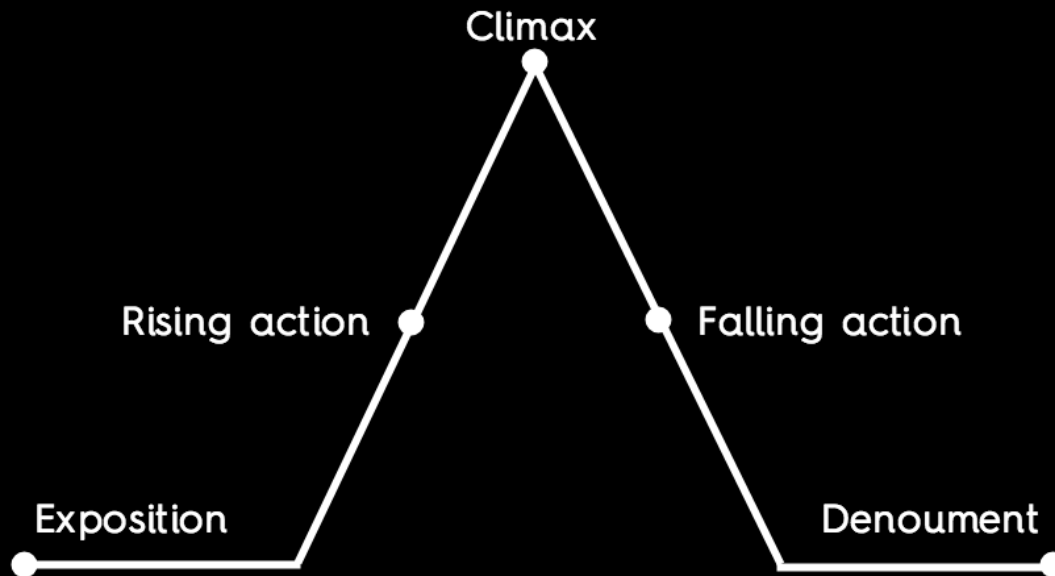


Storytelling



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University

Dept. of Engineering
Management & Systems
Engineering

Download [this cheatsheet](#) for today's content

Storytelling

1. Telling a story
2. Designing slides
3. Giving a talk

Storytelling

1. Telling a story
2. Designing slides
3. Giving a talk

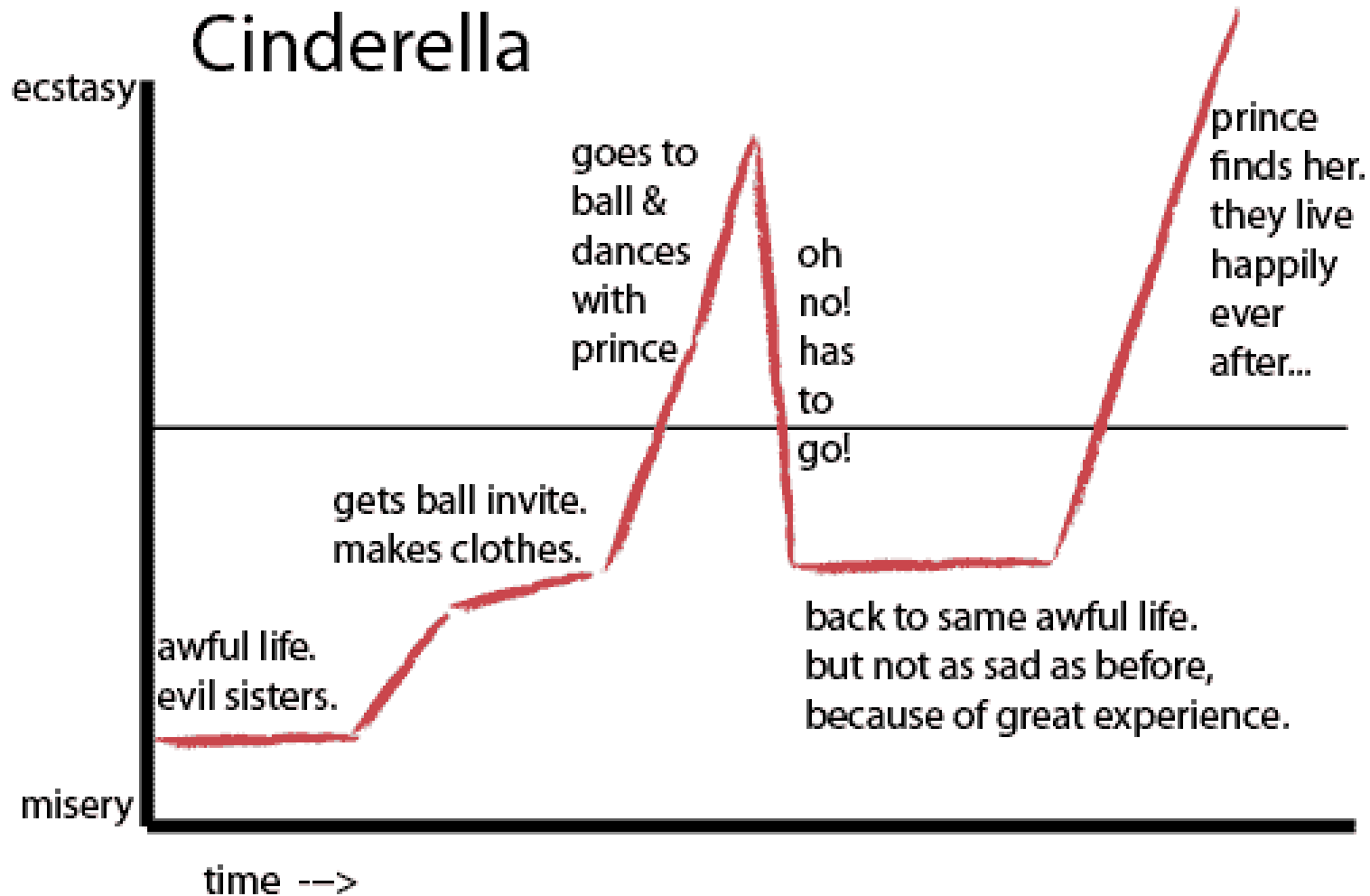
What is a story?

A story is a set of observations, facts, or events...that are presented in a specific order such that they create an **emotional reaction** in the audience.

