

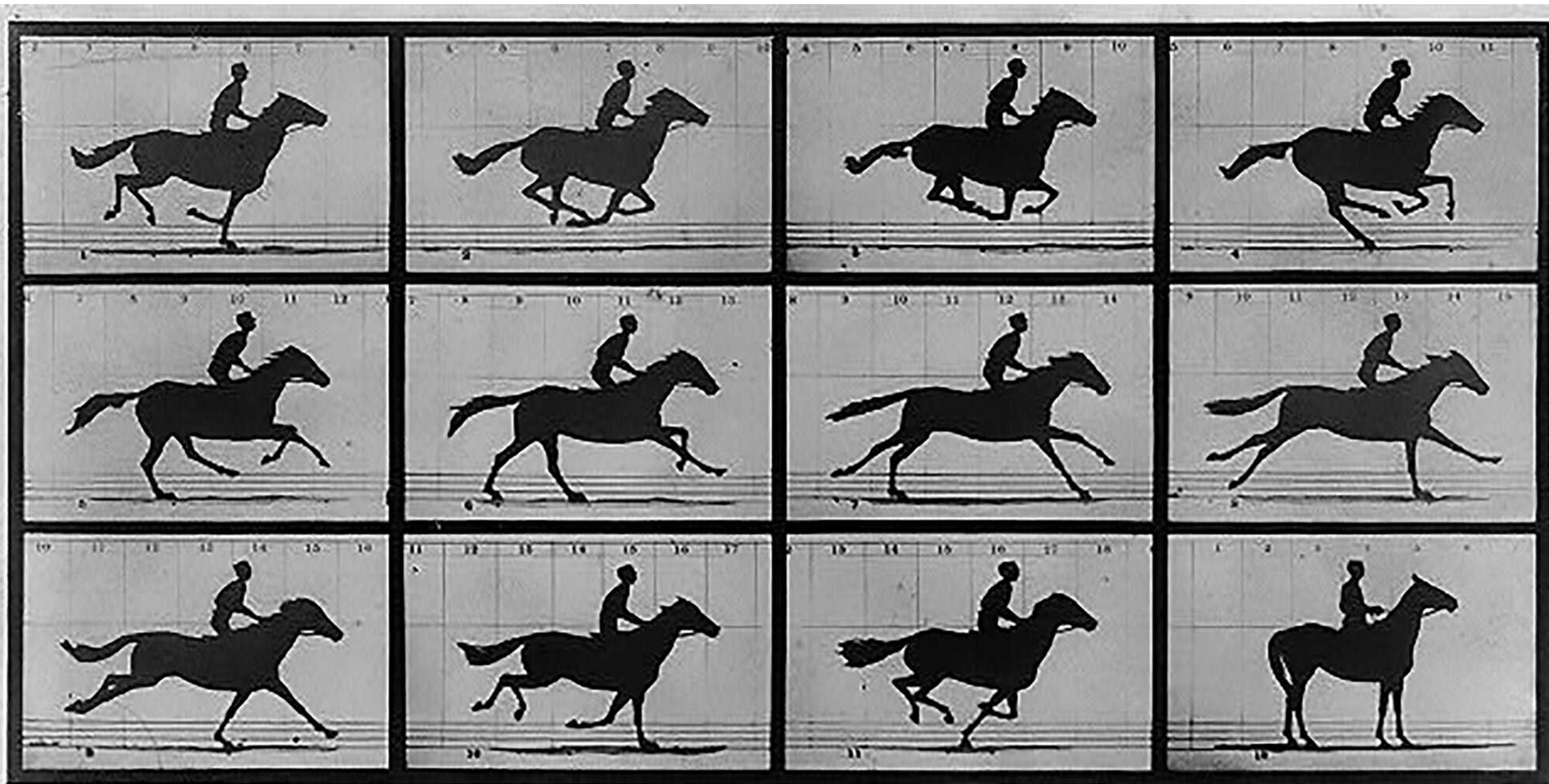
Lecture 10

DD 324:
Data Visualisation

Interactivity & Motion

8 April · Gyan Lakhwani · gyanlakhwani@gmail.com · Department of Design, DTU

**Humans have been telling
stories and making things
move for ages.**



Copyright, 1878, by MUYBRIDGE.

MORSE'S Gallery, 417 Montgomery St., San Francisco.

THE HORSE IN MOTION.

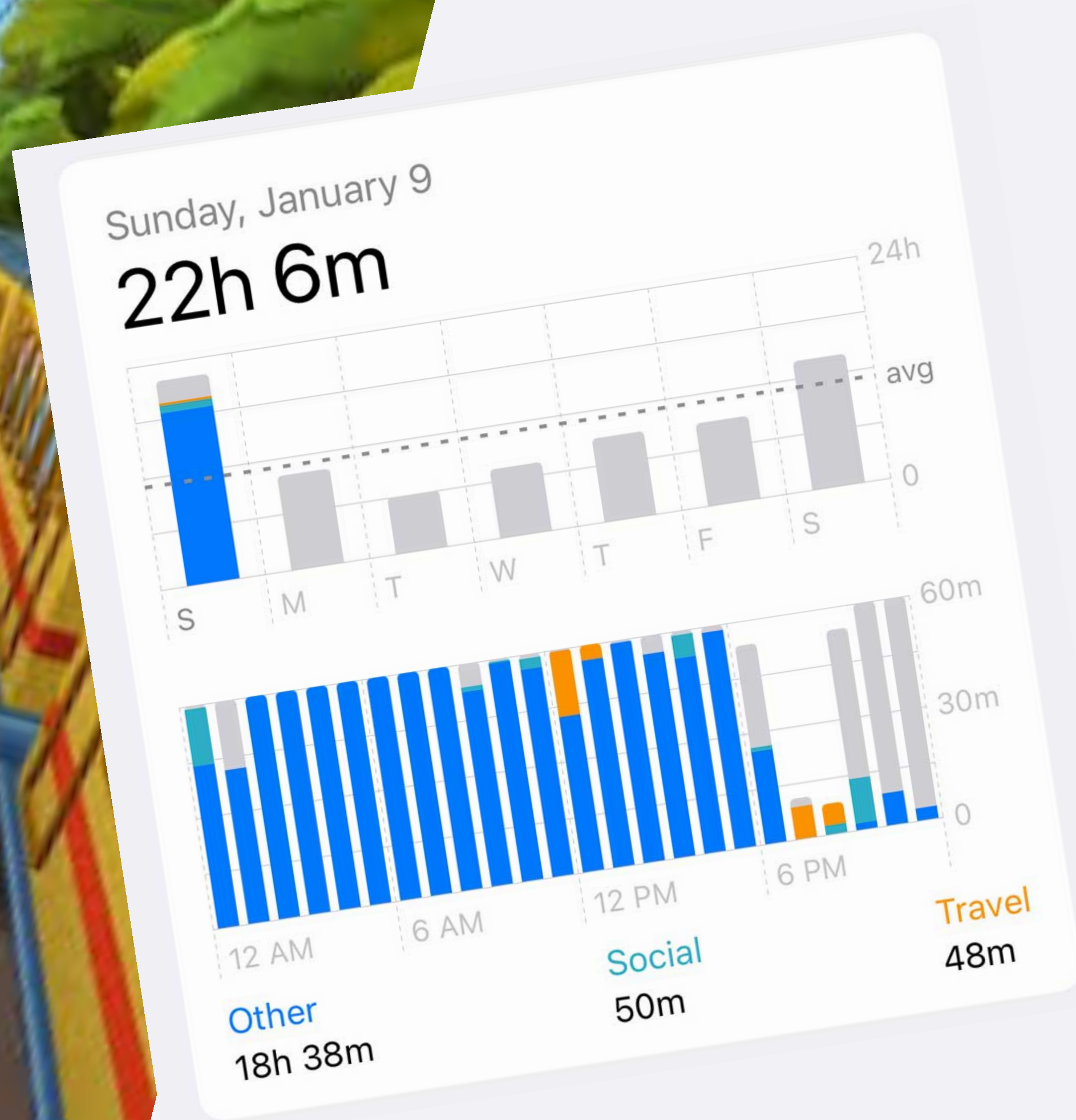
Illustrated by
MUYBRIDGE.

