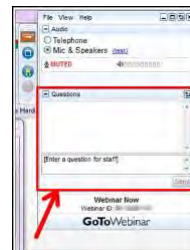




Have Questions?



Type them into questions box!

**“Why am I muted?”**

Don't worry. Everyone is muted except the presenter and host. Thank you and enjoy the show.

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1



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2

## Check out the Archive!

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▶ View the Collection

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### Popular Chemistry

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### Business & Entrepreneurship

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How do ideas make it from the lab to the real world? Discover the ins and outs of the chemical industry whether you are looking to start a business or desire a priceless industry-wide perspective.

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3



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4

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- Build industry partnerships
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5

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<https://chemidp.acs.org>

6

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### ◆ Industry Matters Newsletter

Exclusive interviews with industry leaders and insights to advance your career

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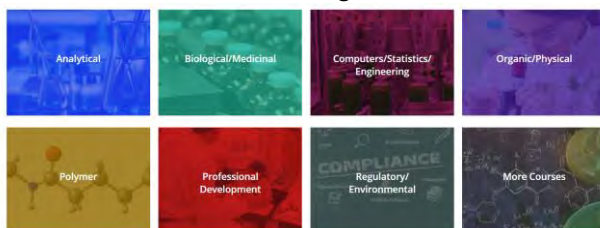
## Register for a Professional Education course that meets your training needs!



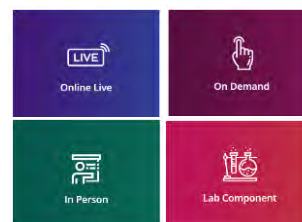
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<https://www.acs.org/proedweb>

8



Free ACS Webinars Everyday!

Thursday



**HOW DO DRUGS REALLY GET INTO CELLS?** **WHY PASSIVE BILAYER DIFFUSION IS A MYTH**

ACS Chemistry for Life®

aaps

ACS Technical Division  
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10

**Better Communication**  
IN THE DIGITAL AGE

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Education

MAKE YOUR  
PRESENTATION  
AMAZING!  
WITH  
MARK JONES



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## Better Communication in the Digital Age



**Mark Jones**  
Executive External Strategy and  
Communications Fellow, Dow Chemical



**Bryan Tweedy**  
Senior Manager, ACS Learning and Career  
Development and Professional Resources

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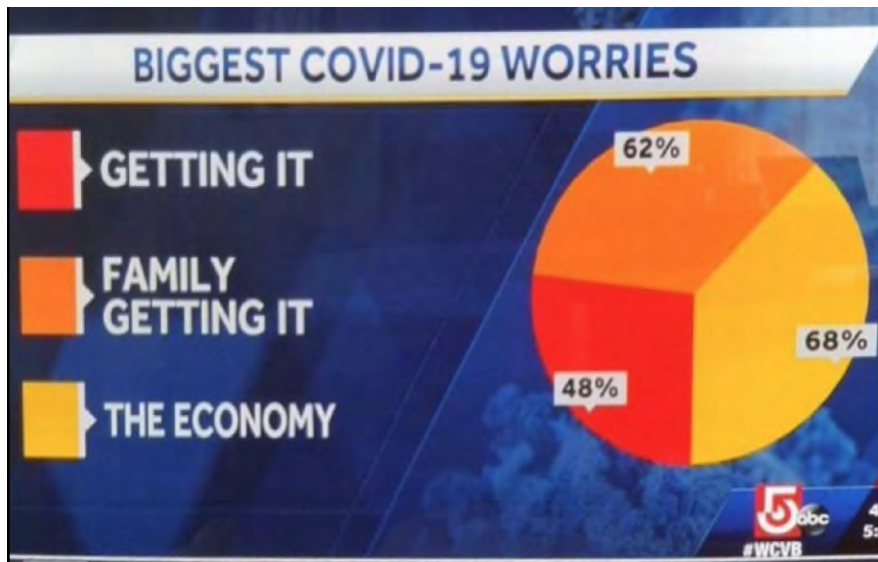
# BETTER COMMUNICATION IN THE DIGITAL AGE

MARK JONES

EXECUTIVE EXTERNAL STRATEGY AND COMMUNICATIONS FELLOW  
THE DOW CHEMICAL COMPANY

29 April 2020

## DATA PRESENTATION OF CURRENT EVENTS



## COMMUNICATION IS FOR YOUR AUDIENCE



- Know your audience and craft the presentation for them
- focus on your key message(s)



“

Designing a *any communication* presentation without an audience in mind is like writing a love letter and addressing it 'to whom it may concern'.

”

Ken Haemer  
Presentation Research Manager,  
AT&T



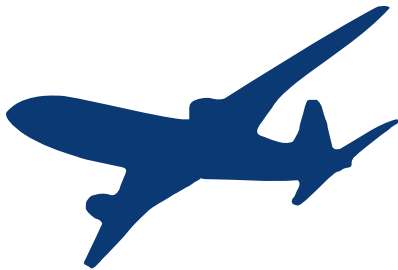
In HBR Guide to Persuasive Presentations



MIND READY



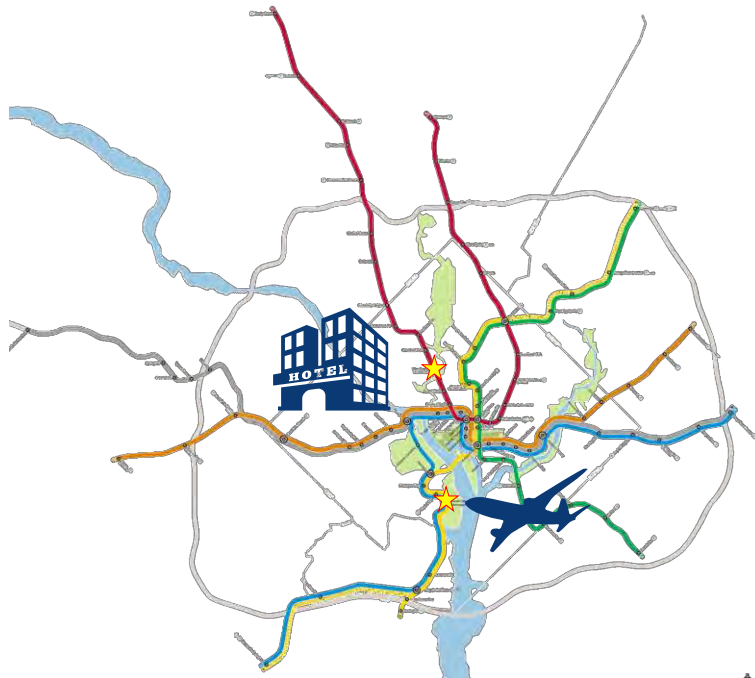
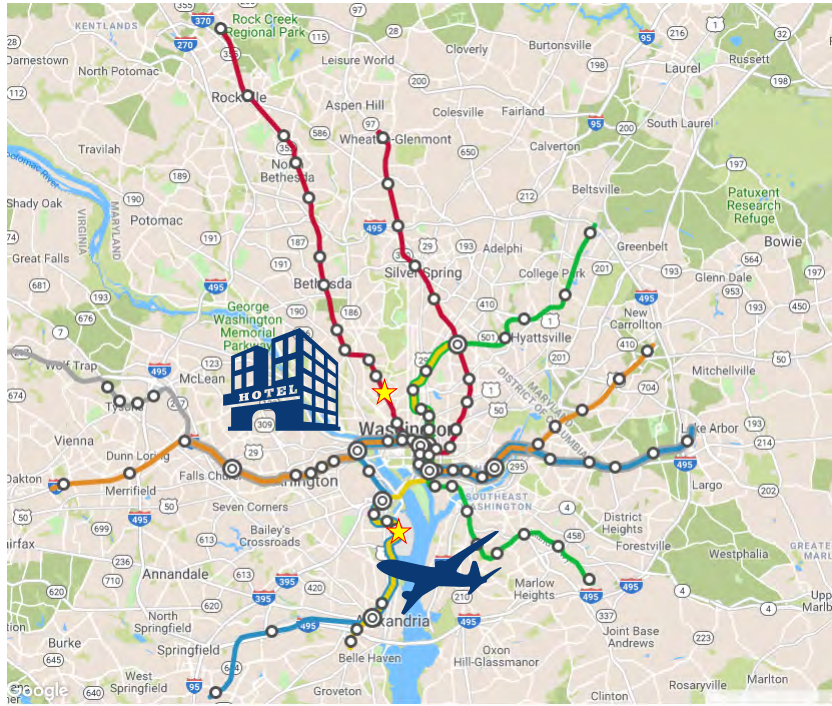
Washington, D.C.

