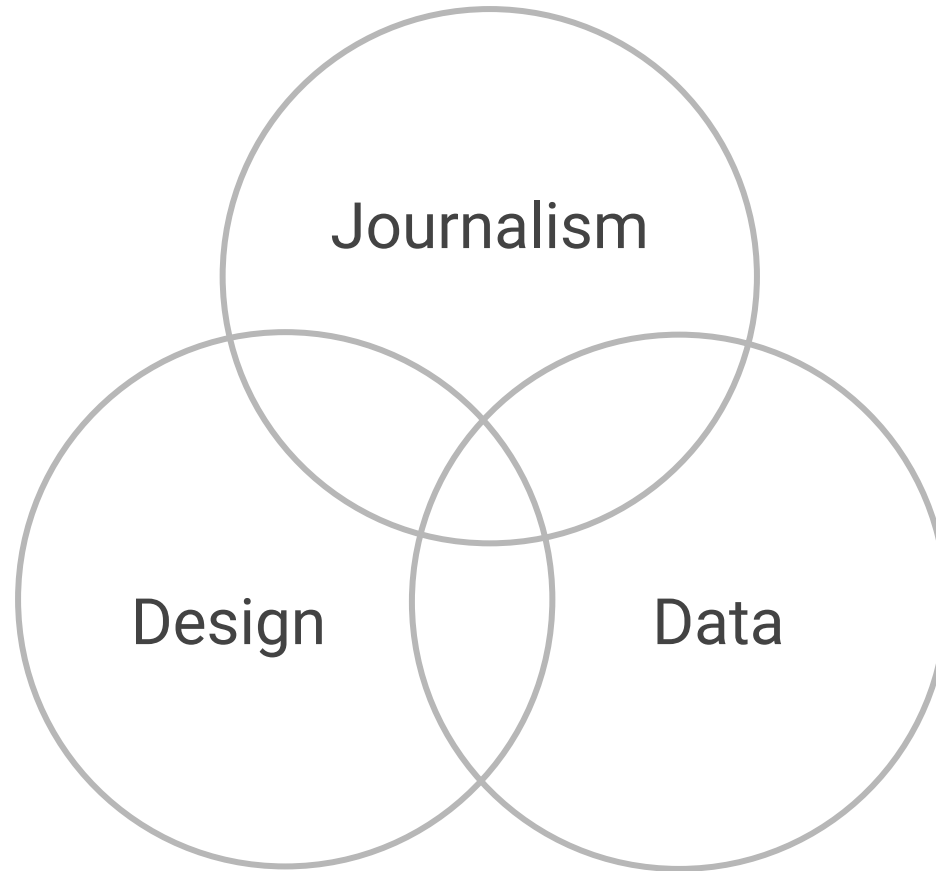


Observer

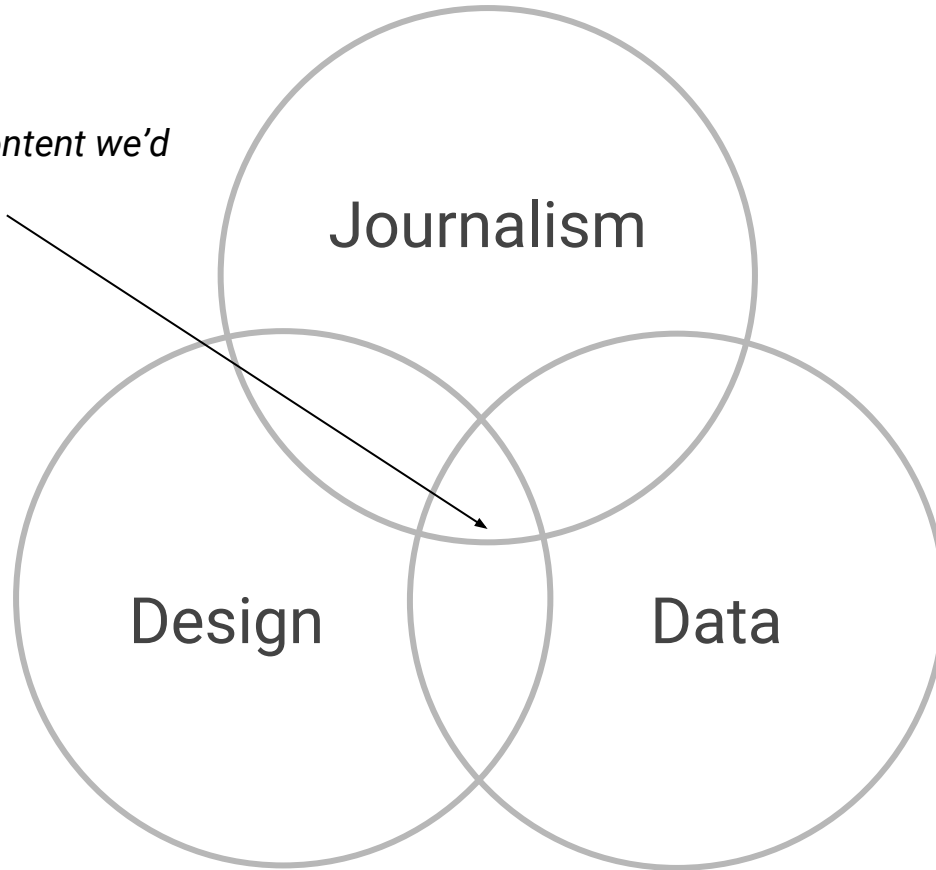


Enigma

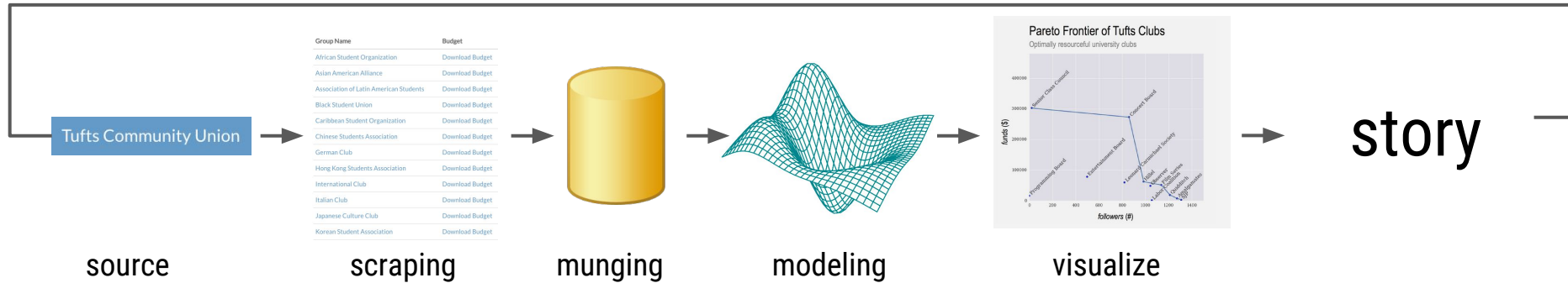
*Design + Data Journalism*



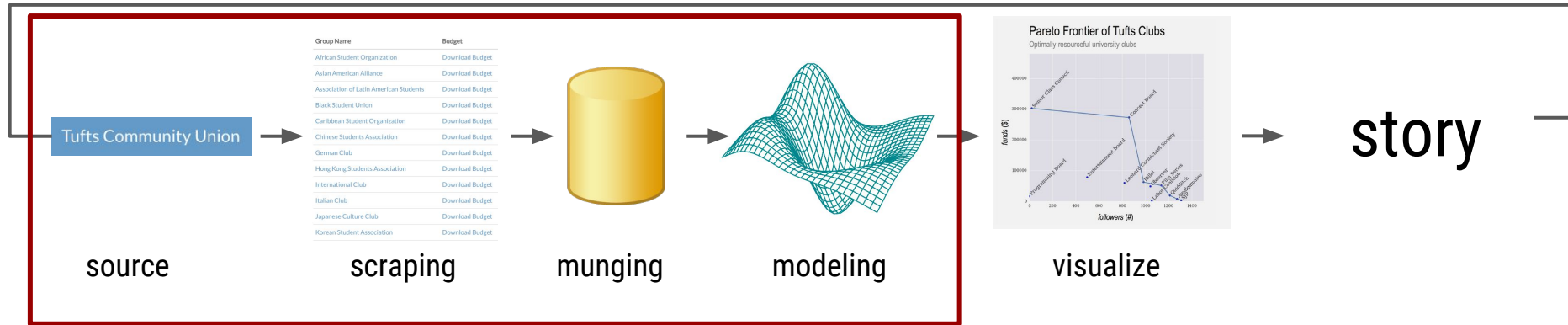
*the kind of content we'd  
like to create!*

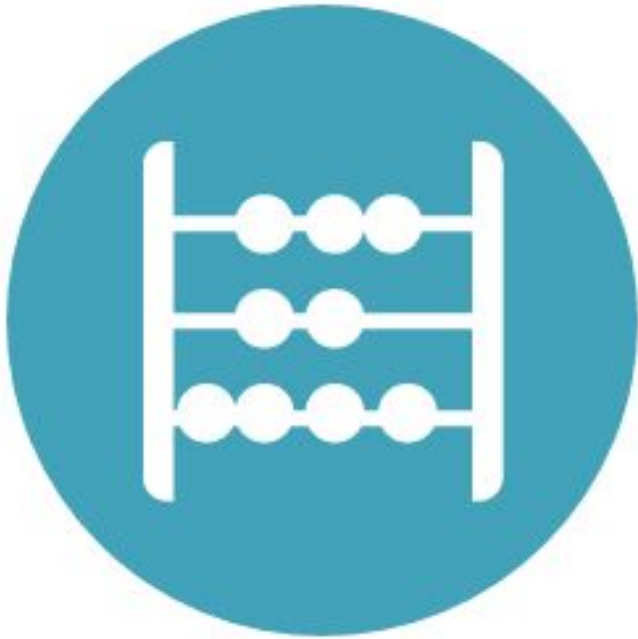