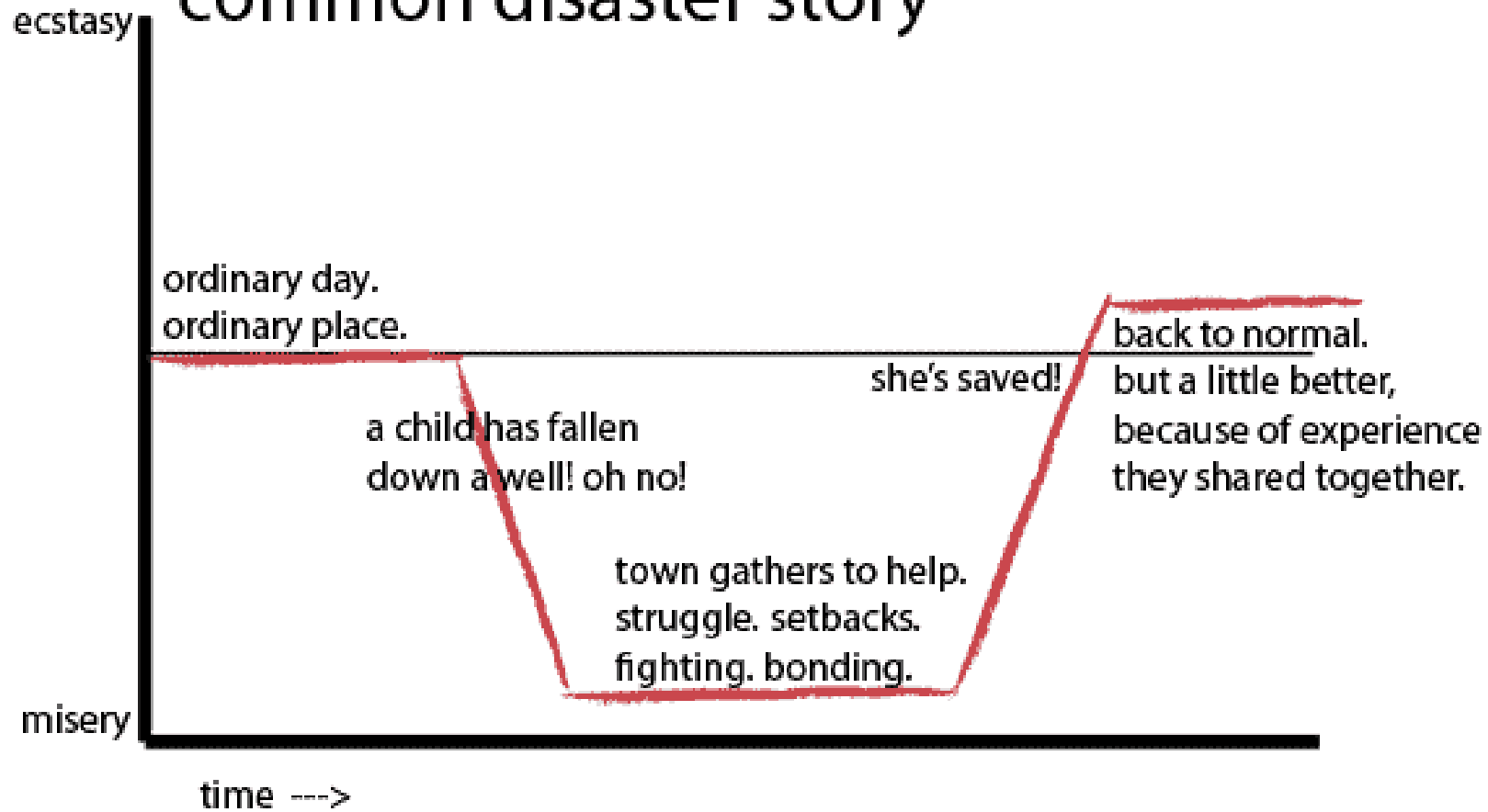
- Clause O. Wilke (2019), Chp. 29



Cinderella

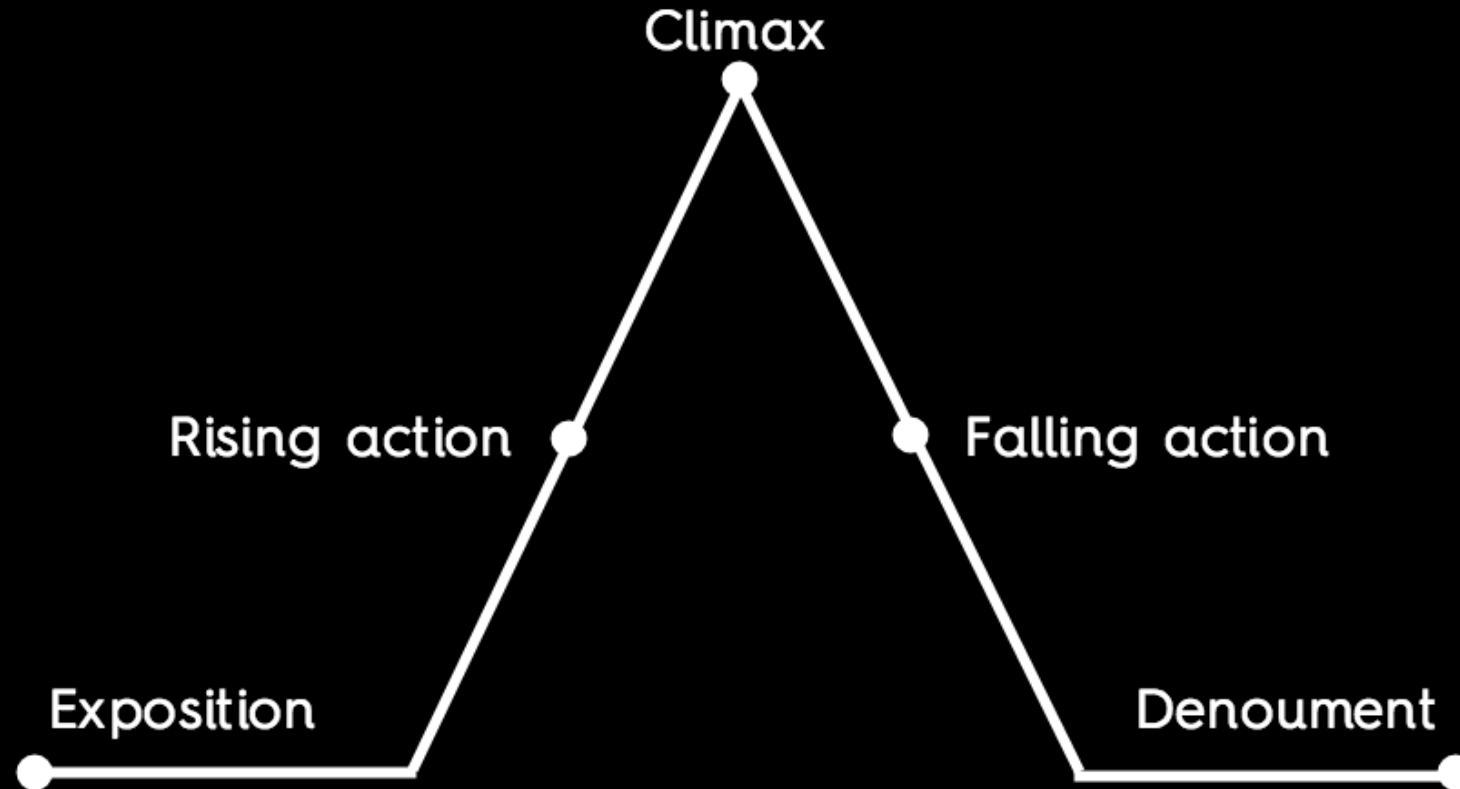


common disaster story

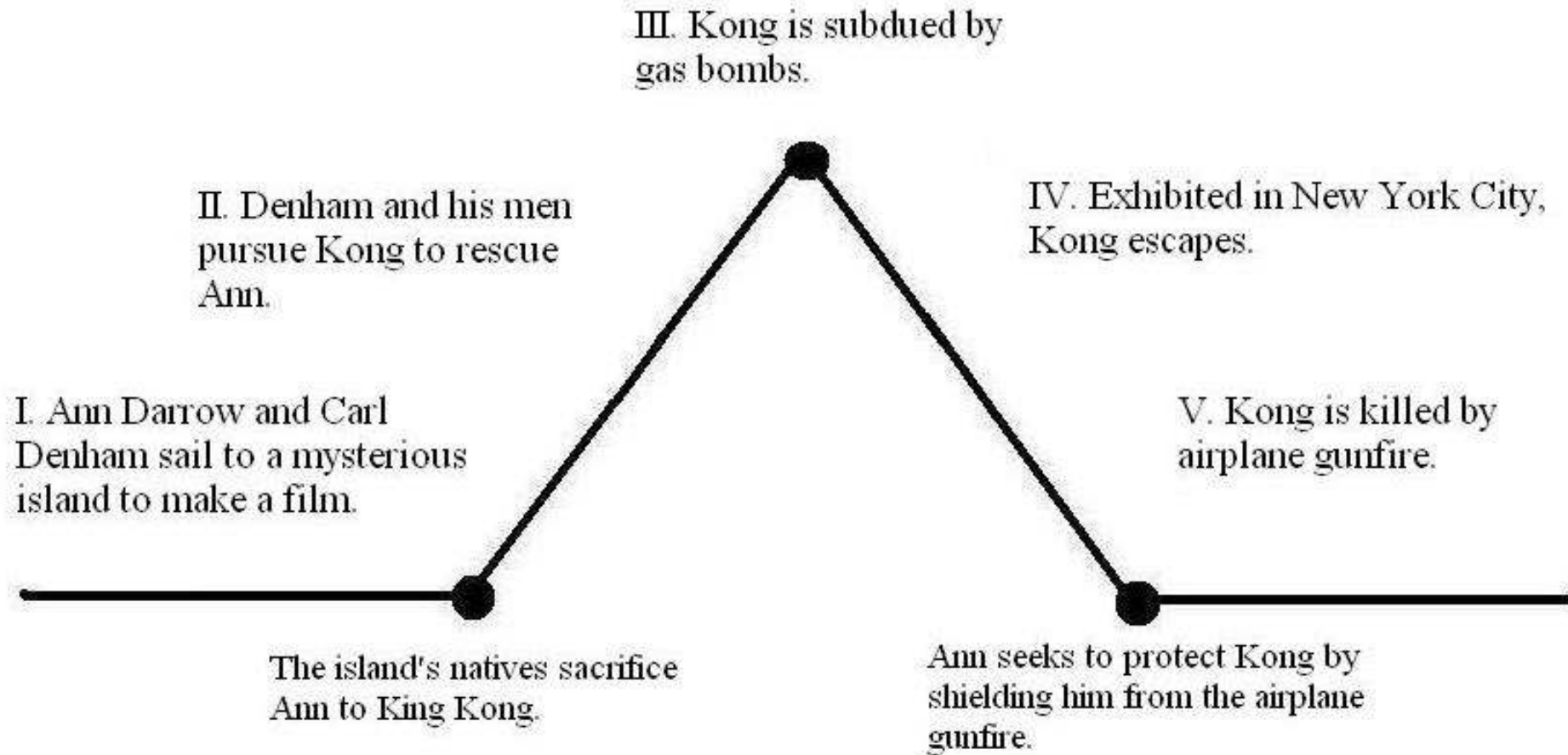


source

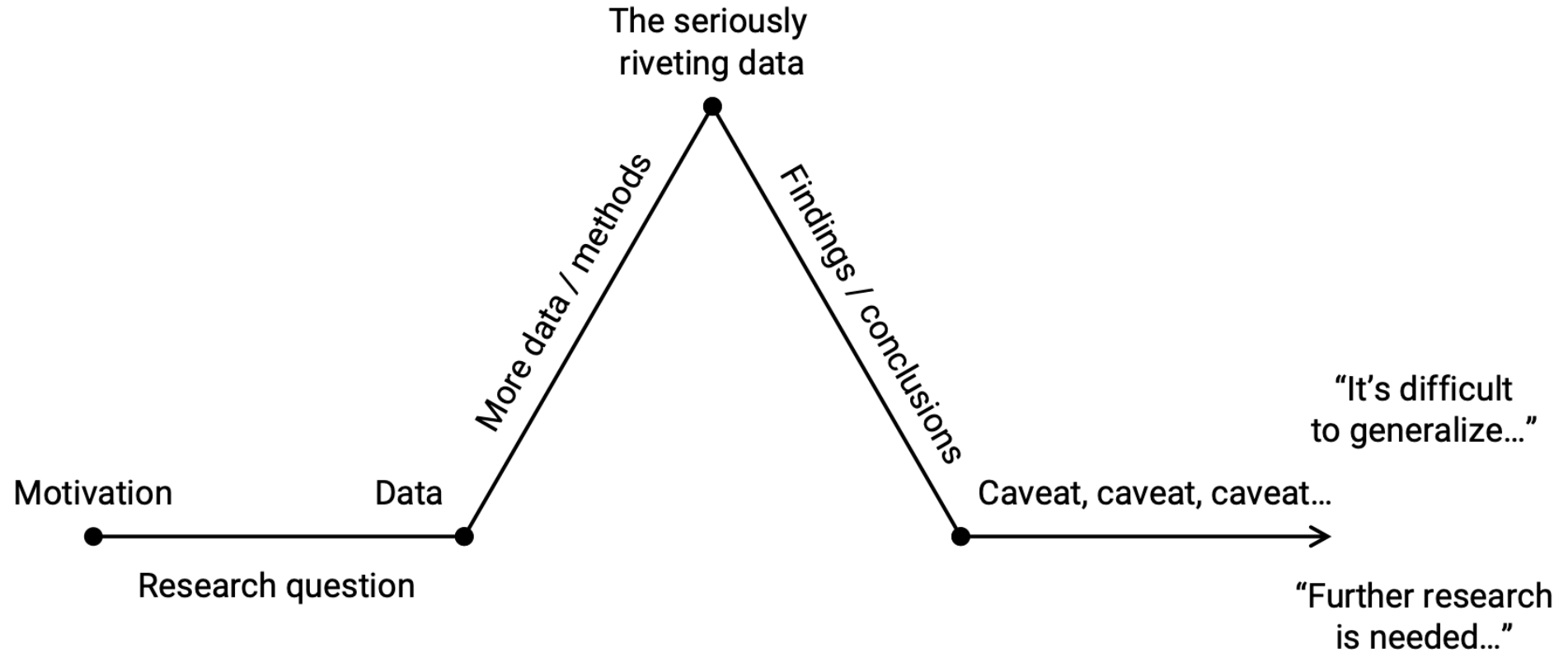
Freytag's Pyramid



