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出版情報：2021-12-09. University of Illinois Urbana Champaign
バージョン：
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Data Storytelling as Honest Information Management

Reflections on and Theories from

Five Years of Teaching Data Storytelling

Dr. Kate McDowell & Dr. Matt Turk

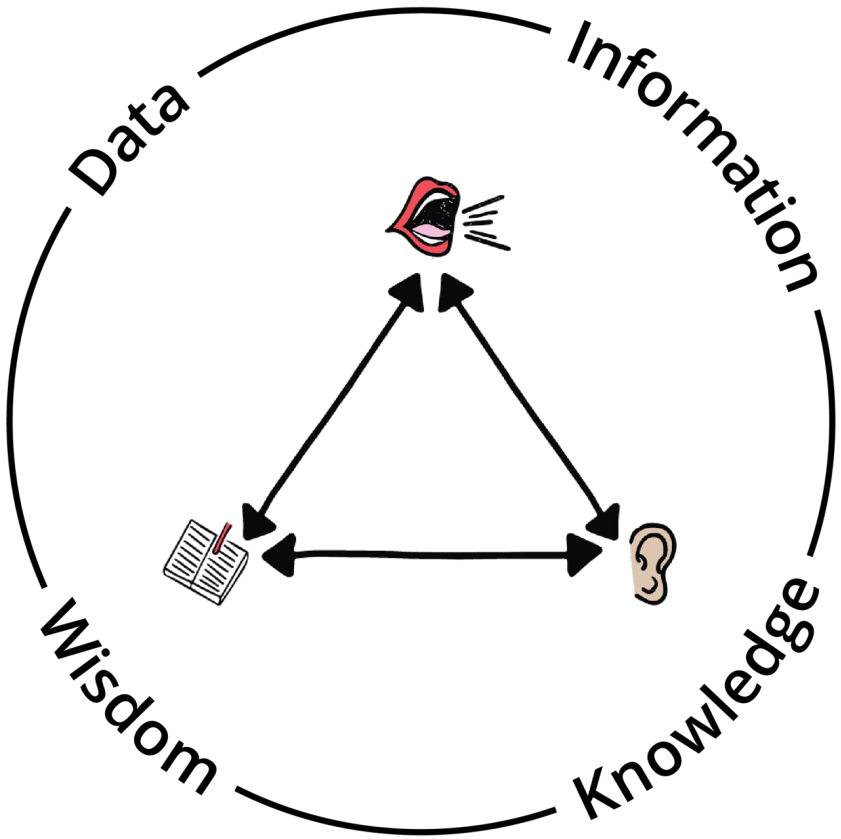
Outline

- Data storytelling course IS 457:
- Setting-3 min up to this point
- Character slides-3 min
- Narrative structures
  - And their uses (middles, endings)
  - And plot strategies
  - And transitions

IS 457 Data Storytelling course description

An introduction to understanding data as a source for storytelling and to telling stories based on data. This process will include understanding and analyzing data sets to find informative aspects, changes, or contrasts that will provide the basic information for developing stories. Course participants will learn storytelling concepts, narrative theories, and performance techniques and develop stories in a collaborative workshop style. Students will work with data visualization toolkits, which will involve variable levels of coding and skill. By using storytelling techniques with data, students can develop, and tell well-evidenced stories, organizations can make better data-driven decisions.

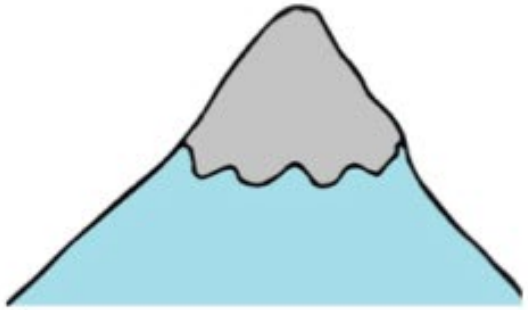
What we really teach



- Ethics: “A Tale of Two Tragedies” by student Ashley Hetrick
  - revisiting the Titanic data set
  - re-humanizing tragic numbers
- Storytelling dynamics
- Visual data exploration
- Honest data and information interpretation
- Number of students
  - 24 fa17, 27 fa18, 44 fa19, 24 fa20, 23 sp21, 56 fa21