AUTOMATIC ELECTRO-PHOTOGRAPH.

"SALLIE GARDNER," owned by LELAND STANFORD; running at a 1.40 gait over the Palo Alto track, 19th June, 1878.

The negatives of these photographs were made at intervals of twenty-seven inches of distance, and about the twenty-fifth part of a second of time; they illustrate consecutive positions assumed in each twenty-seven inches of progress during a single stride of the horse. The vertical lines were twenty-seven inches apart; the horizontal lines represent elevations of four inches each. The exposure of each negative was less than the two-thousandth part of a second.

Eadweard
Muybridge
1878



2025

**Interactivity and motion
are baseline expectations
for content in 2025.**

**Why would we want
data to move?**

Why would we want data to move?

1

Why would we want data to move?

1

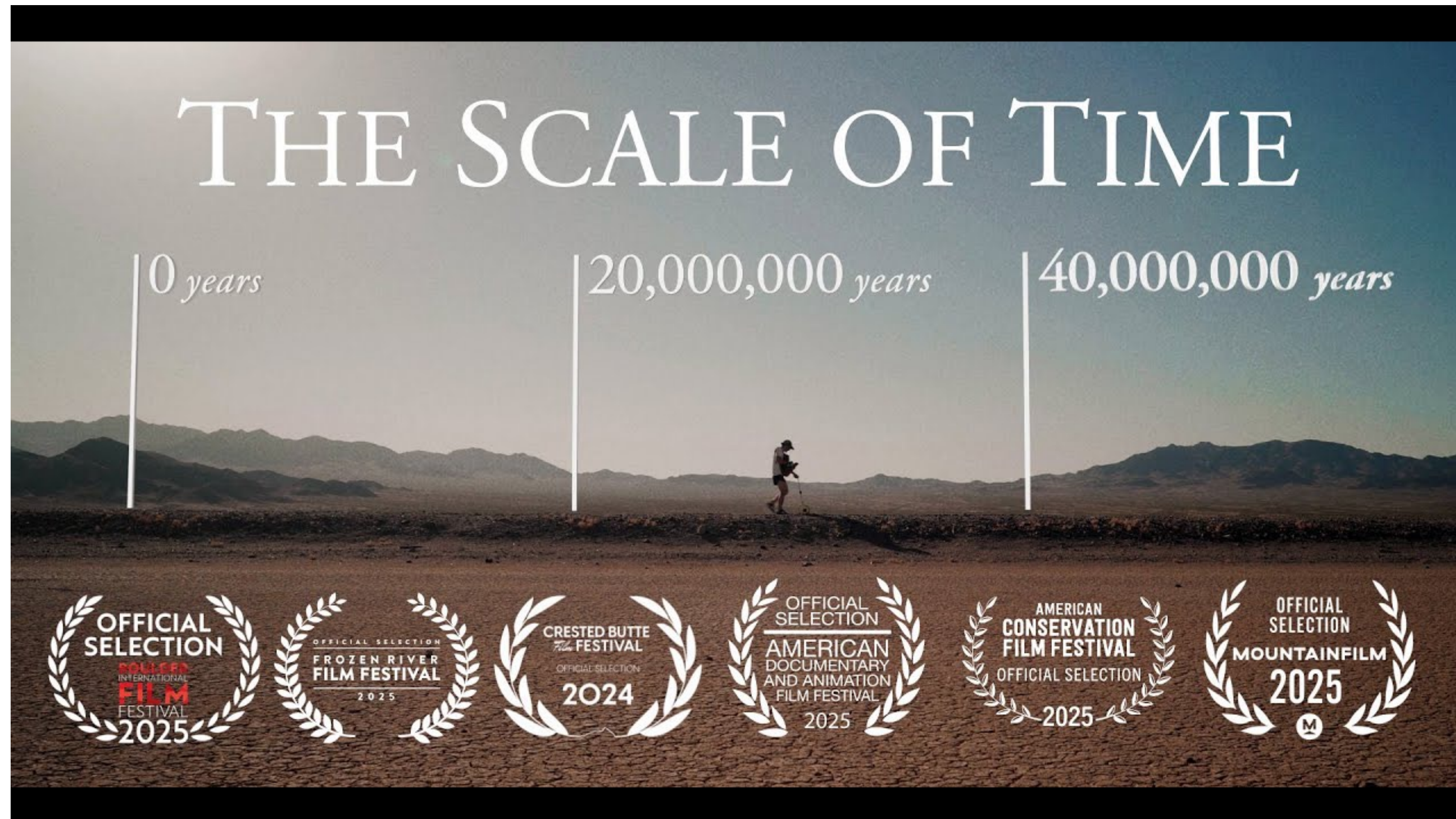
Animation can draw attention.

Why would we want data to move?

2

Motion can help transition:

- *between parts of a visualisation,*
- *between different ideas,*
- *between different aspects of the same data.*