# *Journalism as a storytelling pipeline.*



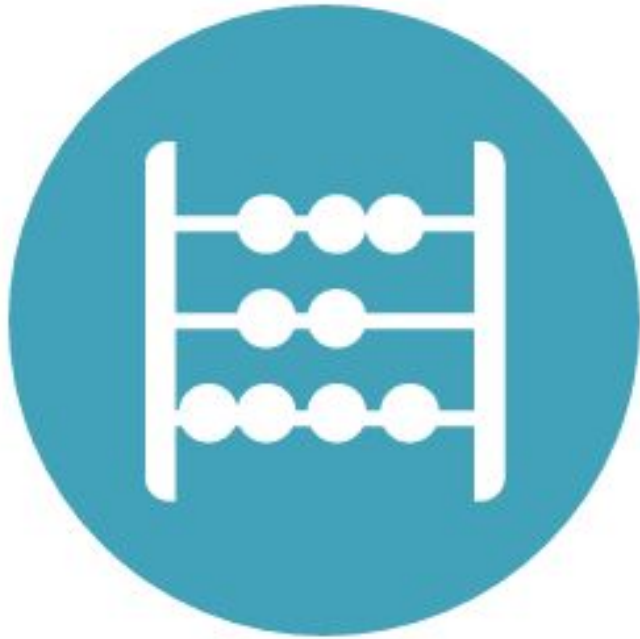
*Journalism as a storytelling pipeline.*  
*Data as the 'raw material'.*





# Data Types

(i.e. ways to measure stuff)

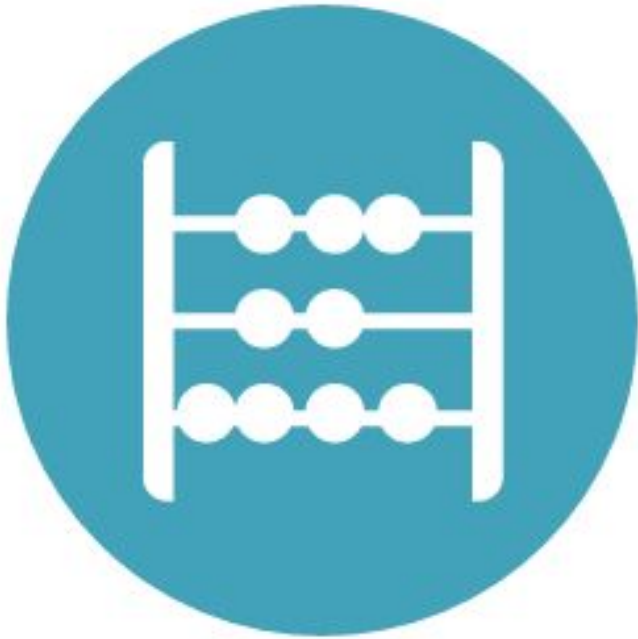


Ordinal

(i.e. 'rank')

# Data Types

(i.e. ways to measure stuff)



