



Data Visualization

MozFest 2016





Github

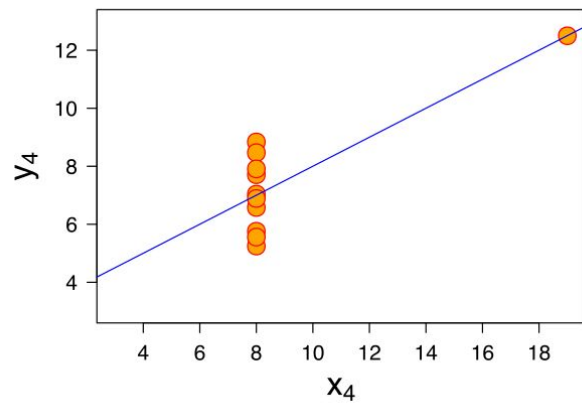
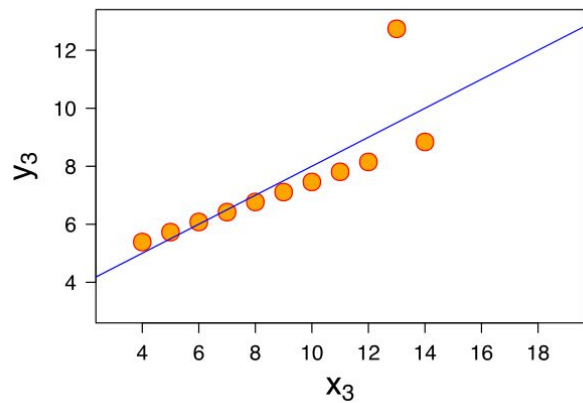
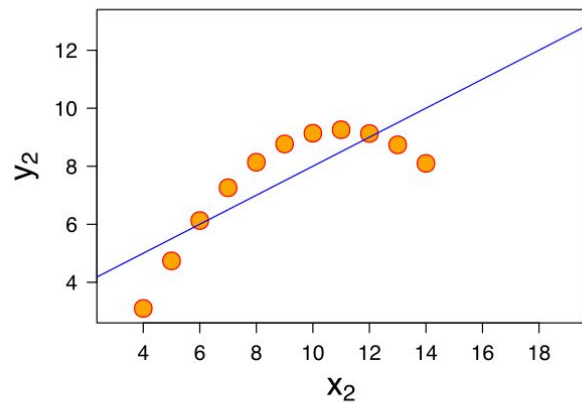
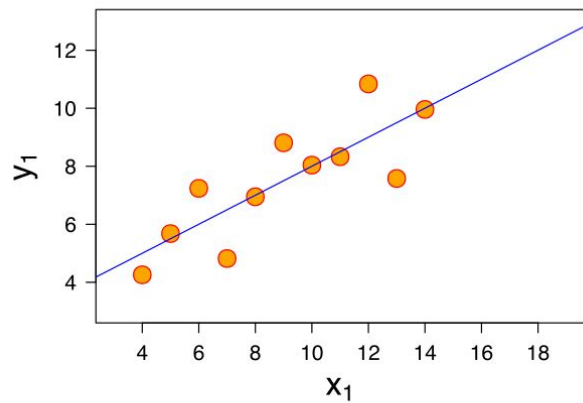


What is data visualization?

Why data visualization?

Anscombe's Quartet

I		II		III		IV	
x	y	x	y	x	y	x	y
10.0	8.04	10.0	9.14	10.0	7.46	8.0	6.58
8.0	6.95	8.0	8.14	8.0	6.77	8.0	5.76
13.0	7.58	13.0	8.74	13.0	12.74	8.0	7.71
9.0	8.81	9.0	8.77	9.0	7.11	8.0	8.84
11.0	8.33	11.0	9.26	11.0	7.81	8.0	8.47
14.0	9.96	14.0	8.10	14.0	8.84	8.0	7.04
6.0	7.24	6.0	6.13	6.0	6.08	8.0	5.25
4.0	4.26	4.0	3.10	4.0	5.39	19.0	12.50
12.0	10.84	12.0	9.13	12.0	8.15	8.0	5.56
7.0	4.82	7.0	7.26	7.0	6.42	8.0	7.91
5.0	5.68	5.0	4.74	5.0	5.73	8.0	6.89



