

# Animating Data Visualizations

---



**Matthew Renze**

SOFTWARE CONSULTANT

@matthewrenze [www.matthewrenze.com](http://www.matthewrenze.com)



# Overview



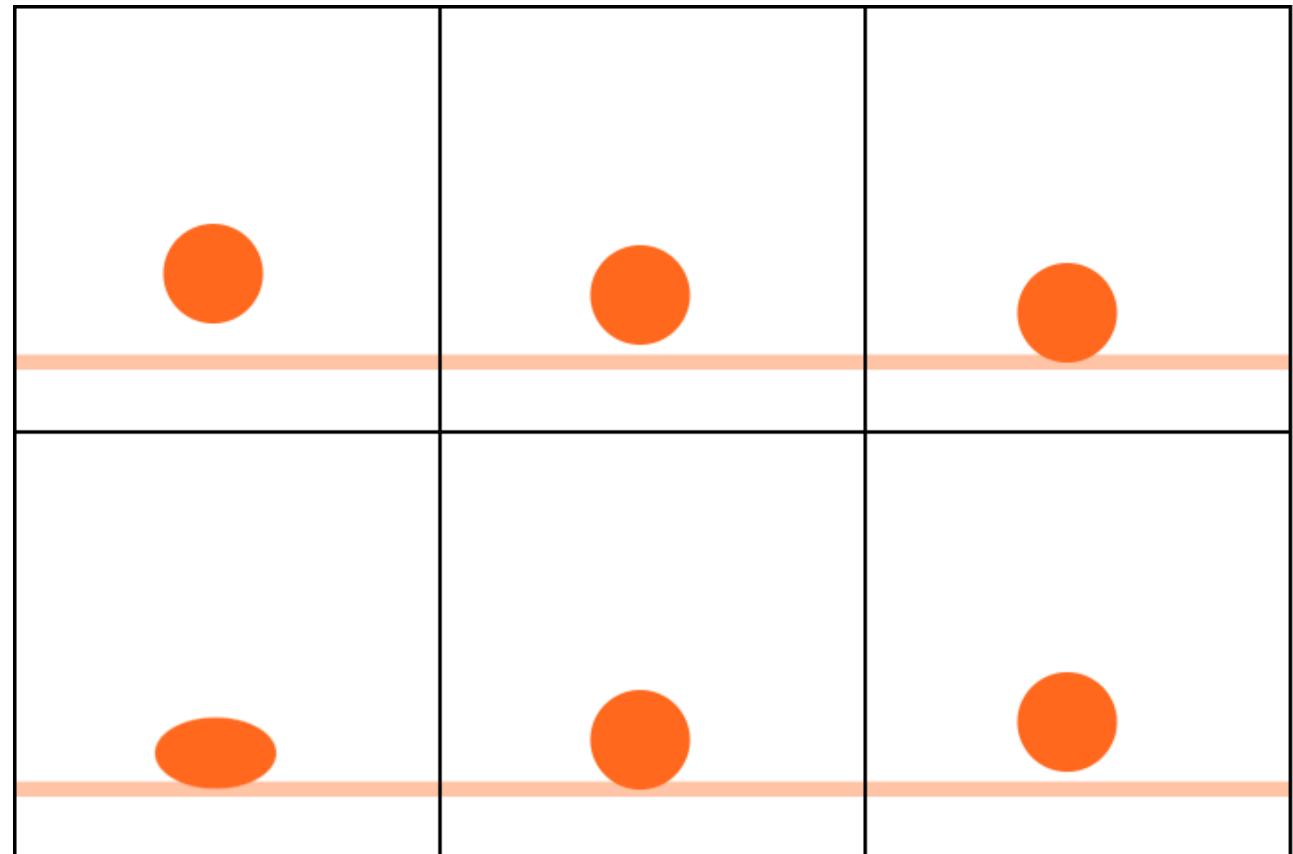
**Animating Data Visualizations**

**Demo**



# Animation

**Illusion of motion**  
**Series of static images**



# Animation

**Illusion of motion**

**Series of static images**

**Display series of images**



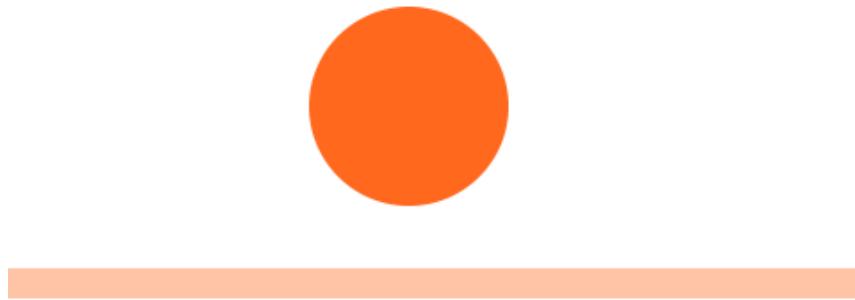
# Animation

**Illusion of motion**

**Series of static images**

**Display series of images**

**Rapidly change images**



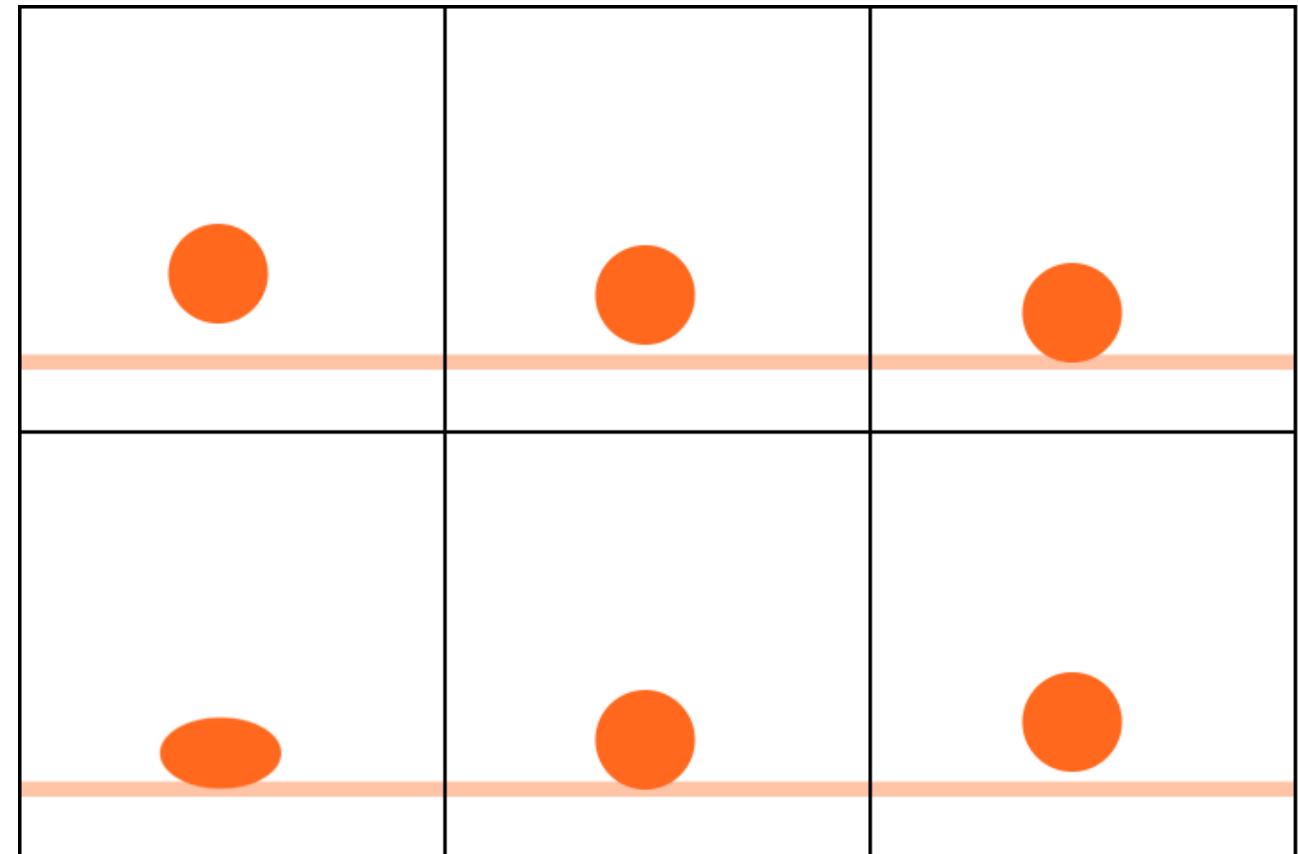
