Data Storytelling Studio
charts & creative charts

CMS.631/831
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We're going to kick off the first sketch - with a technique you are familiar with: charts and creative charts. The goal is that you'll work with some data to find and tell a story using those techniques. This sketch is three class sessions over a week and a half. The first is this lecture; the second is in class group work time, and the third is project presentations.

Supplies:
- [Data Viz Flash Cards](#) (if you can afford them)

Agenda

- [10] crit
- [15] readings
- [30] inspirations
- [15] "Viz Zoo" activity
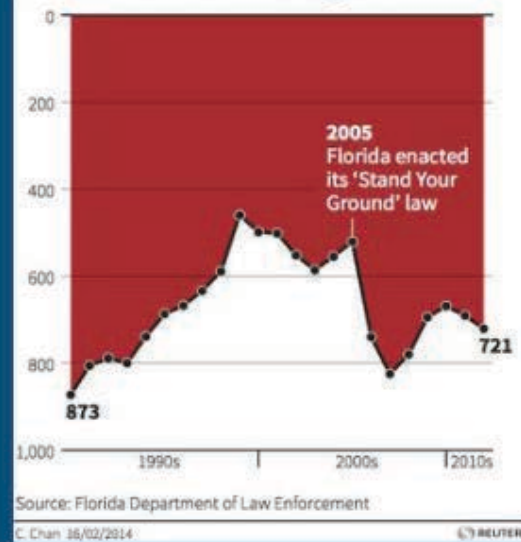- [10] tools
- [10] datasets and team-forming

Crit Prac

Gun Deaths In Florida

Business Insider / Reuters

Gun deaths in Florida

Number of murders committed using firearms

2005
Florida enacted its 'Stand Your Ground' law

873

721

1990s   2000s   2010s

Source: Florida Department of Law Enforcement

C. Chan 16/02/2014   REUTERS

1) Ask folks what data is being represented here (murders committed with firearms in Florida since the 1990s)
2) Ask folks what the visual representation of that data is (a line chart)
3) Ask folks what the story they see is

Now, did anyone notice something odd? The problem here is the vertical axis - it is reversed. The line tells a story that gun deaths dropping in Florida after the law highlighted was enacted, but the data says the opposite! This is an incredibly simple error to have been published by Reuters.

Readings

Scott McCloud. 1994. Vocabulary of Comics. In Understanding Comics: The Invisible Art. New York: William Morrow Paperbacks.

Mark Wilson. 2015. Why You Don't Make A Mindlessly Beautiful Visualization Of A Horrific Event. Co.Design (August 2015).

Nigel Holmes. 2009. why so serious, (7 minute video)

What's the difference between Holmes' approach and a today's common infographics? example

When is it ok to visualize human suffering? Can this be an empathic art? Example

How does McCloud connect to Ware on the verbal/visual mix?

Traditional Charts

Pictures showing quantitative comparisons.

graphs

Creative Charts

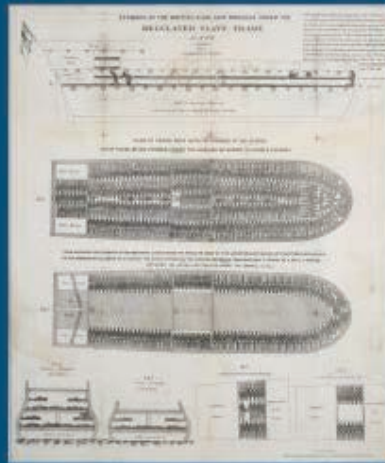Pictures that use the visual language of traditional charts to tell a quantitative story.
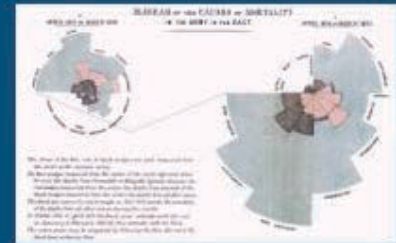
infographics, explanatory-graphics

Here are three historical examples to keep in mind.
1) For the 1900 Worlds' Fair in Paris, WEB Du Bois published a book of data-driven depictions of the current lives of Africans in the US. These were incredibly modern and playing with the still-under-construction norms
2) The drawing of slaves on a shipping vessel is a classic example of data being used in the service of a social movement (abolition). This graphic was created using open-data from the British government about the slave trade, to demonstrate how companies were breaking the (already inhuman) rules of how many slaves could be on a ship. This graphic depiction was circulated widely and helped drive outrage in the UK.
3) Florence Nightingale invented this chart format to document the sheer volume of preventable diseases that were killing French troops in the field.