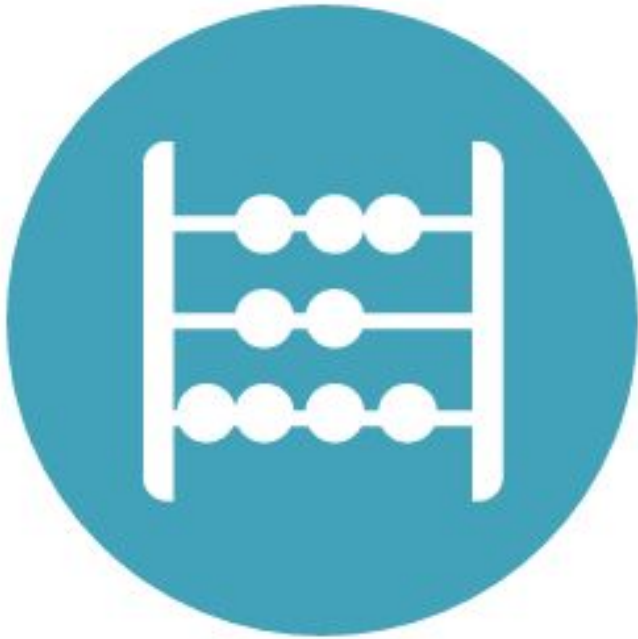
Ordinal  
Interval

(i.e. 'rank')  
(i.e. 'difference')

# Data Types

(i.e. ways to measure stuff)





Ordinal  
Interval  
Ratio

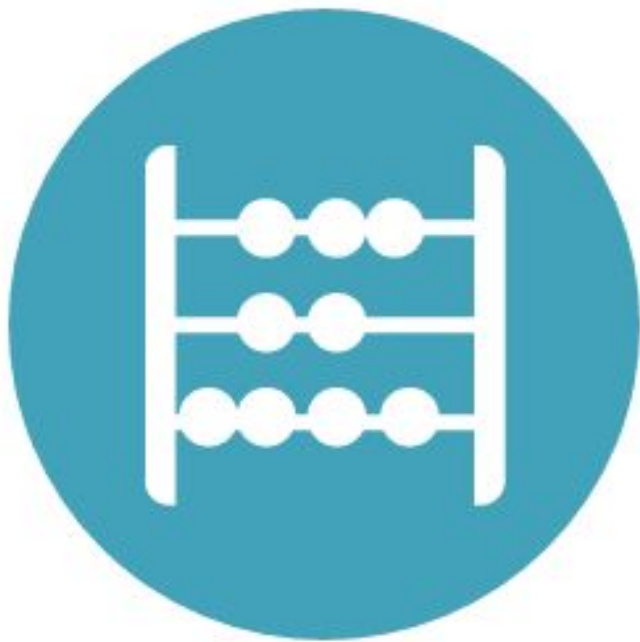
(i.e. 'rank')

(i.e. 'difference')

(i.e. 'relative size')

# Data Types

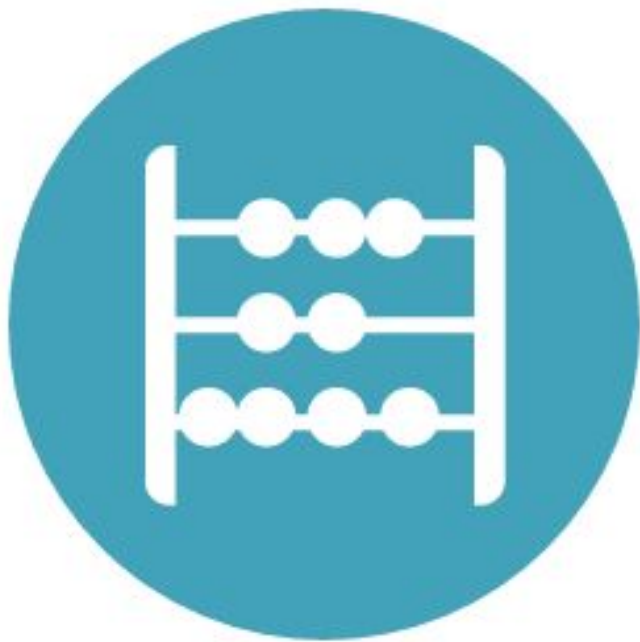
(i.e. ways to measure stuff)



Ordinal	(i.e. 'rank')
Interval	(i.e. 'difference')
Ratio	(i.e. 'relative size')
Categorical	(i.e. 'groups')

# Data Types

(i.e. ways to measure stuff)



Ordinal

(i.e. 'rank')

Interval

(i.e. 'difference')

Ratio

(i.e. 'relative size')

Categorical

(i.e. 'groups')

Qualitative

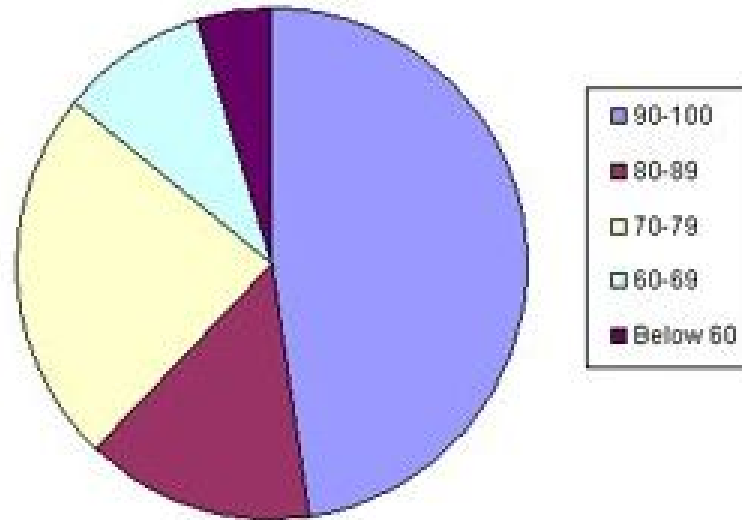
(i.e. 'non-numeric')

# Data Types

(i.e. ways to measure stuff)