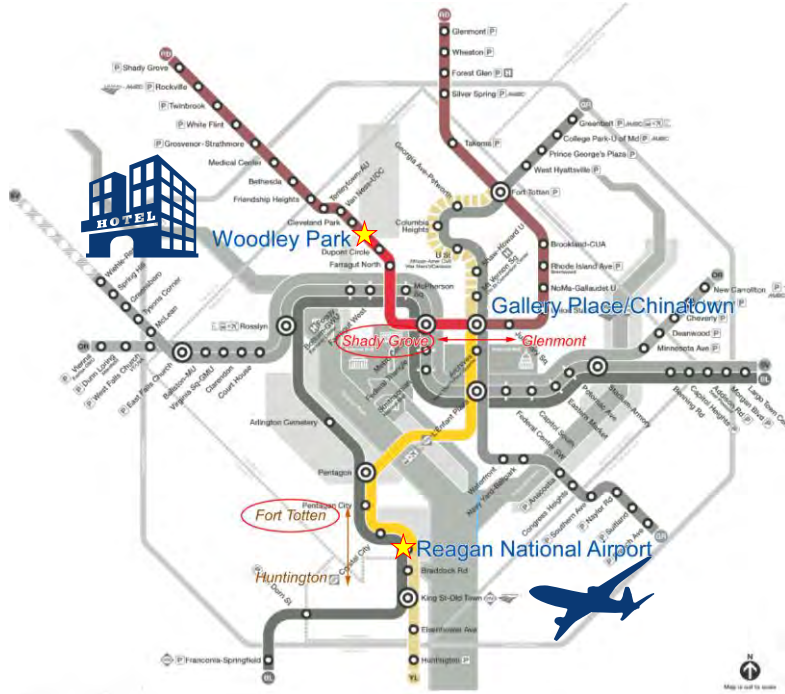


Reagan National Airport

Marriott Woodley Park









## FIVE PRINCIPLES OF DATA PRESENTATION



- Tell the truth
- Get to the point
- Pick the right tool
- Highlight what is important
- Keep it ~~simple~~ appropriate

Everything should be made as simple as possible, but not simpler.



Nancy Duarte in Slideology

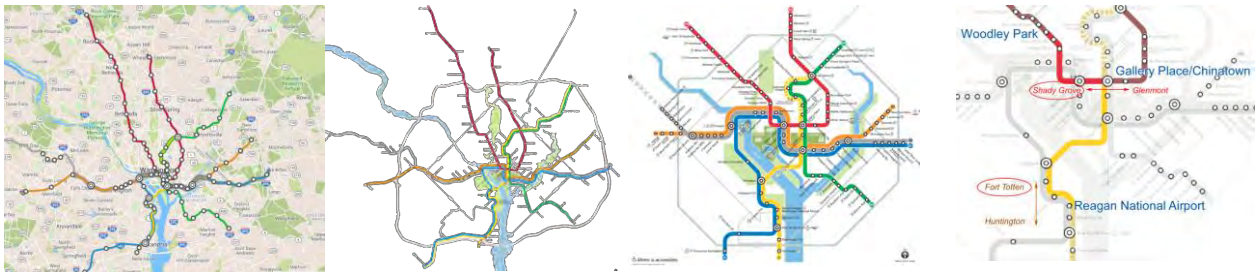
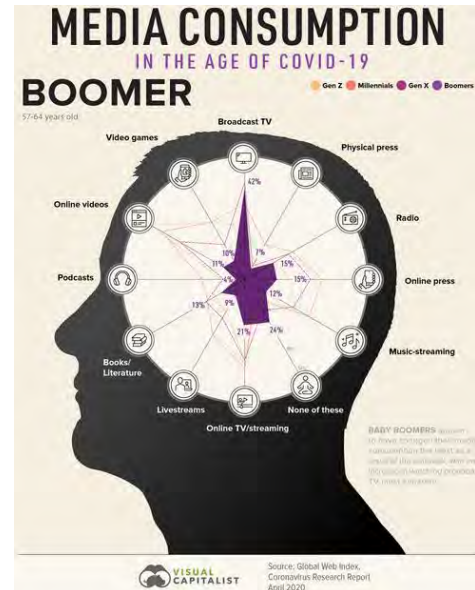


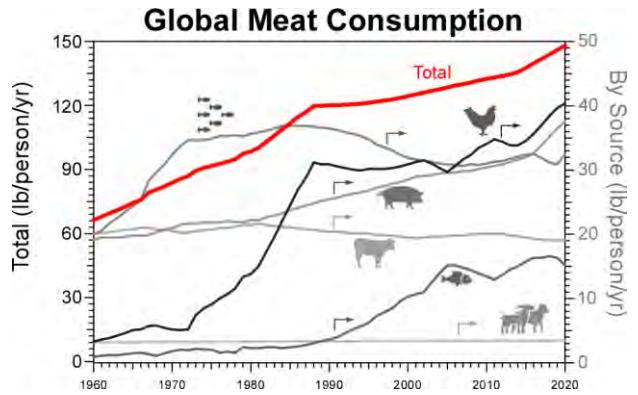
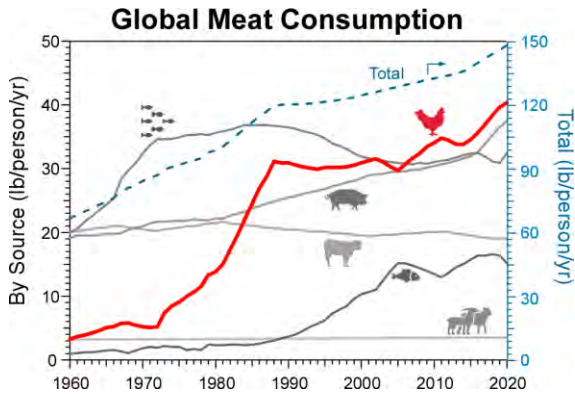
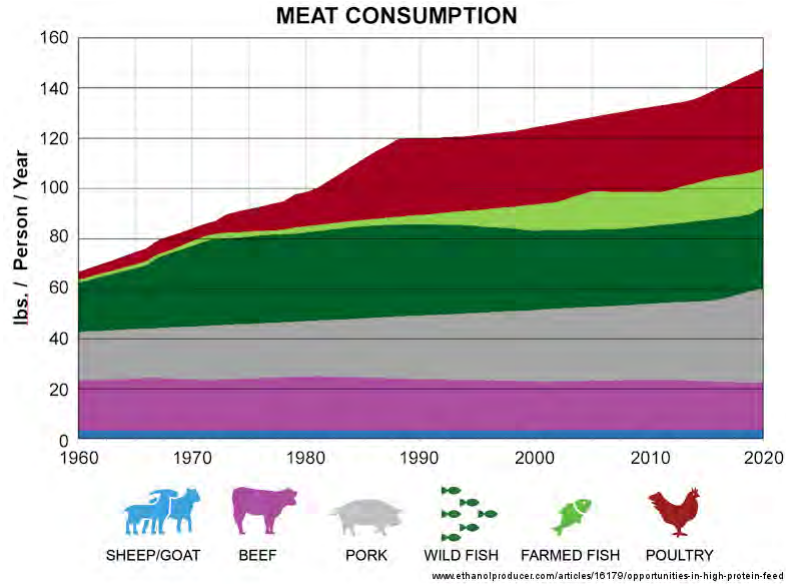


## EDWARD TUFTE'S FIVE PRINCIPLES OF DATA PRESENTATION



1. Above all else show the data
2. Maximize the data-ink ratio
3. Erase non-data ink
4. Erase redundant data
5. Revise and Edit.



