

Data Visualisation

Chapter 2: Storytelling with Data

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The Power of Storytelling

The Boy Who Cried Wolf | Aesop's Fables | PINKFONG Stor...



The Power of Storytelling Cont.

- What characterises a story?
 - A sequence of causally related events
 - Events unfold across time
 - Tailored to a specific audience to hold attention
 - Leaves a lasting memory

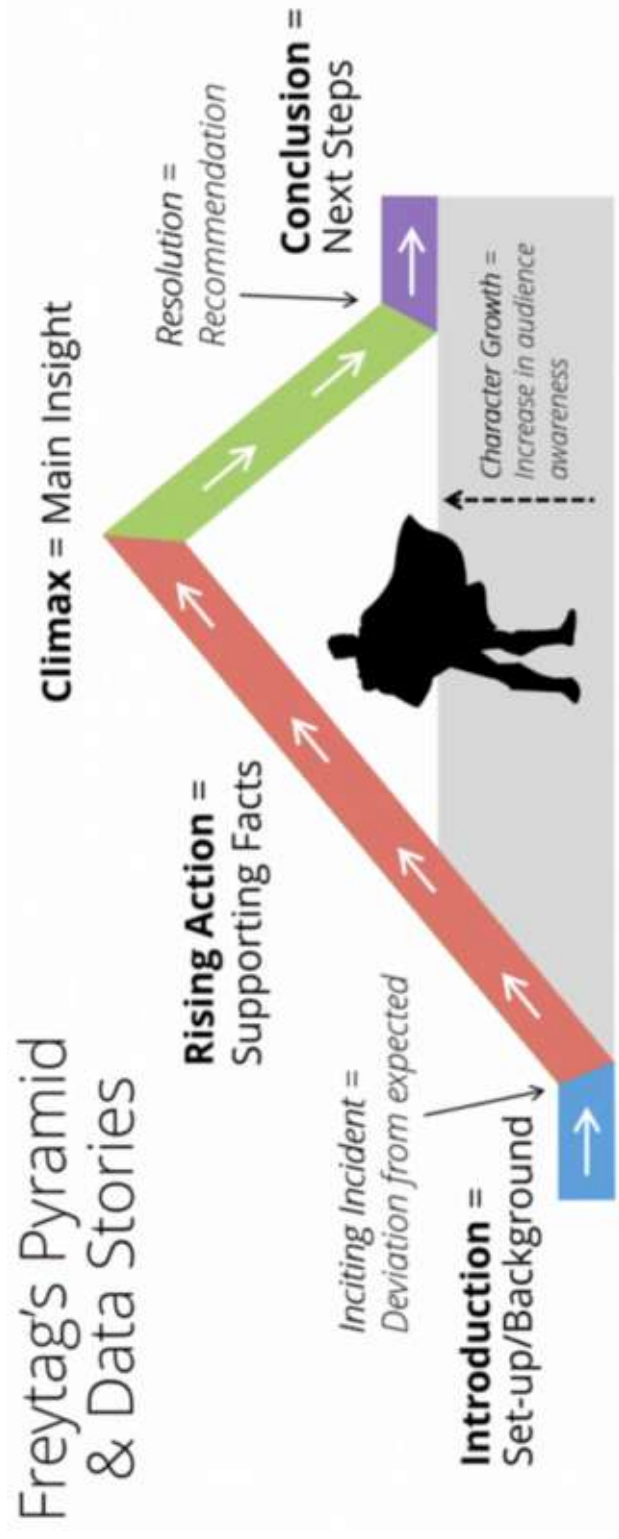


Narrative Visualisations

- Lee et al. (2015) proposed three key elements that characterise a visual data story:
 - A series of **story pieces** that present data-driven facts
 - Story pieces are **visualised** to support each intended message and each visualisation is supported by annotations or narrations that focus on the intended message
 - Each story piece is linked and presented in a **meaningful order** that aims to maximise the objective of the story