The problem of setting

- Understanding data requires establishing a **setting**
- Setting is the minimum that the audience needs to understand the context of the data
- The *classic setting error* is to assume the audience can process everything all at once.
  - Example: sharing a spreadsheet without setting



Plot as Strategy

Narrative Structure	Middles	Endings
Enigma	Explorations, questions and increasing new understandings	• What you learned, what you know now • What you can do
Hero's Journey	Struggles, difficulties, obstacles that instigate transformation	• Triumph over challenges • Returning safely home with new strength
Equilibrium	Disruptions, confusions, chaos	• Happily ever after • Order and peace restored

Data Characters

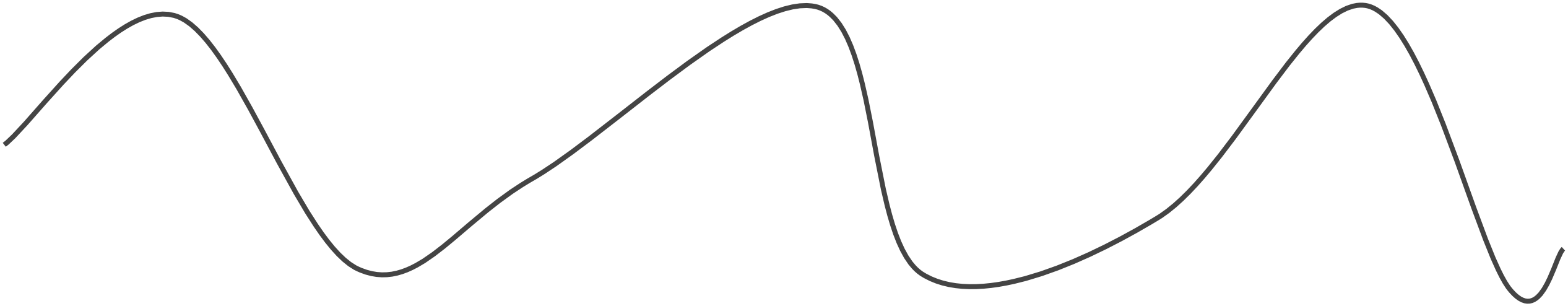
- **Confidante**
- **Dynamic**
- Flat
- Foil
- **Round**
- **Static**
- Stock

Think of these in terms of predictability and complexity.

See, for example, Evans at
http://www.fictionfactor.com/guests/common.html

Data Characters: Confidante

Revealing information through indirect information. Patterns or information casting “shadows” that reveal the original.



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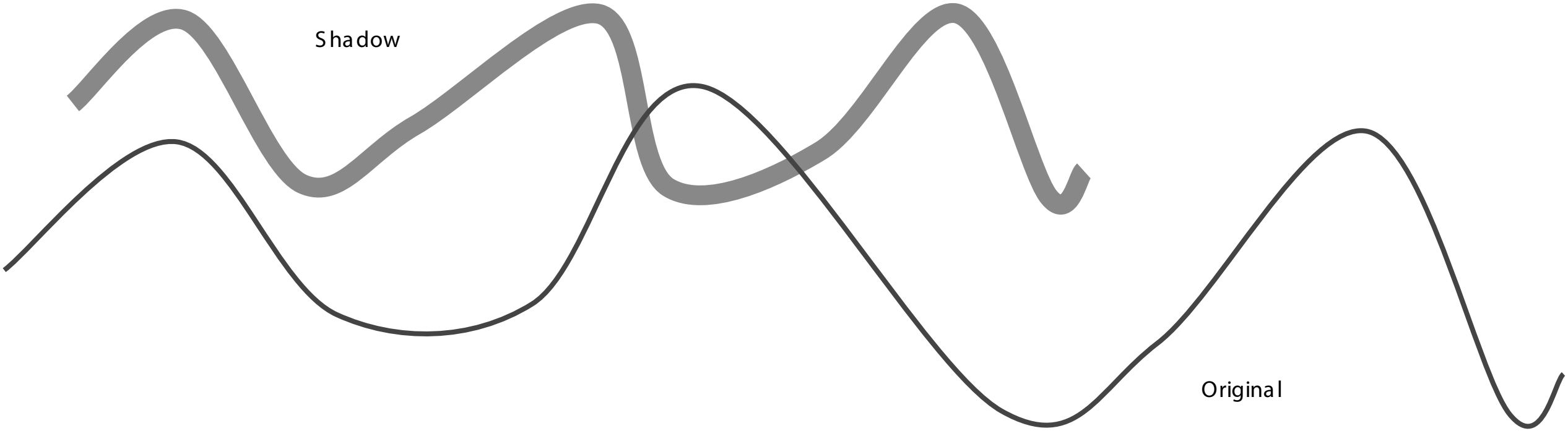

