THE PERSUASIVE POWER OF DATA VISUALIZATION
Anshul Vikram Pandey, Anjali Manivannan, Oded Nov, Margaret Satterthwaite, and Enrico Bertini

Lauren Fratamico
Info Vis – Nov. 25, 2014

The Experiment
STEP 1: Demographic Information
- Participants had to be US residents
- Basic steps:
  - Pre-treatment attitude
  - Persuasive message
  - Post-treatment attitude

STEP 2: Cover Story
- Topic cover story
- Video Games: "Violent video games do not contribute towards youth violence"
- Corporate Income Tax: "Lowering federal corporate income tax rate creates jobs"
- Incarceration: "Incarceration does not reduce crime rates"

STEP 5: Context + Evidence + Presentation
- Evidence 1: In a 2007 scientific study conducted by a group of researchers in the United States, researchers found that violent video games increased aggressive behavior in children.
- Evidence 2: According to a report by the Entertainment Software Association, video game sales increased by 25% in the United States from 2013 to 2014, indicating that video games are becoming more popular.
- Evidence 3: A study conducted in 2015 found that children who played video games regularly had lower scores on an aggressive behavior test than children who did not play video games.

STEP 6: Attention Check Questions
- Question: "Is the video game about violence?"
- Options: Yes, No

STEP 7: Post-Treatment Questions
- Same as pre-treatment questions
  - "Do you agree that..." questions
  - "Incarceration does not reduce crime rates"
  - "Corporate Income Tax: Lowering federal corporate income tax rate creates jobs"
  - "Violent video games do not contribute towards youth violence"

STEP 8: Qualitative Feedback
- Participants had the option to provide written feedback on their experience.
### Results
- Why do people NOT change their mind?
  - Skepticism
  - Anchoring to core beliefs
  - Complexity
  - Already persuaded

- Why do people change their mind?
  - Struck by evidence
  - More persuaded

### Critiques - Strengths
- Sets a good ground
- Thorough in experiment description

### Critiques - Weaknesses
- Effect of topic on persuasion
- Role of medium on persuasion
- Why did the negatively polarized people prefer
- Multiple dimensions of persuasion
- How tied are participants to their initial view?
- Visualization
- Lack of statistical representation
- Limited generalization due to topic choices
- Role of medium on persuasion
- Why did the negatively polarized people prefer
- Multiple dimensions of persuasion
- How tied are participants to their initial view?

### Summary
- Charts may be a more persuasive visualization (~8%) than tables if you do not have a strong belief on the topic.