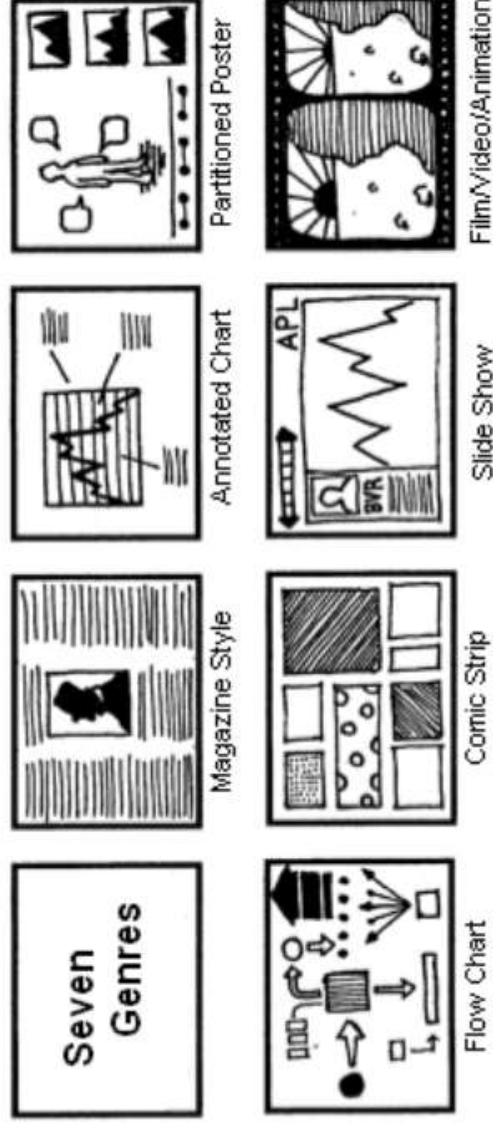
Structure

- Good stories are **well structured** (Mannon 2018).



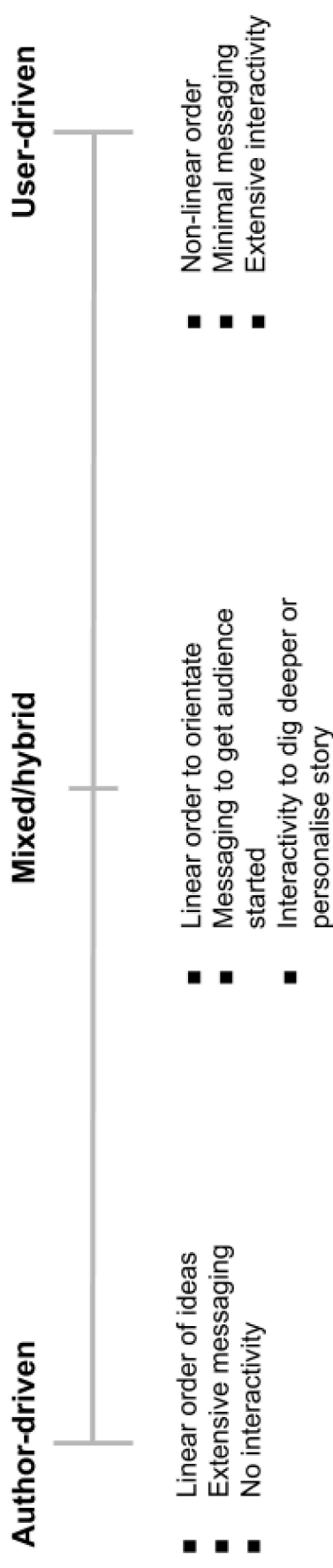
Genre

- Narrative visualisations fall into **different genres** (Segel and Heer 2010).



Approach

- The **approach taken** depends on how much we expect the audience to interact.



Strategies

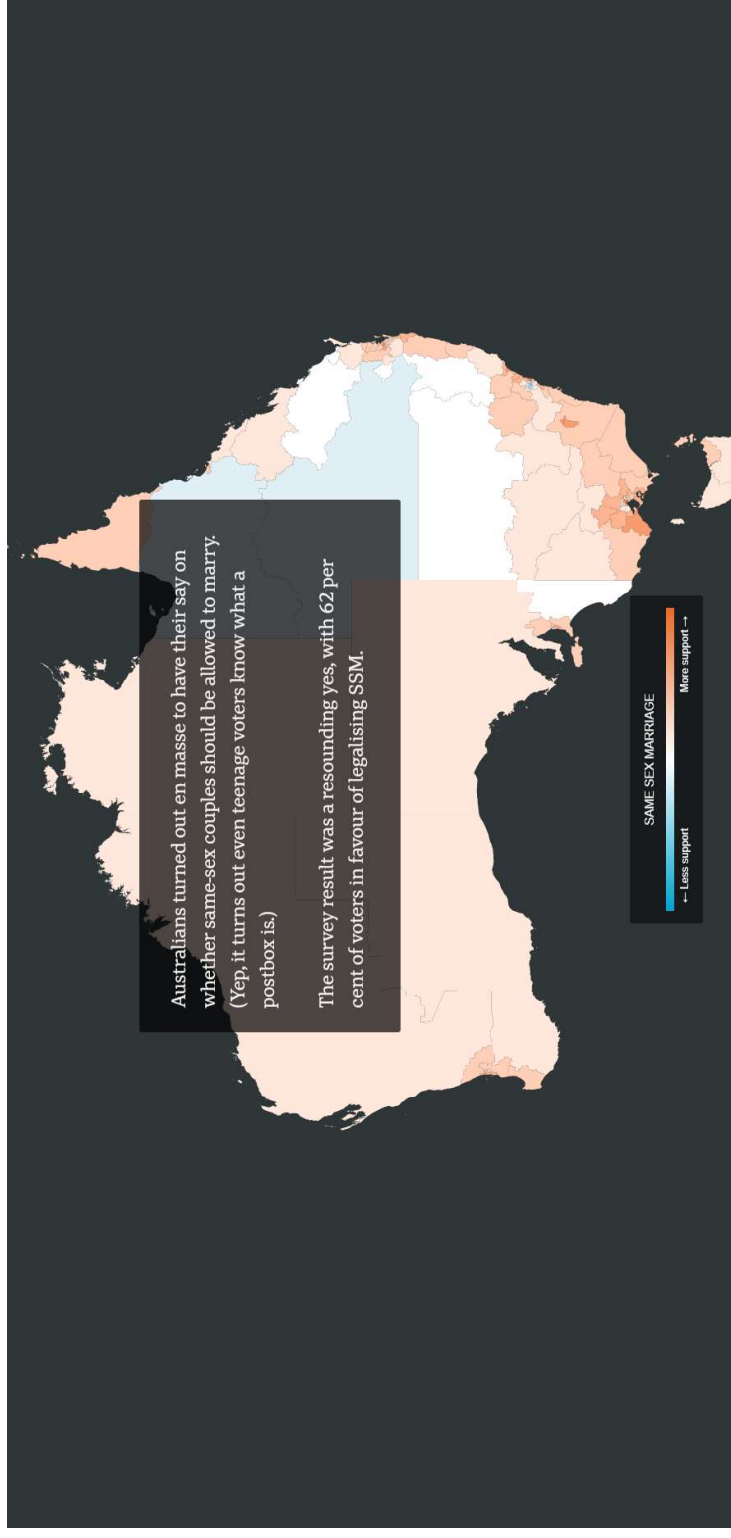
- Segel and Heer (2010) identified 12 common design strategies.