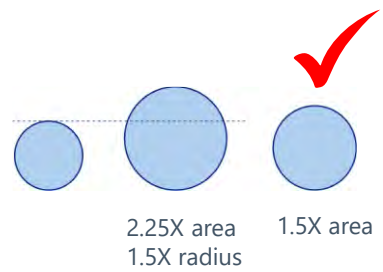
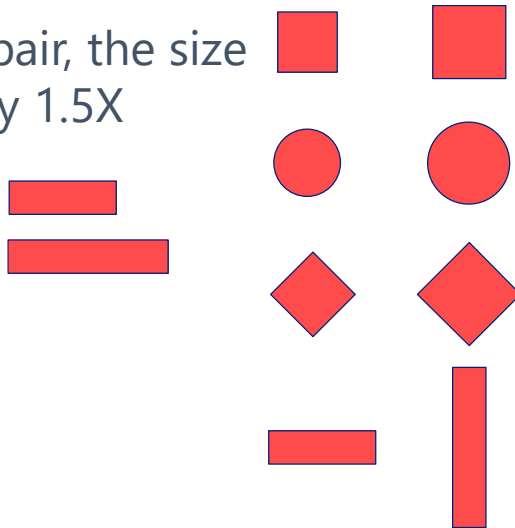




## PERCEPTION



in each pair, the size differs by 1.5X





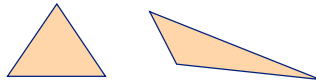
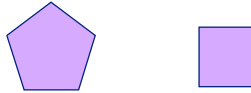
### Audience Challenge Question



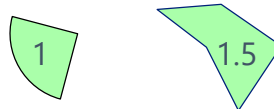
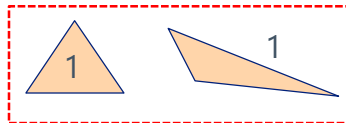
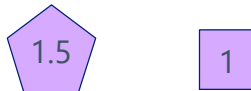
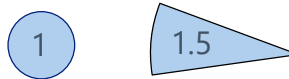
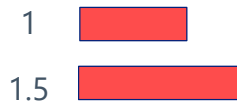
Each group contains one shape that is 1.5 times bigger than the other, except one. Which one?



- A
- B
- C
- D

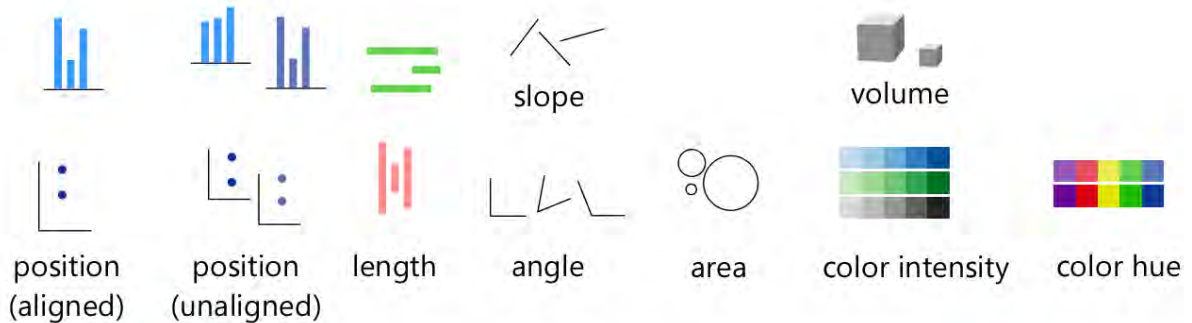


### AREA PERCEPTION





# HUMAN PERCEPTION

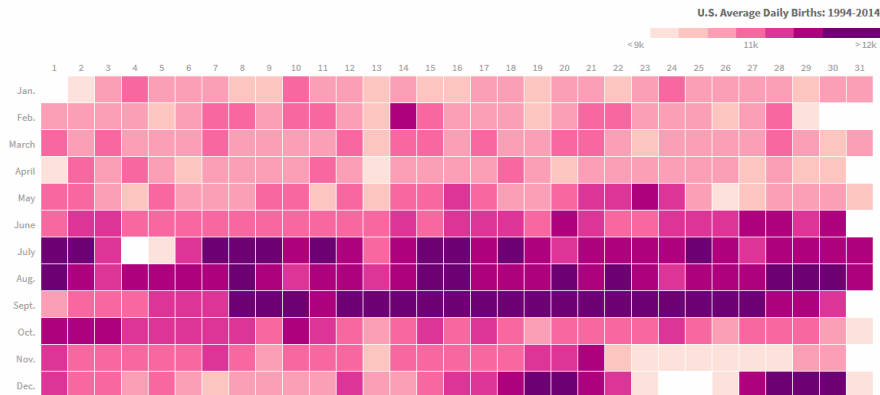


Cleveland, W.S. and McGill, R., 1984. Graphical perception: Theory, experimentation, and application to the development of graphical methods. *Journal of the American statistical association*, 79(387), pp.531-554.



## HOW POPULAR IS YOUR BIRTHDAY?

Two decades of American birthdays, averaged by month and day.



Notes: The conception date, purely for illustration, is 266 days prior to birth. It represents a hypothetical "moment of conception" based on the normal gestation period for humans, 280 days, minus the average time for ovulation, two weeks.

Data: U.S. National Center for Health Statistics (1994-2003); U.S. Social Security Administration (2004-2014) — via FiveThirtyEight