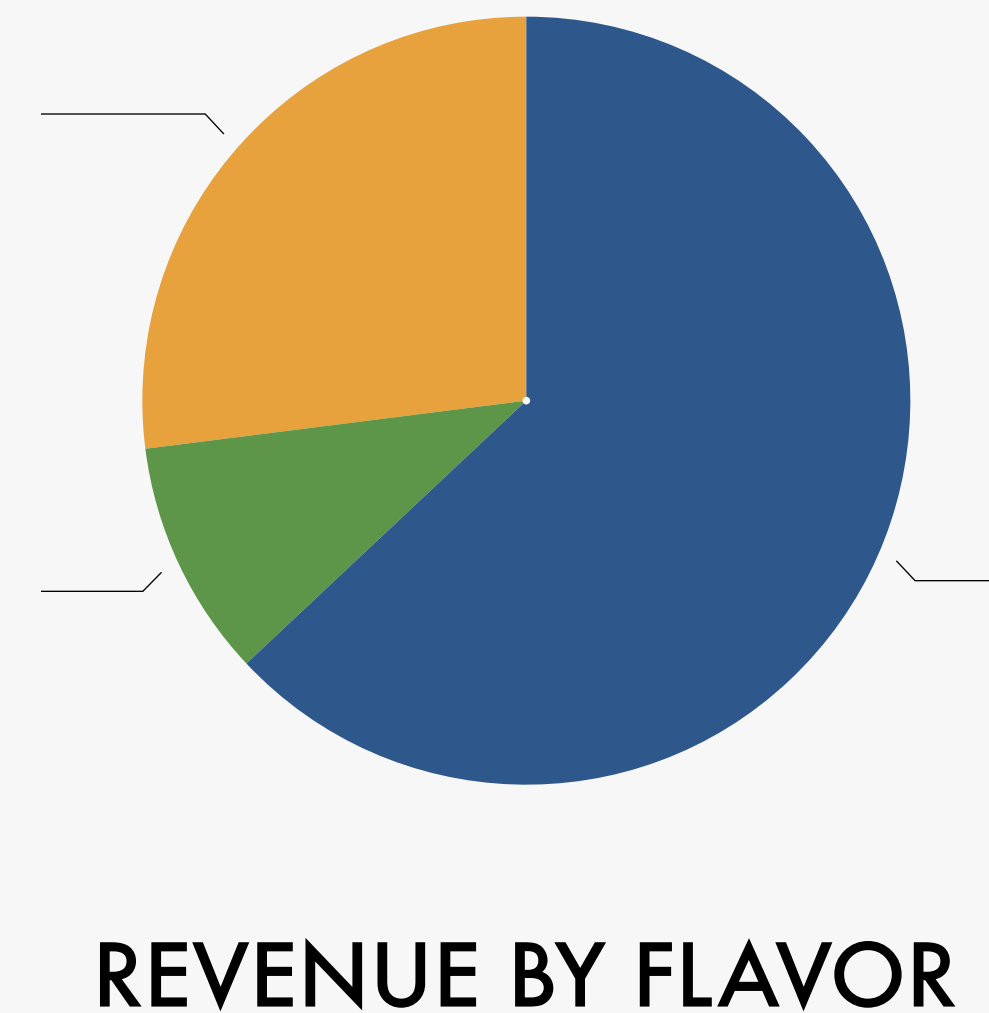
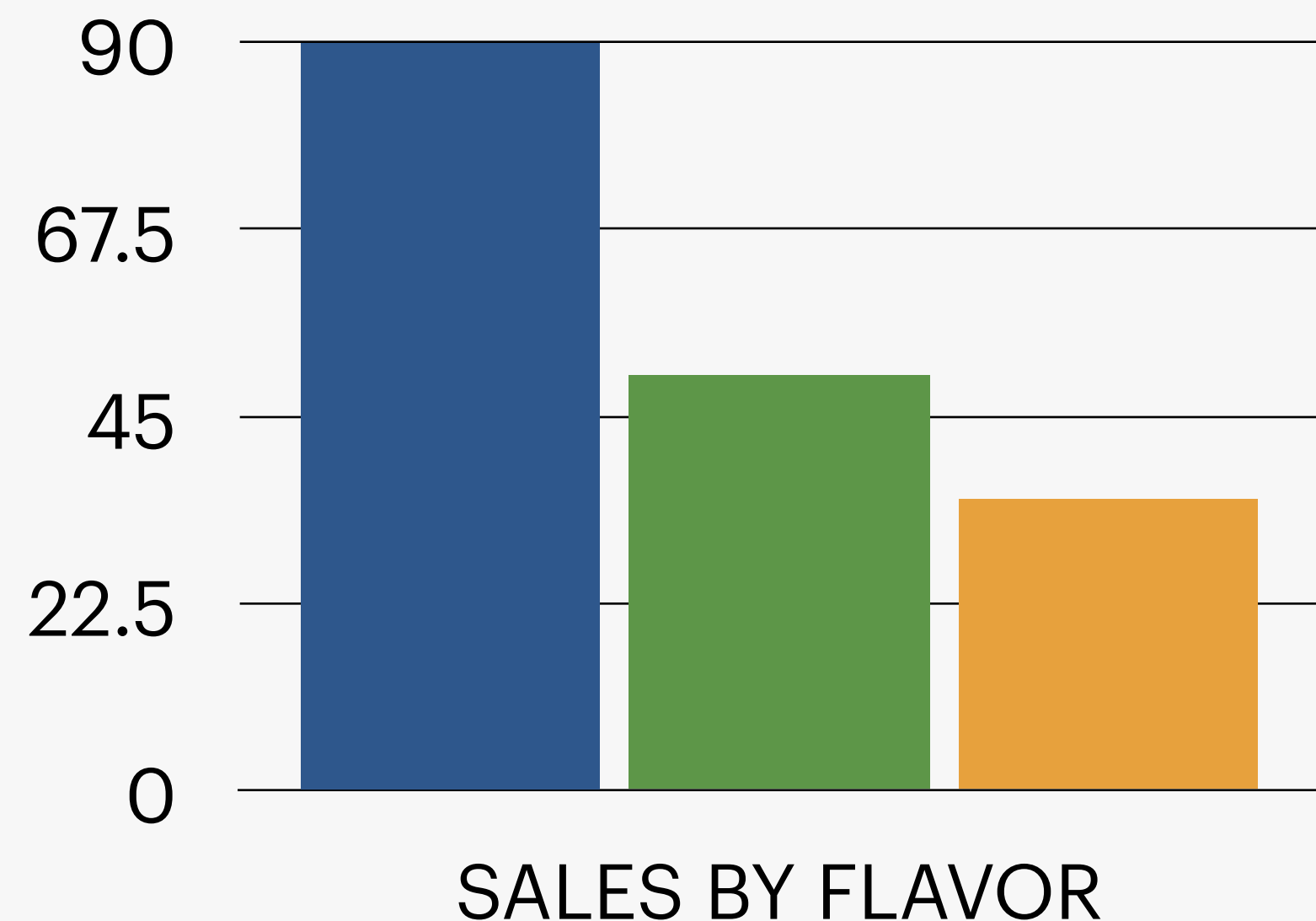
To Scale: TIME (Start at 3:00)

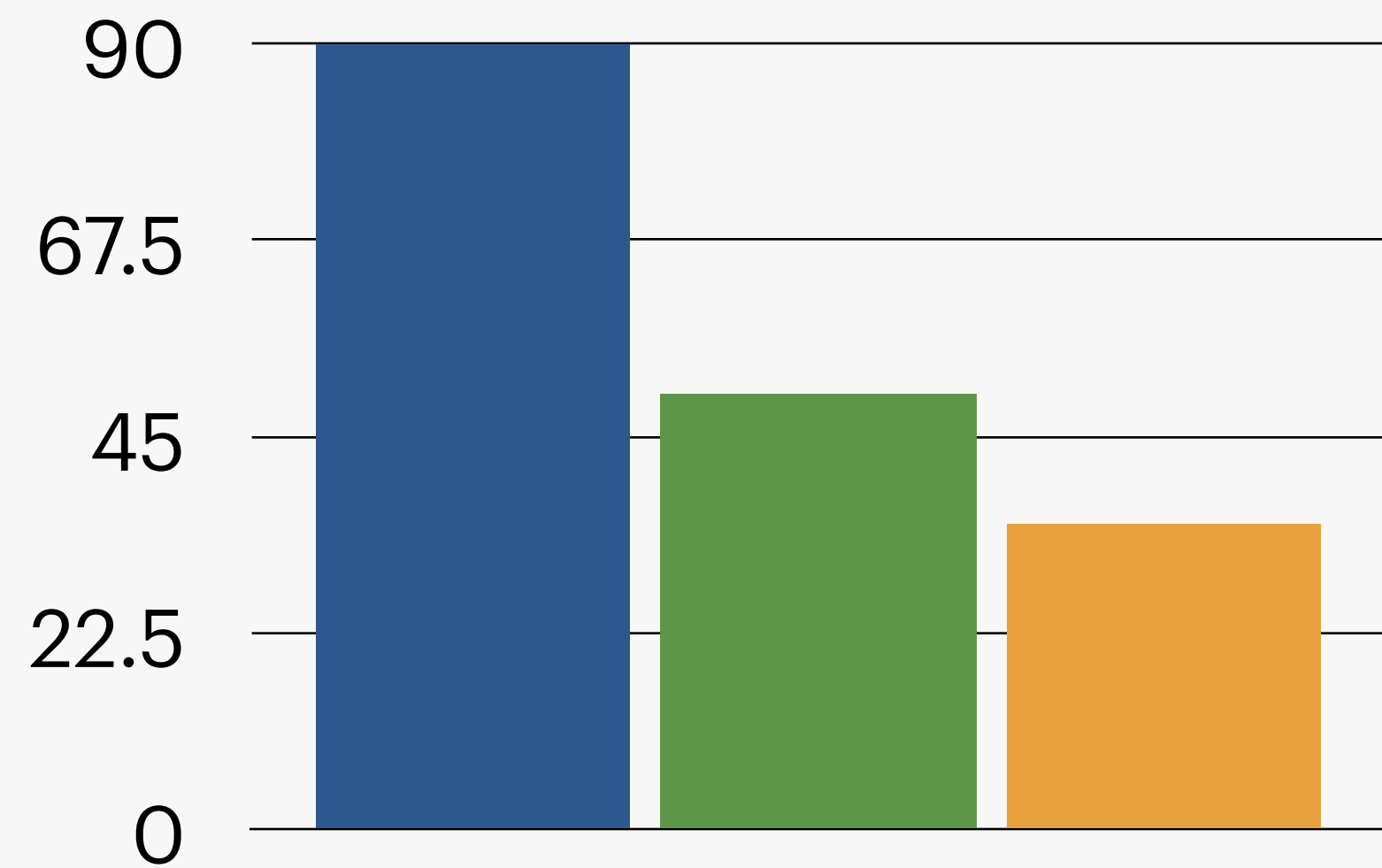


Why all world maps are wrong (Start at 4:35)

