Introduction to data storytelling

DATA STORYTELLING CASE STUDY: COLLEGE MAJORS

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datacamp

What is storytelling?

Data storytelling

The process of building a **narrative** to **communicating relevant and actionable insights** in an understandable and widely accessible format

- An addressable question or problem

- Data-driven facts

- An "Arc"
  - Beginning, middle, and end

- Actionable insights

[1] What is data storytelling? (n.d.). Microsoft Power BI. https://powerbi.microsoft.com/en-us/data-storytelling/

Three I's: Data story maturity

- Informative
  - Example: "We sold 250,000 cars"

- Interesting
  - Example: "We sold 30,000 more cars this year"

- Insightful
  - Example: "The most lucrative sales came from hatchback vehicles"
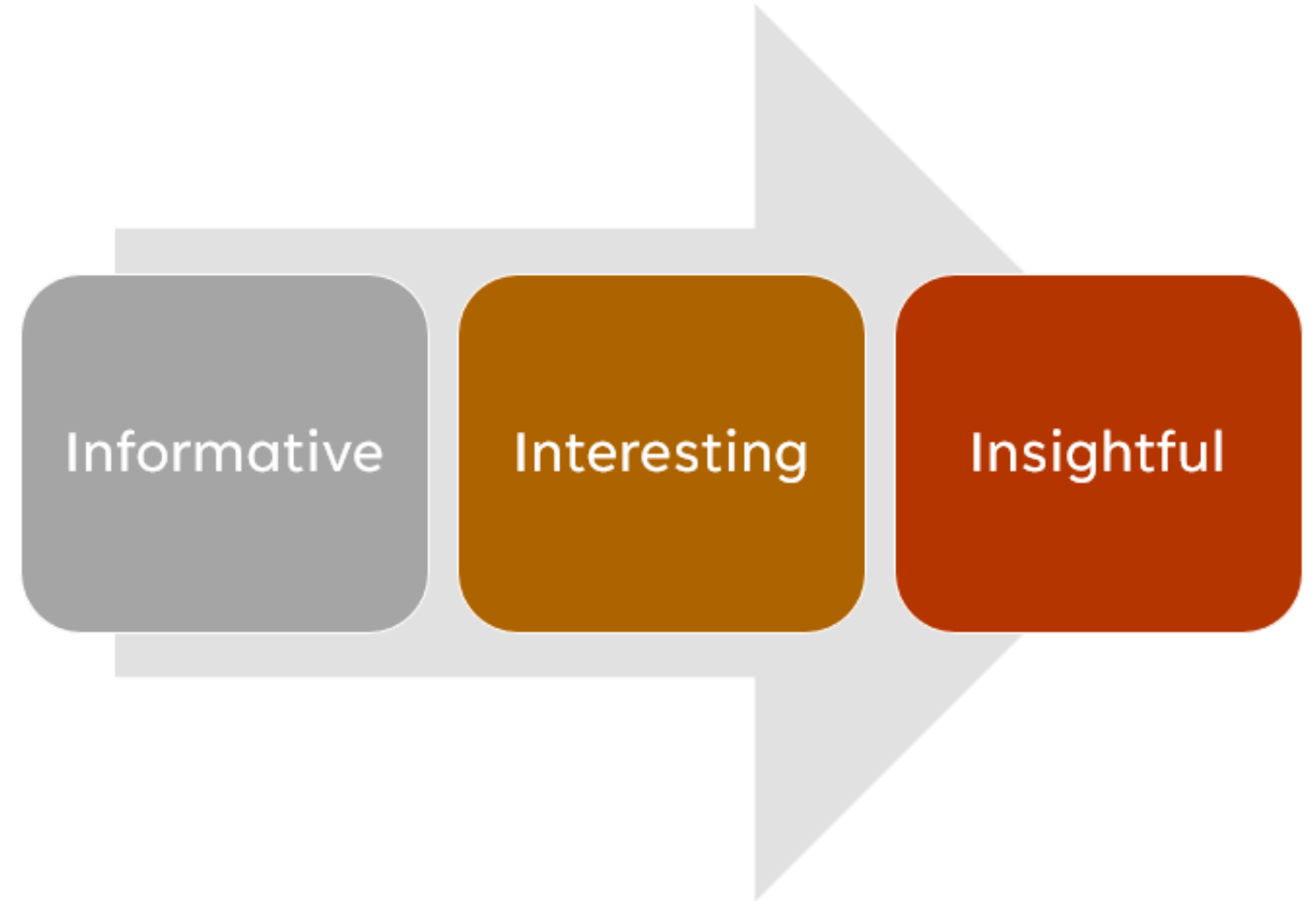
Why learn storytelling?

- Accessible and inclusive
  - Simplifies complex information

  - Easy-to-follow

  - Engaging

- Convey value
  - Impact

  - Data-driven decisions

[1] 1. What is data storytelling? (n.d.). Microsoft Power BI. https://powerbi.microsoft.com/en-us/data-storytelling/ 2. Holland, Taylor (2019). From Stats to Stories: The Evolution of Data Storytelling. Skyword.