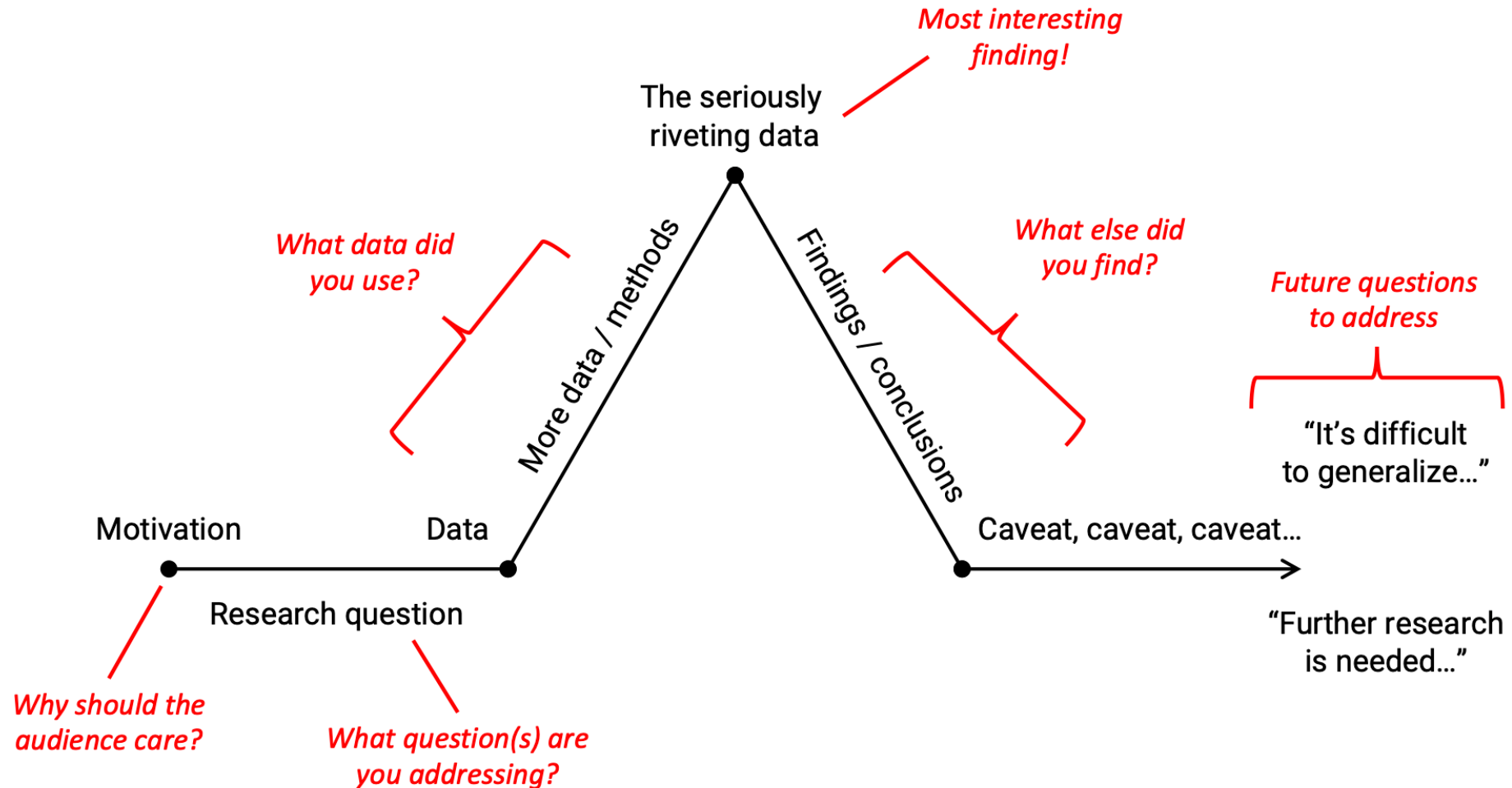
Freytag's Pyramid: **King Kong**



Freytag's Pyramid: **Research Project**



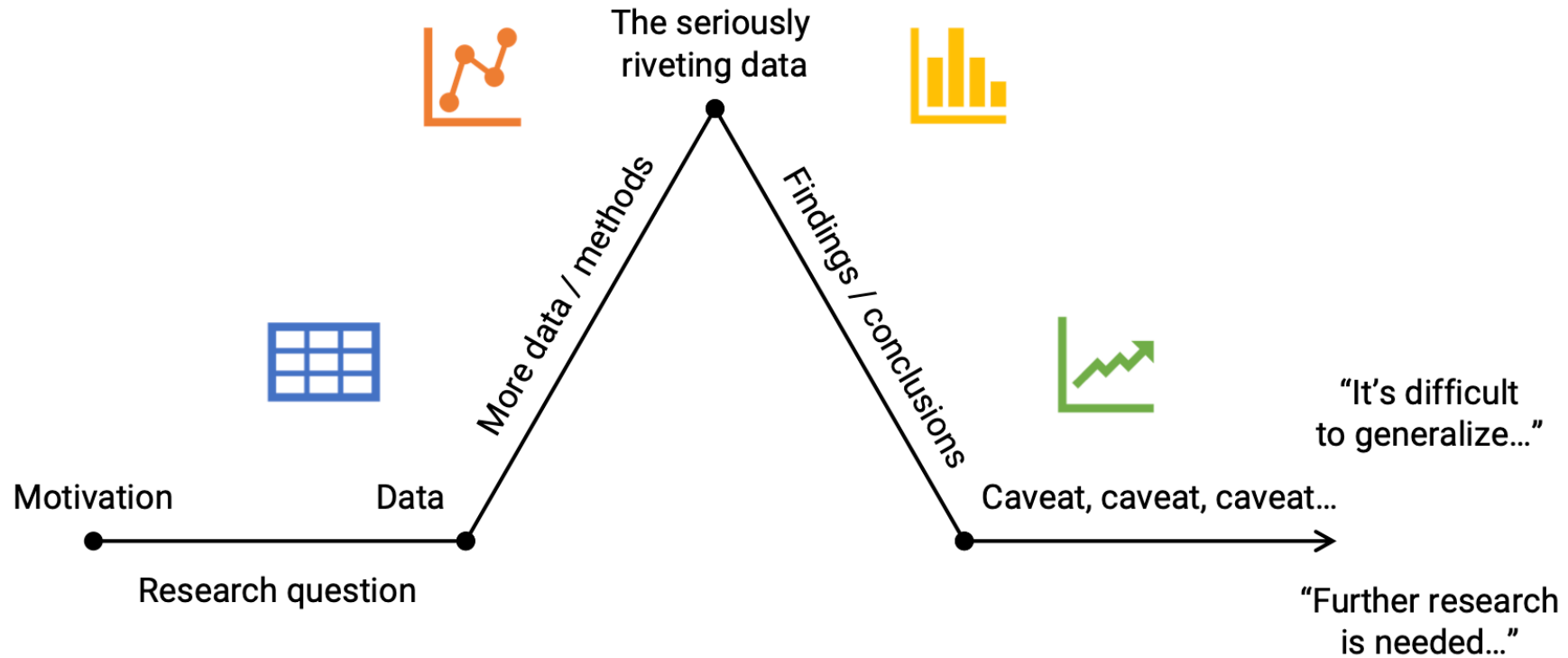
Freytag's Pyramid: **Research Project**



"A single (static) visualization will rarely tell an entire story"