Inspirational Charts
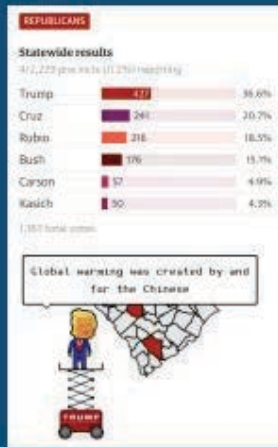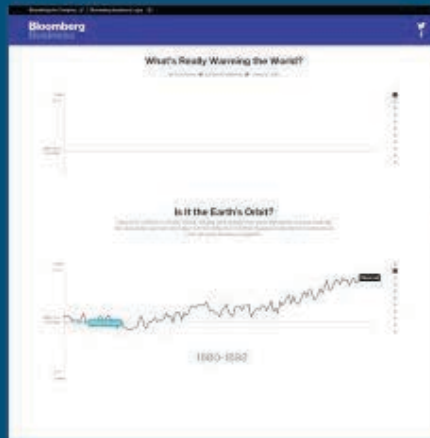
The Guardian, 2015 *Bloomberg Business, 2015*

Here are two recent inspirational examples:

On the left is a graphic from the Guardian newspaper. This showed election results during the US 2016 primary season. As each county reported their results, a little cartoon candidate would roll in, color in the county for them, and a bubble with some statement they'd made would pop up. This cute animation attempted to add some playfulness to the otherwise dry data. Do you think it works?

The example from Bloomberg, on the right, is a wonder example of creating a conversation with the audience. It appears to be addressed to readers that are wondering about the cause of climate change. It asks questions, and answers them, for each of a set of potential causes that some have posited. It culminates by clearly demonstrating that human-caused emissions are driving the temperature increase. This narrative structure tries to meet people where they are and is a strong example of using charts to tell a story (labels, animation, color).

Here are some infographics to inspire your thought process.

The Health piece uses parallel coordinates to make a point about the inefficiencies of US health care delivery. Can you understand it?

The Long Run uses a playful metaphor to try and tell its story. Does it come across?

The Bathtub graphic from Nigel demonstrates a number of his standard approaches to explanatory graphics (the mini-narrator, the cute metaphor, the explanation mixed in with data).

The Gun Violence video is a wonderful example of how simple approaches can tell strong stories.

Inspirational Interactive Graphics

Virtual Water - Angela Morelli

Gun Deaths - Periscopic

Of course, you can also go interactive with this stuff.

Virtual Water is an example of using scroll-based reveals on a long webpage to create an interactive experience that feels like reading through a story, page by page.

The Gun Deaths piece shows how one might talk about a serious issue in aggregate while still respecting the humanity the data represents.
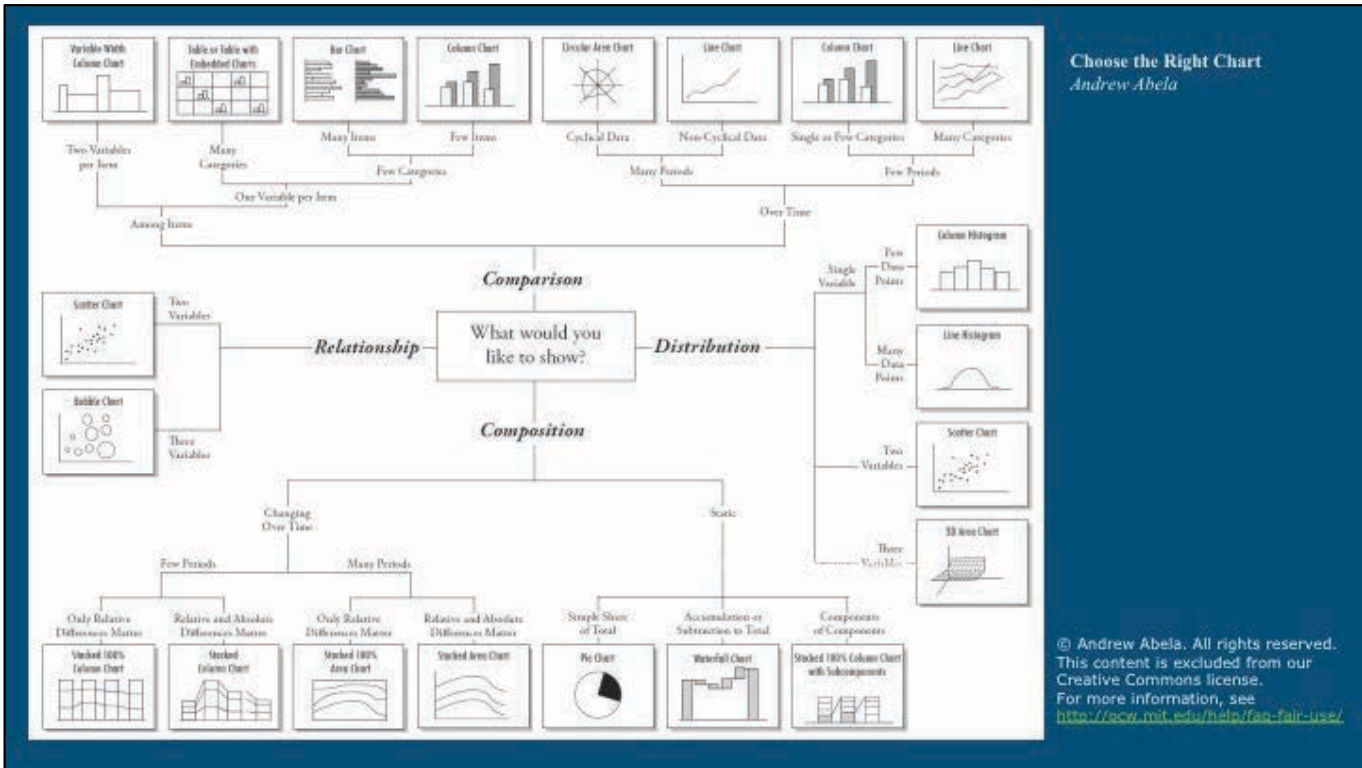
As mentioned previously, there are guidelines for how to pick a strong chart. This is from Andrew Abela.