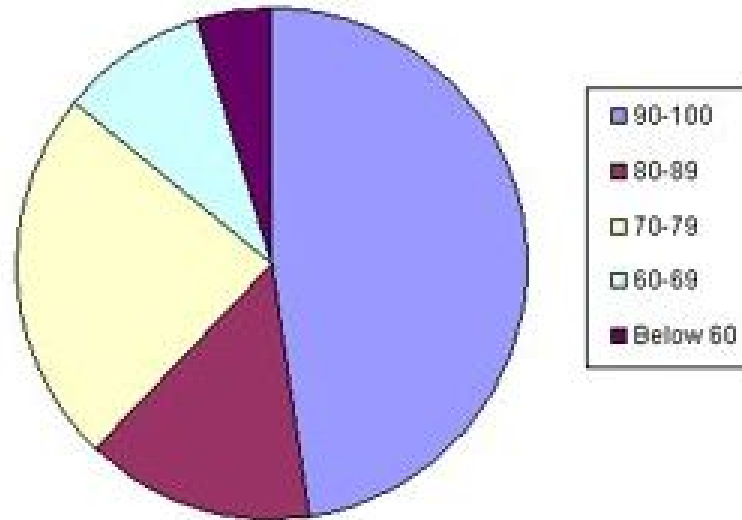
# *What Kind of Data?*

Test Scores



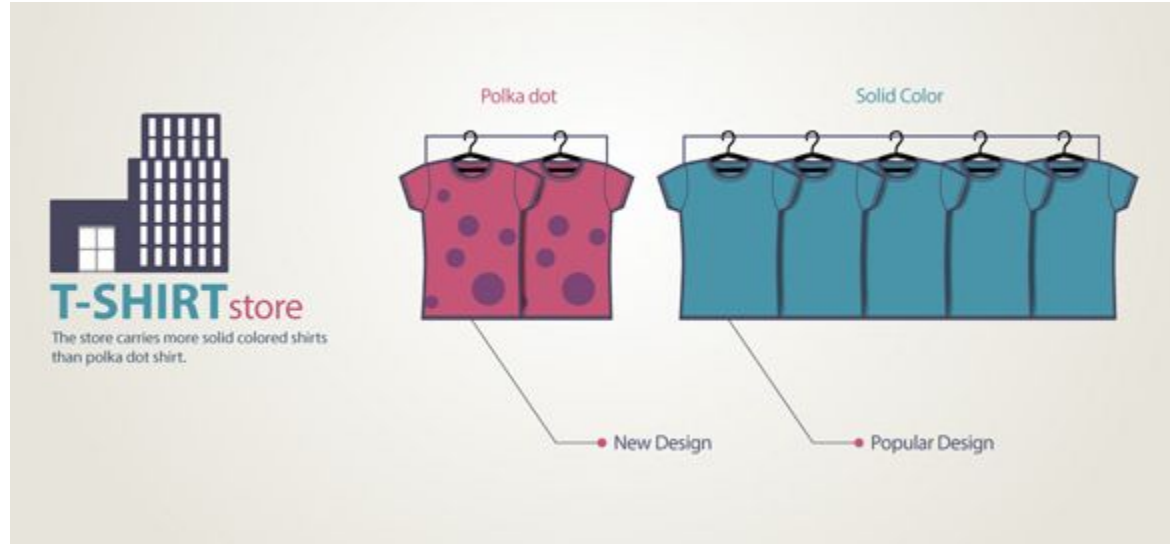
# *What Kind of Data?*

Test Scores

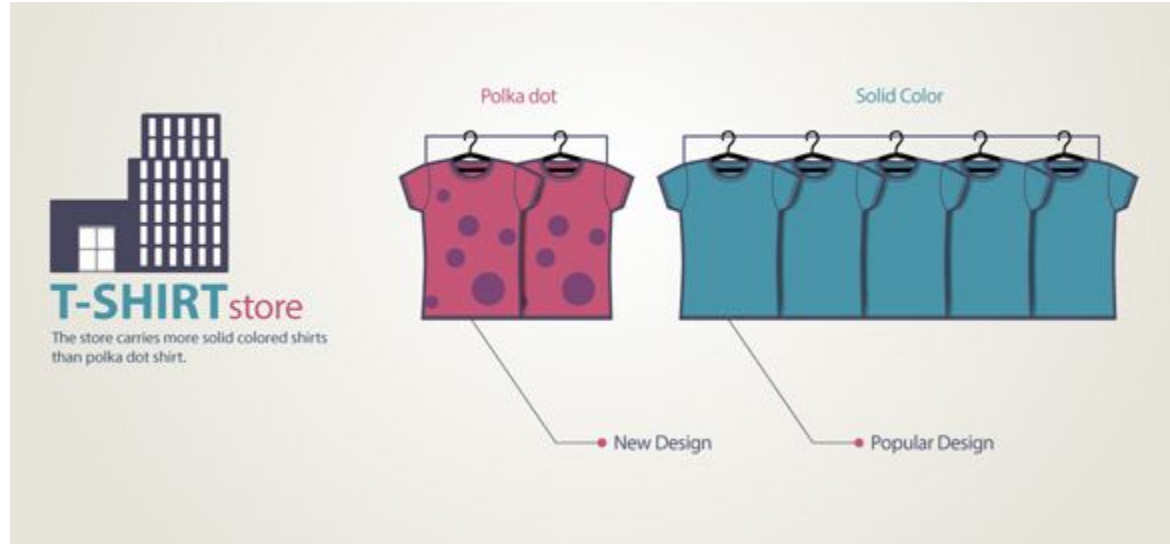


clearly proportions... so **ratio**

# *What Kind of Data?*



# What Kind of Data?



representation of groups... so ***categorical***

# *What Kind of Data?*

“Opinion Survey”

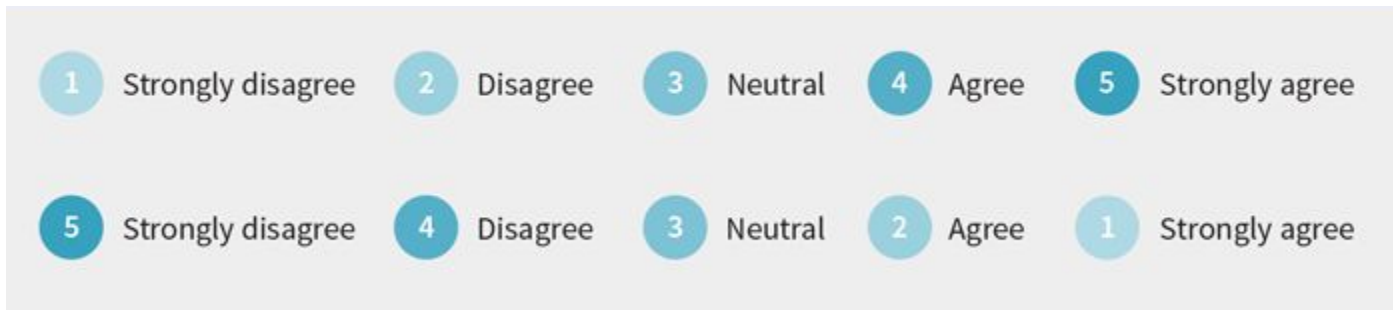
1 Strongly disagree   2 Disagree   3 Neutral   4 Agree   5 Strongly agree