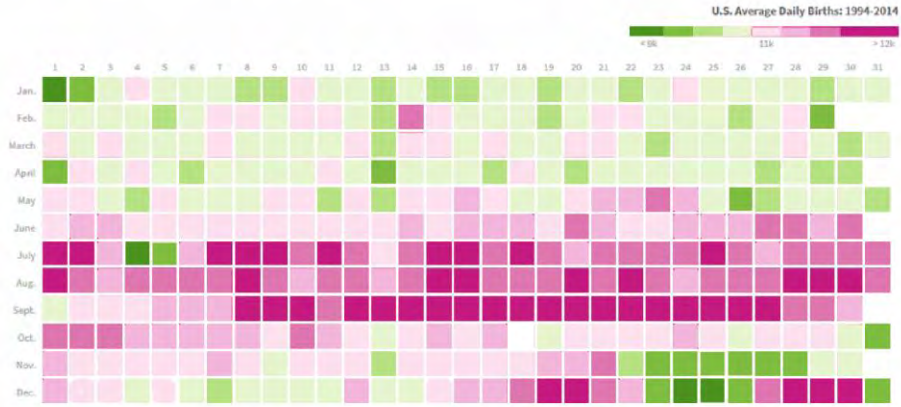
Credit: Matt Stiles/The Daily Viz





### HOW POPULAR IS YOUR BIRTHDAY?

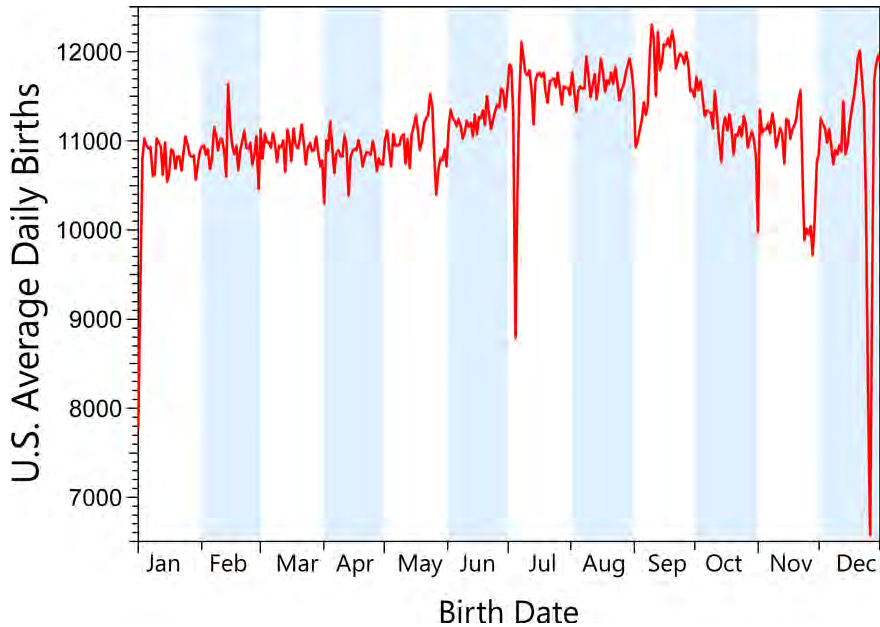
Two decades of American birthdays, averaged by month and day.

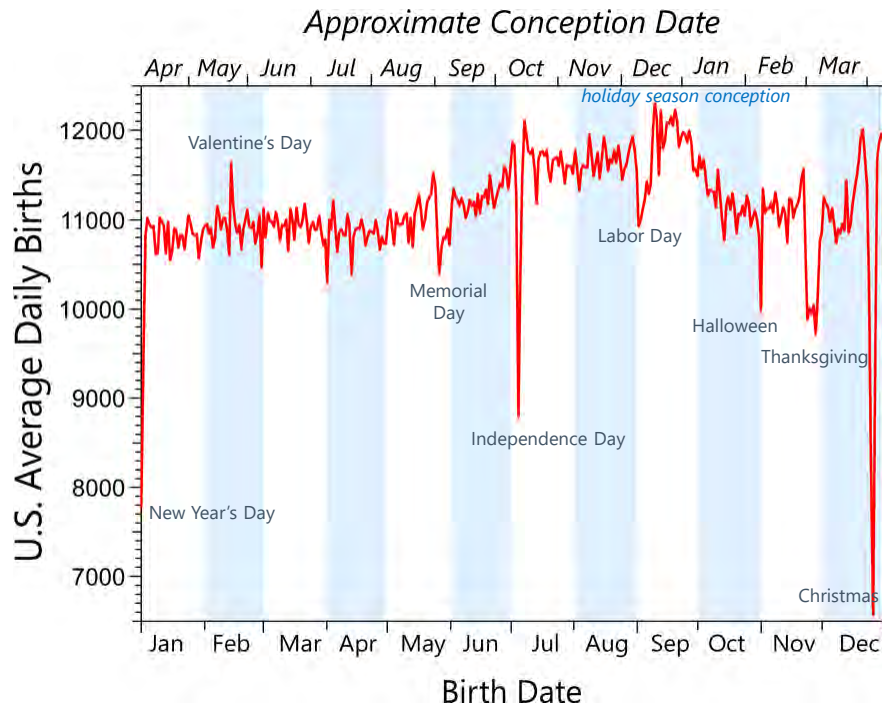


Notes: The conception date, purely for illustration, is 266 days prior to birth. It represents a hypothetical "moment of conception" based on the normal gestation period for humans, 280 days, minus the average time for ovulation, two weeks.

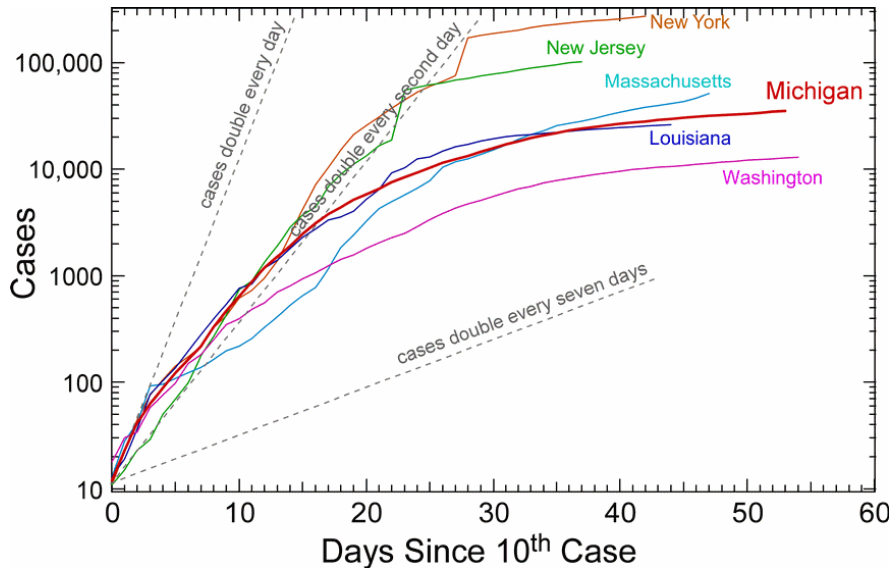
Data: U.S. National Center for Health Statistics (1994-2003); U.S. Social Security Administration (2004-2014) — via FiveThirtyEight