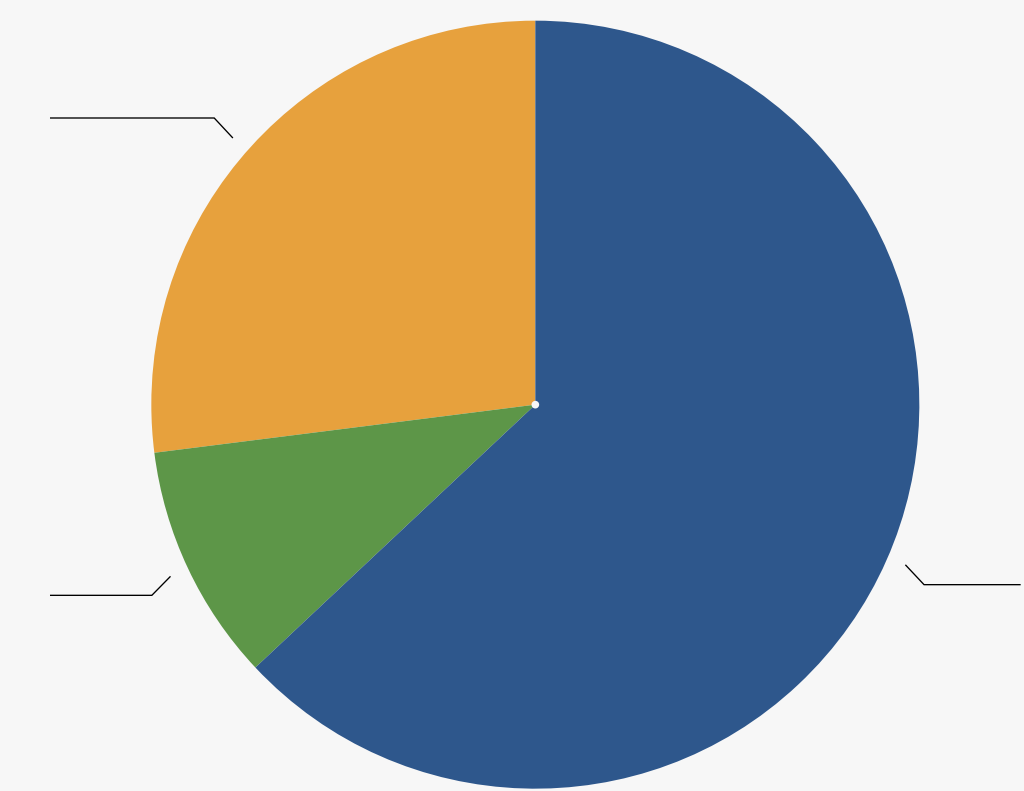
Warmup exercise

How would you transition from one chart to the other? Draw the 2 intermediate frames on paper.



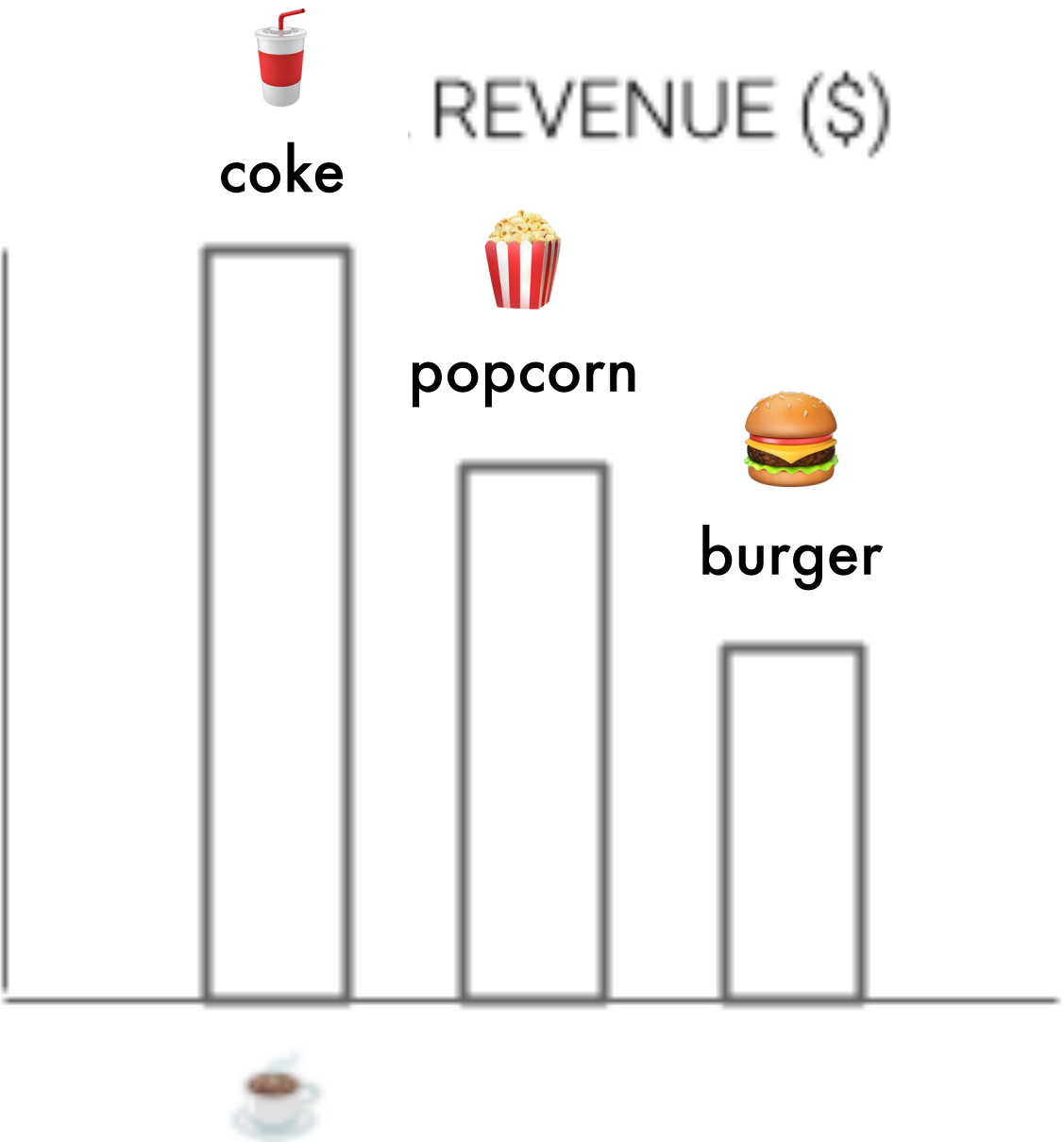
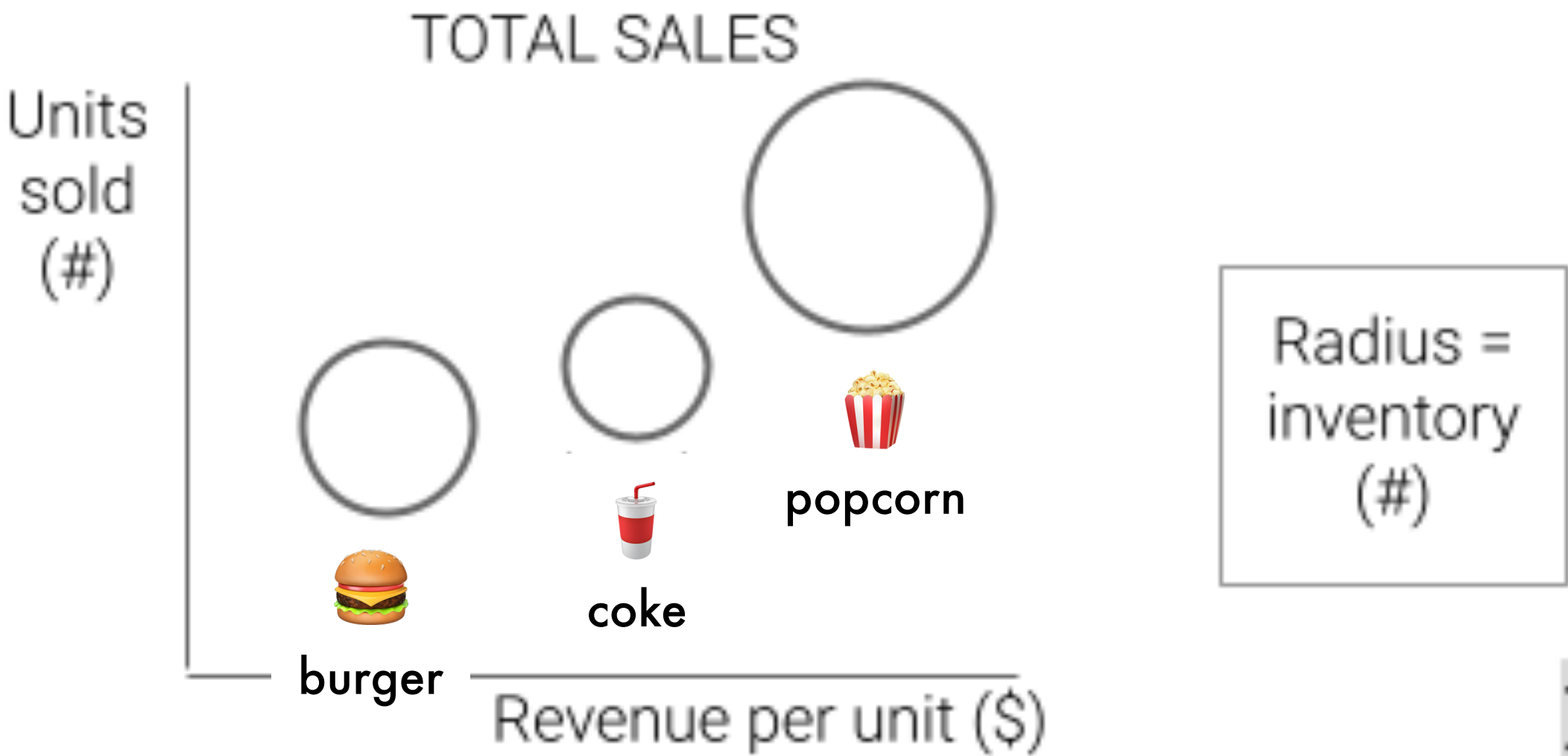