Data Characters: Dynamic (the Wildcard!)

There's the one who changes all the time! Minute to minute, you don't know what you're going to get. They're all over the place, and sometimes you can contain their behavior, but *not always*!

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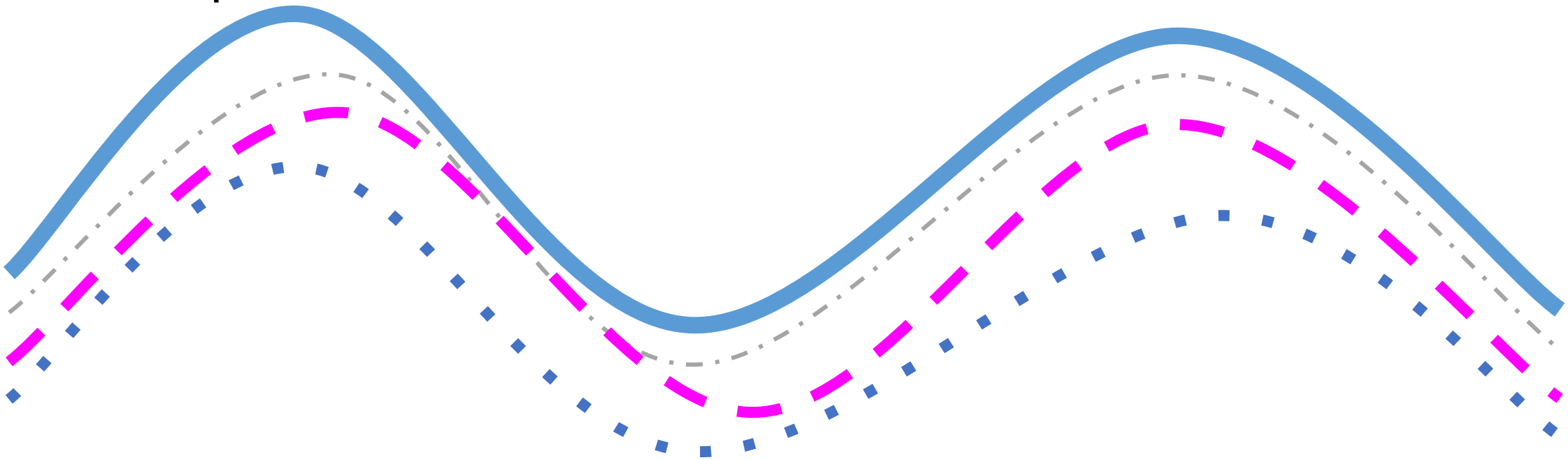
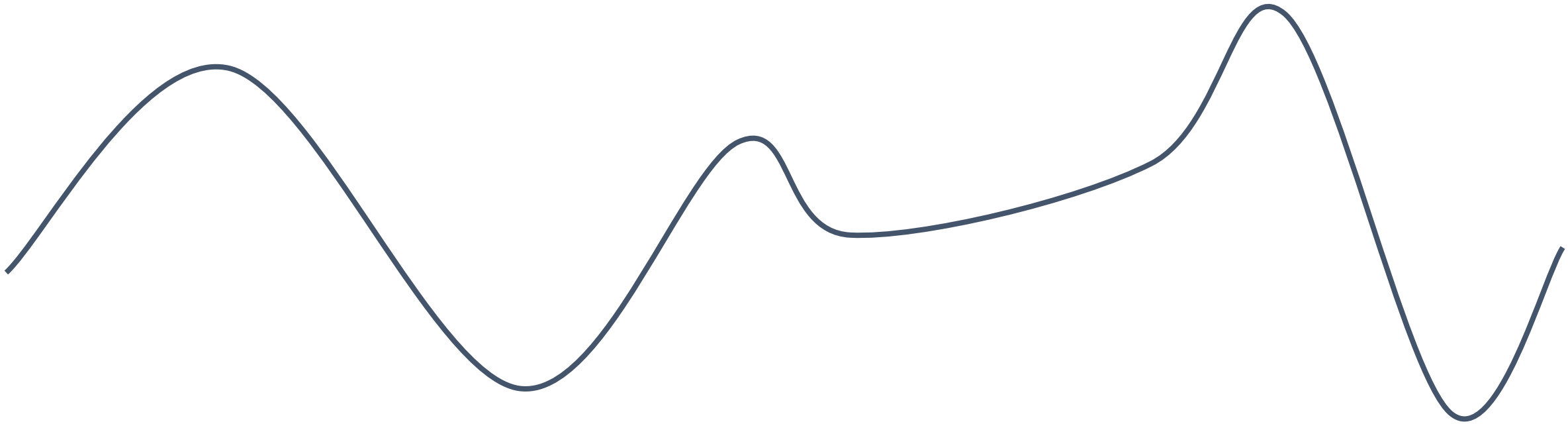
Data Characters: Round