Credit: Matt Stiles/The Daily Viz



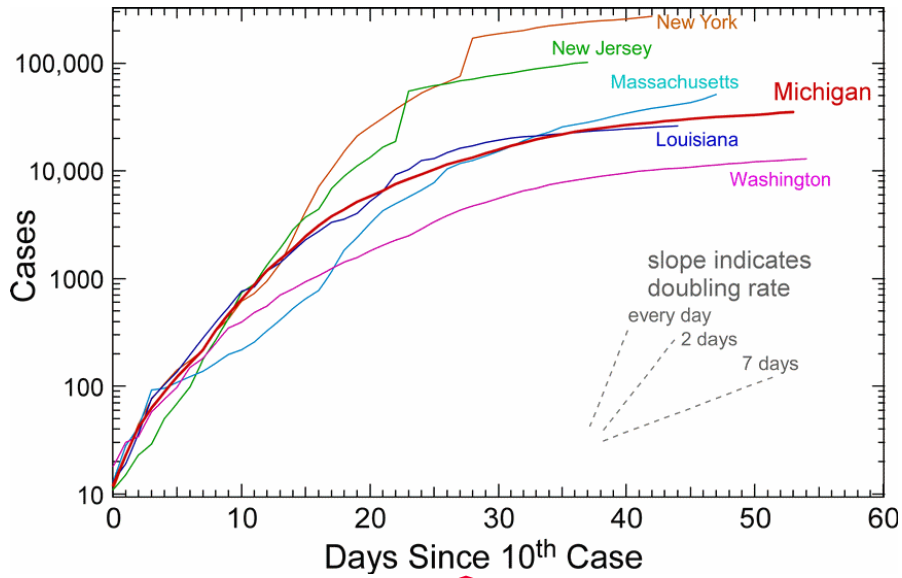


## COVID-19 CASES – LOG PLOT

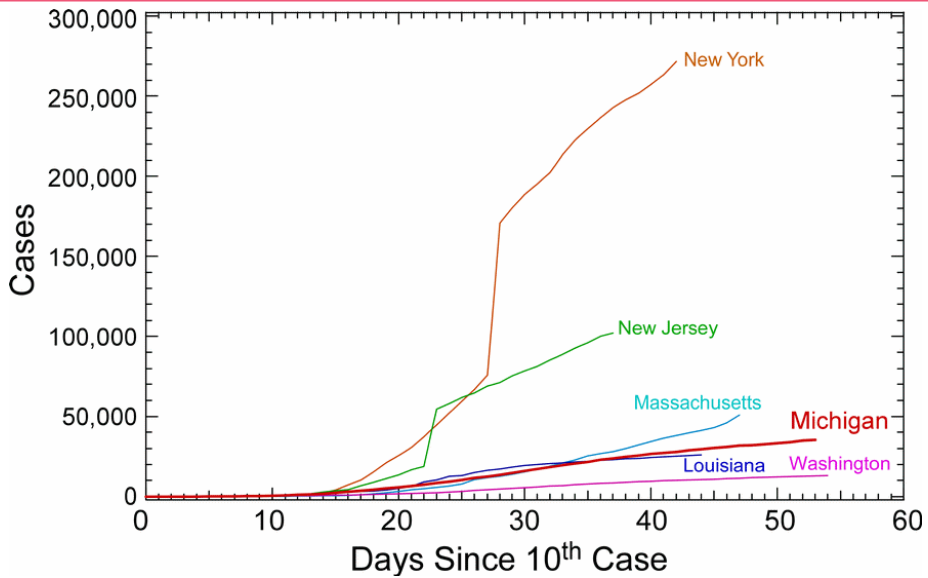




## COVID-19 CASES – LOG PLOT



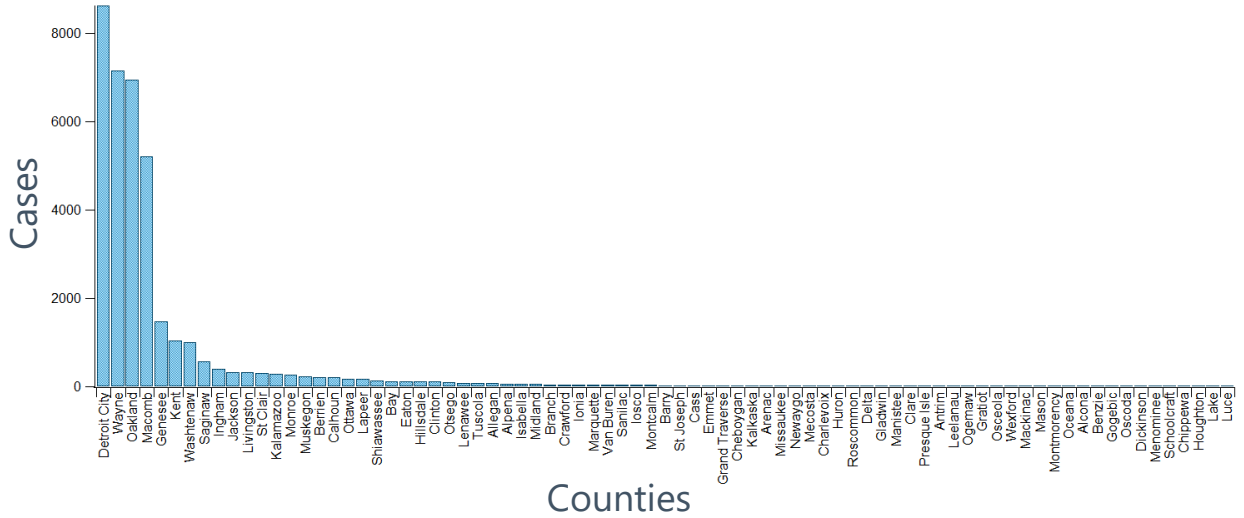
## COVID-19 CASES – LINEAR PLOT







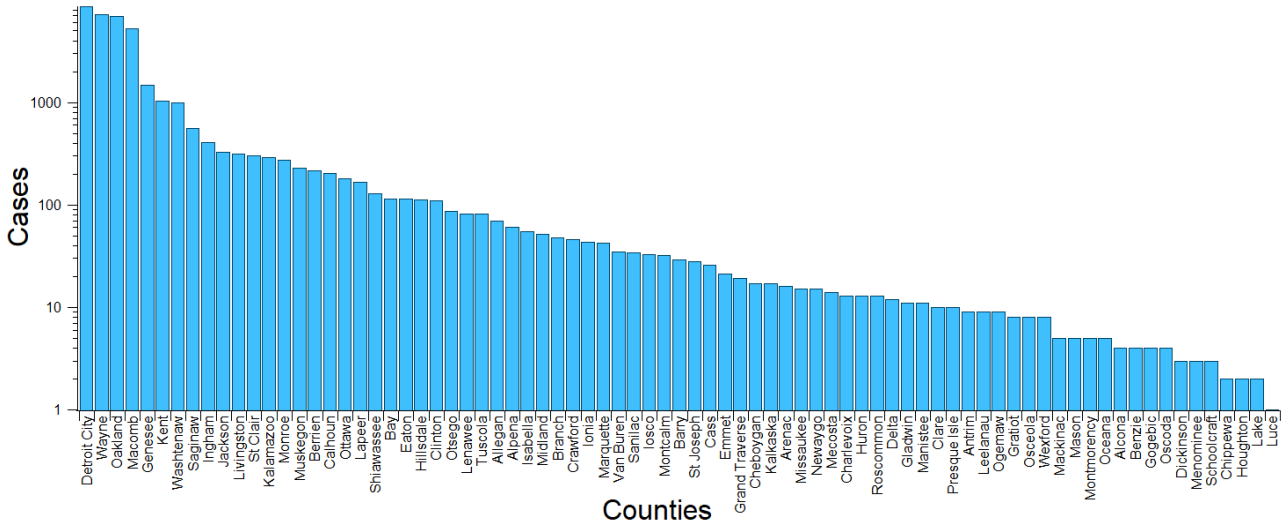
# MICHIGAN CORONAVIRUS CASES



Counties



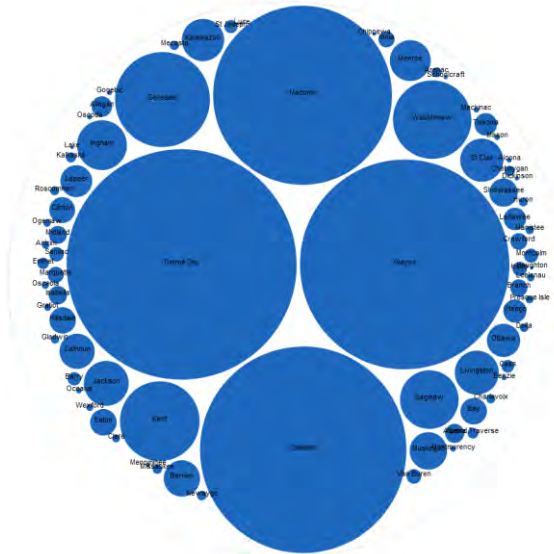
# MICHIGAN CORONAVIRUS CASES



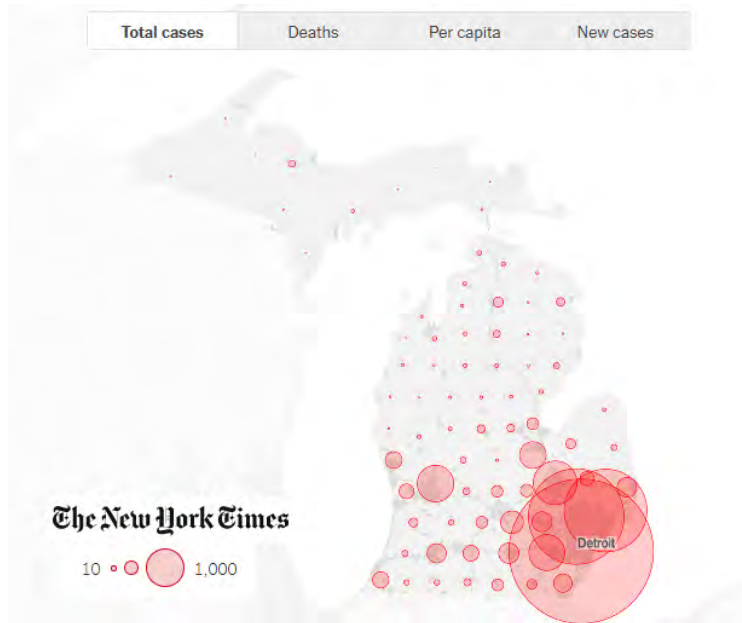
Counties



# MICHIGAN CORONAVIRUS CASES

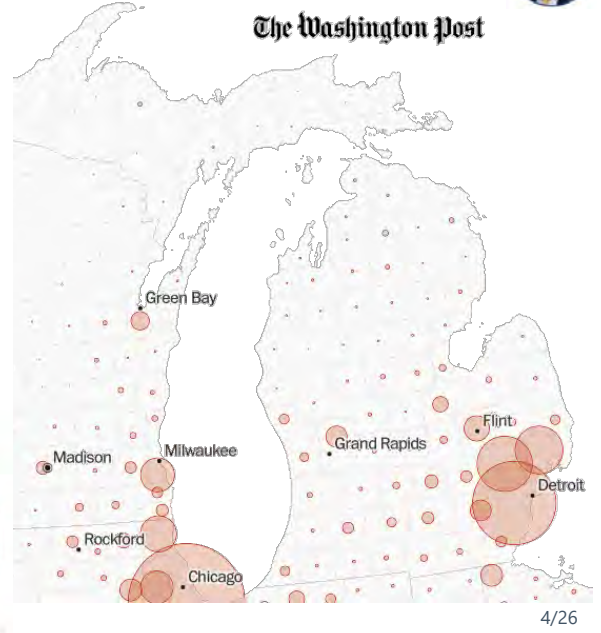