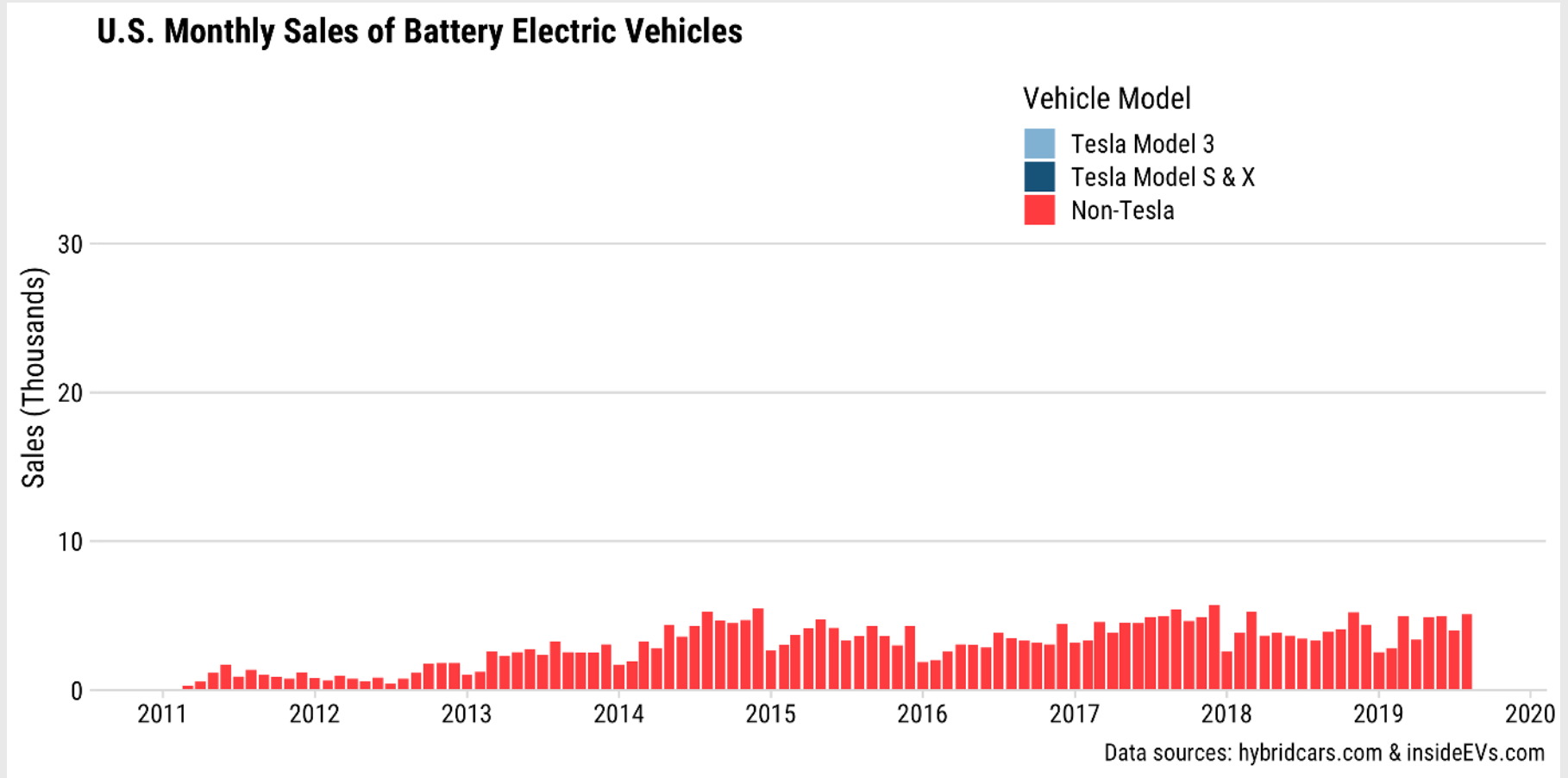
- Clause O. Wilke (2019), Chp. 29

Freytag's Pyramid: **Research Project**

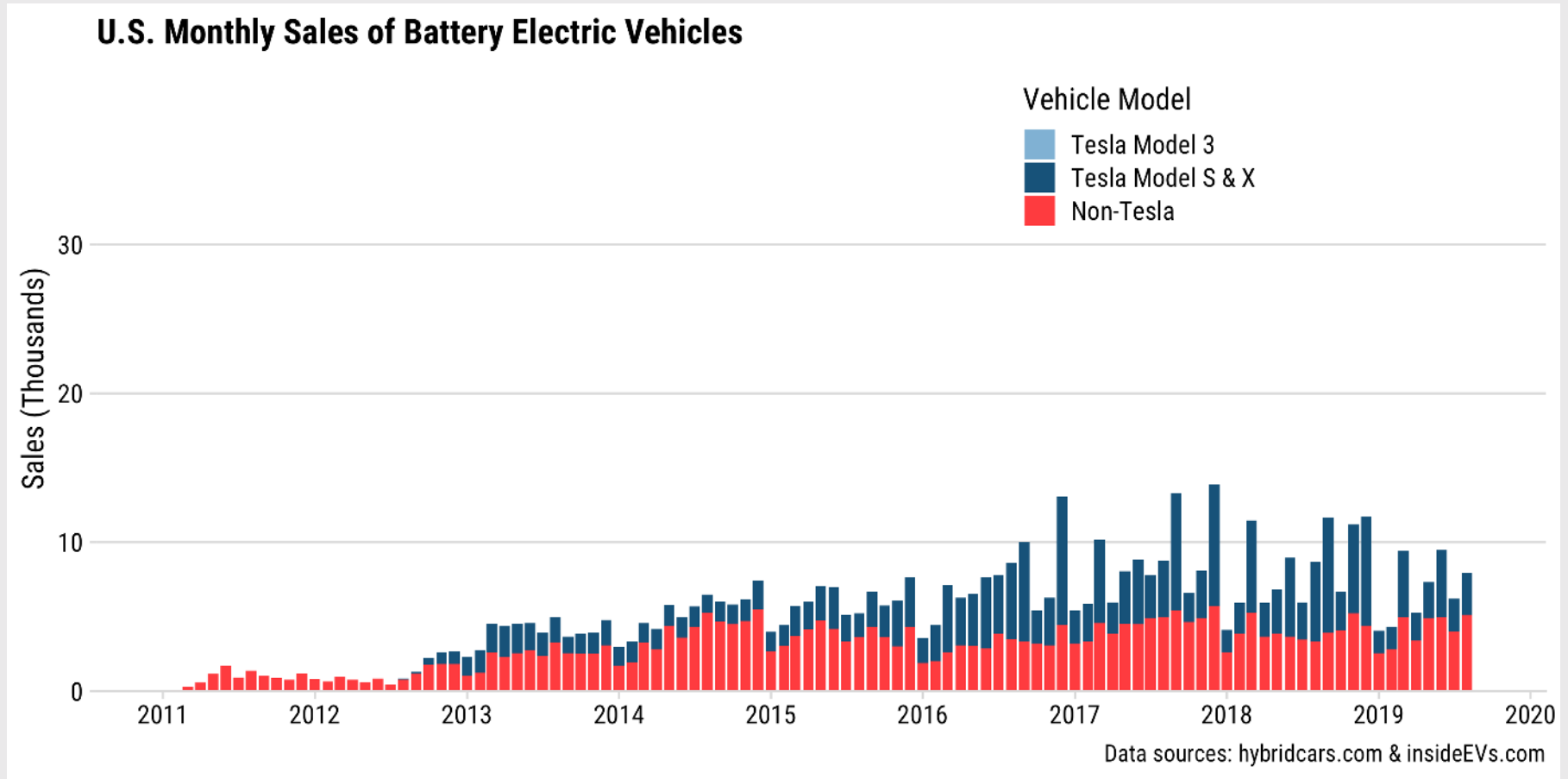


Use **layers** to build tension / provide context

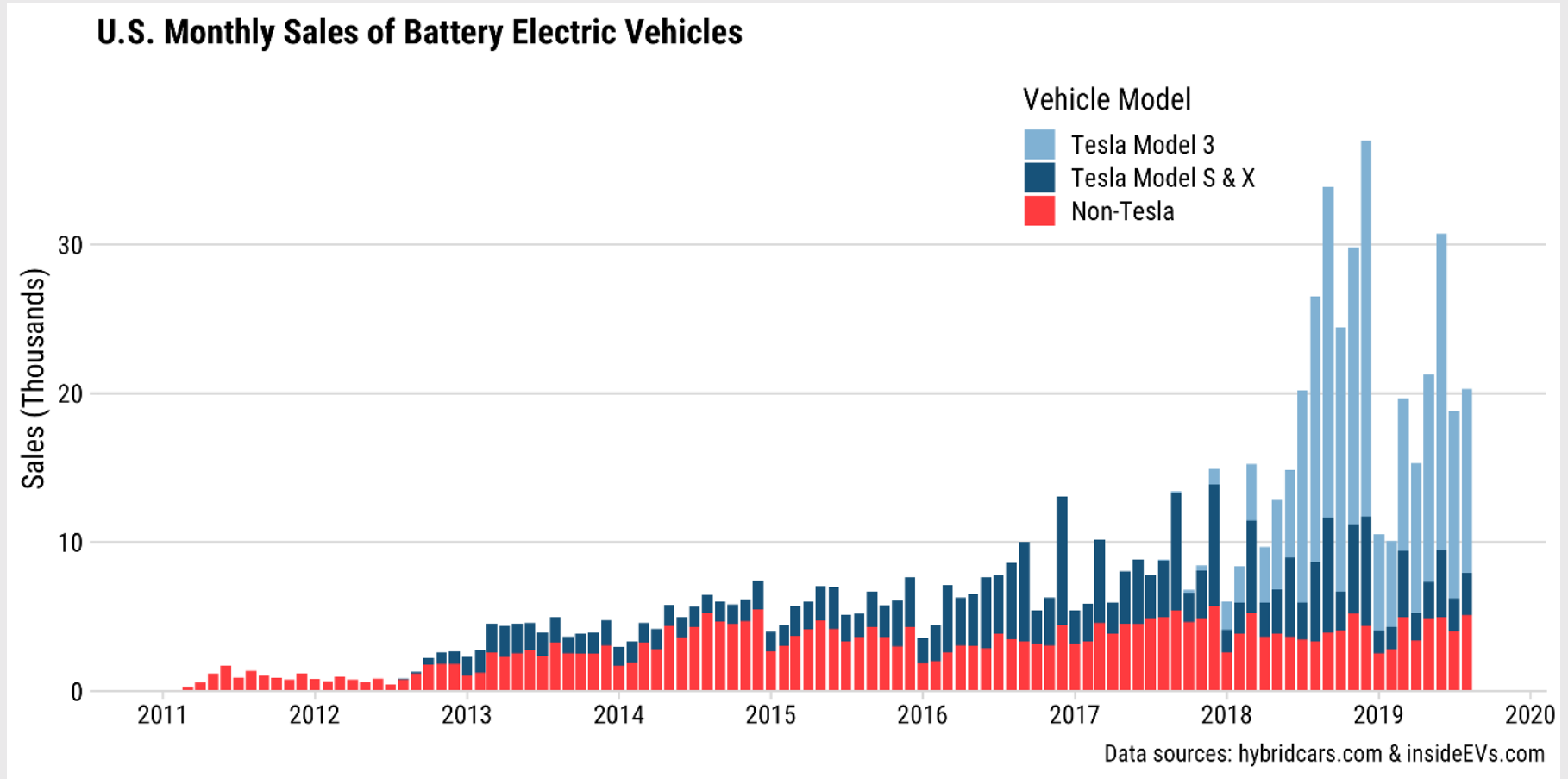
Use **layers** to build tension / provide context



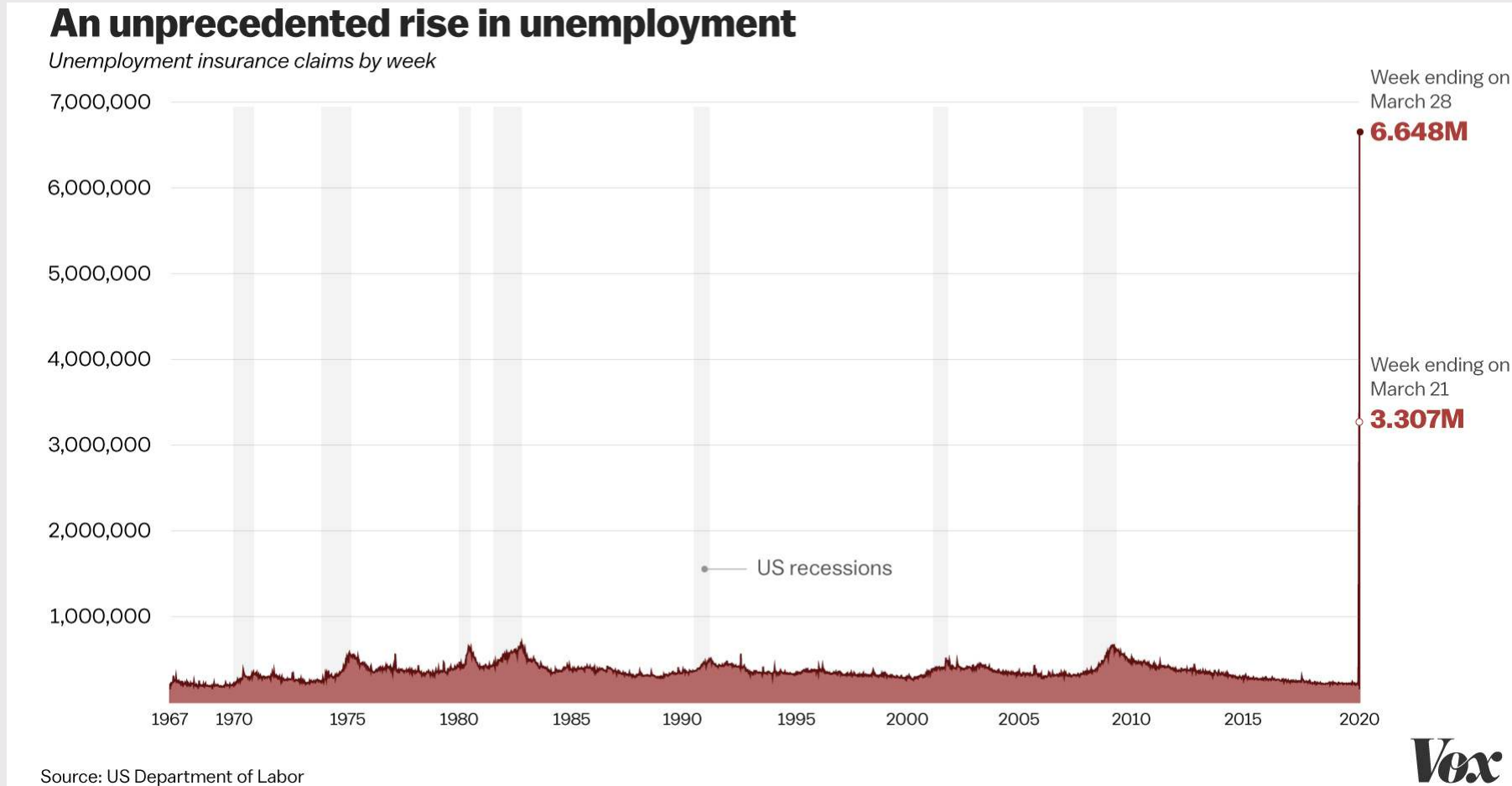
Use **layers** to build tension / provide context