High demand skills

- Verbal

- Non-Verbal

- Written

- Visual

[1] L. Cao and J. Zhang, "Skill Requirements Analysis for Data Analysts Based on Named Entities Recognition," 2021 2nd International Conference on Big Data and Informatization Education (ICBDIE), Hangzhou, China, 2021, pp.

Let's practice!

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Data storytelling elements

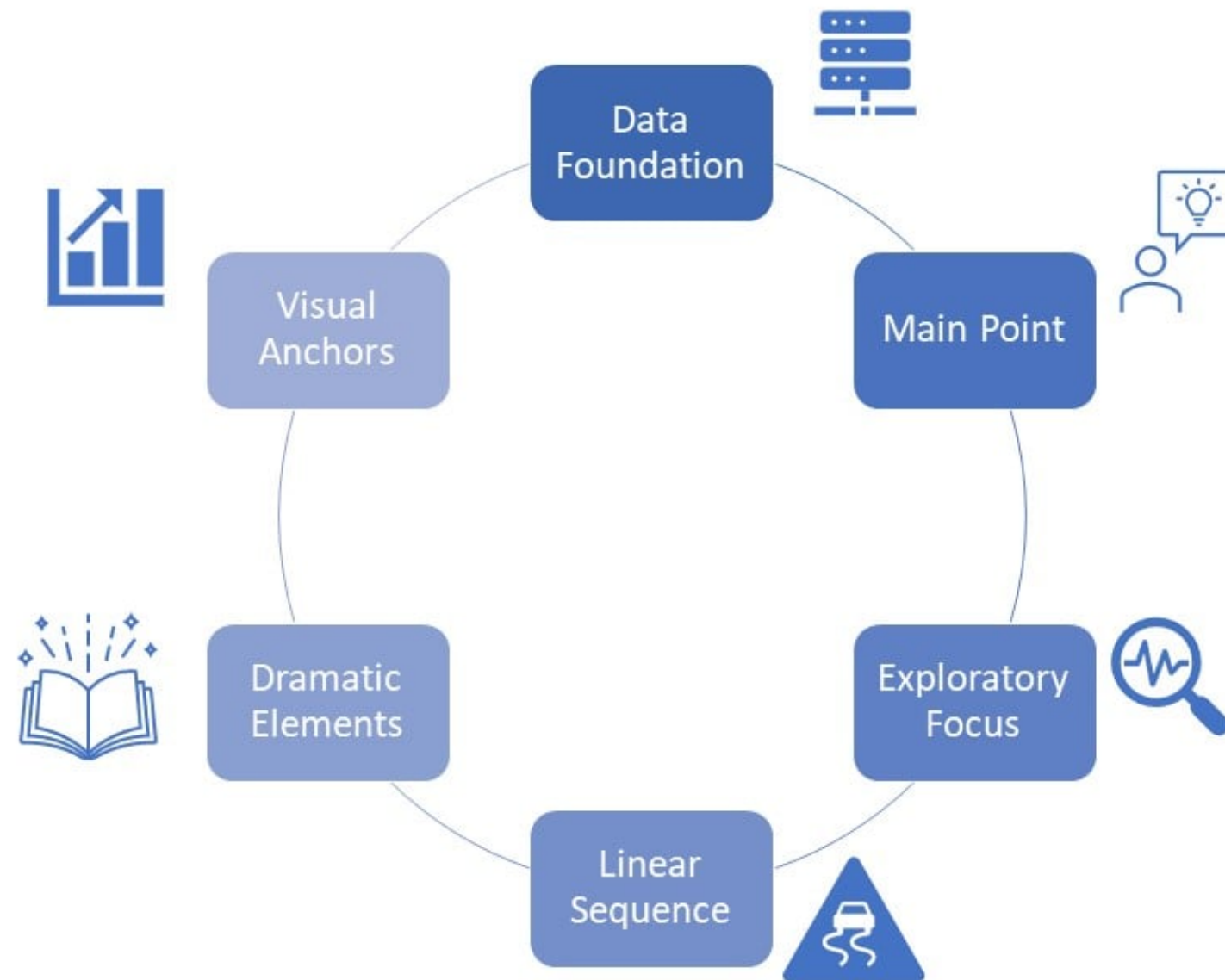DATA STORYTELLING CASE STUDY: COLLEGE MAJORS

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Six data story elements

[1] Dykes, Brent (2019). Effective Data Storytelling: How to Drive Change with Data, Narrative and Visuals. Wiley.

Data foundation

- Fact-based foundation

- Credibility

- Story setting
  - Domain of truth

  - Project scope

[1] Avildsen, John G. (Director). (1976). Rocky [Motion Picture]. United States: Chartoff-Winkler Productions.

Main point

- Central insight
  - "So what?"

  - "Why should I care?"

- Message
  - "What did we learn?"