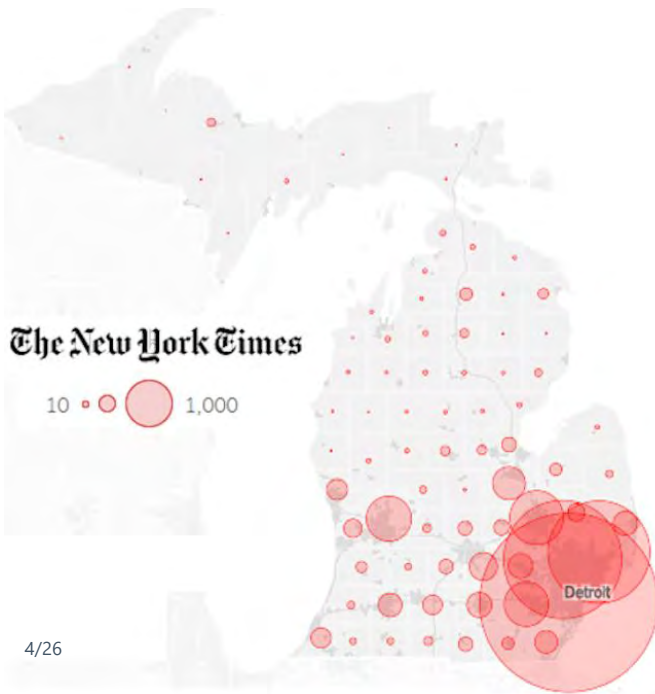


RAWGraphs

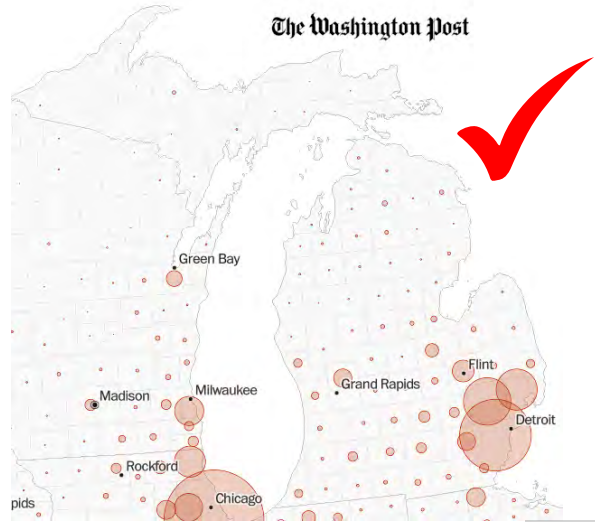
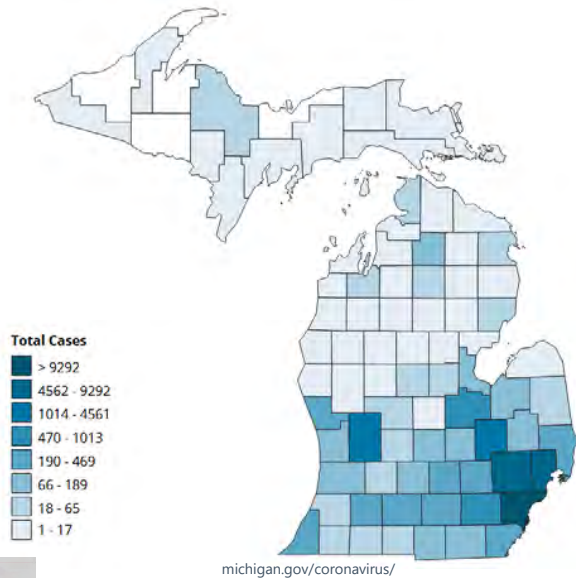


Note: The map shows the known locations of coronavirus cases by county. For total cases and deaths: Circles are sized by the number of people there who have tested positive, which may differ from where they contracted the illness. For new cases: Doubling time is calculated for the last week of cases. Sources: State and local health agencies and hospitals.