5 Strongly disagree   4 Disagree   3 Neutral   2 Agree   1 Strongly agree



# What Kind of Data?

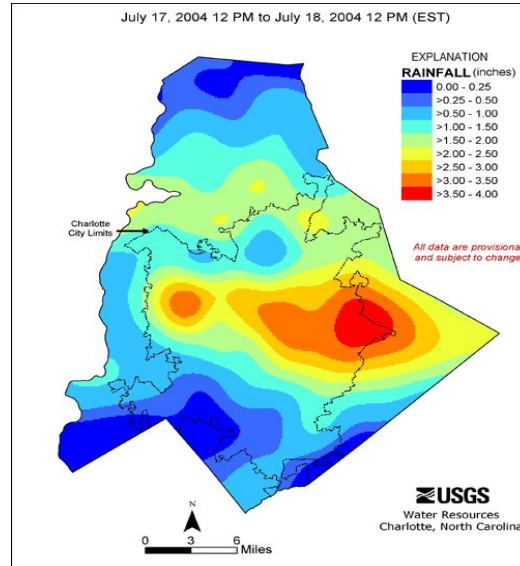
“Opinion Survey”



rank matters... so it's ***ordinal***

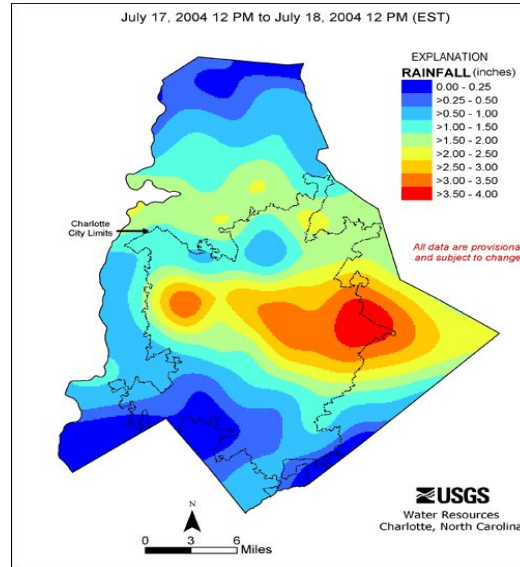
# What Kind of Data?

## Heatmap of Water Resources



# What Kind of Data?

## Heatmap of Water Resources



depiction of ranges... so *interval*



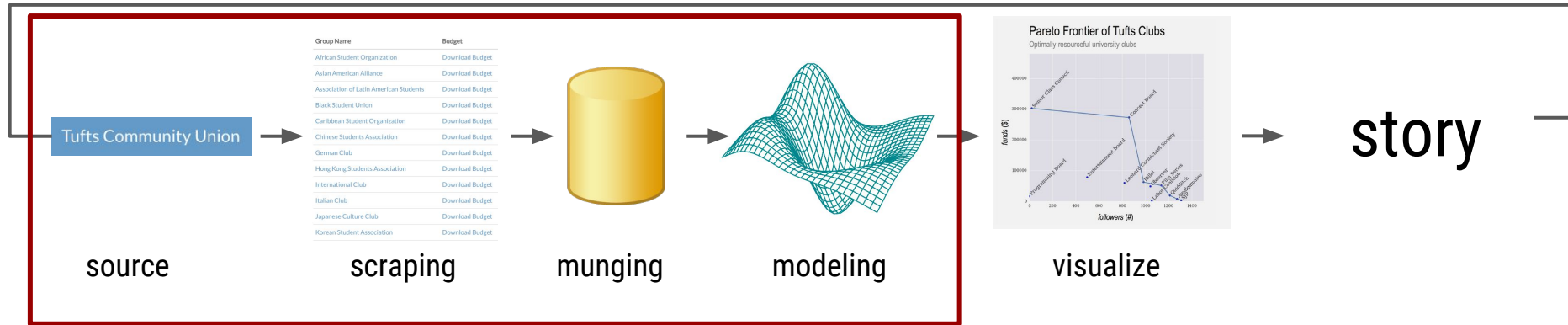
# *What Kind of Data?*

## Grocery Store Inventory

Date: 06/01/2014 Time: 11:32am				
Item	Section	Aisle	Quantity	Cost (US\$)
Oranges—Lbs	Produce	4	2	2.58
Apples—Lbs	Produce	4	1	1.29
Mozzarella—Lbs	Dairy	7	1	3.49
Milk—Skim—Gallon	Dairy	8	1	4.29
Peas—Bag	Frozen	15	1	0.99
Green Beans—Bag	Frozen	15	3	1.77
Tomatoes	Canned	2	4	3.92
Potatoes	Canned	3	2	2.38
Mushrooms	Canned	2	5	2.95

Source: [Data + Design](#)

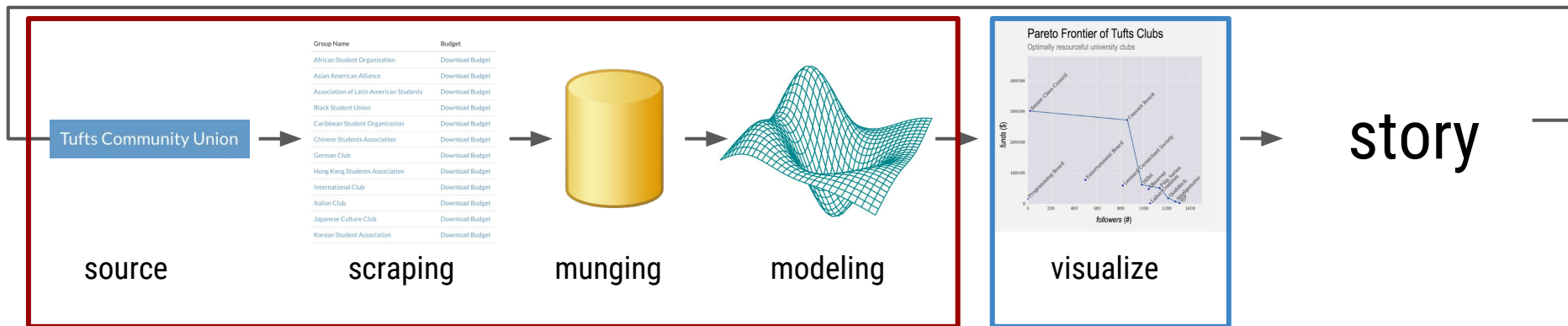
*Journalism as a storytelling pipeline.*  
*Data as the 'raw material'.*



*Journalism as a storytelling pipeline.*

*Data as the 'raw material'.*

*Design as the 'finished good'.*





# Design Process



Sketch

# Design Process





Sketch  
Collaborate

# Design Process



Sketch  
Collaborate  
Cohesion

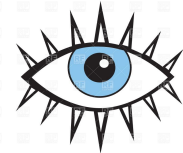
# Design Process



Sketch  
Collaborate  
Cohesion  
Composition

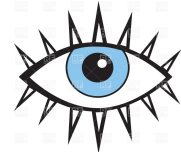
# Design Process

# Good Infographics vs. Bad Infographics



# Good Infographics vs. Bad Infographics

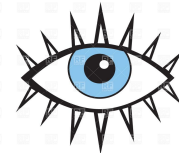
What makes an infographic visually appealing?