Here's another from the Financial Times.

"Viz Zoo" Activity

- form a team of 3
- pick a chart type
- read about it on datavizcatalogue.com
- scan http://bit.ly/vizzoo
- prepare a 1-minute summary on what the chart is and why/when we should use it
- you have 6 minutes

Lets dig into this more with an activity. If you have the flash cards, spread them on a table, otherwise point people at the website.

Each group will dig into one chart type.

Bring everyone back together to share back what they learned about that chart type.
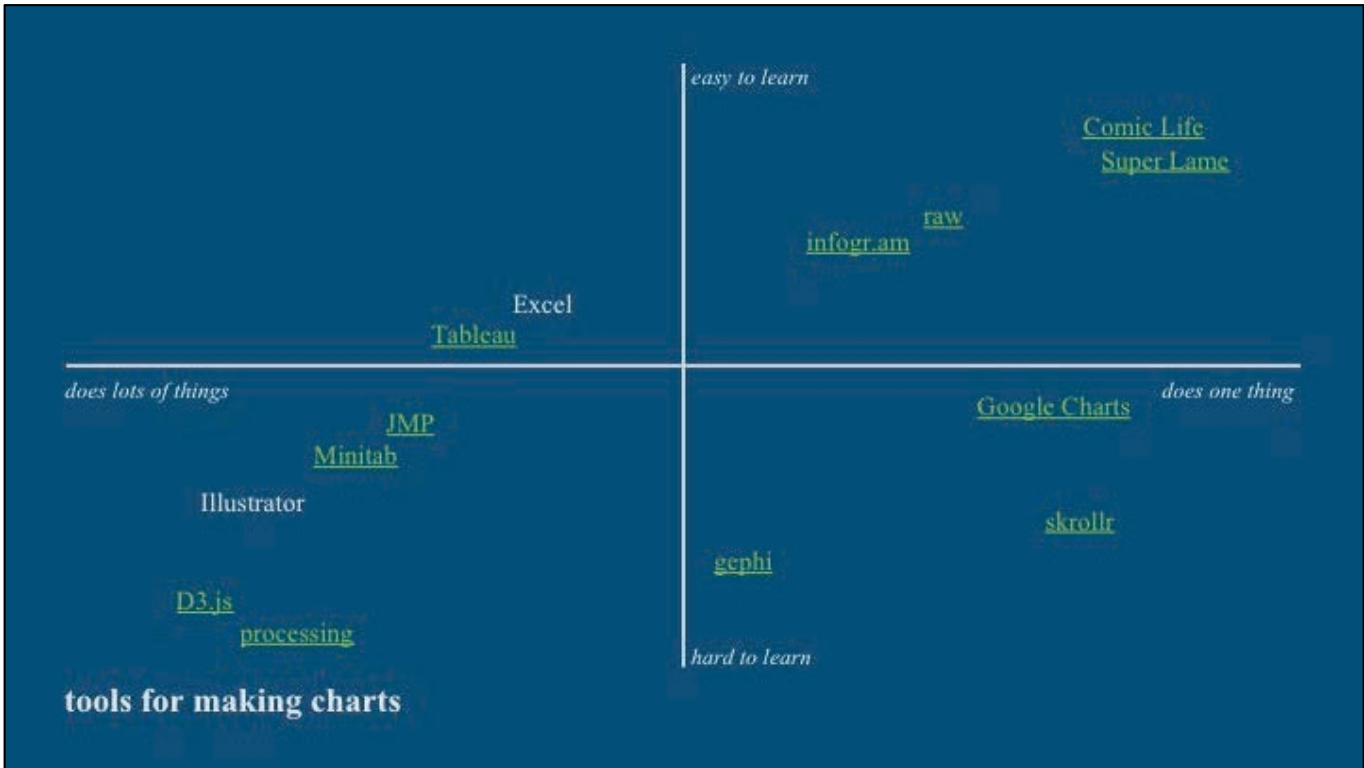
Here's another depiction of the tool space for making these charts. The goal here is the help people know what is available for their particular project. No-one is an expert in all of these.

Team Forming

What do you know?

What do you want to make?

What dataset are you interested in?

Hubway rides, NYC trees, CO2

Have everyone stand up and think about these three questions. I've provided three clean datasets they can use (see the syllabus for details). They can use something else, but it should be clean (so they don't waste time cleaning it).

Then have everyone pick someone else in the room to talk to. Give them 2 minutes to discuss. Then have them switch to someone else and do the same. Repeat for 3 rounds and then tell everyone to form groups of ~3.

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