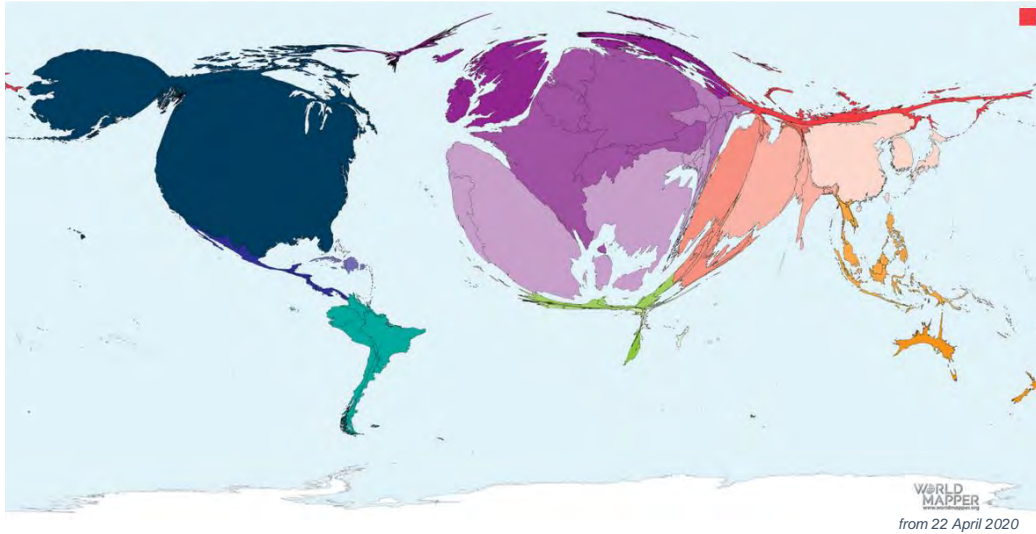


# MICHIGAN CORONAVIRUS CASES





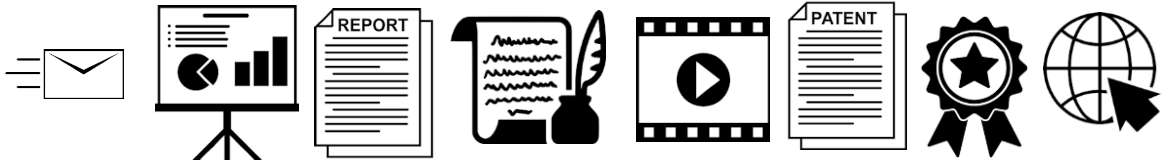
## COVID-19/CORONAVIRUS CASES



## COMMUNICATION: DIFFERENT AUDIENCES



## COMMUNICATION: DIFFERENT TOOLS

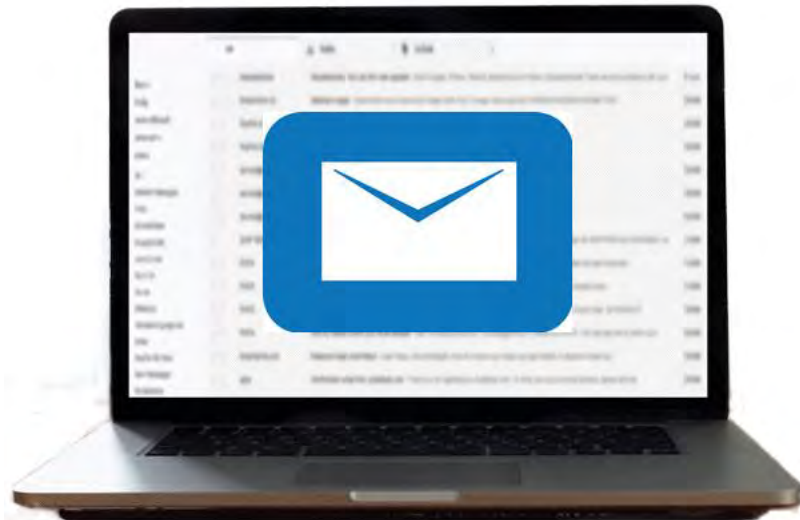


## COMMUNICATION HIERARCHY



Tools  
Tactics  
Strategy  
Audience  
Goal





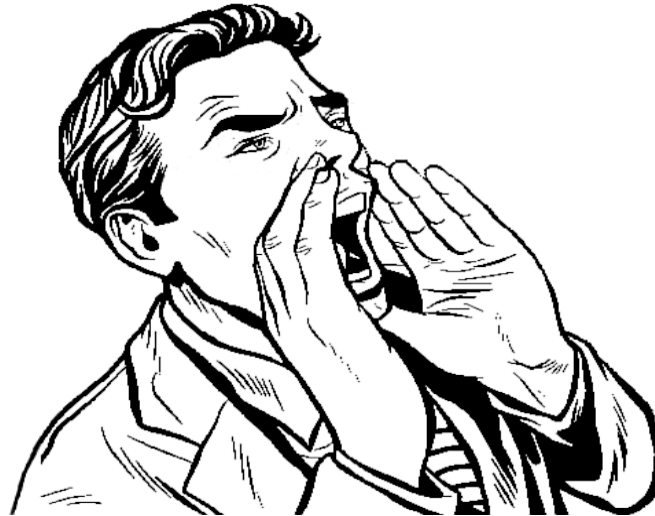
## Audience Challenge Question

### What should you assume as you send an email?

- it is a secure way to communicate and all contents will be viewed only by the intended recipient
- the content will be yelled in the hallway for all to hear
- spelling and formatting are a waste of time and prompt response is most important
- it will be ignored and will disappear without a trace



## WHAT YOU SHOULD ASSUME WHEN SENDING EMAIL



## EMAIL'S FLAWS



- You can't assume only the reader will see it.
- You can't assume all of any message will be read.
  - Spam filters aren't reliable.
  - Too much email!
- Over-analysis is possible, even likely.
- Autocorrect and spelling checkers.
  - Madan → Madman
  - attempt at inconsistency → incontinence

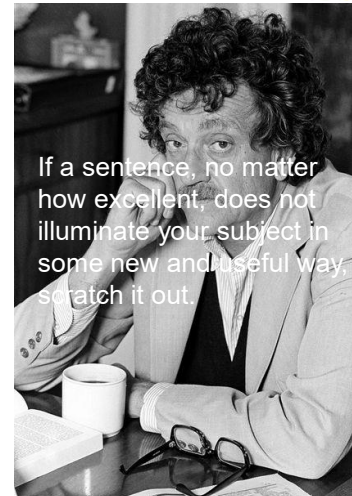


## VONNEGUT'S *HOW TO WRITE WITH STYLE*\*



*edit*

- Do not ramble
- Keep it simple
- Have the guts to cut
- Sound like yourself
- Say what you mean to say
- Read *Strunk and White*



\* excerpted



## DAVID OGILVY'S 10 WRITING HINTS



*edit*

*edit*

*edit*

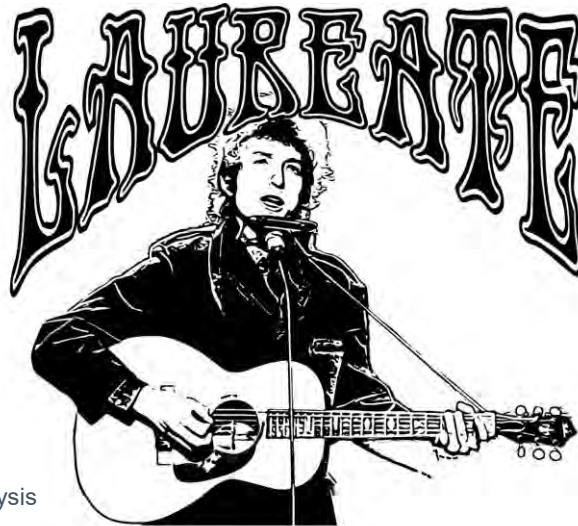
1. Read the *Writing That Works*. Read it three times.
2. Write the way you talk. Naturally.
3. Use short words, short sentences and short paragraphs.
4. Never use jargon words like *reconceptualize*, *demassification*, *attitudinally*, *judgmentally*. They are hallmarks of a pretentious ass.
5. Never write more than two pages on any subject.
6. Check your quotations.
7. Never send *an important email* on the day you write it. Read it aloud the next morning —and then edit it.
8. If it is something important, get a colleague to improve it.
9. Before you send your *email*, make sure it is crystal clear what you want the recipient to do.
10. If you want ACTION, don't write. Go and tell the guy what you want.