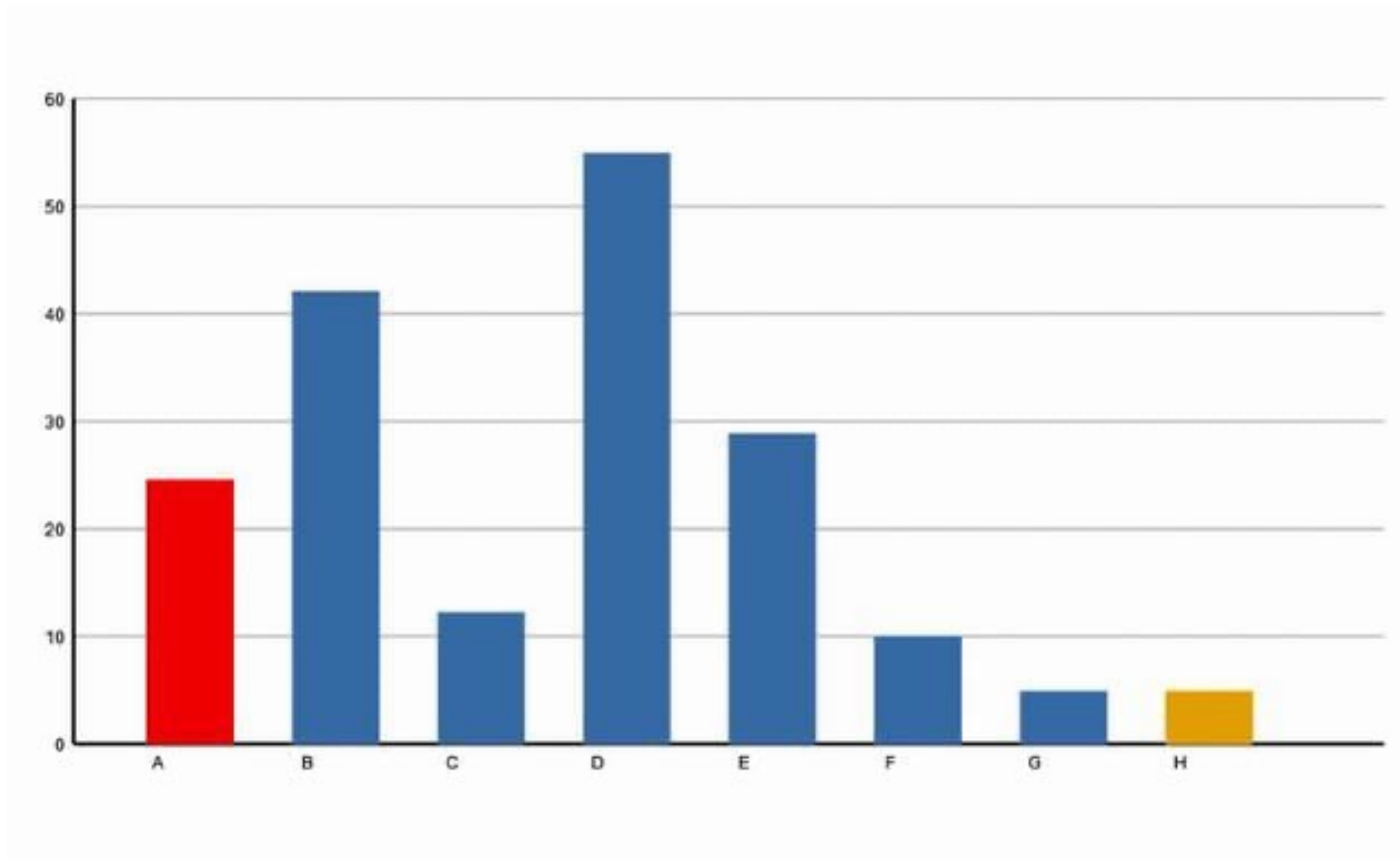
SALES BY FLAVOR



REVENUE BY FLAVOR

Animate scatterplot to bar chart





VIDEO: Animated Transitions in Statistical Data Graphics

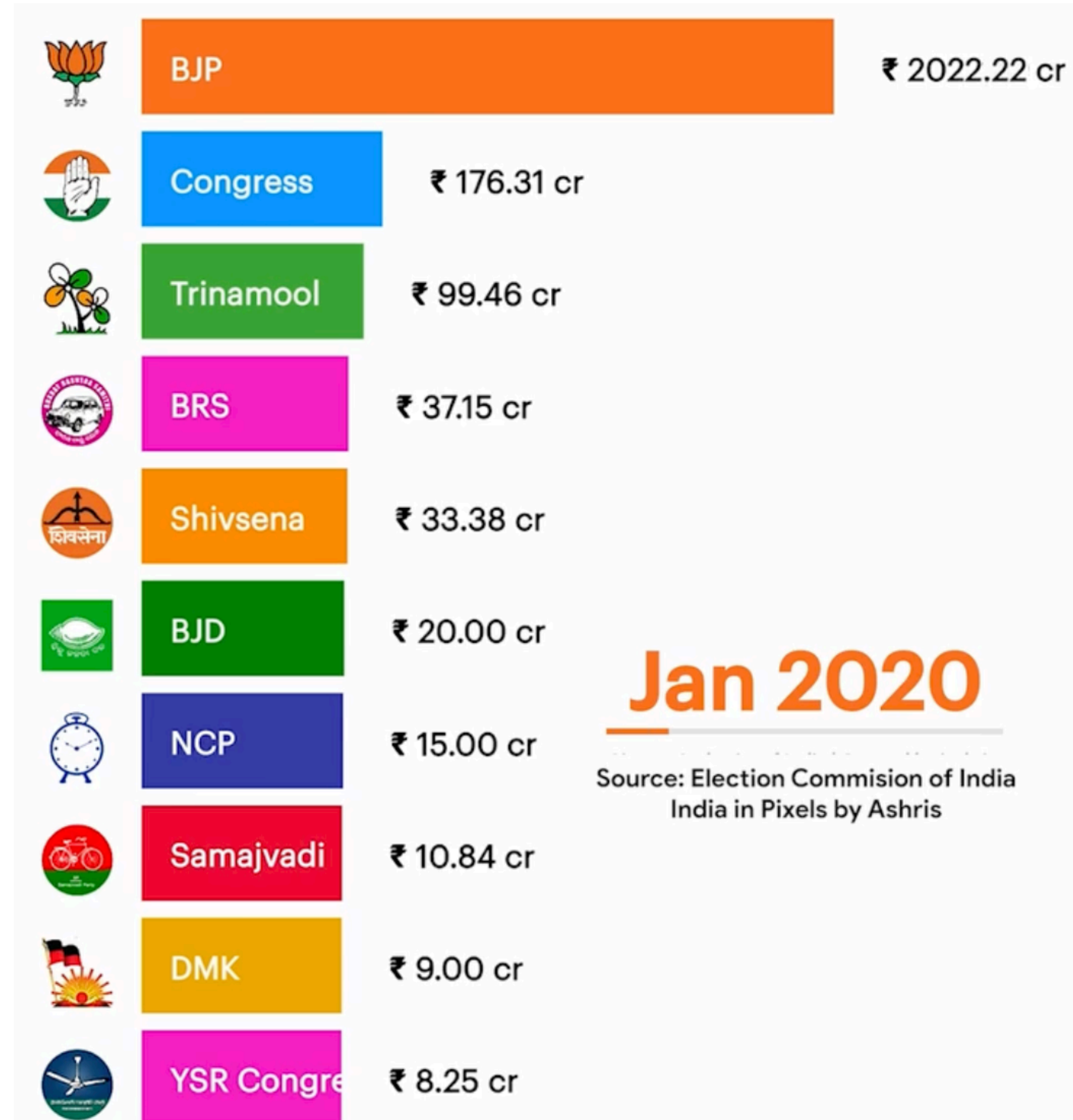
Why would we want charts to move?



Time can be used as a channel and can give you an additional dimension to play with.

Electoral Bond Donations By Parties 2019-2024

visualized by @india.in.pixels



SOURCE

