What’s Analyze Boulder?

1st Wednesday every month
5-minute talks
from 3 members

Networking & beer!
1,500 members

@GalvanizeBldr 6pm
analyzeboulder.com
This had better be important.
Getting Started

ERMAHGERD
1) It’s not about you

\[
\text{Ego} = \frac{1}{\text{Knowledge}}
\]

“More the Knowledge
Lesser the Ego,
Lesser the Knowledge
More the Ego...”

- Albert Einstein.

What you want
\hspace{1cm} vs \hspace{1cm} What your audience wants
It’s about the A-HA Moment!
2) Tell Us A Story

5 minutes is a perfect amount of time for a data story. You will need:

1) Hook: thing audience cares about
2) Meat: the datas!! 011010101010
3) Payoff: main insight, a-ha moment


3) Getting Technical

IF EVERYONE COULD STOP USING ACRONYMS I'VE NEVER HEARD OF TWBG

Minimize technical terms and acronyms, no matter the audience.
4) Slides Are **Visual** Aids

Minimize text & bullet points
Don’t read from your slides
5) Be A Tease

FASCINATING!

PLEASE, TELL ME MORE.

Edit ruthlessly

Think Match.com profile vs first date
6) Timing

- Payoff - A-ha moment: 0:30
- Intro: 0:10
- Setup Problem: 0:20
- Meat: 4:00

Lana... Lana! Laanaaa!!!
DANGER ZONE

Yeah I got time
Presentation Flair

We need to talk about your flair...
7) Human Connection

A joke or personal story lightens everyone up (including you!)

https://www.ted.com/talks/brene_brown_on_vulnerability
8) Practice!!!!!

IF YOU DON'T PRACTICE
I WILL FIND YOU
memegenerator.net

It’s like flossing: boring and awkward, yet remarkably effective
9) Body Language

Standing like a Superhero for as little as two minutes changes our testosterone and cortisol levels, increases our appetite for risk, causes us to perform better in job interviews, and generally configures our brains to cope well in stressful situations.

IG | GeekStrong

Stand tall, speak slowly, make eye contact
Conclusion: You can do this!

I wake up in the morning and piss excellence
10) Beware Imposter Syndrome

Don’t be fooled - you deserve to speak!
Questions?
Putting It All Together:

questions

your stories

etc
Principles of Data Visualization

http://news.science360.gov/obj/story/20131018/

Original presentation by Diana Pfeil
What is your generic term for a sweetened carbonated beverage?

- soda
- pop
- coke
- soft drink

Joshua Katz, Department of Statistics, NC State University
Above all else, show the data

Draw attention to the data, not the visualization
TUITION: AN EDUCATION

There's one fact that occasionally gets slipped into the bottom of news reports on the Quebec student protests: the province's tuition fees are among the lowest in Canada. Drawn of students have been on strike for 14 weeks, protesting and preventing peers from attending classes in an attempt to quash the provincial government's tuition increase of 75% annually over a seven-year period. As the situation in Quebec approached an apparent climax this week, the National Post took a comprehensive look at how Quebec tuition price tags match up with other provinces across the country.

Do not distort the data

Visual representation should be consistent with the numerical representation
Source: https://blogs.oracle.com/experience/entry/pie_charts_just_dont_work_when_comparing_data_-__number_10_of_top_10_reasons_to_never-ever-use-a-pie
PLANNED PARENTHOOD FEDERATION OF AMERICA:
ABORTIONS UP — LIFE-SAVING PROCEDURES DOWN

2,007,371
IN 2006

CANCER SCREENING & PREVENTION SERVICES

ABORTIONS

289,750
IN 2006

327,000
IN 2013

935,573
IN 2013

SOURCE: AMERICANS UNITED FOR LIFE

Source: https://twitter.com/Bound4LIFE/status/648873097454579712/photo/1?ref_src=twsrc%5Etfw
Use a minimum of ink

Erase non-data-ink (within reason)
Erase redundant data-ink (within reason)
Forego chartjunk - interior decoration of graphics
## Table Manners

<table>
<thead>
<tr>
<th></th>
<th>FY 2013</th>
<th>FY 2014</th>
<th>FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>100,000</td>
<td>250,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Cost of Goods</td>
<td>70,000</td>
<td>150,000</td>
<td>275,000</td>
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<tr>
<td>Profit</td>
<td>30,000</td>
<td>100,000</td>
<td>225,000</td>
</tr>
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<td>30%</td>
<td>40%</td>
<td>45%</td>
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Circles vs Bars

Avoid creating graphical puzzles
Why alcohol is more dangerous than heroin

Why alcohol is more dangerous than heroin

Source: http://junkcharts.typepad.com/junk_charts/2012/07/staggering-excess.html
Effective Visualization
How will we visualize this data?
Usain Bolt vs. 116 years of Olympic sprinters

Based on the athletes’ average speeds, if every Olympic medalist raced each other, Usain Bolt (the London version) would win, with a wide distribution of Olympians behind him. Below, where each sprinter would be when Bolt finishes his race.

MEDALS BY COUNTRY

<table>
<thead>
<tr>
<th>Country</th>
<th>Medals</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>40</td>
</tr>
<tr>
<td>Britain</td>
<td>8</td>
</tr>
<tr>
<td>Jamaica</td>
<td>7</td>
</tr>
<tr>
<td>Canada</td>
<td>5</td>
</tr>
<tr>
<td>Trinidad and Tobago</td>
<td>4</td>
</tr>
<tr>
<td>Australia</td>
<td>3</td>
</tr>
<tr>
<td>Germany</td>
<td>3</td>
</tr>
<tr>
<td>Cuba</td>
<td>2</td>
</tr>
<tr>
<td>Namibia</td>
<td>2</td>
</tr>
<tr>
<td>Soviet Union</td>
<td>2</td>
</tr>
<tr>
<td>Barbados</td>
<td>1</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>1</td>
</tr>
<tr>
<td>Hungary</td>
<td>1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>1</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1</td>
</tr>
<tr>
<td>Panama</td>
<td>1</td>
</tr>
<tr>
<td>Portugal</td>
<td>1</td>
</tr>
<tr>
<td>South Africa</td>
<td>1</td>
</tr>
<tr>
<td>United Team of Germany</td>
<td>1</td>
</tr>
</tbody>
</table>

This chart includes medals for the United States and Australia in the “intermediary” Games of 1906, which the I.O.C. does not formally recognize.

Source: NYTimes 8/5/2012
Toni Rosati & Jennifer Zawacki

@tonirosati @jennzawacki