\* paraphrased for brevity and clarity





## EDITING



Perfectionism is spelled paralysis



## EFFECTIVE EMAIL



- Make the subject line helpful.
- Include a greeting.
- Immediately state why you sent the email and what, if any action, it requests.
- Write clearly. Write well.
- Carefully consider recipients.
- Be professional at all times.
- Proofread.
- If it is important, pause before you send.



## SAMPLE EMAIL

---



Subject: Decision needed on E2V project

Dear Charlie,

A yes/no decision from you is needed on whether funds will be allocated for the plant trial for E2V. Please indicate whether you support spending the \$125k.

The detailed budget is enclosed should you want to review. We winnowed the budget to the bare minimum. I do not believe we can reduce any further.

I hope your trip went well. I am sorry we were unable to discuss this matter and this is likely unexpected on your first day back. We are in a holding pattern until your decision.

Regards,

Mark



## LAYERED SCIENTIFIC COMMUNICATION



Chest CT imaging of COVID-19 patients demonstrates common imaging abnormalities, even in asymptomatic patients, with rapid evolution from unilateral to bilateral interstitial pneumonia.

*versus*

Interstitial tissue supports the air sacs, or alveoli, where oxygen transport occurs in the lungs. The tissue surrounding air sacs in both lungs get irritated in bilateral interstitial pneumonia. Three-dimensional X-ray techniques, commonly called CT scans, detect interstitial pneumonia, even in asymptomatic patients, and allow doctors to monitor disease progression.



## WRITING FOR A WIDE AUDIENCE



“ Everything should be made as simple as possible, but not simpler.

Albert Einstein



## DAVID OGILVY ON WRITING\*



Good writing is not a natural gift. You have to learn to write well.



## TACTICS: WRITE FORCEFULLY



Kryptonite stops the Man of Steel.

*versus*

Kryptonite could be used to stop the Man of Steel.



## TACTICS: PRESENT TENSE AND FORCEFUL

---



Affinisol™ makes drugs more soluble.

*versus*

Affinisol™ has been shown to make drugs more soluble.

*versus*

Affinisol™ can make drugs more soluble.



## TACTICS: STRONG PHRASING

---



INNATE™ reduces the environmental burden of packaging because less packaging delivers better performance.

*versus*

Because it allows less packaging to be used, INNATE™ reduces the environmental burden of packaging.







- memorable is better than forgettable (pics memorable)
- make graphics *mind ready*
- info density right for material and audience



## COMMUNICATION HIERARCHY



Tools  
Tactics  
Strategy  
Audience  
Goal

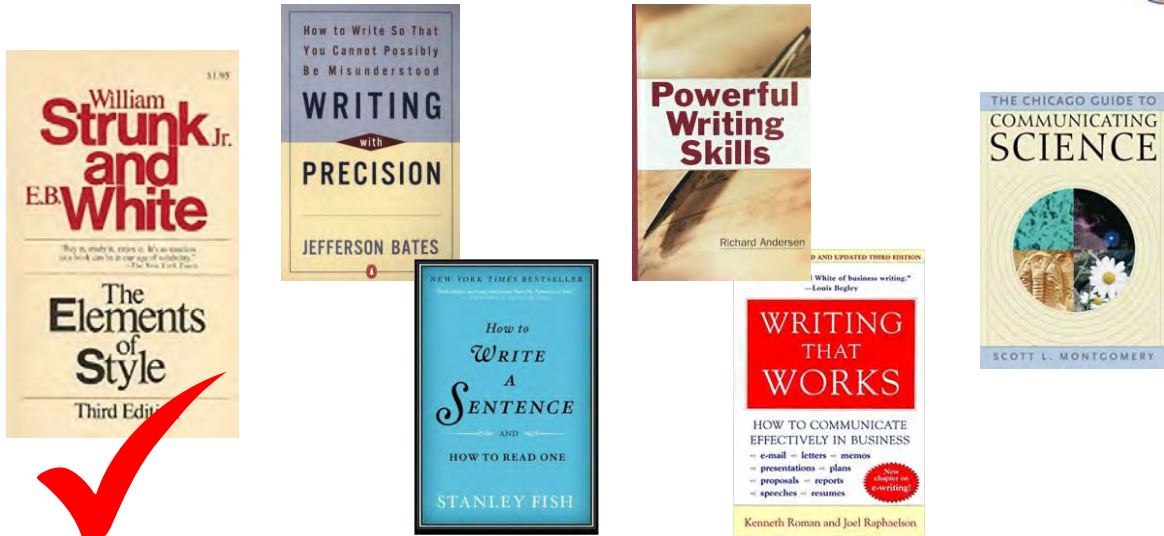




# FAVORITE REFERENCES – DISPLAY OF INFORMATION



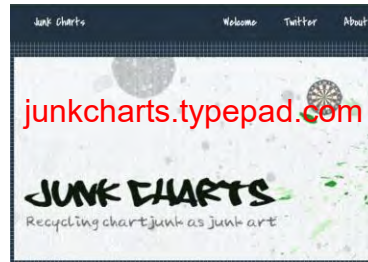
# FAVORITE REFERENCES - WRITING



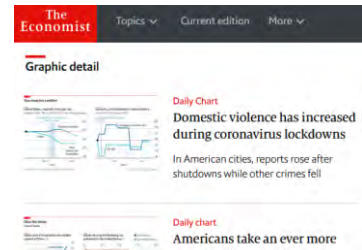
## FAVORITE DATA VISUALIZATION WEBSITES - SAMPLES



howmuch.net



visualcapitalist.com



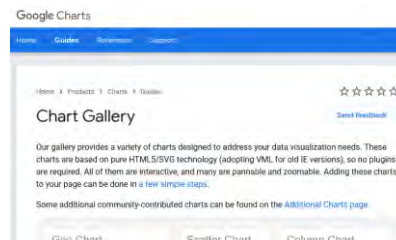
economist.com/graphic-detail/



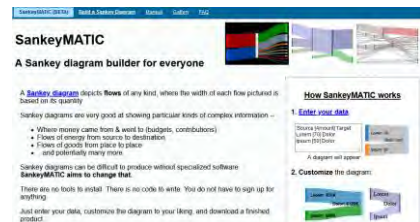
## FAVORITE DATA VISUALIZATION WEBSITES - TOOLS



flourish.studio



developers.google.com/chart/  
interactive/docs/gallery



sankeymatic.com



## DUARTE'S GOLDEN RULE



*Never give a presentation you  
wouldn't want to sit through.*

Nancy Duarte in HBR Guide



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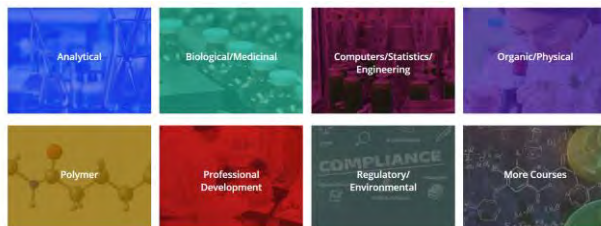
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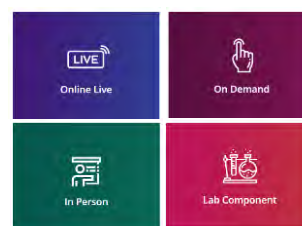
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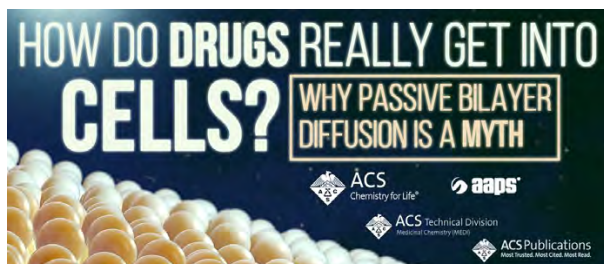


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