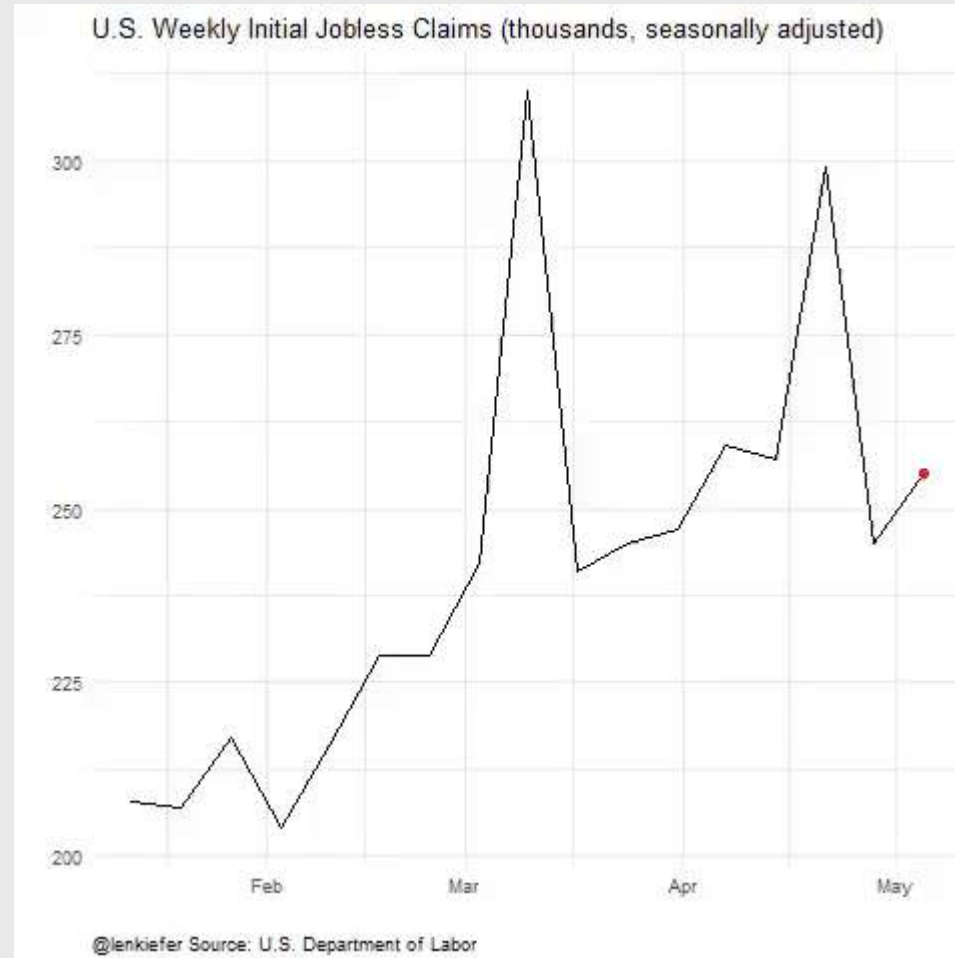
Use **layers** to build tension / provide context



Use **animation** to build tension / provide context



Use **animation** to build tension / provide context

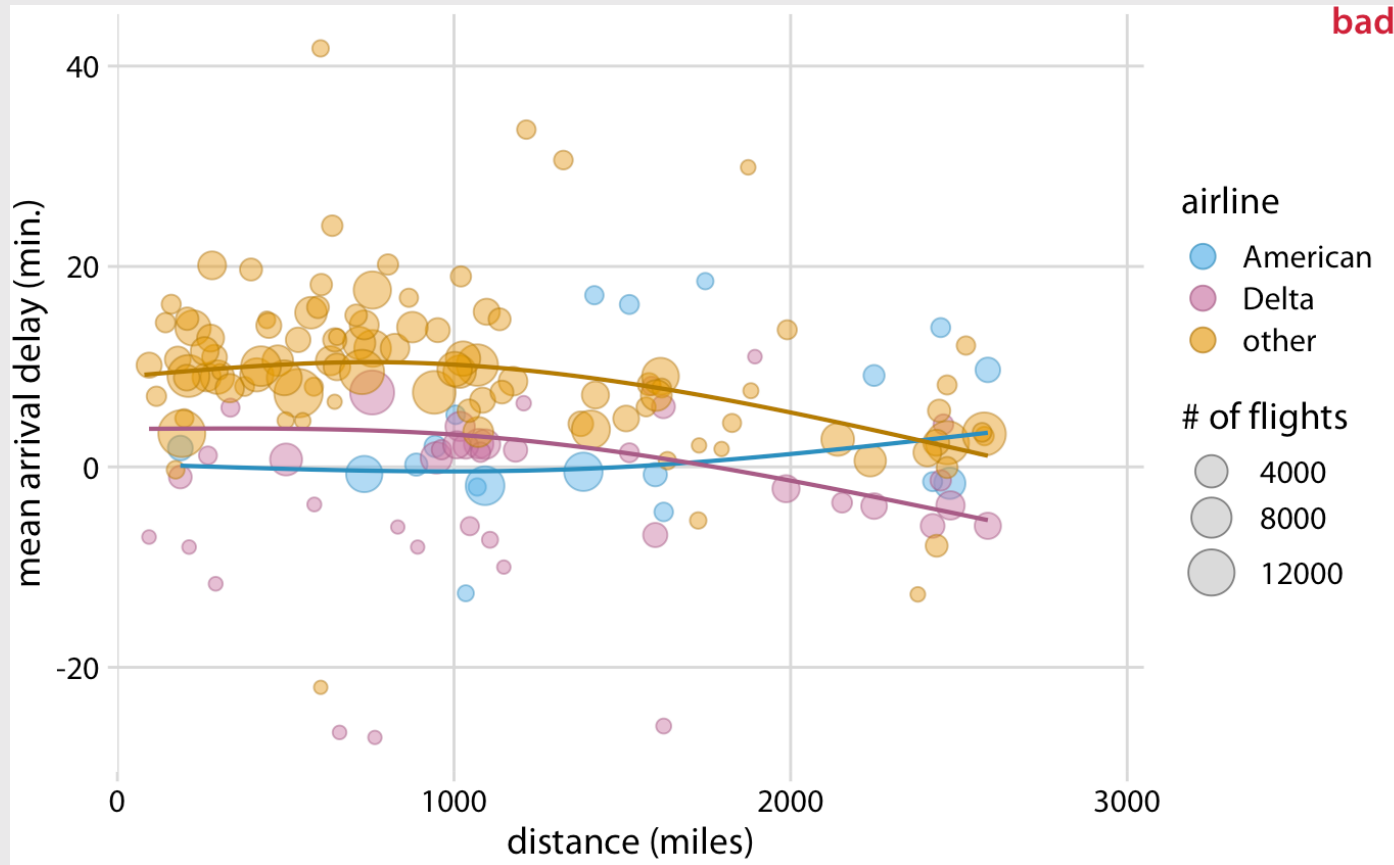


Make charts for the generals

(i.e. keep it simple)

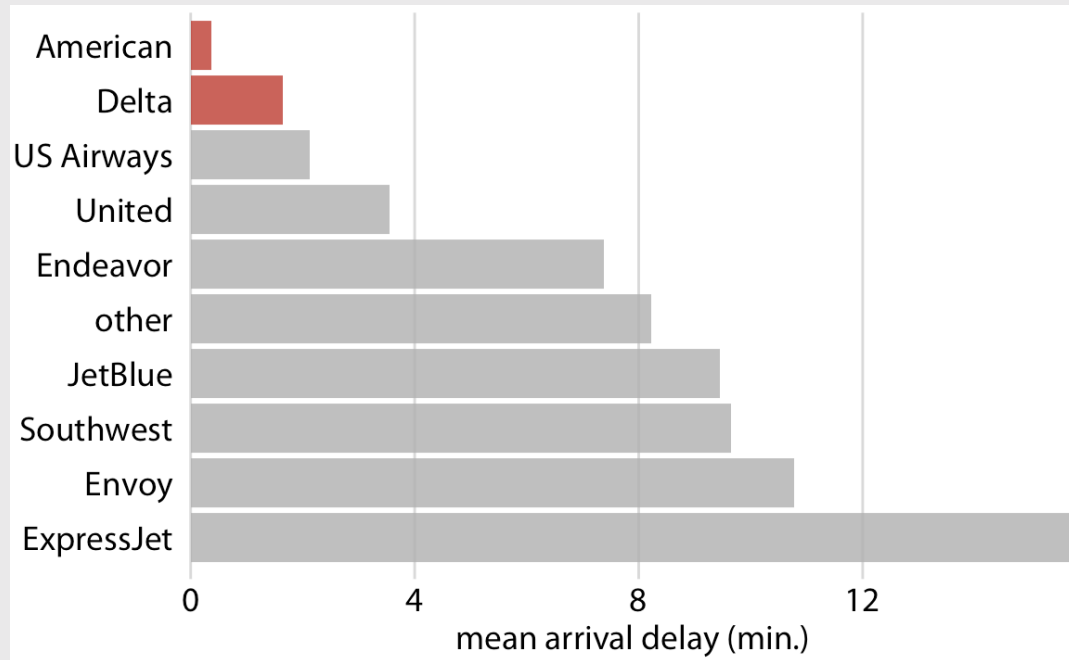
Make charts for the generals

(i.e. keep it simple)