Much of what can be achieved
with motion can also be done
with interactive media.

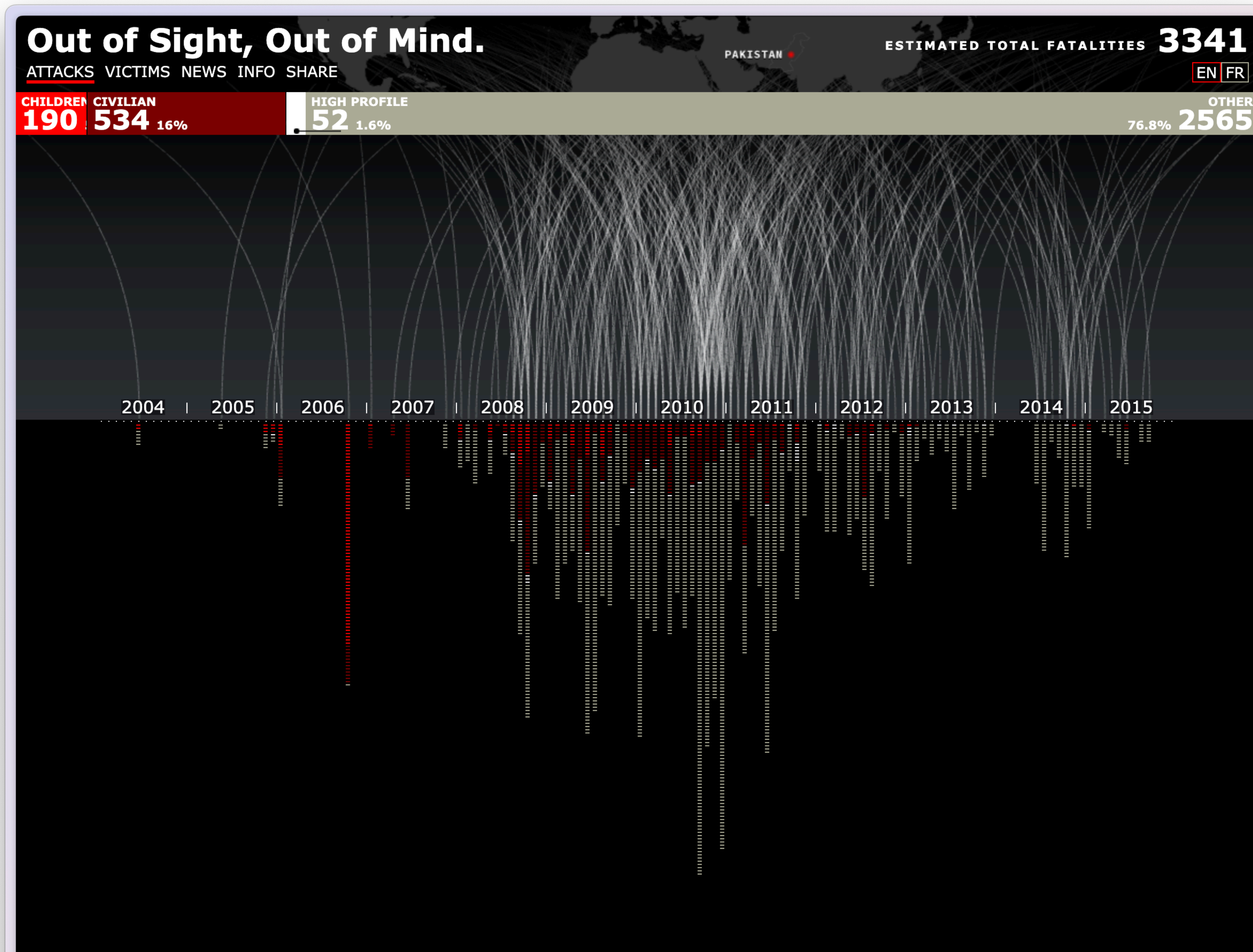
INTERACTIVE

Changes when you
interact with it.

VIDEO

Changes on a
fixed timeline.

drones.pitchinteractive.com



Similar to a video, just
created with code.

Hover interactivity.

pudding.cool

A digital publication that...
explains ideas with visual essays



ABOUT

SUBSCRIBE

MORE



Find a story...