Infographics

Data visualization

Explain

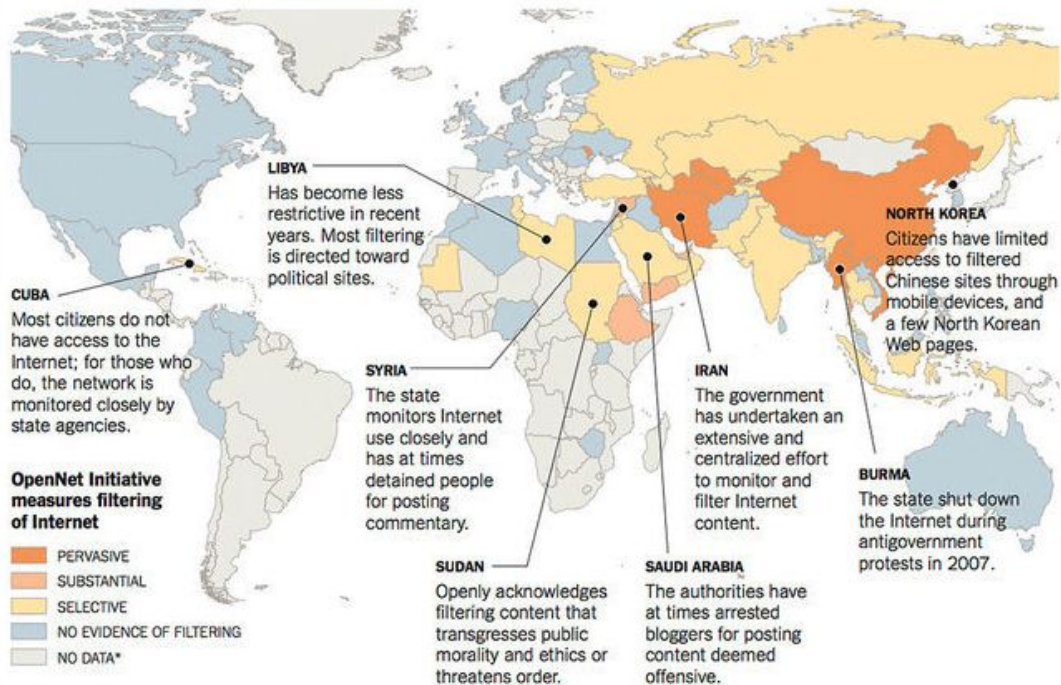
Explore

Exhibit

A World of Terror
Statistics Strip
Gun Deaths

Limiting Freedom on the Internet

According to OpenNet Initiative, a group that monitors Internet censorship and content restrictions, many governments specifically restrict political content — sites related to opposing political viewpoints, human rights, religion or freedom of expression.



"Filtering" includes such practices as blocking access to certain Web pages and removing "undesirable" sites from search results.

*No data does not necessarily indicate that the government does not filter content.