# Good Infographics vs. Bad Infographics

What makes an infographic visually appealing?

Where is the reader's eye directed?

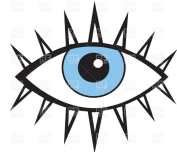


# Good Infographics vs. Bad Infographics

What makes an infographic visually appealing?

Where is the reader's eye directed?

What is the message that the designer is trying to communicate?



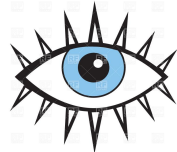
# Good Infographics vs. Bad Infographics

What makes an infographic visually appealing?

Where is the reader's eye directed?

What is the message that the designer is trying to communicate?

What is the importance of white space?







# *Case Studies*

# WATCH THIS SPACE. INFOGRAPHICS ARE 'IN'

**100%** OF BUSINESSES  
CAN BENEFIT

EVERYONE SHOULD CONSIDER  
THE POTENTIAL ADVANTAGES

RIGHT NOW

INFOGRAPHIC  
PRODUCTION  
INCREASES BY

**1%** EVERY  
DAY

THEY SHOW AN  
**EXPERT**

UNDERSTANDING  
OF A SUBJECT  
AREA  
OR TOPIC



THEY CATCH THE EYE OF  
**JOURNALISTS**  
AND STAND OUT  
FROM DULL AND BORING  
TEXT-BASED  
PRESS RELEASES

**90%**

OF INFORMATION  
THAT COMES TO  
THE BRAIN  
IS



**VISUAL**

**≈13  
MILLION**

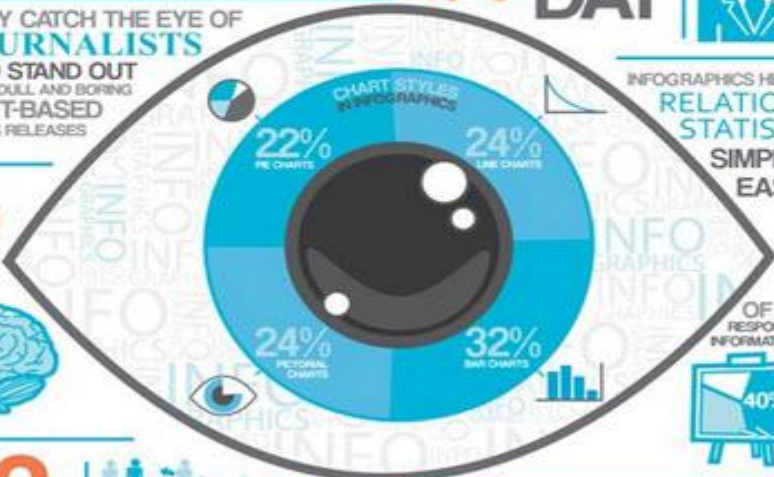
RESULTS FOR THE TERM  
'INFOGRAPHIC'  
ON GOOGLE



INFOGRAPHICS



INFO  
GRAPHIC OF  
**INFOGRAPHICS**



INFOGRAPHICS HELP TO VISUALISE  
RELATIONSHIPS &  
STATISTICS

**SIMPLY &  
EASILY**



**40%**

OF PEOPLE WILL  
RESPOND BETTER TO VISUAL  
INFORMATION THAN PLAIN TEXT



VISUAL  
LEARNERS  
AUDIO  
LEARNERS  
TACTILE  
LEARNERS



## innovation and ideas

59% of engaged employees say their job brings out their most creative ideas. Only 33% of disengaged employees say the same.

disengaged engaged

## HAPPY INFORMED PEOPLE

86% OF ENGAGED EMPLOYEES OFTEN FEEL HAPPY AT WORK. ONLY 10% OF THE DISENGAGED FEEL THE SAME.

## BRAND TRANSFORMATION

"Brand transformation is what's moved everything customer-focused but this change must emanate from inside an organisation." David Bewley, H&M styling Magazine

## ADVOCACY

78% of engaged employees would recommend their company's products and services. Only 13% of the disengaged would do the same.

Companies that use social media achieved an 18% performance improvement in employee engagement.

**18% IMPROVEMENT YEAR-ON-YEAR**

2,600 average sick days and engaged employees take 63% fewer sick days of disengaged employees.

54% of disengaged employees say work has a negative effect on their physical health.

increased productivity sick days

## LOOKING AT THE BIGGER PICTURE

# INTERNAL & EMPLOYEE COMMS & ENGAGEMENT

### WHY IT MATTERS...

## MANAGERS ARE KEY

### THE POWER OF LISTENING

Employees who feel they're genuinely listened to by their managers are nearly 5 times more likely to leave high job enthusiasm and 20 times more likely to feel committed to their company than those who do not feel listened to.

### RECOGNITION

88% of employees said recognition made them more satisfied with their work and company position.

81%

It's not approving the course, they think we're not listening. Nobody else would.

It's not giving them feedback that nobody else would.

## REDUCED STAFF TURNOVER

What do employees think about their managers?

- 33% believed managers treated them as a key part of the organisation
- 20% believed managers were genuinely interested in their well-being
- 20% believed managers communicated openly and honestly
- 60% believed managers treated them as an integral part of the team rather than a person

## BRINGING OUT THE BEST

"Whenever you look, your job as a manager is to make your people see the best they can be. It's individuals that win the difference."

Alan Bates, Chairman, Executive of Toyota UK

## 12% HIGHER GREAT 12% HIGHER

A Gallup report that examined over 23,000 business units showed that companies with top quartile engagement scores generated 12% higher customer advocacy than those in the bottom quartile.

## IMPROVED CUSTOMER SERVICES

70% OF ENGAGED EMPLOYEES SAY THEY HAVE A GOOD UNDERSTANDING OF HOW TO MEET CUSTOMER NEEDS. ONLY 17% OF THE DISENGAGED SAY THE SAME.

## customer satisfaction

Comparison research found that the top 5 scoring companies for employee engagement were the same as the top 5 ranked by their customer satisfaction.

## customer loyalty

The very employees that employees have a direct effect on how employees feel about the company. They are quality oriented and ensure brand loyalty, advocacy and can give an important boost to a company's sales, which is not possible to replicate.