OUR FAVES



POPULAR



UPDATING



YOUR INPUT



VIDEO



AUDIO

#198

NOV 2024

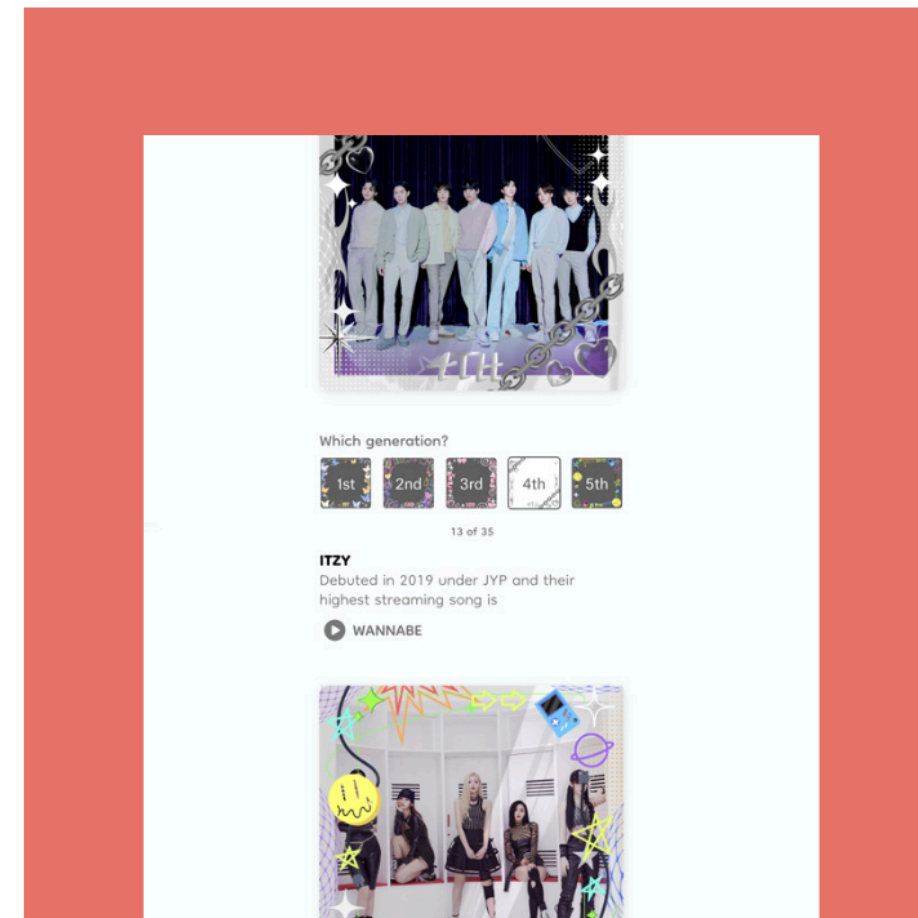


sitters vs standers

The American worker divide: Those who sit, and those who stand.

#192

OCT 2024

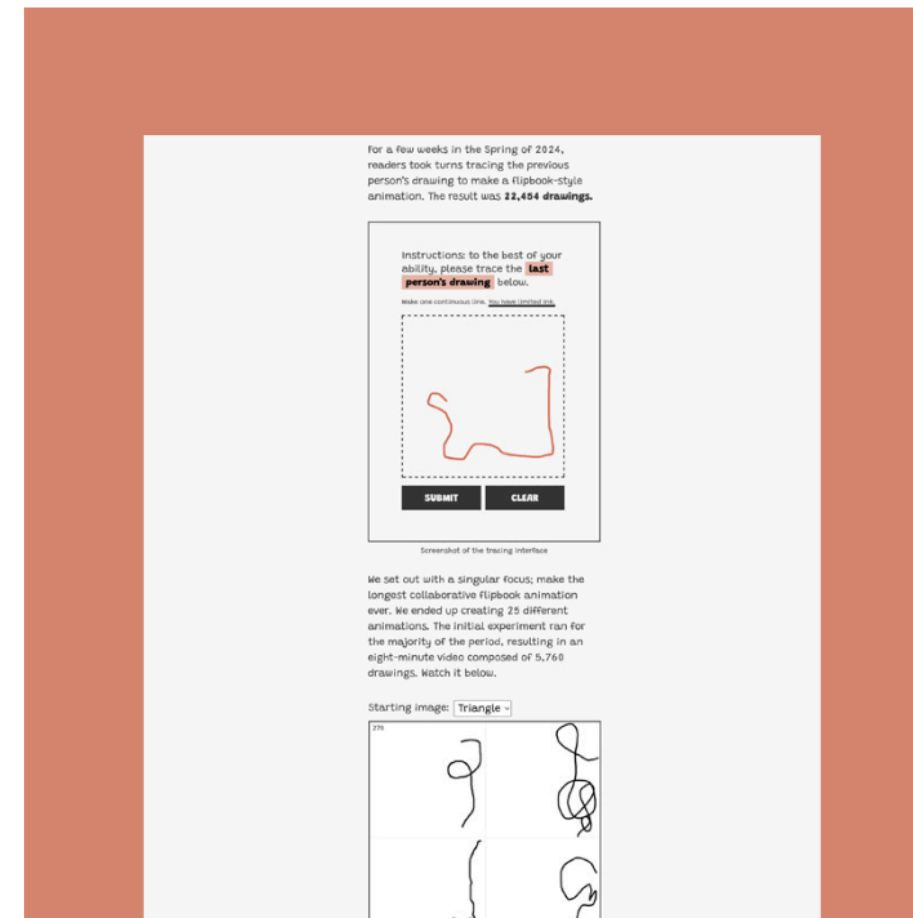


k-pop generations

Organize these K-pop groups by generation, and we'll make an article using the results.

#182

MAR 2024



flipbook

The results from making a crowd-sourced flipbook animation.

#162

DEC 2022



#159

SEP 2022




#151

APR 2022



User input is recorded
and added to the
dataset live!

Four Experiments in Handwriting with a Neural Network


 Distill


ABOUTPRIZESUBMIT

Four Experiments in Handwriting with a Neural Network

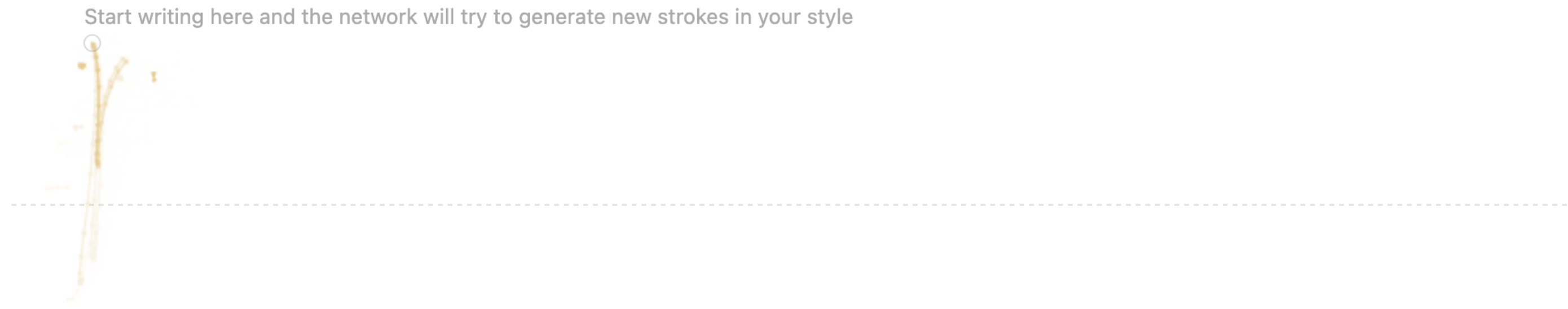
Let's start with generating new strokes based on your handwriting input

Play/PauseClear

Length of prediction  20

Variation¹  0.1

Start writing here and the network will try to generate new strokes in your style