Make charts for the generals

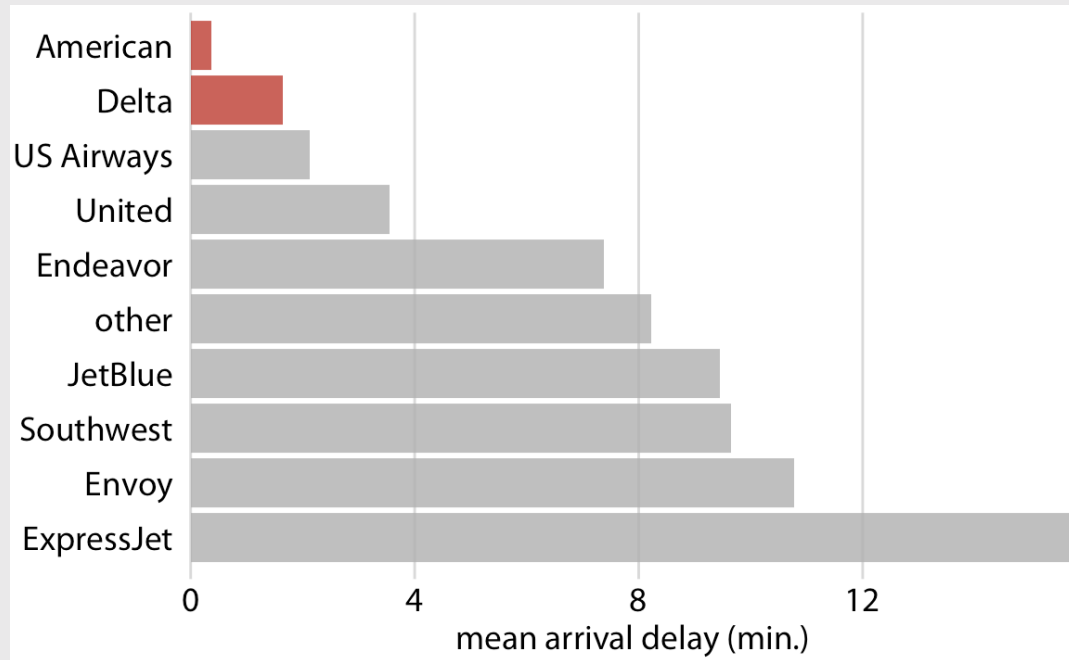
(i.e. keep it simple)



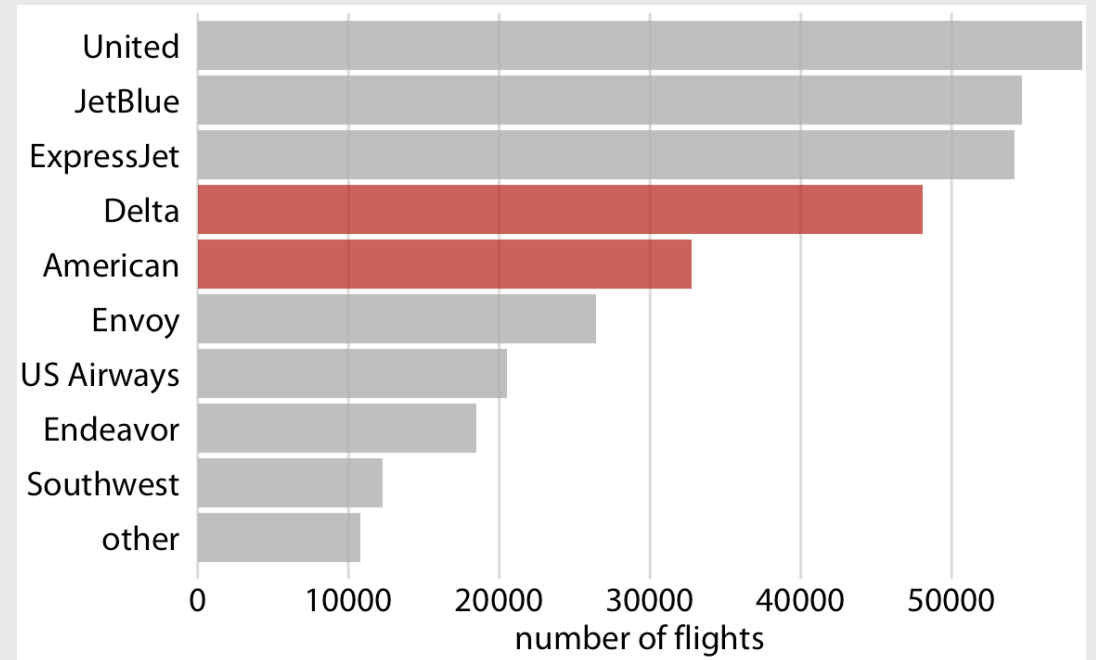
[source](#)

Make charts for the generals

(i.e. keep it simple)