- Argument

[1] Stallone, Sylvester (Director). (1985). Rocky IV [Motion Picture]. United States: Chartoff-Winkler Productions; United Artists.
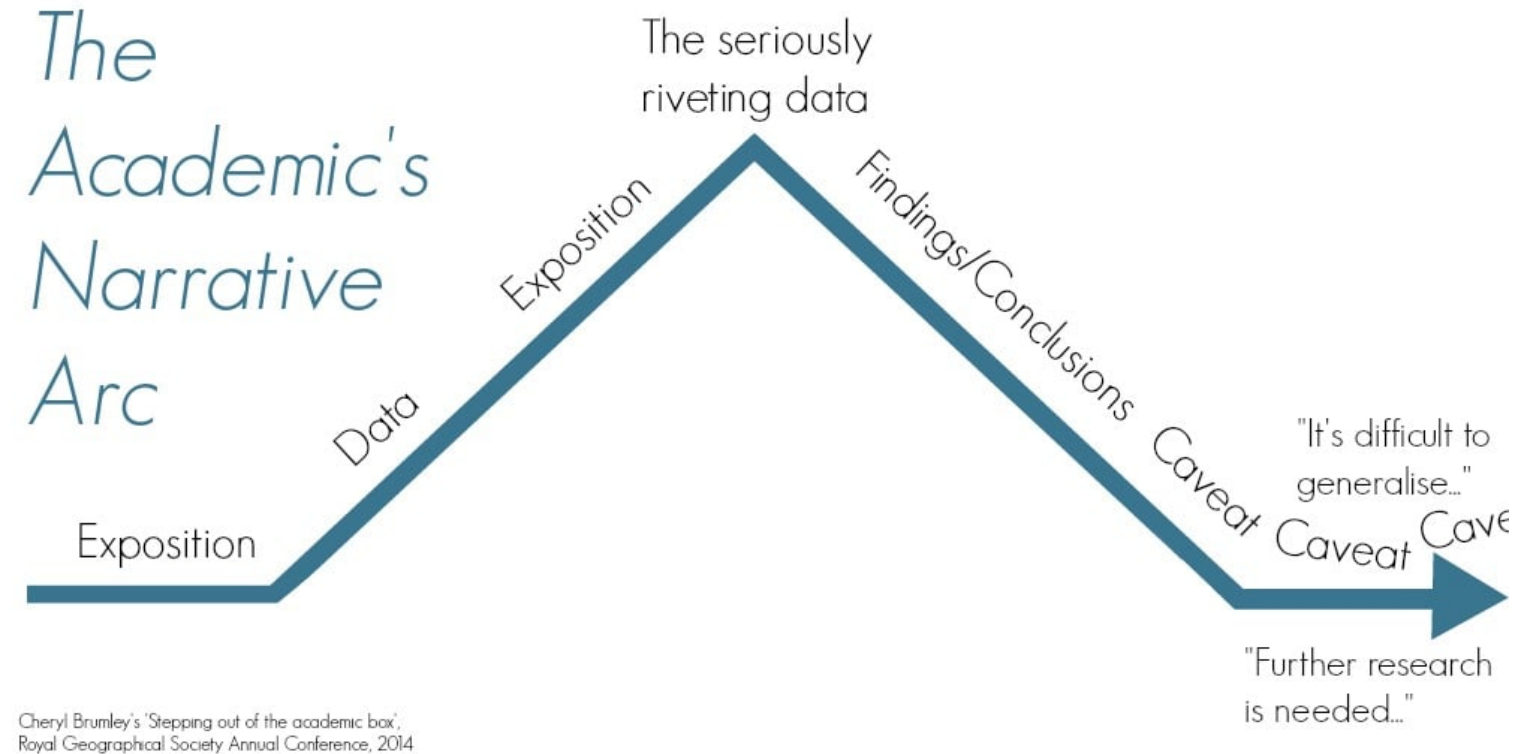
Explanatory focus

- Data detective work
  - Uncover clues
  - Explore the data
  - Identify trends
  - Supportive evidence
- Building the case for the main point

Linear sequence

- Sequential

- Narrative Arc
  - Exposition

  - Data

  - Exposition

  - Riveting Data (Aha Moment)

  - Findings

  - Caveat (Disclaimers and What Next)

The Academic's Narrative Arc

The seriously riveting data

Exposition

Data

Exposition

Findings/Conclusions Caveat Caveat Cave

"It's difficult to generalise…"

"Further research is needed…"

Cheryl Brumley's 'Stepping out of the academic box', Royal Geographical Society Annual Conference, 2014

[1] Cheryl Brumley's "Stepping out of the academic box", Royal Geographical Society Annual Conference, 2014.

Dramatic elements

- Story != sequence of events

- Dramatic insights

- Lesser known facts

- Unprecedented conclusions

[1] Stallone, Sylvester (Director). (1985). Rocky IV [Motion Picture]. United States: Chartoff-Winkler Productions; United Artists.

Visual anchors

- Simplify complex ideas

- Easier to understand and recall

- Show, not tell

[1] 1. Dewan, Pauline (2015). Words Versus Pictures: Leveraging the Research on Visual Communication. Partnership: The Canadian Journal of Library and Information Practice and Research, Vol. 10, No.1. 2. Avildsen, John G.

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