SHAN CARTER
Google Brain

DAVID HA
Google Brain

IAN JOHNSON
Google Cloud

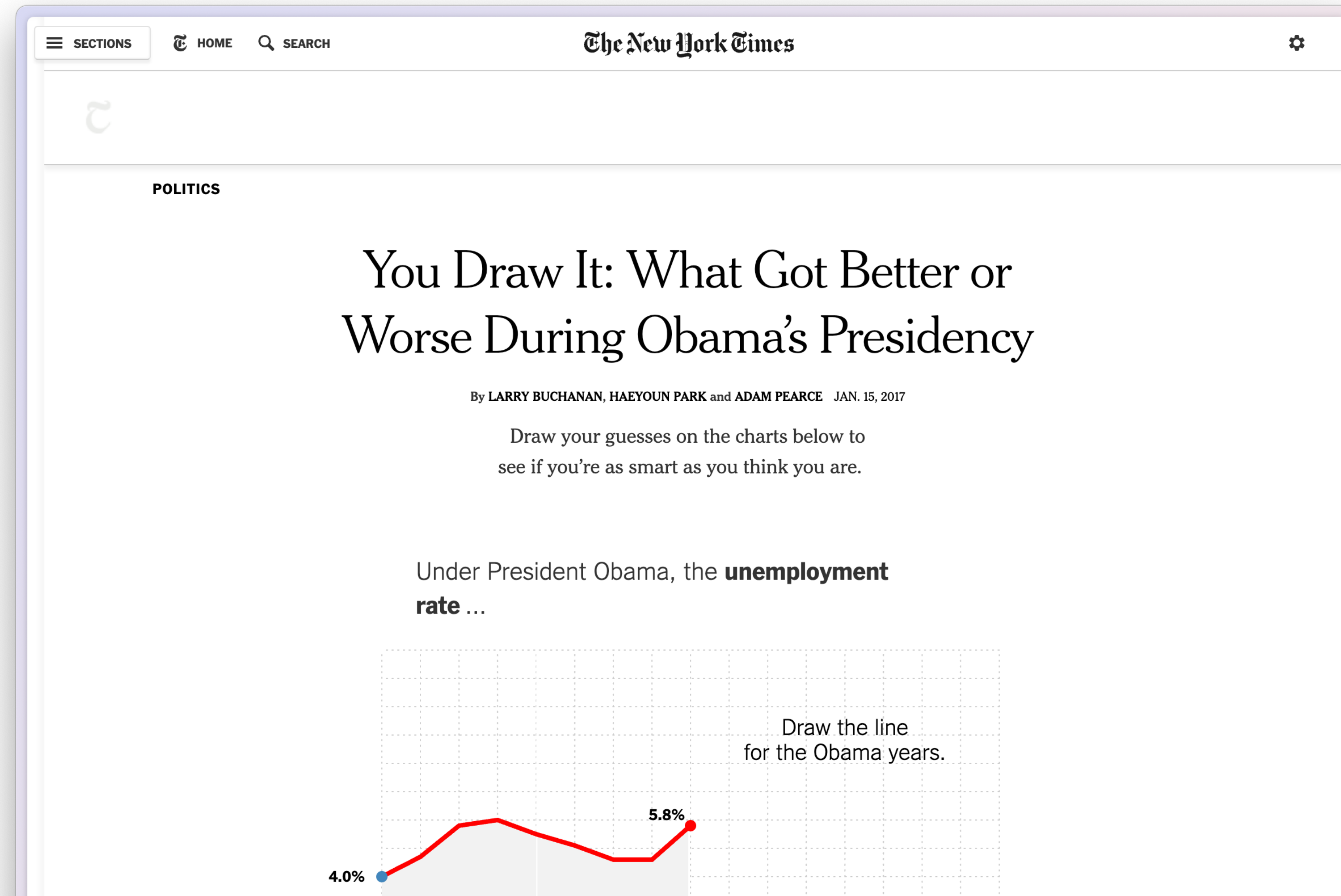
CHRIS OLAH
Google Brain

Dec. 6
2016

Citation:
Carter, et al., 2016

User input is recorded and used to explain.

You Draw It: What Got Better or Worse During Obama's Presidency



User input shows difference between user's mental model and reality.

*“The universe is made
of stories, not atoms.”*

—Muriel Rukeyser

significantobjects.com



SignificantObjects

...and how they got that way

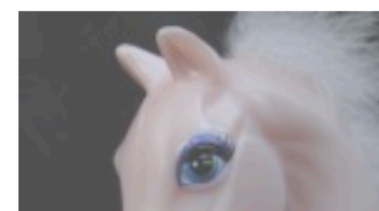
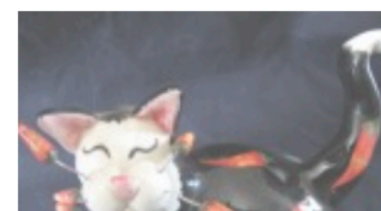
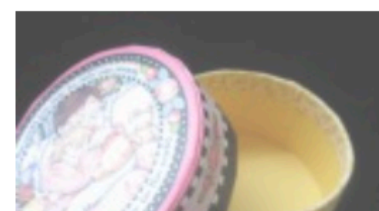
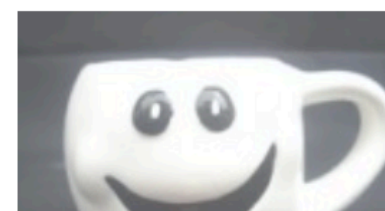
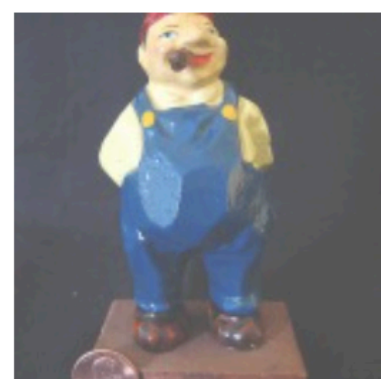
[FOSSILS](#)[TALISMANS](#)[IDOLS](#)[TOTEMS](#)[EVIDENCE](#)[ABOUT](#)[PRESS](#)[NEWS](#)

Significant Objects, a literary and anthropological experiment devised by Rob Walker and Joshua Glenn, demonstrated that the effect of narrative on any given object's subjective value can be measured objectively.

The project auctioned off thrift-store objects via eBay; for item descriptions, short stories purpose-written by over 200 contributing writers, including [Meg Cabot](#), [William Gibson](#), [Ben Greenman](#), [Sheila Heti](#), [Neil LaBute](#), [Jonathan Lethem](#), [Tom McCarthy](#), [Lydia Millet](#), [Jenny Offill](#), [Bruce Sterling](#), [Scarlett Thomas](#), and [Colson Whitehead](#), were substituted. The objects, purchased for \$1.25 apiece on average, sold for nearly \$8,000.00 in total. (Proceeds were distributed to the contributors, and to nonprofit creative writing organizations.) All the project's stories are archived on this site.

Glenn and Walker are now pleased to announce that a collection of 100 of the project's finest stories has been published by Fantagraphics in a highly impressive volume, masterfully designed by [Jacob Covey](#). It is available now via [Powell's](#), [Amazon](#), [B&N](#), or wherever finer books are sold.

Follow the latest news and other interesting notes on objects, stories, and value at [significobs.tumblr.com](#). We're also on [Twitter](#), and [Facebook](#), and sometimes we even post in the [news section of this very site!](#)



\$128.74

\$128.74

*trinkets from thrift
stores and garage
sales*

\$128.74

*trinkets from thrift
stores and garage
sales*

\$3,612.51

\$128.74

*trinkets from thrift
stores and garage
sales*

\$3,612.51

*priceless treasures
with stories attached
to them*

What is the value of a story?

\$128.74

*trinkets from thrift
stores and garage
sales*

\$3,612.51

*priceless treasures
with stories attached
to them*

What is the value of a story?

\$128.74

*trinkets from thrift
stores and garage
sales*



\$3,612.51

*priceless treasures
with stories attached
to them*

Literacy

Literacy

Graphicacy?

Graphicacy

the ability to understand and present information in the form of sketches, photographs, diagrams, maps, plans, charts, graphs and other non-textual formats.

162

GUEST LECTURE



From numbers to narratives

NEEL LAKHWANI

Designer, Tibba Design Studio

(also my brother)

**Make the viewer think about
data insights, not the method
of representation or the
technology**