Source: OpenNet Initiative; Martyn Williams of the International Data Group

THE NEW YORK TIMES



Goals & Aims

Context

Visual Type

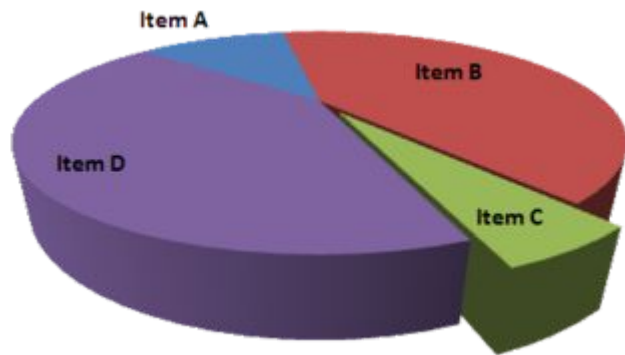
Clutter

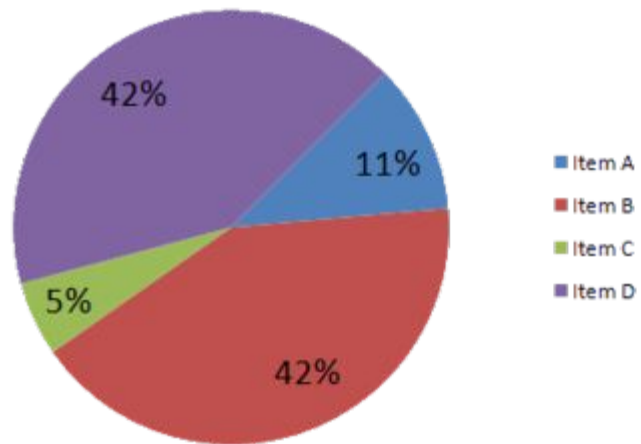
Attention

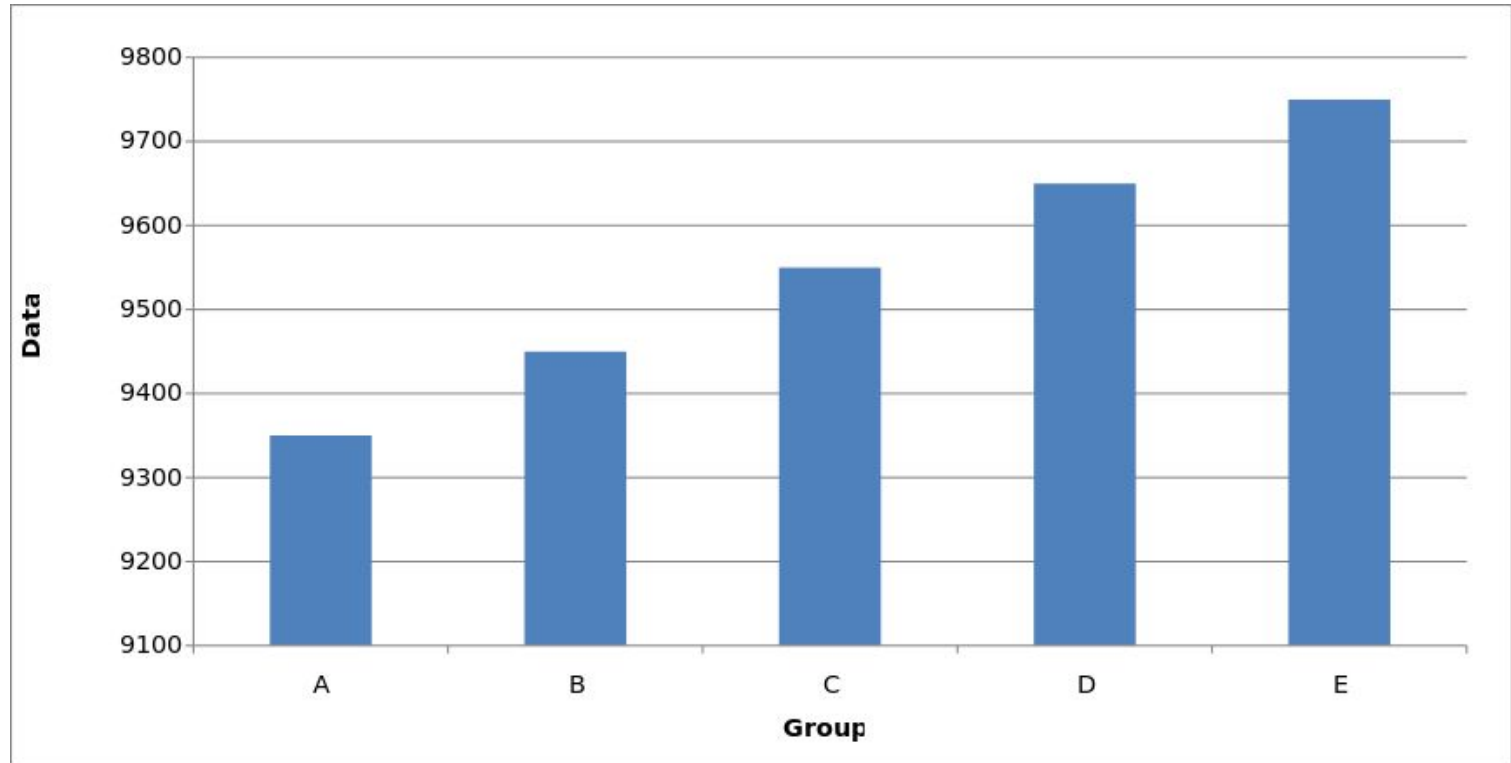
Story

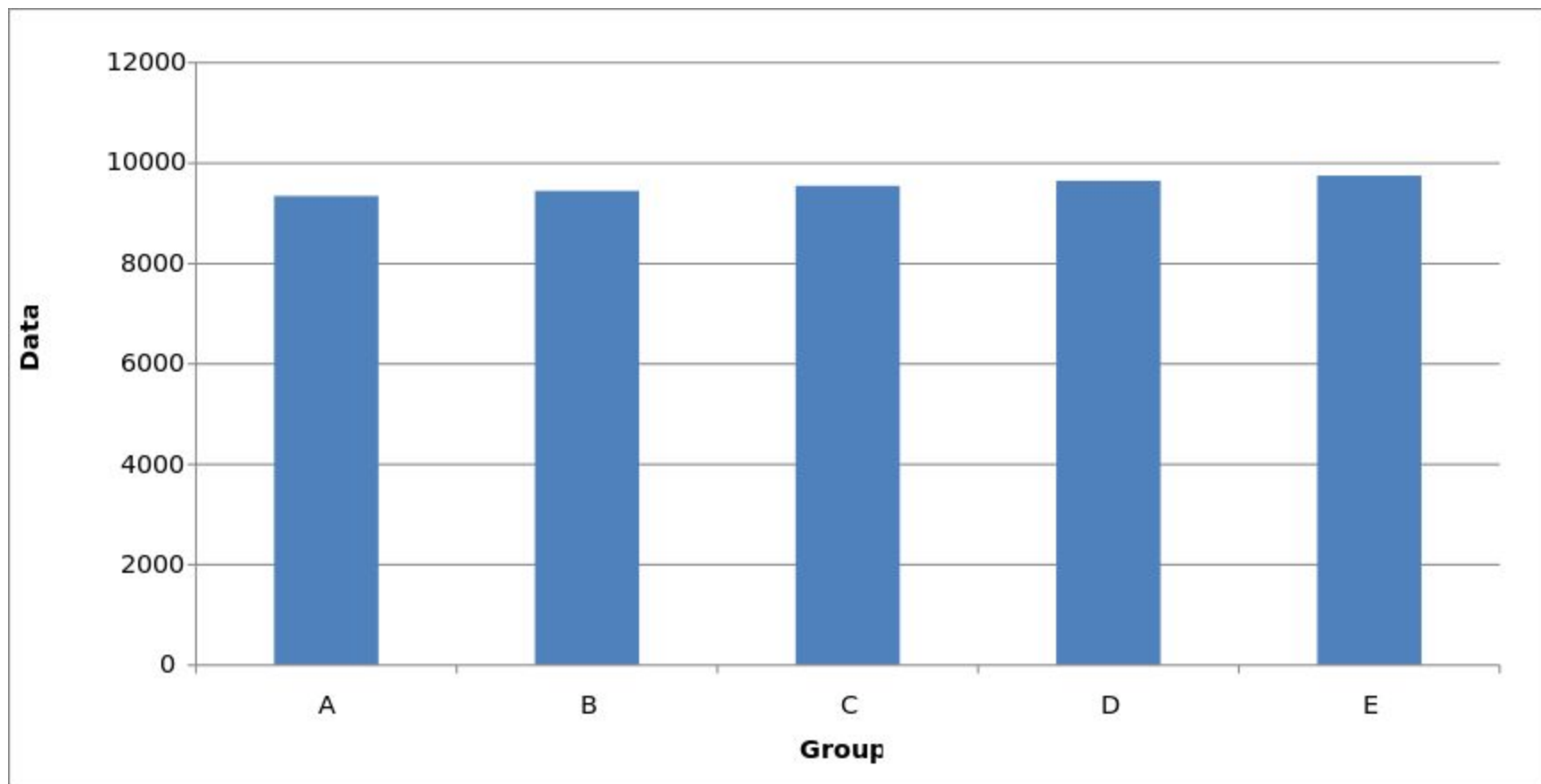
Team vs. No Team

What not to do









READING, WRITING, AND EARNING MONEY

The latest data from the U.S. Census's American Community Survey paints a fascinating picture of the United States at the county level. We've looked at the educational achievement and the median income of the entire nation, to see where people are going to school, where they're earning money, and if there is any correlation.