1 Annotation
2 Visual highlighting
3 Matching content
4 Progress Bars
5 Consistent Visual Platform
6 Multi-messaging

7 Details on demand
8 Timeline slider
9 Tacit tutorial
10 Semantically consistent
11 Markers of interactivity
12 Animated transitions

Case Study

- Read through the following narrative visualisation in order to answer the following questions:
- *On SSM, sharpest divisions often just down the road* (ABC News Story Lab 2018)



Case Study Question 1

Q. Describe the audience of the story, “On SSM, sharpest divisions often just down the road”, by the ABC Story Lab.

- A. *The general Australian public and the wider international audience interested in understanding the factors associated with voting behaviour.*

Case Study Question 2

Q. Succinctly describe the objective of the story.

- A. *The story aims to inform the audience about the surprising spatial variability in electorate voting behaviour and challenge the conventional wisdom by showing that the SSM vote was not politically motivated.*

Case Study Question 3

Q. How does the story hook the audience?

- *A. Deviation from expectations, ie. distance was a poor indicator of SSM vote*

Case Study Question 4

Q. Which approach best describes the SSM story?

- Author-driven
- Hybrid/mixed
- User-driven
- *A. Mostly Author-driven*

Case Study Question 5

Q. Which genre of narrative visualisation best describes the SSM story?

- Magazine style
- Annotated chart
- Partitioned poster
- Flow chart
- Comic strip
- Slide show
- Film/Video/Animation
- *A. Slide show*

Case Study Question 6

Q. Outline the main story ideas.

- *A. Distance poor indicator*
- *Overall, all states supported SSM, however, electorate variability on the east coast was high.*
- *Victoria: Distance was a poor indicator. Vast differences in neighbouring electorates close to Melbourne.*
- *Religion might be a driving factor.*
- *NSW: A case of East vs West in greater Sydney electorates.*
- *Votes were not cast along Party lines*
- *Other factors at play - education, cultural background, religion, socio-economic status*
- *QLD: The state where the distance from the capital was closely related to support*

Case Study Question 7

Q. Summarise the conclusion in one sentence.

- A. *While the overall result of the SSM votes was supportive, the devil is in the details.*

Case Study Question 8

Q. List the narrative data visualisation strategies used in the SSM story.

- *A. Tacit tutorial, annotation, visual highlighting, details on demand and animated transitions*

References

- ABC News Story Lab. 2018. "On SSM, sharpest divisions often just down the road." <https://www.abc.net.au/news/2017-11-16/ssm-results-map/9152796>.
- Lee, Bongshin, Nathalie Henry Riche, Petra Isenberg, and Sheelagh Carpendale. 2015. "More than telling a story: Transforming data into visually shared stories." *IEEE Computer Graphics and Applications* 35 (5): 84–90. <https://doi.org/10.1109/MCG.2015.99>.
- Mannon, N. 2018. "Persuasive storytelling with data visualization." <https://www.blastam.com/blog/persuasive-storytelling-with-data-visualization>.