Complex, many different attributes, hiding what might be rich relationships between characteristics.



Data Characters: Static

You pretty much know what to expect. Take a glance at first, get a sense of the parameters, and you can roughly figure it out from there.



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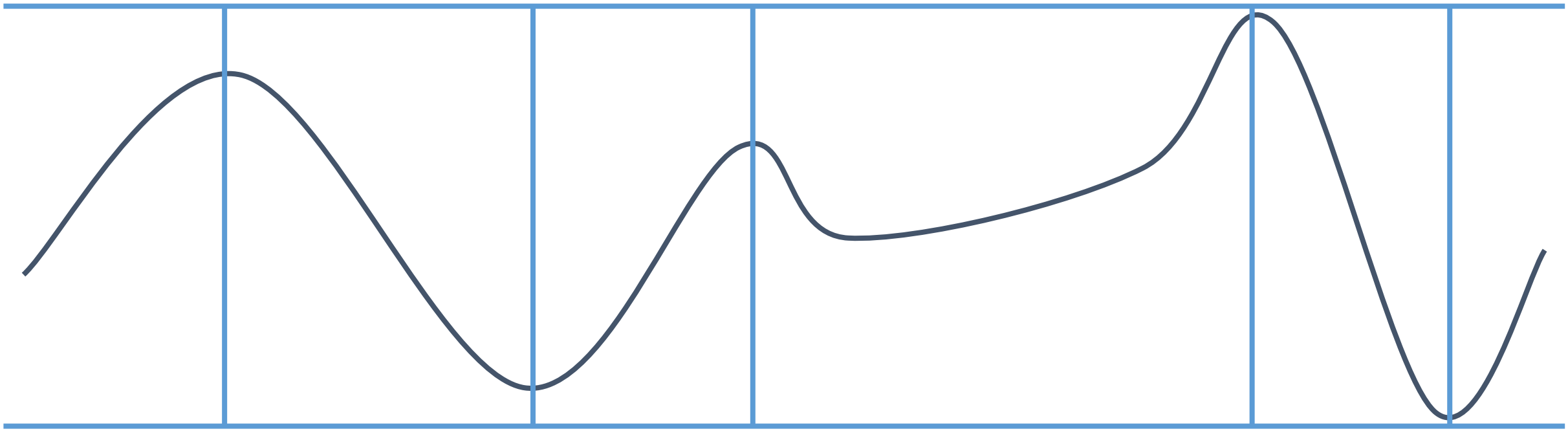

Thank you! Questions?