A HIGH SCHOOL GRADUATES 65% 75% 82%



B COLLEGE GRADUATES 15% 22% 30% 40%

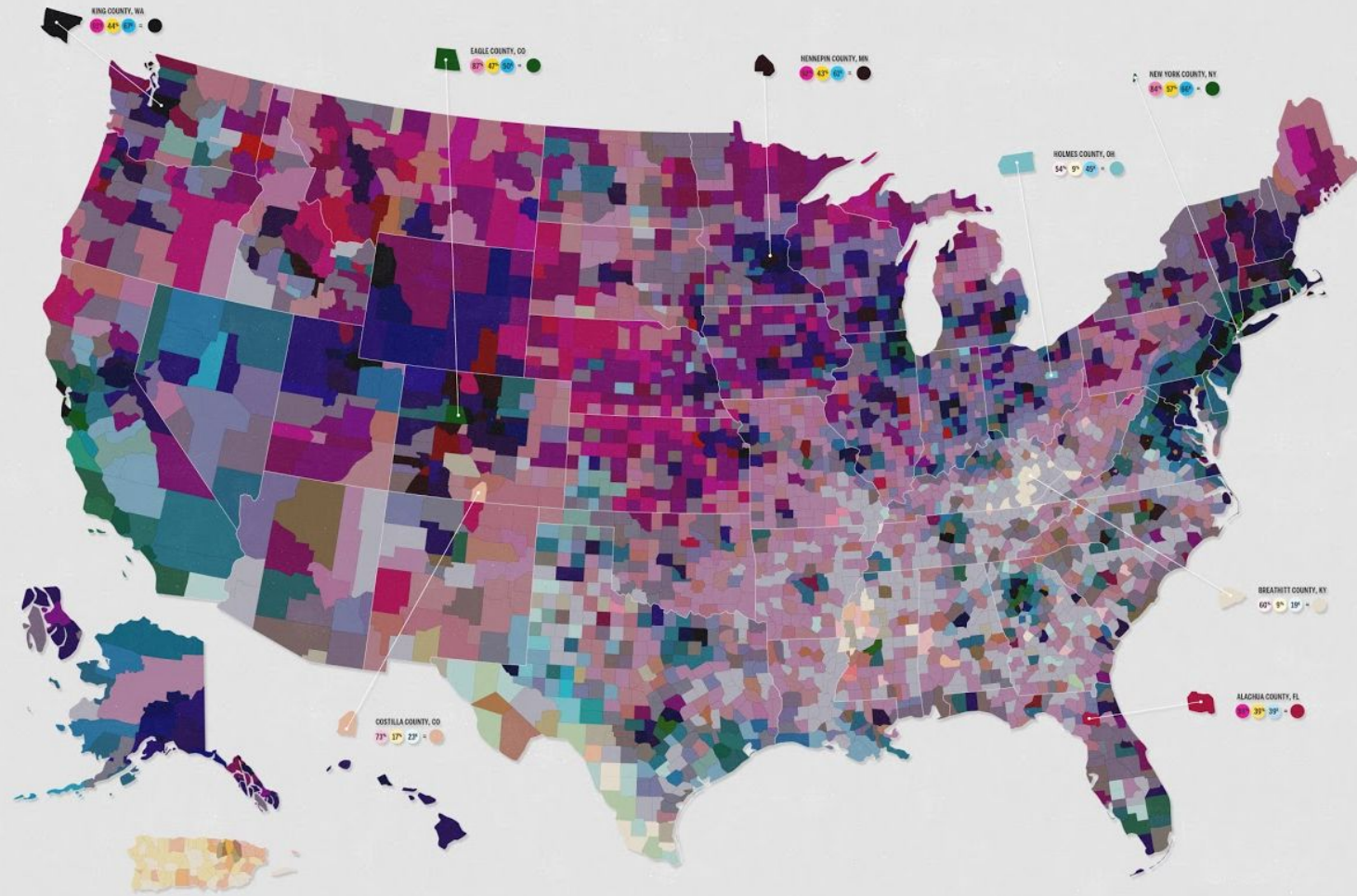


C MEDIAN HOUSEHOLD INCOME 25% 40% 50% 60%

The map at right is a product of overlaying the three sets of data. The variation in hue and value has been produced from the data shown above. In general, darker counties represent a more educated, better paid population while lighter areas represent communities with fewer graduates and lower incomes.



A collaboration between GOOD and Gregory Hubinek
SOURCE: US Census



Anatomy of a good dataviz

Understandable

Accessible

Usable

Print vs. Web
Static vs. Interactive

Color

Accessibility

Tone

Significance



Blue or Gold?
Middle East Players

Braggadocio

DESDEMONA

Lucidia Blackletter

Curly MT

Annotations

Title of viz

Intro text

User guide

Labels

Captions

Narratives

Legends, keys, units

Data source and attribution

Summer Rain That Never Came
Poppyfield

Gather

Clean

Analyze

Prepare

Brief

Brief

Audience

Function

Objectives

Tone

Deliverables

Deadline/ Budget

Drone Strikes Trump Insults

Design Tips

Location

Shape

Texture

Size

Hue

Orientation

Direction

What is Data?

Dear Data

Find Data

Clean Data

Analyze

Range

Distribution

Trends

Relationships

Focus

Prep Data for Visualization

Tools

Picking the right visualization

Location

Time

Categorical

Hierarchical

Relational

Temporal

Spatial