# Animation

**Illusion of motion**

**Series of static images**

**Display series of images**

**Rapidly change images**



# Using Animation to Tell a Story

**Changes in value**

**Movement over time**

**Tell a story with data**



# Using Animation to Improve Perspective

Change perspective

See hidden data

Rotate around y-axis

Choose correct speed

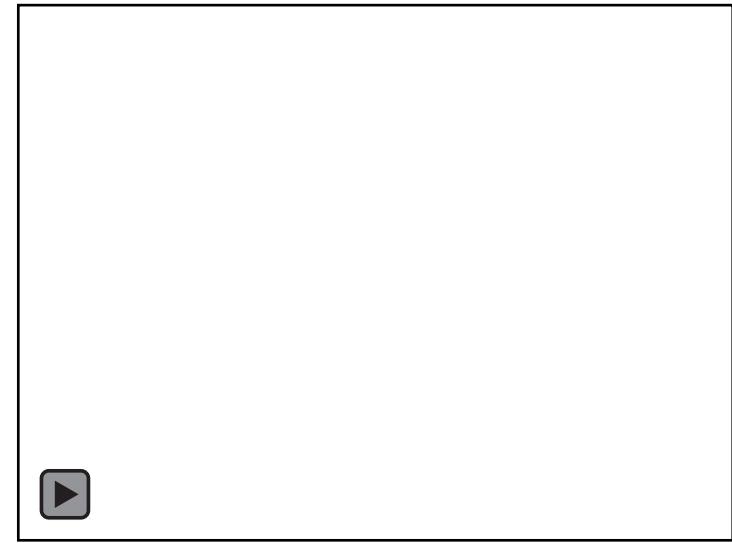
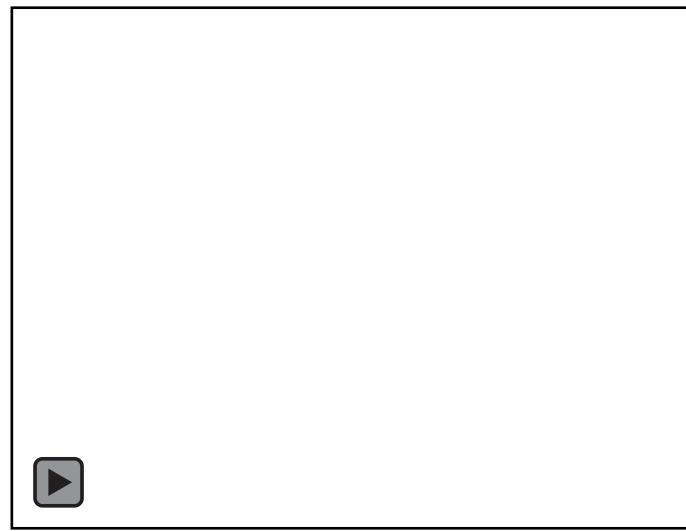
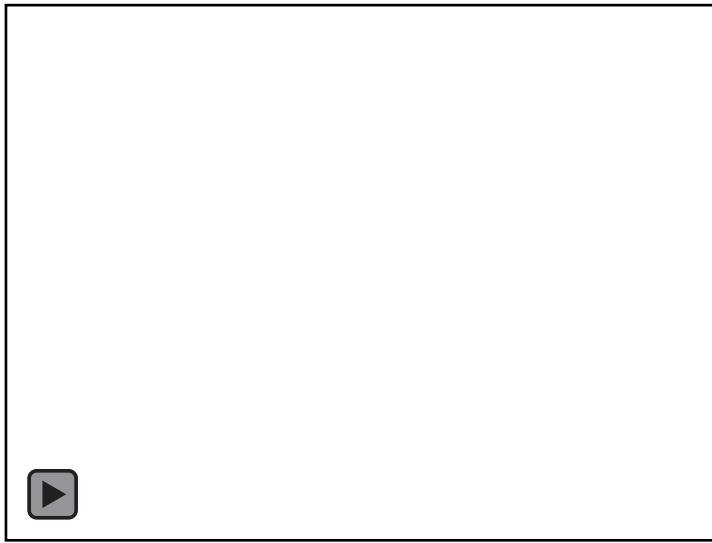


# Using Animation to Capture Attention

- Motion captures attention**
- Calls out details**
- Often a distraction**
- Adds significant noise**



# Animated Data Visualization





- 1. Growth of the top 10 movies studios**
- 2. Correlation of critic score, runtime, and box office**
- 3. Growth of international movie distributions**



# Load Studios Data



# Create Plot of Last Period



# Create Studio Animation Function



# Create Animated Studio Plot



# Load Data for 3D Scatterplot



# Create Cloud 3D Animation Function



# Create Animated Cloud 3D Video



# Load Countries 2 Data





# Summary



**Animating Data Visualizations**

**Demo**