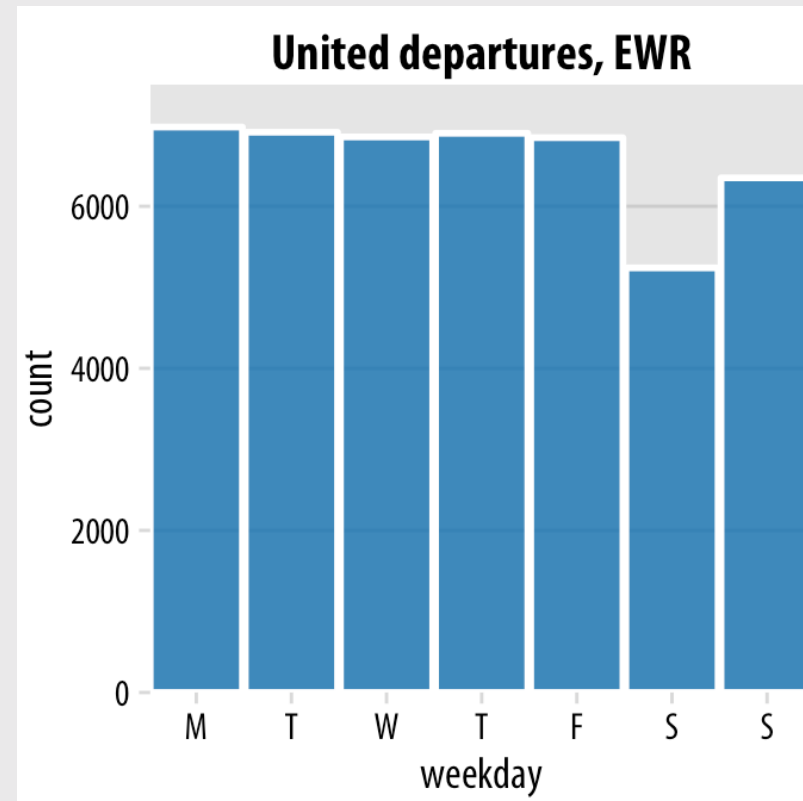
source



source

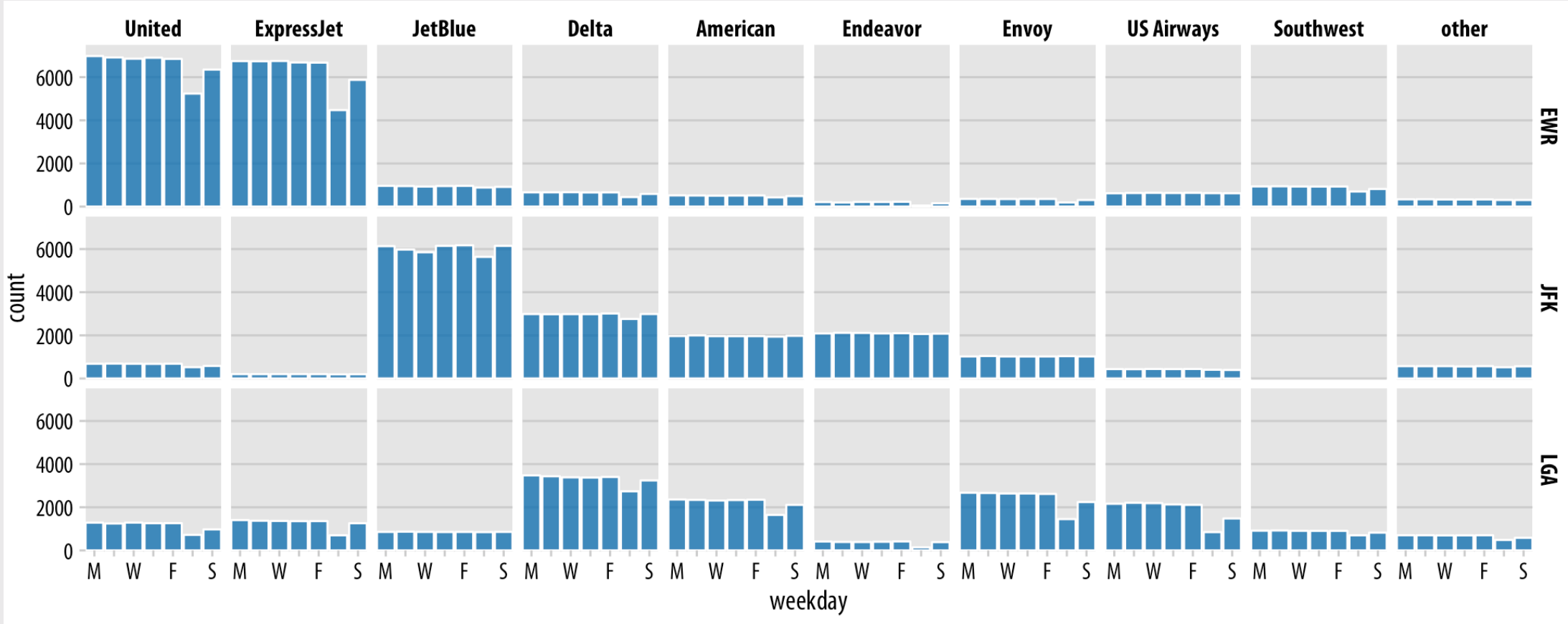
Build up towards complex figures

Build up towards complex figures



source

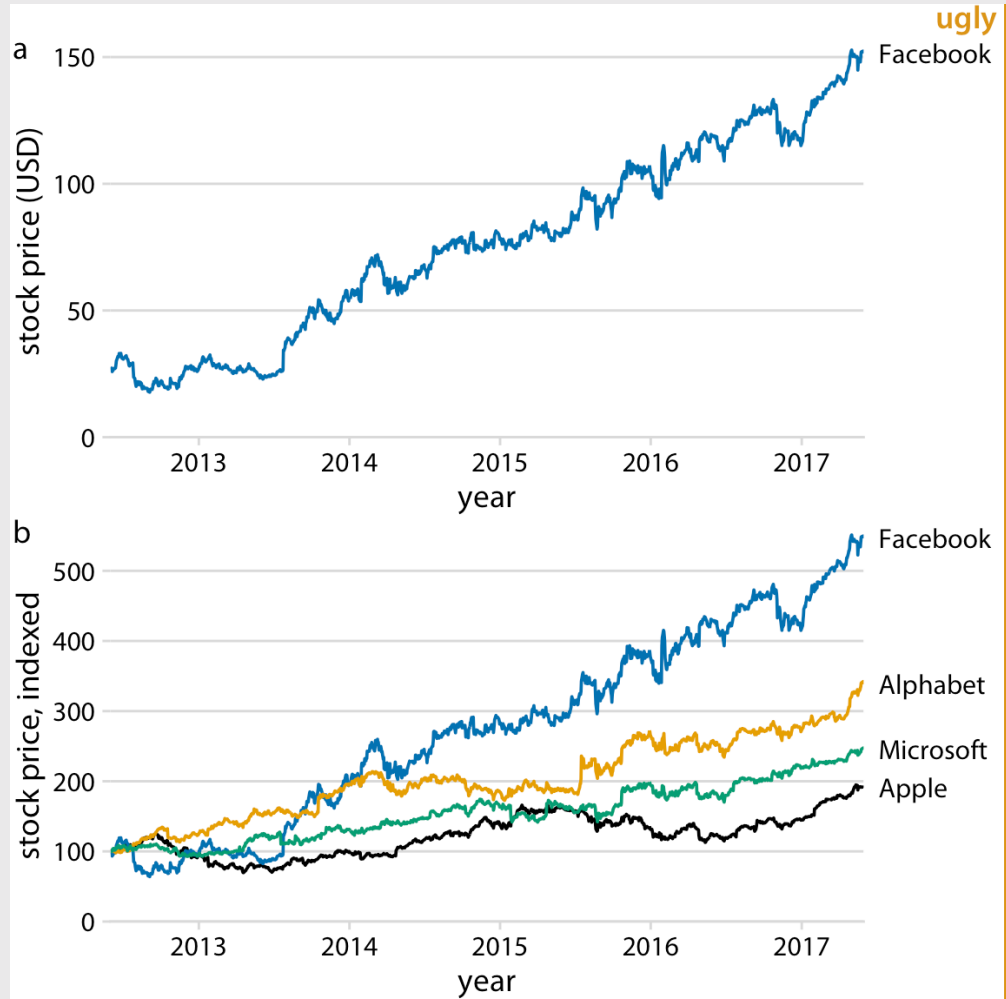
Build up towards complex figures



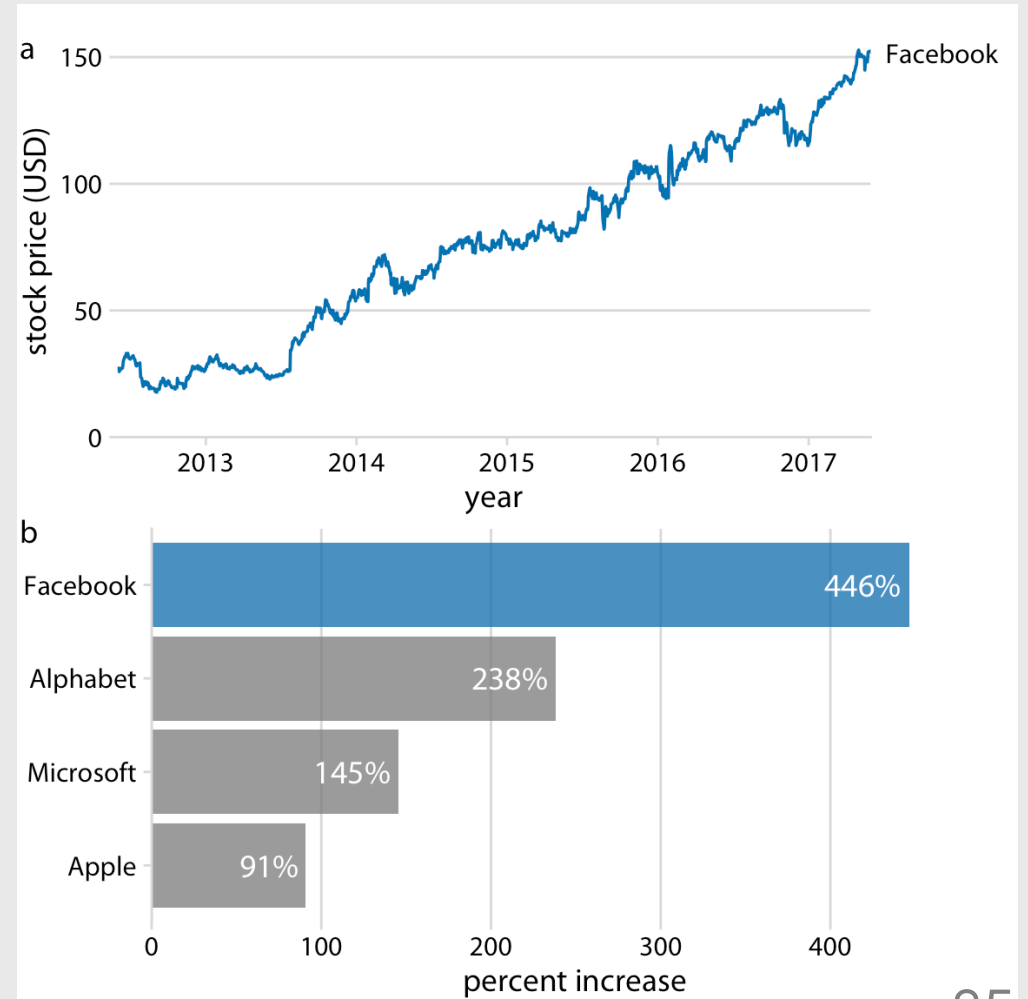
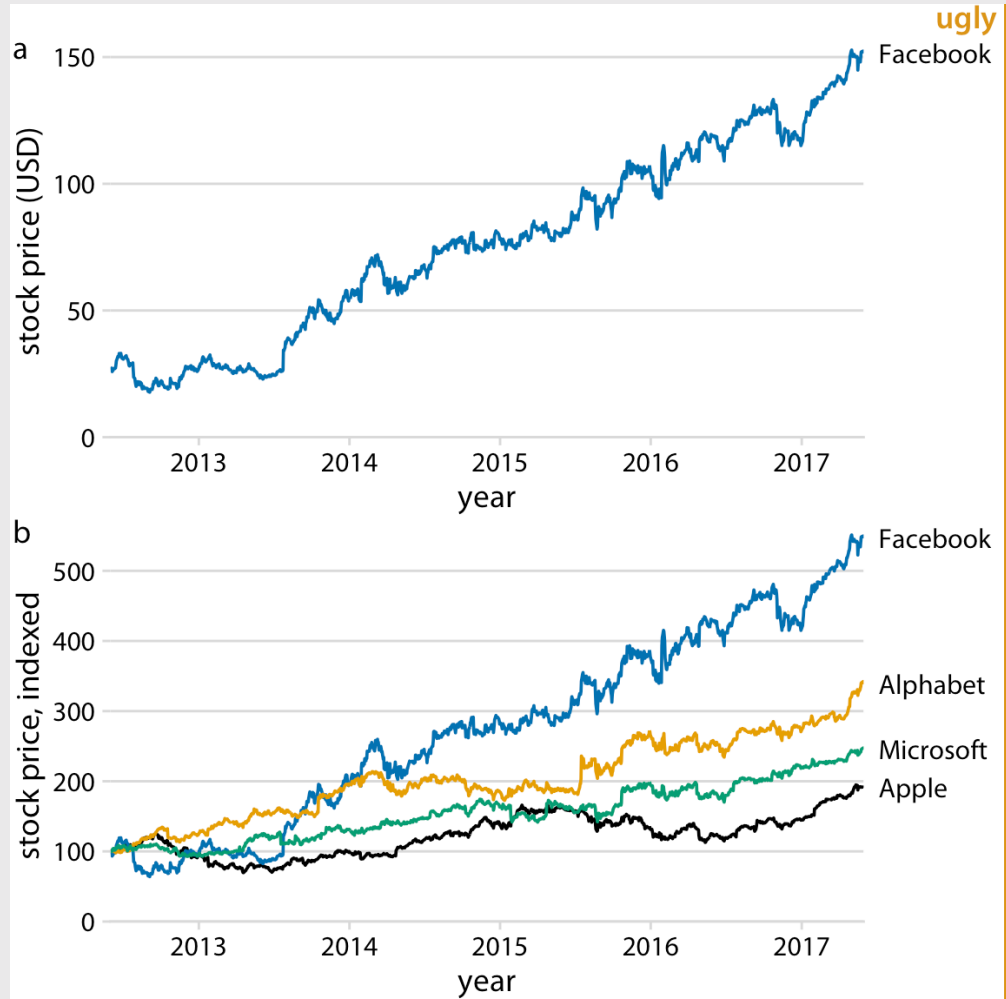
source

Be consistent, but don't be repetitive

Be consistent, but don't be repetitive



Be consistent, but don't be repetitive



Storytelling

1. Telling a story
2. Designing slides
3. Giving a talk

Hitchcock's rule



Hitchcock's rule

The size of any object in your frame should be proportional to its importance to the story at that moment

[Watch this example](#)

Hitchcock's rule

The size of any object in your ~~frame~~ **slide** should be proportional to its importance to the story at that moment

