell a story your audience can relate to, so they’ll be able to relate to the facts
- Build empathy for the subject /the people affected
 - If your audience can relate to your story, they’ll be more likely to understand the message your data is conveying
- Make the data easy to understand
 - Your aim is to avoid misunderstanding and disinterest
- Relate the data to the message you’re trying to convey
 - Not data for data’s sake



The 8 Commandments of Data Storytelling

Begin with a question

- Set up your story. What is the pain point that you are addressing? What do you want your audience to know?

Know your audience

- What are their interests and goals? Do they want the details, or just the high-level summary?

End with an actionable
Insight

- The story should naturally result in a clear call for action at the end. Reiterate the consequence/benefit of their response.

Tell a compelling Story

- People remember stories, not data. Take them on your planned journey.

Be clear and concise

- Remove everything that is not part of your story

Be honest and credible

- Don't cover-up or sugar-coat the negatives.

Explain with visual,
Narrate with words

- People understand metrics, trends, and patterns better with visuals. Use words to add your voice to the data

Provide Context

- Compare metrics over time or to industry benchmarks. Numbers are meaningless without context.

OBJECTIVE

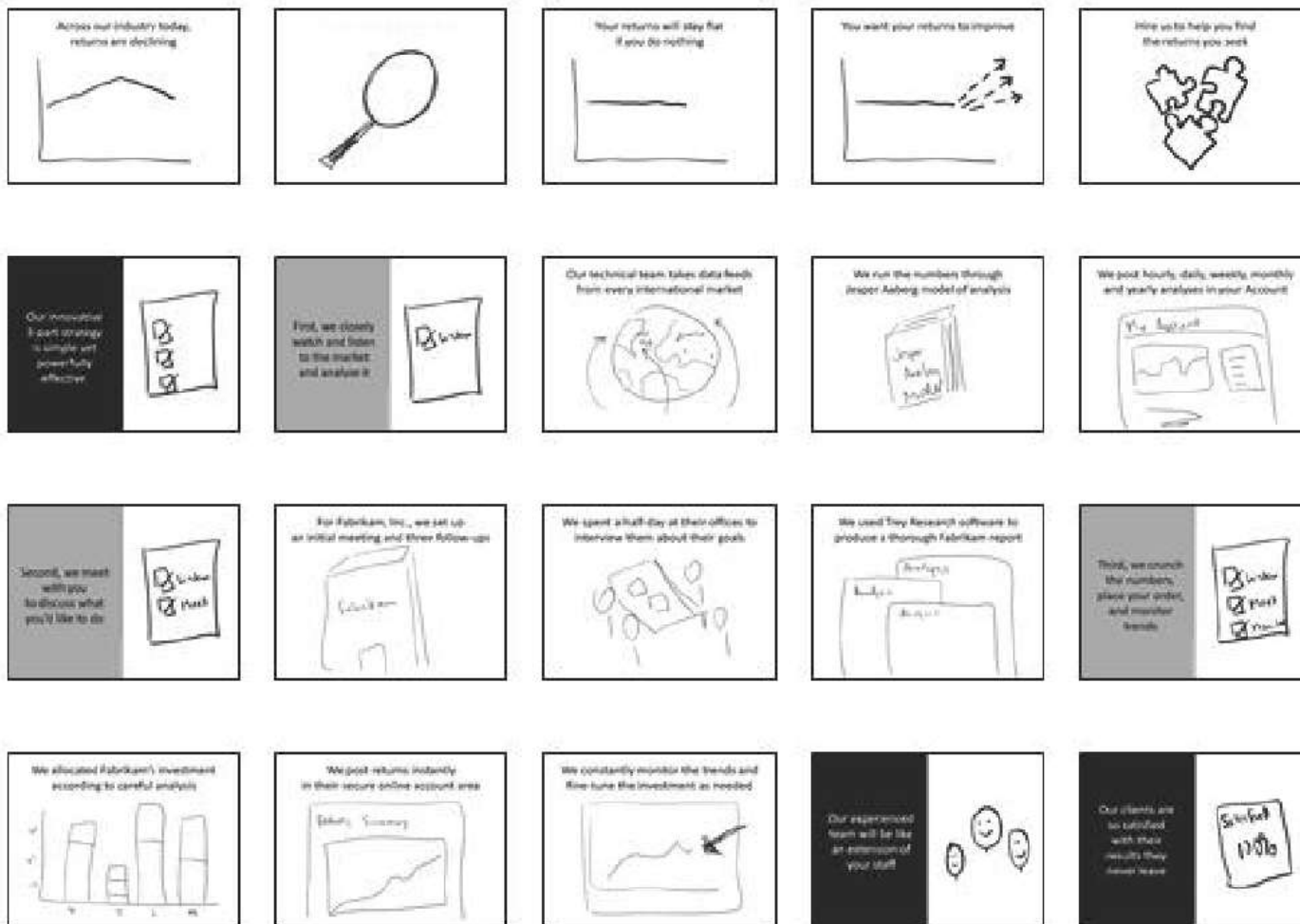
YOUR JOURNEY

INSIGHTS



Use Storyboards

A **storyboard** is a graphic organiser that plans a narrative



Storyboards: where to start

- Use the 8 commandments
 - Set your presentation impact goals
 - Create your storyline
 - Think about how to start and end effectively, with impact
- Remember
Data+Visuals+Narrative=Action
 - Create engaging content and use effective visuals





Example of Storyboard



<http://www.storytellingwithdata.com>

How to enhance your narrative?

Inject jokes, tales, anecdote wherever you can. Make your presentation vivid.

If you want to show that there is unnecessary wastage in your factory, you can show a real leaking tap and put a monetary value on each water drop lost say \$500 and then say something like “We just lost \$5000’ in one minute”

Decision makers are more likely to remember that leaky tap than any raw figure you presented via charts or table. That's how you can make your story more memorable.





Guide for your narrative



In your narrative, answer the following questions:

- What happened?
- Why it happened?
- What have you discovered?
- Why is your discovery important (actionable) to your target audience?
- What is the upside potential of implementing your recommendation?
- What effort is involved in carrying out your recommendation?
- How much time and money it is going to cost?
- Who will be responsible for carrying out this recommendation and how exactly it will be carried out?
- What is the likelihood of success?
- Can you really carry out this recommendation and achieve the desired level of success within designated time frame?
- Back up your recommendations with strong case studies if possible.



Create a Sense of Urgency!

What is the cost of delaying the implementation of this recommendation?

You may be telling a story but you are still presenting a business case and it must provide a business value.

In storytelling, you first present the narrative and then the data and visuals to support the narrative.

It is very important that in your narrative, you include a sense of urgency i.e. why your recommendation should be implemented immediately. Otherwise decision makers have got millions of priorities of their own.



Group Activity: Storyboarding



- Think of a problem or opportunity that you want to present - get data to support your call for action or google for it 😊



- Create a Story to convey your message to your audience



- Structure your story around Freytag's pyramid, and aim to:



- build suspense (make me curious)
- create an empathic connection (make me care)
- inject humour (make me laugh)

- Start storyboarding
- Finalise your presentation

~30
mins

End of Module 1.2