John Austin, Best Companies

A recent study found that employees with positive attitudes towards their employer created more enthusiasm for customers and engaged in their efforts to deliver high levels of customer service.

## 1st 19.2% happy employees mean happy shareholders

Companies with highly engaged employees improved operating income by 19.2% over a 12 month period.

## reduced recruitment costs

**£25.8 BILLION**

In the UK, a 10% improvement in engagement could yield an additional £25.8 billion per year.

**£531**

Unlashed talent per hour

Highly engaged organisations can reduce staff turnover by 67%.

**£1500 PER EMPLOYEE**

If engaged staff were hired and trained in engagement by just 10% they could increase profits by £1500 per employee per year.

## FINANCIAL PERFORMANCE

**h&h**

communications people branding

+44 (0) 1462 232 250  
h&h@h&hcommunications.co.uk  
www.h&hcommunications.co.uk

Source: [Engage For Success](http://Engage For Success)



# How the Recession Changed Us

WHAT A DIFFERENCE TWO YEARS MAKES.

By Timothy Lavin  
 Graphics by Amanda Beck

**O**FFICIALLY, THE GREAT Recession lasted from December 2007 to June 2009. A mere 18 months—about average, as recessions go. Yet if the trauma this time feels deep and lasting, that may be because, as the figures on these pages show, so many disruptions have upended national life at once.

Millions of Americans have lost their jobs, nearly every state faces a budget shortfall, and hundreds of banks have shut their doors. The young are

unemployed, living at home, and playing video games. The ranks of third-party candidates have swollen, militias have proliferated, and national leaders of both parties have seen their support decline. Of course, times of flux are often times of anxiety and unrest. But as the economy begins its slow and stuttering recovery, the vast changes wrought by this recession will continue to reverberate for many years—in ways predictable and otherwise. **X**

Timothy Lavin is an Atlantic senior editor.

## DAILY CONSUMER SPENDING



## U.S. BOOK SALES



PERCENTAGE INCREASE in NYT ARTICLES mentioning the word "unemployment," 2007 vs. 2010\*



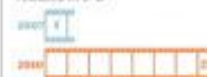
## TAX COLLECTED by the TREASURY on sales of FIREARMS and AMMUNITION



PERCENTAGE who believe it's more important to preserve GUN OWNERS' RIGHTS than to control GUNS



## FEATURE-LENGTH MOVIES released in 3-D



## AVERAGE MINUTES SPENT READING per WEEKEND DAY, 15-to-29-year-olds



## AVERAGE MINUTES SPENT PLAYING A GAME or USING A COMPUTER for leisure per WEEKEND DAY, 15-to-29-year-olds



## DOMESTIC AUTO-INDUSTRY PROFITS (in billions of dollars)



## UNEMPLOYMENT RATE



## PERCENTAGE of UNEMPLOYED WHO HAVE BEEN UNEMPLOYED for 27 WEEKS or more



## GOVERNMENT UNEMPLOYMENT BENEFITS PAID



## PERCENTAGE of 18-to-29-year-olds WHO MOVED BACK IN WITH THEIR PARENTS during recession



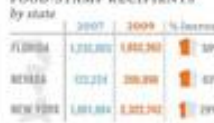
## PERCENTAGE of 18-to-29-year-olds WHO THINK AMERICA is still a LAND of PROSPERITY



## NUMBER of PEOPLE in POVERTY



## FOOD-STAMP RECIPIENTS by state



## RESIDENTIAL PROPERTIES in FORECLOSURE



## MORTGAGE DEBT HELD by FEDERAL AGENCIES



## AVERAGE RATE on 30-YEAR FIXED MORTGAGE



## MEDIAN SALE PRICE of EXISTING HOMES



## STATES facing BUDGET SHORTFALLS



## FEDERAL BUDGET DEFICIT



## DEFICIT as PERCENTAGE of GDP



## NUMBER of FEDERAL EMPLOYEES\*



## BANK FAILURES



## MARKET CAP of EBAY



## MARKET CAP of 99c ONLY STORES



## INTEREST RATE on a 2-year TREASURY NOTE



## TOTAL ASSETS of the FEDERAL RESERVE



## CURRENCY in CIRCULATION



## ACTIVE MILITIAS



## SECRET-SERVICE AGENTS



## SAVINGS RATE, as percentage of disposable income



## AVERAGE INTEREST PAID on DOMESTIC DEPOSITS



## PERSONAL BANKRUPTCIES



## VIOLENT CRIMES per 100,000 PEOPLE



## PERCENTAGE of AMERICANS who think PRESIDENT OBAMA is a MUSLIM



## FAVORABLE VIEW of SARAH PALIN



## APPROVAL RATING for PRESIDENT OBAMA

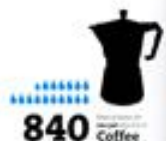
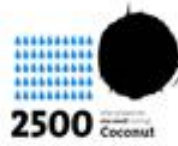


## THIRD-PARTY HOUSE candidates



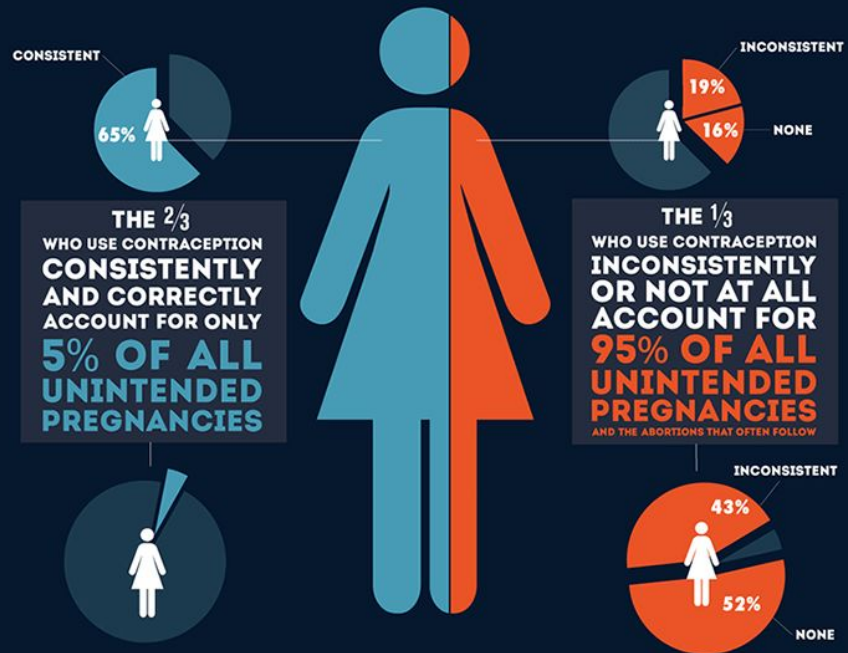
# VIRTUAL WATER

inside products



Source: [Virtual Water](http://Virtual Water)