...and finally you will read this

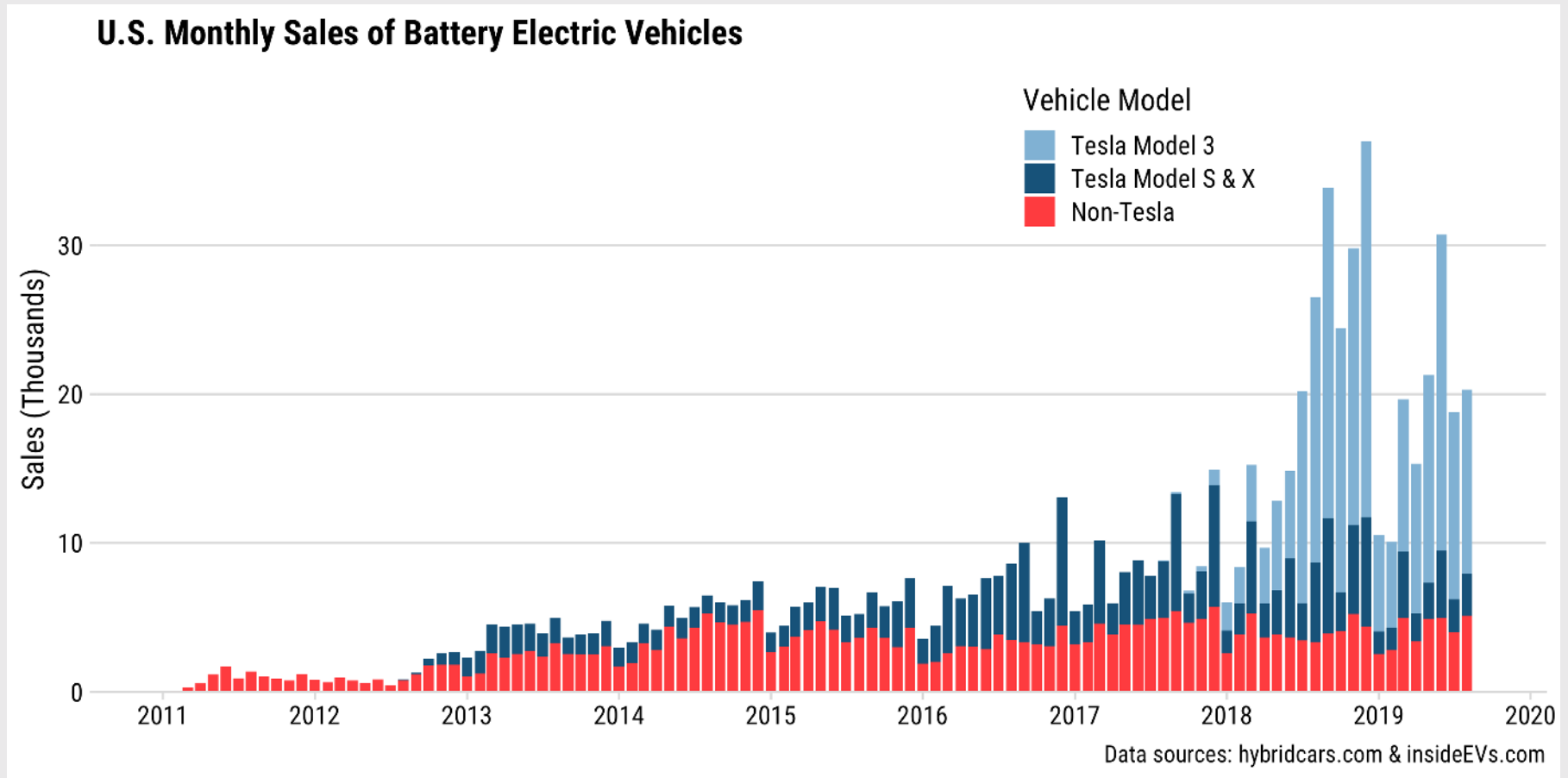
You will read this first

and then you will read this

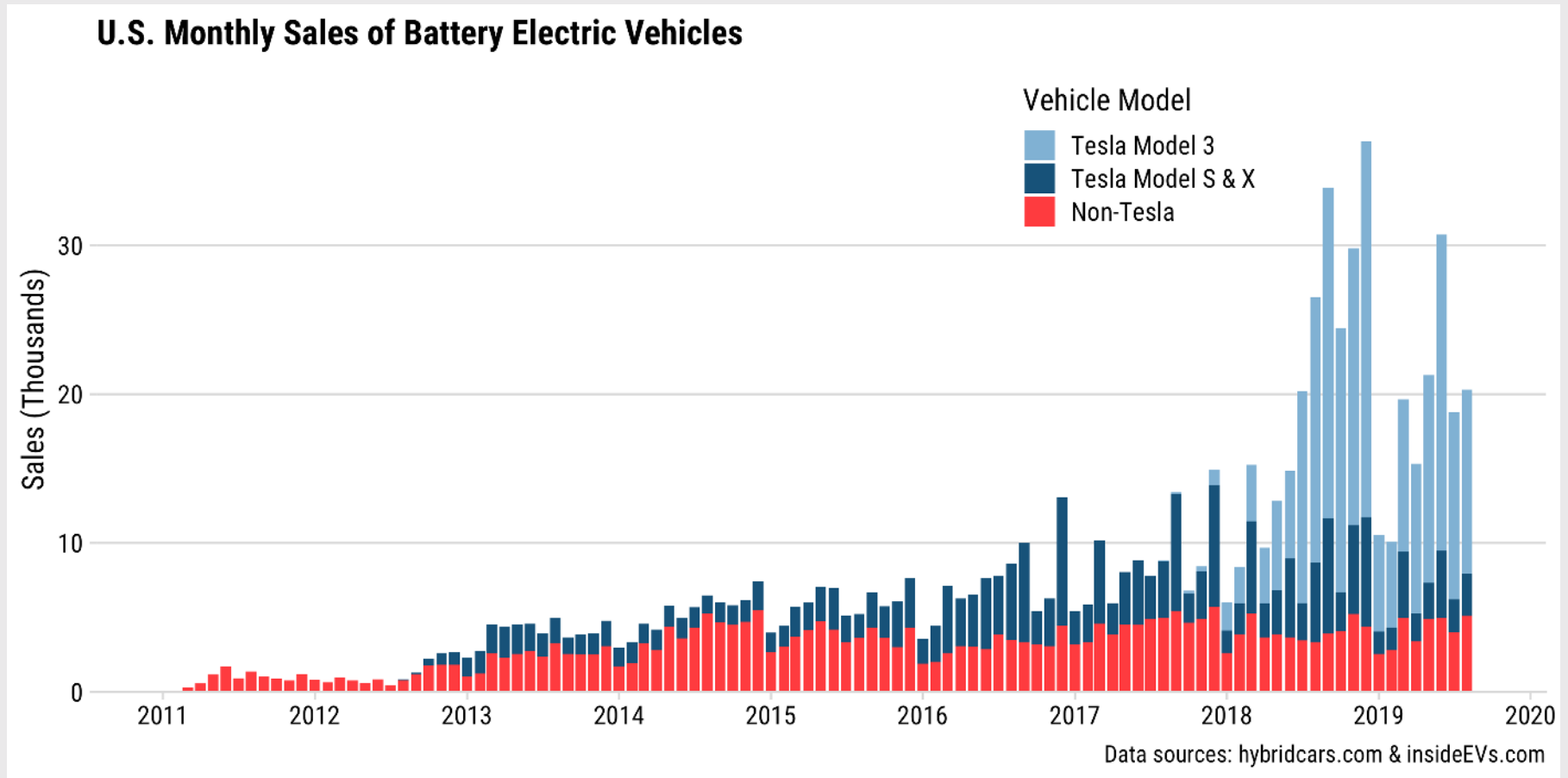
Put main point at top and use big font size!

(see Stephanie Evergreen's blog post "[So What?](#)")

Except for Tesla, EV adoption in the U.S. is **flat**



Tesla's Model 3 is a **Game Changer** for EVs



> 40pt font for titles

> 24pt font for all other text

(Exception: footer text can be small)

Fonts matter



"Fast Taco"



"Mega Flicks"

FONTS MATTER

You'll Always
Be Mine

YOU'LL
ALWAYS
BE
MINE

Use fonts to encode meaning

Use fonts to encode meaning

San-serif fonts for most text

Use fonts to encode meaning

San-serif fonts for most text

"Italic, serif fonts for quotes"
- Prof. Helveston

Use fonts to create **hierarchy**

```
# Hierarchy
```

```
## Hierarchy
```

```
### Hierarchy
```

```
#### Hierarchy
```

Hierarchy

Hierarchy

Hierarchy

Hierarchy

Title

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Size

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Weight

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Color

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Spacing

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Typeface

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words:

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Combine color, weight, spacing, and typeface to generate *texture*

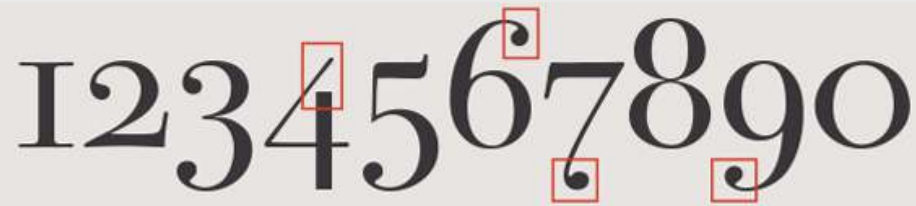
Title

Subtitle

This is some text that goes into detail and explains a lot more about the topic described in the title. Here's some random Latin words: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Use fonts with **same-height** numbers

"Oldstyle" (bad)



1 2 3 4 5 6 7 8 9 0

The image shows the digits 1 through 0 in an oldstyle font. The numbers 4, 6, 7, and 9 are significantly taller than the others, with red boxes highlighting their top portions to illustrate the lack of uniformity in height.

Lining (good)



1 2 3 4 5 6 7 8 9 0

The image shows the digits 1 through 0 in a lining font. All digits are of uniform height, with a red box highlighting the top of the number 4 to show it aligns with the top of the other numbers.

Use fonts with **same-width** numbers ("Mono" fonts)

"Proportional" (bad)



1|2|3|4|5|6|7|8|9|0|

"Tabular" (good)



1|2|3|4|5|6|7|8|9|0|

Font families you should consider using

Roboto

Download from <https://fonts.google.com/>

Fira Sans

Source Code
pro

Alegreya

Lato

Avoid fonts like

Comic Sans

Papyrus

They make your work look amateurish

Consider using a light-colored background
(tan / gray)

Use high contrast between font and background color

Dark text on a light background works well

Light text on a dark background also works well

Use high contrast between font and background color

Yellow text on a white background is horrible

Blue text on a black background is horrible

1 slide, 1 idea

Break up main points into multiple slides

Number your slides!

Remove “chart junk” from your slides

Exceptions in slider footer:

- References / data sources
- © Symbol

Example of an acceptable slide footer



If you are in person, consider using handouts

(1-2 pages)

Helps your audience:

1. Preview your results
2. Take notes
3. Remember your main points

Storytelling

1. Telling a story
2. Designing slides
3. Giving a talk

What are the first words
you should say in a speech?

What are the first words
you should say in a speech?

Watch [this video](#) to find out

How to start a speech

How to start a speech

3. With a question that matters to the audience ("Have you ever...?")

How to start a speech

3. With a question that matters to the audience ("Have you ever...?")
2. With a shocking factoid ("40k people die in car accidents every year..").

How to start a speech

3. With a question that matters to the audience ("Have you ever...?")
2. With a shocking factoid ("40k people die in car accidents every year..").
1. Tell a story, talk about **people** ("Imagine...")

How **not** to start a speech

How **not** to start a speech

1. Read the title slide

How **not** to start a speech

1. Read the title slide
2. Fiddling with the computer

Development and Adoption of Plug-in Electric Vehicles in China

Presented by:

John Paul Helveston, Ph.D.

Postdoctoral Fellow

Institute for Sustainable Energy

Boston University

January 26, 2018



Development and Adoption of
Plug-in Electric Vehicles in China



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John Paul Helveston, Ph.D.
Postdoctoral Fellow
Institute for Sustainable Energy
Boston University

January 26, 2018



3) With a question that matters to the audience:

"What's the current federal subsidy for buying an electric car in the US?"



3) With a question that matters to the audience:

"What's the current federal subsidy for buying an electric car in the US?"

2) With a shocking factoid

"50% of the world's EVs are made by Chinese automakers"



3) With a question that matters to the audience:

"What's the current federal subsidy for buying an electric car in the US?"

2) With a shocking factoid

"50% of the world's EVs are made by Chinese automakers"

1) Tell a story, talk about **people**

"Whenever I mention electric cars, most people think "Tesla"..."

Your turn

10:00

Brainstorm different strategies for how to start a presentation you are working on:

1. Tell a story, talk about **people** ("Imagine...").
2. With a **factoid** ("40k people die in car accidents every year...").
3. With a **question** that matters to the audience ("Have you ever...?").