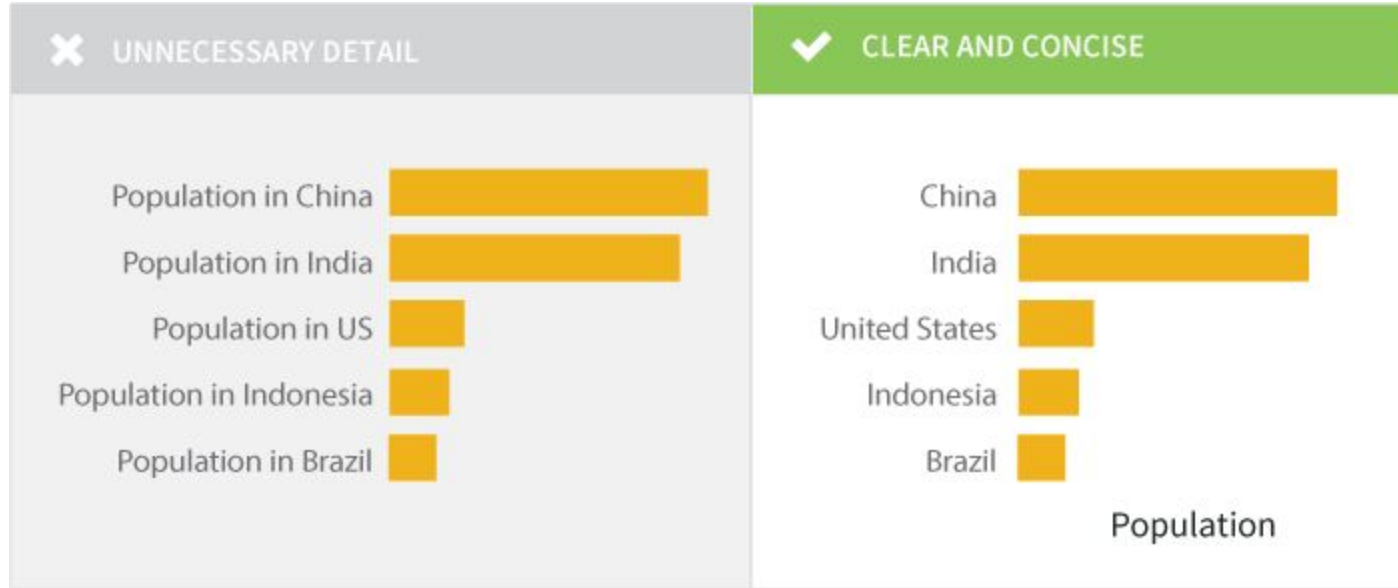
## CONTRACEPTION IS HIGHLY EFFECTIVE



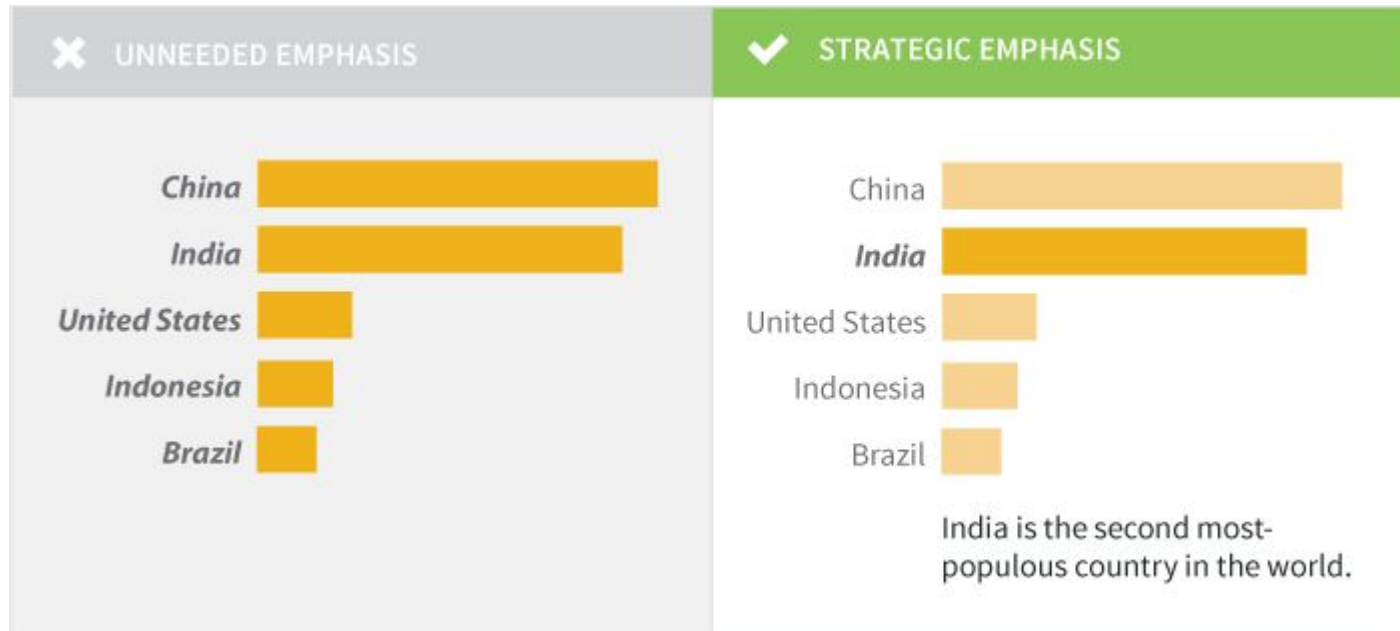


# Tufts Labor Coalition Infographic

[click me](#)



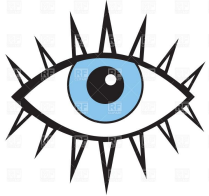








# Tips & Hints



Guide your reader visually

Have a specific purpose

Tell a story

Choose representations that make sense

Don't be afraid of white space



# Design Tools

## The Noun Project

*"Free vector icons for small illustrations."*

## Canva

*"Easy to use infographic templates."*

## Microsoft Powerpoint

*"...Surprisingly good + easy tool."*

## Adobe Creative Suite

*"Steep learning curve, but making anything in the world."*



# Visualization Tools

(more in a future workshop!)

[Plot.ly](#)

*"Easily create charts and graphs online."*

[Tableau](#)

*"Explore data and quickly visualize in many different ways."*

[D3](#)

*"Create interactive graphics in Javascript."*

*Thanks!*

